ADOLESCENT PREGNANCY DETERMINANTS, CAUSES AND CONSEQUENCES: A SOCIOLOGICAL PERSPECTIVE
(With reference to married adolescent residing in urban slums of Pimpri Chinchwad Municipal Corporation (PCMC) in Pune District of Maharashtra)

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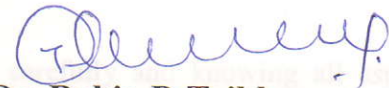
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Research Guide

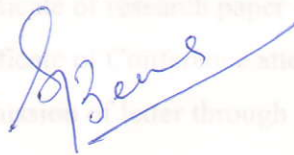**Place:** Pune

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UNDERTAKING

I **BEENA RAJAN NAROOR** is the Ph.D Scholar of Tilak Maharashtra Vidyapeeth in **SOCIOLOGY** subject. Thesis entitled **ADOLESCENT PREGNANCY DETERMINANTS, CAUSES AND CONSEQUENCES: A SOCIOLOGICAL PERSPECTIVE** (with special reference to married adolescent residing in urban slums of Pimpri Chinchwad Muncipal Corporation in Pune District Maharashtra) under the supervision of Dr. **ROBIN D. TRIBHUWAN,** Solemnly affirm that the thesis submitted by me is my own work. I have not copied it from any source. I have gone through extensive review of literature of related published/unpublished research works and use such references made has been acknowledged in my thesis. The title and the content of research is original. I understand that, in case of any complaint especially plagiarism, regarding my Ph.D research from any party, I have to go through the enquiry procedure as decided by Vidyapeeth at any point of time. I understand that, if my Ph.D thesis (or part of it) is found duplicate at any point of time, my research degree will be withdrawn and in such circumstances, I will be solely responsible and liable for any consequences arises thereby. I will not hold the TMV, Pune responsible and liable in any case.

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ACKNOWLEDGEMENTS

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ABREVIATIONS

ASHA	Accredited Social Health Activist
ANM	Auxiliary Nurse Midwife
ANC	Antenatal Care
AIDS	Acquired Immune Deficiency Syndrome
ARH	Adolescent Reproductive Health
BMI	Body Mass Index
BPL	Below Poverty Line
CEDPA	Centre for Development and Population Activities
CED	Chronic Energy Deficiency
DALYs	Disability Adjusted Life Years
DLHS	District Level Household and facility Survey
DOT	Directly Observed Treatment
FGD	Focus Group Discussion
HDI	Human Development Index
HPS	High Performing States
ICDS	Integrated Child Development Services
LPS	low performing states
ICMR	Indian Council of Medical Research
ICPD	International Conference on Population and Development
IEC	Information Education Communication
ICD	International Classification of Diseases
IHMP	Institute of Health Management
IMR	Infant Mortality Rate
IPD	In patient Department
JSY	Janani Surakha Yojana
JNNURM	Jawaharlal Nehru National Urban Renewal Mission
LBW	Low birth Weight
MMR	Maternal Mortality Rate
MIDC	Maharashtra Industrial Development Corporation
MDG	Millennium Development Goal
MPW	Multipurpose Worker
NFHS	National Family Health Survey
NUHM	National Urban Health Mission
NRHM	National Rural Health Mission
NT	Nomadic tribe
NCERT	National Council for Education Research and Training
NGO	Non Governmental Organisation
OPD	Out Patient Department
OBC	Other Backward Caste
PNC	Post Natal Care
PCMC	Pimpri-Chinchwad Muncipal Corporation

PCNTDA	Pimpri Chinchwad New Town Development Authority
RCH I & II	Reproductive Child Health I & II
RTI	Reproductive Tract Infection
RDS	Respiratory Distress Syndrome
SAARC	South Asian Association for Regional Corporation
SC	Scheduled caste
ST	Scheduled Tribe
STD	Sexually Transmitted Diseases
SJSRY	Swarna Jayanti Shahari Rozgar Yojana
STI	Sexually Transmitted Infection
SPSS	Statistical Package for Social Sciences
TBA	Traditional Birth Attendant
UTI	Upper Throat Infection
UNFPA	United Nation Population Fund
UNDP	United Nation Development Program
UNICEF	United Nations Children's Education Fund
VHL	Virtual Health Library
WHO	World Health Organisation
YCMH	Yashwantrao Chavan Medical Hospital

ABSTRACT

BACKGROUND: Demographically adolescent period is one of the healthiest of one's life but with the onset of puberty, the transition to adulthood puts a girl in a vulnerable position. Motherhood at young age exposes her to various challenges in her reproductive life span resulting in adverse consequences. Various studies show a strong association between pregnancy in young age and poor birth outcomes, such as low birth weight (LBW), preterm birth, pregnancy wastage, and poor maternal care utilization. Reproductive Health of women has become a concern not just to public health specialist but also to social scientist due to its wide range implications.

OBJECTIVES : To identify and describe the Socio- Cultural and Medical determinants of adolescent marriage and pregnancy among urban poor, a comparison of determinants, causes and consequences with the adult primigravida women , to understand consequences of adolescent pregnancy, health seeking behaviour in the context of medical pluralism, belief system and recommend active surveillance system for intervention.

DESIGN& DATA METHOD: Descriptive study design utilizing both the quantitative and qualitative data method is adopted. Three stage cluster random sampling – probability proportional to size was used.

SETTING: Pimpri Chinchwad Muncipal Corporation (PCMC) slums of Pune district of Maharashtra

PARTICIPANTS: The study population included lactating Adolescent mothers within the age group of 15-24 years staying with their husband/in-law or maternal home and residing in Pimpri Chinchwad Muncipal Corporation (PCMC) slums and had a living child below 24 months for adolescent girls and primigravida .

RESULT : The highlights of the study shows the proportion of adolescent married girls were significantly more as compared to primigravida adult women (2.4% vs 40.0%, p<0.0001) projecting prevalence of adolescent marriage in the urban slum of PCMC. Education level shows more Adolescent mothers had primary education compared to adult women (primigravida) (11.8% vs 25.9%, p =0.135) .Those educated upto higher secondary and above are more among adult women than adolescent mothers. One third of the population belonged to backward community (SC, OBC ST,VJNT & others). Median age of marriage of respondent was three years less than primigravida women (19.3 vs 16.7 p<0.0001). The proportion of women

married below 18 years was significantly associated more among adolescent married girls (14.1% vs 62.4%, p <0.001) than primigravida adult women, and in the case of husband, median age is one year lesser among the adult and adolescent (23.7 vs 22.4, p< 0.0001). Marriage partner [51.2%] is relatives someone known to them or belongs mostly to same caste and kinship. Adolescent married girls, more than three fourth had no preconception idea about pregnancy and they rely more on mother as educator. The study stated 'Father' as determinant of sex by Primigravida women (69.4% vs 31.8% p <0.0001), where as adolescent responded more for God (29.4% vs 63.5%, p< 0.0001). In prenatal period, the proportion of complication during pregnancy was more among adolescent mothers (36.5% vs 75.3%,p <0.0001) as compared to primigravida adult women. The finding also implies that among adolescent women, complication during prenatal period is 5.39 times more likely to occur than adult women. Post natal complication was recorded among 15.29% women. The morbidity could be significantly associated among primigravida adult and adolescent mothers (36.5% vs 75.3% p< 0.0001).

CONCLUSION: The result implies marriage is regarded as entry to adulthood whether she is 15 or 24 years old. Indian society which is predominantly patriarchal and patrilineal, men are superior so women even though engaged in productive work also remain depended on men for the decision which is found in the case of 'marriages', 'selection of mate', 'deciding family size', 'selection of appropriate time for marriage', 'going to hospitals', 'using contraceptive', 'prioritization of diseases' etc. Her ignorance towards pregnancy and contraceptive usage makes the situation worse with depleting urban environment. Traditional practices on one side and acceptance of modern reproductive technologies on the other go side by side with utilization of cost effective public health services. She becomes a 'tool' amalgamated in the cultural integration, prioritization of diseases and poverty leading to high fertility and morbidity. The study also recommends a constructive effort to segregate the slum population data as the need of the hour. The experience of pregnancy is intricately woven in Power structure and woman's body is subjugated in patriarchy and cultural health practices. The coexistence of tradition and medicalization emerged in the study.

CHAPTER –I
INTRODUCTION

INTRODUCTION

Maternal and Infant mortality have drawn international attention with its recognition in the 1994 International Conference on Population and Development (ICPD) held in Cairo, Egypt. Eight goals were set by the Millennium Declaration and Programme Action out of which three goals directly deals with poverty, hunger, malnourishment, underweight girls, delivering underweight children, improvement in maternal health and in turn reduction of infant and maternal mortality. At national arena also, India is committed to achieving universal health by inculcating and reducing maternal mortality by launching various national program and fixing targets of achievement. This entire objective can be only fulfilled by incorporating 'Adolescent Health'. Demographically adolescent constitute one of the healthiest but a crucial transition of adolescent to adulthood is marked with the onset of puberty. Mothers who are young are vulnerable, less knowledgeable and hold subordinate position results in the adverse consequences. Various studies state a strong association between pregnancy in young age and poor birth outcomes, such as low birth weight (LBW), preterm birth, pregnancy wastage, and poor maternal care utilization.

So the Reproductive Health of women became a concern not just to public health specialist but also to social scientist due to its wide implications for women's own health, health of their children, family, community and society. Social scientist tries to look at the topic of 'Adolescent health' within a bigger canvas of its concept. The topic is very much closer to Medicine so can it answer all the questions? The term Medical Sociology mostly points as a discipline related to hospitals, and health sector. So the movement to call it sociology of health and illness was a gradual process wherein "sociologists are interested in health and disease not as health practitioners, but as students of society (White, 2009:40)". The concepts of health and illness stand at the core of sociologist which depends on the social shaping, production of disease and how society works. "Like Marxist emphasize the role of class; feminist the role of patriarchy; Foucauldians the way society is administered by professionals 'power relations', Parson on the role of 'sick' etc. 'Health and disease are cultural products, and individuals as social agents react to transform and are shaped by experiences of health and disease (White, 2009: 11)".

According to WHO (1948), Health is defined as a 'state of complete physical, mental and social well being and not merely the absence of disease and infirmity (Park, 2011: 13)'. To overcome the shortcoming in this definition, a new philosophy of health has evolved where in health is regarded as a fundamental human right. After lots of revision and rethinking several components were included by WHO in 2010 to explain health. Many determinants incorporated to health regarded "biological determinants, behavioral factors (health seeking behavior) to be looked upon in various dimensions, social determinants of health, environmental factors, gender, socio economic determinants (Education, income, nutrition etc), health system (Availability of services, access to these service factors), socio cultural factors, aging of population, science and technology, information and communication, equity and social justice, and human rights" (Park, 2011:12-21). Various studies have quoted cultural making of pre-menstrual, menopausal syndromes, and technology in women's birth choices. Sargent and Bretell explained menstruation, child birth and menopause as the reproductive processes in the female life cycle, which have been medicalized. "Women's illness is both a consequence of, and a response to, patriarchal society (White, 2009: 133)".

Women's position in house and society is more precarious, as in traditional or modern society she is bound within the clutches of patriarchy, age old customs and conventions. The biological differentiation based on sex and gender related to social construction shapes her role in family and society. Gender is embedded in the social relationships in the form of power, social control and access to resources, which is defined by class, caste, religion, region, kinship and other parameters. Chatterji stated that the "life expectancy of women in most parts of the world is high compared to men, except for India. In India, the scenario is different because women attain motherhood at a very young age and they give birth to too many children within a short span of time, and this reduces her lifespan to a greater extend. Another reason is negligence on part of the girl's parents, both health wise and nutrition wise (Chatterji, 1993). Women and reproduction are both related to gender. So women's pregnancy and their bodies' favorable to birthing are targets of many socio cultural and medical determinants. These are in the form of preference for male child, freedom related to reproduction and resource mobilization. Marriage is a universal truth, which when intertwined with kinship and caste, asserts her

position in a family. Marriage age of a woman is mainly associated with education level and employment opportunities made available to them. Those who are highly qualified and employed get married at an advancing age compared to the uneducated or unemployed women. In India, the legal age for marriage is 18 years for women and 21 years for men. Alarmingly, as per the 2011 census data, 30.2% of married women (or 10.3 crores girls), were married before they attained the legal age of 18 years. However, as per 2001 census data, the figure was much higher at 43.5%. In general, parents prefer to get their girls married at a young age between 16-20 years. Because of this, they are not able to complete their education, leading to increased illiteracy or having less than primary school education level (Fulford, 2013). NFHS-3 data showed that 47.4% of women get married by the age of 18-24 years and 16% of mothers belong within the age group of 15-19 years. Early marriage is a major reason for early pregnancies, as most of these young women lack awareness regarding contraceptives, again raising concerns for adolescent reproductive health. The present study is concentrating on this section of the society, because out of the "total population of 1205.6 million, 236.5 million are adolescent falling in the age group of 10-19 years (i.e. 19.6%) [Census, 2011]". There have been meticulous efforts to control population explosion and save mankind from the perils of diseases not only through biological, physical, chemical and nuclear sciences but also through sociological sciences. They have been trying to reach the people all over the world, to change their outlook and concept of life. The underdeveloped /developing countries are victims of their old customs and concepts like child marriage, preference of son to daughters, patriarchy and submissive position of women in family and society, financial constraints, etc. Women get entangled in socio cultural nexus and become mute towards their own gynecological problems. Sometimes even Government agencies become responsible for rendering such services and fail to do their duties properly. There are many lacunae to get authentic data of poorest of the poor. These aspects also have been brought under the study of sociology with adolescent reproductive health.

1.11 Health and Demography: India accounts for 17.5% of world's total population, and is currently the World's second most populous country next only to China (19.4%). The urban population is increasing day by day so is the condition of productive population. "Youth population of India is nearly equal to the total population of 18

western Asian countries of 232 million (Census of India, 2011)". The discrepancy between the age required by law and the practices followed by people for female marriage give birth to various social problems. It paves way for various physical and health issues to the mother and child so born. "The adolescent group's 15-19 ages and consequent adolescent pregnancy among16% (NFHS-3, 2005-06, Key Indicators India)". "The analysis of sex ratio in India shows upward trend of gender ratio in the past five decades from 933 in 2001 to 940 in 2011 (Census of India, 2011)". While in Maharashtra, the sex ratio was 922 in 2001 and 925 in 2011 that shows only marginal improvement. There is a declining trend in female child ratio in the age group of 0-6 years, which is the lowest since India's Independence. Gender ratio of 914 girls to 1000 boys was recorded in 2011 (Census of India 2011). The observation made by Amartya Sen on female mortality speak eloquently about the disparity of medical services that are available to men and women, stating that "failure to give medical care similar to what men get and to provide them with comparable food and social service results in fewer women surviving than would be the case, if they had equal care (Sen, 1990: 61)". Based on analysis of aggregate national sex ratio, Sen Claims that "100 million women and girls are missing worldwide and better care given to females have better survival rates than males".

1.12 Human Development Index (HDI) 2007-08 also visualizes that the development of a nation can be measured by its HDI because it is based on three indicators namely "longitivity (life expectancy at birth), knowledge (adult literacy rate) and income (real purchasing power in parity in US dollars) (Park, 2011:16)". Therefore the first dimension to measure the development of a nation is longevity of life which is related to health and doesn't depend on individual only. Indian constitution provides Health is the states responsibility also. The Directive Principles enshrined in the constitution speaks elaborately role of states to provide means to maintain healthy people. Based on all these efforts many health indicators were included to measure development with prominent 'mortality, morbidity, nutritional status indicators, Disability rates, health care delivery indicators, utilization rates, indicators of social and mental health, environmental indicators, socio economic indicators, health policy indicators, quality of life, and other indicators (Park , 2011:24)'.

1.13 Development and Urbanization: When we look at the spectrum of health worldwide we can see a silver line in the offing. Development brings out another process which influences the community is Industrialization and Urbanization. An operational definition of urbanization is given by G.S Ghurye (1969), which means 'migration of people from village to city and the effect of this movement upon the migrants and their families and upon fellowmen in the villages'. This means it is a universal process leading to economic development and social change. Industries are potential generator of employment involves Migration. "Push relates to unfavourable condition in the home land which make people want to leave where as pull factor refers the attraction in the receiving country such economic opportunity, climate an type of government (Horton and Hunt,1984:424)". So migrants and migration can be regarded as the byproduct of industrialization and urbanization which gives way to the growth of slums. 'Slums have crowded housing, neglected, deteriorated environment and the urban population is estimated to increase to 43.2 crores by 2021 (Registrar General of India, 2006; Report of the Technical group on Population projections 2001-2026)'. The Human Development Index (HDI) report of Maharashtra stated that the state ranks 5th in total projected slum population. The condition of slums and living space available to them is shrinking while the cost of rent is increasing as per a local daily. 'More than half (56%) of the deliveries among urban poor take place at home compared to the urban average of 32.6% (NFHS III data)'. The congregation of people living around industrial houses, cities, towns and its outskirts are people of low income with less living condition of food ,health ,education and access to portable , proper hygienic facilities etc.

1.14 Adolescents Reproductive Health*:* Adolescents constitutes a massive section of the total population. However, in case of India, minimal efforts are made to formulate policies and programs focusing on the adolescent health. Though considered a homogenous group, many organizations have grouped adolescents based on their caste, gender, class, geographical location (urban/rural), and religion (UNFPA/UNDP/WHO/World Bank special programme of Research, Development and Research Training in Human reproduction (HRP 2002)). In addition, adolescent groups can be categorized based on the following criteria: (a) school and non-school going, (b)

drop-outs, (c) sexually abused, (d) paid and non-paid workers, and (e) unmarried and married, with or without children (MOHFW, Country Paper, 1998).

The term adolescence can have varied interpretation. According to WHO, individuals between 10-19 years of age are considered as adolescents, 10-13 years as early adolescents, 14-16 years middle adolescents, 17-19 years as late adolescents, 1while those between 15-24 years are considered youths. The adolescence stage is marked by physical as well as psychological changes. According to the National Youth Policy (2000) of Indian govt., individuals between 10-35 years are considered as youths. The adolescence age, i.e. 10–19 years, falls within this purview. This study includes adolescent whole fall in the category of 15-19 years and are married.

1.15 Social construction of Adolescent: The construction of Adolescence and adolescent sexual health needs varies from community to community. Socially adolescences is not same everywhere. They are socialized and nurtured differently in different society. Most of the societies link the biological maturation of adolescents with the onset of puberty. This is social change so differs in different culture (Gyepi et al., 1985). The gap between childhood and parenthood may be relatively prolonged in developed nations; however, in developing country like India the interval may be less. So these valuations are not biological but more towards social and cultural dimensions perceived different in different culture. Studies shows youth are sexually active outside marriage in some parts of world as a result of migration, peer pressure, media etc. Overall 'adolescent' are vulnerable to sexual exploitation either legally through marriage or by out of marriage relation.

1.2 WHO ARE PREGNANT ADOLESCENTS?

The term means pregnant women aged 10-19 years for which teenage pregnancy is used synonymously (WHO, 2004). UNICEF (2008) opines teenage pregnancy that occurs within the age bar of 13-19 years, in which the adolescents have not reached the legal age (the legal age of parenthood or marriage is country specific).

1.3 PROGRAMS WHICH REACH ADOLESCENTS

Adolescent health comes under the purview of the Departments of Health and Family Welfare of the States and the Ministry of Health and Family Welfare. Reproductive and child health approach deals with individuals ability to reproduce and regulate fertility,

ability of a women to give safe birth to children, pregnancy outcomes in terms of infant as well as maternal mortality, and protected intercourse that prevents sexually contracted diseases (Park, 2011).

Taking into consideration the increased infant mortality rate (IMR) and maternal mortality ratio (MMR), the national rural health mission (NRHM) was launched on 12th April 2005 throughout the country aiming at reducing IMR and MMR, especially in the rural India. The Ministry of Health and Family Welfare (MoHFW) provided the services through reproductive child health programs (RCH I and II), primary health centers (PHCs), and community health centers (CHCs). RCH-I program included practices of safe motherhood and child survival, along with other components like sexually transmitted diseases (STIs) and reproductive tract infection (RTI). RCH-II program focused on rural areas with essential and emergency obstetric care and strengthening of referral system. Janani Surakha Yojana (JSY) was one of the effective programs under RCH that is a centrally sponsored scheme, which provides cash benefit to women about to deliver and post delivery care. The scheme was launched on in 2005 that aimed at reducing IMR and MMR through promotion of institutional delivery among urban or rural poor. In the urban area, for low performing states (LPS) category, mothers package is Rs.1000 and for accredited social health activist (ASHA) it is Rs.700 and in high performing states (HPS) category, the mothers package is Rs. 600 and for ASHA it is Rs. 600 (under XI five year plan 2007-12). Health management system information system (HMIS) provides ground to strong health surveillance system. ASHA and Auxiliary nurse midwife (ANM) play an important role in the community by acting as the key stakeholder in successful implementation of the integrated child development scheme that has a strong hold in slums as she is the provider and the Liaoning member with health department in the community. Various programs like immunization drive, ANC identification and follow-up, vector control, follow-up of water borne diseases, DoT, etc is maneuvered by ANM in the Anganwadi in PCMC. For improving the health conditions of urban poor, the national urban health mission (NUHM) scheme was launched to facilitate easy access to health care institutes by rationalizing and strengthening the existing capacity of health delivery system. Also, it links with programs, such as like JUNNURM, SJSRY, and ICDS sharing similar objectives to optimize the outcomes

(Ministry of Health and Family Welfare). Another program, i.e. integrated child development services (ICDS) scheme takes into its fold children up to 6 years of age, pregnant mothers and nursing mothers, and provides them with integrated package of early childhood care services that includes regular immunization, supplementary feeding, timely health checkup, and referral services for children, and nutrition support and health education for mothers. So at grass root level whether a slum or rural area anganwadi's presence in service delivery is very significant. The problem of RCH indicators of urban slums is worse than the other urban average.

1.4 CONSEQUENCES OF ADOLESCENT PREGNANCY

The increasing rate of teenage pregnancy among adolescent population of India is a likely aggravating problem (Talwar and Venkatesh, 2013). There are various studies which evaluates the outcome or consequences of pregnancy, obstetric and neonatal outcome of young mothers. According to a study, health conditions like "anemia, hypertension, eclampsia, LBW, fetal death, and preterm birth have been on rise in cases of young mothers". In under developed countries, such young mothers are more likely to have spontaneous normal vaginal birth (Blomerg, 2016)". In addition to these health outcomes, adolescent girls suffer from deficiency disorders as compared to their male counterpart. LBW new born exhibit increased risk of early and post-natal mortality compared to a normal weight infant. Their mothers, due to young age, are likely to suffer from severe complications during delivery resulting in adverse pregnancy outcomes (Gogoi, 2014). The adverse socioeconomic consequences as well as the health consequences faced by an adolescent pregnant girl and her infant is based on her marital status, and cultural, familial and community situations. They are always at a greater risk side of social unacceptance and can be debarred from economic advantages. Adolescent mothers have an increased chance of discontinuing their education or getting employment opportunities. At times, it becomes difficult for her to sustain the large family. Due to early age pregnancy, the infants of such adolescent mothers tend be low weight (usually less than 2500 grams) or very low weight (less than 1500 grams) (WHO, 2004). Such preterm infants are at extra risk to neonatal or perinatal mortality. Due to small size of the pelvis or abnormal baby positioning within the uterus, the adolescent girls experience prolonged obstructed labor, which is generally common in first time mothers, or

adolescent below 16 years of age (WHO 2004). One in four maternal deaths occurs due to immature pregnancy during delivery, and this is seen mainly in the developing countries (Koblinsky M et al., 2000).

1.5 STATEMENT OF PROBLEM AND NEED OF THE STUDY

1.5.1. Global statement of the problem: "As per the Global Burden of diseases World over there is a fall of Maternal Death by 30% between 1990-2015 while in India it has gone down to 52% but less than Bangladesh (65%) (Lancet, 2016; 388:1459-44)". The study further the cash transfer program was launched, despite its popularity it could not be as effective in reaching the poor as they are already are at higher risk of adverse pregnancy outcome. A report published by WHO and UNFPA showed that 14 and 15 million adolescent girls, aged between 15 to 19 years deliver babies each year, accounting for more than 10% of births worldwide. Fifteen percent of global burden of disease for maternal conditions accounts for adolescent girls who face health risks pre- and post-delivery and 13% of all maternal deaths (WHO, 2000 Global Programme on Evidence).

1.5.2. Indian statement of problem: Between 1990 and 2015, the global IMR has gone down by half; however, in India there has been no much change and the death toll still staggers at 1.3 million in 2015 (Mascarenhas, Indian Express 7th Oct 2016). In a cross sectional study of China, India and the Republic of Korea (Gupta, D 2003), it has been estimated that 23.6 million adolescent pregnancies will result in 17.6 million births, which is further mean the socioeconomic positions of the adolescent girls.

1.5.3. Maharashtra at a glance: The total fertility rate (TFR) is 1.9 with IMR at 28 and MMR at 104 (SRM 2007-09), which are lower than the National average. The sex ratio of 925 , is also lower than the national average of 940. There are no phenomenal changes in the mean age at marriage for girls in Maharashtra based on DLHS-1(1998-99) it was 19.3% to DLHS-III (2007-08) -19.3% while India showed an increase of just 0.6% in the same years. The scenario of girls marrying below 18 accounts for 17.6% (DLHS III) i.e 13.3% less than DLHS I in Maharashtra while in India the difference was 14.3%. The status of institutional delivery points 63.5% (DLHS-III) in Maharashtra while India holds less with 52.3%. The comparative key indicators under NFHS III with rural –urban

bifurcation shows for Maharashtra 39.4% women aged 20-24 married by the age of 18 while 13.8% women were already pregnant or mothers at the time of survey. A positive step for protecting adolescent mothers in Maharashtra was she can select third birth companion who could be a friend, relative to support during delivery.

1.5.4. Pune district: In 2015-16 in Pune, Satara and Solanpur districts of Maharasthra, a total of 1201 infants died. During the same period, 536 child deaths, in the age group of 1-5 years and maternal deaths were reported by the Maharasthra State Health Dept. (Indian Express 9th June 2016). The study also stated that post-partum hemorrhage and septicemia to be the major death causes of pregnant women in rural areas. Whereas prematurity, LBW, and asphyxia are considered as the main causes for child deaths (Indian Express 9th June 2016). The figures draw our attention towards the gravity of problem and even the increasing trends of unwed teen pregnancies in the region. These conditions call for spreading awareness among the adolescents and training them in sex education.

1.6. PURPOSE OF THE STUDY

Adolescent pregnant girls are at higher risk of maternal deaths as compared to women who are in the 20s and 30s age bracket. "Globally, about one third of woman aged 20-24 were child brides (UNICEF, 2015)". "The risk increases as the maternal age decreases, with adolescent under 16 facing four times risk of maternal death as women over 20 (WHO, 2008)" . Various reviews show children born to Adolescent mothers are more prone to have LBW child and worldwide these teen mothers are more unmarried. The Indian scenario is different as pregnancy of adolescent is mostly within the approval social cultural norms of society. From the available literature it is clear that inspite of various national programs for the target population, the unreached still have not come in the loop of development to achieve the MDG a reality. Hence this study proposes to explore the adolescent married girls who are already mothers by retrospective recall. This study not only tries to bring out the sociological causes and determinants in front but also it brings out how socially 'vulnerable' are adolescent married girls. How the slum delivery system is affecting the urban poor? How the discourses of tradition and modernity are existing simultaneously. As the health delivery systems of urban area are generally in place like hospitals, clinics and maternity homes, then why still there is

disparity and high risk of poor pregnancy outcome? And to understand the complexities in the articulation and constitution of gender identity in economically disadvantaged adolescent married women residing in urban slums of Maharashtra. 'The most effective impact shows raising the mother's age at first birth from 18 to 23 could reduce population momentum by over 40%, according to the United Nations Population Fund (UNFPA)'. So more and more researches are needed to expand the evidence base on determinants and causes which make the problem still in forefront after decades of intervention through various sectors in a developed state like Maharashtra. The purpose of the study is to lay foundation for better understanding of the social construction of Female body to increase the age of pregnancy and conception as well as to make pregnancy safer by improving maternal and child health.

1.7 THEORETICAL FRAME WORK: LINKAGES WITH THE PRESENT STUDY

The present Empirical study titled 'Adolescent Pregnancy' attempts to understand its sociological perspective through scientific methods of sociological investigation. The topic based on the various literatures find linkages to Early marriage, Early conception, Patriarchy, Gender, Socio-Economic & Cultural determinants, health care services and delivery, Reproductive wastage, Health belief, among urban poor in urban slum setting. The researcher is identifying these social forces in this context in a developed state like Maharashtra where there is early marriage and early pregnancy. For any study theories are its grounding principles including classical theories of Herbert Spencer, Emile Durkheim, Max Weber and Karl Marx, Contemporary social theorist or the post modern theories. "Sociologist does not necessarily declare a particular theoretical approach but their research and approaches tend to draw on one or more theoretical frameworks (Schaefer, 2006: 20)". The present work also uses

theories which are found closer, interprets the grounding principles , tries to enlighten the topic and clarifies our curiosity.

Sociology of Health and Illness

Sociology of health and illness tends to understand the perception of the people, their behavior and experiences while facing illness, their experiences of health care, and their relation to the stressful events like illness and functioning of health. "The new model of

diseases and illness the Health Belief Model was preliminary a psychological model of human behavior and related mainly to preventive activities, but evidence began to accumulate of a parallel problem (Albrect et al., 2000: 25)". Further in the Chapter, 'The social construction of Medicine and body' by Deborah Lupton Health, Illness and medicine and health care she explains "it may all be viewed as socio-cultural products, and that is therefore important to analyze the nature of their cultural representations and symbolic meanings that surround them". Many recent scholars are taking a social constructionist approach upon the work of poststructuralist theorists, particularly the writings of Foucault on power, knowledge, and discourse.

Gary, (2000:58) quotes Grosz (1994) that an 'individual's body image' is developed during her course of life is subjected to change, transformation and frequent revision. Further explains 'The body image' is understood by various distinctions between outside or inside, between the various organs and its processes, the portion of the subject with respect to object and relation between active and passive relations. The body image is embedded within the social, cultural and historical background as well as to the daily experiences. This body image is framed from the discourses which is circulating within this socio-cultural context makes the construction of the 'body image'. Talcott Parsons (1902-1979) focuses on factors that bound society together (structural functionalism). Parson, following the German social theorist Max Weber, argued disease is nothing but an outcome of social, cultural and political situations. He presented his argument that 'sickness is a social and not biological process'.

Materialist Approaches' to the Sociology of Health

"Materialist or structuralist explanation of diseases emphasizes that social, political and economic factor beyond the control of individual and which adversely affect their health (White, 2002:80)". This explains that disease and its treatment is perceived as an 'outcome of capitalist economy' Marxist tradition in Fredrick Engels 'The condition of Working class in England'(1974) Engels put forth alcoholism is not just related only to individual's psychology but due to the deterioration of living condition of slums. He further explains disease is not focused just to individual but 'social organisation' and at last he argued sickness and disease is a byproduct of 'social condition not biological

circumstances'. Marxist focuses on capitalist society and the distribution of disease is related to economics of production.

Disease is regarded as socially produced and distributed in the society which cannot be solely identified as part of nature or biology. In Sociology, the basis of an empirical research is to demonstrate how the interactions takes place in class, professional interests, power, gender and ethnicity, which can be considered into the formation of knowledge about treatment of an illness. Sociologists have come up with different explanations of social shaping and disease production.

Foucault's Sociology of Health

According to "Foucault's analysis, the modern society is associated with three interlinked aspects the body, power and knowledge. The body is both the target of, and is constituted by, power relations focused on it, which render it obedient and docile. These power relations are not external forces but internalized self control (White, 2002:120)". This makes us understand body is social and very much have the characteristics of nature meaning culture. The disease or body must be seen as historical products which in itself is a reality. The body doesn't exist without a symbolic achievement. So (White, 2002:126-27) stated, "The image of the body shapes our understanding of society and understanding of society shapes our understanding of body". Power and knowledge directly affect one another. The traditional understanding of power is that it is pocessed by someone or something. (Adams, 2002: 578) explained Foucault's theory that power is exercised rather than possessed, it is productive, and in modern society power is exercised through various discourses. This, "Power does not flow from a centralized source but also flows from the bottom up- that is, from the multitude of interactions at the micro level of society". Power is not just domination but the combination of relations which is inherent in the arena where it is operating. It is always present in the human relation in all the spheres. Foucault explains that "knowledge and truth are the outcome of power struggle between different fields (i.e between the different fields, disciplines and institutions) and they are used to authorize and legitimate and working of power". Foucauldian approach explains on the awareness and the 'social construction' which opens up new path of discourses which is flexible in shaping the body. In this context,

"our bodies are socially constructed within the context of class, gender and ethnicity (Foucault, 1973:13)".

Doshi.(2012:208-09) generalized "Foucault's micro –politics of power relations , he writes Foucault identified the sites where micro politics plays its part once in prison, asylum, University, schools hospital and psychologists office. The only irreducable in Foucault's scheme of things is the human body, for that is the site at which all forms of repressions are ultimately requested. So it is on the basis of the establishment of the body by medicine that we are subject to specific mechanisms of social control". It can be concluded that the understanding of body is society specific and power diffuse in social relationship. This contradicts the other theorist who believes power is held either by capitalist or by patriarchal men.

Health, Gender and Feminism

Women are generally considered as inferior in nature and weaker based on their reproductive capabilities (White, 2002). This suggests woman get sick more often and needs treatment what medicine claims to be biological problems. White further stated that 'The *feminization of poverty'* deals with a vicious cycle where the health of a woman is put at greater risk. Also, they have fewer resources to cope with, which in turn make them sick. All these indicates that women are inferior and she is directly affected by poverty and the burden of her social categories of mother, house worker ,carrier ,and a biological including menstruating, pregnant etc. All these are defined in patriarchal medicine.

Marxist – Feminism

In this theoretical concept, it is explained that the medical knowledge of health is shape by capitalist social relationships while feminist gives emphasis on patriarchal basis. In Marxist feminist explores into in which class of society patriarchy interact to understand the subordinate position of woman in society. Women's role as a mother and care taker gets more prominence in capitalist society naturally. Marx's and Engel's saw "relations between men and women as located primarily in the family". Later Engels, in '*The Origin of the Family, Private Property and the State',* tried to provide a materialist explanation of gender relations. He stated that the determining factor in historical materialism is the "production and reproduction of immediate life" (1884:25). In the

patriarchal family, monogamy dominated and patrilineal descent became more important when economic surplus developed. This economic surplus was controlled by men leading to a natural way division of labor and superiority of men. (Sydie, 1987:101) that "women were pushed to subordination because her entry into class relation without controls over production and property". Adams & Sydie (2002:183) in chapter 'Social Action and social complexity by Max Weber and Marianne Weber', explains patriarchal power is pure male power and derives from the bases for household authority –superior strength and practical knowledge and experience".

Sociology of gender

Adams and Sydie (2002:74) wrote Spencer (1891) asserted to consider mental alikeness of men and women; however, this was untrue as stated by the author, considering them as bodily alike. We can conclude that both physical and mental alikeness has evolved due to evolutionary factors, which existed because of the functional stability of industrial societies. The prominence of kinship as the first social institution was put forth by Spencer. During the period of Sociologists like Marx, Weber and Durkheim, the term gender was not known. Hence, they considered the subordinate role of women in the society as natural (Sydie, 1987). During 1950s, functionalism was seen to dominate the scenario, which contributed to understanding of gender differences from sociological aspects (Mary Holmes, 2004). Mary Holmes view in modern organization of work, Parson believed women stayed at home and played significant role in socialization of children. Holmes (2007:34) provided Nancy Chodorow's (1978) "more women-centered alternative to the original Freudian understanding of psychological differences between men and women". Chodorow also uses the same ideology as Freud understands the "development of feminity as a smooth process rather than as a kind of deviation from a male normality". This means girls identify with their mother ad boys feel they are different. So this points that mother's act as agents of socialization for their daughters and call '*the reproduction of mothering*'. Iris Marion Young (1997:23) concludes Chodorow's development of gender personality in '*The Reproduction of Mothering'* that the primary person in the life of both men and women is their mother. The separation of mother often develops rigid ego boundaries. According to Chodorow, our society witness male dominated social interactions. The theory explains about gender division of labor

that has evolved in the modern society defining responsibilities to mothers for childcare, producing gender differentiated persons with desires an capabilities that particularly suit them for continuing that gender division of labor. Chodorow identifies gender difference with male dominance. While gender differentiation is a phenomenon of individual psychology and experience, as well as of cultural categorization, male domination refers to structural relations of gender and institutional forms that determine that structure. The theory of women's mothering determines women's role in domestic front which differentiates them from the public sphere. Thus "kinship rules organization claims of men on domestic units, and men dominate kinship (Young, 1997:23)". So, she concludes the theory of development of gender personality is a theory of male domination.

In Chapter 3, Ann Ferguson (1997:41) 'On conceiving Motherhood and Sexuality: A Feminist Materialist approach 'brings out a Multi Systems Approach to domination Relation'- her Multisystem socialist –feminist theory of male domination from others is the concept of 'sex/affective production'. She explains family and kin becomes the basis for sex production, which later specialize to capitalists economic development creating differences in gender identify among boys and girls, subsequently in peer groups in schools ultimately to one's gender identity.

Radical Feminism (White, 2002:140) "asserts the fundamental biological differences between men and women". The women's oppression was the source of all oppression, it was especially concerned with control of fertility and reproduction by men and it give way to motherhood and practices of marriage. Mary Holmes (2002) stated about "Patriarchal Attitudes" that the cause of patriarchy and women's oppression was considered central in determining their social position. The relationship between the two genders are socially constructive in nature and are power relations that lead to women oppression, which is again guarded by a number of myths related to a woman's body.

Holmes explains patriarchal women's bodies as a key issue in the sociology of the body. She also defined the four tasks of a society, i.e. reproduction of population overtime, regulating bodies in space, disciplining interior bodies, and representing exterior bodies. These all explains the subordination of women. Butler's view about gender is "it is repeated cultural performances which explain the subjugation and subordination of women (Butler 1999:29)".

According to Julia Kristeva, Freud constructed maternity in wholly patriarchal terms. "But this association of motherhood with the masculine logic of Oedipus prevents the woman from voicing her own desire, her own enjoyment her own ambivalent fantasy of maternity". It is the 'nourishment and love' of the mother provides emotional dealings of the 'self with itself', with other people and the wider society.

The theories are the conceptual basis of any study and these theories coined out various models of health and illness. Out of some important models in West, biomedical model is the dominant one. This is based on the assumption that disease is generated by specific 'etiological agents' that brings changes in the "structure and function' of the body. This philosophy puts body as a machine. That means if a part is malfunctioning, it can be repaired or replaced so does disease, but illness is a 'subjective experience of dysfunction'. This means mind and body as functioning independently (Bowling, 1997). This had many challenges as it could not focus on or encompass all factors. The other model of health is 'Social Model of health'. Here scientist distinguishes between medical concept of disease, and perception of disease, and often mentioned as illness. Social model is best explained with reference to WHO (1947, 1948). The most important model called the rainbow model of 'Dahlgren and Whitchead 1991' explains on the influence of layers on health .They describe a social ecological theory to health and the relationship between the individual, their environment and disease. At the centre are the biological givers not just sex and age, but also biological parents. The environmental factors which shaped them and also address the individual's social context through the set of factors explained in the different layers, i.e. social and community influences and living and working condition. The work of Whitehall is quoted 'that the structure, and especially quality, of social relations (layer two) impacts on health and health inequalities'. Popay et al. (1998) highlighted the work of Oakley on the links between social support and motherhood. He pointed out the positive health outcomes linked to social relationships. The outermost level of the Whitehead/Dahlgren diagram represent material aspects of the context within which individual and population health is located or determined by national and international forces.

Conclusions: The theoretical concepts provide various angle of reproductive sexual health of adolescent health and the influencing factors of female status in the society.

Classical theorists are not taken into consideration of the study on gender inequality as mentioned above. "All women are seen sharing a common position deprived from their marginalization and exploitation in a patriarchal society and sex is biologically determined and gender is socially constructed (Rege, S: 2008: 4)". The fact which brings out from the Foucault's work in a 'disciplinary society' of modernity the body ,insights into how the body is worked upon by gender construction ,depict power ,patriarchal control of women's bodies as a key issue in the sociology of the Body.

1.8 OPERATIONAL DEFINITION

Total Fertility Rate (TFR): TFR states the average number of children that women would give birth to within her reproductive age (Park, 2011).

Sex Ratio: 'Sex ratio is fined as the number of females per 1000 males. It is one of the demographic characteristics of population in the sex composition (Park, 2011:446)'.

Birth rate: It is an indicator of fertility and is defined as the number of live births per 1000 population in a particular year and at a particular area (Park, 2011:451)'.

Trimesters: 'Ist trimester (0-13 weeks) most miscarriages occurs during this period, it is crucial for the development of fetus and premature mother have breathing or digestion problem. IInd trimester (14-26 weeks) is called the golden period. There is decreased nausea, better sleep and between 16 week to 20 weeks you can feel baby's first movement. IIIrd trimesters (27 to 40 weeks) when shortness of breath, hemorrhoids, urinary incontinence, varicose veins problem, sleeping problem and the size of the uterus becomes large (http://www.nhp.gov.in/sits/default/fils/anm-guidlins.pdf)' .

Maternal Morbidity: Maternal morbidity in this study means morbidity or complication related to pregnancy and childbirth and thereafter.

Postnatal Morbidity: The post natal period is the time required by a woman to recover from the effects of child birth. Conventionally, this is defined as the six week period after delivery. This period is significant in countries with high birth-rates and poor spacing between births.

Obstetric hemorrhage: It is an acute event that occurs during the pregnancy, which is one of the leading causes of maternal deaths in the post-partum period. Hemorrhage can be classified into: (a) that occurs during pregnancy (ante partum); and (b)that occurs after delivery (postpartum). After the 28th week of pregnancy, bleeding is caused due to

premature placental detachment from the uterine wall (abruption placenta) or placenta previa, the placenta attached lower. Both these conditions call for immediate attention. Hence, a well-planned delivery at a well-equipped hospital for operative delivery and blood transfusion is needed. The common causes of postpartum hemorrhage are retention of the placenta after delivery, failure of the uterus to contract after placental expulsion, and genital tract trauma (Ghodki & Saresai, 2014).

Unsafe abortion: Being one of the major causes of maternal mortality, unsafe abortion is defined as pregnancy termination (or expulsion or extraction of the embryo or fetus) prior to 22 weeks of pregnancy or if the fetus weight is below 500 g. It can occur in a spontaneous manner (miscarriage) or can be induced (WHO 1993).

Abortion: Abortion simply refers to pregnancy termination before the fetus becomes viable (capable of living independently). The legal abortion period is fixed at 28 weeks when the fetus weighs approximately 1 Kg. Spontaneous abortion occurs once in every 15 pregnancies. Whereas induced abortion are deliberate in nature that might be legal or illegal in nature (Park, 2011: 468).

Antenatal Care: It refers to taking care of pregnant women. Ideally, this care should begin soon after she conceives and the care continues throughout the period of pregnancy. She should also visit healthcare facility once in every month for the first 7 months, and then the frequency should increase to twice in every month during the following months, once a week if everything seems normal. It is difficult for some mother to visit hospital in such regular intervals, so a minimum of three visits covering entire period of pregnancy should be set as the minimum visiting standard: 1st visit at 20 weeks), 2nd visit at 32 weeks, and 3rd visit at 36 weeks (Park, 2011).

Neonatal Mortality: 'Neonatal mortality refers to deaths that occur during the neonatal period commencing at birth and ending 28 completed days after birth. It is a measure of endogenous factors (e.g. Low birth weight, birth injuries) (Park,2011:521)'.

Fetal death: Fetal death occurs prior to the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy, heath indicator by the fact that after such separation the fetus doesn't breath or show any other evidence of life such as bating of heart, pulsation of umbilical cord or definite movement of voluntary muscles (Park, 2011: 518)'.

1.9 SIGNIFICANCE OF THE STUDY

This thesis attempts to understand determinants, causes, and consequences of adolescent pregnancy so that it can suggest measures and strengthen adolescent reproductive health. The social environment which scripts gender through process of socialization weaves Adolescent and their adolescence. The reproductive characteristics of adolescents in India still remain a challenge for the policy makers and public health experts. The issue of reproductive health needs get magnified within the community because of their poverty and vulnerability due to sexual exploitation. In India, the transition from childhood to adulthood, especially in girls tend to occur suddenly. Due to the poor nutritional status, the adolescents face late menarchy as compared to other parts of the world. On the other hand, early marriage and pregnancy also leads to females entering early into the stage of adulthood. By 2020, an estimated 23.6 million pregnancies will result in 17.6 million births to adolescent (Gupta, 2003) which needs immediate attention. Among young women age 15-19 in Maharashtra, 13.8 percent have already begun childbearing, a little lower than the national average (16%) [NFHS-3]. The problem of early marriage of girls still prevails. The SC and ST considered vulnerable groups suffer from multiple deprivations also finds place in the study, giving valuable inputs in this area. So the study will try to unmask the urban poor realities about the causes and determinants which is still a hindrance in path of overall development to make the reach the MDG a reality. Review's show, being a wealthy and developed state does not guarantee there is equity in access to health and health care. The determinant causes like poverty, increasing population of the poor, their adulthood and marriage, their reproductive health issue of marriage, social condition are matter of investigation and of great significance. There is an urgent need to bring out improvement in the situation. Throwing light and evaluating the situation to facilitate Reproductive health services to urban poor, unavailability of maternal and newborn health services delivery in urban setting especially in slums has never been addressed adequately. Social dynamics such as household decision making and woman's autonomy also play a pivotal role for the utilization of RCH services and implementation. The social realities of health and illness are obvious areas of focus if we want to understand special features of the present life. Social scientist does not merely look upon as an intellectual quest but the need to understand central experiences of the

society of which they are a part. It will provide valuable inputs to Government, professionals other groups of interest as guidance to understand the nature, determinants, causes and consequences. Sociologist studied health and illness not only because they are intrinsically interesting, but also because they provide a broader view of functioning of the society (White, 2009:1). He further stated, WHO argued that the health and illness patterns once laid down during childhood, and that the impact of an underprivileged childhood on a person's health is not likely to be overcome in adulthood. If one's life begins with illness that continues for years. Later, medical intervention is not able to make up for the impact fostered due to poverty (consequent poor nutrition, housing and clothing), lack of health care information for pregnant women, and lack of access to nursing care and advice following the birth of an infant. Infact, a single best intervention that any government can make to improve the health of its population is provision of universal, free care for mothers-to- be and newborn infants (White, 2009:170). This makes the study more significant in the Indian scenario to see sociological and heath vulnerabilities which the adolescent mothers face.

Safe motherhood is considered as a moral issue, more than just a health issue. Safe motherhood is an important social economic instrument leading to social justice and reproductive freedom. One way the investment in safe motherhood saves families and governments the cost of treatment and other services. Urban Health which is still in the budding stage in India, to bring health equity among the urban poor and the backward communities and recommend active surveillance system for intervention to reduce incidences of adolescent pregnancy will be one of its prime significance. Studies have shown that delaying adolescent birth could significantly lower fertility rate, thus benefitting the society economically and socially.

1.10 Chapterization Scheme

The whole thesis is systematically distributed in various chapter schemes.

Chapter one contains Introduction covering topics from medical sociology, demography, HDI, development, urbanization and urban poor, Adolescent reproductive health, social construction of adolescent , who are pregnant adolescent, programs ,statement of problem, purpose of the study, Theoretical framework of study, operational definition and significance of the study.

Chapter two the literature review focuses on causes, determinant and consequences of adolescent pregnancy in sociological perspective explores in various thrust areas namely General Reviews on Reproductive health including common aspects and various angles pertaining to Adolescent Pregnancy like their fertility behavior, motivational factors, family support, motherhood, domestic violence, challenges faced by Adolescent, Socio economic and demographic determinants including RH, social, economic, and demographic factors, association with health, family structure, kinship, caste, religion changing factors and fertility, Urbanization, urban slum, urban poor ,migration and urban health services and Sociological Aspects of AP including Gender concepts, sex ratio, technology and tradition, men's perception and patriarchy .Health Determinants pregnancy ,Antenatal, post natal care, delivery Maternal morbidity & mortality, neonatal mortality & morbidity, Obsteritic decision and autonomy, Consequences/outcome of adolescent pregnancy –complication/morbidity, risk factors ,adverse affect ,reproductive wastage ,low birth weight babies, nutritional problem and Culture and health seeking behaviour also has been incorporated in this chapter. **Chapter three** deals with research methodology which includes objectives of the study, hypothesis, profile of study area with population and brief details , research design, data collection method, tools used, ethical issues ,pilot study, final field study, result and discussion, and limitation of the study**. Chapter four** is the central core of the study containing result and discussion incorporating qualitative and quantitative comments. It also is distributed in various headings socio economic demographic determinants, marriage and gender, Gynaec and obstetric history , antenatal care, diet and nutrition, fertility and contraceptive , health seeking behaviour ,morbidity and hypothesis testing. **Chapter five** is findings, conclusion and recommendation to civil society, service provider, policy makers, active surveillance and future research.

CHAPTER –II

REVIEW OF LITERATURE

REVIEW OF LITERATURE

Health and illness are universal elements of human life, which at different stages of life requires attending and addressing. Sociologists study Health and Illness not only because they are intrinsically interesting but because the experience of sickness and disease is an outcome of the organization of society. They do not accept only medical model of disease and illness as simply biological events but also examine the social function of the medical knowledge. Medical knowledge is produced in and reflects structural features of society .Marxist emphasize the role of class, feminist the role of patriarchy, Foucauldians the way society administered by professionals and those focusing on ethnicity, the impact of racism (White, 2009 :1-5).There are many issues and problems in understanding health and medical knowledge such as social inequalities in health and access to health care, failures of health professionals to address patient's primary concerns an need to evaluate the impact of health services on population well being ,pattern of health , illness in population etc (Albrecht et.al., 2000: 1). Adolescent girls 15-19 years give birth to around 16 million babies each year, around 11 % of births worldwide. 95% of these births occur in the low and middle income countries, where complications from pregnancy and childbirth are a leading cause of death among girls of this age (WHO,2013). Even though the incidence of adolescent pregnancy is declining in developing country but this phenomenon remains a gracious problem to the adolescent mother physically, physiologically, mentally, and socially.

Reviews related to 'Adolescent pregnancy' throw light to various determinants and causes of the problem and the outcome of the adolescent pregnancy to the individual, family community and society by large. There are various vital factors in reducing maternal, infant and child mortality with special reference to adolescent pregnancy and these rates are high in the developing countries. Early marriages are a social norm in South Asia, particularly India and marriages are expected to result in early conception. Societal and cultural forces push every Girl to prove her fertility immediately after the marriage. Early marriage can have unfavorable effects on the girl's life socially, economically, physiologically and physically. Hence adolescent pregnancy and childbirth related complications are important causes of mortality of girls aged 15-19.The burden of maternal deaths in the world is 22% in India alone (UNICEF,2008). India through

various studies presents inadequate sexual and reproductive health with poor health seeking behavior. It also shows the health burden of young married women with reference to reproductive health is vulnerable. The reproductive morbidity is less talked topics within the family even to the partner hence they delay in taking treatment. Various studies show women are not primary decision-makers related to the use of contraceptives, health seeking and expenditure for health care (Bandhopadhyay and MacPherson 1998). Reproductive Health (RH) covers all aspects of women's health. My topic 'Adolescent Pregnancy' (AP) is a part of the Reproductive Maternal and Child Health now with specialized heading 'Adolescent Reproductive Health' (ARH) encompassing sexual and reproductive health. Under the umbrella various issues sexuality, childbirth, contraception, abortion, maternal mortality, socio, economic, behavioural and cultural dimension play an important role in determination of reproductive health. This literature review focuses on causes, determinant and consequences of adolescent pregnancy in sociological perspective explores in various thrust areas namely:-

- General Reviews on Reproductive health including common aspects and various angles pertaining to Adolescent Pregnancy like their fertility behavior, motivational factors, family support, motherhood, domestic violence, challenges faced by Adolescent.

- Socio economic and demographic determinants including RH, social, economic, and demographic factors, association with health, family structure, kinship, caste, religion changing factors and fertility.

- Urbanization, urban slum, urban poor ,migration and urban health services as determinants of Adolescent pregnancy with situational analysis of RH in the context of urban poverty and slum, morbidity , health effects of migration ,Marriage migration ,migrants urban delivery system its loopholes ,quality ,need and autonomy

- Sociological Aspects of AP including Gender concepts, sex ratio, technology and tradition, men's perception and patriarchy .The determinants and causes of early marriage and early conception

- Health Determinants pregnancy ,Antenatal, post natal care, delivery Maternal morbidity & mortality, neonatal mortality & morbidity , Obstetric decision and autonomy
- Consequences/outcome of adolescent pregnancy –complication/morbidity, risk factors ,adverse affect ,reproductive wastage ,low birth weight babies, nutritional problem
- Culture and health seeking behaviour.

2.1 GENERAL: REPRODUCTIVE HEALTH

The study '**Fertility Behavior Among adolescents in India' by Harihar Sahoo (2011)** is based on Secondary data obtained from different volumes of Sample Registration System (SRS) Individual level is drawn from District level Household and Family Survey DLHS-3 carried during 2007-08. It considered women in the age group of 15-19 years. Age at Marriage: In India, nearly about one fourth of ever-married adolescent women (23%) were married before the age of 15 years. Although the legal age is 18 (girls) and 21 (boys) 43% currently married women (below the age of 18). Some states have very high prevalence like Rajasthan, Bihar, West Bengal, Uttar Pradesh etc. The use of contraceptive showed the condition of usage of contraceptive was deplorably low. The usage was high in West Bengal, Assam, Gujarat, Punjab and Kerala. Traditional methods are common in Uttar Pradesh, Assam, Gujarat, Bihar and West Bengal. Condom was the most popular method 26% followed by pill (20%) Unmet need figures of the 40% contraceptive demand among adolescents in India, only 11 percent have been met leading to 28% of unmet needs. Outcome of Pregnancy showed about eight percent of all pregnancies among currently married adolescent women in India are wasted due to spontaneous abortion. 'Abortion in India is mostly under reported'.

Adolescent fertility in India: Adolescent Fertility (number of live birth per 1000 women aged 15-19 years) in India during the last 3 decades has declined. But the impact is not very high Adolescent fertility rates are higher in West Bengal (18.5%) and Andhra Pradesh (17%) while lower in Punjab (3.5%) and Himachal Pradesh (4%)

Marital fertility among adolescents: shows in 2008 the married women bear around four (4.3) children by the end of their reproductive period. Number of Children ever born: A little over two fifty of currently married adolescent women in India had given birth to at

least one child. Out of these, eight percent of them have reported parity two. Religion was found to have substantial effect on the number of children ever born.

Motivation for adolescent pregnancy, Carmen Alvarez Nietoet al.,(2012).

A phenomenological qualitative study with audio recording of in-depth, interviews with 12 pregnant adolescents between March and September 2008 showed what motivations (beliefs, values) for adolescent pregnancy among girls aged less than 17 years old was involved. A Purposive sampling of pregnant adolescents (14-16 years) in the high risk obstetric unit of Hospital of Jaen (Spain) was performed. A content analysis with coding and triangulation of categories and extraction and verification showed that the sociocultural context put considerable weight in sexual and reproductive decisions. Those adolescents with unplanned pregnancies felt their responsibility was relative showing an attitude of acceptance and resignation, which later helped to rationalize whether to claim that child was wanted or even planned. Those girls who wanted pregnancy did not have a clear idea of the consequences of having a child. Previous ideas about pregnancy were mainly related to physical changes which were not taken into account that occur during and after pregnancy. The study concludes that 'the family context and socialization of girls are based on a traditional division of gender roles which the traditional role of the female care giver is strongly internalized'. Why teenage pregnancy occur is not clear but it projected that they lack self determination and felt that their lives are governed by the "Circumstances"

Further another study 'Adolescent pregnancy desire and pregnancy incidence' by Heather L Sipsma et al. (2011) explored the importance of pregnancy desire in explaining pregnancy risk behavior among adolescent females. This study was conducted in United States which has experienced significant decline in teenage pregnancy and birthrates still the rates are high. The respondents were adolescent females recruited through 10 hospital clinics between June 1998-March 2000. Both pregnant and non pregnant were recruited. Results showed those young women who desired pregnancy were significantly older and less likely to be in school than those who did not desire pregnancy within the next year.

Pregnancy Incidence: 78% of participants completed the first follow up and 90% reported pregnancy. Bivariate analysis showed the risk of pregnancy was almost 5 times higher

among those who were not in school and expressing some desire for pregnancy. 'One multivariate model also suggests that being in school and being employed are important factors that may protect young women for pregnancy'. The tool used to test pregnancy incidence and pregnancy desire was contraception. The result suggests that the relation between pregnancy desire and pregnancy is mediated by contraception use, and this highlights risk not only for pregnancy but also for sexually transmitted infections, including HIV.

Alka Barua and Kathleen Kurg conducted a study in Parner block of Ahmednagar district in Maharashtra in 2008. Since 1994 the Foundation for Research in Health systems has helped the Maharashtra Directorate of Health Services to test the feasibility of introducing a Reproductive & Child Health Programme and this study was evolved from that work. A qualitative survey was conducted among 302 married girls 15-19 years of age who were randomly selected, based on the population of adolescent girls in the area and from 33 villages.

Profile of married adolescent girls showed:-

More than 80% of the girls were married before the age of 18 (mean age 17) 28% were married to cousins on their fathers side of the family, and so were not near the natal homes. Almost one fifth were not literate and belong to economically poor (16%) and rest not so poor. Most of them were housewives after marriage; rest worked in field and rest employed. About 67% had one pregnancy with an average age at First conception 17, 14% ended in miscarriage, 5% still birth and 4% infant deaths.

Utilization of health services: Out of the survey 39% were suffering from general illnesses in the previous months and they had obtained health services. The gynecological problems showed menstrual problems (27%) lower backache (25%), lower abdominal pain (12%) vaginal discharge (6%), burning urination (5%) and prolapsed (2%) and only half availed treatment. The study showed that 51% reported of experiencing gynecological problems, painful, scanty or red discharges. The perception of the family members showed varied response towards the women's gynecological problems discarded after they become housewives.

Delaying the First child: Only a small number of couples were using family planning methods first before pregnancy. The fertility decision regarding early conception relied

more on mother-in-law and one third husband wanted to delay it. "Putting pressure on the young wife to become pregnant in the first year of marriage was the strongest influence mother-in –law exhibited in this study and delaying a first pregnancy was an issue on which many more husbands felt a need than took action, largely due to the influence of their mothers". It even brought out that 16 of the 28 girls interviewed had spontaneous abortion did not feel medical attention after wards. The author suggested that the young married girls should have the right to make their own decisions about gynecological problems when they feel the need, 'this is not a matter for health services to resolve but for social action'.

A State Level Workshop on Adolescent Reproductive and Sexual Health. Building evidence from Program and Research was conducted on 4th – 5th Jan 2008 with partnership of Directorate of health services, Govt. of Maharashtra and Institute of Health Management Pachod Supported by Maharashtra and the John D & Catherine Mac Arthur Foundation. Various scientific papers were presented related to my subject Adolescent Pregnancy; some important related papers were reviewed and incorporated.

a. **Why invest in young people's 'Sexual and reproductive health? The situation and needs of youth in Maharashtra' by Shireen Jejeebhoy** The population figures from Registrar General India 2008 showed the figure of young people in India (335 million) and Maharashtra (29.4 million) population age 10-19 (adolescent (242 million – India) 21.2 million. Almost 40% of all female marry before 18 and one in six of young men marry before 21.Globally maternal mortality is twice that of adult women, and the high rates of obstetric complications like eclampsia, pregnancy induced hypertension, premature delivery etc. Marital status showed (15-19) in India is 58.2 while in Maharashtra it is 83.6% (IIPS & Macro International 2007) IIPS and population council 2007). Early pregnancy and child bearing show adolescent mothers above higher neonatal, infant mortality rate compared to (20-29) year old mother. Unmet need for contraception shows wide gap among 15-19 years and 25-29 years. Regarding percentage of youth reporting to parents related to sexual reproductive health is very rare except (regarding menstruation) media and peers play vital role. Decision making, adolescent girl's responses are less than that of 20-24 year old women on issues like her own health, purchase of jewellery and visit to natal home etc. Gender norms are strict and men

dominate in most aspects of reproductive health. The suggestion included strong progammes for safe sex, delaying pregnancy and pregnancy care. Recognize the social isolation of married adolescents by building social networks for them.

b. Another paper on **Sexual and Reproductive Health Status of Adolescents in Maharashtra** was presented by Dr. K Anil kumar, a Prof from TISS. He examined NHFS-3 (2005-06) data used to see the differentials in adolescent sexual and reproductive health in Maharashtra. The key findings showed about 7% of married adolescents are either pregnant or have experienced child birth. The mentioned 7% have started child bearing before they have reached 18 years of age. 10% of adolescent mothers have shown post partum complications and about a quarter of children weighed less than 2.5 kg at birth. Unwanted pregnancies are more and contraceptive usage is low.

A significant recent study **'Motherhood in childhood: addressing reproductive health hazards among adolescent married women in India (2016) by Shraboni Patra'** Conceptualized the fact that most of the pregnancies among adolescent occur within the marriage. The study focused on the level and trends of adolescent pregnancy rate (per thousand currently married adolescent women) in India in the last two decades based on the cross-sectional data from three different periods DLHS-1 (1998-99) DLHS-2 (2002-04) and DLHS-3 (2007-08) sample taken was 18,709 pregnancies that occurred to 140006 currently married adolescent 15-19 years women. Factors determining pregnancy outcomes among currently married adolescent women in India .They used bivariate and multivariate analysis and found successful outcome of pregnancy is 88.9% whereas 11.1% pregnancy resulted is still birth (2%) and abortion (9.1%).The proportion of still birth and abortion is slightly higher among young adolescent than older.Still birth and abortion was higher among adolescents from higher in economic status and Hindu religion. Successful pregnancy outcome (live birth) was significantly higher among all married adolescents who had received delivery advice. Early pregnancy and reproductive health risk among adolescent married women: - pregnancy outcome showed higher complication among all adolescent women as compared to adult women aged 20-24 years. During pregnancy (62.4%) experienced complication among adolescent women than the adult women 59.9% p – 0.001). About 48% of adolescent women had major

problems related to pregnancy as compared to (45.3%, p< 0.001) adult women. Fetuses of adolescent women had more problems (9.7%) than adult women (9.2%, p <0.05).The study also shows adolescents had more problems during delivery (67%) at least one problem significantly more than the adult women did (63.1%, p < 0.001). The analysis concludes that both infant and maternal mortality care be reduced significantly if the married adolescent women could be better educated. It also found that small family should be adopted by postponing their first birth and further spacing. The paper could not bring out long term effects of the complications. It also highlighted undesirable outcomes of pregnancy among adolescents can be attributed not only to low maternal age but to their relatively disadvantaged socio economic background.

 A hypothesis was tested regarding the factors associated with delayed fertility (no experience of pregnancy by age 19 in the paper **Avoiding Adolescent Pregnancy : A longitudinal Analysis of African American Youth by** Steven M et al., (2013) .The purpose of the study was based on the social context of pregnancy and its significant implications for the well being of African-American young people. A sample of 889 African American Youth was recruited. The hypothesis which was tested include pre adolescence (age 11), health promoting environmental process and second is health promoting environmental process which is linked to nurturant – responsive parenting, which in turn would be linked to youths' conventional future orientations and risky sexual behavior in mid adolescence (16) and to pregnancy experience by late adolescent. 'Delaying fertility until adulthood has a profound impact on the course of young people's development'. It influences youth's short and long term well being and that likelihood that their offspring will grow up in poverty. The hypothesis was tested because it found that the influence of protective environmental factors on fertility supports as when the resources are adequate, communities were cohesive and low in deviance were associated with nurturant responsive parenting. This helps in the avoidance of risky sexual behavior in mid adolescence. So 'nurturant responsible parenting' can reduce the risk for externalizing problems that youth in disadvantage communities experiences. The study also suggests that peer affiliation also may play an important role with the youth affiliate. Responsible peers also reduce opportunities to engage in early sexual activity and gives protective behaviour. The study also recommends the usage of Biological parameters,

pubertal timing may play important role in the link between family relationship and reproductive strategy in adolescent.

The paper is based on African country scenario where out of marriage sexual behavior is higher while the scenario is different in India. In India adolescent pregnancy is more prevalent among married and living within the family structure.

In another African – American and Caucasian participants or African-Americans exclusively study titled '**Qualitative research on Adolescent pregnancy : A descriptive Review and Analysis' by Hila J. Spear and Sharon Lock 2003** a qualitative research on adolescent pregnancy drawn from 22 studies and included samples. On exploring factors influencing Pregnancy that Adolescents' shows those who enjoyed learning and are schools going, they delay early sex.

Another finding showed that females who experience social isolation, unrealistic expectations regarding home responsibilities, lack of control have greater risk of pregnancy during adolescence. Most of studies reviewed explored the adolescent's perception of pregnancy adolescents expressed negative perceptions of their bodies and self–edgy, "worried", "depressed", "lonely" and "moody". They described their changing bodies as fat, ugly and icky. Most of the study revealed that they hardly knew complications of preterm labour etc.

The study brought they are less equipped to deal with the pregnancy so mostly depend upon mother for care and support. Motherhood and influence of development on the maternal role as stated in another study. Motherhood during adolescence strengthened the bond between the mothers and their young daughters and led to increased dependence on the part of adolescent mothers. The study above highlights towards social isolation in family and a poor understanding of reproductive health and sexual issues makes them more vulnerable thus the bonding becomes of daughter-mother becomes more stronger during pregnancy. Adolescent Sexual health education needs strong communication network and linkages but family as the first 'Educator' is significant in Adolescent life.

A study titled **Facing the Challenges of Adolescent Reproductive Health - Is Counseling the Answer? By Suchitra N Pandit et al, 2006** 'Adolescents are faced with different choices in sexual behavior –premarital sex, early marriage or abstinence'. So lack of proper knowledge leads to various problems putting them 'at risk'. This paper

was conceptualized to determine and assess the level of knowledge and attitude of adolescent girls (11-19 years), to identify the source of knowledge and access and determine the need for structured counseling.880 adolescent girls from high schools and junior colleges of Mumbai, Pune and Manipal, Karnataka were included in the study. Focus group discussion and questionnaire assisted the study. Menarche was a shock to some and some had neutral feeling. Mothers, friends and school, provided the information to the adolescents. In many cases mothers explained the phenomenon of menstruation 'behavioral norms' rather than the scientific cause but sex education was mostly excluded. Out of the respondents, 52.8% teenagers knew that unprotected sex leads to Reproductive Tract Infection. Only 13.1% knew about symptoms of STI and 11% about RTI. Most of the girls voiced the need for counseling. It concluded by pointing the significance of counseling as well as mothers are the main informant for girls so parents also should be educated.

Adolescent girls in India choose a better future: an impact assessment, The Centre for Development and population activities (CEDPA) September 2001. CEDPA is an international not-for-profit organization whose mission is to empowers the at levels of society to full partners in development. The study compared BLP alumnae with similar control group of young women (15-26 years) who have not exposed to the program in peri urban areas –Delhi, Bharatia Grameen Mahila Sangh (MP and Gujarat).Results showed those girls who were exposed to the BPL program preferred to be married after 18 years compared to non intervention group. 90% of BLP learned vocational skills compared to 22% in the control group. 'Very significant differences emerged in the areas indicating socio cultural empowerment between BLP and controls. The program exposed girls traveled and moved to other places more than the non groups'. More than twice as many BLP girls compared to controls discussed family planning than with their husband than this shows programs helped to improve inter-house communication. So was the care with prenatal, delivery, and post natal care. The main number of children born per women in control group was higher (1.98) than the number born to BLP alumnae (1.73). The study concludes with the impact of the program was compound to empowerment, improved learning ability, age at marriage etc. It made significant changes in life. It also

directed to incorporate adolescent friendly reproductive health program which is beneficial for the upliftment of adolescent girls.

2.2 SOCIO-ECONOMIC AND DEMOGRAPHIC DETERMINANTS & ADOLESCENT HEALTH

Some research finding show measuring socioeconomic position at both the individual and family level may be important to understanding the full association between socioeconomic position and health for both men and women (Krieger et al. 1993). He further suggested that individual level socioeconomic position may most directly related to working conditions, whereas family-level socioeconomic position may be most directly related to one's overall standard of living. Community level socioeconomic conditions might be considered additional measures of a family's overall standard of living, and one that may be particularly salient for women who do not work and who spend a substantial amount of time in their community environment. Education has been proved as a powerful tool in health utilization and outcomes. It enhances for change and transforms the female autonomy. In a study undertaken in the urban slums of Greater Mumbai, to study the impact of maternal biosocial determinants on birth weight, it was observed that 52% of illiterate mothers gave birth to low birth weight babies suggesting that education plays a considerable role in preventing LBW (Singh N 2001). Nanda (2002) carried out a study on determinants of motherhood in teenagers and fate of their pregnancy outcome. Evidence from national family health survey stated that, 48.1per cent of teenagers were illiterate.45.1 percent completed primary school education, 39.3 per cent completed their middle school education and 33 per cent completed their high school education. Sharma *et al.* (2002) undertook a study on determinants of pregnancy in adolescents at BP Koirala Institute of Health Sciences. They found that, majority (65.7%) of the adolescents completed their education up to primary, and followed by those who were illiterate (18.6%). Only 2 per cent of them completed their higher secondary school education and no one completed the higher education. Dhak's (2003) seminar paper on complications in pregnancy among teenage women revealed that 61.4 per cent of the illiteracy which was found in adolescent group (15-20 years) as compared to the age group of >20 years (27%). Only 30.45 per cent of teenagers had 5th to 8th standard and 1.52 per cent had above 8th standard.

In India the stratification of social class (caste) is one of the strongest social determinants of health (Muherjee S et al., 2011). The socially backward classes Scheduled caste (SC), scheduled Tribe (ST), other backward caste (OBC), Nomadic tribe (NT) is socially vulnerable groups who are marginalized form rest of the country. According to NFHS 3, the only 18% of the births among SC or ST are conducted at a health facility, compared to 51% among women who do not belong to the above mentioned group. Various studies also show that contraceptive use is low among women belonging to SC and ST.

Sonalde Desai and Lijuan Wu 'Marriage patterns, kinship Structure and utilization of Maternal Health Care Services in India' 2006, highlights,'a great regional variation on utilization of maternal health care services across India'. This research further tried to understand the role of marriage and kinship patterns in shaping recourse allocation at intra house front and its influence on women's access to prenatal, delivery and post natal care. The review considered were a) marriage patterns characterized by 'village endogamy and consanguinity increase parental connections with their daughters resulting in social norms whereby women are valued more in community as a whole' b)'village endogamy and consanguinity increase individual women's contact with their parents an social support networks'. It was undertaken during 2004-05,detailed information from 40,000 households on prenatal care, delivery, a and post natal care for the last birth (15 to 49) and at last one live birth since January 2000. The study found significant variation on utilization of maternal care among across regions, even after controlling for the individual, household and health service access factors. It also explained if women are social support networks play an important role, women who marry in their natal villages, or married to (cousins or uncles) and those who deliver at natal homes are more likely to get maternity care. 'Addition of these factors to individual equations will substantially reduce the community and regional variation in maternity care'. 'If community norms have an independent effect on women's access to health care, even after controlling for individual level marriage an kinship pattern will account for substantial regional variation in maternity care'. Another point was if parental social support is the primary mechanism by which gender and kinship structure affects women's access to health care, where exogamy is followed the use post natal care reduces with utilization of delivery care.

Report Socio – economic condition of Adolescent girls: A case study of Backward District of poverty dominated states. by Prof (Dr) Ajil kumar Sinha ,2006. This study deals with the socio-economic conditions of adolescent girls on the basis of data collected from sample survey of 800 adolescent (1890 respondents, 1530-adolescent, 180 boys and 180 parents/guardians) from backward districts selected under Rashtriya Swayam Vikas Yojana, Planning Commission.   The study concentrated on backward states with backward concentrates the selection of Uttar Pradesh, Madhya Pradesh, West Bengal and Jharkhand while some from Punjab, Haryana, Chhattisgarh, Rajasthan, Bihar and Orissa. The results shows:-

The problems identified of the adolescent girls (AGs) were two fold as far as schooling is concerned.

- The reason for missing out schools was more among adolescent girls. The reason shows that 40% of times as adolescent girls miss the school for household needs. The other reasons being sickness, temporary earning activities.
- The survey pointed out domestic violence more against adolescent girls in all districts.
- 64.6% of the adolescent girls reported sexual abuse of at least one type at home are very common. And it also suggests that among 95% were the post abuse normal reaction of AGs father/mother/guardian/husband is that in oppressive measures rather than supportive.
- When enquired about the AGs most fears shows that if given a chance, AGs would like to choose to be born as boys in next life (496) and 963 relatives said they would like to change the way society and religious looks at the girl child in the family. So anxiety is more among family and society.

The consumption of food show great disparity among AGs in case of egg, vegetables, mutton, chicken/fish, pulses, sugar and the beverages/appetizers. The average calorie has been compared with given stipulated. 2060 calorie requirement per day for AGs.88% AGs found undernourished in the total 1530.BMI showed 44.3 %AGs are under weight excluding 41 overweight cases. Although in the survey not many AGs were married but the age at marriage range from minimum 12 years – 20 years. Those who were married said decisions were mostly conveyed to them rather than "being consulted". The

perception and awareness of AGs show that they mostly engage themselves in 'non productive 'activities. Socioeconomic inequalities manifest across individual, communities and societies in health.

It is a hospital based Prospective study titled **'Teenage Pregnancy : A socio demographic study at a Rural Medical College Hospital in Southern India by Indranil Dutta et al, 2014** aiming to analyze the socio-demographic factors of teenage pregnancy compared to adult pregnancies. The cases of all teenage girls admitted in Rural Medical College Hospital in Karnataka (Fist Nov 2010 to 30th Dec 2012) were included mothers belonged to 19 (62.5%) while adult primigravida common group is 20-24 years (85%) in the study. Mean age of Marriage in Centre for development and population activities shows 16 as compared to 18.7 in urban areas. In Nepal it was 16 yrs and this study showed 17.4 years. The interval between menarche and marriage, 52.5% of teenage primigravidal got married within 4 years of menarche compared to 37.5% for adults. Most of them had non-consanguineous marriage. Most of the teenage mother (53.5%) haven't had primary education itself compared to 8.1% in adults. 47.5% (teenage) and 72.5%(Adult) belonged to middle and lower socioeconomic class while 43.75% belonged to low socio economic class compared to 15% of adults. The paper brings out that teenage pregnancy is a multifaceted problem, it demands multidimensional solutions.

When we look at multifaceted problem, we cannot overlook the exhaustive survey 'National Family Health Surveys' using huge data and variables. This is also a major source of authentic data regarding Adolescent Pregnancy. So I have also incorporated some published reviews pertaining to my subject.

A study on **'Association of Maternal Age and low Socio economic status of women on Birth outcome' by Gogoi 2014** pointed teenage pregnancy as a public health problem. 'Teenage pregnancy is a major public health problem showing poor socio-demographic consequences while poor socio-economic status shows the effects of weak national and local economic on health outcomes and limitation of resources on health outcomes and limitation of resources which may reduce the availability of good quality health, services, including obstetric and neonatal'. It explored the risk of adverse pregnancy outcomes associated with young maternal age and poor socio-economic status in India based on secondary data available from third round of NFHS-3 which was conducted in

2005-06. Only women less than 20 years of age group and lower socio-economic strata were selected.

The study shows that the percentage of women aged 15-19 who were mothers were 12% and 4% currently pregnant with their first child. 'It meant one in six women (15-19) have began child bearing'. The percentage increases from 3% (among 15 years) to 36% at the age of 19 years. Child bearing is twice in rural areas as compared to urban areas. It also brings out that young age mothers were about five times more for women whose household wealth index was lowest than that of women from highest wealth index. Around 35% women aged, less than 20 years experienced premature birth and that is decreasing with increasing in age of women and found a positive association with complication. The proportion of LWB and small size at birth is higher among young (27 and 26 percent) (x ^{2}=5.3; p<01) mother respectively. This differential is more among rural compared to urban women. Logistic regression shows age is a significant factor of poor outcomes i.e. premature birth and very small size at birth baby. Adult mothers are less prone to the above problem. Regression also shows there is association between wealth index and poor health outcome. Study concludes with a note defining 'teenage pregnancy' as a serious problem and lack of knowledge regarding sexual health and health outcome needs proper sex education.Another study conducted by **Audinarayana (1986)** showed on the influence of age at marriage on fertility and family planning behavior. This cross-cultural study revealed that the mean number of children ever born and surviving was 4.37 and 3.57 respectively for those who had married when they were 13-18 years of age. Whereas the number of children significantly decreased to 3.35 to 2.98 respectively when the woman's age at marriage was 20 years and above .In Scathe's study (1987) on, the adolescents in India, a status report revealed that the adolescent mother has at least 2 children by the time she reached 20 years of age.

Various reviews on occupation show that majority of the adolescent mothers are either unskilled or semiskilled or housewives. Singh *et al.* (1995] mentioned earlier, their results revealed that majority (86.7%) of adolescents were housewives followed by those who were unskilled workers (9.4%) and skilled workers (3.9%) respectively .Sharma *et al.* (2003) mentioned earlier, stated that, majority of the (83.1%) adolescents were housewives. Only 16.9 per cent of the adolescents were employed. In Indian urban slum,

which has the largest concentration of poor, even though the legal age remains but in the study slum 40.5% of male got married before 21 years and 55.5% of females before 18 years. The paper **'Reproductive health in urban slums: Agrawal et al., 2006',** health, educational status, and age of marriage in urban slums of Bhopal (MP) two hundred female slum dwelling couples who were the beneficiaries of self help groups formed by NGO Sahyog were interviewed. By the time they reach the legal age they already have one child. Efforts are being taken by Government through various means like NGO. It also found even though in 1997 the fertility rate of MP was 4 but in the study 26% of couples had four children and 22% had even more children. The study also projected that 31% of the female did not go for antenatal check up due to physiological reason or they were scared that the outsiders will know about their pregnancy, religious beliefs and lack of time as most of them were working. In the study we could even realize that there was gap between delivery of health services and to the receiving end, delivery conducted at home by dai even though Govt. hospital was situated nearby, poor knowledge of Contraception.

Socio-demographic characteristics such as type of family, size of the family, religion, caste and number of children were reviewed here, as they may influence the reproductive health and pregnancy. Sharma et al. (2002) mentioned earlier reported in their study that majority (67.1%) of the adolescent respondents lived in joint families which was slightly high compared to the adult group (64%).City based study from Kanpur district of Uttar Pradesh aimed at study to assess the changing composition, structure and practices in urban area of Kanpur city. So families were purposely selected from middle socio economic strata for the study titled '**A comparative study of changing Family Composition, Structure and Practices in Urban area of Kanpur city (U.P.) Ragini Mishra et al.,2012'.**The result shows that 81.25% family were nuclear , where as only 18.75% were joint. Role, power and status in families were decided according to age and gender . Majority Families were monogamous and endogamy.Most of the families preferred arranged marriage, rather than love marriage. The paper concludes that there is radical changes in the composition family structure (role, power and status and familial relationships) and family practices (marriage patterns and other family practices) .

2.3 ADOLESCENT PREGNANCY: IN URBAN SLUM SETTING

Rapid urbanization in developing countries like India evolved many public health problems shaping in urban dimensions and thus Maternal and Child health faces many challenges. Poverty and other social disadvantage translate into poor urban health. National Urban Health Mission document draft (2008-2012) highlighted poor quality of health services, limited knowledge of users about health services, financial barriers, limited physical access or cultural practices, social dynamics such as household decision –making and women's autonomy plays a pivotal role in Maternal and Child health services. Urbanization has lead to the increase in population, where in people are pushed to live in slums. This situation is further worsened by the fact that a large number of urban poor are living in slums that have 'illegal status'. Slum population 'face greater health hazards due to overcrowding ,poor sanitation, lack of access to safe drinking water and environmental pollution' (Planning commission 2002-2007) .The above situation is reflected in the poor health indicators, as per the reanalysis of under 5 mortality rate (U5MR) among urban poor is 72.7, significantly higher than the urban average of 51.9, sixty percent of the children miss complete immunization as compared to urban average of 42 percent, only 18.5 percent poor household have access to piped water supply to the urban average of 50 percent, among urban poor, 46.8% women have received no education as compared to 19.3% in urban average statistics. 44% of urban poor deliveries are institutional as compared to urban average of 67.5% (Reanalyzed NFHS III data by Wealth Index).

In a research paper on 'The 21st century health challenge of slums and cities' by Elliott D Sclar et al., 2005, shows that 'One of the key 21st century challenges in population health is the challenge of improving the global urban condition'.

The paper included some fact about the urban slum and cities:-

a. 'Poorer families consistently have higher birth rates, and most rural- urban migrants in low and middle income countries are poor.

b. Communicable diseases are major problem in urban population specially slum. 'Close to half the urban population in Africa, Asia and Latin America has one or more of main communicable diseases associated with inadequate water and sanitation provision-including diarrheal diseases and worm infections.

c. Studies of pregnant urban women in sub-Saharan African capitals have shown particularly high HIV/AIDS rates: nearly 12% in Rwanda, 18% in Malawi, 22% in Zambia, and 24% in South Africa, nearly 33% in Botswana, and 39% in Swaziland.

d. Poor urban women also have much higher fertility rates than other urban or rural women.

e. Poor women are less likely to use contraceptives than other urban women, and again in some regions (e.g. Southeast Asia) their usage rates resemble those of rural women.

f. When poor urban women give birth, they are less likely than other urban women to have these births attended by a physician, nurse, or mid wife and are at high risk of contracting sexually transmitted infections, including HIV/AIDS.

g. Steep barriers to accessing quality health services and emergency services, especially for slum dwellers, often make it difficult for poor urban residents to prevent and treat these debilitating health problems'.

The paper concluded that government should design health service outreach, improvement of public health infrastructure reaching to the poor, health education programs, more understanding of treatment-seeking behavior of urban poor. ' *If the growing health burden on urban poor, national governments and global society in general will simply accumulate a massive "health debt"* so should take preventive method from now on.

Urban slum and urban poor

When coming to Indian scenario, in a research article titled '**Reproductive morbidity in an Indian Urban slum : need for health action .S.Garg et al., 2002'**conducted in an urban slum of New Delhi covering an area having total population 3676 with adverse sex ratio of 635 females per 1000 males and 13.6% single men. This study is a part of the research titled "A socio epidemiological study of symptomatic and asymptomatic reproductive tract infections among women in an urban slum" funded by Rockefeller foundation under the South East Asian Initiative in Reproductive health Majority were migrants from Uttar Pradesh and Bihar. The objective of the study was to access the prevalence of various RTI among married women in the urban slum setting using

peripheral (field level) and laboratory test. In total 446 married women in the age group of 15-45 were included in an interventional study. Demographic profile shows 72% illiterate, low family income (> 2000 rupees), mean age of marriage 15.2 (3.2 years), mean age of consummation of marriage 16.2 (2.6) years, and mean age of first child birth 18.4 (2.8/years). A total 29% had a history of abortions (Spontaneous or induced). As per the clinical examination of 334 women, gynecological morbidity was reported low backache, (64%), vaginal discharge (57%) low abdominal pain (42%) menstrual problems (26%) urinary complaints (20%), prolapsed (10%) infertility (8%) and genital ulcers 3% women. This clearly shows that gynecological morbidity was reported by 88% women. **Another study** on the situation of reproductive and child health in urban areas noted that there were consistent differences in antenatal care (ANC) coverage between slum and non-slum areas. While 74% of women in non slum areas received 3 or more ANC check-ups, only 55% of the women in slums did. This study also found that 27% of infants in slums had a low birth weight compared with 18% of those born in non-slum areas. In addition, there were significant differences in health access among those living in 'recognized' and 'unrecognized 'slums. So was the difference in institutional dlivery (Kapadia 2002).

The neonatal survival status also is not very encouraging in a study titled, '**Urban Slum – specific issues in neonatal survival', Armida Fernandez et al., 2003** on Urban Slum – specific issues in neonatal survival. It highlights that "The Urban poor are at the inter-face between under development and industrialization". The paper explores various components of health viz – Neonatal mortality and Maternal health and its related issues, health care delivery and other problems. The paper finds the existing measures directed at improving neonatal survival in urban slums under various titles – Issues of utilization of health care services. The urban slums do not have problem of accessibility – the presence of traditional practices, lack of awareness of the need of antenatal care, fear of hospitals, attitude and behavior of staff and the cost of hospitals are deterrents to hospital care. Fertility rates are also higher in slums than in urban areas' (Chandrasekhar, 2010).

Autonomy and Maternal Health seeking among slum populations of Mumbai by Zoe Mathews et al., 2003. The Mumbai safe Motherhood survey consisted of 652 women who had delivered a baby within eight months (1999-2000) .The survey aimed to

determine the extent of women's autonomy during pregnancy and the post partum period to identify any existing relationships between empowerment and maternal health care seeking in six slums.

Autonomy related Reproductive health behavior: well documented the links patriarchal kinship and economic system, women's status and use of health services and its link to mortality and morbidity, female education and mortality, family structure and kin relationships all these implies direct measures of autonomy. The study also found where the women's husband is not the head of the family, their women's access to resources is less. Autonomy and obstetric period model:-3 key care seeking indicators –Three or more ANC visits, Planning a hospital delivery & At least one PNC (within 3 months of delivery) .For antenatal care (ANC) gravida, education, residence before marriage, exposure to television and which family has responsibility for the delivery are the strongest associated factors, although access to resources is also important and highly significant. 'Birth preparedness is more linked to locality and less to autonomy'. Major finding is 'age structure of the family' is significant i.e. if older women in the same house have higher odds of planning a place of delivery (e.g. hospital), post partum care seeking has much fewer associated factors. The discussion brings that in Asian context autonomy is not a useful concept and not desirable for women. In a society where relationship are embedded in family situations and lives are interrelated to the extent that individual decision making is almost not possible/ The study points to the need of or locality based autonomy from the study.   Another is replacement of Health Belief model with community belief model. Need for "Social network analysis/ can also reveal network to inform healthcare seeking and comparative qualitative work will be useful in understanding gender relations in different areas".

 When we speak on urbanization and urban poverty, it comes to our mind did this urban society gave way the ideology of rural society or is it just an extension or there is rural urban continuum. **'Traditional values and lifestyle changes among women in an urban slum of Lucknow', Saumyata Pandey 1994.** The present paper is based on the field work done in urban slum of Lucknow focusing the changes that have crept into or have been adopted by women in these localities. The study examines and reflects the agents of change – migration, sanskritization, urbanization and modern means of

communication that are evidently visible in traditional values and lifestyle of women living in this slum. The importance Hindu tradition is deeply rooted in India's caste system which plays a key role in organizing society. The caste system though has not been eliminated as whole, but has been reduced in its role on the parameters of occupation and notions of purity and pollution. The field work clearly shows market forces are aggressively working in these slums and among the not so educated women. Tradition like 'annaprashan' and matrimonial ceremonies are not at all practiced or have lost their essence in migrating from rural to urban areas, while festivals like 'Karwa chouth' and Navrathri pooja which were never a part of their culture are increasingly gaining importance. The women in these areas have almost shed the practice of purdah pratha. A radical change has appeared in food habits and clothing.   An increasing craze of going to beauty parlour is quite noticeable though the impact of modern means of communication, globalization and commercialization have been rampant but these have also showed a positive influence by spreading awareness about family planning, health and hygiene and educating their kids to some extent. A significant fact noticed in this locality is that women are quite aware about rights, privileges and laws made for them. All these facts revealed that various organizations working in slums have also played an important role in bringing about a change. Despite many change of varied types patriarchy still dominates the lives of women. They are still subordinated to patriarchal set up and lack cultural and social autonomy. Though some minor shift is noticeable due to economic contracts and growing awareness but it cannot be said that women hold a rightful place. On the contrary aspiration to be equal to the upper caste has eroded the cultural autonomy of lower caste in the sense that blind imitation of upper caste has resulted in loss of their identity.

Migrants settle where they have many reasons including where jobs are available or where family and friends from earlier migration are settled. An operational definition of urbanization by G.S Ghurye (1969) urbanization means migration of people from village to city and the effect of this movement upon the migrants and their families and fellowmen in the villages. K.L Sharma in his book 'Social structure and change' (2007) stated that since caste, joint families and folk culture continue to coexist in India's towns and cities, urbanization is not coterminous with westernization. There is a valid

distinction between village and city in terms of two ethoses of life, cultural patterns, socio-cultural groupings and modes of earning. However structural similarities between two in regard to pattern of caste, kinship, rules of marriage and observance of religious practices. Thus, villages and towns cannot be seen as dichotomonous entities, they are interlinked and yet distinct from each other. In both developed and developing countries, the urban poor have the highest health risks (WHO, 1995) and migrants account for most.

 M**igration**

'Health effects of migration' Maria Kristiansen, 2007 has been written in the background of rising migrants in Denmark. The article is based on a study first published in Ugeskr Laeger 2006; 168, 3006-08. It narrates migration may have negative health consequences due to physical and psychosocial strains experienced by migrants throughout the entire migration process. "There is often a selection in the people who migrate, as migrants are often healthier and younger than the majority in their countries of origin. This is called the healthy migrant effect."

Migrants often live in a 'social context' daily they are exposed to new challenges and demands Skills and adaptability. Some of the difficulties faced by migrants are unemployment, discrimination, loss of social status and change of roles, e.g. within the family. "Social network especially may be of importance to migrant's mental health and health behaviors. Lack of social support, large geographic distances to members of the social network and high expectations from relatives in the countries of origin are sometimes additional stressors leading to mental health problems and risky health behavior among migrants". They lack knowledge regarding the risk factors, morbidity and psychosocial needs. The study suggest the need to design more adequate health services and need for cross sectional and cohort studies as well as intervention studies. It presented more targeted intervention including inclusion of migrants, may improve psychosocial circumstances with positive health effects

In Indian scenario 'The puzzle of Marriage Migration in India' by Scott Fulford Oct 2013 shows "Marriage Migration in India is almost entirely understood despite a vast size and a growing consensus that women play a crucial role in education, health and economic development. This paper tries to provide an insight on the geographical extent, on how for the women move and how it has changed over the time. This paper is the first

to provide broad evidence to understand the determinants and extent of marriage migration.

The study concentrates significantly to enhance our understanding of migration in India based on new information from large nationally representative surveys and census information on all the 600,000 Indian villages. 'Migration was found irrelevant to hypothesis that female migration is strategy to help smooth consumption for agricultural families'. Equalizing the sex ratio could also was found to play a minor role by the pull factors of imbalanced sex ratio. Another model concluded that the districts where women have lower literacy rates, marriage migration is higher, travel on migration are longer, women marry younger, and are more likely to be subjected to violence in the marriage. Another model is stronger caste or religious fragmentations means the endogamous groups are smaller so there are fewer options. So the model predicts, in districts that are more, accepting of marriage between related spouses, fewer women migrate, they move less far, they marry older, and they are treated better with in marriage. The paper quotes Banerjee et al., (2009) and suggests that migration, marriage and cultural practices interact in complex ways. It also used geographical search model "In the North, the value placed on women is lower as judged by higher rates of violence, lower education and lower autonomy". When parents place a low value on having an unmarried daughter, they search hard to marry her off. So marriage migration will be frequent, distances large and marriage will occur more quickly. The paper concludes that selective abortion, maltreatment and excess mortality of girls and women and the pervasive malnutrition and poor health among children acknowledges the central demographic fact that few women in India live where they are born while most man do.

Urban helath services

The urban poor and their accessibility of urban health services face more challenges than any other sector. 'This is on account of their being "crowded out" because of the inadequacy of the urban public health delivery system. Ineffective outreach and weak referral system also limits the access of urban poor to health care services. The social exclusion and lack of information and assistance at the secondary and tertiary hospitals makes them unfamiliar to the modern environment of hospitals, thus restricting their access. The lack of economic resources inhibits/ restricts their access to the available

private facilities. Further, the lack of standards and norms for the urban health delivery system when contrasted with the rural network makes the urban poor more vulnerable and worse off than his rural counterpart' (NUHM document draft 2008-12) Poorer families consistently have higher birth rates, an most rural-urban migrants in low income and middle income countries are poor (Millennium Development Project, 2005) .Various studies have been reviewed and brought out on the poor accessibility , provider choice ,quality care and improvement and traditional methods .

On exploring a study **'Examining inequalities in uptake of maternal health care and choice of provider in underserved urban areas of Mumbai, India : a mixed methods study** Glyn Alcock et al.,2015 to quantify the determinants and choice of maternity care provider in Mumbai's informal urban settlements, and to explore the reasons underlying their choices.

The study used sequential mixed-method design i.e. first they examines baseline censes to describe determinants of maternal care and then used grounded theory methods to examine women's choices and utilization of provider. Age group used 15-19 with selection 18 years and over who were currently pregnant or had given birth in the previous 2 years. Data collection Sept. 2011 – March 2013 (18 months).3848 women who had delivered a baby were included in the study.

Respondents were mostly Muslim (83%) falling in the age group 20-29 years (74%) and 56% had one or two children. Institutional maternity care seeking was high (94%) made three or more prenatal visits and 85% had a facility delivery. There was a preference for tertiary (Municipal or state) hospitals across all socio economic positional although preference of private hospital increased with higher economic status.

Exploring options for health care providers, they sought information from relative friends, neighbours to identify suitable provider. The suitability was characterized 'convenience, affordability, quality and expected health outcome.

Economic and social status pervaded health care decisions. Municipal hospitals are cheaper and the money can be used for household expenses. Easily transportable and managed with household chorus is preferred. Avoidance strategies usually involved discontinuing case with the provider if behavior of the health care provider is not satisfactory.

The study contributes to an understanding of disparities in utilization of institutional care in poor areas by considering the complexity of factors that influence uptake and choice of provider across public and private sectors. So families engage in a 'complex decision making processes, mediated by their ability to mobilize social and economic resources in an attempt to ensure positive experiences and outcomes of care'.

Another study titled **'improving access to quality care for female slum dwellers in urban Maharashtra, India: Researching the need for transformative social protection in health.** Jorts Michielsen et al., 2011 presents that despite some world class hospitals in urban sector still poor urbanites have inadequate access is the theme of the paper. 'Although the quality health facilities in Mumbai and Pune are plenty, slum dwellers do not benefit fully from these and rely on private health providers'.The study was based on focus group discussion with the members of the social protection in health (SPH) and in-depth interview with the provider and challenges faced by women during their health seeking process.The study was based on Bourdin's theoretical concepts on field, capitals and habitués. *Bourdien and the Reproductive of Inequalities during the health Service encounter.* Bourdien 1990 defines social practice as an effect of actions and interaction of agents struggling in point arenas (Fields) over resources of stake, social positions that legitimate domination and the power to set out the rules of the game in order to survive and ultimately pursue wealth, profit, power and distinction. Based on this concept three organization were shortlisted to participate in the study. Study was conducted from April to June 2009.All the participants came from poor or moderate poor family. Even though they were all poor but did not possess a ration card. By using Bourdien's theoretical concepts, this study shows that a more subtle reproduction of social inequalities and domination in the medical field where an interplay of 'habitués' and in the end the female slum dwellers are either to forego treatment or to by ineffective care from exploited private providers.

The symbolic power of money i.e. quality of payable services is better, is strengthened by 'slum dwellers' low level of health literacy a form of 'cultural capital' which seems essential in the public sector.The paper suggested that 'financial empowerment' will help the slum dwellers to act successfully within the unequal structure of power in the medical field as buying lower quality from opportunistic but patient friendly private provider. It

also suggests the need for transformative SPH intervention to address the power imbalances in society that create and sustain the social vulnerability of poor people which seeking health.

To provide patient friendly provider, review points the need for special urban health exclusively to deliver urban sector in the paper '**Need for dedicated focus on Urban Health within National Rural Health Mission.S.Agarwal K.Sangar (2005)'.**The study brings out the need to include urban population in the scope of National Rural Health Mission (NRHM). It is an important public health initiative to provide essential health needs of the country's unserved population. With the growing urbanization, urban poor population has reached to nearly one third of Indian's population. In Urban public sector 'health delivery system, especially for poor, has been inadequate'. The paper brought some systematic factors which are inadequate in the existing Health delivery system so far like –Lack of organized public sector infrastructure and services in urban areas, higher allocation for bigger cities, Poor access and utilization despite proximity and Poor living environment. The other factors related to urban poor are illegality of slums, weak social fabric temporary migration and floating population, weak stakeholders and inadequate political and civil society consciousness. Various recommendations were made to improve health of urban poor by strengthening National Policy, urban health delivery to be strengthened and improvement in private sector.

Primary Health care in Urban Slums by Kapadia-Kundu Nandita and Kanitkar Tara (2002). This paper addresses the underdevelopment of the urban health policy in Maharashtra, which has more slums, yet the primary health care is at neglect. The health status in slums is presented in three sections-women's health, child health and emerging issues like HIV/AIDS and TB. The data was collected by Godbole and Talwalkar comes from 8575 women, who had delivered within 12 months or less of the survey. The study found Anemia is an underlying cause of morbidities and severe anemia's a cause of maternal mortality. Breast feeding within the first hour is only 16% in slums. A study conducted at Bhosari hospital for 1,797 shows (Khilare, 2001) showed 83% were anaemic. The percentage of anaemic pregnant woman increases to 89.6 percent for unrecognized slums. Research conducted by Institute of Health Management (IHMP) Pachod in 27 slums of Pune indicates that women suffer from preventable morbidities.

This furthers adds 68% women harbor negative gender attitude among them as a result of the process of socialization. Violence against women and Post abortion complication is reported with preventable morbidities. Another study (PMC, 2000) quoted 'the use of spacing methods in non-slum areas in about three times higher (31.8 percent) compared than in slum areas'. Breastfeeding within the first hour is only 16 percent in slums. The proportion of low birth weight babies is substantially higher in urban slums (27 per cent) than in non slum areas (18 percent). While a study in Pimpri chinchwad area done by Khilare (2001) found the proportion of LBW babies born from slum and non slum like areas ranged between 26 percent and 27 percent. The paper suggested the need to provide basic primary care services to unserved population, address the fast growing urban population an uniformity of norms for municipal corporation and councils.

2.4 SOCIOLOGICAL REVIEWS

Age variables such as age at menarche, age at marriage, age at first pregnancy/delivery, and time interval between pregnancies or birth spacing are reviewed here as they exert their impact on the reproductive health status of the adolescents. 'On the Construction of Gender: Hindu girls in Patrilineal India' by Leela Dube 1988 pp 11-19 : Leela Dube conceptualized this paper by raising certain questions on the process of socialization of Hindu girls through rituals and ceremonies. It has collected information from various regions of India. 'In patrilenal India the commonly held idea regarding the roles of father and mother in procreation is that man provides the seed-the essence-while the woman provides the field which receives the seed and nourishes it'. 'Gender roles are conceived, enacted and learnt within a complex of relationships'. She narrated to understand this relationship and implication one has look into family structure and kinship .Family structure means not just a function of demography, but marital residence ,normative pattern and replacement within the family and the 'configuration of role relationships'. She further added 'Kinship is not merely a moral code but provides the organizing principles which govern the recruitment and placement of individuals in social groups, formation of family and households, residence of marriage etc'. Kinship and family structure are tied up with caste. The male child is of great significance .A boy born to a family is a matter of great joy and pride. They narrated that bringing up a girl is like watering a plant in other's courtyard. The construction of feminity prepubertal phase:

shows it is a continuous, complex an occasionally contradictory process. The movement of girl from natal to is complimented by the notion of purity of prepubertal girls. Many rituals are attached to signify the girl from the evils eyes. The construction of feminity pubertal phase: In many Indian languages menstruation is likened to the process of flowering or blossoming 'her body full', 'it is ready' are common. Puberty rituals are done with great pomp in some places while hidden from publicity to waive off evils eye. Many does and don'ts are attached to the girls with avoidance of certain food. All this is done to contribute towards future fertility and make child bearing smooth. Whichever state, region or place they belong it is impossible for young girls to escape marriage. 'Marriage signifies good fortune and a state of bliss'. Terminology like *saubhagyavati,suhaagan, sumangali to woman and bridegroom gets chiranjevee or ayushman* are used commonly .This shows vulnerability of young girls and the emphasis on purity and restraint in behavior.

Feminity and Sexuality: Body Space and Time –She explains 'a girl is at her most vulnerable between the onset of puberty and marriage. Marriage has to be carefully controlled in a caste society concerned with the maintenance of boundaries'. In northern states also all taboos of behavior is taught from childhood to prevent her from behaving like a prostitute.

Process or training tasks and ideology: It is difficult to speak of a single pattern of gender based work within the family and outside. All household choruses are distributed to female and outside work to men. There is distinction between feminine and masculine work comes from early childhood onwards. Eating after male members, eating the burned one and giving the fresh one all are the self-restraint and codes of conduct for women in the socialization process. 'Women's concern that girls should internalize proper attitudes and modes of behavior as a part of their training to become women and the different notions regarding requirements of male and female bodies often combine to make a significant difference in nutrition for males and females'. All these are embedded in the 'patrilineal patrivirilocal kinship'. She concludes 'the structuring of women as gendered subjects through Hindu rituals and practices is fundamentally implicated in the constitution and reproduction of social system characterized by gender asymmetry and overall subordination of women'.

Sonalde Desai and Lijuan Wu 'Marriage patterns, kinship Structure and utilization of Maternal Health Care Services in India' 2006, the study is based on the fact that, 'there is a great regional variation on utilization of maternal health care services across India'. This research further tried to understand the role of marriage and kinship patterns in shaping recourse allocation at intra house front and its influence on women's access to prenatal, delivery and post natal care. The review considered were a) marriage patterns characterized by 'village endogamy and consanguinity increase parental connections with their daughters resulting in social norms whereby women are valued more in community as a whole' b) 'village endogamy and consanguinity increase individual women's contact with their parents and social support networks'. It was undertaken during 2004-05,detailed information from 40,000 households on prenatal care, delivery, a and post natal care for the last birth (15 to 49) and at last one live birth since January 2000. The study explored various literatures with reference to the hypothesis:-

Regional Variation on Maternity Care and Determinant Factors was divided into Socio economic; Access to health facilities and Gender empowerment. Household level socioeconomic factors like education, income consumption of consumer durables all often goes unnoticed. If infrastructure is adequately developed transportation becomes easier for pregnant women to be transported with health attendant to reach the hospitals in time. Social inequalities play an important role like closeness to their natal family in the developing countries .Various references quoted Basu 1990, Jejeebhoy and Sathar 2001 attributed the regional differences to cultural differences on gender norms across regions while marriage norms and practices were left unexamined.

Why would Marriage and Kinship Matter?

'Empowerment factor' was explored through various reviews suggesting due to gender inequality the wealth and resources do not necessarily trickle down to women. 'Data suggested that the main reasons reported by women for not using maternal health care services are the lack of perceived need to use such services'. And in a society where women hold a subordinate position, it is very likely that women's health also holds a very low demand. Different marriage pattern have different modes of impact for married women on their social interactions. Exogamous marriages generally uproot women from their natal home while endogamous binds the women with their natal home.

Consanguineous marriage is even more supportive of women because of long-term ties of kinship and affection between the two families. So endogamous and consanguineous marriage are favourable for women regarding utilization of health care services. The study found there is significant variation on utilization of maternal care irrespective for controlling variables like wealth, household structure, urban/rural residence, health service access factors etc. Good social support network play an important role for good maternity care. Parental social support is the primary mechanism by which gender and kinship structure effect then also as woman move to natal home, study quoted showed it will provide better support for delivery and post natal care but not prenatal care. Community norms if has independent effect on women's access to health care, even after controlling individual level marriage and kinship variables, 'addition of community level marriage and kinship will account for substantial regional variation in maternity care'.

Age at menarche

Center for Development and Population Activities (2001) mentioned earlier, quoted that according to the nutrition foundation of India, the average age at menarche among adolescent girls was 13.4 years (Sathe A.G 1987).

Early marriage

In most countries of the SAARC region, nearly 60% of all girls are married by the age of 18 years with one fourth marrying by the age of 15 years. In India, every third adolescent girl in the age group of 15-19 years is married. Mean age at marriage among female adolescents is 14.7 years and mean age at cohabitation slightly higher 15.5 years (Narayanan.P, 2000). Teenage pregnancy age 15-19 in Maharashtra, 14 percent have already begun childbearing, a little lower than the national average (16%). Young women in rural areas are twice as likely to have begun childbearing as young women in urban areas (18% and 9%, respectively) (NFHS- 3).More than half of the women in Maharashtra have had sexual intercourse by the time they are 18 years of age, while half of the men have had sexual intercourse by the time they are about 24 years. Among youth 15-24 years of age, women are much more likely than men to have ever had sex. The earlier age at sexual intercourse for women than men is a consequence of the fact that in Maharashtra first sexual intercourse largely occurs within marriage and women marry at younger ages than men (NFHS-3).This has been shown to increase with the educational

status and the standard of living, both of which are more likely to be compromised in the slum setting. Moreover, women who marry at a young age are likely to find motherhood to be the sole focus of their lives, at the expense of development in other areas such as formal education, training for employment, work experience and personal growth. **Early marriage of girls in contemporary Bengal: A field view Biswajit Ghosh 2011 points** out the problem of early marriage of girls still continuing in India despite legal and social interventions to prevent such crimes committed particularly on girl child. Study highlights, practice of child marriage is common from traditional times. The study had used three sets of data for understanding and analysis the issue. First census, socio-economic profile of the study area, qualitative technique of FGD to collect from stakeholders and third thirty three in-depth interviews of local stakeholder was done in Malda (one of the eighteen districts of West Bengal). The study showed the rate of field estimate of child marriage is more than 80 percent. There is a strong relationship between child marriage and caste/community background i.e. people belonging to Muslim, SC, ST and other backward classes (OBCs) commonly observe the practice. Tables shows scarcity of essential facilities like pucca road, higher school, health centers, nonfarm employment. It also toils to explore in depth why still the incidences are prevalent in Malda. One causative factor like patriarchy, poverty, illiteracy, lack of security of the girls, dowry and lack of awareness are dominant factors leading to child marriage in West Bengal."What is interesting was to note is that the Malda study has for the first time revealed that perception of daughters about the reasons of child marriage differ strikingly from those of fathers, mothers and elders" The other table shows "Views of parents and elders stress on the stereotyped reasons of child marriage while daughters see it from a new angle we need to analyze the implication of such differences with sociological epistemology." The study also revealed the behavior of early marriage in not just poverty but patriarchal values and institutions influence this pattern greatly. Another reason came out is to protect the chastity and virginity and tremendous pressure to minimize the risk of any untoward incidence or improper sexual activity through early marriage.

The age old traditions still follow rigid caste system including exogamy. In the same way practices of "cross cousin and parallel cousin marriage among Muslims of Malda" was also present. It added "the role of a girl is defined in terms of marriage and reproduction.

It further included social institutions of family; kinship caste and religion govern the parental concern." The paper suggests that to track the early marriage, the role of peer group and schooling creates a constructive environment for construction of alternative identities among adolescent.

In an edited volume of **Gender and Health: An International Perspective explains** on the cultural construction of pre-menstrual and menopausal syndromes (Davis 1996) and the hegemony of technologies in the women's birth choices (Davis –Floyd 1996) because of these reasons early marriages still looms in Adolescent girls life in India at large. There is a gender gap in education reflected by the 20% gap in literacy between boys and girls overall. School dropout rates are also significantly higher for girls and since disaggregated data is not available for literacy rates in urban slum settings, it can only be assumed that the situation would be far worse given the fact that there is lack of awareness among parents, frequent migration, lack of resources and the compulsion to earn livelihood and assume household responsibilities in childhood. Indian society is largely stratified by gender and patrilneal descent and women's autonomy in terms of decision making, mobility an access to and control over resources is constrained (Jejeebhoj S et al., 2001) Gender equity, including female literacy, education an decision power, is closely linked to reproductive health(Sen, 2001) .'**Gender scripts and Age at Marriage in India by Sonal de Desai 2010'** opens up with a message that research on marriage in developing countries has been somewhat narrow because of the conceptual and data limitations. 'Many feminist literature have recognized marriage as a key institutional site for the production and reproduction of gender hierarchies', but a little is known about the process through which this relationship operates. This study tried to develop a theoretical model linking gender and marriage. Since marriage is a deeply personal behavior literature focuses on society and individual choices – several literature reviews was explored on various heads.

Gender : A multidimensional construct

Three distinct but interrelated streams of literature have interesting implications, one rational decision making where in household respond to external constraints in ways by which the household benefit more. Empowerment theories which focus on households, social institutions, markets and the state as the sources of patriarchy. The last is

performance theories which suggest men and women engage in a visible display of gender in which a stylized mode of interaction may indicate dominance.

Economic context

The other concept used is Rational decision making theories which imply that parents respond to economic incentives and constraints as they choose "optimal marriage timings' for their daughters. Wedding expenses, dowry also influences the economic consideration of timings of marriage.

Empowerment of women

In contrast to the feminist scholarship on empowerment pays close attention to intra household inequalities. The paper brings out literature which corresponds that marriage decisions remains in the preview of family. The literature also explains the "measurement of various ways to women's autonomy like access to housing titles, rental agreement or household expenditure etc."

Gender Scripts

The gender empowerment studies directs towards 'intra household divisions' and exercise of gendered power. It has referred Kaufman's(2004) performance theory – a subset of a new semiotic school of sociology of culture – allows us to focus on the ways in which social actors use culture to fabricate meaning in and of their own life. The quoted shows that secluded women may retain substantial power in the household and women with considerable freedom of movement may not find that freedom translates into control over economic resources.The research strategy relies on the substantial variation in both timing and different dimensions of gender across India.

Descriptive statistics for the variables were included in this analysis from 383 districts. It included household module to 33,510 ever married women aged 15-49 with a two level hierarchical model using statistical program. In trying to understand time of marriage by symbolic interactions' literature shows "early marriage is part of a script in which gender is performed by women through a symbolic display of segregation, modesty, and chastity and early marriage is part and parcel of culture in action. The study's theoretical arguments suggest that gender scripts emphasize segregation between men and women and value 'decorous" and "modest" behavior on the part of women are also associated with early marriage in India, but it do not produce empirical evidence to differences in

gender scripts and second "are these scripts immutable, or does the onslaught of globalization dilute their importance.

Adolescent pregnancy: a culturally complex issue by Theresa Braine 2009 Ethiopia is a country where most of the girls are married before the age of 15 years in violation of Ethiopian law which permits 18 years as the legal age. UNFPA has initiated program to delay marriage and intervention. 'Adolescent pregnancy is a major contributor to both infant and maternal health problems and mortality'. James E Rasen, who has been conducting research review at WHO says, "adolescents require special physical and psychological attention during pregnancy, child birth and post natal period for preserving their own health".11% of all birth born to adolescent women. There is regional variation. Half of the burden falls born in 7 countries – Bangladesh, Brazil, Democratic Republic of the Congo, Ethiopia, India, Nigeria and USA. Various problems like obstructed labour, uterine rupture, obstetric fistula etc occur in early adolescent mothers. The main reason of adolescent pregnancy pointed poverty as 'vicious cycle'. In Western European countries where there is better access to family planning and sex education there are fewer teenage pregnancies. One of the lowest adolescent pregnancies (4 in per 1000 women) is in Netherlands where sex education begins in primary school.

Associations Between Early Marriage and Young Women's Marital and Reproductive Health outcomes: Evidence from India By K.G. Santhya et al., 2010 used data from 8,314 married women aged 20-24 living in five Indian States,obtained from substantially representative study of transitions experienced by youth to see and compare marital, reproductive and other outcomes between young women who had married before the age 18, and those who had married later. The survey was conducted in rural and urban areas of Andhra Pradesh, Bihar, Jharkhand, Maharashtra, Rajasthan and Tamil Nadu. The study uses quantitative and in-depth interviews with selected survey respondents. The study group 15-24 (married and unmarried women), unmarried men aged (15-24) married (15-29) rural and urban areas were treated as independent sampling domains. Result shows nearly two thirds (63%) of women married before the age of 18, the minimum legal age of marriage for females in India. Those married earlier were less educated than their counter parts. Respondents who had married early were somewhat likely to have worked before marriage. Compared to women (aged less than

18) or older, the timing of marriage was less consulted so as choice of spouse, before marriage, i.e. 63% of young women who had married late reported that their parents consulted them. Age at marriage was associated with most of the measures of the marital relationships "for example young women who had married early were less likely than those who had married late to report regularly discussing with their husband both issues related to their in-laws and those related to spending money (74% vs. 78%). Early marriage was associated with reduced levels of autonomous decision making and self efficacy. Many decisions like purchasing cloths, (73% young married vs. 78% married late). Decision making (67% vs. 72%), confidence in expressing opinions (25% vs. 33%) etc. In all the three reproductive outcomes, they differed for example, use of contraceptives to delay the first pregnancy (3% vs. 11%), having first delivery at health facility (45% vs. 70%) and young women who had married early were more likely than others to have had a miscarriage or still birth (17% vs. 9%). The association shows strong influence to prove their fertility soon after marriage. Another finding indicates that early marrying women were more likely than other women to consider wife beating justifiable. This association may reflect that women who marry at young ages tend not only to have traditional family background, but also to have gendered socialization experiences while growing up that continue to color their gender role attitudes. They may be less likely to have been exposed to modern ideas. It also suggests that young who had married early were more likely than others to have experienced at least one pregnancy loss, a finding also observed in other settings. The study further suggest the need to explore association between elevated risk of pregnancy related complication among women who become pregnant at a young age or differences between early and late marrying women in the adoption of preventive care practices and the utilization of health care services during pregnancy. The data is drawn from the 'Youth in India' situation and needs study conducted in six states of India from rural and urban settings and respondent included unmarried women and men and married women aged 15-24 and in view of the paucity of married men in these ages, married men aged 15-29 .The study was conducted in Maharashtra in 2006, covering 7570 married and unmarried young women and men titled **How early marriage compromise girls lives, Maharashtra :Youth in India : Situation and needs 2006-07, Policy Brief No.6 IIPS and**

Population council 2008.The finding of one of the most progressive state shows that one in 10 young women was married before the age 15 and over one third before age 18.Young women in rural areas were twice as likely married of before 18 as urban young women. About four in five young women marry with no formal schooling were married before age 18.

Young women's involvement in marriage related planning shows young (below age 18) were less likely to have consulted related to timing of marriage or choice of spouse or acquaintance with their spouse-to-be. Evidence of violence within marriage was also more common among those married early. Young married women are less likely to have made decisions independently on personal matters such as choosing friends, taking decision independently, confidence in expressing opinion to elders etc. Early marriage also adversely affected young women's contraceptive and pregnancy related experiences (delay first pregnancy 6% vs. 15%) and at least one pregnancy loss (18% young married vs. 12% married late).

Young married are less informed about sexual and reproductive matters (8% early married & 27% married later) .The program suggested more intensive involvement of children in decision making related to marriage. Support newly needs young women with multiple challenges like reproductive health as they fall in the vulnerable groups.

Another research paper on 'early marriage in Ethiopia: Causes and health consequences' by Bogalech Alemu, 2006 Early marriage is mostly common in sub Saharan Africa and southeast Asia. It is rampant in Ethiopia at national level, 62% of Ethiopian women aged 20-49 get married before the age of 18. This is a comparative studies conducted in 2004 identified the Amhara region as the highest prevalence with 48% of rural married and 28% urban married women having married before the age of 15. 'Even though early marriage is a violation of fundamental rights of the child, still the prevalence is high'.In 2006 pathfinder International/Ethiopia conducted a study on the incidence, reasons for and the personal and social consequences of early marriage in both urban and rural areas of Amhara region. A total 2,072 women and girls age 12-49 participated in the qualitative research. Focus groups involved (parents) and unmarried adolescents (boys and girls) key informants – knowledgeable persons in the study areas including health and social workers, teachers and religious and community leaders. More

than 55% of the ever married women interviewed reported having been pressured into marriage by fathers (91%) and mothers (88%), followed by community elders (22%).60% women were not informed about their wedding, 72% not consented while 75% did not know the groom before marriage.

Causes of Early Marriage: Despite legal sanctions against marriage before 18, still early marriage is common. "The strongest reason for early marriage in the desire or need to maintain the family's good name and social standing". "For men in particular, the success of their children is a measure of manhood and community status, and a daughter's success rests in her making a good marriage and linking her family to another family".

Consequences for health and well being: Early marriage has severe consequences like marriage instability, termination of education, high fertility and vulnerable to HIV infection etc.The paper suggests the need for more longitudinal studies to strengthen the body of knowledge and for the development of theoretical models of adolescent pregnancy.

Gender

In the chapter **Gender and Health** from the **Hand book of social studies in Health and Medicine, g**ender behavior a biologically based risks interact to produce health and illness. Very few studies like to cultural and political construction of gender rates to morbidity and mortality'. Two landmark studies that do link the socio cultural, political, epidemiological and clinical aspects of Gender and health are Lock's work on menopause in United States (Locke 1986, 1993) and Inhorn's analysis of infertility in Egypt (Inhorn 1993, 1996) as quoted by Lane and Cibula (2000: 138) .They further added Locke shows that in United States salient features of menopause are hot flashes do not even have linguistic correlates in Japanese. Inhorn demonstrates that the cultural imperatives to have children become a quest for infertile women, who undergo expensive and risky treatments in the hope for conceiving'. This in the end make a women vulnerable in the hands of halers who in turn exploit the 'women's fragile fertility'. In south India, women's reproductive health seeking behavior was correlated positively with freedom of movement and decision making power but these effects more movement and decision making power, but effects were attenuated when the investigators controlled confounding factors such as age and education (Bhatia and Cleland 1995).

Falling sex ratio and Health deprivation of women in India: An interface between Resource, culture and genderKailas Sarap et al., 2013 highlights the socio cultural variables that reduce the role of women in decision making, both within and outside the household resulting in unequal access to resources including health care facilities." It depicts power relations within the household resource allocation and gender constitutes important dimensions of the socio cultural and political context within which interacts between health service providers and users take place. "Patriarchy manifested in son preference and daughter discrimination reduces the survival chances of a girl child". There are various study quotes showing child survival linked up with property , inheritance, dowry and high marriage cost. There are various states where there is prevalence of infanticide and sex selective abortion. 'Patriarchal male leadership' in the family and community's support is at the root of the phenomenon. Safe and cheap technology for sex determinates of foetus increased the girl child elimination.'Cultural factors are influenced by economic factors'. This high cost of marriage (i.e. dowries) presses the problem deep inside. Moreover under patriarchy, the earning of woman is not shared by natal family members. Gender discrimination in access to nutritious food was revealed by National Family Health Survey (NFHS3) Antenatal care visits, postnatal care visits, delivery assisted by health personnel influence the mother's health, pregnancy related mortality, and new natal mortality to a large extent. Premature mortality among children, maternal mortality and natality conditions lead to following sex ratio –Low sex ratio   implies unfavorable live chances for females. High mortality as well as poor natality among women adversely affects the sex ratio.

In the concluding remark, the study comments the women related policies also are ineffective in translating their impacts at individual level due to the slow changing cultural bias against women. Multi-dimensional strategies are required to reduce intra family and community level, gender discrimination.

'Economics and Sociology of Son Preference in India' by Bhavna Hammad 2013, the paper deals with son preference over daughter in very common countries like India, China, South Korea, Pakistan, Bangladesh and Middle East. Economics plays crucial role in son preference because of economic utility, expenses made on son's are receivable in the form of dowry, girls educational spending then becomes of waste as it

later goes to the other family. Men are mostly bread earners and even the labour market.Sociology of son preference in India: In India, socio-cultural norms, beliefs, traditions rituals and customs are the major causes of son preference over daughters. Parents are worried about the chastity and family honor. 'Kinship also favour son'. In northern, Indian kinship girls became a part of someone's' extended family away from natal village, while in South it is quite different, they are married within village or cross cousin, or male niece to have longtime relationships.

Why women prefer sons?

Literature shows that the status of the women is raised if she bears a son. Men while gradually start withdrawing from being involved in family decisions as they get older and women her son holds the reign of home management. Preference of son is enumerated in the Hindu religion and texts thus degrading women's position. So the paper suggests taking strong inclusion of economic religion tradition customs while addressing the issue.

Another research on 'Son preference and its effect on fertility in India by Rangamuthia Mutharayappa et al., 1997, this report brought various statistical evidence that most Indian couples have a strong preference for sons over daughters. The report has used 1992-93 data of NFHS in the most 19 populous states. The first analysis whether there is Evidence of son preference shows ideal number of sons exceeds the ideal number of daughter by 20 to 80 percent in all states. It is strong in northern states exhibiting more in Haryana and Rajasthan. It also affects the family planning behavior. In every state, women with two sons are more likely to use contraception than one woman with two daughters. Boys are breastfed for a slightly longer period of time than girls in India as a whole. Poor feeding practices are frequent episodes of disease often resulting in malnourishment of children.Mostly in South Asia female mortality is more than male mortality in all ages. Age specific mortality rates also shows females higher than male in every five year of life but in the first year of life mortality rate is slightly higher for males. Residence and son preference: In every State except Kerala, a large majority of rural women with three daughters continue child bearing within five years. The same is followed for urban women in most states, but only half of urban women with three daughters continue child bearing in West Bengal, Goa, Andhra Pradesh, Kerala and Tamil Nadu.Education and Son Preference: Among women with two surviving children,

parity progression is lower among literate women than among illiterate women. But the difference is higher if women have two surviving sons, which means that the effect of son preference on fertility is greater among literate than among illiterate women. Among the states with total fertility rates between 2.0 and 3.0 children some (notably Himachal Pradesh, Punjab, Gujarat and Maharashtra) exhibit very large effects of Son preference on fertility where as the effect is much smaller in other states notably West Bengal and most of the states in the Southern region.

Whether sex determination, falling sex ratio or disappearing daughters play a role in determining Adolescent Pregnancy? **'Disappearing daughters and Identification of Gender Bias : Evidence from two villages studies in South India'.T.V. Sekher and Neelambar 2010,** The enquiry study puts, is there any significant shift from 'Son preference' to daughter discrimination? Amarty Sen's, 'More than 100 million women are missing' on gender discrimination by analysis male –female ratio, B.D. Miller's anthropological study on neglect of female children in North India illustration on strong relationship between culture and mortality brought out .The study focuses on how does fertility decline and Son preference manifest at Village level particularly the sex selection techniques at low cost.? Qualitative study method was used in studying in two villages in low fertility region of South India FGD qualitative data received were pooled together and synthesized to arrive at conclusion. Mandya District was a low fertility region of Karnataka. The two villages show that son's are preferred compared to daughter. The important factor is the will to limit the family size is evident across communication and 'Smart couples' achieve the desired family size and desired sex composition of children together 'Rampant usage of latest technologies to abort foetus is found prevalent. As narrated by a literate women, "had these clinics were available 30 years ago, many of us would never had seen the world". This 'technological effect" is mainly the culprit for the elimination of fetuses and the powerlessness of village women in a patriarchal society is equally to be considered. The study also brought out that dowry had a significant impact on how parents value the work of boys and girls even today. The interacting features which come out that the two peasant communities (the Vokkaligas and the Kongu Vellala Gounder) belong to affluent peasant community with increasing living standard. So they are in a look out for a "well qualified son-in-law" with large dowries. Both villages

accept small family norm with deliberate choice between a Son and a daughter "Son would mean inflow of wealth and while daughter implies financial drain" the paper brings out a kind of sanskritization process, meant to practice of dowry payment has permeated to the landless lower castes, thus increasing the expenses of marriage of daughters. The girl is female fetuses are increasingly being 'victimized' on the basis of their sex alone, even among 'affluent communities'. Medicalization of technology has become handy for sex determination and female fetus being victimized. Patriarchal system still plays prominent role in women's life affecting the decision making and autonomy.

Another research on Tradition and Technology in precluding Girl child in India by K. Gulam Dasthagir 2015 shows 'Anti-female bias permeating across the world has perhaps percolated in the perpetuating of awful practices of gendered selection at birth in India'. Many studies have been produced documentary evidence regarding prevalence of female infanticide in Tamil Nadu, Bihar, Orissa, Rajasthan and Maharashtra. The author has tried to explain the roots and perpetuation of women preclusion at birth in India linking up with theories of 'Globalization and Tradition', Universalization and parochialization' put forth by Marriott (1955) and Giddens (2004) respectively. 'Anthony Giddens advocated traditions is not only still alive but is also resurgent. 'Traditions can also be defended in a non-traditional way'. The cultural roots of obviating females:-The study explains there are many cultural beliefs which reinforce the predominance of 'Son Cult'. The reasons be pointed out through various studies for lighting the funeral pyre, generate income and to provide physical strength in the form of muscle power to the family. The patriarchal values receiving the due legitimization from the social structure create the condition sufficient for discrimination at birth on the basis of sex. Furthermore female children are looked upon as a burden on the family and Indian values idolize that the pre eminent duty of every parent of a daughter is to get her married.The paper explains "The practice of elimination of girl child that characterized rural communities is carried forward to urban communities establishing "the continuum of tendency' to preclude women into the modern society". "Marriot generalized that technological innovations in eliminating females culminated in the universalization of women preclusion from traditional to modern society while greater access and lower cost of

reproductive medical care lead to the parachialization of female foeticide from urban to rural as well as from the elite to the poor sections of modern India."The study also explained the greater the modernization and globalization, the higher the expression of the tendency of women preclusion with the continuum of the practice of eliminating females at birth from infanticide to feticide.In the concluding remark, he points out the most crude form of practice of patriarchy percolating into "the tendency to eliminate females from society"

This article is written in the backdrop that in the "Andean region of Latin America over one million adolescents girls get pregnant every year." The article '**Adolescent pregnancies in the Amazon Basin of Ecuador: a rights and gender approach to adolescents' sexual and reproductive health 2010' by Isabel Goicolea** explores adolescent pregnancy from a right and gender approach, under that an assumption is made motherhood would be better understood as events embedded into the broader area of girls sexual and reproductive health and gender relation and uses previous studies of the same region. Social institutions such as family, school health and welfare services highly influence capability to exercise sexual and reproductive rights. The study was conducted in the Province of Orellana located in Amazon Region of Ecuador. 70% live in rural area and 30.4% are indigenous people. Qualitative and quantitative methodologies were used 2025 women aged 10.44 answered questionnaire. Matched case control study (140 cases) i.e. any pregnant adolescent living in Orellana at the time of study was included. The two approaches include the rights approach and gender approach .The study tries to understand the need and embody of 'female body'. Pregnancy is connected with many phenomenon that belong to sexual and reproductive health like sexual intercourse, sexual relations, contraceptive use, maternal care, abortion, reproductive morbidities and sexual abuse etc. All this are interconnected to better understand the experience of pregnancy."Moreover all those events occur in a particular time and place, and those circumstances affect not only one isolated female body but many others that share the same time and setting , transforming it into a public health issue" Adolescent pregnancy is an individual experience and may differ greatly from one girl to another. Logistic regression analysis identified four factors suffering sexual abuse, during childhood, having initiated sexual intercourse before the age of 15,

living in a very poor household and experiencing life periods of a year or longer without mother and father.The study challenged individualistic approaches that emphasized girl's sole responsibility on pregnancy prevention but highlighted factors such as poverty, parental absence or sexual abuse. Social determinants of sexual reproductive health issues also relevant in the study. Poverty and absence of parental support were associated with adolescent pregnancy. 'Influential institution' where gender regimes were displayed is marriage. As in all the above papers it projects patriarchy and role of gender has strong hold in institution, tradition, culture and decision making so what is the perception of male regarding pregnancy. **This paper 'Adolescent men's attitude in relation to pregnancy and pregnancy outcomes: A Systematic review of literature from 1980-2009 by Lohan Maria et.al., 2010** compiled research article reviews more than 50 studies and highlights the need for research on adolescent man's attitude to unplanned pregnancy. Various electronic data bases were used with the use of various search engines. A total of 1,160 papers were identified from the electronic data base. The adolescent men viewed an unintended pregnancy as negative impact with adverse effects on future and their goal. If the decision of abortion only some men agreed with it. The paper emphasized that a greater understanding of adolescent men's prospectus could lead to a reframing of adolescent pregnancy and further more inclusion of adolescent men would lead to more effective adolescent pregnancy prevention and counseling programs.

Early conception

Age at marriage is a significant indicator in a women's life with overall completed fertility and its relation with the status of women. Early sexual activity means early pregnancy when she is not biologically matures increasing the risk of morbidity and mortality during pregnancy and child birth (Jejeebhoy, 1996). Anita Raj et al. 2010 conducted a study in India by the Institute for Population Sciences and Macro International in 2005 and 2006 showed high fertility control, and poor fertility outcomes data within child marriages. 90.8% of young married women reported no use of a contraceptive prior to having their first child. 23.9% reported having a child within the first year of marriage. 17.3% reported having three or more children over the course of the marriage. 23% reported a rapid repeat childbirth, and 15.2% reported an unwanted pregnancy. 15.3% reported a pregnancy termination (stillbirths, miscarriages or abortion).

Infant mortality in Maharashtra is much lower than in the country as a whole and in most other states. The infant mortality rate is currently estimated at 38 deaths before the age of one year per 1,000 live births, down from the NFHS-2 estimate of 44. The under-five mortality rate is 47 deaths per 1,000 live births. These rates imply that 1 in 27 children still die within the first year of life, and 1 in 21 die before reaching age five. Infant mortality in rural areas of Maharashtra, at 50 deaths per 1,000 live births, is more than twice that in the urban areas of the state (22 per 1,000). Children born to mothers under the age of 20 years are much more likely to die in infancy than children born to mothers in the prime childbearing ages. Infant mortality is 59 per 1,000 for teenage mothers, compared with 40 for mothers age 20-29.Having children too close together is especially risky. 'The risk of death in the first year of life is more than four times as high for children born less than two years after a previous birth than for children whose mothers waited four or more years between births' .Children whose mothers have no education are more than three times as likely to die before their first birthday as children whose mothers have completed 10 or more years of schooling (NFHS-3).

Age at Conception:

'Impact of Maternal age on obstetric and neonatal outcome with emphasis on primiparous adolescents and older women: a Swedish Medical Birth Register Study'by Maria Blomberg et al., 2014 analysis the obstetric and neonatal outcomes of all singletons, primiparous women prospectively registered in Swedish Medical Birth Register (MBR) who has given birth from First Jan 1992 through 31 Dec 2010. More women underwent normal vaginal delivery and fewer caesareans was seen among teenage mothers and 20-24 age group women increased fourfold for Caesarean compared with adolescent group. Prematurity (<28 weeks of gestational age at birth) was associated with very low maternal age (< 17 years) and there is some level increased risk among women aged 40 years and above. The results are based on 1992-2010, 798732 women were registered in the MBR as giving birth to their first child. The annual number of primiparous women varies between 34060 and 49417.

Compared with the reference group the teenagers had significantly higher onset of labour and of having normal vaginal delivery. Teenagers also had higher risk of premature birth.

Only a group of teenager less than 17 had in increased risk of giving birth very prematurely that is before (<28 weeks of gestational age) and significantly higher risk of placental abruption)

Concerning the fetal and neonatal outcomes for adolescents, the newborns were less likely to show fetal distress and neconium aspiration. The newborn were not prone of being still borne or small for gestational age.

Age group 20-24 years of age is less likely to deliver prematurely and lower frequency of placental abruption. As the age increases, obstetric outcome continuously deteriorates. Normal vaginal birth decreases, induced labour, instrumental deliveries and caesarian section increases as well as prematurity i.e. premature deliveries. The risk of perineal lacration increased moderately.

The likelihood of pre eclampsia, abruption placenta, placenta previa was also higher among older age groups. Fetal and neonatal outcome was adversely progressively influenced by increased maternal age. The paper concludes that there is a need for individualizing, antenatal surveillance and based on obstetric care based on age grouping in order to have better outcomes.

'Social   Disadvantage as a Risk for first pregnancy among adolescent females in the United States' Krishna et al., 2011 was designed and undertaken to find differences in determinants of pregnancy at different stage of adolescent development and to develop prevention strategies. It was hypothesized that as the age of adolescent increases, socio economic disparities, in the rate of teen conception decrease. The methodology included from National Survey of Family Growth Cycle 6. Outcome variable included first pregnancy at < 15 years, 15-17 years or 18-19 years. Independent variables were race and maternal education level/logical regression was used to calculate the relative odds of first conception.

The result shows that a total of 7643 women aged 15-44 participated. Mean age was 30 years old. Black race was 15.1%, 8% were categorized as others were excluded from analysis, rest white race.

2.5 % (weighted estimate) conceived before 15, 14.2% reported between ages 15-17, and 16.6% reported first pregnancy at age 18 or 19 using regression the result suggests that

the factors related to social disadvantage contribute relatively more to teen pregnancy in early than they do in later adolescent.

The result also suggests the risk for pregnancy is more generalized and these can be related to development process. The paper also brought the rates of sexual activity. Majority of pregnancy occurs among 18-19 years old.

There is reduction in teen (18-19) pregnancies since 1990 have been modest compared with those in the younger groups of teen (17) Abortions were unreported by women in the NSFG. The abortion cases "less clear from the previous studies that women's reluctance to report the outcome of abortion affects their report of their number of pregnancies which is target of analysis".

Cultural practices

This paper attempts to explore the different ways in which women from an urban resettlement area mobilize knowledge, resources and support system in negotiating patriarchal control of their pregnancies through different structures of authorities – family, biomedical institutions, and the state **'Experiencing Pregnancy: Negotiating Cultural and Biomedical Knowledge' by Aastah Kant 2014** was conducted in the resettlement colony Poorvinagar which was established in 1976 after demolishing illegal slums in various parts of Delhi. The inhabitants were from different states migrated for varied reasons. These colonies were given basic amenities – like safe drinking water, electricity, paved roads, drainage system, parks site for community centers, places for religious worship, and medical facilities. A state funded biomedical intervention was started by National Medical College and Hospital in 2002 on Maternal and Child Health adhering to the Medical Council of India Guidelines. The findings shows as the experiences of these women, their pregnancies were controlled by both traditional authority structures and power structures of institutionalized biomedicine. It was seen that Women's first pregnancy focus to control and also support as they were seen as inexperienced and invested with much expectations to prove fertility and produce a male heir. Food Intake: 'It is well established that general norms and practices govern intra-household distribution of food, both in terms of quantity and quality.'First pregnancy is allowed relaxations of cultural norms governing intra household distribution of food. The pregnancy women are expected show carving towards food which is regarded as

expression of fetal desires. During first pregnancy, women tried to consume both culturally and bio medically prescribed food to ensure that the foetus is healthy and safe.Once this woman has proven their fertility, they could assert themselves during the second and subsequent pregnancies. Physical mobility: Pregnancy is seen as a stage which is particularly susceptible to the influence of supernatural forces.

2.5 HEALTH DETERMINANTS OF ADOLESCENT PREGNANCY

The phenomenon of motherhood primarily requires conducive and healthy physiological environment. And when the phenomenon is 'Motherhood in childhood', then this environment is often not assured leading to complication both in the medical front as well as in social front. Mothers are vulnerable early marriages leading to early teenage pregnancy with unplanned fertility, anemia, abortion, reproductive pregnancy, poor utilization of health services, and poor access to contraceptives, reproductive morbidity and morbidity as so on. Mothers at this age are vulnerable to several customs and beliefs that hamper the access to household resources and autonomy. Motherhood or a woman's maternal involvement starts with pregnancy, prenatal care (ANC) and intensifies with giving birth (delivery), post natal care, infant management, health care and the socialization process. Various researchers have included literature on determinants of health such as political, social, macro economic and cultural factors .Three cultural perspective on the use of maternal health services suggest that medical need is determined not only by the presence of presence of physical disease but also by cultural perception of illness (Marmot, 2005). Sharma et al., (2001) in their study in Nepal among primigravida women revealed that only one half of the adolescent pregnant women had registered during the first trimester compared to 69 percent in the adult group. An Indian study base on hospital records found that assisted delivery is less among teenagers than other women (Ambadekar et al. 1999).

 The paper **'Adolescent Health Determinants for pregnancy and Child Health outcomes among urban poor' Mehra and Agarwal 2004** is divided into sections on nutritional, Biological and Social determinants of adolescent health, which contributes to the poor pregnancy outcomes both for young mother and her infant. 'Adolescent among the urban and rural poor has a high incidence of chronic energy deficiency (CED) and

anemia, more so in girls than in boys'. The paper pertains to urban slum and the data is collected from varied sources.

Determinants of Adolescent Health.

Nutritional determinants : The paper quoted from the study of UNICEF 'Early marriage, child spouses : Innocent Digest' that the adolescent mother is mere likely to be malnourished if she belongs from urban slum, affecting the nutritional needs of pregnancy and will affect the growth of fetus and hence the birth weight. Various studies on Anemia show more of the primary contributors to maternal mortality (20-25%) and can be significantly associated with a compromised pubertal growth spurt and cognitive development among girls aged 10-19. NHFS-2 data shows 56% of the adolescent girls in the age group 15-19 are anemic in India. Chronic Energy Deficiency: 'Young adolescent mothers have a lower body mass index (BMI)'. Since the BMI increases markedly during adolescence as pubertal changes occur. It quoted a study from Varanasi urban slum that 70% of girls aged 13-18 years had BMI <20, 51.4% suffering from CED as 10% were stunted.The birth weights of newborns appear to be linearly correlated with both maternal body weight and height. The paper quoted a study done by kusum JA et al: poor   maternal nutritional status is associated with poor lactation performance and poor growth in infants.

Biological Determinants: Studies quoted show significant increase in incidence of prolonged obstructed labour and hypotonic uterine contractions in adolescent pregnancies. Joshi and Pai, a study included from organized slums of Mumbai have shown direct association between maternal age and Low Birth Weight (LBW).

Social determinants: This paper has explored early child bearing, age specific fertility rates, literacy, socio-economic States and gender inequity. About 23% of married adolescent girl's age 15-19 years has second order of birth. The age, specific fertility rate (15-19 years) in India has shown to be the highest at 145 (births/1000 woman age 15-19 years) in poorest urban quantiles (most likely to be residing in slums). Literacy: In a study undertaken in the urban slums of Greater Mumbai, to study the impact of maternal biosocial determinants on birth weight, it was observed that 52% of illiterate mothers gave birth to low birth weight babies suggesting that education plays a considerable role in preventing LBW. Socio economic status: The lower socio-economic status of the

mother is also associated with low Birth Weight babies. Gender inequity: shows school dropout rates are significantly associated. School dropout rates, are also significantly higher for girls also. Access to Health Services: The analysis of NFHS-1 shows over two thirds of deliveries occur outside the health care institutions. Outcome of Pregnancy: The outcome recorded by various studies are spontaneous abortion, higher still births rates, frequently encountered complications during pregnancy , one-toxemia of pregnancy, eclampsia, preterm labour, cephalopelvic disproportion. Fetal distress during labour, respiratory distress syndrome (RDS), icterus and trauma (birth injuries) have been reported more frequently for offspring of teenagers. Recommendation include on strengthening of surveillance and data base for urban poor, formulation of comprehensive national strategy, establish adolescent counseling and guidance centre etc.

'Teenage Pregnancy' by Shruti Subhashi Reena and Wani 2008 : It was a retrospective observational study carried out by BL Nair Hospital Mumbai from June 2006-june 2007 (one year) taking into consideration age group 10-19, marital status, antenatal problems, and operative intervention during delivery and medical termination of pregnancy. The percentage of teenage pregnancy was 4.41% out of the total 3213 pregnant patient. 94.35% adolescent was married and only 5.63% unmarried and 33% were only below the age of 18 years. High incidence of iron deficiency was found in teen pregnancies. 57.74% had spontaneous vaginal deliveries, 21.12% LCS (out of total 323 cases 20.13 had LCS at the same period). The incidence of obstructed labour and cephalopelvic disproportion was more 11.97% compared to the general. Medical termination in 1st and 2nd trimester teenage was 9.15% compared to 5.07%. 9.84% had still birth or spontaneous birth among teens (general 6.97%).

Antenatal care (ANC) and Post natal care (PNC)

'Antenatal care (ANC) and Post natal care (PNC) both are equally important for a women's health and well being. Post natal period is crucial for detection and treatment of infections that contribute to nearly 15% of mortality' (Pandhya et al.,2013) .Indian Public Health Standards (IPHS 2007) emphasize a minimum of two PNC visits within a week after delivery, one within 48 hours. NFHS-3 (2008)stated 38% PNC coverage as compared to 77% ANC and other studies and reports depict poor PNC coverage in the

country (NFHS -2, 2000). Pandhya et.al. 2013 further quoted from various reviews that PNC is neglected in other developing countries also.

The paper titled 'Quality of Antenatal Services in District Agra' Anjali Jain et al., (2011) conceptualized on the basis that most of the mortalities and morbidities among women during pregnancy, delivery or post partum period or due to chronic conditions are preventable. It was a community based cross sectional study undertaken in the urban, rural and urban slum of Agra district. This study was conducted during 2008 an enrolled mothers who delivered within last three months. The registration of ANC varies in urban and rural areas, 61.7% urban slum and 52.5% rural mothers. The urban elite, full coverage was 80%while in urban slum and rural it was only half. The coverage of IFA tablets was also discouraging (Rural 56.1% and Urban slum 45.6% respectively). The difference was found statistically significant. Full antenatal package i.e. three or more antenatal checkups, two doses/ booster of TT, ≥90 days IFA given was consumed by only 6.3% mothers. All the examination like PV examination, abdomen checkup, assessment of weight and eyelids, BP, blood, urine were more among urban elite compared to urban slum. In urban area, nearly half of urban mothers had blood and urine examination(53.1% and 46.9%) while in rural areas less than one tenth mothers had got it done (9.5% and 7.9%) and these percentages in urban slum were 36.5% and 14.9% respectively. These examination were also statistically significant with recommendation for improvement in health facilities, effective training on capacity building, enhancing referral system and better coordination between community and government may give more impetus to the program. 'The fifth Millennium Development Goal (MDG 5) states that maternal mortality should reduce worldwide by three quarters between 1990 and 2015'.Antenatal care (ANC) and Post natal care (PNC) both are equally important for Reproductive health of a women. In this backdrop '**Access to postnatal care (PNC) as determined by socio-demographic factors: A study in Maharashtra' Padhye RP et al., 2013'** was designed on the basis that maternal deaths are rooted in PNC period. It was conducted in rural and urban setting Maharashtra between Nov 2005 and September 2009 in Mumbai city and ten districts of Maharashtra to access gaps in access to health care, caste, gender, geographical

location and Household asset index. It used exploratory study design with stratified sampling to interview 285 women about obstetric services received within the reference period. Out of 285 respondents, 259 (9%) had undergone at least one ANC visit whereas 33% have received PNC. 25% had received all components like ANC, institutional delivery and PNC. 7% delivered at home, 42% at public facility and 50% in private health facility for delivery. 'Out of 31 women who had delivered through caesarean section, 84% received PNC against 28% who had a normal delivery'. PNC services decreased with the number of delivery. Association between PNC and socio demographic factors like 28% rural and 43% urban received PNC, majority woman belonged to other community 43%, ST 21% and SC 29%. The study shows that access to PNC services is dependent on obstetric factors (mother's age and parity) and social factors (caste groups).Another study on '**Delivery and Postnatal Morbidity among women in urban slums in New Delhi' by Supriya Mayank Goal and Nita Bhandari, 2008'** is on postnatal period, the time required by a woman to recover from the effects of childbirth. (six week after delivery). 'This period is significant in country like India where there is high birth rate and poor spacing between births'. The study was conducted between April and December 1997 in Dakshinpuri one slum on the outskirts of Delhi. Out of 1704 pregnant women included an additional 841 women identified at greater than 28 weeks of gestation and 863 identified less than 28 weeks. The study population comprised of young women mostly aged 20-29 years, of which one third never went to school, 89% were Hindus, the current pregnancy was first for one third women, 7% had a history of at least one still birth.

Data on delivery and postnatal morbidity prevalence, perceived severity and treatment seeking shows the average health problems during the delivery period per women was 0.54 (95% cl = 0.50 to 0.58) . Life threatening delivery related morbidity is excessive bleeding during delivery, prolonged labour and convulsions among 9.3% women. Approximately 2.3% of women suffered from perineal tear, of which three had a recto vaginal fistula. 41 still births were recorded of whom 8 babies were malformed and 5 were breech deliveries. Average number of reported post natal deliveries was twelve percent. During the study period 11 women died .Women were

significantly more likely to report at least one health problem during the post natal period if they had suffered from any morbidity during delivery (p<0.006). The association of antenatal morbidity in a current pregnancy increased the probability of reporting of serious (OR =2.1) and other important postnatal morbidities (OR=1.75) and statistically significant.

Obsteritic decision

Health problems among women during the obstetric period in more so this community study aimed to explore practices relevant to obstetric period, identify the barriers to utilizing maternal care and understand the delays which occur before care is received, '**Health, illness and care in the obstetric period: A prospective study of women in Rural Karnataka' by Jayashree Ramakrishna et al.,(2008)**. It was a quantitative and qualitative study based on progressive research design in the South Indian, State of Karnataka, a state with a progressive profile in terms of health programs funded by WHO . It covered 500 cases (pregnant at the time in 1996) from 11 villages located 60 km from state capital Bangalore. Almost three quarters of the women in study were between 18-24 years old, 14% below 18, 35% were married to the relatives, most commonly maternal uncle or cousin. More than one third of the women were pregnant for the first time, and 36% for the second. About one in three births occurred less than two years after the last pregnancy. They belonged to marginal or small land holdings and 18 percent households were landless.The results shows that deprived socio economic category 62% were suffering from morbidity during pregnancy mild, moderate and severe. Antepartum morbidities (mild) including loss of weight, Nausea loss of appetite, inability to digest, giddiness, tiredness, shortness of breath, swelling of feet, varicose veins, urinary incontinence , constipation, vaginal bleeding , swelling on face and hands, symptoms of toxaemia was reported by 20 women.

Labour and Delivery : Most of the women were aware about significance and understanding of care seeking during the intrapartum period. In the intrapartum period, traditional practices are followed like taking decoction, walking or moving etc. In 51% of the cases ANM attended women took injections to increase pains during delivery. In case of home delivery, cord was usually cut after the placenta has been delivered, often without adequate care for asepsis. The baby was given bath soon after birth.

Morbidity around the time of birth: Out of the deliveries conducted 378 live infants and nine still births (there was one maternal death in which both mother and baby died) Overall episodes of morbidities reported by 32% of all women. Morbidities included prolonged pain, abnormal presentation (breech position) heavy bleeding during labour. 20% women also reported that placenta did not come out spontaneously still they did not go to hospital. Birth preparedness was 87% among the women those who prepared for home delivery.

Postnatal morbidity : 15% reported some or the other morbidity.The moderate to severe morbidities constituted mainly of heavy bleeding and fever, out of which half sought medical help. It clearly shows that traditional practices /person professing these practices hold greater decision maker and determine whether special care is needed or not. Even the post partum, cultural factors play an important part in the chain of decision making. Bananthana a tradition to take care of good health of mother and child is regarded more significant than visiting a medically trained person. It brings out obstetric morbidity in all the three phases antenatal, prenatal and post natal periods. The study indicates the prevalence of perceived morbidity was almost 62% in the ante partum period, low occurrence of serious post partum problems and high level of prenatal morbidity. Health seeking behavior is based on the perception of morbidity regardless of objective clinical diagnosis.

Delivery

Kulkarni (2000), stated that 80 per cent of all births takes place outside the health institutions. Mehra and Agrawal (2004) stated that over 2/3rd of deliveries occur outside the health care institutions among the adolescents.

Examining Determinants of Gynecological Morbidity from Women's perceptions in rural Rajasthan by Nandini Oommen 2008 Various pioneering studies were quoted in this paper Bang el al.1989, Younis et al 1993 and U Ray K et al 1995 who studied on "gynaecological morbidity". In this context, this study was conducted in 40 villages (population 40,000) in part of the project area of URMUL Trust coming under Bikaner district in Rajasthan by adopting cross sectional study design in three phase's ethnographic, survey and clinical. It covered key information from Traditional Birth Attendant (TBA), Mandal, FGD of 6-8 women with reproductive illness, participant

observation of 5 cases of process of Child Birth and 250 women were clinically examined and data was tranquilized. Results show the use of local dialect to narrate and denominated gynecological morbidity like white discharge, menstrual problems, prolapsed etc. The illness shows 62% women had white discharge, 71% menstrual problem, 61% of women had prolapsed uterus and they shared this information with husband. 'This is generally the case with older women but among the younger women it is the mother-in-law'. The author hypothesized the women discloses to her mother-in-law about illness to avoid future confrontation and seek help from hospital. Majority of women (53-82%) do not seek any treatment, home remedies are commonly sought. Some seek help from government hospital in the city for all the three illness. The study brings out "determinants of gynecological morbidity could be enhanced by greater attention to the effect of unsafe iatrogenic procedures on women"

Pregnancy in Adolescent: a community based study by Sharma et al., 2003, is a prospective cohort study conducted by the Department of Community Medicine in a resettlement colony of East Delhi during 1999. Each pregnant woman was visited during pregnancy months till 48 hours of delivery. Information regarding events and complications of pregnancy delivery and outcome of pregnancy was recorded using a structured semi-open ended questionnaire. The original cohort consisted of 843 pregnant women (74 adolescents, 10-19 years) and 156 primigravida adult women.

Results shows

- The time of conception was 18-46 (± 0.56) and 21.69 (± 1.96) years respectively p<0.01)
- Age of menarche was similar in both cases.
- Median age of marriage was less than 2 years.
- Three percent adolescent and 8% adult pregnancies ended preterm.
- Only one third of adolescent had institutional whereas more than half of adults went for institutional delivery.(Odds ratio 2.10; 95 cl, 1.11-3.99 P< 0.01)
- No significant correlation was found between the two groups regarding duration of labour, delivery by cesarean section.
- Outcome of pregnancy shows the pregnancy wastage was about six times more common in adolescent pregnancies.

- Neonatal death was more common in the case of adult pregnancies.
- Low Birth weight was more common in case of adolescent pregnancies and was not found statistically significant.
- The study suggested reducing the risk of antenatal complications and minimizing poor outcome of pregnancy, intensive campaign for increasing the age of marriage and conception are to be carried out.

Another similar study reviewed '**Determinants of pregnancy in Adolescents in Nepal' Sharma A.K et al.,(2002) based on** the backdrop that 'social factors and prevalent norms in the community determine the proportion of teenage pregnancy in the community'. The Aim was to examine the socio cultural determinants of teenage pregnancy in eastern Nepal , using a case control study design for comparing education, economic status, family support and freedom towards conception among teenagers 70 (adolescent pregnant) as compared to higher age group women70 (20-29 primigravida women). Teenage pregnant women were less educated came from poor economic background were more likely to have unplanned pregnancies as compared to other group. They even indulged in love marriages. Husbands took decision on conception and continuation of pregnancy and women had less psychological and social support from family.

'Teenage Pregnancy' by Shruti S Dubhashi and Reena J Wani (2008) was a retrospective observational study carried out by BYL Nair Hospital Mumbai from June 2006- June 2007 taking into consideration age group 10-19, marital status ,antenatal problems, operative intervention during delivery and Medical Termination of Pregnancy. The percentage of teenage pregnancy was 4.41% out of the total 3213 pregnant patients. 94.35% adolescent was married and only 5.63% unmarried, 33% were only below 18 years. High incidence of iron deficiency was found in teen pregnancy. 57.74% had spontaneous vaginal deliveries, 21.12% LCS (out of 3213 cases 20.13% had LCS at the same period). The incidence of obstructed labour and cephalopelvic disproportion was more 11.97% compared to general. Medical termination was in the Ist and IInd trimester teenage rate was 9.15% compared to 5.07%. 9.84% ha still birth or spontaneous abortion among teens (while general had 6.97%). Complication among teen mothers is higher than the other general group.

'Factors associated with teenage pregnancy in South Asia: A systematic review' **Acharya Dev Ray et al., (2010)** looked upon teenage pregnancy as one of the major public health problem. The objective of the study was to systematically review to identify factors associated with teenage pregnancy in South Asian countries with included India, Pakistan, Srilanka, Nepal, Maldives, Bhutan and Bangladesh. Electronic bibliographic data bases MEDLINE, EMBASE and CINAHL were searched systematically from 1996 to April 2007.

Risk factor of teenage pregnancies in South Asia found through various literatures showed:-

- Socio economic factors educational attainment, cultural factors and family structure were all identified as risk factors for teenage pregnancies in South Asia.

- Incidence of teenage pregnancies is significantly higher among lower social classes (52%) than higher classes (26%)

- Hindu teenagers are more prone to become pregnant (p<0.001) than Buddist teenagers

- Early marriage is culturally acceptable in South Asia. It is also taken as a 'License' or 'Social expectation' for women to enter into reproductive life and become pregnant immediately after marriage.

- Low involvement of girls in the marriage decision is one of the reason to early pregnancy i.e. 80% marriages are arranged by parents without the consent of girl.

- Many teenage marriages are love marriages which are done without the consent of parents, so negligence is more from parent's side.

- Adolescent mothers are unaware about their Consequences, so end up in early conception.

- Socio-economic deprivation and utilization of health services are more among teenage mothers.

- Studies have been found co-relating teenage pregnancy – preterm delivery, still birth, fetal distress, birth asphyxia, anemia, LBW, pregnancy induced hypertension (PIH) and spontaneous abortion

- The study suggests more future researchers in South Asia with 'Standardized measures and Methodologies'.

Neonatal mortality

World Health Organization (WHO, 2005) stated 'the major public health intervention during the last two decades have been focused on reduction in infant and child mortality'.**'Determinants of neonatal mortality in rural India 2007-08'Aditya Singh et al.(2013),** explores the determinants of neonatal mortality in rural India using data from the third round of the District Level Household Survey (DLHS-3) conducted during 2007-08. The survey adopted multi stage stratified probability proportional to (PPS) sampling design. Out of the total survey figure, the study used 171529 infants nested in 22587 primary sapling unit (PSUs) which the used as village or community. "The neonatal death is the outcome variable in the study. It is defined as "any death occurred during first 28 completed days of life". The population included 171529 singleton live births to currently married women within 3 years preceding the survey (2004-07). During the period 2892 neonatal deaths were recorded, which was 1.68% of total singleton live births, during that period. Around 50% of neonates were born to mothers who were illiterate and only 6% were born to working mothers. Majority of the infants were born to mothers living in kuccha or semi kaccha houses (81%) and without improved sanitation facilities (71%). 12% were born to adolescent mothers and three forth of them were Hindu.38% did not receive TT injection and little more than 60% of the deliveries occurred at home. 62% of the children were born to women who suffered from at least one delivery related to complication. Unadjusted odds ratios showed variables like all weathered road, place of delivery and consumption of adequate IFA were not significant statistically.'At the individual level, the mother's education was significantly associated with a reduction in the odds of neonatal deaths'. 'Infants born to mothers with more than 10 years of schooling were about 40% less likely to experience neonatal death compared to those born to illiterate mothers'. Number of ANC visits or time was not found very significant as determinants. 'The odds decreased significantly by 15% and 26% respectively among children whose mothers were 20-24 and 25-29 years old, respectively, at the time of their birth than children of adolescent mothers'. 'Boy neonates in rural India were found to be 21% more prone to neonatal death compared to girl neonate'.The study concluded that any public health intervention at reducing neonatal death should aim to target adequate supply of TT injections, important targeting group

adolescent, Scheduled caste mothers and improving toilets, electricity, and pucca houses (i.e. health and sanitation).

Another study 'Neonatal mortality within 24 hours of birth in six low and lower middle income countries' by Baqui et al., 2016. The study was based on epidemiological data from population based cohort or intervention studies were carried out in 7 sites in six countries Bangladesh, Ghana, India Pakistan, United Republic of Tanzania and Zambia (2007-2013) co-ordinate by WHO. All the studies used community based surveillance system involving home visits by trained field workers. Data included 149570 live births. The data pooled from each country ranged from 11143 in Bangladesh to 44450 in United Republic of Tanzania."The pooled neonatal mortality rate across all studies was 30.5 per 1000 live births and country-specific neonatal mortality rates ranged from 13.6 per 1000 live births (95% confidence interval, CI: 12.0–15.3) in Zambia to 47.4 per 1000 (95% CI: 44.9–49.9) in Pakistan. Overall, mortality within the first 24 hours was 14.1 per 1000 live births – the lowest rate was 5.1 per 1000 live births in Zambia and the highest was 20.1 per 1000 live births in India. The percentage of neonatal deaths occurring within the first 24 hours was 46.3% overall: the figure ranged from 36.2% (95% CI: 33.6–38.8) in Pakistan to 65.5% (95% CI: 62.0–69.0) in the United Republic of Tanzania."

The finding point out that neonatal deaths in the study population occurred within 24 hours of birth (38% to 66% across the study sites) i.e. about one in three neonatal deaths occurred within six hours of birth. The study had greater advantage as it had pooled large data which generated high quality and gives opportunity to good surveillance. The neonatal deaths are higher than the modeled estimate for Bangladesh, Ghana, India and Pakistan but lower for United Republic of Ghana and Zambia .The study concluded low income countries should focus more to prevent death in the first 24 hours of life. This emphasizes on high quality hospital service and PNC. "Although great strides were made towards achieving a two-thirds reduction in child mortality between 1990 and 2015, with 19 000 fewer children dying each day in 2015 than in 1990".

Intrapartum and post partum care by skilled birth attendants is known very crucial for neonatal survival.The paper concludes that the neonatal deaths in the first 24 hour depend

on following factors :-Quality of the intrapartum and post natal care, characteristics of the infants such as birth weight and Socio-economic factors such as maternal literacy .

Inequality in India: the case of maternal and reproductive health' Sanneving et al., 2013 Millennium Development Goal and a frame work developed by the Commission on Social determinants of Health (CSDH) used to categorize and explain determinants of inequality in maternal and reproductive health in India. It looks maternal reproductive health as a social phenomenon as much as a medical event. Reviews of peer reviewed journal, electronic databases Pub Med and Popline were searched.

Reviews of different paper highlights on inequalities in health as –

• Socially produced.

• Needs analysis with respect to social justice and social determinants of health.

• Rooted in the societal structure

• Emerge from systematically weaned distribution of power prestige and recourses among groups in society

The elements identified were socio economic and political context, structural determinants and intermediately determinants. Results show five structural determinants emerged from the search as important in understanding equity-'economic status, gender, education, social status (registered caste or tribe) and age (adolescents). The analysis of economic status and health finances shows NRHM has been trying to bring equality in health distribution, utilization of ANC increases by 12% between1992-2006 but that increase among poor was only 0.1percentage. So is the condition of skilled birth attendants had increases by 13 percentage while 2 percentage attributed to women belonging to the poorest quintile. The other reviews quoted are as follows:-

• Gupta A, et at., 2008 from 'Reproductive and child health inequalities in Chandigarh Union Territory of India' showed among the women studied only 32% of the women living in urban slum areas had institutional delivery compared to 93% of the non-slum urban women.

• Rani M, et al., 2008 from 'Differentials in the quality of antenatal care in India', quality of care in maternal health services also differ according to economic and residence status. A cross sectional study conducted in Andhra Pradesh, Karnataka,

Kerala and Tamil Nadu show significant differs in the quality of ANC between poor and non poor.

• Griffiths, et al., 2001 'Understanding showed perspectives of barriers to maternal health care in Maharashtra India' included both rural and urban areas that financial constraints are important when understanding the users perspective of barriers to maternal health care is closely linked to perceptions of health care.

• A cross sectional study conducted in Rajkot showed that as many as 57% was suffering from one or more reproductive morbidity and that only half of these women sought care from their complications(Bhandari M N et al. 2010 from' Untreated reproductive morbidities among ever married women of slums of Rajkot city')

• Over half (59%) of the pregnant women in India are anemic according to estimations based on data from NFHS 3 (IIPS and Macro International 2007).

Gender: 'Gender as a structural determinant of health operates through different intermediary determinants that influence that maternal and reproductive health of women and their access to care'.Various studies quoted showed the literacy rates are lower among women, gender differences are prevalent among younger age group on 15-19 years one in four women compared to one in ten men being illiterate.Education: Increase in literacy is regarded to reduce health inequalities. This was noted in NFHS 3 data as well as in other studies. Adolescence: Age also can be regarded as a source of inequality as per the various studies documented in the paper. Still child marriage remains a practice as per NFHS 3 data 18% are still married before the age of 15 and 47% were married before the legal age of 18. Like low coverage of ANC, low use of contraceptives, unmet demand for spacing, more sexual and domestic violence and adverse complication among adolescent have bn reported. According to NFHS 3, ANC is lower, services of skilled attendant are lower among tribal community compared to other community, pregnancy related deaths also is are more among ST group and the non ST group. Social power is a central concept in CSDH frame work which explains the dynamics of social stratification'.

2.6 CONSEQUENCES /OUTCOME OF ADOLESCENT PREGNANCY

Various studies evaluate obstetric and neonatal outcome over the reproductive ages, with special reference to young and old mothers. Blomberg M, et al., 2014 reviewed many

studies an quoted 'Young mothers are exposed to an increased risk of anemia, low birth weight, fetal death, eclampsia and preterm birth although , at the same time, young mothers found more likely to have spontaneous normal vaginal birth and risk of preeclampsia and post partum hemorrhage were significantly reduced.'

Health status of the adolescent is very important to have a healthy baby. There is higher number of child wastage among adolescents than older women. It is due to immaturity of the reproductive organs among adolescents. Poorer the health of the mother more is the likelihood of the child wastage, occurring in the form of miscarriages, stillbirths, neonatal deaths and infant deaths were reviewed here.

'Complications in adolescent pregnancy: Systematic review of Literature' by Azevedo et al., 2014, the study was based on the concept that sexual activity in adolescence initiates immediate undesirable consequences such as an increased frequency of sexually transmitted diseases (STD) and pregnancy or may lead to abortion. Data collection took place between May and August 2012 by means of online search following data bases. Starting from the Virtual Health Library (VHL), MEDLINE (Pub. Med), Latin American and Caribbean Health Sciences Information Literature LILACS) and Scientific Electronic Library Online (SEILO). Inclusion criteria included original articles entirely available for free in the online version in English and Portuguese (2002-2012) with 15 articles selected, 10 had a cross sectional design and 5 were cohort, 4 of them retrospective and 1 prospective studies.

 1. In a study out of the 2,351 pregnancy cases, 4% were adolescent women (aged under 18 years) The   most noted complications were –Prolonged rupture of membrance with 20.3%,Pre eclmpsia (7.1%),Heart disease (3%),Urinary tract infection (2%)

Among neonatal complication -Prematurity (39%), LBW (32%) Delayed intrauterine growth (12%) Neonatal mortality was described in 6.9% and was significantly higher than the neonatal complications of the other deliveries.

2. The next study performed with 265 adolescent mothers (aged ≤ 19 years) with 832 mothers aged 20-29.Maternal complications were Eclampsia (OR - 3.18),Pre-eclampsia (OR = 1.82),Perineal tear (OR = 1.45),Episiotomy (OR = 1.77), Prematurity (OR = 1.77),Neonatal death (OR = 2.18)

3. Texas of State Health Department between 1004-2003 assessed the complication that occurred during labor in 1355962 nulliparous mothers and showed that adolescent mother (15 to 18 years) had lower rates intrapartum fever, excessive meconium, premature rupture of the memberane placenta previa, prolonged labour, dysfunctional delivery, breech presentation, cephalopelvic disproportion and umbilical cord prolapsed when compared to mothers aged between 25-29 years.

4. Mukhopadhyay et al compared the perinatal differences between 350 adolescents (13 to 19 years) and 350 adults (20-29 years) both groups of primi gestas, by means of medical record analysis and demonstrated that there was a greater proportion of premature deliveries (27.7%) LBW (38.95%) and rate of still birth (5.1%) in comparison with adult mother.

5. One investigation on reasons that lead to abortion among adolescent, relating the motivation with age and type of school they attended. Of the 2592 adolescents that participated –7.0% became pregnant, 26.7% having aborted. It showed the fear of the parents reaction, age lack of support from partner and non acceptance of pregnancy led to abortion. The frequency was more among adolescent of public schools.

6. Data analysis of residents of State of Missouri (US) showed during 1997-99 investigated the relation between infant mortality (neonatal and post natal), Socio-economic level and maternal age, 10131 adolescent between 12-17 years,18,954 adolescent between 18 & 19 years and 29,899 adults (20 to 34 years) showed –Risk of infants (OR = 1.95),Neonatal (OR = 1.69) and Post natal (OR – 2.47)

7. Mortality was significantly more among 12 to 17 years than among the adults (20 to 34 yrs). After adjustment for race, marital status, schooling level, smoking, prenatal care and poverty, the risk of post natal mortality (OR – 1.73) remained significantly higher for younger adolescent mothers but not the risk of neonatal mortality (OR = 1.43)

8. One study investigated the relation between the first and the second pregnancy in adolescence with premature births, birth weight and SGA, compared to adult mothers, and showed that adolescent mothers had greater risk of premature births and reduced weight of newborn when compared to adult mother especially during a second gestation.

9. A study conducted by means of the application of association between teen pregnancy and LBW in 537 (10 to 19 years) and 1,441 adult mother (20-34 years) showed the following outcome

- LBW and prematurity (OR – 29.0) were associated with low number of prenatal visits (OR = 2.98), late introduction of prenatal care (OR = 1.91) and low level of schooling. There was a lower incidence of cesarean section of adolescents 33.3% than in adults (49.4%) and a lower association with pre eclampsia and cephalopelvic disproportion.

10. One study demonstrated that the chance of LBW (OR=2.70) and of prematurity (OR = 5.82) were reduced when the adolescent has six or more prenatal visits.

The discussion based on various papers shows that the occurrence of premature births, low height new born, or infants with very low weight and mortality was significantly greater among babies of adolescent mothers. Adolescent pregnancy is one of the three reproductive variables associated with greater infant mortality, primarily because it is related to a complex interaction of determining factors.

The study concludes that the main neonatal complication found were prematurity, low or very low birth weight and perinatal mortality whereas the major maternal complications are hypertensive pregnancy disorders, abortion, urinary infections and premature rupture of fetal membrane. The paper could link up neonatal mortality to be strongly influenced by determinants such as low birth weight; prematurity as well as maternal complications related to adolescent pregnancy. This fact provides valuable input for prevention of these variables in prenatal and delivery care.

Another study analyzed the National Family Health Survey (NFHS) 1992-93 data collected information about 89777 ever married women in the age group 13-49 years in the paper ' **Determinants of Motherhood in Teenagers and fate of their pregnancy outcome: Evidence from NFHS India' by Nanda 2002.** The study explored the probable socio-economic and demographic determinants of teenage mothers and correlates of survival and health status of children. Five stages were explained –fixed social factors (caste ,religion, childhood place),premarital factors (women's educational status, economic situation before marriage, work participation before marriage and age at menarche, post marital and pre reproduction factors (e.g. at marriage, economic

condition, work participation, residence, household environment after marriage, availability of health and family planning facilities), reproductive factors include parity, antenatal care, history of previous delivery complication, history of premature birth, lactation , maternal and child immunization) and reproductive outcome include (age at motherhood, pregnancy wastage child health and child survival).

46% of teenage ever married women are mothers. The background characteristics did not vary with place of residence. The background of religion has strong relation with teenage mothers. 'It was observed that more than half of all teenage ever married women in India are married to consanguineously related men'. More than 12% of all teenager mothers currently married found to have highest birth order. 11% of adolescent pregnancy ends with still births or abortions. The neonatal mortality and under five mortality rates with respect to teenage motherhood are also very high. Area wise disparity is seen in rural an urban area. 'More than one third of all teenage mothers did not receive any antenatal care ANC at all.' BMI of more than half of all children to teenage mothers are severely malnourished and unnourished.' Those who have low age of menarche showed early motherhood and higher age at menarche is associated with lower nutritional status of women. Women having education up to high school or above have more reproductive wastage.

A review of the risks and consequences of adolescent pregnancy by D.Jeha et al 2015 evaluated risks and consequences of young Maternal age on both the mother and the newborn based on the comprehensive literature review on the risks and consequences of adolescent pregnancy. The paper based on various literature shows that adolescent pregnancy appears to have increased risks on both mother and the infant.

The teenage mother had increased risk of -

    a. Anemia

    b. Infection

    c. Eclampsia

    d. Pre-eclampsia

    e. Emergency cesarean delivery

    f. Post partum depression

    g. Inadequate breast feeding initiatives.

Access to ANC is a positive factor to reduced complication during obstetric outcomes. It also brings that different culture has diverse perspectives on adolescent pregnancy. In some countries, it is customary to marry young while not in other. In a study in Germany found that multiparous adolescents had less outcomes in their second pregnancy compared to nulliparous teenagers giving birth for the first time and ends 'adolescent mothers' culture, accessibility to proper antenatal care, and education can affect the progression of her pregnancy and therefore the outcome. Dhak's (2003) study revealed in prenatal period that, teenage women faced more complications compared to the women aged 20-24 years. Weakness and dizziness was a common problem among teenagers as compared to women aged 20-24 years. He added in his seminar paper, 16.1 per cent of adolescent women in India had prolonged labor. During the post natal period 27.5 per cent of teenage mothers reported lower abdominal pain after 1st week of delivery, followed by those who reported high fever (19.9%), followed by dizziness, headache (19.4%), excessive bleeding (14.7%),swelling and vaginal discharge (10.6%) respectively .

With an objective -whether teenage pregnancy is associated with increased adverse birth outcomes independent of known factors, Data was used from 1995-2000 nationally linked birth/infant death data of United States, compiled by National Center for Health Statistics and Centre for Disease Control and Prevention. All nulliparous women aged 10-24 who had singleton live births during the period between 1995 & 2000 were included in '**Teenage Pregnancy and Adverse birth outcomes : a large population based retrospective cohort study' by Xi-Kuan Chen et al (2007).**

Maternal age ranges included were 10-24 years. There were 23654785 live births of which 9.24% infants were born to mothers aged (20-24 years), 8.75% to women < 20 years 0.85% infants were born to younger teenage women aged 10-15, 3.02% (16-17 years mother). 4.89% to women with 18-19 years old. In total 4254751 first born singleton infants whose mothers were < 25 years of age. The women 20-24 were better placed in most of the indicators than teenage mothers. Adverse outcomes were associated with preterm delivery, very LBW, SGA and neonatal mortality increased with decreased maternal age. The socio-demographic factors were more important like poverty, low education level, inadequate prenatal care, and unmarried status played negative impact. It

suggested in future exploring the 'mechanism' on how Younger maternal age increases the risk of adverse birth outcomes

An old study by '**ICMR Task force National collaborative study on Identification of High Risk Families, Mothers and Outcome of their offspring with particular reference to the problem of Maternal Nutrition, Low Birth Weight, Perinatal and Infant mortality and Morbidity in rural and urban slum community' by Bhargava et al., 1991** was based on the objective to identify families at greater risk from health and nutritional point of view, to study high risk urban slum and rural community ever married women of reproductive It was conducted in 3 slums centres at New Delhi, Calcutta and Madras and three rural centres at Hyderabad, Varanasi and Chandigarh with 17754 urban households and 15409 rural households among 15-49 years of ever married women.

Results: The mean age of marriage for urban was 13.8 years. Almost 12% of the women had a bad past obstetric history with about 4% having had a post partum haemrorhage and 1% or more fetal deaths. Nearly half (51.7%) of urban and 33% of rural women had clinical moderate anemia. The study clearly established different between urban slum and rural cohorts and also between intra-urban and intra-rural areas. These factors have a direct bearing on pregnancy and its outcome. All factors like income, type of housing, type of family, age at marriage, consumption of marriage and maternal education contribute directly or indirectly to causation of low birth weight, fetal loss, perinatal, neonatal and infant mortality.

The study also showed rural cohort pregnancy outcome appeared to be better as compared to urban slum with lower birth weight, Prevalence and perinatal and neonatal morality.

A significant proportion of cohort women were malnourished as reflected by body weight of 40 kg or less. There was a strong association with low birth weight. The two cohorts under study also recorded significant differences in personal habits with regard to work, smoking tobacco chewing, alcohol consumption, eating during pregnancy and lactation.

The study also suggested poor training on aspects like sterilization, home delivery practices and neonate feeding practices. It also suggested the urgent need in providing basic neonatal care at primary and secondary level.

The study confirmed the very high prevalence of low birth weight rate particularly in slum population. The result also provided insight into community behavior particularly regard to utilization of maternal and child health services.

In a State Level Workshop on Adolescent Reproductive and Sexual Health (2008), two research papers presented at the workshop by various eminent experts and scholars are included in my study:-

Assessing induced Abortion among adolescent in Maharashtra - by Shelley Saha

The study was conducted in the background that between 1-10 percent of abortion seekers are adolescents (Sathya K.G. and S.Verma) The objective of the study included pregnancy outcome with a focus on rate of abortion, to estimate burden and nature of abortion related to morbidity and reasons for seeking abortion. This study was undertaken by Maharashtra by Centre for Enquiry into Health and Allied them se (CEHAT) in 2001-02.

The primary units were villages, 5712 ever married women age 15-54 from 5405 households from all districts (30) of the state were enrolled for the study. The data of 15-19 years were 406 (out of 5712 eligible women) 74% belonged to rural and 26% from urban areas. Most of them (84%) were Hindus and 9% Muslims & 5% Buddhist. Most of them were school dropout. Pregnancy outcome shows induced abortion about twice more in urban areas than in rural areas. Of the 290 adolescents who got pregnant 394 live births, 5 cases of still births, 37 cases of spontaneous abortion of 12 cases of induced abortion. 2.6% of the total conception among adolescents ended up in induced abortion. Majority of abortions (43.5%)   were due to the increase in sonography and sex selective abortions. The decision making shows family member play vital role and most the decision to abort has been taken jointly by men and women.

 'Adverse maternal and perinatal outcomes in adolescent pregnancies: the Global Networks' maternal newborn health registry study' by Althabe et al., 2015. The basis of the study was that adolescent girls (15 & 19) years giving birth to around 16 million babies each year, around 11% of birth worldwide'. The study was conducted in six low middle income countries (Kenya, Zambia, India, Pakistan, Guatemala and Argentina)It included women less than or 24 years who gave birth to infants of at least 20 years, 20 weeks gestation and 500 gm or more. It tried to compared adverse

pregnancy maternal and parental outcome among pregnant adolescents 15-19 years (< 15 years, and adults 20-24 years)

Indications of Maternal outcome: Ante partum, postpartum hemorrhage, obstructed labour, hypertensive disorders. Maternal sepsis and maternal mortality in 42 days post partum.

Perinatal Outcome: Preterm birth (live birth at < 37 weeks 'gestation) LBW (live birth weighing <2500 g at birth), Still birth (fetal deaths occurring > 500 g or > 22 weeks gestation. Early neonatal death (0-6 days after birth) neonatal deaths (0-28 days after births) perinatal deaths (Neonatal deaths 0.6 days plus still births)

Result

- 269,273 women were enrolled from Jan 2010 to Dec 2013.The pregnancies among adolescents 15-19 years was 11.9% while among girls<15 years was 0.14%.

- Area was distributed as SSA (Sub-Saharan African), Latin American (LA) ranged from 16.1% (Guatemala) to 26% (Argentina) in South Asia (SA) 2% (Nagpur India) to 9.6% (Belgaum India)

- Mean age in South Asia sites 18.7(SD 0.6) years and 17.7 (SD 1.2) in Sub Saharan /Latin America sites

- There was not much clinical difference among ANC visits among two groups. Adolescent showed slightly lower attendance in ANC Visits.

- Maternal and perinatal outcome rates shows ante partum hemorrhage was slightly higher in adolescents in SA & SSA/LA sites.

- Post Partum hemorrhage showed similar prevalence in older adolescents and adults in both sites so was hypertensive disorder.

- Compared to adults, adolescents < 15 year showed a statistically significant lower side of hypertensive disorders (RR 0.32 95% (0.12 – 0.86)

- Preterm birth and LBW rates are higher in adolescent 15-19 years compared to adults in both SA and SSA/LA sites.

- Still births rates are slightly higher among adolescents 15-19 years so was neonatal mortality.

- Perinatal mortality was significantly higher in older adolescents at SSA/LA sites). There was no significant association between early adolescence and still births.
- The rates of adolescent pregnancy have been decreasing and are currently low in South Asia.
- This study shows pregnancy among adolescents not associated with work maternal outcomes,

Reproductive wastatge (abortion, still birth, pre term, infant mortality)

Abortions/Miscarriages

Sharma *et al's* (2003) study mentioned, abortions were higher among adolescent mothers as compared to adult mothers. He added that 15.6% of adolescents experience stillbirths as compared to adult mothers (1.3%) .

The study by Lane et al. (1998) of Egyptians woman's access to induced abortion demonstrated even where abortion is severely restricted, safety can be purchased. Poor women, who cannot afford safety, risk injury and death in ending their unwanted pregnancies,

During1987 under Safe motherhood initiative, World Health Organization (WHO) and United Nations Population Fund (UNFPA) have alerted the international community to the tragedy of five lakh women dying every year of pregnancy related causes. 'The leading clinically defined causes of maternal mortality are hemorrhage, infection, hypertensive disorders of pregnancy, obstructed labour, and unsafe abortion'. A four country study conducted by Fortney and Smith 1997 (Egypt, Bangladesh, Indonesia, and India) on severe and life threatening morbidities that women suffer during pregnancy because it combined epidemiological measurements with indepth analysis of how and why morbidities occur'. The study found that inadequate transportation and other difficulties to access emergency services were more salient causes of maternal mortality.

Induced Abortions in Rural Western Maharashtra: Prevalence and Pattern by Bela Ganatra et al., 2008. The study was conducted in order to understand abortion seeking behavior using case finding and combining qualitative and quantitative approaches to the data gathering. The study covered 139 villages (324,431population) across Pune, Ahmednagar and Aurangabad districts of Western Maharashtra. Abortion services are providing in the district hospitals in Pune and Aurangabad, and a few primary health

centers. Fifteen percent of the villages were within five kilometers of functioning government MTP facility, while a third of the villages (33%) were within five km radius of private practitioner offering abortion services. KEM Hospital Research Centre has an extensive field networking, which was utilized during the study.

In all, 1849 women from the predetermined population were identified as having an induced abortion during the 18- month period from September 1996-february 1998. The total episodes were 1950, out of which 1717(92.9%) were married at the time of abortion and unmarried women were 132 (7.1%).

On the basis of approximation, 19.1 per 1000 women aged 15-45 ears, and the abortion ratio was 141.0 induced abortions per 1000 live births.

1409 women acknowledged having induced abortion during the study found the median age 24.2 years and living in hamlets.

Reasons of abortion was either unwanted pregnancy or they already had the desired size of the family(74.5%).23% of unwanted due to sex determination outcome and only 2.1%aborted due to complication. Those who stated as finished their families had two children (43.4%) or three (23.9%) with a living son. Some even aborted as they were studying or working.

Decision to terminate pregnancy was taken by women along with her husband (80%) other family members were less often involved (4%). Family elders opposed 13% of the cases. Most abortion was taken (71%) in the first trimester. Most of the preferred private hospitals. Two thirds (68%) of women experienced one or more problems that were severe enough to affect their routine life. It even suggests that life threatening complications (such as septic abortions) did occur in small portion of women.

Another study titled 'Induced abortions: decision-making, provider choice and morbidity experience among rural adolescents in India' by Ganatra and Hirve 2008 was conducted during 1996-98 by researchers with KEM hospital Research Centre in Pune. It was a community based study on induced abortion in the predetermined area of Maharashtra. The study included adolescent abortion seekers ages 21-24 in total 159 cases which even included 25 never married, 18 separated and 2 widowed. The result showed that young married women in the abortion study belonged to lower status in the household than the older women. 'Younger women had significantly lower decision

making powers, less mobility and less likelihood of having an independent source of income or control over money earned'. Adolescent were less likely to be counseled about contraceptive usage after abortion. (36% of adolescents compared with 58% of women aged 25 or older). Post abortion morbidity was higher among adolescents however life threatening was low in all the cases. It also marked that unmarried adolescent mostly went to traditional healers for abortion to keep anonymity of such cases and unaware that abortion is legal for unmarried women also. In the population based study on maternal mortality found that four cases were of abortion based mortality out of the 140 cases of deaths related to pregnancy in the 35 month long reference period. Out of the four cases three were adolescents. 'Thus, deaths related to abortions and unwanted pregnancies accounted for 18% of pregnancy related deaths among adolescents as compared with 2% of deaths among older women'.Even though Maharashtra has better health care than other parts of the India, but adolescents due to 'low autonomy, mobility and status within household' needs to be addressed. The need for family planning to focus needs of young, recently married to delay early conception and post abortion counseling for married as well as unmarried women.

Awasthi and Pande (1998) conducted a study on cause-specific mortality under fives, in urban slums of Lucknow in north India, found that 70.8 per cent of adolescent mothers as compared to 45 per cent of mothers aged 20-29 years and 51 per cent of mothers aged 30-39 years had experienced neonatal mortality. Santya and Jejeebhoy (2003) mentioned earlier, in their review of concerned studies revealed that, the neonatal mortality rate was 63.1 per 1000 live births among infants of adolescent mothers as compared to 40.7 per 1000 live births among women aged 20-29 years.

Low birth weight (lbw) infants

'Low Birth Weight (LBW) is responsible for 60% of infant mortality in the first year of life and it carries a 40 fold increase in the risk of neonatal mortality during the first month'. LBW is defined as babies weighing less than 2500 gm.

Low Birth Weight Babies: Prevalence and Associated Maternal Risk factors at Tertiary Level Hospital Dr.Arti Patel et al (2015) is a prospective cross sectional study and LBW babies were evaluated between April 2013 to March 2014 in tertiary level hospital. Out of the 4805 (live born) the percentage of LBW was 28.2%. The prevalence

as per the weight category is 850 (6.27%) were 2.0 -2.5 kg babies, 360 (36.6%) 1.5 – 2.0 kg babies and < 1.5 kg babies were 10.7%) The rate of LBW in our study was high to the rates reported in developed countries patients from lower socio economic class form major group in the institute. Maternal age is important deciding factor as 18.1% LBW babies were born to < 20 years of age mothers and 72.1% belonged to lower income group and lower educational status.   Another factor was (9.1%) mothers who were shorter had LBW children. Even chewing tobacco, smoking and any other substances abuse accounted for 16.3%. The study conducted that "extreme maternal age <20 and > 35 years), lower socio economic states poor education, inadequate antenatal visits (<3), past history of preterm delivery, multiple gestation, non cephalic presentation, medical condition like anemic, hypertensive, diabetes and thyroid disorders are important maternal risk factor related to LBW babies.

Another study 'Is adolescent pregnancy a risk factor for low birth weight? 'By Rev Saude (2013) is cross sectional study of mothers and their newborns for a birth cohort in Aracaju, Northeastern Brazil. Data was collected consecutively from March to July 2005 with socio economic, biological and reproductive aspects of the mothers.   The impact of early pregnancy on birth weight was evaluated by multiple logistic regressions.

The results shows –

- Of the 4746 mother child pairs included, 20.6% involved adolescent mothers, 9.6% (mother < 18 years) 11% (mothers aged 18 to 19 years). Mean age 17.3 (SD 1.43 years)
- Most of the adolescent mothers were younger than 18 and had no partners compared to other.
- About 1.5% of the women studied did not receive any prenatal care, then proportion among adolescent mothers was twice that for the other mother.
- Preterm births were also more frequent among adolescents than among mothers aged 20 to 34 years.
- The significant factors contributing low birth weight were maternal age, adequacy of prenatal care, family income, marital status, maternal schooling, and smoking during pregnancy, alcohol intake during pregnancy, prenatal category and preterm birth.

- The present study shows that pregnancy during adolescence is still associated with unfavorable outcomes such as LBW, but this outcome was linked to social vulnerability since it was only observed among adolescents without a partner.
- Maternal age was linked up as a risk for LBW among adolescent mothers who had no partner.
- Maternal smoking during pregnancy and absence of prenatal care were also associated with the outcome under study.

2.7 NUTRITIONAL PROBLEM / DEFICIENCY DISORDER

About half (48%) of women in Maharashtra are anaemic, including 33 percent with mild anaemia, 14 percent with moderate anaemia, and 2 percent with severe anaemia. Fifty-eight percent of pregnant women and 54 percent of women who are breastfeeding are anaemic, compared with 47 percent of women who are neither pregnant nor breastfeeding. The likelihood of anaemia is lower among the more educated and among women in the higher wealth quintiles; nonetheless, at least two in five women are anaemic in all population groups.(NFHS-3)

Young adolescent mothers have a lower body mass index (BMI) since the BMI increases markedly during adolescence as pubertal changes occur (Kanani .S 1990). A low BMI status, indicative of chronic energy deficiency, is a particularly important aspect of the nutritional risks of women, during reproductive years. In a study conducted in an urban slum of Varanasi, 70% of girls aged 13-18 years had BMI <20, 51.4% were suffering from CED, and 10% were stunted

Maternal Nutrition and low birth weight – What is really important? By Sumithra Muthayya 2009 the paper was developed in the context that 'Low Birth Weight (LBW) is higher in Asia than elsewhere, predominantly because of under nutrition of mother prior to and during pregnancy.Maternal anthropometry and pregnancy outcome: Pre pregnancy weight, body mass index (BMI) and gestational weight gain all have strong, positive effects on fetal growth suggesting determinants of birth and outcome.Effect of socio-economic status: Various studies were quoted showing that factors relating to the case of women environmental hygiene and sanitation, household food security, and poverty are all likely to operate simultaneously with a low level of maternal literacy in the etiology of low birth weight. Macronutrient supplement during pregnancy: Evidence

from systematic review of randomized controlled trials on the effectiveness of nutritional interventions shows increase in maternal weight gain, mean birth weight, and a decrease in the number of LBW babies of border line significance. Iron Statics and Pregnancy: Iron deficiency is the most commonly recognized nutritional deficiency in both developed and developing world. "Requirement of absorbed iron increases during pregnancy from 0.8 mg/day in the first trimester to 7.5 mg/day in third trimester. Average requirement is approximately 4.4 mg/day. Various studies put forth maximum effect on birth weight and early supplements in early pregnancy. However, it could not prove the iron deficiency plays a casual role in poor pregnancy outcome. Effect of daily physical activity: The study shows that manual physical activity during pregnancy is associated with small for gestational age babies, LBW and pregnancy weight gain. Heavy and strenuous physical work during pregnancy lead to increased rate of abortion and premature delivery/The analysis brings that risk factors in specific socio-economic or home circumstances, cultural behavior or food intake pattern is of interest and should be taken in further studies.

Maternal nutritional status and practices and perinatal neonatal mortality in Rural Andhra Pradesh, India by Bamji 2008, the study is conducted in those villages where PHC and ICDS do not provide service thus attempts to examine the association of maternal nutrition and related factors with perinatal and neonatal mortality in these villages. Women from five selected villages who had delivered from June 1998 and Sept. 2003 were identified. Those who lost with 28 days (one month including still births, also were examined with anthropometric measurement where from group I and those who have not lost found a place in group II (group II – no mortality). Due to migration from the village not all could be included in study. Results show during the period 197 mothers had given birth to 216 infants, of whom there were 19 perinatal /neonatal deaths. (7 still births and 12 neonatal deaths 8.8%) In the other period (May 2001 and June 2003) 164 mothers had delivered of whom there were 12 neonatal deaths including 7 on the first day.

The data showed that only 8.1% were under 18 and1.3 above 35 years .57.8 percent had institutional deliveries (period A) where in (Period B) the institutional delivery was 64.6

percent. The difference was not significant.7 percent of births were pre-term and infants death were not during preterm and 88% of the pregnancy was normal.

Higher percentage shows 60% mothers had started feeding their baby from day one. The percentage of mothers who had delayed feeding till 3 days was significantly higher in the mortality group.

Birth weight figures received were less only 110 (50.9%) babies of group I and 59.1% among group II. Overall 22 percent babies were born with less than 2.5 kg as the figures of still birth also were less, it could not be compared. The weight of still birth infants could not be taken due to cultural reasons. There was significant difference in missed ANC check up in group I & II. Folic acid tablets were consumed by both groups.60% mothers suffered from chronic energy deficiency with no parity among both group in BMI.

60% had sign and symptoms of anemia as judged by one of the signs and symptoms – pallor and /or feeling of tiredness. Vitamin A deficiency was there in group I than group II. 46.7% of group I were working till the end of the gestation period and this percentage was only 14.6 percent in period B (difference was significant P<0.01) .It concluded that in developing country like India, reduction in perinatal and neonatal deaths can be achieved through properly trained birth attendants.

2.8 HEALTH SEEKING BEHAVIOUR

Health seeking behavior is governed by multiple factors. The beliefs, attitude and perception of different reproductive illness, availability, accessibility of treatment and quality of services provided also affect treatment at different levels. WHO (1989) explained the type of treatment sought by people depend on the perception.

'Early marriage is a social norm in Asia particularly in India and marriage is expected to result child bearing soon after marriage'. **'Are young Mothers in India Deprived of Maternal Health Care Services? A comparative study of Urban and Rural areas'. N.Kavitha 2015** article attempts to study   the effect of age of women at birth on the issue of maternal health care services of NFHS-3 data (2005-06).It collected information 109041 households and 124385 ever married women in the age group 15-49.Three indicators of maternal health care used as dependent variable – utilization of antenatal

care, institutional delivery, qualified personnel assistance and utilization of post natal care services.

Maternal age and utilization of maternal health: Compared to the births in adult's women, the adolescent utilizes less health care facilities and also adolescent (13%) and adult women (20%) regarding delivery is higher among rural women. "Overall, births to adolescent women are at a disadvantageous side in utilizing maternal health care services as compared to birth among adult women in urban as well as rural areas.

Maternal age and Recommended ANC: 'Logistic regression show that odds of receiving antenatal care are about 0.6 times lower in urban areas and about 0.7 times lower in rural areas, among adolescent women than among adult women. Birth order, education and antenatal care has significant impact in both rural and urban sector

Maternal age and place of delivery: Multinomial regression shows strong influence on government as well as institutional delivery in rural and urban areas. The important findings was "Primary level education of women plays significant positive role in delivery at government institution that secondary and above to private facility'.Deluxe roles of adolescent mother were less likely to be attended by qualified personnel than deliveries to adult women.

Maternal age and PNC: In both urban and rural areas, age of women at the time of birth appeared to a significant factor influencing the utilization of post natal care services. Higher education has significant correlation with post natal care services. Study emphasis on strengthening the reproductive health programs for adolescent married women. It also suggests initiating programmes to men, mother-in-law as they are the decision makers for these young women on pregnancy, health care and contraceptive use.

A qualititative study of 53 ever married women of reproductive age living in slums of two suburban wards of the city of Mumbai with two pockets from each work, comprising about 1000 households each, were selected in the study titled ' **Treatment seeking for Gynecological problems by women in Mumbai slums by Ramasubbian and Rishyasringa 2008.** It explored women's experiences with gynecological illness focused upon seven sets of illness, menstrual disturbances white discharge, urinary problems, pain in lower abdomen, accompanies by feeling of heaviness or uterine prolapsed, painful intercourse, low back pain and general weakness. All women except two women in the

study suffered from one or more problems. The author brought out the "notions influenced by both women's understanding of their bodies and their experience of gender based disabilities". She accepts many problems on minor and seeks self remedy, later when the severity increases family remedies the problem like prolapsed, urinary stress incontinence leads to such illnesses.

Menstrual problems are first self imposed constraints work then it is viewed as if external medical interventions are needed by self evaluation of women by wait and watch approach. The paper highlights the dominant perception among marginalized urban communities, was pregnancy and child caring obligations constitute all of a women's reproductive identity. Neither women nor their affinal families, generally see gynecological problems that are not co-terminus with pregnancy as reproductive health issues deserving of real concern. The situation is further compounded by considerable ignorance among both men and women about the silent reproductive health problems among women and their long term implications. The paper mentions gender inequality comes in the form of women's sole responsibility for homework, low value placed upon women's body, financial provision, limited autonomy and mobility to address their own health needs and women have limited control over their life circumstance and fear of rejection by their husbands which compel them to surrender complaining him to unnecessary suffering.

Perceived Gynecological morbidity, health seeking behavior and expenditure in Karnataka by Bhatia and Cleland , it was a cross sectional prospective study for a period of one year with a sample of 3600 women resident in a sub-district about 70 km from Bangalore during 1993 and followed till 1994-95, funded by Ford Foundation. The profile of women showed one half had no schooling (56%); prevalence of severe anemia less than 10 gm/dl was 16.8 percent. Women were mostly less than 35 years of age, married and had young children. Finally 421(out of 440 recruited) women with 1219 episodes of illness (gynecological morbidity) were reported. The main problems identified over a period of 12 months of observation, 250 episodes of genitor –urinary problems were recorded out of a total of 1219 illness episodes. And an additional 69 episodes related to pregnancy or family planning was observed. Main were problems related to circulatory, genitor-urinary, infective/parasitic, digestive, and nervous/sense

organs connective tissue, pregnancy/ family planning, nutritional, skin, injury/poisoning and ill defined .A detailed analysis of gynecological morbidity showed 47.5% of all women reported symptoms of at least one episode of gynecological morbidity. 'Out of all 282 episodes of morbidity three- quarters comprised of symptoms of lower or upper reproductive tract infections and one fifth consisted of menstrual problems. In rural Karnataka during 1994-95, the main problems stated were vaginal discharge, vaginal discharge with pain, pain in lower abdomen, menstrual disorders etc. It was notable that no action was taken in 30% of cases while 11% resorted to self medication. Over half 59% of episodes were consulted to practitioner. The health seeking behavior showed they resorted to self medication, more inclined to private practitioner and lesser to government sector. 'Caste was not found to be significantly related to number of days of illness". The study concluded that most of the symptoms of gynecological morbidity are most commonly reported by poor urban women and may reflect this psychological dimension. A further finding of the study is that women in this population do not 'suffer in silence' but seek professional advice.

2.9 REVIEWS FROM PUNE DISTRICT

USAID India   Fact sheet : Findings of Baseline study Pune 2012. Pune City   is the eighth largest metropolis in India and the second largest in the state of Maharashtra after Mumbai. The baseline of maternal health showed that –

- Awareness   on modern methods of contraception was low among women in slums.
- Fifth of currently married women in slums (17%) as well as non slum (21%) are not using any modern methods of contraception.
- The coverage of ANC is more in non-slum area than in slum area.
- 25% of pregnant women in slum did not consume IFA tablets.
- 84% of pregnant women residing in slums against 95% in non slum received ANC.
- Institutional delivery was very high in both areas.

Child health figures show marginal variation in slum and non slum areas. Regarding breast feeding within half an hour of delivery, and full immunization among children (12 to 23) months was low in both slums. The burden of diseases and risk factors showed

more regarding communicable diseases. Such as T.B., Malaria in slums compared to non slums. The usage of tobacco and alcohol is higher in slums, almost double the proportion of males (23%) in slums consume alcohol compared to non slum areas. Awareness level regarding HIV infection was low among these women. Health seeking behavior shows that slum dwellers prefer government facilities and 57% accessed and adopted institutional deliveries in slum compared to non-slum.

'For Migrants in Beed, bearing a son is almost a must, reveals study' by Anuradha Mascarenhas 2013. The newspaper article is based on a study conducted by Gokhale Institute of Politics and Economic (GIPE) on the Son preference in the district found that women here are stressed out. The study was taken up in Shirur Taluka and Khalapuri blocks comprising 19 sub centres. The survey included 700 people which included 93 migrant and 154 non migrant families. It was conducted jointly by Swiss AID India, Masum Pune and Vikas Mandal, Satara. It found that the son preference was very high in Shirur Kasar. The attitudes, perception and practices of migrant and non migrant families were assessed. 45 women underwent induced abortion of which 36 were carried out in the private sector. Of this nine women reported to have undergone sex selective abortion. Researchers found that the average cost of induced abortion was 7,192. But the cost of selective abortion was high on Rs.16,444. Atleast eight girl's neonatal deaths as could be avoided. It also revealed that more migrant women face domestic violence when compared to non migrants. 'Safety of their daughter has become the primary concern for women "

'4000 married teens in city, 1726 of them are mothers: PMC' Anuradha Mascarenhas March 7, 2013 . The latest Family survey report of Pune Municipal Corporation showed nearly '4000' girls in the age group are married and many of them even had as many as three to four children. It also adds that 1.46 lakh couples identified from April 2012-13 for creating awareness about family planning measures, 4000 were teenage mothers. According to the report 1726 teenage girls in the age group 15-19 years who had protected sex and 697 of them had one child while 655 women with two children each. A total of 153 had three children while 48 girls (4 children) each. There are 3394 girls in the age group 15-19 years who do not have protected sex and of them 7 had four children each. A total of 122 girls have three children while 192 girls have two

and 1286 have one child each. Although there is a decline in child marriage or minor girls marriage under child marriage restraint act 'but specific community like Lamani and others who migrate from other states still get their daughters married at young age'.

Survey report of IHMP (The Institute of Health Management Pachod) Pune Slum http:// www.ihmp.org/ihmp_pune.html (Dated 2.3.2012)

In 1996-97, the Institute of Health Management Pachod (IHMP) conducted a study in 16 slums (8 authorised and 8 unauthorized) in Pune city. They used qualitative and quantitative methods and studied the community perception about availability and utilization of RCH services, health providers, and the unmet needs of women and children. The slum had heavy inflow of migrants, majority of them in the prime working age groups. Majority population were married below the age of 19 with female literacy was lower than male rate. A large majority of women 73 percent of all women in age group (15-64) were not working. The analysis of the environment of the slums such as sources of lighting, drinking water, fuel (cooling) sanitation, type of house and crowding indicate the situation was worse in unrecognized slum. The crude birth in slum during 1996-98, was found to be 24.6 births per 1000 population and in non slum areas; it was only 17 people per 1000 population. The infant mortality recorded during that period for all slum areas was 25 per 1000 live birth.

Growth of Slums in Pimpri Chinchwad urban area& its effect on urban environment, Birajdar et al., 2013. The study bases on growing aspect of urban environment and the effect on urban development. Due to the concurrence of slum there is deterioration of environment .It studied seven zonal pockets and concluded that mostly slums are located near industrial area are helpful in providing satisfactory labour supply at minimum wage rates and the slum area becomes more problematic for the development of the city.

Premature deliveries, Low Birth weight major causes of infant deaths based on Maternal & Child Death Audit by Anuradha Mascarenhas 2016. The article quoted a total of 1201 infants died in 2015 in Pun Circle area comprising Pune , Satara, and Sholapur. The maternal audit conducted b PMC for 2015-16 and majority had induced hypertension and eclampsia. All died in the hospital, not at home or transit. There were 13 still births and causes of deaths included illnesses like TB, meningitis and heart

diseases. Even though death audit shows creasing trend but the child death audit of 35 cases are mainly from slum areas in 2014-15 made it clear that the leading cause of death is LBW which is again associated with prematurity. The second leading causes are premature, pneumonia, septicaemia and birth asphyxia.

CONCLUSION

The chapter 2 Review of literature focused on the existing researches carried out in the area of Adolescent Pregnancy. The review is distributed into seven broad topics which elucidate causes, determinants and consequence of Adolescent Pregnancy. **General Reviews on Reproductive health** attempts to understand the topic in a broader perspective. Socialization and internalization of gender roles play crucial role in Adolescent pregnant women and they internanalize the traditional role as 'female care giver' (Alvarez Nieto et.al. 2012). Many studies found education as an instrument for protecting early pregnancy. Illiteracy and lesser utilization of health services was correlated in two studies and so is domestic violence. Two African based studies on teenage pregnancy highlighted the need for Protective environment like family to delay pregnancy age. Many studies shows higher rate of fertility, unmet needs, early conception and early marriages among adolescent compared to adult women. One study found those who conceived below 17, the prevalence of miscarriage, still birth and infant mortality was higher. Another study found communication on menstruation and personal hygiene is disseminated by parents but not sexual and reproductive health. Two studies quoted Religion playing significant role on the number of children born to mother's .Reproductive wastage was found high among Adolescent mothers and could be correlated to low economic background. Regarding **Socio economic and demographic determinants** *s*tudies covered from developed, developing countries with backward district, hospital and even community based study to explore causes and determinants of Adolescent pregnancy. Hospital based study showed adolescent got married immediately within 4 years of menarche so is the case in NFHS-3 data where 1 in six women had began childbearing at young age. Families preferred arranged marriages and socio economic was associated with AP. In a study by Sonalde Desai and Lijuan Wu (1999) that Gender empowerment and willingness to invest in women's gender inequalities in societies examine the association between education, employment and power within the

household. In endogamous marriage in South India there is no prohibition to women marrying within their own village and often tend to marry cross cousins or even maternal uncles. Exogamous cuts the women from roots so they have to develop new social networks which may indirectly affect the utilization of health services.

Adolescent Pregnancy in the urban setting incorporates Urbanization process, urban slum, urban poor, migration and urban health services. Various studies showed poverty is related to high fertility rates so is the condition of urban slum women and are less likely to use contraceptives. Illiteracy and low family income predominates in urban slum with poor infrastructure and hygiene. One paper noted examined agents of change migration, sanskritization,urbanization and modern means of communication in urban slum and found cultural modern changes like going to beauty parlour or some new practices but patriarchy still controls the decision making. Migration of youth is considered 'healthy migrant effect' but it has negative health consequences as stated. Study also found that 'districts with lower literacy rates, the marriage migration is higher'. **Sociological Aspects of** Early marriage is still noted in the various studies. Study show marriage decision still lies with family in India and women are still woven in 'gender scripts'. The study in Ethiopia found that most of the girls are married before 15 and early marriage is done to maintain 'good name and social standing'. Two exhaustive studies found preference of male child to female and studies on the falling sex ratio of girl child. Technological effect is found mainly responsible for the elimination fetus and powerlessness of women in patriarchal society. In Latin America, female body is connected to reproduction and cause of AP is mainly poverty and absence of family support.

Health Determinants and Consequences/outcome of adolescent pregnancy: Various studies show nutritional determinants, biological, social determinates of adolescent pregnancy. Young mothers have a lower BMI, high risk of Low birth weight infants, prolonged obstructed labor and poor access to urban health services. A study in Delhi slum shows high birth rate and poor spacing between births. Another study showed prevalence of perceived morbidity was higher in the ante partum period. Reviews found that early marriage is acceptable in Asia, adolescent mothers are unaware of consequences. Various studies correlated preterm pregnancy, still birth, fetal distress,

birth asphyxia, anemia, LBW, pregnancy induced hypertension and spontaneous abortion with Adolescent Pregnancy. Reproductive morbidity and mortality also is higher among Adolescent Pregnancy. Health seeking behavior shows adolescent utilizes less health care based on reviews. Reproductive morbidity especially abortion is most unreported among urban women.

Based on the above reviews various dimensions of Adolescent Pregnancy could be explored. Maternal and reproductive health is a social phenomenon as much as a medical event, where access to and use of maternal and reproductive health care services is influenced by contextual factors (Linda Sanneving et.al., 2015). She quoted there is a need to go bond identifying single determinants of inequality in health, and to illuminate the interrelationship between social and structural determinants. When it comes to maternal and reproductive the most 'disadvantaged population' which needs attention is 'ADOLESCENT'.

Review of literature underlines various facts, which prompted me to undertake this topic for my research.

- Most of the studies are based on secondary data like NFHS1, NFHS2 NFHS 3 or DLHS 1, 2 or 3. These are large authentic survey data statistically analyzed but unable to bring out in-depth causes and determinants of Adolescent Pregnancy and the regional variation with sociological perspective.

- Socio -Cultural and Health belief behavioral system are limited in all the above studies.

- Even though after six decades of progress and intervention on components like Family planning, small family norms, sexual and reproductive health through RCH I and RCH II yet the problem of Adolescent pregnancy, Early marriage and Early Conception looms in one of the prosperous state Maharashtra as well as India. The quest is worth exploring.

- Most of the Hospital based study is unidirectional with more concentration on the outcome or consequences of Adolescent pregnancy. Only a few community based study did multidimensional study including socio- economic, biological, nutritional determinants.

- There are only limited studies from urban slum on family, patriarchy and role of reproductive health and the social networking.
- Women and migration and its impact on reproductive inequality or negative health consequences are an area of concern which still remains untouched.
- The role of economics and sociology of son preference and its role in early conception also remains more for exploration.
- Reviews depict the limitation of data on urban slum and adolescent.
- The gender, cultural practices of marriage to conception and to find the reason of better coverage of ANC and poor coverage of PNC still needs more inputs.

CHAPTER –III

RESEARCH METHODOLOGY

RESEARCH METHODOLOGY

3.1 INTRODUCTION

In a country where adolescents comprise more than 200 million, the health consequences are of enormous proportions. Non-school going adolescents form a significant part of the adolescent population in India. NFHS -3 data of Maharashtra show 13.8% of the women age 15-19 were mothers at the time of survey(2005-06) and women aged 20-24 married by the age of 18 NFHS-3 (39.4%) ,NFHS-2(47.7%) and NFHS-1(53.9%) so also pregnant women who are anaemic (15-49) 57.8%. These figures make us think why a progressive state like Maharashtra is still lacking behind in these crucial indicators of Maternal Child Health (MCH). Adolescent child bearing is one of the contributory factors for maternal and infant mortality rate. Studies conducted on RCH, MCH repeatedly found the importance of maternal health services and even though serious attempts have been made by government to provide pregnancy care, there is still lacuna in the perception, practice and even the health delivery system. So the problem, paved way to the exploration of this research study. Medical sociological investigation whether class, gender, ethinicity, educational level, age, and social support especially influence risk of illness, access to care, and the probability of resolving a health problem (Harwood,1981) Environment, economic constraints, and political structures also influence health and illness (quoted from Albrecht et al.,2000:192).Research is the systematic and rigorous process of enquiry which aims to describe phenomena and to develop explanatory concepts and theories (Bowling, 1997: 1-2). Research on Health and on health services is multidisciplinary and includes investigations by anthropologist, sociologist, demographers, epidemiologists, health economists, health policy analyst, and statistician and health professionals. 'Social scientists those who investigate health and health services aim to understand people's perceptions, behaviors and experiences in the face of health and illness, their experiences of health care, their coping and management strategies in relation to stressful events, societal reactions to illness and functioning of health services in relation to their effects on people'(Bowling, 1997: 18). Health and illness are broad multifaceted domains, which makes us explore all the dimensions of adolescent pregnancy.

3.2 OBJECTIVES OF THE STUDY:-

On the basis of the details given above and in the two earlier chapters, the study proposes to explore the following objectives of the study in the urban slums of PCMC, Pune District, Maharashtra.

1. To identify and describe the Socio- Cultural and Medical determinants of adolescent marriage and pregnancy among urban poor.
2. To compare the determinants, causes and consequences with the adult primigravida women from the same area.
3. To understand consequences of adolescent pregnancy among married females.
4. To study Health seeking behaviour in the context of medical pluralism .
5. To study the Socio- Health & belief system in the context of adolescent Pregnancy.
6. To recommend active surveillance system for intervention to reduce incidences of adolescent pregnancy.

3.3 HYPOTHESIS:-

From the broad understanding of Review of literature on Adolescent Pregnancy, its determinants ,causes, and consequences in the previous chapters, the researcher has raised the following hypothetical questions:-

1. Early marriage and early conception among urban poor is related to lack of education.
2. Adolescent mothers have higher incidence of anaemia and related complication.
3. Urban adolescent pregnant are vulnerable to poor contraceptive use and unsafe pregnancy wastage.
4. Maternal morbidity and low birth weight are major outcome of adolescent pregnancy.

3.4 PROFILE OF THE STUDY AREA

Pimpri-Chinchwad Muncipal Corporation (PCMC) is a Municipal Corporation in the city of Pimpri Chinchwad which is an Urban Agglomeration (UA) of Pune, Maharashtra. Pimpri Chinchwad Council was formed on 4 March 1970 covering area of about 87 km^2 which later on was established as Municipal Corporation in 1982, which now covers an

area of about 181 square kilometers. It is situated 160 km South-East to Mumbai on both sides of Mumbai-Pune highway. Stretched between two rivers- Mulla & Indrayani. Pimpri-Chinchwad is developed as an industrial town because of the presence of big & small industries. Industrialization in Pimpri area commenced with the establishment of Hindustan Antibiotics Limited in 1954 followed by the establishment of Maharashtra Industrial Development Corporation (MIDC) in 1961-62.

PCMC in the last two decades grew at an annual average rate of over 7% against the national average 2.1% and the state average of about 3.3%.

Demographic highlights (Source : PCMC web portal)

- Average sex ratio in the city is 916 females per 1000 males, as per 2001 census.
- Literacy rate of PCMC : 73.61% (Pune City- 77%)
- Male literacy rate :78.93% Female : 67.36%
- Population as per census 2011: 17,29,359
- Population Density : 9754 per square km
- In PCMC, 60% of the population growth is as a result of migration

PCMC health department

Commissioner is the administrative head of Municipal Corporation. Various national health programs are run under medical department is headed by Medical Director. He controls all the medical institutions (hospitals & dispensaries) run by Pimpri Chinchwad Municipal Corporation. Each hospital & dispensary has one medical officer. In hospitals the I/C medical officer has clinical staff for OPD & IPD services & field staff for outreach services. The dispensary I/C Medical officer has clinical staff for OPD services & field staff for outreach services including ANM, MPW and LT .

Existing Health institutions

There exists a 3 tire system of health care delivery in PCMC .For the purpose of convenience, PCMC area has been divided into 8 zones for health care delivery. Each area has one (Zonal) Hospital & 2-3 dispensaries. Each of Medical officers has been assigned a particular geographical area with population ranging from 30000-45000. Each medical officer controls 2-3 Field workers (ANM/MPW) for outreach services. One field worker has 15000-18000 population for coverage.

List of Zonal PCMC Hospital with population coverage (* depicts the hospital and dispensary nearest to the slum covered in the study).

S.No	Name of Health facility	Type of health facility	Population covered
1.	Bhosari*	Hospital	193375
2.	Akurdi*	Hospital	165399
3.	Yamunanagar*	Hospital	138067
4.	Thergaon	Hospital	134821
5.	Sangvi	Hospital	107409
6.	Talera*	Hospital	76101
7.	YCM*	Hospital	51889
8.	Jijamata*	Hospital	29506
Dispensory			
1.	Pimple Soudagar	Dispensary	107005
2.	Moshi	Dispensary	106131
3.	Kala Khadak	Dispensary	89619
4.	Kalewadi*	Dispensary	78118
5.	Pimpl Gurav	Dispensary	74890
6.	Walhekarwadi	Dispensary	59811
7.	Pimple Nilakh	Dispensary	51769
8.	Bhophel	Dispensary	42960
9.	Charoli	Dispensary	42904
10.	Nehrunanagar*	Dispensary	36433
11.	Pimpri Waghere	Dispensary	35713
12.	Kharalwadi*	Dispensary	34564
13.	Mhetrewadi	Dispensary	34157
14.	Dapodi	Dispensary	34170
15.	Bijlinagar*	Dispensary	33427

16.	Phugewadi	Dispensary	33239
17.	Punawle	Dispensary	32300
18.	Punewle	Dispensary	31869
19.	Praikaran*	Dispensary	31798
20.	Chinchwad station *	Dispensary	31742
21.	Kiwle	Dispensary	29814
22.	Bhatnagar *	Dispensary	23793
			1972793

Source: PCMC Health Department data dated 30/8/2014

The other facilities promoting health in the region are Integrated Child Development Scheme -2, Veterinary clinics-2, Blood Bank-1, Post mortem center-1, ART center-1, Urban Leprosy Center-1,TB unit-1.

Yaswant Rao Chavan Hospital (Source: Sarathi website of PCMC portal)

Yashwantrao Chavan Memorial Hospital is a 750 bedded, multispecialty public reference hospital ,is highly sophisticated and ultramodern hospital with numerous high-tech features .It has highly qualified and experienced faculty of specialist/super specialist medical professionals along with well trained and developed paramedical and technical personnel. It provides all diagnostic and treatment facilities up to tertiary level in 16 basic specialties including Dentistry and physiotherapy. It even provides certain diagnostic and treatment facilities in 8 super specialties such as Cardiology, Cardiac Surgery, Urology, Nephrology, Neurology, Neurosurgery, Pediatric Surgery, Hand and Plastic Surgery also. It has round the clock working Pathology with sophisticated investigations and sophisticated OTs. It also has dialysis unit and round the clock Blood Bank services at a nearby sister concern with storage centers in YCMH. It even has round the clock postmortem examination, other medico legal services, casuality services in all specialties and Birth and Death Registration services. YCMH caters to patients not only from Pimpri-Chinchwad but also from Khadki ,Pune city, Mulshi, Hinjewadi, Talegaon, Dehu Road, Junner and Khed Areas of Pune District. All the diagnostic and treatment facilities are at nominal rates to make it financially viable to the urban poor also.

Akurdi Municipality Hospital: was established in 1980. The hospital runs by the PCMC, average bed occupancy of this hospital is 20.The population that comes under Akurdi

municipality hospital zone is nearby places in Akurdi Dispensary near Bhel chowlk. It provides basic treatment to poor and the middle class by improving the faculties at hospital. It has Operation Theater and facility of caesarean. It also has medicine, obstetrics and gynecology, pediatric and TB department, Birth and Death department, D.O.T Tuberculosis, supportive services including pathology and medical store.

Bhosari Hospital Akurdi, & Yamunagar Hospital has nearly same facilities. The services are rendered from 9am to 5 pm and emergency services after that.OPD and IPD facilities present everywhere.

Bhosari Hospital has medicine, Paediatrics, ENT, Dental, Delivery, Gneacology diagnosis and surgery. Special Chest OPD with TB, Surgery, Pathology, Orthopedics, Ophthalmology, and Govt approved abortion centre and sterilization centre is function.OPD has integrated counseling, dept of immunization, General OPD, Mother and Child care under National Health program and birth and dath registration occurs here.

Talera Hospital: Talera hospital is 78 bedded hospitals with bed 60 occupancy. This place comes under ward B of Chinchwad gaon, Chinchwad. From total population 14137 population in slum. Dispensary covered Walhekarwadi, Apghat, Bijalinagar and Kiwale. The departments are medicine, obstetrics and gyneacology, pediatrics, surgery, Skin VD, ENT, TB Department, Ortho, Physiotherapy, ophthalmic, city TB center and Tuberculosis unit, Dental unit.

Under Janani Suraksha Yojana all pregnant women are offered services like pregnancy tests, blood tests, sonography (YCM & Talra Hospital) ,free delivery , treatment of neonates upto 30 days are offred fre of cost. JSY is given to SC or ST and BPL and has register herself in a hospital ,20 weeks prior to delivery and has availed three ANC checkups an delivers in hospital is given 600 as cash incentive.

Diagram – 1 given below

LOCATION OF AREA

PUNE DISTRICT

Pimpri Chinchwad Muncipal Area
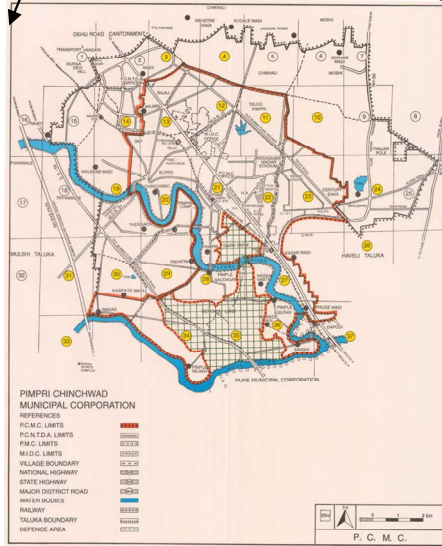
Diagram : 2 Earmarked Area of Study in PCMC Map
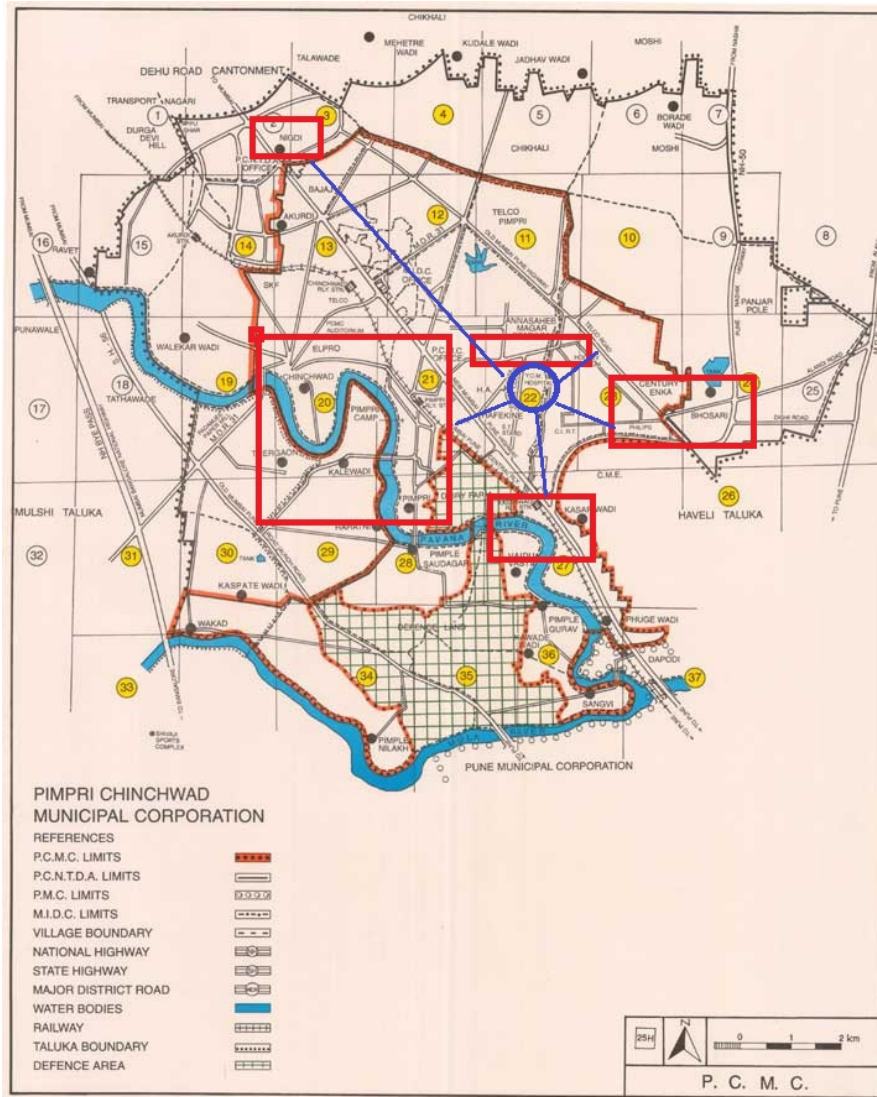
Area earmarked in red denotes study area.

Blue lines indicate emerging from circle is YCMH Hospital the main referral unit in PCMC.

3.4.1 POPULATION OF THE STUDY AREA

The study was conducted in urban slum of Pimpri Chinchwad Muncipal Corporation in Pune District of Maharashtra. As per the new Environmental Report of PCMC there are 72 Slums with 148981 Population (March 2008). The Eligible couple population shows 62959 with 4% (15-19), 20-24 (23%) , 25-29(27%) 30-34(21%) , 35-39(15%) , 40-44 (11%) and 45-49(0%). The trends of Population in PCMC shows1961 (39654), 1971(98572),1981(251769),1991(520639),   2001(1006417)[Source: PCMC census data].All these 72 slums fall in the five administrative zones of PCMC namely A ,B ,C ,D ,E and F in different electoral wards. The study is concentrating on the central area PCMC covering A Zone, B Zone, C Zone &E Zone.

Provisional reports of Census: As per provisional reports of Census India, population of Pimpri and Chinchwad in 2011 is 1,727,692 of which male and female are 942,533 and 785,159 respectively. Although Pimpri and Chinchwad city has population of 1,727,692; its urban/ metropolitan population is 5,057,709 of which 2,656,240 are males and 2,401,469 are females.

The urban poor population (Slum population) of PCMC is estimated to be about 14.56% of the total population of the city. Rapid growth of the slums is due to economic growth of the city, non availability of EWS/LIG houses and adequate environmental conditions. In total there are 71 slum settlements distributed in 3 different types. Total number of slum settlements is in 71 slums of which 37 are declared and 34 none declared. Total population is 1,47,810 (declared -80,862 and non declared 66,948). Key issues show slum dwellers donot have access to basic services and thus their living condition is unhygienic [Environment report 2012-13].In a research study 'Growth of slums in Pimpri-Chinchwad urban area and its effects on urban environment' shows large influx of skilled workforce to PCMC area. While the slum population in PCMC continued to grow in the range of 40 percent per annum, the slum has been influenced by access to workplaces and employment opportunities (Birajdar et al., 2013). Most of the slums of PCMC are located on the industry/MIDC lands, along the banks of Pawana and along railway lines or railway lands, 46 are located on MIDC, Govt, PCMC or PCNTDA land while the remaining 25 of them on private lands.

3.4.2 BRIEF DETAILS OF THE SAMPLE SLUMS OF PCMC:

Anandnagar Slum is located at the Northern side of Chinchwad region near Chinchwad railway station. It is close to National Highway No-4 (Old Pune Mumbai Highway) and Mumbai Pune railway station. Due to the various constructional activities the size of slum is now reduced. It is declared slum on 20.9.1984. Most of the slum was dominated by backward community and NARI having coordination due to the prevalence of HIV positive couple and other cases. **Ajanta nagar** slum is attached to Akurdi Hospital and lies at the Northern side of Akurdi region. Some industrial units are developed in this region like Thermax and Talawade is situated on the Northern side of slum .It is also a declared slum in 11.04.91.**Ganeshnaga**r slum is located in the western side of Pimpri region ,and is declared during the same period. Bhosari region has many slums and largest number of slum population. **Bhimnagar and Bhatnagar/Boudhnagar** are situated in Pimpri. **Landewadi** slum is just behind the Landewadi Chowk and very close to all communication and transport means. It is bound by industrial areas from two sides. It is also a declared slum during the same period. The other is **Gawalinagar** located at the western side of Bhosari . **Shanti nagar slum** of Bhosari area has 3 anganwadi and is situated amidst industrial areas. It is an undeclared slum and lot of influx of migrants and around 1.5km approx from Bhosari Hospital. Migrants from Bihar, UP, Karnataka and Maharashtra were found more in this slum. This is a rich area for the study of adolescent pregnancy. **Morwadi s**lum is located at North west side of Pimpri and close to PCMC court room and old Mumbai-Pune Road and declared in 1986. **Indiranagar** slum of Chinchwad is just situated behind Hotel Hilton and has JUNNRUM schem as well as huts. It has 4 Anganwadi and predominantly populated by Wadari and Lamani community. Most of them are engaged in occupation like fish business, labourer, sanitary workers-sweepers etc. **Dattanagar** slum is very old slum where most of the settlers are Maharashtra and have been living in the area since long. One side is dominated by wadari and lamani. **Gandhinagar** slum is very big near Dr Beck Company and is an old slum. New constructional activity is in progress in front of slum by Mahindra group. It is attached to **Kharalwadi slum in** on side both near Pimpri chowk. It is an undeclared slum and has a large population and has the presence of NGOs. **Vidya nagar** and **Ramnagar** slums is prominent slum near to industrial area. Both are well developed and

have permanent residents living in the slum since long. A study of slum dwellers shows slum dwellers are well connected to TV and mobile services. Primary education is available near the most of the slums. Most of the slum population is dominated by backward community. Buddhist supercedes all religion followed by Hindus, Muslims and in minority Christian.

The study covered 18 slums/chawls from PCMC namely Vidyanagar, Dalvinagar, Gandhinagar, Ajantanagar, Bhimnagar, Morewadi Slum, Ganeshnagar, Bhatnagar/Baudhnagar , Kharalwadi, Shantinagar, Dattanagar, Ramnagar, Landewadi, Milindnagar, Indiranagar, Gawlimata , Bhimsaktinagar and Khandobamal out of the visited 26 slums.

3.5 RESEARCH DESIGN

A research design is the overall plan for obtaining answers to questions being studied and for handling some of the difficulties encountered during the research process (Polit and Beck, 2004:49) or the Research design are a set of methods and procedures used in collecting and analyzing measures of variables specified in the research problem of research study. The design was found most suitable for the study as which entails the collection of data, analysis and interpretation of data using both qualitative and quantitative methods (WHO, 2001:16) and used with strict control over the recall bias is 'Descriptive study design'. This design helps to discover new meaning, provide new knowledge and answer the question 'what and why'. Descriptive Design is helpful to obtain information concerning current states of phenomenon to describe what exists with respect to the variables or conditions in a situation. It emerges following explorative and helps to organize the findings explain, and then test or validate those explanation. It also helps to carry out simultaneous occurrence of adolescent pregnancy and its variables. This study is guided by objectives and hypothetical assumptions on Adolescent pregnancy.

3.5.1 DATA COLLECTION METHOD

The data collection utilized both quantitative and qualitative research methods. It uses quantative data in which numerical data is collected and qualitative (narrative or visual data is collected to describe the setting) (Slavin, 2007). The characteristics of quantitative data is it rules by deduction principle, confirmation, testing hypothesis

,explanation ,prediction ,standardization of data collected and statistical inference. The qualitative data is based on induction principle, discovery of facts, exploration, theory hypothesis generation and the final qualitative analysis. As it is an empirical research, utilizing both the data method, the interpretation process utilized mixed method approach (Burke and Onwuegbuzie, 2004) .

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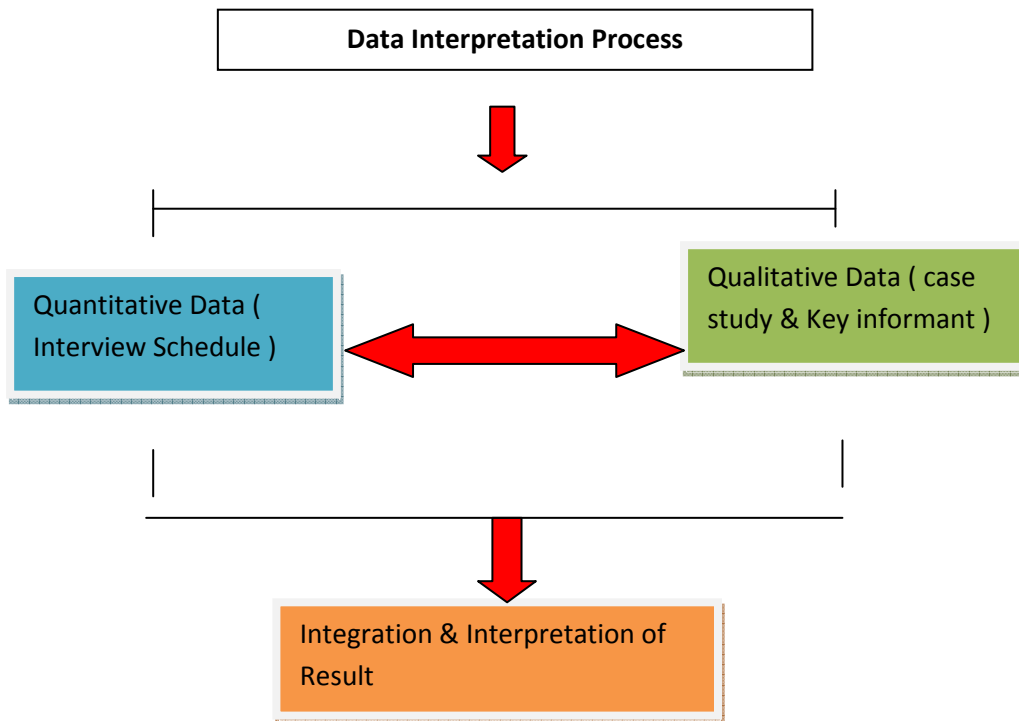
The mixed method approach is used to write the interpretation and analysis. Study uses of qualitative data to augment a quantitative outcome of the study. It keeps the researcher to be flexible to interpret the information. The researcher used qualitative data to understand the process, perception, behavior, attitude and cultural practices in-depth through qualitative enquiry to examine relationships among variables. It minimizes the weakness of each data and maximizes the strengths (Sandelowski, Voils and Knofl, 2009). Turner (2003) also used the principle of mixing where researcher should collect multiple data using different strategies, approaches, and methods in such a way that the resulting mixture or combination is likely to result in complementary strengths and not overlapping

weakness (Burke and Onwuegbuzie, 2004) .The goal of this methods is not to replace either approaches but rather to draw from the strengths and minimize the weakness in both in single research studies.

3.5.2 SAMPLE: RESPONDENTS AND RECRUITMENT IN THE STUDY

The study population included preferably lactating Adolescent mothers within the age group of 15-24 years. The women enrolled were married women and staying with their husband/in-law or maternal home and residing in PCMC slums and who fall within the age group of 15-24. They should be a mother and should have children below 24 months for adolescent girls and primigravida (a mother with a living child 0-24 months) .The primary determinant criterion for inclusion of the respondents was age irrespective of caste, religion, state etc. The group was divided later into study and control group, study group consisted or adolescent married girls and control group consisted of adult primigravida women.

- Any Lactating women who has a (one/2 living) child of 0-2 years and fall in the age category of 15-19 yrs
- Any Lactating women who has a (one) child of 0-2 years and fall in the age category of 20-24 yrs
- Any women who recently had an abortion (induced or spontaneous)/or infant death /still birth and fall in the age group of 15-24 yrs (where included in case study)
- All these women should be a resident of slum /chawl / JUNNRUM houses

3.5.3 SAMPLING

Three stage cluster random sampling – probability proportional to size was used. In cluster sampling out of Administrative zone A, B, C, D, E, F, four zones were selected A, B,C and E randomly. Cluster sampling was useful because the population under the study was dispersed, it helps the population to be divided into subpopulation in clusters and clusters were sampled randomly.`The 71 slums (notified and unnotified slums) were distributed in the & 6 Administrative zones .

First Stage: Slums from 4 administrative zone selected and listed , 26 Slums coming in the central area of PCMC were selected by random sampling for representation .All the 26 slums (36%) were visited from 2012- February 2013 and as per the consent and inclusion /exclusion criteria finally 18 slums/Chawls were selected.

Second stage: All the Anganwadi's of visited slum was marked and lactating mothers were listed falling in the age group of 15-24. Based on the inclusion and exclusion criteria and availability of target population 16 slum and 2 chawls were selected having ICDS units i.e 18 pockets (25.35%). Sampling frame of Anganwadi's and the local community personnel were included in the study .The lactating mothers were randomly selected out of the available list based on inclusion criteria. In the second stage there was lot of drop out (attrition) as they did not fall in the study.

Third stage: 200 lactating women/special case women were selected in randomly falling in the age group 15-24 years from the figures given below.170 cases were finally enrolled for the quantitative study and 15 special cases for the cases study.

Total slums in PCMC : 71

Total Areas selected as well as visited: 26 (36.61%)

Selected for final study: 18 (25.35%)

The sample size for this study has been calculated based on the following factors typically used in the surveys with probability samples:

1. The expected baseline value of the key outcome variable (here it is based on the outcome variable as adolescent pregnancy);
2. Margin of error;
3. Level of significance (α) ;
4. Design effect (i.e. loss of sampling efficiency due to use of complex sample designs like cluster sampling)
5. Response rate

The following formula was used to determine the sample size for this study:

$n = \{D * [(Z^2_{1-\alpha/2}) * p * (1-p)] / d^2\} / R;$

Where,

D: Design effect;

p: Prevalence of outcome variable of interest from the previous literature

d: Margin of error or precision

R: Response rate

Expected baseline value of the key outcome variable i.e. adolescent pregnancy is assumed to be 9.3% [NFHS -3 Urban data: Maharashtra] i.e 0.093 as in a given target population of lactating mothers

- Margin of error of 5% i.e. 0.05
- Level of significance with $\alpha = 0.05$, $Z_{1-\alpha/2} = 1.96$
- Design effect for cluster sampling i.e. D = 1.5
- Response rate of 80% i.e. R = 0.8

$n = \{1.5* [(1.96)^2 * (0.093) * (1 - 0.093)]/ (0.05)^2\} / 0.8$

$n = \{1.5 *(129.6171206\} / 0.8$

n = 243.0321012~ 243

This sample size is calculated purely based on the prevalence of adolescent pregnancy as the study is concentrating on the adolescent pregnancy its determinants, causes and consequences .The sample included women 15-24 falling in the inclusion criteria.

S.No	Area of study	Lactating mother No (3months)	Sample selected	Case Study (special cases)
1	Vidyanagar,Akurdi	72	10	
2	Dalvinagar,Chinchwad	96	7	
3	Gandhinagar,Pimpri	165	21	
4	Ajantanagar,Akurdi	66	10	
5	Bhimnagar,Pimpri	24	7	
6	Morewadi	72	4	
7	Ganeshnagar,Pimpri	24	6	
8	Milind Nagar Nigdi	24	9	
9	Kharalwadi	33	11	
10	Shantinagar,Bhosari	101	16	
11	Dattanagar,Akurdi	48	8	**15**
12	Ramnagar,Akurdi	48	3	
13	Landewadi,Bhosari	68	19	
14	Bhimshaktinagar	99	16	
15	Baudhnagar/Bhatnagar ,Pimpri	99	8	

16	Indiranagar, Chinchwad	72	6	
17	Gawanewasti,Bhosari	34	4	
18	Khandobamal,Bhosari	78	5	
		1223	170	185

- Data is based on ICDS lactating mother list for the month of august, September and october 2014. Adolescent mother cases were more in Shantinagar and Bhimshaktinagar followed by Gandhinagar & Vidhyanagar. While Adult Primigravida women were more in Gandhinagar and Landewadi.

- As per the available data of slum (2002 survey report) there are 71 slums of which 37 are declared (Population -80862) and 34 undeclared (66948) with total population 147810 (See Annexure-I)

- As in both the above cases we cannot isolate Adolescent Mother Data separately, so the sample estimation was done based on prevalence rate.

- Out of the estimated data, 185 (170 + 15) could be covered. Identification of adolescent mother and primigravida women with first pregnancy was difficult. 47.4% women age 20-24 are married by the age of 18 (urban 29.3%) NFHS-3 and have started family. So locating women for retrospective study i.e women with less than or 24 months single baby for comparison was difficult.

Diagram No 3 Research Process

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│                                                                   │
│   ┌──────────┐      ┌───────────────────────┐    ┌──────────┐   │
│   │ Research │─────▶│ Descriptive Study Design│◀───│  Review  │   │
│   │ Problem  │      └───────────────────────┘    │ Literature│   │
│   └──────────┘                │                   └──────────┘   │
│                               ▼                                   │
│              ┌─────────────────────────────────┐                 │
│              │   Cluster Sampling (Ad. Zone)    │                 │
│              └─────────────────────────────────┘                 │
│                               │                                   │
│                               ▼                                   │
│              ┌─────────────────────────────────┐                 │
│              │ Iˢᵗ Stage :  Random Sampling (18)│                 │
│              └─────────────────────────────────┘                 │
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│                               ▼                                   │
│              ┌─────────────────────────────────┐                 │
│              │ IIⁿᵈ Stage :  Listing of Lactating Mother │        │
│              └─────────────────────────────────┘                 │
│                               │                                   │
│                               ▼                                   │
│              ┌─────────────────────────────────┐                 │
│              │         Data Collection          │                 │
│              └─────────────────────────────────┘                 │
│                  │                        │                       │
│                  ▼                        ▼                       │
│         ┌──────────────────┐     ┌──────────────────┐           │
│         │ Quantilalive Method│    │ Qualitatative Method│         │
│         └──────────────────┘     └──────────────────┘           │
│                  │                        │                       │
│                  ▼                        │                       │
│      ┌────────────────────────┐          │                       │
│      │ Statistical Analysis SPSS│         │                       │
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│              ┌─────────────────────────────────┐                 │
│              │  Interprelation and Disussion    │                 │
│              └─────────────────────────────────┘                 │
│              ┌─────────────────────────────────┐                 │
│              │       Hypothesis Testing         │                 │
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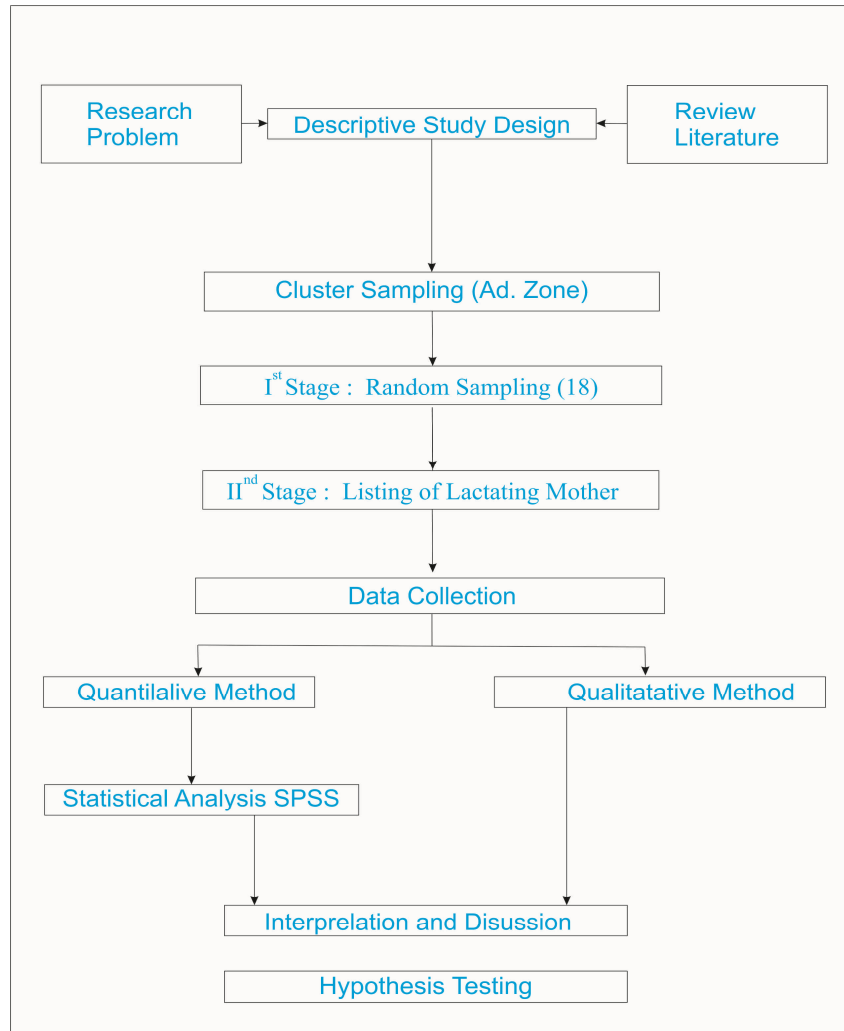
3.5.4 TOOLS FOR DATA COLLECTION

Quantitative study tool:

Structured interview schedule was used to collect unambiguous data and easy for quantification. As the study was retrospective, schedule helped in face to face interview, observation and inspecting the medical record where ever available. The advantage of face to face interview was the researcher could probe fully for responses and clarify ambiguities; more complicated question can be asked; more information and there is no requirement of literacy required (Bowling, 1997: 231) as well as an excellent way to gain factual information (Desai and Potter, 2006: 146). Pre-coded structured schedule as well as open question was used in getting in-depth information of the respondent. Minimum open ended questions were included for the propose on quantification. The Interview

Schedule was divided into 7 parts including-Part I consisted of interview dates consent language of interview, part II-Slum details, Socio-economic and demographic details of the respondents and the family details, part III- marriage and gender characteristics, part IV- Obstetric history with delivery and morbidity, Part-V antenatal care, part VI- Diet, feeding practises and contraceptive usage and last VII- health problems faced. (Enclosed as Appendix-IV-Interview Schedule)

Qualitative Study tools:

Case study method was used to substantially support the quantitative analysis through in-depth and detailed study."Case study research is a heterogeneous activity covering a range of research methods and techniques, a range of coverage (from single case study through carefully matched pairs up to multiple cases), varied levels of analysis (individuals, groups, organizations, organizational fields or social policies), and differing lengths and levels of involvement in organizational functioning"(Hartley,2004:332). Case study was conducted with Interview Guide as tool to explore the belief, practices, customs and opinion in-depth.Specialized cases of Adolescent pregnancy and primigravida women were taken through case study. These cases were identified during the course of the study from the respondent or Anganwadi workers to explore all parameters including cultural practices from the same sample area. The cases were classified as early marriage and early conception, primgravida woman and health problem, Early pregnancy and poor sex education, Neonatal death, still birth, family planning & fertility, forceful marriage & early conception, adolescent love marriage and home delivery thus covering 15 cases from the same sample areas.

Key informants were selected from the community who were the 'stakeholders of the community' to substantially incorporate all the angles and views regarding Adolescent Pregnancy in the urban slum and interviewed using Interview Guide. The Key informants were Local health providers, Local leaders, ICDS workers, Dai/Midwife Senior women (mother-in-law, mother, sister-in-law or others), senior men (Father-in-law or father), were selected from slum area who directly or indirectly influenced the subject. Key informant provided information on health seeking behaviour, perception and attitude on Adolescent pregnancy and the common practices in the area.

Process of data collection:

- Data was collected through personal interview with the help of Interview Schedule

- Interview schedule was also translated into Marathi for the correct terminology and comfortibility in communication with the slum women as more respondents were Marathi speaking.

- Face to face interview (structured and semi structured) and observation was used.

- Liasoning with many local leaders to rope information and smooth functioning of data collection.

- Assistance taken in some cases of Karnataka, where women were unable to understand Marathi or Hindi fluently.

Secondary data collection

Secondary data collection is very crucial in the study to find the outcome of the pregnancy. Hence PCMC health department, Nagar Vasti Department, Private hospital, ICDS Units, Skilled /unskilled dais of the region were covered to collect information on maternal & infant mortality, health infrastructure, Population, Lactating women figures, for slum details. Secondary Resources included library work including reports, census document, RCH document at various libraries- Tilak Maharashtra Mahavidyalaya Library, Jayakar Library at Savitribai Phule University, Pune, Gokhale Institute of Economic and Social Change, some NGOs like FRCH & IHMP, electronic media like internet and print media (Indian Express). The researcher has collected photographs during the whole study period depicting various prominent activities relevant to Adolescent pregnancy.

3.6 ETHICAL ISSUES

Ethical approval (Brydon, 2006:25-26) for the study was obtained from an Independent research body 'Lokmanya Medical Research Center Ethics Committee'. All the tools and consent form for the respondents were approved. The enrolment of the participants was voluntary, and he /she have the right to withdraw from the study without prior notice or reason. I reinforced issues of confidentiality, anonymity, and not harming key ethical issues that pertain to the subject (Nilvarangkul et al., 2011) **(See Appendix –III).**

3.7 PILOT STUDY AND PRETEST OF TOOLS

Pilot study was conducted to test the appropriateness of the method used and tools.10 samples were selected from PCMC slum for pilot study. Pilot study completed for the three slums, some terminologies were deleted like Jhopadpatti (as they felt insulted) instead Basti was incorporated, multiple choices were corrected and modified. Detail portion of cultural practices was omitted and instead it was incorporated in key informant formats with the senior members of the community.10 samples were selected (lactating mother and primigravida women) from Anand nagar, Dalvinagar & Pimpri Slum.The study helped the researcher to redraft the tool .Questions elucidating ambiguous responses were sharpened and the irrelevant questions were deleted.

Final field study

The study was conducted systematically in the stipulated time period moving in the 18 areas, first covering the quantitative data and consecutively identifying case study informants, local leaders and other key personnel's.

3.8 RESULT AND DISCUSSION

After the tool validation and final data collection, the researcher meticulously went through the raw data forms ,check them for errors and find out the standardized protocol was fully followed. Those forms which had incomplete information were rejected. In the process of **data editing** omissions have been examined and necessary action taken. As the researcher used the precoded format, the data with the guidance from statistician entered the data in **EXCEL** sheet. Code book formulation was done by the statistician. The next step was **classification and tabulation of data** and analysis by statistician in **SPSS version 21.0**.The excel sheet was exported in SPSS and final analysis was done. The analysis followed the below steps:-

- Analysis of one variable at a time (Tables 1-5)
- Analysis with bivariate analysis which examined the relationship between two variables and tabulation -cross tabulation and Pearson's linear correlation coefficient.(Tables 6-10)
- Multivariate modeling with univariate and multivariate logistic regression modeling (Tables 11-24). It also measures the degree of association between two or mare set of variables. Regression analysis is used to test whether an overall relationship exists between the dependent variable and a set of independent

variable and can even measure the relative importance of various independent variables explaining the dependent variable. `

Qualitative data collected by Case study method and Key informant interviews were thematically incorporated. The interpretation follows mixed method with quantitative data in numerical followed by qualitatitive data in quotes where ever perception, attitude, opinion and cultural practices has to be incorporated in sentences (Ganle et al., 2015).

3.10 LIMITATION OF THE STUDY

• The parameters conceived in the study are limited to a specific area. Adolescent pregnancy of PCMC selected slums could only be covered based on representative sample. Hence due to the time constraint, cost constraints and the feasibility, the size of the sample was restricted.

• The study covered 18 slums/chawls from PCMC out of the visited 26 slums. Many (30.77%) slums/chawls couldnot be enrolled due to various reasons stated below:-

 ➢ Older slums like Anandnagar, Dalvinagar (Lt side road) with three anganwadi, Ramnagar (few adult cases) Indira nagar (behind Hotel Hilton), Dattanagar (only one case) had to be excluded as no case of adolescent pregnancy was present at the time of the study.

 ➢ Some areas of Jadhavwadi, Kudalwadi, and Morewasti had to be rejected as migrants were mostly from Bihar and UP with more number of children or no documentary evidence or houses not very approachable.

 ➢ Some areas Annasahebnagar, Bharatmata nagar, Ambedkarnagar, were hostile and faced difficulty, so were not included in the study.

 ➢ After visiting 26 slums as well as chawls 18 slums/chawls (69.23%) could be included in the study.

 ➢ In such areas where sample was not representative, they were included in case study.

• Another challenge faced was to locate adult women within the age group of 20-24, because in slum area as per the ICDS list of ANC/PNC listing they were having two or more children by that age. So listing the women as per the inclusion criteria was difficult.

- As it was a retrospective study, it was based on the recall of the respondents about the experiences supported by medical records where ever available. So in some cases the researcher had to depend on recall only.

- Th data available through NFHS and PCMC health department had complied list of urban area as well as slum population. So no data exclusively for slum was available as benchmark.

- The PCMC survey data of slum was available only for the year 2002 while ICDS anagnwadi enumerates slum data yearly as per their service delivery, hence anganwadi was only used as a base unit for approach.

- The study has not incorporated the quality of hospital services, infrastructure etc.

CHAPTER –IV

RESULT AND DISCUSSION

RESULT AND DISCUSSION

Adolescent Pregnancy or motherhood in childhood not only impacts adolescents, their families, community, and society but also provides many challenges to health care providers and social scientist today. Each year, 26 million infants born in India, of these nearly 1.2 million die during the neonatal period before completing four weeks of life amounting one quarter of neonatal deaths in the world wide (SRS Registrar General of India Statistical report 2000). Early marriage is mostly common in Sub Saharan Africa and South East Asia (Alemu,2006). And even though there is regional variation but half of the burden falls upon in seven countries namely Bangladesh, Brazil, Demographic Republic of Congo, Ethiopia, India, Nigeria and USA. In India Adolescent fertility mainly occurs within the context of marriage and early marriage and conception is one of the main causes of deterioration in the Reproductive Health of women. In many countries Adolescent Pregnancy occurs, but having a child outside marriage is uncommon still in India. As a fact due to Early marriage ,young women are sexually active by the time they are 18 and almost one in five by the time they are 15 (Jejeebhoy,1998) . The average adolescent birth rate in the middle-income countries is two times higher and low-income countries is five times higher as compared to higher income families (WHO , 2012). The adolescence is the most sociologically compelling moment of life course. During these years, the forces of family, community, institution and self becomes simultaneously powerful and precarious.

The younger the age at which a girl is married, the longer is the span of her married life with her husband and therefore the longer her reproductive span. For instance if a girl is married at 15 will have reproductive span within marriage of 30 years till she is 45 years of age. Therefore she can bear at least 15 children if there is spacing of two years between children. But if a girl is married at 25, her reproductive span is reduced by ten years, so biologically she cannot bear as many children (Chatterji, 1993). Adolescent pregnancy still remains a quest for study as child marriage remains a common practice in India and pregnancy under the umbrella of family system with approval of the society is still prevalent. It is associated with low use of contraceptives (Sahoo, 2011) and pregnancy wastage was six times more common in adolescent (Sharma et al.2003) ,obstetric complication ,higher rate of Low Birth Weight LBW, still birth as against adult mothers(Azevedo et al., 2014; Patra, 2016) , Lower Body Mass Index (Muthayya , 2009).   Woman who were married before the

age of 18 were more physically and sexually exploited along with exposure of domestic violence than married after the age of 18(Santhya et al., 2010). A qualitative study conducted in Maharashtra indicated restricted access to contraceptives, where issues related to reproductive health were considered to be woman's issue and not commonly discussed between spouses but that it was the husband that made decision in relation to health care (Kulkarni and Chauhan, 2009) Various studies point out individual women's attitudes and behaviors as products of their social and cultural environments (as quoted by Ganle et al., 2015).

This study was undertaken in the urban slum setting of Pimpri Chinchwad Muncipal Corporation slums within the city limits. This study is of great significance as India has the fastest growing segment of urban poor in the world, so is the condition of the growing youth population in the in India. The urban services and infrastructure have not kept at par with the growing population or urbanization so there is pressure on food, shelter, access to health care services, regular income and deterioration of social environment which has adverse impact on health of the urban poor. Researches on urban slums calls for more constructive efforts as the existing data in NFHS or DLHS are distributed as Urban or Rural. But somehow the population living in the poorest squatters falls with the category of middle class to the wealthy urban dwellers. So there is to promote disaggregated urban data collection (Mehra and Agarwal, 2004) and in the end urban slum reels around the problem of urban poverty , Reproductive health problems, child marriage, sexual exploitation, malnutrition, unwanted pregnancy, illegal and unsafe pregnancy, malnourishment etc. Data from NFHS-3 conducted in 2006-07 show that among women in the age group of 20-24, 18% married before the age of 15, and 47% before the legal age of 18 (IIPS& Macro International 2007). Young age of marriage had great implication on women's reproductive health. The sociological perspective of the topic gives in detail the microscopic vision of urban slum of PCMC in the context of Adolescent Pregnancy – causes, determinants and consequences. My study unfolds the multifaceted sociological dimensions of the causes and determinants of Adolescent pregnancy and its consequences in the context urban slum of Pimpri Chinchwad Municipal corporation, Pune district of Maharashtra .I made an attempt to examine the various in-depth perspective also by including case study of 15 adolescent and primigravida mother's with additional inputs on attitude and perception of key informant (32) on the above subject. The qualitative and quantitative data collection was done from

2013 to 2015 followed by statistical analysis and interpretation. Total 170 respondents were covered from slums and chawls namely Vidyanagar Dalvinagar Gandhinagar, Ajanta Nagar Bhimnagar, Morwadi Ganeshnagar, MilindNagar, Kharalwadi, Shantinagar Dattanagar Ramnagar, Landewadi ,Bhimshaktinagar, Baudhnagar/Bhatnagar, Indiranagar, Gawanwasti Chawl and Khandobamal chawl. Case studies were taken from Anandnagar, Gandhinagar, Khandobamal, Gawlimata, Shantinagar and Vidyanagar

The quantitative data analysis is divided into Socio-demographic characteristics of the respondents as Table 1. It includes Age of the respondents, education, Relationship with the respondents, occupation, Income, caste, religion, and place of origin, Duration of stay in Pune city and reasons of Migration. The second table 2 is related to Marriage and Gender Characteristics which includes Age of couple at marriage, Kinship relation with husband, Decision making regarding marriage, Reason for dropping out of school or college, personal perception of early marriage, Education on menstrual hygiene, sex education and the Informant, Notion of early conception, preference of male child, Social concept of family size and decision makers of family size. The Table -3 is exploring the Gynecological and Obstetric History of the respondents throw light upon Age at menarche of respondent, Age at first pregnancy, method of confirmation of pregnancy Prenatal care, BMI, Pregnancy, Antenatal care, post natal care, place of delivery, pregnancy outcome, perinatal complication, post natal complication, health care services, treatment, Health and social assistance, Community level factors and consequences. Table -4 is exclusively for Antenatal services including immunization, Consumption of IFA tablets, and complication. Table -5 Dietary and health seeking behavior and practices includes dietary changes, cultural reason for restriction of physical activity, breast feeding and its cultural significance, family planning, contraceptive usage and awareness and reproductive health problems.

These tables are analyzed systematically first univariate analysis to decipher variables and its general outlook, bivariate and multivariate analysis to see an association between predictor variables and outcome variable.

 Under the quantitative analysis in depth case study was conducted with purposively selected data for qualitative study with the assistance of Interview Guide. This in-depth study covered attitude and perception of early marriage , early conception ,migration , preference of male child ,decision making and autonomy, cultural

practices, male participation and outlook on the topic, heath seeking behavior, cultural practices regarding child birth and medical pluralism of adolescent mothers, primigravida mothers ,and key informant like mother-in-law, father- in- law, 40+men ,health providers, local leaders to give a clear picture of the same. As the study adopted mixed methods for study case study included adolescent married girls, primigravida women, and 40+ women and men, Medical personnel, service providers and local leaders as key informants. In the Interpretation also this mixed method has been adopted to elucidate the determinants, causes and consequences. The broader areas were Socio- Adolescent reproductive Health, Social Determinants, Biological Determinants, Nutritional Determinants, Fertility, Family planning and contraception, Economic determinants, Socio Cultural & medical patterns , Health sectors behaviors in the context of Medical Pluralism, access to health services, and   Pregnancy outcome .

RESULTS:

Univariate analysis

Socio-demographic characteristics of the study population

Table – 1: Distribution of the respondents according to socio-demographic characteristics, Pimpri-Chinchwad, India [N = 170]

Socio-demographic characteristics	n	%
Age group of the respondents		
15 - 19 years	36	21.2
20 - 24 years	134	78.8
Median age [I. Q. R.]in years	170	21.0 [2.0]
Education		
Up-to Primary [1st - 4th Std.]	32	18.8
Middle [5th - 7th Std.]	57	33.5
Secondary [8th - 10th Std.]	53	31.2
Higher Secondary & above	28	16.5
Relationship with the head of the family		
Wife	80	47.3
Daughter / Grand-daughter / Sister-in-law	11	6.5
Daughter-in-law	78	46.2
Occupation		
Labourer / Construction labourer	29	17.1
Domestic worker / Hawker / Vegetable vendor / Others	18	10.6
Self employed	10	5.9
Home maker	113	66.5
Income/Economic status		
< = Rs. 3000	20	37.0
Rs. 3001 – Rs. 5000	25	46.3
Rs. 5000+	9	16.7
Caste		
General	58	34.1
SC / ST	49	28.8
OBC	48	28.2
VJ / NT / Others	15	8.8
Religion		
Hindu	130	76.5
Buddhist	23	13.5
Others [Muslim / Christian]	17	10.0

Place of origin – State

Maharashtra	132	77.6
Non-Maharashtra [Bihar, Karnataka, Other states]	38	22.4
Duration of stay in Pune city		
< = 5 years	88	51.8
6 - 10 years	14	8.2
10+ years	68	40.0
Median duration of stay [in years][I.Q.R.]	170	5.0 [18.0]
Reasons for migration		
Husband migrated for job / Job & Marriage	11	6.5
Marriage	65	38.2
Parents migrated	66	38.8
Relative house / Work	28	16.5
Type of family		
Nuclear	84	49.4
Joint	79	46.5
Extended	7	4.1

Sample characteristics of the respondents

Socio-demographic characteristics

Table – 1 presents the data on socio-demographic characteristics of the study sample [N=170] in Pimpri-Chinchwad settings. The median age of the study sample was 21 years [I.Q. R.: 2 years]. More than three-forth [78.8%] of the study sample were in the age group of 20-24 years, two-third [33.5%] had attained education up to middle–level [5th – 7th Std.] and were of general caste [34.1%], followed by SC/STs [28.8%] and OBCs [28.2%]. Most of the study participants were home maker [66.5%] and construction labourer [17.1%] and living as a nuclear [49.4%] and joint [46.5%] .More than three-forth [77.6%] of the participants were from Maharashtra and of *'Hindu'* religion [76.5%]. The median duration of stay in Pune city was 5 years [18 years] and reason for internal migration was marriage [38.2%] and parents' migration for job/work [38.8%].

Age of the head of the family : Age categorization of the head of family shows one fourth belonged to 20-25 (22.94%) ,26-31 years (22.94%) ,32-37 (1.18%),38-43(2.94%),44-49(8.23%),50-55(23.53%),   56-61(8.23%),62-67(3.53%),above   68 (3.53%) . Education of the family members -The percentage of education of other family members shows primary level (8.13%), middle education (25.60%), secondary (28.31%) ,higher education (11.75%) and graduate/professional (3.31%) . Economic

Income -The other relative staying in the house with the respondents were engaged in skilled work like company employee, driver, and home nurse. Semiskilled- painter, tailor, salesman and fabricator, unskilled – construction laborer catering and self employed fish business or vegetable vendor and 2 relatives were teacher and anganwadi workers. The monthly income of family including the respondent as well as head of the family and other members are ≤ INR 7000 (35%) ,INR 7001-9000 (42.35%) , 9001-11000 (9.41%) and above INR 11001 (12.94%) . Those families who have 3 earning family members have higher income. There is fluctuation in the regular income so it reflects in the in the annual income also.

Marriage and gender characteristics

Table - 2: Distribution of the respondents according to marriage and gender characteristics, Pimpri-Chinchwad, India [N = 170]

Marriage and gender characteristics	n	%
Age at marriage of the respondent		
< = 15 years	14	8.2
16 - 18 years	82	48.2
18+ years	74	43.5
Mean age at marriage in years [± S.D.]	170	18.2 [± 2.0]
Husbands' age at marriage		
< = 18 years	5	2.9
19 - 21 years	45	26.5
22 - 25 years	89	52.4
25+ years	31	18.2
Husband's mean age at marriage in years [± S.D.]	170	23.1 [± 3.4]
Husband relative [in case of marriage] [N=170]	87	51.2
Aware about the legal age of marriage [N=116]	113	97.4
Person who took the decision of marriage		
Father	85	50.0
Elder male family member	33	19.4
Mother	21	12.4
Family members	5	2.9
Others	26	15.3
Studying when got married [N=170]	56	32.9
Reason for leaving school / college [N=170]		
Marriage	42	24.7
Distance of School	45	26.5

Non-availability of transport facility	8	4.7
Parents not interested in study	56	32.9
Elders objected	8	4.7
All the above	5	2.9
Others	17	10.0
Personal perception/reason of getting early married by the parents		
Both parents working so it is not safe to keep girls alone at home	24	14.1
Urban place is not safe for grown-up girls	22	12.9
Scared that I will elope	7	4.1
Economic problem / Poverty	55	32.4
Others	62	36.5
Personal perception/reason of getting early married by the parents - Others category		
NA	42	67.7
Urban place is not safe for grown-up girls / Economic problem / Poverty	8	12.9
Many girls – Siblings	6	9.7
Culture / Love marriage / Safety about the alone girls at home / Urban place is not safe for grown-up girls	6	9.7
Marriage and gender characteristics	**n**	**%**
Educated by anyone about Menses /Menstrual Hygiene [N=170]	104	61.2
Persons educated about the menses / menstrual hygiene		
Teacher	25	24.0
Mother	53	51.0
Friends	15	14.4
Others[Fathers' sister/Doctor/Grandparents/NGO/Anganwadi]	9	8.7
DK/NA	2	1.9
Educated by anyone about sex education [N=170]	44	25.9
Persons educated about the sex education		
Teacher	11	25.0
Mother	10	22.7
Friends	14	31.8
Others [T.V. / NGO/Anganwadi]	7	15.9
No answer	2	4.5
Education includes family planning methods [N=170]	35	20.6
Want to conceive in the first year itself		
Yes	61	35.9
Can plan to wait	28	16.5
Mother-in-law wanted	13	7.6

No idea of pregnancy	47	27.6
As I was studying	1	0.6
Husband wanted	8	4.7
Gods' gift	3	1.8
No answer	9	5.3

Preference to have a boy or girl

Male child	50	29.4
Female child	40	23.5
Healthy baby	39	22.9
No preference	25	14.7
No answer	16	9.4

Knowledge about the determination of sex of the child/baby

Father	86	50.6
Mother	3	1.8
God	79	46.5
Both	2	1.2

Respondent's opinion On count for wanting son

No of male child	3	1.8
One	108	63.5
Two	28	16.5
Three	2	1.2
No answer	29	17.1

Respondent's opinion on count for wanting daughters

No of female child	25	14.7
One	103	60.6
Two	2	1.2
No answer	40	23.5

Husbands' opinion about no. of children want - count for boys

No of male child	2	1.2
One	104	61.2
Two	39	22.9
Three	2	1.2
No answer	23	13.5

Husbands' opinion about no. of children want - count for girls

No of female child	32	18.8
One	104	61.2
Two	4	2.4
Three	0	0.0
No answer	30	17.6

Decision about the size of the family [N=170]	108	63.5
Mother-in-law	62	36.5
Father-in-law	15	8.8
Husband	103	60.6
Herself	16	9.4
Others [Mother & father/in law]	4	2.4

Marriage and Gender characteristics

Table – 2 presents the marriage and gender characteristics of the study population. More than three-fifth [68.2%, 116/170] of the participants responded about the legal age at marriage and of them 97.4% [113/116] was aware about it. The mean age at marriage of the participant was 18.2 years [S.D.: ± 2.0 years] and husbands' age at marriage was 23.1 years [S.D.: ±3.4 years]. The proportion of participants who married at the age of 15 years or less and 16 – 18 years were 8.2% and 48.2% respectively. The husbands' age at marriage at 18 years or less and 19 – 21 years were 2.9% and 26.5% respectively. More than half of the participants' husband were relative [51.2%]. The decision maker about the marriage of the participant was father [50.0%], elderly male member of the family [19.4%] and mother [12.4%]. Almost one-third of the participants were got married when they were studying [32.9%]. Almost one-third and one-fourth of participants reported parents' non-interest in study [32.9%] and marriage [24.7%] respectively as primary reason for leaving the school/college. Economic problem / poverty [32.4%], girls' safety at home [14.1%] and at urban place [12.9%] were emerged as the reasons for early marriage among the study population.

More than three-fifth [61.2%] of the participants were educated about the menses/menstrual hygiene; of them, more than half [51.0%] and near to one fourth [24.0%] were educated by mother and teacher respectively. However, more than one-fourth of the participants [25.9%] were educated about the sex education and of them, 32% and one-fourth of them [25%] were educated by friends and teacher respectively. Only one-fifth of the participants [20.6%] reported about the education of family planning methods. Thirty-six percent of the participant reported to conceive in the first year itself and more than one fourth [27.6%] had no idea of pregnancy. More than one-fourth [29.4%] reported the preference for male child. However, less than one-fourth reported the preference for female child [23.5%] and healthy baby [22.9%]. When asked about the 'who determines the sex of child/baby' then more

than half of the participants responded to correct answer of 'father' [50.6%]. More than three-fifth of the respondents reported to their opinions to have single baby boy [63.5%] and baby girl [60.6%]. According to respondent, decision-maker about the family size was husband [60.6%] followed by mother-in-law [36.5%].

OBSTETRIC HISTORY

Table – 3: Percent distribution of Obstetric history characteristics of the respondent, Pimpri Chinchwad,

N = 170

Obstetric History characteristics	N	%
Age of attaining menarche		
< 15 years	152	89.4
15 and above	18	10.6
Mean age of attaining menarche [± S.D.] [in years]	170	13.0 [± 1.1]
Age at first pregnancy		
< = 15 years	3	1.8
16 – 17 years	34	21.8
18 – 19 years	48	28.2
20 – 21 years	64	37.6
21+ years	21	12.4
Mean age at first pregnancy [± S.D.] [in years]	170	19.2 [± 1.9]
Methods used for test of confirmation of pregnancy [N=170]	67	39.4
Physical Examination	103	60.6
Blood test	17	10.0
Urine test	159	93.5
Ultrasound	18	10.6
All of above	8	4.7
None of above	5	2.9
Weight of the respondent		
< = 35 kg	6	3.7
36 - 45 kg	74	46.0
46 - 55 kg	71	44.1
55+ kg	10	6.2
Body Mass Index [N=161]		
Under-weight [BMI < 18.5 kg/m^2]	43	26.7
Normal [BMI: 18.5 – 25 kg/ m^2]	101	62.7
Overweight [BMI: 25 – 30 kg/ m^2]	13	8.1
Obese [BMI > = 30 kg/ m^2]	4	2.5
Gender of the child		
Male	87	51.2
Female	83	48.8
Age at the time of delivery		
< = 15 years	4	2.4
16 - 18 years	36	21.2

	100	58.8
19 - 21 years		
21+ years	30	17.6

Table – 3: continued…

Obstetric History characteristics	N	%
Ordinal no. of pregnancies		
1	137	80.6
2	30	17.6
3	3	1.8
Complications during Prenatal period	95	55.9
Place of treatment availed [N=95]		
Private hospital	36	37.9
Govt. hospital	44	46.3
At home	3	3.2
No answer	12	12.6
Treatment given during the pregnancy complications [N=95]		
Parents	69	72.6
Husband	24	25.3
No answer	2	2.1
Result of first pregnancy		
Live Birth	155	91.2
Abortion	10	5.9
Post-natal death	1	0.6
Infant death	1	0.6
Neonatal death	3	1.8
Result of second pregnancy [N=33]		
Live Birth	25	75.8
Abortion	6	18.2
Post-natal death	1	3.0
Neonatal death	1	3.0
Peri-natal Period [Mother]		
Complications faced after/during child birth [N=23]	19	82.6
Place of treatment availed during complication [N=19]		
Pvt. Hospital	15	78.9
Govt. Hospital	2	10.5
No answer	2	10.5
Treatment given for pregnancy complications [N=19]		
Parents	11	57.9
Husband	4	21.1

Other	1	5.3
No answer	3	15.8
Perinatal Period CHILD		
Complications faced [N=35]	33	94.3
Place of treatment availed [N=33]		
At home	12	36.4
Pvt. Hospital	13	39.4
Govt. Hospital	4	12.1
No answer	4	12.1
Treatment given for complications [N=33]		
Parents	21	63.6
Husband/Mother-in-law	12	36.4
Post-natal Period		
Complications faced [N=28]	26	92.9
Place of treatment taken for pregnancy complications [N=26]		
At home	15	57.7
Pvt. Hospital	6	23.1
Govt. Hospital	3	11.5
No answer	2	7.7
Treatment given for pregnancy complications [N=26]		
Parents	12	46.2
Husband/Mother-in-law	10	38.5
No answer	4	15.4
Abortion occurred [N=170]	16	9.4
Neo-natal death occurred [N=170]	4	2.4
Infant death occurred [N=170]	4	2.4
Pre-mature delivery occurred [N=170]	9	5.3

Obstetric care characteristics

Table – 3 demonstrates about the uni-variate analysis of obstetric care of the respondents. The average of attaining menarche was 13.0 years [S.D.: ±1.1 years] with high proportion of attaining menarche at less than 15 years [89.4%]. In addition, although, mean age at first pregnancy was 19.2 years [S.D.: ±1.9 years]; suggesting the marriage at legal age; the prevalence of occurring the pregnancy below 15 years was 2% and more than one-fifth [23.6%] were pregnant below 18 years. Most of the respondents used the urine test [93.5%], followed by physical examination [60.6%] to confirm the pregnancy. The place of delivery in PCMC hospital [55.3%] was reported by more than half of the respondent, followed by private hospital [30.0%]. Almost all

the deliveries were done by doctor [90.6%] and were normal [78.2%]. 10% of the deliveries were conducted at home and almost 2/3rd [64.7%] were used scissor and more than one-fourth had used blades to cut the umbical cord. All the deliveries were live birth with high proportion of first order pregnancies [80.6%] and second order pregnancies [17.6%]. However, body mass index [BMI] is an important factor for pregnant women to deliver a healthy baby and also is measure of good health. Among the study sample, more than one-fourth [26.7%] were under-weight and more than three-fifth [62.7%] were normal and less than one-tenth were overweight [8.1%] and obese [2.5%].

During pre-natal period, more than half [55.9%] were faced the complications during the pregnancies and most of them were treated at Govt. hospital [46.3%] and private hospital [37.9%] by their parents [72.6%] and husband [25.3%]. The outcome of the first pregnancy was – live birth [91.2%], abortions [5.9%], post-natal and infant death [0.6%] and neo-natal death [1.8%]. However, the outcome of second pregnancy was – live birth [75.8%], abortion [18.2%] and post-natal and neo-natal death [3.0%]. During peri-natal period of mother, those gave birth to child [N=23], more than three-fourth [82.6%] had faced the complication during child birth and most of them were treated at private hospital [78.9%] by their parents [57.9%]. In addition, during peri-natal period of child, those gave birth to child [N=35], almost all [94.3%] have faced the complications during the child birth and more than one-third of them treated at home [36.4%] and private hospital [39.4%] by their parents [63.6%]. However, during the post-natal period, those gave birth to child [N=28], more than ninety percent [92.9%] had faced the complications and more than half were treated at home [57.7%] by their parents [46.2%]. Among the total sample, almost one-tenth [9.4%] had aborted the fetus and more than 2% of neo-natal deaths had occurred.

ANTE-NATAL CARE CHARACTERISTICS

Table – 4: Percent distribution of antenatal care of the respondents, Pimpri Chinchwad, N = 170

Antenatal care characteristics	N	%
Received any antenatal service/s during pregnancy [N=170]	148	87.1
Get any antenatal check up during pregnancy	153	90.0
Reason for not getting antenatal care		
No faith	1	0.6
Timings are convenient	6	3.5
Have to lose one day wage to attend ANC clinic	3	1.8
Mother-in-law does not feel it is important	6	3.5
Other	5	2.9
Person received from ANC check-up – First care provider		
ANM	22	12.9
Medical Doctor [Govt. Health facility]	92	54.1
Private Doctor	35	20.6
Other	1	0.6
No. of ANC care visits		
None	1	0.6
1 – 3	114	73.5
3+	40	25.8
Received any TT injection	170	100.0
Consumed IFA tablets	130	76.5
Reason for not consuming IFA tablets [N=40]		
Not received	1	2.5
Scared of side effects	7	17.5
Elders did not feels it was required	5	12.5
Other reasons	14	35.0
Experienced any complications during pregnancy [N=170]	95	55.9
Complications during pregnancy		
Convulsions	1	1.1
Bleeding	13	13.7
Swelling of legs	29	30.5
Anaemia	60	63.2
Fever	1	1.1
Gestational diabetes	1	1.1
High blood pressure	21	22.1
Wrong position of fetus	1	1.1

Others complications during pregnancy	22	23.2
Complications during pregnancy - Others category		
Water came out	7	31.8
Breathlessness(respiratory distress syndrome)	1	4.5
Less fluid(Oligohydromios)	3	13.6
Umbical cord entangled	3	13.6
Fetal distress	3	13.6
Uterus small	2	9.1
Fits	1	4.5
Low BP	2	9.1
Referred to other hospital anytime during pregnancy	56	32.9

Ante-natal care characteristics

Table – 4 demonstrates the ante-natal care [ANC] characteristics of the study population. More than four-fifth respondent received the ante-natal care services [87.1%] and ante-natal check-up [90.0%] during the pregnancy. Fifty four percent of the respondents reported to receive the ANC check-ups from medical doctor from Govt. health facility, followed by private doctor [20.6%] and ANM [12.9%]. Near to three-fourth [73.5%] of the participants had attended 1 – 3 ANC check-ups during the study. In addition, all the participants received the Tetanus [TT] injection and more than three-fourth of the participants [76.5%] consumed the Iron Folic Acid [IFA] tablets.

Less than three-fifth [55.9%] of the participants experienced the complications during the pregnancy; which includes anaemia [63.2%], swelling of legs [30.5%] and high blood pressure [22.1%]. Almost one-third of the participants [32.9%] were referred to hospital during the pregnancy for some medical problems.

DIET HISTORY AND HEALTH SEEKING BEHAVIORS AND PRACTICES

Table – 5: Diet history and health seeking behaviors and practices of respondents, Pimpri - Chinchwad, India [N=170]

Diet History and Health seeking behaviours and practices	N	%
No. of meals in a day(one/two/three)		
1	1	0.6
2	44	25.9
3	114	67.1
4	11	6.5
Changes in your food habits during pregnancy		
Eating more	62	36.5
Eating less	57	33.5
No change	51	30.0
Reasons for less food intake		
For easy delivery	18	10.6
Advice	3	1.8
By my choice	13	7.6
Nausea and vomiting	38	22.4
Others	1	0.6
Consume balance diet during the pregnancy / lactation	90	52.9
Restrict your activities during the pregnancy	81	47.6
Reasons for restricting physical activities/ daily routine -		
On doctors' advice	28	16.5
Better health of fetus / baby	14	8.2
To prevent complications	6	3.5
Elders' advice	25	14.7
Others	0	0.0
Feed your baby [N=170]		
No	12	7.1
Yes	158	92.9
Reason for not feeding baby [N=12]		
No enough milk/other	12	100.0
Fed the child within half an hour [N=170]	126	74.1
Reasons for not feeding the child within half an hour [N=44]		
No enough milk	18	40.9
Feed after 3 hours	11	25.0
Not conscious / admitted in ICU	3	6.8
Not aware / wrong position	2	4.5

Infant was weak to suck / difficulty in feeding / baby kept in a incubator	5	11.4
No answer	5	11.4
Prelacteral feed on your baby's tongue [N=124]		
None / Nothing + Breast milk	28	22.6
Honey	37	29.8
Milk	29	23.4
Honey & water	5	4.0
Sugar water	21	16.9
Alternative feeding	4	3.2
Want the second child soon		
Yes	47	27.6
No	92	54.1
No idea / Don't know	31	18.2
Use any contraceptive		
Yes	34	20.0
No	129	75.9
Not aware of contraceptives / No knowledge	2	1.2
Others	5	2.9
Knowledge about spacing method [N=170]	120	70.6
Spacing method used - Awareness		
Copper T / Tambi	52	43.3
Nirodh / Condom	12	10.0
Operation /	23	19.2
Pills/Mala D	27	22.5
Male Tubectomy / Sterilization	2	1.6
No answer	4	3.3
Health issues [N=170]		
Weakness	132	77.6
Headache	57	33.5
Abdominal pain	44	25.9
Vaginal discharge	34	20.0
Stress	59	34.7

Diet history and health seeking behaviour and practices

Table – 5 throws the light on the data related to diet history and health seeking behaviour and practices during the pregnancy period of the participants. Sixty seven percent of the participants were having thrice meal in a day. When participants asked about the changes in food habits during the pregnancy, more than one-third of

participants [36.5%] were eating more and thirty percent had 'no change' in their diet during the pregnancy. The most reported reason for less food intake was nausea and vomiting [22.4%], followed by easy delivery [10.6%]. More than half [52.9%] of the participants had consumed balance diet and less than half [47.6%] restricted the activities during pregnancy. One-sixth [16.5%] of the participants restricted their physical activities on doctors' advice and 15% had restricted on elders' advice.

Almost all the participants [92.9%] had fed the baby after the delivery and near to three-fourth [74.1%] had fed the baby within half an hour. Those who had not fed the baby, 'no milk' [40.9%] was the reason reported by the participant during the delivery. More than half [53.2%] had given the honey/milk first to taste on baby's' tongue, followed by sugar water [16.9%]. Fifty four percent of the respondents had no desire for the second child soon, but more than one fourth [27.6%] had a wish for second child very soon. When asked about the use of any contraceptive, only one fifth [20.0%] of the participants had used the contraceptives. In the contrary, more than two-third [70.6%] knew about the spacing method 43% about copper T/Tambi, followed by pills/operation/copper T [17.5%] and condoms [10.0%]. In terms of health issues, weakness [77.6%] was the most common problem during the pregnancy. In addition, stress [34.7%] and abdominal pain [25.9%] were reported by the participants during the pregnancy.

BI-VARIATE ANALYSIS

The bi-variate analysis cross-tabulates the sample characteristics of the respondents with the variable of interest - age at first pregnancy; which is further used to define the control and study groups for analysis. The control group is defined as group of the respondents, who were between the age of 20 – 24 years at the first pregnancy and referred as 'Primigravida women'; whereas, study group was defined as the groups of respondents, who were between the age of 15 – 19 years and referred as 'adolescent marriage girls' or adolescent mothers .

Socio-demographic characteristics of the study population

Table - 6: Socio-demographic characteristics among the primigravida and adolescent study groups, Pimpri-Chinchwad, India [N = 170]

Socio-demographic characteristics	Control Group [Primigravida women: 20 - 24 yrs], **n = 85**		Study Group [Adolescent girl: married 15 - 19 yrs], **n=85**		p - value [Chi-square test]
	n	**%**	**N**	**%**	
Current age of respondents					**p < 0.0001**
15 - 19 years	2	2.4	34	40.0	
20 - 24 years	83	97.6	51	60.0	
Median age [I. Q. R.]in years					
Education					0.135
Up to Primary [1st - 4th Std.]	10	11.8	22	25.9	
Middle [5th - 7th Std.]	31	36.5	26	30.6	
Secondary [8th - 10th Std.]	29	34.1	24	28.2	
Higher Secondary and above	15	17.6	13	15.3	
Relationship with the head of the family					0.691
Wife	43	50.6	37	44.0	
Daughter / Grand-Daughter	5	5.9	5	6.0	
Grand-Daughter					
Daughter-in-law / Sister-in-law / Others	37	43.5	42	50.0	
Occupation					0.164
Labourer / Construction labourer	9	10.6	20	23.5	
Domestic worker / Hawker / Vegetable vendor / Others	10	11.8	8	9.5	
Self employed	5	5.9	5	5.9	
Home maker	61	71.8	52	61.2	
Economic status					0.10
< = Rs. 3000	9	39.1	11	35.5	
Rs. 3001 – Rs. 5000	13	56.5	12	38.7	

Rs. 5000+	1	4.3	8	25.8	
Caste					0.874
General	31	36.5	27	31.8	
SC / ST	24	28.3	25	29.5	
OBC	22	25.9	26	30.6	
VJ / NT	8	9.4	7	8.2	
Religion					0.631
Hindu	65	76.5	65	76.5	
Buddhist	10	11.8	13	15.3	
Others [Muslims, Christian]	10	11.8	7	8.2	
Muslim					
Place of origin – State					0.141
Maharashtra	70	82.4	62	72.9	
Non-Maharashtra [Bihar, Karnataka, Other states]	15	17.7	23	27.1	
Duration of stay in Pune city					0.322
< = 5 years	46	54.1	42	49.4	
6 - 10 years	9	10.6	5	5.9	
10+ years	30	35.3	38	44.7	
Median duration of stay [in years]					
Reasons for migration					0.325
Born & Brought / Husband migrated for job / Job / Job & Marriage	5	5.9	6	7.1	
Marriage	38	44.7	27	31.8	
Parents migrated	28	32.9	38	44.7	
Relative house / Work	14	16.5	14	16.5	
Type of family					0.723
Nuclear	44	51.8	40	47.1	
Joint	37	43.5	42	49.4	
Extended	4	4.7	3	3.5	

Comparison of the sample characteristics by age at first pregnancy [study and control groups]

Socio-demographic characteristics

The proportions of younger women [i.e. 15 – 19 years] were significantly more among adolescent marriage girls as compared to primigravida women [2.4% vs 40.0%, p < 0.0001] **[Table – 6]**.This suggests that early age at marriage is more among adolescent married girl and forces them to be part of adolescent pregnancy as compared to their counterparts. However, though not statistically significant, the proportion of less educated [up to primary level] [11.8% vs 25.9%, p = 0.135],

labourer/construction labourer [10.6% vs 23.5%, p = 0.164], SC / ST women [28.3% vs 29.5%, p = 0.874], OBC women [25.9% vs 30.6%, p = 0.874], Buddhist [11.8% vs 15.3%, p = 0.631] and living in a joint family [43.5% vs 49.4%, p = 0.723] were more among adolescent married girls i.e. study group as compared their counterparts i.e. primigravida women. Surprisingly, high duration of stay in urban place i.e. Pune city [35.3% vs 44.7%, p = 0.32] was more among the adolescent married girls as compared to primigravida women.

Table – 7: Comparison of marriage and gender characteristics by age at first pregnancy [study/control group], India, N = 170

Marriage and Gender characteristics	Control Group [Primigravida women: 20 - 24 yrs], n = 85		Study Group [Adolescent girl: married 15 - 19 yrs], n=85		p - value [Chi-square test]
	n	%	n	%	
Age at marriage of the respondent					**p < 0.0001**
< 18 years	12	14.1	53	62.4	
18 and above years	73	85.9	32	38.2	
Mean age at marriage [S. D.]	85	19.3 [± 1.6]	85	16.7 [± 1.5]	**p < 0.0001**
Husbands' age at marriage					**0.025**
< 21 years	9	10.6	22	25.9	
21 - 25 years	57	67.1	51	60.0	
25+ years	19	22.4	12	14.1	
Mean age of Husband at marriage [S. D.]	85	23.7 [± 2.6]	85	22.4 [± 4.0]	**0.01**
Husband relative [in case of marriage]	41	48.2	46	54.1	0.443
Aware about the legal age of marriage [n=116]	72	98.6	41	95.3	0.282
Person who took the decision of marriage					0.768
Father	43	50.6	42	49.4	
Elder male family member	18	21.2	15	17.6	
Mother	11	12.9	10	11.8	
Others	13	15.3	18	21.2	
Studying when got married	25	29.4	31	36.5	0.328
Reasons for leaving school / college					
Marriage	17	20.0	25	29.4	0.155
Distance of School	22	25.9	23	27.1	0.862
Non-availability of transport facility	6	7.1	2	2.4	0.147
Parents not interested in study	29	34.1	27	31.8	0.744
Elders objected	5	5.9	3	3.5	0.469
All the above	4	4.7	1	1.2	0.173
Others	10	11.8	7	8.2	0.443

Personal perception/reason of getting married by the parents					0.004
Both parents working so it is not safe to keep girls alone at home	7	8.2	17	20.0	
Urban place is not safe for grown-up girls	11	12.9	11	12.9	
Scared that I will elope	4	4.7	3	3.5	
Economic problem / Poverty	21	24.7	34	40.0	
Others	42	49.4	20	23.5	

Table – 7: continued…

Marriage and Gender characteristics	Control Group [Primigravida women: 20 - 24 yrs], n = 85		Study Group [Adolescent married girl:15 - 19 yrs], n=85		p - value [Chi-square test]
	n	%	n	%	
Educated by anyone about Menses /Menstrual Hygiene	60	70.6	44	51.8	**0.017**
Persons educated about the menses / menstrual hygiene					0.07
Teacher	18	30.0	7	15.9	
Mother	29	48.3	24	54.5	
Friends	10	16.7	5	11.4	
Others [Relative/Doctor/NGO/Anganwadi/Grandparents]	3	5.0	8	18.2	
Educated by anyone about sex education	29	34.1	15	17.6	**0.014**
Persons educated about the sex education [n=44]					0.426
Teacher	8	27.6	3	20.0	
Mother	5	17.2	5	33.3	
Friends	11	11.0	3	20.0	
Other	5	5.0	4	26.6	
Education includes family planning methods	21	24.7	14	16.5	0.237
Want to conceive in the first year itself					0.157
Yes	30	35.3	31	36.5	
Can plan to wait	16	18.8	12	14.1	
Others	38	44.7	35	41.2	
No answer	1	1.2	7	8.2	
Want to conceive in the first year itself - Others category [n=75]					0.09
Mother-in-law wanted	9	23.7	4	11.4	
No idea of pregnancy	20	52.6	27	77.1	
As I was studying / Husband wanted / Gods' gift/ NA	9	23.7	4	11.5	
Preference to have a boy or girl					**0.029**
Male child	27	31.8	23	27.1	
Female child	21	24.7	19	22.4	

Healthy baby	25	29.4	14	16.5	
No preference	8	9.4	17	20.0	
Others	4	4.7	12	14.1	
Knowledge about the determination of sex of the child/baby					**p < 0.0001**
Father	60	70.6	29	34.2	
God / Both	25	29.4	56	65.9	
Respondent's opinion about no. of children want - count for boys					0.479
No male child	3	3.5	0	0	
One	53	62.4	55	64.7	
Two	15	17.6	13	15.3	
Three	1	1.2	1	1.2	
No answer	13	15.3	16	18.8	
Respondent's opinion about no. of children want - count for girls					0.665
No female child	15	17.6	10	11.8	
One	48	56.5	55	64.7	
Two	1	1.2	1	1.2	
No answer	21	24.7	19	22.4	
Husbands' opinion about no. of children want - count for boys					0.527
No male child	1	1.2	1	1.2	
One	54	63.5	50	58.8	
Two	17	20.0	22	25.9	
Three	0	0.0	2	2.4	
No answer	13	15.3	10	11.8	
Husbands' opinion about no. of children want - count for girls					0.73
No female child	17	20.0	15	17.6	
One	51	60.0	53	62.4	
Two	1	1.2	3	3.5	
No answer	16	18.8	14	16.5	
Decision about the size of the family					
Mother-in-law	34	40.0	28	32.9	0.339
Father-in-law	8	9.4	7	8.2	0.787
Husband	53	62.4	50	58.8	0.638
Herself	9	10.6	7	8.2	0.599

Marriage and Gender characteristics

Table – 7 presents the marriage and gender characteristics of the study population by the age at first pregnancy [study/control group]. The proportion of getting married below 18 years was significantly more among adolescent married girls [14.1% vs

62.4%, p < 0.0001] than primigravida women; which are replicated in the mean age at marriage and was below the legal age of marriage. The mean age of adolescent married girl at the time marriage was significantly less [17 years vs 19 years, p < 0.0001] than primigravida woman. Additionally, the reason for early marriage among the study group was the economic problems /poverty. The proportion of respondents stating the personal reason as 'economic problems/poverty' were more among adolescent married girls [24.7% vs 40.0%, p = 0.004] than primigravida women. The decision about the marriage was mostly taken by the 'father' and proportion of decision maker as a 'father' was approximately similar in both the groups [control group – 50.6%, study group – 49.4%]. More than one third [36.5%] of adolescent married girls were studying when got married as compared the primigravida women [29.4%]; which is reflected in the reasons for leaving school / college. The proportion of leaving school / college due to marriage were more among study group [20.0% vs 29.4%, p = 0.328] than control group.

Subsequently, the proportion of husbands married below legal age of marriage i.e. below 21 years was more among adolescent married girls [10.6% vs 25.9%, p = 0.025] than their counterparts with mean age at marriage of 22 years [vs 24 years, p = 0.01]. In addition, more than half of the adolescent married girls [54.1%] married to relatives from their extended families; which was less in primigravida women [48.2%].

The proportion of adolescent married girls educated about menses / menstrual hygiene were significantly less [70.6 Vs 51.8%, p = 0.017] than their counterparts. Surprisingly, 'mothers' were the person to educate about menses among adolescent married girls [54.5% vs 48.3%] and teachers [30.0% vs 15.9%] and friends [16.7% vs 11.4%] were the persons to educate about menstrual hygiene among primigravida women. Likewise, proportion of adolescent married girls educated about the sex education were significantly less [34.1% vs 17.6%, p = 0.014] than primigravida women. In this case, mothers [17.2% vs 33.3%], friends [11.0% vs 20.0%] and others [5.0% vs 26.0%] were source of information for sex education among adolescent married girls and teacher [27.6% vs 20.0%] was the primary source about the sex education among primigravida women. Almost in both the groups, respondents had wanted to conceive in the first year itself [35.3% vs 36.5%]. In adolescent married girls, more than three-fourth [52.6% vs 77.1%] had no idea of pregnancy and near to one-fourth [23.7% vs 11.4%] among primigravida reported to conceive in the first

year itself since mother-in-law wanted it. The preference to have a boy or girl was significantly associated with age at first pregnancy i.e. study/control group [p = 0.029]; which indicates that the more proportion of no preference [9.4% vs 20.0%] and less proportion of healthy baby [29.4% vs 16.5%] was observed among adolescent married girls compared to their counterparts. Among primigravida women, 'father' [69.4% vs 31.8%, p < 0.0001] was reported as a person to determine the sex of child; whereas, among adolescent married girl, 'God' [29.4% vs 63.5%, p < 0.0001] was reported as a person to decide the sex of child. The proportion of wanting 'one' boy-child [control group – 62.4%; study group – 64.7%] was approximately similar and for girl-child, it was more among adolescent married girl [56.5% vs 64.7%] than their counterpart. When asked about the decision maker about the family size, there was no significant difference in the proportion of persons deciding the family size [mother-in-law: 40.0% vs 32.9%, p = 0.339; Father-in-law: 9.4% vs 8.2%, p = 0.787; Husband: 62.4% vs 58.8%, p = 0.638 and Her-self: 10.6% vs 8.2%, p = 0.599].

Table – 8: OBSTETRIC HISTORY CHARACTERISTICS

Obstetric history characteristics	Control Group [Primigravida women: 20 - 24 yrs], n = 85		Study Group [Adolescent married girl:15 - 19 yrs], n= 85		p - value [Chi-square test]
	n	**%**	N	%	
Age of attaining menarche					0.319
< 15 years	74	87.1	78	89.4	
15 and above years	11	12.9	7	10.6	
Test of confirmation of pregnancy -					
Physical Examination	51	60.0	52	60.6	0.875
Blood test	9	10.6	8	9.4	0.798
Urine test	81	95.3	78	91.8	0.35
Ultrasound	11	12.9	7	8.2	0.319
All of above	6	7.1	2	2.4	0.147
None of above	0	0.0	5	5.9	**0.023**
Weight of the respondent [n=161]					**0.009**
< = 40 kg	9	11.0	21	26.6	
41 - 45 kg	23	28.0	27	34.2	
45+ kg	50	61.0	31	39.2	
Body mass index [n=161]					0.151
Under-weight [BMI < 18.5 kg/m^2]	17	20.7	26	32.9	
Normal [BMI: 18.5 – 25 kg/ m^2]	54	65.9	47	59.5	
Overweight / Obese [BMI > = 25 kg/ m^2]	11	13.4	6	7.6	
Gender of the child					0.443
Male	46	54.1	41	48.2	
Female	39	45.9	44	51.8	
Age at the time of delivery					**p < 0.0001**
< = 18 years	1	1.2	35	41.2	
19 - 21 years	56	65.9	44	51.8	
21+ years	28	32.9	2	2.4	
Weight of the baby					**0.007**
< 2500 gms	13	15.3	31	36.5	
2500 - 2999 gms	42	49.4	32	37.6	
3000 and more	30	35.3	22	25.9	
Current age of the child [in months]					0.61
< = 12 months	55	64.7	50	58.8	
13 - 18 months	21	24.7	22	25.9	
18+ months	9	10.6	13	15.3	
Place of the delivery					0.306
Home	8	9.4	9	10.6	

	n	%	n	%	
PHC / PCMC	52	61.2	42	49.4	
Private Hospital	23	27.1	28	32.9	
Others	2	2.4	6	7.1	
Delivery conducted by					0.389
Mother	2	2.4	2	2.4	
Relative / Mother	3	3.5	0	0.0	
UTBA	0	0.0	2	2.4	
TBA	1	1.2	1	1.2	
ANM	3	3.5	2	2.4	
Doctor	76	89.4	78	91.8	
Type of delivery					0.306
Normal delivery	63	74.1	70	82.4	
Caesarean delivery	21	24.7	15	17.6	
No answer	1	1.2	0	0.0	
Apparatus used to cut the umbical cord when delivery was conducted at home [n=17]					0.374
Blade	3	37.5	2	22.2	
Scissor	4	50.0	7	77.8	
No answer	1	12.5	0	0.0	

Table – 8: Continued…

Obstetric history characteristics	Control Group [Primigravida women: 20 - 24 yrs], **n = 85**		Study Group [Adolescent married girl: 15 - 19 yrs], **n=85**		p - value [Chi-square test]
	n	**%**	N	%	
Complications faced during pregnancies	31	36.5	64	75.3	**p < 0.0001**
Place of treatment for complications faced during pregnancies [n=95]					0.563
Private hospital	14	45.2	22	34.4	
Govt. hospital	14	45.2	30	46.9	
At home	1	3.2	2	3.1	
No answer	2	6.5	10	15.6	
Treatment given during the pregnancy complications [n=95]					0.61
Parents	23	74.2	46	71.9	
Husband	8	25.8	16	25.0	
No answer	0	0.0	2	3.1	
Result of first pregnancy [n=170]					0.14
Live Birth	81	95.3	74	87.1	
Abortion	3	3.5	7	8.2	
Post-natal Death	0	0.0	1	1.2	

Infant death	1	1.2	0	0.0	
Neo-natal Death	0	0.0	3	3.5	
Peri-natal Mother					
Complications faced after child birth	8	88.9	11	78.6	0.524
Place of treatment taken for pregnancy complications [n=19]					0.937
Pvt. Hospital	6	75.0	9	81.8	
Govt. Hospital	1	12.5	1	9.1	
No answer	1	12.5	1	9.1	
Treatment given for pregnancy complications					0.114
Parents	3	37.5	8	72.7	
Husband	2	25.0	2	18.2	
Other	0	0.0	1	9.1	
No answer	3	37.5	0	0.0	
Peri-natal CHILD					
Complications faced after child birth	3	60.0	30	100.0	**p < 0.0001**
Place of treatment taken for pregnancy complications [n=33]					0.289
At home	2	66.7	10	33.3	
Pvt. Hospital	0	0.0	13	43.3	
Govt. Hospital	0	0.0	4	13.3	
No answer	1	33.3	3	10.0	
Treatment given for pregnancy complications [n=33]					0.17
Parents	3	100.0	18	60.0	
Husband/Mother-in-law	0	0.0	12	40.0	
Post-natal Period					
Complications faced [n=28]	5	83.3	21	95.5	0.307
Place of treatment taken for pregnancy complications [n=26]					0.58
At home	3	60.0	12	57.1	
Pvt. Hospital	1	20.0	5	23.8	
Govt. Hospital	0	0.0	3	14.3	
No answer	1	20.0	1	4.8	
Treatment given for pregnancy complications [n=26]					0.219
Parents	2	40.0	10	46.2	
Husband/Mother-in-law	1	20.0	9	38.5	
No answer	2	40.0	2	15.4	
Abortion occurred	5	5.9	11	12.9	0.115
Neo-natal death occurred	0	0.0	4	4.7	**0.043**
Infant death occurred	2	2.4	2	2.4	1.00
Pre-mature delivery occurred	1	1.2	8	9.4	**0.016**

Obstetric characteristics

Table – 8 presents the cross-tabulation of obstetric care characteristics by the age at first pregnancy [i.e. 15 – 19 years and 20 – 24 years]. There was no association found between the age of attaining menarche and age at first pregnancy [p = 0.319 > 0.05]. In addition, there was no difference in proportion of respondents using 'physical examination' [60.0% vs 60.6%, p = 0.875] and 'urine test' [95.3% vs 91.8%, p = 0.35] to confirm the pregnancy between the control and study groups. The weight of respondent was significantly associated with age at first pregnancy [p = 0.009]; suggesting that proportion of respondents having weight less than 40 kg was more among adolescent married girls [11.0% vs 26.6%] as compared to their counterparts. Similarly, the age at the time of delivery is also significantly associated with age at first pregnancy [p < 0.0001]; suggesting that the proportion of respondents delivered before 18 years [i.e. at early age or before legal age at marriage] was more among adolescent married girls [1.2% vs 41.2%] as compared to primigravida women. Moreover, early marriages has impacted the weight of the baby in this study; suggesting that proportion of respondents having weight of babies below 2500 gms was more among adolescent married girls [15.3% vs 36.5%, p = 0.007] as compared to their counterparts.

During pre-natal period, the proportion of complications during pregnancy was more among adolescent married girls [36.5% vs 75.3%, p < 0.0001] as compared to their counterparts. The similar observation was found during the peri-natal period [child]; indicating more proportion of complications among adolescents as compared to primigravida women [60.0% vs 100.0%, p < 0.0001]. In addition, though the abortions occurred during the pregnancy period is not statistically associated with age at first pregnancy, but suggests that it was more among study group [5.9% vs 12.9%, p = 0.115] as compared to control group. However, the proportion of neo-natal deaths was significantly more among adolescent married girls as compared to primigravida women [0% vs 4.7%, p = 0.043].

Table – 9: Antenatal care characteristics among the adolescent married girl and Primigravida women

Antenatal care characteristics	Control Group [Primigravida women: 20 - 24 yrs], n = 85		Study Group [Adolescent married girl: 15 - 19 yrs], n= 85		p - value [Chi-square test]
	n	%	n	%	
Received any antenatal service/s during pregnancy	78	91.8	70	82.4	0.152
Get any antenatal check up during pregnancy	79	92.9	74	87.1	0.201
Reason for not getting antenatal care					
No faith	0	0.0	1	1.2	0.316
Timings are convenient	4	4.7	2	2.4	0.406
Have to lose one day wage to attend ANC clinic	0	0.0	3	3.5	0.081
Mother-in-law does not feel it is important	2	2.4	4	4.7	0.406
Other	3	3.5	2	2.4	0.65
Person received from ANC check-up – First care provider					
ANM	8	9.4	14	16.5	0.17
Medical Doctor	48	56.5	44	51.8	0.538
Private Doctor	19	22.4	16	18.8	0.569
Other	1	1.2	0	0.0	0.316
No. of ANC care visits [n=155]					0.534
None	0	0.0	1	1.3	
1 – 3	54	72.0	60	75.0	
3+	21	28.0	19	23.8	
Received any TT injection	85	100.0	85	100.0	1
Consumed IFA tablets	66	77.6	64	75.3	0.718
Reason for not consuming IFA tablets [n=40]					
Not received	0	0.0	1	4.8	0.335
Scared of side effects	1	5.3	6	28.6	**0.053**
Elders did not feels it was not required	2	10.5	3	14.3	0.72
Other reasons	7	36.8	7	33.3	0.816
Experienced any complications during pregnancy	42	49.4	53	62.4	0.089
Complications during pregnancy [n=95]					
Convulsions	1	2.4	0	0.0	0.259
Bleeding	6	14.3	7	13.2	0.879
Swelling of legs	14	33.3	15	28.3	0.597
Anaemia	30	71.4	30	56.6	0.137
Fever	1	2.4	0	0.0	0.259

Gestational diabetes	0	0.0	1	1.9	0.371
High blood pressure	12	28.6	9	17.0	0.176
Wrong position of fetus	1	2.4	0	0.0	0.259
Others	8	19.0	14	26.4	0.398
Complications during pregnancy - Others category					0.168
Water came out	1	12.5	6	42.9	
Respiratory Distress Syndrome (Breathlessness)	1	12.5	0	0.0	
Less fluid (oligohydromia)	0	0.0	3	21.4	
Umbical cord entangled	2	25.0	1	7.1	
Fetal distress	2	25.0	1	7.1	
Uterus small	0	0.0	2	14.3	
Fits	1	12.5	0	0.0	
Low BP	1	12.5	1	7.1	
Referred to other hospital anytime during pregnancy					**0.003**
No	66	77.6	48	56.5	
Yes	19	22.4	37	43.5	
Reason for not availing referral services					
Referral place was to far	0	0.0	1	2.7	0.47
Economic reasons	0	0.0	1	2.7	0.47

Antenatal care [ANC] characteristics

Table – 9 demonstrates the cross-tabulation of the antenatal care characteristics by the age at first pregnancy [i.e. 15 – 19 years and 20 – 24 years]. The association of status of receiving antenatal services [ANS] during the pregnancy was not statistically associated with age at the first pregnancy [study/control group] [91.8% vs 82.4%, p = 0.152]; but provides mathematical relationship of less proportion among adolescent married girls as compared to primigravida women. Similar finding was observed for the variable - antenatal check up [92.9% vs 87.1%, p = 0.201]. However, all the respondents in both the groups received the tetanus injections and the proportion of receiving the Iron Folic Acid [IFA] tablets was less [77.6% vs 75.3%, p = 0.718] among adolescent married girls. The reason as a 'scared of side effects' for less consumption of IFA tables among adolescent married girls was borderline significantly more [5.3% vs 28.6%, p = 0.053] than primigravida women.

However, the prevalence of experiencing the complications during pregnancy for adolescent married girls was more [49.4% vs 62.4%] than their counterparts. Though, the prevalence of experiencing was more among adolescent married girls, the complication-wise prevalence was more among primigravida women – Convulsions

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[2.4% vs 0.0%], Bleeding [14.3% vs 13.2%], Swelling of legs [33.3% vs 28.3%], lack of blood – Anaemia [71.4% vs 56.6%], Fever [2.4% vs 0.0%], and High blood pressure [28.6% vs 17.0%] except the water came out in adolescent married girls [12.5% vs 42.9%]. The high prevalence of experiencing complications during pregnancy is replicated in the high prevalence of referral to other hospitals anytime during the pregnancy. The proportion of referral to other hospital during pregnancy was significantly more among adolescent married girls [22.4% vs 43.5%, p = 0.003] than their counterparts.

Table – 10: Diet history and Health seeking behaviour and practices among primigravida and adolescent married group, Pimpri - Chinchwad, India [N=170]

Diet history and Health seeking behaviours and practices	Control Group [Primigravida women: 20 - 24 yrs], n = 85		Study Group [Adolescent girl: married 15 - 19 yrs], n=85		p - value [Chi-square test]
	n	%	n	%	
No. of meals in a day					0.199
1	0	0.0	1	1.2	
2	17	20.0	27	31.8	
3	61	71.8	53	62.4	
4	7	8.2	4	4.7	
Changes in your food habits during pregnancy					**p < 0.0001**
Eating more	43	50.6	19	22.4	
Eating less	20	23.5	37	43.5	
No change	22	25.9	29	34.1	
Reasons for less food intake -					
For easy delivery	8	9.4	10	11.8	0.618
Advice	2	2.4	1	1.2	0.56
By my choice	5	5.9	8	9.4	0.387
Nausea and vomiting	12	14.1	26	30.6	**0.01**
Others	0	0.0	1	1.2	0.316
Consumed balance diet during the pregnancy / lactation	56	65.9	34	40.0	**0.001**
Restrict your activities during the pregnancy					0.091
No	39	45.9	50	58.8	
Yes	46	54.1	35	41.2	
Reasons for restricting physical activities/ daily routine					
On doctors' advice	19	22.4	9	10.6	0.039
Better health of fetus / baby	10	11.8	4	4.7	0.094
To prevent complications	4	4.7	2	2.4	0.406
Elders' advice	15	17.6	10	11.8	0.279
Feed your baby					0.231
Yes	81	95.3	77	90.6	
No	4	4.7	8	9.4	
Fed the child within half an hour	68	80.0	58	68.2	0.08
Reasons for not feeding the child within half an hour					0.317
No milk	6	33.3	12	46.2	
Feed after 3 hours / 1-7 days	7	38.9	4	15.4	
Not conscious / admitted in ICU	1	5.6	2	7.7	
Not aware / wrong position	0	0.0	2	7.7	

Infant was weak to suck / difficulty in feeding / baby kept in a incubator	3	16.7	2	7.7
No answer	1	5.6	4	15.4
Things given first to taste on your baby s tongue [n=124]				0.147
None / Nothing + Breast milk	16	28.6	12	17.6
Honey	14	25.0	23	33.8
Milk	16	28.6	13	19.1
Honey & water	0	0.0	5	7.4
Sugar water	8	14.3	13	19.1
Alternative feeding	2	3.6	2	2.9
Want the second child soon				0.064
Yes	23	27.1	24	28.2
No	52	61.2	40	47.1
No idea / Don't know	10	11.8	21	24.7
Use any contraceptive				0.322
Yes	20	23.5	14	20.0
No	60	70.6	69	75.9
Not aware of contraceptives / No knowledge	1	1.2	1	1.2
Others	4	4.7	1	1.2
Knowledge about spacing method [N=170]	72	84.7	48	56.5	**p < 0.0001**
Spacing method used - Awareness				0.506
Copper T / Tambi	29	40.3	23	47.9
Nirodh / Condom	8	11.1	4	8.3
Pills	6	8.3	5	10.4
Operation	1	1.4	1	2.1
Pills / Operation / Copper T	12	16.7	9	18.8
Mala D	13	18.1	3	6.3
Male Tubectomy	1	1.4	0	0
Sterilization	1	1.4	0	0
No answer	1	1.4	3	6.3
Weakness	56	65.9	76	89.4	**p < 0.0001**
Headache	17	20.0	40	47.1	**p < 0.0001**
Abdominal pain	13	15.3	31	36.5	**0.002**
Vaginal discharge	10	11.8	24	28.2	**0.007**
Stress	14	16.5	45	52.9	**p < 0.001**

Diet history and Health seeking behaviours and practices

During the pregnancy period of woman, diet practices as well as health seeking behaviours are important predictors for healthy baby as well as to reverse the infant mortality rate. **Table – 10** presents the bivariate analysis of diet history and health seeking behaviours among the primigravida woman and adolescent married girl. The proportion of 'eating less' was significantly more [23.5 vs 43.5%, p < 0.0001] among adolescent married girl than primigravida women. This finding is reflected in the reasons for less food intake as 'nausea and vomiting' in adolescent married girls; which was significantly more [14.1% vs 30.6%, p = 0.01] among them as compared to their counterparts. In addition, consumption of balanced diet was also significantly less [65.9% vs 40.0%, p = 0.001] among adolescent married girl than primigravida women. Moreover, though, restriction of physical activities was not statistically associated with study group [54.1% vs 41.2%, p = 0.09], proportion was more among primigravida women [22.4% vs 10.6%, p = 0.039] as a part of doctors' advice as compared to their counterparts i.e. adolescent married girls.

However, as far as feeding practices to new born, there was no association between feeding practices such as feeding to baby [p = 0.23], feeding within half an hour [p = 0.08], reasons for not feeding the baby [p = 0.317], things given first to taste on your baby's tongue [p = 0.147] and study group. As a part of health seeking behaviours, the distance between two children, use of contraceptive [to avoid the sexually transmitted infections or to avoid wanted pregnancy], knowledge about spacing methods, and use of spacing methods to keep safe distance between two children are important factors for the reproductive health of woman. This information is measured by the certain indicators like wanting the second child soon, use of contraceptives and spacing methods and morbidities occurred during the pregnancy period. The proportion of wanting the second child soon was more [27.1% vs 28.2%, p = 0.064] among the adolescent married girls than primigravida women. Additionally, the proportion of using spacing methods was less [84.7% vs 56.5%, p < 0.0001] among adolescent married girls than their counterparts. Moreover, the proportion of health related morbidities or problems was observed significantly more among adolescent girls [weakness – 65.9% vs 89.4, p < 0.0001; Headache – 20.0% vs 47.1%, p < 0.0001; Abdominal pain – 15.3% vs 36.5%, p = 0.002; Vaginal discharge – 11.8% vs 28.2%, p = 0.007; Stress – 16.5% vs 52.9%, p < 0.0001] than primigravida women.

MULTIVARIATE MODELLING

Determinants of low birth weight among the married women

Table – 11: Low birth weight of children by socio-demographic and diet indicators among study population, Pimpri Chinchwad, India.

Independent variables	Birth weight of child		p - value [Wald Chi-square test]
	Normal or high - %	Low - %	
Age [in years]			**p < 0.0001**
15 - 19 years	55.6	44.4	
20 - 24 years	84.3	15.7	
Educational attainment			**p < 0.0001**
Up to Primary [1st - 4th Std.]	46.9	53.1	
Middle [5th - 7th Std.]	87.7	12.3	
Secondary [8th - 10th Std.]	86.8	13.2	
Higher secondary and above	78.6	21.4	
Occupation			0.277
Labourer / Construction labourer	72.4	27.6	
Domestic worker/Hawker/Vegetable vendor/Others	88.9	11.1	
Self-employed	60.0	40.0	
Home maker	79.6	20.4	
Economic status/income			0.213
< = Rs. 3000	65.0	35.0	
Rs. 3001 - Rs. 5000	84.0	16.0	
Rs. 5000+	88.9	11.1	
Caste			0.33
General	72.4	27.6	
SC / ST	77.6	22.4	
OBC	81.3	18.8	
Others	93.3	6.7	
Religion			**0.049**
Hindu	82.3	17.7	
Buddhist	69.6	30.4	
Others [Muslim/Christian]	58.8	41.2	
Type of family			0.874
Nuclear	77.4	22.6	
Joint	78.5	21.5	
Extended	85.7	14.5	
Age at marriage [in years]			**0.009**
< = 17 years	67.7	32.3	
18 and above	84.8	15.2	
Age at first pregnancy [in years]			**0.005**

15 - 19 years	69.4	30.6	
20 -24 years	87.1	12.9	
Changes in food habits during pregnancy			0.789
Eating more	80.6	19.4	
Eating less	75.4	24.6	
No change	78.4	21.6	
Consumption of balanced diet			**0.005**
No	68.8	31.3	
Yes	86.7	13.3	

Table – 12: Univariate and multivariate logistic regression modelling of low birth weight among married women, Pimpri Chinchwad, India.

Independent variables	Low birth wt %	Odds Ratio [95% C.I.] [p - value]	*adjusted* Odds Ratio [95% C. I.] [p - value]
Age [in years]			
15 - 19 years	44.4	4.30 [1.92 - 9.64] **[p < 0.0001]**	3.67 [1.11 - 12.15] **[p = 0.03]**
20 - 24 years	15.7	Referent [1.00]	Referent [1.00]
Educational attainment			
Up to Primary [1st - 4th Std.]	53.1	4.16 [1.33 - 12.98] **[p = 0.014]**	3.52 [0.85 - 16.63] [p = 0.084]
Middle [5th - 7th Std.]	12.3	0.51 [0.16 - 1.70] [p = 0.276]	0.38 [0.09 - 1.56] [p = 0.179]
Secondary [8th - 10th Std.]	13.2	0.56 [0.17 - 1.86] [p = 0.342]	0.51 [0.13 - 2.01] [p = 0.334]
Higher secondary and above	21.4	Referent [1.00]	Referent [1.00]
Occupation			
Labourer / Construction labourer	27.6	Referent [1.00]	Referent [1.00]
Domestic worker/Hawker/Vegetable vendor/Others	11.1	0.33 [0.06 - 1.76] [p = 0.194]	0.13 [0.01 - 1.42] [p = 0.095]
Self-employed	40.0	1.75 [0.39 - 7.88] [p = 0.46]	1.51 [0.20 - 11.37] [p = 0.689]
Home maker	20.4	0.67 [0.26 - 1.71] [p = 0.402]	1.04 [0.28 - 3.84] [p = 0.955]
Economic status/income			
< = Rs. 3000	35.0	4.31 [0.44 - 41.82] [p = 0.208]	
Rs. 3001 - Rs. 5000	16.0	1.52 [0.15 - 15.78] [p = 0.724]	
Rs. 5000+	11.1	Referent [1.00]	Referent [1.00]
Caste			
General	27.6	0.76 [0.31 - 1.84] [p = 0.543]	0.54 [0.14 - 2.02] [p = 0.358]
SC / ST	22.4	0.61 [0.24 - 1.53] [p = 0.289]	0.44 [0.10 - 1.87] [p = 0.265]

OBC	18.8	0.19 [0.02 - 1.54] [p = 0.120]	0.25 [0.02 - 0.27] [p = 0.252]
Others	6.7	Referent [1.00]	Referent [1.00]
Religion			
Hindu	17.7	Referent [1.00]	Referent [1.00]
Buddhist	30.4	2.04 [0.75 - 5.51] [p = 0.16]	2.14 [0.52 - 8.89] [p = 0.293]
Others [Muslim/Christian]	41.2	3.26 [1.12 - 9.45] **[p = 0.03]**	3.38 [0.68 - 16.86] [p = 0.138]
Type of family			
Nuclear	22.6	0.94 [0.45 - 1.97] [p = 0.866]	0.99 [0.39 - 2.55] [p = 0.986]
Joint	21.5	0.57 [0.07 - 5.03] [p = 0.613]	1.09 [0.09 - 12.46] [p = 0.942]
Extended	14.5	Referent [1.00]	Referent [1.00]
Age at marriage [in years]			
< = 17 years	32.3	2.66 [1.26 - 5.89] **[p = 0.010]**	1.79 [0.59 - 5.45] [p = 0.308]
18 and above	15.2	Referent [1.00]	Referent [1.00]
Age at first pregnancy [in years]			
15 - 19 years	30.6	2.97 [1.35 - 6.49] **[p = 0.007]**	1.12 [0.36 - 3.48] [p = 0.847]
20 -24 years	12.9	Referent [1.00]	Referent [1.00]
Changes in food habits during pregnancy			
Eating more	19.4	Referent [1.00]	Referent [1.00]
Eating less	24.6	1.36 [0.57 - 3.25] [p = 0.493]	0.72 [0.21 - 2.49] [p = 0.601]
No change	21.6	1.15 [0.46 - 2.87] [p = 0.771]	0.89 [0.26 - 3.06] [p = 0.847]
Consumption of balanced diet			
No	31.3	2.96 [1.37 - 6.38] **[p = 0.006]**	1.95 [0.70 - 5.41] [p = 0.200]
Yes	13.3	Referent [1.00]	Referent [1.00]

Modelling of low birth weight of child

The uni-variate logistic regression modelling of low birth weight of child suggests that the proportion of low birth weight of child was significantly associated with younger women [44.4% vs 15.7%, Odds Ratio (OR) = 4.30, 95% Confidence Interval (C. I.): 1.92 – 9.64; p < 0.0001], women with primary education [53.1% vs 21.4%, OR = 4.16, 95% C.I.: 1.33 – 12.98; p = 0.014], other religion [Muslim/Christian] [41.2% vs 17.7%, OR =3.26, 95% C. I.: 1.12 – 9.45; p = 0.03], lower age at marriage [32.3% vs 15.2%, OR = 2.66, 95% C. I.: 1.26 – 5.89; p = 0.01], adolescent pregnancy i.e. Pregnancy between the age 15 – 19 years [30.6% vs 12.9%, OR = 2.97, 95% C. I.: 1.35 – 6.49; p = 0.007] and non-consumption of balanced diet [31.3% vs 13.3%, OR = 2.96, 95% C. I.: 1.37 – 6.38; p = 0.006] as compared to their counterparts / reference population [**Table – 11, 12**]. However, multi-variate logistic regression modelling of low birth weight predicts younger women [adjusted Odds Ratio (aOR) = 3.67; 95% C. I.: 1.11 – 12.15, p = 0.03] at increased risk of delivering the low birth weight babies as compared to their counter parts [**Table – 12**].

Table - 13: Complications faced during pre-natal period by socio-demographic and diet indicators among study population, Pimpri Chinchwad, India, 2014

Independent variables	Complications faced during pre-natal period		p - value [Wald-Chi-square test]
	No - %	Yes - %	
Age [in years]			**0.03**
15 - 19 years	25.7	74.3	
20 - 24 years	46.1	53.9	
Educational attainment			0.95
Up to Primary [1st - 4th Std.]	40.0	60.0	
Middle [5th - 7th Std.]	40.0	60.0	
Secondary [8th - 10th Std.]	45.1	54.9	
Higher secondary and above	40.7	59.3	
Occupation			0.557
Labourer / Construction labourer	29.6	70.4	
Domestic worker/Hawker/Vegetable vendor/Others	47.1	52.9	
Self-employed	40.0	60.0	
Home maker	44.0	56.0	
Economic status/income			0.206
< = Rs. 3000	55.6	44.4	
Rs. 3001 - Rs. 5000	29.2	70.8	
Rs. 5000+	33.3	66.7	
Caste			0 .427
General	47.4	52.6	
SC / ST	33.3	66.7	
OBC	45.7	54.3	
Others	33.3	66.7	
Religion			0.993
Hindu	41.6	58.4	
Buddhist	42.9	57.1	
Others [Muslim/Christian]	41.2	58.8	
Type of family			0.491
Nuclear	46.3	53.8	
Joint	36.8	63.2	
Extended	42.9	57.1	
Age at marriage [in years]			**0.007**
< = 17 years	28.6	71.4	
18 and above	50.0	50.0	
Age at first pregnancy [in years]			**p < 0.0001**
15 - 19 years	22.0	78.0	
20 -24 years	61.7	38.3	
Changes in food habits during pregnancy			**0.006**

Eating more	57.4	42.6	
Eating less	29.6	70.4	
No change	35.4	64.6	
Consumption of balanced diet			**0.008**
No	30.7	69.3	
Yes	51.1	48.9	

Table - 14: Univariate and multivariate logistic regression modelling of complications faced during pre-natal period among married women, Pimpri-Chinchwad, India

Independent variables	Complications faced - %	Odds Ratio [95% C.I.] [p - value]	adjusted Odds Ratio [95% C. I.] [p - value]
Age [in years]			
15 - 19 years	74.3	2.47 [1.07 - 5.69] **[p = 0.034]**	0.73 [0.24 - 2.29] [p = 0.59]
20 - 24 years	53.9	**Referent [1.00]**	**Referent [1.00]**
Educational attainment			
Up to Primary [1st - 4th Std.]	60.0	1.03 [0.36 - 2.98] [p = 0.955]	0.39 [0.11 - 1.48] [p = 0.167]
Middle [5th - 7th Std.]	60.0	1.03 [0.40 - 2.64] [p = 0.949]	1.01 [0.32 - 3.15] [p = 0.992]
Secondary [8th - 10th Std.]	54.9	0.84 [0.33 - 2.15] [p = 0.712]	1.02 [0.33 - 3.14] [p = 0.978]
Higher secondary and above	59.3	**Referent [1.00]**	**Referent [1.00]**
Occupation			
Labourer / Construction labourer	70.4	**Referent [1.00]**	**Referent [1.00]**
Domestic worker/Hawker/Vegetable vendor/Others	52.9	0.47 [0.13 - 1.67] [p = 0.245]	0.62 [0.14 - 2.85] [p = 0.54]
Self-employed	60.0	0.63 [0.14 - 2.86] [p = 0.551]	1.41 [0.22 - 9.18] [p = 0.718]
Home maker	56.0	0.54 [0.22 - 1.33] [p = 0.177]	0.73 [0.24 - 2.26] [p = 0.585]
Economic status/income			
< = Rs. 3000	44.4	0.40 [0.08 - 2.12] [p = 0.282]	
Rs. 3001 - Rs. 5000	70.8	1.21 [0.24 - 6.27] [p = 0.817]	

	%		
Rs. 5000+	66.7	**Referent [1.00]**	**Referent [1.00]**
Caste			
General	52.6	1.80 [0.80 - 4.04] [p = 0.154]	2.44 [0.83 - 7.16] [p = 0.105]
SC / ST	66.7	1.07 [0.49 - 2.33] [p = 0.862]	1.10 [0.37 - 3.29] [p = 0.867]
OBC	54.3	1.80 [0.55 - 5.93] [p = 0.334]	2.45 [0.55 - 10.82] [p = 0.238]
Others	66.7	**Referent [1.00]**	**Referent [1.00]**
Religion			
Hindu	58.4	**Referent [1.00]**	**Referent [1.00]**
Buddhist	57.1	0.95 [0.37 - 2.42] [p = 0.914]	1.16 [0.34 - 3.96] [p = 0.814]
Others [Muslim/Christian]	58.8	1.02 [0.36 - 2.85] [p = 0.973]	2.79 [0.67 - 11.57] [p = 0.157]
Type of family			
Nuclear	53.8	1.48 [0.78 - 2.80] [p = 0.234]	1.80 [0.83 - 3.87] [p = 0.136]
Joint	63.2	1.15 [0.24 - 5.46] [p = 0.863]	1.05 [0.17 - 6.51] [p = 0.961]
Extended	57.1	**Referent [1.00]**	**Referent [1.00]**
Age at marriage [in years]			
< = 17 years	71.4	**2.50 [1.28 - 4.90] [p = 0.008]**	1.28 [0.49 - 3.31] [0.616]
18 and above	50.0	**Referent [1.00]**	**Referent [1.00]**
Age at first pregnancy [in years]			
15 - 19 years	78.0	**5.74 [2.88 - 11.41] [p < 0.0001]**	**5.39 [2.14 - 13.54] [p < 0.0001]**
20 -24 years	38.3	**Referent [1.00]**	**Referent [1.00]**
Changes in food habits during pregnancy			
Eating more	42.6	**Referent [1.00]**	**Referent [1.00]**

Eating less	70.4	3.20 [1.48 - 6.93] **[p = 0.003]**	2.46 [0.92 - 6.58] [p= 0.073]
No change	64.6	2.45 [1.13 - 5.35] **[p = 0.024]**	1.73 [0.64 - 4.70] [p = 0.280]
Consumption of balanced diet			
No	69.3	2.37 [1.24 - 4.51] **[p = 0.009]**	1.38 [0.62 - 3.10] [p = 0.434]
Yes	48.9	**Referent [1.00]**	**Referent [1.00]**

Modelling of complications faced during pre-natal period

The uni-variate logistic regression modelling of occurrence of complications during pre-natal period suggest that it is significantly associated with younger women [74.3% vs 53.9%, Odds Ratio (OR) = 2.47, 95% Confidence Interval (C. I.): 1.07 – 5.69; p = 0.034], women with lower age at marriage [71.4% vs 50.0%, OR = 2.50, 95% C. I.: 1.28 – 11.41; p = 0.008], adolescent pregnancy i.e. women with pregnancy between the age 15 – 19 years [78.0% vs 38.3%, OR = 5.74, 95% C. I.: 2.88 – 11.41; p < 0.0001], women with less eating habits [70.4% vs 42.6%, OR = 3.20, 95% C.I.: 1.48 – 6.93; p = 0.003] and non-consumption of balanced diet [69.3% vs 48.9%, OR = 2.37, 95% C. I.: 1.24 – 4.51; p = 0.009] as compared to their counterparts / reference population [**Table – 13, 14**]. In addition, multi-variate logistic regression modelling of occurrence of complications during pre-natal period determines adolescent pregnancy i.e. pregnancy at the age of 15 – 19 years as an independent predictor [adjusted Odds Ratio (aOR) = 5.39; 95% C. I.: 2.14 – 13.54, p < 0.0001] of occurrence of co-morbidities during pre-natal period as compared to primigravida women [**Table – 14**]. This finding implicates that among adolescent women, complications during pre-natal period was 5.39 times more likely to occur than primigravida women.

Table – 15: Health-related problems by socio-demographic and diet indicators among study population, Pimpri Chinchwad, India, 2014

Independent variables	Health-related problems faced		p - value [Wald-Chi-square test]
	No - %	Yes - %	
Age [in years]			**p < 0.0001**
15 - 19 years	22.2	77.8	
20 - 24 years	55.2	44.8	
Educational attainment			0.20
Up to Primary [1st - 4th Std.]	40.6	59.4	
Middle [5th - 7th Std.]	42.1	57.9	
Secondary [8th - 10th Std.]	50.9	49.1	
Higher secondary and above	64.3	35.7	
Occupation			0.883
Labourer / Construction labourer	41.4	58.6	
Domestic worker/Hawker/Vegetable vendor/Others	50.0	50.0	
Self-employed	50.0	50.0	
Home maker	49.6	50.4	
Economic status/income			0.259
< = Rs. 3000	55.0	45.0	
Rs. 3001 - Rs. 5000	44.0	56.0	
Rs. 5000+	22.2	77.8	
Caste			0.807
General	53.4	46.6	
SC / ST	44.9	55.1	
OBC	45.8	54.2	
Others	46.7	53.3	
Religion			0.874
Hindu	49.2	50.8	
Buddhist	43.5	56.5	
Others [Muslim/Christian]	47.1	52.9	
Type of family			0.567
Nuclear	48.8	51.2	
Joint	49.4	50.6	
Extended	28.6	71.4	
Age at marriage [in years]			**0.001**
< = 17 years	32.3	67.7	
18 and above	58.1	41.9	
Age at first pregnancy [in years]			**p < 0.0001**
15 - 19 years	27.1	72.9	

20 -24 years	69.4	30.6	
Changes in food habits during pregnancy			**0.017**
Eating more	61.3	38.7	
Eating less	35.1	64.9	
No change	47.1	52.9	
Consumption of balanced diet			**p < 0.0001**
No	31.3	68.8	
Yes	63.3	36.7	

Table – 16: Univariate and multivariate logistic regression modelling of health-related problems among married women, Pimpri-Chinchwad, India, 2014

Independent variables	Health problem faced - %	Odds Ratio [95% C.I.] [p - value]	*adjusted* Odds Ratio [95% C. I.] [p - value]
Age [in years]			
15 - 19 years	77.8	4.32 [1.83 - 10.16] **[p = 0.001]**	1.32 [0.44 - 3.98] [p = 0.620]
20 - 24 years	44.8	**Referent [1.00]**	**Referent [1.00]**
Educational attainment			
Up to Primary [1st - 4th Std.]	59.4	2.63 [0.92- 7.49] [p = 0.07]	1.54 [0.41 - 5.79] [p = 0.519]
Middle [5th - 7th Std.]	57.9	2.48 [0.97 - 6.30] [p = 0.057]	3.80 [1.14 - 12.70] **[p = 0.03]**
Secondary [8th - 10th Std.]	49.1	1.73 [0.68 - 4.44] [p = 0.252]	2.60 [0.79 - 8.54] [p = 0.115]
Higher secondary and above	35.7	**Referent [1.00]**	**Referent [1.00]**
Occupation			
Labourer / Construction labourer	58.6	**Referent [1.00]**	**Referent [1.00]**
Domestic worker/Hawker/Vegetable vendor/Others	50.0	0.71 [0.22 - 2.30] [p = 0.564]	1.26 [0.28 - 5.61] [p = 0.763]
Self-employed	50.0	0.71 [0.17 - 2.99] [p = 0.636]	1.04 [0.14 - 7.78] [p = 0.969]
Home maker	50.4	0.72 [0.32 - 1.64] [p = 0.433]	0.90 [0.32 - 2.58] [p = 0.849]
Economic status/income			
< = Rs. 3000	45.0	0.23 [0.04 - 1.42] [p = 0.114]	
Rs. 3001 - Rs. 5000	56.0	0.36 [0.06 - 2.11] [p = 0.260]	
Rs. 5000+	77.8	**Referent [1.00]**	**Referent [1.00]**
Caste			
General	46.6	1.41 [0.66 - 3.02] [p = 0.38]	1.08 [0.37 - 3.14] [p = 0.895]
SC / ST	55.1	1.36 [0.63 - 2.92] [p = 0.436]	1.15 [0.38 - 3.47] [p = 0.807]
OBC	54.2	1.31 [0.42 - 4.10] [p = 0.640]	1.14 [0.27 - 4.78] [p = 0.862]
Others	53.3	**Referent [1.00]**	**Referent [1.00]**
Religion			

Hindu	50.8	**Referent [1.00]**	**Referent [1.00]**
Buddhist	56.5	1.26 [0.52 - 3.08] [p = 0.61]	1.24 [0.40 - 2.20] [p = 0.919]
Others [Muslim/Christian]	52.9	1.09 [0.40 - 3.00] [p = 0.866]	2.12 [0.50 - 9.12] [p = 0.311]
Type of family			
Nuclear	51.2	0.98 [0.53 - 1.81] [p = 0.943]	1.04 [0.49 - 2.21] [p = 3.82]
Joint	50.6	2.38 [0.44 - 12.98] [p = 0.315]	6.57 [0.75 - 57.79] [p = 0.09]
Extended	71.4	**Referent [1.00]**	**Referent [1.00]**
Age at marriage [in years]			
< = 17 years	67.7	2.91 [1.52 - 5.56] **[p = 0.001]**	1.16 [0.45 - 2.96] [p = 0.754]
18 and above	41.9	**Referent [1.00]**	**Referent [1.00]**
Age at first pregnancy [in years]			
15 - 19 years	72.9	6.12 [3.15 - 11.89] **[p < 0.0001]**	5.48 [2.21 - 13.59] **[p < 0.0001]**
20 -24 years	30.6	**Referent [1.00]**	**Referent [1.00]**
Changes in food habits during pregnancy			
Eating more	38.7	**Referent [1.00]**	**Referent [1.00]**
Eating less	64.9	2.93 [1.39 - 6.18] **[p = 0.005]**	1.13 [0.42 - 3.04] [p = 0.814]
No change	52.9	1.78 [0.84 - 3.77] [p = 0.132]	0.71 [0.26 - 1.92] [p = 0.498]
Consumption of balanced diet			
No	68.8	3.80 [2.00 - 7.19] **[p < 0.0001]**	3.16 [1.42 - 7.05] **[p = 0.005]**
Yes	36.7	**Referent [1.00]**	**Referent [1.00]**

Modelling of occurrence of co-morbidities [Health-related problems] during pregnancy period

The uni-variate logistic regression modelling of occurrence of co-morbidities explains the association of occurrence of co-morbidities with younger women [77.8% vs 44.8%, Odds Ratio (OR) = 4.32, 95% Confidence Interval (C. I.): 1.83 – 10.16; p = 0.001], women with lower age at marriage [67.7% vs 41.9%, OR = 2.91, 95% C. I.: 1.52 – 5.56; p = 0.001], adolescent pregnancy i.e. women with pregnancy between the age 15 – 19 years [72.9% vs 30.6%, OR = 6.12, 95% C. I.: 3.15 – 11.89; p < 0.0001], women with less eating habits [64.9% vs 38.7%, OR = 2.93, 95% C.I.: 1.39 – 6.18; p = 0.005] and non-consumption of balanced diet [68.8% vs 36.7%, OR = 3.80, 95% C. I.: 2.00 – 7.19; p < 0.0001] as compared to their counterparts / reference population [**Table – 15, 16**]. The multi-variate logistic regression modelling of occurrence of co-morbidities comes up with predictors as women with educational attainment of middle level school [57.9% vs 35.7%, adjusted Odds Ratio (aOR) = 3.80; 95% C. I.: 1.14 – 12.70, p = 0.03], adolescent pregnant women [aOR = 6.12, 95% C. I.: 5.48 – 13.59, p < 0.0001] and women with non-consumption of balanced diet [aOR = 3.16, 95% C. I.: 1.42 – 7.05; p = 0.005] [**Table – 16**] . These findings suggest that co-morbidities during pregnancy period more likely to occur among women with middle-level school education, pregnant at an adolescent age [i.e. pregnancy at the age of 15 – 19 years – adolescent pregnancy] and non-consumption of balanced diet as compared to their counter parts.

Table – 17: Lack of awareness about spacing methods by socio-demographic and diet indicators among study population, Pimpri Chinchwad, India.

Independent variables	Not aware about spacing methods		p - value [Wald-Chi-square test]
	No - %	Yes - %	
Age [in years]			**0.026**
15 - 19 years	55.6	44.4	
20 - 24 years	74.6	25.4	
Educational attainment			**0.05**
Up to Primary [1st - 4th Std.]	53.1	46.9	
Middle [5th - 7th Std.]	68.4	31.6	
Secondary [8th - 10th Std.]	77.4	22.6	
Higher secondary and above	82.1	17.9	
Occupation			**p < 0.0001**
Labourer / Construction labourer	37.9	62.1	
Domestic worker/Hawker/Vegetable vendor/Others	77.8	22.2	
Self-employed	90.0	10.0	
Home maker	76.1	23.9	
Economic status/income			0.181
< = Rs. 3000	75.0	25.0	
Rs. 3001 - Rs. 5000	48.0	52.0	
Rs. 5000+	55.6	44.4	
Caste			0.607
General	75.9	24.1	
SC / ST	67.3	32.7	
OBC	70.8	29.2	
Others	60.0	40.0	
Religion			0.816
Hindu	70.8	29.2	
Buddhist	73.9	26.1	
Others [Muslim/Christian]	64.7	35.3	
Type of family			0.532
Nuclear	66.7	33.3	
Joint	74.7	25.3	
Extended	71.4	28.6	
Age at marriage [in years]			**0.042**
< = 17 years	61.5	38.5	
18 and above	76.2	23.8	
Educated about sex education			**0.008**
No	65.1	34.9	

Yes	86.4	13.6	
Education includes family planning methods			0.34
No	68.9	31.1	
Yes	77.1	22.9	
Age at first pregnancy [in years]			**p < 0.0001**
15 - 19 years	56.5	43.5	
20 - 24 years	84.7	15.3	

Table – 18: Univariate and multivariate logistic regression modeling of Non-awareness about spacing methods among married women, Pimpri-Chinchwad, India, 2014

Independent variables	Non-awareness about spacing methods - %	Odds Ratio [95% C.I.] [p - value]	*adjusted* Odds Ratio [95% C. I.] [p - value]
Age [in years]			
15 - 19 years	44.4	2.35 [1.10 - 5.05] **[p = 0.028]**	1.42 [0.49 - 4.12] [p = 0.523]
20 - 24 years	25.4	**Referent [1.00]**	**Referent [1.00]**
Educational attainment			
Up to Primary [1st - 4th Std.]	46.9	4.06 [1.23 - 13.35] **[p = 0.021]**	2.20 [0.61 - 7.89] [p = 0.226]
Middle [5th - 7th Std.]	31.6	2.12 [0.70 - 6.49] [p = 0.186]	3.97 [1.26 - 12.51] **[p = 0.019]**
Secondary [8th - 10th Std.]	22.6	1.35 [0.42 - 4.30] [p = 0.616]	2.18 [0.72 - 6.61] [p = 0.168]
Higher secondary and above	17.9	**Referent [1.00]**	**Referent [1.00]**
Occupation			
Labourer / Construction labourer	62.1	**Referent [1.00]**	**Referent [1.00]**
Domestic worker/Hawker/Vegetable vendor/Others	22.2	0.18 [0.05 - 0.67] **[p = 0.011]**	1.11 [0.27 - 4.59] [p = 0.888]
Self-employed	10.0	0.07 [0.008 - 0.61] **[p = 0.016]**	1.40 [0.23- 8.65] [p = 0.715]
Home maker	23.9	0.19 [0.08 - 0.46] **[p < 0.0001]**	1.11 [0.41 - 3.00] [p = 0.835]
Economic status/income			
< = Rs. 3000	25.0	0.42 [0.08 - 2.19] [p = 0.301]	
Rs. 3001 - Rs. 5000	52.0	1.35 [0.29 - 6.26] [p = 0.698]	
Rs. 5000+	44.4	**Referent [1.00]**	**Referent [1.00]**
Caste			
General	24.1	1.52 [0.65 - 3.55] [p = 0.33]	1.39 [0.51 - 3.78] [p = 0.517]
SC / ST	32.7	1.29 [0.54 - 3.08] [p = 0.56]	1.26 [0.44 - 3.59] [p = 0.664]
OBC	29.2	2.10 [0.63 - 6.92] [p = 0.22]	1.22 [0.30 - 4.99] [p = 0.780]
Others	40.0	**Referent [1.00]**	**Referent [1.00]**

Religion			
Hindu	29.2	**Referent [1.00]**	**Referent [1.00]**
Buddhist	26.1	0.85 [0.31 - 2.33] [p = 0.759]	1.26 [0.42 - 3.84] [p = 0.681]
Others [Muslim/Christian]	35.3	1.32 [0.46 - 3.83] [p = 0.609]	2.03 [0.516 - 7.99] [p = 0.311]
Type of family			
Nuclear	33.3	0.68 [0.34 - 1.34] [p = 0.263]	0.88 [0.42 - 1.81] [p = 0.720]
Joint	25.3	0.80 [0.15 - 4.39] [p = 0.797]	4.41 [0.56 - 34.70] [p = 0.158]
Extended	28.6	**Referent [1.00]**	**Referent [1.00]**
Age at marriage [in years]			
< = 17 years	38.5	2.00 [1.02 - 3.91] **[p = 0.043]**	1.15 [0.47 - 2.85] [p = 0.759]
18 and above	23.8	**Referent [1.00]**	**Referent [1.00]**
Educated about sex education			
No	34.9	3.40 [1.33 - 8.66] **[p = 0.010]**	0.64 [0.23 - 1.76] [p = 0.382]
Yes	13.6	**Referent [1.00]**	**Referent [1.00]**
Education includes family planning methods			
No	31.1	**Referent [1.00]**	**Referent [1.00]**
Yes	22.9	1.52 [0.64 - 3.64] [p = 0.342]	1.03 [0.36 - 2.94] [p = 9.59]
Age at first pregnancy [in years]			
15 - 19 years	43.5	4.27 [2.06 - 8.86] **[p < 0.0001]**	6.56 [2.73 - 15.74] **[p < 0.0001]**
20 - 24 years	15.3	**Referent [1.00]**	**Referent [1.00]**

Modelling of non-awareness about spacing methods

The uni-variate logistic regression modelling of non-awareness about spacing method suggests that non-awareness about spacing method was associated with women with younger age [44.4% vs 25.4%, Odds Ratio (OR) = 2.35, 95% Confidence Interval (C. I.): 1.10 – 5.05; p = 0.028], educational attainment up to primary education [46.9% vs 17.9%, OR = 4.06, 95% C. I.: 1.23 – 13.35; p = 0.021], occupation as self-employment [10.0% vs 62.1%, OR = 0.07, 95% C. I.: 0.008 – 0.61; p = 0.016], early age at marriage (i.e. at age of 17 years or less) [38.5% vs 23.8%, OR = 2.00, 95% C. I.: 1.02 – 3.91, p = 0.043], not educated about sex education [34.9% vs 13.6%, OR = 3.40, 95% C. I.: 1.33 – 8.66; p = 0.01] and pregnancy at adolescent age [43.5% vs 15.3%, OR = 4.27, 95% C. I.: 2.06 – 8.86; p < 0.0001] [**Table – 17, 18**]. The multi-variate logistic regression modelling of non-awareness about spacing method predicts that women with middle-level education [31.6% vs 17.9%, adjusted Odds Ratio (aOR) = 3.97; 95% C. I.: 1.26 – 12.51, p = 0.019] and pregnancy at adolescent age [aOR = 6.56, 95% C. I.: 2.73 – 15.74; p < 0.0001] were more likely to be unaware about the spacing methods as compared to their counterparts / reference population [**Table – 18**].

Table – 19: Adolescent pregnancy by socio-demographic and reproductive health indicators among study population, Pimpri Chinchwad, India.

Independent variables	Pregnancy occurred at adolescent age		p - value [Wald-Chi-square test]
	No - %	Yes - %	
Age [in years]			**p < 0.0001**
15 - 19 years	11.1	88.9	
20 - 24 years	74.6	25.4	
Educational attainment			0.219
Up to Primary [1st - 4th Std.]	46.9	53.1	
Middle [5th - 7th Std.]	61.4	38.6	
Secondary [8th - 10th Std.]	69.8	30.2	
Higher secondary and above	60.7	39.3	
Occupation			**0.038**
Labourer / Construction labourer	37.9	62.1	
Domestic worker/Hawker/Vegetable vendor/Others	72.2	27.8	
Self-employed	60.0	40.0	
Home maker	65.5	34.5	
Economic status/income			0.384
< = Rs. 3000	55.0	45.0	
Rs. 3001 - Rs. 5000	60.0	40.0	
Rs. 5000+	33.3	66.7	
Caste			0.765
General	65.5	34.5	
SC / ST	57.1	42.9	
OBC	58.3	41.7	
Others	66.7	33.3	
Religion			0.49
Hindu	61.5	38.5	
Buddhist	52.2	47.8	
Others [Muslim/Christian]	70.6	29.4	
Type of family			0.809
Nuclear	61.9	38.1	
Joint	59.5	40.5	
Extended	71.4	28.6	
Age at marriage [in years]			**p < 0.0001**
< = 17 years	26.2	73.8	
18 and above	82.9	17.1	
Decision taken about marriage			0.536

Mother/Others	57.7	42.3	
Father/elderly male member in family	62.7	37.3	
Parents' not interested in study			0.804
No	60.5	39.5	
Yes	62.5	37.5	
Personal perception towards early marriage			0.886
Economic problem/Poverty	61.5	38.5	
Girls' safety at urban places	60.4	38.8	
Educated about sex education			**0.029**
No	56.3	43.7	
Yes	75.0	25.0	

Table – 20: Univariate and multivariate logistic regression modelling of adolescent pregnancy among married women, Pimpri Chinchwad, India.

Independent variables	Adolescent pregnancy - %	Odds Ratio [95% C.I.] [p - value]	*adjusted* Odds Ratio [95% C. I.] [p - value]
Age [in years]			
15 - 19 years	88.9	23.53 [7.76 - 71.39] **[p < 0.0001]**	23.31 [5.49 - 99.00] **[p < 0.0001]**
20 - 24 years	25.4	**Referent [1.00]**	**Referent [1.00]**
Educational attainment			
Up to Primary [1st - 4th Std.]	53.1	1.75 [0.63 - 4.90] [p = 0.285]	0.22 [0.04 - 1.18] [p = 0.078]
Middle [5th - 7th Std.]	38.6	0.97 [0.38 - 2.45] [p = 0.951]	0.15 [0.03 - 0.72] **[p = 0.018]**
Secondary [8th - 10th Std.]	30.2	0.67 [0.26 - 1.74] [p = 0.410]	0.22 [0.05 - 0.90] **[p = 0.036]**
Higher secondary and above	39.3	**Referent [1.00]**	**Referent [1.00]**
Occupation			
Labourer / Construction labourer	62.1	3.11 [1.34 - 7.22] **[p = 0.009]**	5.21 [1.38 - 19.73] **[p = 0.015]**
Domestic worker/Hawker/Vegetable vendor/Others	27.8	0.73 [0.24 - 2.20] [p = 0.575]	1.23 [0.25 - 6.02] [p = 0.799]
Self-employed	40.0	1.27 [0.34 - 4.75] [p = 0.728]	0.81 [0.11 - 5.74] [p = 0.830]
Home maker	34.5	**Referent [1.00]**	**Referent [1.00]**
Economic status/income			
< = Rs. 3000	45.0	0.41 [0.08 - 2.11] [p = 0.286]	
Rs. 3001 - Rs. 5000	40.0	0.33 [0.07 - 1.65] [p = 0.178]	
Rs. 5000+	66.7	**Referent [1.00]**	**Referent [1.00]**
Caste			
General	34.5	1.43 [0.65 - 3.12] [p = 0.375]	0.82 [0.22 - 3.02] [p = 0.759]
SC / ST	42.9	1.36 [0.62 - 2.99] [p = 0.448]	0.31 [0.07 - 1.32] [p = 0.112]
OBC	41.7	0.95 [0.29 - 3.16] [p = 0.933]	0.55 [0.08 - 3.74] [p = 0.537]
Others	33.3	**Referent [1.00]**	**Referent [1.00]**

Religion			
Hindu	38.5	1.50 [0.50 - 4.51] [p = 0.471]	5.58 [1.29 - 24.19] **[p = 0.022]**
Buddhist	47.8	2.20 [0.58 - 8.28] [p = 0.244]	0.58 [0.08 - 4.17] [p = 0.584]
Others [Muslim/Christian]	29.4	**Referent [1.00]**	**Referent [1.00]**
Type of family			
Nuclear	38.1	1.11 [0.59 - 2.08] [p = 0.753]	0.77 [0.09 - 6.24] [p = 0.810]
Joint	40.5	0.65 [0.12 - 3.55] [p = 0.619]	0.71 [0.09 - 5.84] [p = 0.752]
Extended	28.6	**Referent [1.00]**	**Referent [1.00]**
Age at marriage [in years]			
< = 17 years	73.8	13.65 [6.44 - 28.91] **[p < 0.0001]**	17.94 [5.76 - 55.86] **[p < 0.0001]**
18 and above	17.1	**Referent [1.00]**	**Referent [1.00]**
Decision taken about marriage			
Mother/Others	42.3	**Referent [1.00]**	**Referent [1.00]**
Father/elderly male member in family	37.3	0.81 [0.42 - 1.58] [p = 0.536]	1.88 [0.60 - 5.91] [p = 0.283]
Parents' not interested in study			
No	39.5	**Referent [1.00]**	**Referent [1.00]**
Yes	37.5	0.92 [0.48 - 1.78] [p = 0.804]	1.09 [0.37 - 3.24] [p = 0.877]
Personal perception towards early marriage			
Economic problem/Poverty	38.5	**Referent [1.00]**	**Referent [1.00]**
Girls' safety at urban places	38.8	1.05 [0.54 - 2.04] [p = 0.886]	0.57 [0.20 - 1.62] [p = 0.287]
Educated about sex education			
No	43.7	2.32 [1.08 - 5.01] **[p = 0.031]**	1.51 [0.47 - 4.85] [p = 0.485]
Yes	25.0	**Referent [1.00]**	**Referent [1.00]**

Determinants of adolescent pregnancy among study population

The multi-variate logistic regression modelling of adolescent pregnancy suggests that adolescent pregnancy is significantly associated with women with younger age [88.9% vs 25.4%, Odds Ratio (OR) = 23.31, 95% Confidence Interval (C. I.): 5.49 – 99.00; p < 0.0001], middle-level [38.6% vs 39.3%, OR = 0.15, 95% C. I.: 0.03 – 0.72, p = 0.018] and secondary-level educational attainment [30.2% vs 39.3%, OR = 0.22, 95% C. I.: 0.05 – 0.90, p = 0.036], labourer/construction labourer [34.5% vs 62.1%, OR = 5.21, 95% C. I.: 1.38 – 19.73, p = 0.015], Hindu women [38.5% vs 29.4%, OR = 5.58, 95% C.I.: 1.29 – 24.19, p = 0.022] and early age at marriage [73.8% vs 17.1%, OR = 17.94, 95% C. I.: 5.76 – 55.86, p < 0.0001] [**Table – 20**]. This suggest that adolescent pregnancy is more likely to occur among women with younger, less educated, construction labourer, and those married at early age as compared to their counterparts. In addition, uni-variate logistic regression modelling of adolescent pregnancy was also associated with sex education. It suggests that women who were not educated about sex education were more likely to associate with adolescent pregnancy as compared to their counterparts [43.7% vs 25.0%, OR = 2.32, 95% C. I.: 1.08 – 5.01, p = 0.031] [**Table – 20**].

Table – 21: Type of child wastage by ordinal number of pregnancies / live birth

Ordinal no. of pregnancy / live birth	Miscarriage		Post-natal deaths		Neonatal deaths		Infant deaths		Total no. of child wastage		Child survived		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
First Pregnancy [N =170]	10	5.9	1	0.6	3	1.8	1	0.6	15	8.9	155	91.2	170	100.0
Second Pregnancy [N =33]	6	18.2	1	3.0	1	3.0	0	0.0	8	24.2	25	75.8	33	100.0

Table – 22: Prevalence of child wastage among respondents, N = 170

Indicators	n	%
Prevalence of Child wastage		
No. of respondents who underwent pregnancy	170	100.0
No. of respondents with child wastage	23	13.5
Outcome of total pregnancies		
No. of successful pregnancies	170	83.7
No. of child wastage	23	11.3
No. of total pregnancies	203	100.0

Prevalence of child wastage and its distribution by no. of pregnancies

The prevalence of child wastage at the time first pregnancy was 8.9% and at the time of second pregnancy it was 24.2%; which suggest that prevalence was higher at the second pregnancy [**Table- 21**]. In addition, at individual level the overall prevalence during the study was 13.5% and against the ordinal no. of pregnancies, it was 11.3% [**Table – 22**].

Table – 23: Child wastage by socio-demographic and reproductive health indicators among

study population, Pimpri Chinchwad, India.

Independent variables	Child wastage		p - value [Wald-Chi-square test]
	No - %	Yes - %	
Age [in years]			0.305
15 - 19 years	91.7	8.3	
20 - 24 years	85.1	14.9	
Educational attainment			0.359
Up to Middle-level [5th - 7th Std.]	88.8	11.2	
Secondary and above	84.0	16.0	
Occupation			0.496
Un-skilled worker	89.4	10.6	
Skilled worker	85.4	14.6	
Caste			**0.007**
General	91.4	8.6	
SC / ST	73.5	26.5	
OBC / Others	92.1	7.9	
Religion			0.455
Hindu	85.4	14.6	
Non-Hindu	90.0	10.0	
Type of family			0.776
Nuclear	85.7	14.3	
Joint / Extended	87.2	12.8	
Age at marriage [in years]			**0.004**
< = 17 years	76.9	23.1	
18 and above	92.4	7.6	
Age at first pregnancy			**0.014**
15 - 19 years	92.9	7.1	
20 - 24 years	80.0	20.0	

Table – 24: Effect of age at marriage and first pregnancy on child wastage among married women, Pimpri – Chinchwad, India, 2014

Independent variables	Child Wastage - %	Odds Ratio [95% C.I.] [p - value]	*adjusted* Odds Ratio* [95% C. I.] [p - value]
Age at marriage [in years]			
< = 17 years	23.1	3.64 [1.44 - 9.16] **[p < 0.0001]**	9.70 [2.87 - 32.59] **[p < 0.0001]**
18 and above	7.6	Referent [1.00]	Referent [1.00]
Age at first pregnancy			
15 - 19 years [Adolescent girls]	20.0	3.29 [1.23 - 8.82] **[p = 0.018]**	6.43 [2.07 - 20.00] **[p = 0.001]**
20 - 24 years [Primigravida women]	7.1	Referent [1.00]	Referent [1.00]

*Adjusted for age [0 = 15 - 19 years, 1 = 20 - 24 years], educational attainment [1 = Up to Middle-level (5th - 7th Std), 2 = Secondary and above], occupation [1 = Un-skilled worker, 2 = Skilled worker], caste [1 = General, 2 = SC/ST, 3 = OBC/Others], religion [1 = Hindu, 2 = Non-Hindu], type of family [1 = Nuclear, 2 = Joint / Extended]; 95% C. I.: 95% Confidence Interval

Effect of age at marriage and age at first pregnancy on the child wastage

The uni-variate logistic regression modelling of child wastage suggests that child-wastage was associated with women with early age at marriage [23.1% vs 7.6%, Odds ratio (OR) = 3.64, 95% Confidence Interval (C.I.) = 1.44 – 9.16, p < 0.0001] and adolescent age at first pregnancy [20.0% vs 7.1%, OR = 3.29, 95% C. I.: 1.23 – 8.82, p = 0.018]. In addition, after controlling the socio-demographic characteristics to estimate the true of independent variables on child wastage, multi-variate logistic regression modelling of child wastage determines that child wastage was also associated with women with early age at marriage [adjusted odds ratio (aOR) = 9.70, 95% Confidence Interval (C.I.) = 2.87 – 32.59, p < 0.0001] and adolescent age at first pregnancy [aOR = 6.43, 95% C. I.: 2.07 – 20.00, p = 0.001]. This concludes that women with early age marriage and women with adolescent pregnancy were more likely to increased risk of child wastage than their counterparts.

4.2 DISCUSSION

4.2.1 SOCIO-ECONOMIC AND DEMOGRAPHIC DETERMINANTS

A detail background characteristic of the respondents like social, economic, and demographic characteristics is essential for any research work to relate the study in the time frame, study location and further interpret the data accordingly. The study also incorporates family background of the study population, Adolescent Married Girls age group 15-19 and Primigravida women (adult women with age group 20-24 years). Socioeconomic and demographic variables included details of the age, education, and relationship with head of the family occupation, income, caste, religion, place of origin, migration, period of stay reason of migration and type of family. It also includes livability, social environment and economic status. A comprehensive review of the literature on socioeconomic and health inequalities documented higher rates and risk of mortality and morbidity from most causes as well as of functional limitations among persons who have lower level of socioeconomic position- people with lower levels of education, income, occupation, material possessions and wealth (Krieger and Fee 1994, Willams and Collins 1995)

Age of the respondent : Study shows there were 21.2% adolescent respondents and 78.8 percent primigravida women (20-24) with median age 21 years (I.Q.R : 2 years) On bivariate analysis the proportion of adolescent married girls were significantly more as compared to primigravida women (2.4% vs 40.0%, p<0.0001) .This brings out the prevalence of adolescent or child marriage in the urban slum of PCMC even though many mainstream factors like media, Schools in vicinity, PCMC hospitals and dispensaries in nearby, ICDS units within the slums etc are functional in the area. A similar retrospective observational study carried out by BYL Nair hospital Mumbai from June 2006-june 2007 taking into consideration age group 10-19, marital status, antenatal problems, and operative intervention during delivery and medical termination of pregnancy shows teenage pregnancy was 4.41% out of the total 3213 pregnant patients. 94.35% adolescent were married and 33% were unmarried (Dubhashi & Wani, 2008).

Age of the head of the family: Age specific head of the family is seen in the study area enjoying authoritative lead in the power structure. Majority of the dominant personnel in family belong to age group 20-31(45.88%) mostly husbands in nuclear

family followed by 37.82% above 50 years i.e they are either mother-in-law or father-in-law in most of the cases.

Education of the respondents and family members: Talcott Parsons states after primary socialization within the family, the school takes over as the 'focal socializing agency' (Haralambos,1980; 173). Education is key to better life (Chatterjee ,1993), a women can understand herself , identity the need to be an individual on her own right and can assert herself in her own independent capacity only when she is educated. Two third of the population acquired education upto middle level and no one was found illiterate. It is worth noting that even though statistically it was not found significant but more number of Adolescent mothers had primary education compared to adult women (primigravida) (11.8% vs 25.9% ,p =0.135) . Those educated till higher secondary and above are more among adult women than adolescent mothers. So it is self explanatory that the higher is the age of marriage, age of the first pregnancy and marriage can be postponed. These are the cases and their opinion:-

"My parents migrated from Konkan, they were economically poor and I have four brothers and sisters, all were married young and I am third in line. My parents were construction laborers, no one stayed at home, so we all sisters were married early, who will look after us. My father found a suitable match from same slum. I was married in the at 14 and my husband was 19 years". She was married immediately after her first menarche. He is a near relative in her maternal side (Uncle's son). They belong to the nearby natal village. "We are all poor, so no money so we were all married very young". (Case A-12 Dhande (20) is a lactating mother belonging to Vadari community. She became pregnant 4 times out of which 2 are alive children, staying in Shantinagar slum, studied only up to 7th grade in PCMC School)

Perception Key informant on Education (Mother in Law) :" In our Muslim community girls and boys are married at very early age but I want they should be married when they are older (at legal age)".She said, "Education is important but for girls we cannot wait long because in our community every one enquires why she is not married". (Case B-6 Khan is a 40 year residing in Gandhinagar slum. She studied up to 8th class married when she was 16 years old. She is a house wife and shares her work with her daughter. She has 1 son (youngest) and 2 daughters, out of which one is married.)

Perception of key informant on education (mother in law) She said" Laukar Lagna Kele Khub Samasya Mulila Hoto" .I married all my girls after 18 only and she preferred boys from the same area ,so it is easy to find the background of the boy and their family. She said "shikshan mahatvache ahe tyala paisee paige,mulina lagna karayala, we donot decide the marriage the elders and my husband did" .(Case B-3 Shinde is a 52 year women residing in Vidya Nagar slum . She has studied upto 8th class and married when she was 16, presently a house wife and lives with her 6 member family. She is working as Madatnis in Anganwadi as well as looks after her grand children. She has 1 son and 3 elder daughters, 3 married and 1 girl is yet to marry. She belongs to Buddhist Community & Hindu Religion)

These all cases reflect migration and poverty, lack of indecisiveness among mother-in-law on crucial issues like marriage ,more siblings, education and early marriage . It also marks discontinuity of education and lack of autonomy regarding reproductive health. The perception of key informant points towards the significance of education but also their indecisiveness on key issues like marriage. The family of the respondent is very important to analyze as she belongs to the family unit and is instrumental in providing gender equality and autonomy which consequently affects the reproductive health of women. There were in total 332 members in the respondent's family excluding children, infants and missing information. Head of the family were the respondent's husband, father-in-law or the mother-in-law .The illiteracy level of head of the family was higher in comparison with respondent (22.89%). The other relatives included daughter (nanand), Son- in- law ,brother- in- law who were mostly younger in age , better educated than the senior members and earned well. The percentage of education of other family members shows majority were educated upto middle or secondary level. Low levels of literacy adversely affect reproductive and sexual awareness thus quality of life (Singh N, 2001) which is evident in the qualitative and quantitative study. The study points towards supremacy of male persons in authoritative role.

Family and relationship: Family plays a decisive role in the maintenance of social order through social as well as biological reproduction that is reproduction of social space and social relations (Bourdieu 1998: 69). Family is primary unit of society and it functions not just a function of demography but also reflects the rules and regulation

of marital residence. Peter Murdock explains the universal function of family is sexual, reproductive, economic and education (Haralambos, 1980; 331). The Indian society ties the individual to his/her family, authority and powers it exercise make family an institutional structure. It is intertwined in culture, values, caste, religion, Kinship and plays an organ for propagating the same through family. Due to the process of industrialization and urbanization, there are changes in the structure and function of family in the society. And urbanization leads to migration and growth of urban slum exposing them to various changes in the socio-economic-political cultural front. In the family, the members hold various roles, their rights and duties are accordingly distributed. Around half of the respondent were either wife or daughter-in-law others included daughter, granddaughter or sister-in-law. Accordingly head of the family 37 were Mother-in -law, husband (80 cases) and Father-in-law 41 cases and other relatives 11 cases. In the study area also role, power and status is given according to the age of the members present in the family. Nuclear families are headed by husband while joint family or extended family was headed by either mother-in-law or father-in-law. Mostly in urban family the existence of nuclear is more which is shown in the study at Kanpur where 81.25% family were nuclear and 18.75% joint (Mishra et al., 2012) but in this study equal weightage is given for nuclear and joint family. The given below is a case study undertaken during the study of an 18 year old married Adolescent Girl (Case A-1) Kadam from Anand Nagar Slum, Chinchwad staying with her husband and her maternal home is at Dalvinagar Slum.

She said , "My mother- in- law, 54 year old is very dominating and interferes in all my personal decision".

Before I (researcher) could continue ,I had to take the interview of mother-in- law also she started answering so I continued my interview with her mother- in-law and she narrated " I was married at 12 even before I attained puberty because of extreme poverty and to a poor family ,and left with an alcoholic husband , who used to have frequent illicit affairs"."I had to struggle to meet my daily ends. I am a strong lady, I delivered all my kids at home and worked till the last day of my delivery. I used to prepare my delivery Kit myself a blade, clip and hot water. As my delivery pain starts I keep everything together and deliver and clean the baby

myself". "I never faced any difficulty". She has settled all her children in the same slum and with suitable suitors from the neighbouring slum only .Eldest is illiterate, married to woman from another neighbouring slum and have 4 children. She further narrated proudly, "My first son's wife frequently fights with her husband and leaves his home .She deserted him two years back, so in the meantime, I choose a suitable girl from neighbourhood (Dalvinagar) and got him married to a 17 year old girl. She is presently having 1 year old daughter. Later his first wife returned and started staying with them. Again fight erupted in family and ultimately she left her home with 3 children leaving one child (during case study 2014)". Second and third son are married and have 3 and 4 children each. Fourth Son is married, working as contract labourer married to my case A-1.

Case A1- "I am three month pregnant and my mother-in -law allows to consult ANC clinic at PCMC hospital" .

When enquired to mother-in -law why she allowed her daughter-in-law to go hospital to which she replied ' maazii suune aache muli najuk asthath thenna dukhana sahan hotnahi'.

This is a case where illiteracy, high fertility rate, poverty intertwines 'early marriage 'in its vicious circle and explains how all reproductive and domestic rights are still negotiated. Adolescent girl's inability to exercise their sexual and reproductive rights and puts her in subordinate position. In a similar study 100% of pregnant women of reproductive age in Uttar Pradesh, 56% of the women deferred decision making about health issues to their mother-in-law and 15 % to their husbands (Swain & Negi 1994). The size of the family in the study area constitute majority 4-6 members (53.35%) , followed by 3 member family (42.94%), and   7 members and above (4.70%). No significant association was found between two study groups but nuclear family is 4% more among primigravida women vs joint family 5% more among the adolescent married group (Sharma et.al, 2002). Size of the family determines the congestion and personal space one gets in the slum houses. Nuclear family is regarded more progressive than joint or extended family and reflects change in the family structure but in this study marginal difference is seen indicating strong rural linkages still seen in the areas under study in PCMC.

Houses of the study areas are squatter settlements, temporary, some with concrete maximum with one room and some with 2 rooms. 90% of the roofing was either asbestos or tin sheets. Small open bathing space (mohri in Marathi) where washing, cleaning and bathing is done together. Majority of the houses did not own drinking water source, small storage utensil rooms are occupied spaces for storage tanks for water. Room livability and aesthetics are poor with hardly any ventilation or windows. Public toilets are the between 10-20 families, and even more. Open gutters are flowing in front of most of the houses and open defecation by children is a common sight. The below cases depict a plethora of hygienic deterioration.

"My house is comparatively bigger than our neighbours house as it is in the corner with 2 rooms, size 12 x 10 feet, rooms are not plastered, and very shabby , not ventilated with poor hygienic condition". (Case A-2 Bhosale ,23 year old, resident of Anand Nagar slum, migrated from   Haraijul , Latur District Maharashtra , belongs to Mang, studied only upto 8th)

"I come from a poor family and married to a poor man .We donot have even cooking gas, as we donot own a ration card. The size of the room is small (12 x 10 room) , and compelled to cook in stove with kerosene.". "When I went to interview, her quota of kerosene had finished and she was cooking in Diesel in this small room with no ventilation, full of smell in the presence of three month baby" and she said, "I have no choice". (Case A-14 Yadhav, 20 year old primi gravida women , resident of Khandobamal Bhosari , migrated from Jharkhand and living in Bhosari since 2 yrs).

The case studies show poor livability and congested room with poor ventilation, and poverty risking the life of infant. An increasing number of poor migrants settle in congested slums of the cities deprived of essential civic amenities such as basic health care, clean drinking water, sanitation and drainage (Ministry of Housing and Urban Poverty Alleviation and United Nations Development Programme 2009).

Economic status and occupational category

In urban slum, many women coming from poor family are employed as wage labourer to petty trade business to supplement their family income (dual income family) or wholly support the family (single income family) .Studies have utilized socio-economic status often to assess by educational level, income, occupation, and housing conditions that are used as proxy measure for poverty. In NFHS -3, the wealth index

was constructed using household asset data and various housing characteristics. Lower socio-economic status was associated with poorer health outcomes which cause mortality, with particular diseases more affected by socio-economic status than others (Gogoi, 2014). During pregnancy the shortage of money and utilization of health services lead to poor maternal outcome which causes morbidity and mortality for the mother and child.

In this study, people with regular and fixed salary income were less. The adolescent mother and primigravida women are mostly engaged in unskilled work like construction labour, domestic worker, sweeper, and vegetable hawker, self employed like vegetable vendor. As this study enrolled lactating mothers, at the time of the study majority were home makers taking care of their babies. The head of the family members Husband, father-in-law and mother -in –law were also engaged in unskilled work like Rag picker, hotel work, construction labor, security personnel or farming at native place, Semiskilled-salesman, company employee, and self employed. Mostly the monthly income ranges from ≤ INR 7000 , INR 7001-9000 (77.35 %) with 4.12 as an average size of the family. Many relatives are unmarried and staying with the respondent and in turn supporting their family at their native place. Only 54 respondents were working during the study as all respondent were lactating mothers and two third of the household fall in the bottom and poor category and lower middle class category (NCAER-IHDS Survey 2011-12).

Caste and religion

Majority of the participants are Maharashtrian and Hindu (76.5%) equally among primigravida women and adolescent mothers. Out of the total Buddhist, adolescent mothers outnumbered adult women. There was no association found between study and control group regarding caste. One third of the population belonged to backward community (SC, OBC, ST, VJNT & others). Even though there was no association found but socioeconomically weaker (backward) and poor income family dominated the slum areas. This points to need for intervention among the backward community.

4.2.2 MARRIAGE AND GENDER CHARACTERISTICS (DEPICTED IN TABLE -2)

Adolescents live in communities in which cultural, religious and traditional influences are important motivators of behavior for people of all ages. Adolescent Sexual and

Reproductive practices occur in an environment of dynamic change and inconsistent social norms. This environment which influences human behavior includes peers, partners, family and household, institutions and communities, policies and social norms (Chak et at., 2000). In reproduction, the rise in the productive population i.e 'teenage population 'has drawn interest among medical and social concern – biologically speaking the adolescent mothers at young age has to compete with the nutrients needs of growing fetus she is carrying and the very young mother (Susser et .al., 1985) . Sexual and Reproductive health of adolescent in India is conditioned to a large extent by strong processes, newly married women face to prove fertility particularly birth of son (Santhya and Jejeebhoy, 2003:4372). Adolescent fertility rates are high roughly 107 births take place per 1000 girls aged 15-19 and fertility of this age group makes up 19% of nation's total fertility rate (IIPS and ORS Macro 2000). Table 2 seeks to understand the complexities of causes and determinants adolescent and gender identity. Age at marriage, reason of marriage and choices, right to information on education on family planning and contraceptives, attitude of conception and gender are brought under one umbrella to elucidate in detail which is again supported by case studies.

Age at marriage: Family where in bride or groom is brought up is an important cultural variable that affects their age at marriage. In Indian society, marriage is the only socially sanctioned system for sexual union between a man and a women and hence patterns and tends in age at marriage are closely related to age patterns of fertility in a population (Dillon, 2010). State level studies reveal that female literacy can alone explain 70% variation in female age at marriage (Pandey, 1984). In India, child marriage was outlawed (Child Marriage Restraint Act) in 1929 and set minimum age for marriage among women as 15 years. The legal age was increased to 18 years for girls in the amended law in 1978. However, the marriage of adolescent girls below their legal age is still prevalent in India (Raj et al., 2009) .Marriage acts as an important demarcation in women's lives where support system being to switch from natal to conjugal (Mathews et al.,2003). Puberty is a common yardstick to marry the girl irrespective of the community whether rural or urban. In this study 97.4% of the respondents were aware about the legal age at marriage (Santhya et al., 2010), even then the problem of teenage pregnancy is widespread, as early marriages are still

prevalent in Indian community (Kale et.al, 1996). Study showed the median age of respondents are 18.2 (SD ±2.0) while a phenomenal (14 cases) were married below 15 years in the study urban slum. A majority nearly fifty percent got married between 16 and 18 .This also means there is likelihood that a girl will give birth at a young age and child bearing will continue uninterrupted throughout her reproductive age (Save the children, 2012) .Age of the husband of the respondent at marriage is worth noting, 5 cases of marriage below 18, more than 30 cases between 19-20 years (Agarwal et.al. , 2006). Majority married on or above 21 years (with mean age 23.1 years (SD ±3.4 years).The proportion of women married below 18 years was significantly associated i.e more among adolescent married girls (14.1% vs 62.4% ,p <0.001) than primigravida women . Median age of marriage of respondent is 3 years less than primigravida women (19.3 vs 16.7 p<0.0001)in my study. In a similar study median age at East Delhi Slum was 2 years less than adult primigravida (Sharma AK et al., 2003) In the case with husband's median age, it was one year lesser among the primigravida and adolescent (23.7 vs 22.4, p< 0.0001). In a survey the study groups (15-24) result shows 63%,women married before 18, were less educated ,have somehow worked before marriage , timing of marriage was less consulted whereas for those who were married later reported were consulted before marriage (Santhya et al., 2010) . This proves early marriage often curtails young women's educational opportunity. The below case opens up similar attitude and perception…..

"My marriage was decided by elders, my uncle from Akkalkot, even I was not allowed to complete my 10th .I was just 14 . All this was done in a hurry as a very good suitor came, 9 years my senior working in Police Department and had good pay. I am so young(16) , a mother of a 2 month old baby girl. I donot take any decision, my husband decides". She said, "kon mala vicharnar,majjha navra sagnar kay karache ahe." (Case A-15 16 year old adolescent (on records 18 yrs) who has gone through an ordeal of delivering a baby girl at PCMC hospital Akurdi . She is a resident of Vidyanagar slum , presently married and staying with her in-laws at Hadapsar . She came to her natal home for delivery and has been residing since 4 months).Her Sister-in-law said she was married even before she had menses. She was born and brought up at Vidyanagar slum and was extremely beautiful, fair and humble. All relatives believed it may not be safe for such beautiful girl to stay unattached.

Perception and attitude of Male Key Informant...........

*The legal age of marriage is correct but 'Muli mothi jhali ki bhiti watthe'. Parents are scared they will elope, marry from different caste or from different community (**Case C-1** Mr .Ubale, a 44 year old man resident of Landewadi Slum)*

He said, " Me maji mulgila dahavi paranth shikshan denaar ,parathu thila shikshan avadath nahi". "Zopadpatti mulin sathi chakla nasthe thari ami ghari kadak niyam ahe ani thiche bhave pan thicha var laksha thevathath". Marrying early is not good for the boy and girl's health. He prefers to marry his daughter after 18 only.

*Case C-2** Karpe is 49 year old man resident of Chikhali Slum and Buddhist.*

He is of an opinion that to marry at early age because then boys and girls get mature enough to shoulder the burden of family and children. The boys and girls become responsible couple. 'Hee amche gramin bhagamede hoto ,kahi navin nahi aahe'.The age can be 17,18 for girls and 20,21 for boys.'I have married my daughter at 18'.

Case C-5 Vaghchaure is 41 year old man, resident of Chinchwad Slum and belongs to OBC community. He studied upto 10th class

*He thinks one should marry at early age because ,'it is all my parents and family members marry early.He thinks ideal age of marriage will be 19 for boys and 16 for girls. He said,'Economic problem and poverty forces them to take this steps'. **Case C-6** Shirsat is 45 year old man resident of Bhimnagar Slum and belongs General category Hindu community. He studied upto 2nd class only*

The key informant study of 14 cases of male perception and attitude towards legal marriage shows 90% are of the opinion to marry girls at early age 17-19 while boys 19-21 years due to poverty , insecurity,protection of sexuality and virginity, holding caste centrism etc. All are worried of media, slum emerging heterogenous culture of migration.

Marriage and decision making: The above case shows a Patriarchy and Power structure makes a young girl embrace the decision of family, becoming docile and turning into a mother in the system. Many feminist literatures have recognized marriage as a key institutional site for the production and reproduction of gender hierarchies (Sonal de Desai, 2010). Marriage in Indian mind is the answer to all questions the solution to many problems, the panacea to man ill (Chatterjee, 1993;

20). The other reason is sexuality and virginity are the concerns of parents and Sexuality of a girl is perceived as a family honor .The study throw light upon whether it is possible for an adolescent girl or women to take decision on marriage, selection of suitor, reason of early marriage ,decide when to have her first child . Study found that half of the decision was taken by father (37.6%) and other by male relatives like uncle, elder brother, mother's natal relatives (Alemu, 2006) and still proves marriage decisions remain in the preview of family (Sonal de Desai,2010). The father's authority is higher in family which brings out women played passive role in family and decision making (Ghosh, 2011) in the same line that early marriage is not just poverty but patriarchal values and institutes influence this pattern. The Male key informat perception and attitude shows strong forces of power relation deciding the marriage age and cultural shaping of adolescent body. The case throws light on patriarchy and their life….

"I was married on 14/5/2012 at Hingoli (her native place) when I was nearly18 years old to a 28 old man (my cousin)". When enquired she said, "I did what my parents and elders wanted." Conceiving early in marriage as 'everyone who visits the family asks KAAY VISHESH AAHE KA' ? **More over if kids are not born then what will I do at Home?** *Both are aware about contraceptive yet not interested to use…….* **(***Case A-5 Phuge,   a 19 year old married adolescent girl staying at Kandobamal Chawl in Bhosari Area with a 11 month old sick baby girl ,   She studied upto 11ᵗʰ but could not complete her studies due to her marriage. Her husband wants her to complete her education so that she can join some SHG groups and earn money. She looked much stressed due to her baby's health).*

The above case also shows she dropped out of school due to marriage and did not enjoy autonomy on sexual and reproductive life and also reflects that 'women who marry at young ages are not only from traditional family background, but also to have gendered socialization'(Santhya et.al 2010). Almost one third of the respondents got married when they were studying as compared to primigravida women. Age at marriage, younger bride are more likely to be docile, in the area where parents, in law seek to limit women's power in the household so they may have preference for younger brides (Sonal de Desai, 2010). Another study in Ethiopia found among the out of school respondents 28% cited marriage and 19% child bearing obligation as

their reasons for quitting school (Alemu ,2006) . It is also important to note more than half of the women in Maharashtra have had sexual intercourse by the time they are 18 years of age, while half men have had intercourse by the time they are about 24 years (NFHS-3).This study also goes by the documented fact that earlier age at sexual intercourse for women than men is a consequence of the fact that in Maharashtra first intercourse largely occurs within the marriage and women marry at younger age than men (NFHS-3). The other reason for dropping out of school in the study highlights parents were not interested as well as elders objected for further studies among primigravida and adolescent mothers (40% vs 35.3%).The other hurdle towards education was distance of school (26.5%) and 8 cases faced problem of lack of transportation.

She narrated her ordeal "Iam married to my father's sister's son and living with in – laws in joint family. My Marriage was arranged by parents and elder male members of the family even though my mother resisted ,nobody gave any heed. Everything was fixed and I was taken to Sholapur for marriage .They are worried because both my parents and brother had to keep me alone at home which according to them is not safe. My main curse was Iam fair and beautiful so without elders it was difficult. I wanted to complete atleast upto 12th but could not complete her studies due to parental pressure. I was forced into marriage eventhough I scored 88% in 10th state board. Now I have completed my 12th during pregnancy in commerce (76%) without attending college. I want to peruse my study in mathematics and be a teacher."(Case A-10 Phakir , a muslim 18 year old adolescent (records 19 yrs) who has gone through an ordeal of Child Birth delivering a baby boy on 9th August 2014 at Private hospital . She was a resident of Bhosari, presently married and staying with her in-laws at Sholapur. She came to her natal home for delivery. All ambition was shattered by her dominant father and culture. Her father is a driver and owns a jeep with an income of around Rs7000/- & mother works as a domestic help at various houses and earns around Rs 3000.All her relatives from maternal side are residing nearby & collects garbage from colonies.)

The qualitative and quantitative data shows one reason of early marriage is the need to maintain family's good name and social standing (Alemu, 2006). The perception of the adolescent and primigravida mothers shows their parents did not feel urban slum

as safe place for grown up girls was given more weightage while adolescent married girls feel when both the parents are working so leaving them alone is not safe. Very few said 'parents were worried of elopement' but economic problem, poverty and more number of siblings put pressure for early marriages. In a study at Malda (Bengal) Fathers and elders mark poverty as a major reason of marriage of girls early ,it on close analysis shows patriarchal values and institution influence the pattern greatly (Ghosh, 2011). Poverty is detrimental factor of early marriage so is more number of siblings. The urban slum is regarded unsafe for girls who have attained puberty as 'Sexuality and virginity' given importance by various researchers. The other response 'it is customary for parents to marry off girls'.

"I was not interested in studies as I failed and was ashamed to sit in the same class so my father said that if she is not interested in studies then why to continue her studies? I started dating a boy from neighbourhood when I was 13 and boy 15. We were madly in love. We had resistance from family as I belonged to Vadari community and he OBC & Buddhist'.We eloped to Hyderabad where we were married. I was 16 and he 18. After some time our money finished we came back".(Case A-11 Bhandekar is 18 year old beautiful, fair and coming from poor family compared to in- laws, married adolescent from Ghandhinagar, who is a mother of 2 children (2 yrs 2 months and a 1 month baby). She Studied up to 7th grade in PCMC School).

Key Informant Case B -8 mother- in- law - Mehtre is a 51 year residing in Dalvinagar slum studied upto 8th class and married when she was 17 years old. She is engaged in domestic work assisting her daughter-in –law as well as looking after newborn child. She has 2 daughters and 1 son, all married. She belongs to Matang community (ST). "I married my elder daughter at 17 because she eloped with a boy of different caste". This is a great problem of slum children as they are exposed to TV and different peers, so it is difficult to protect our children'. Marriage is mainly decided by my husband and other elders of family'. 'All the family decision is taken by me, my husband and son'. Every one after marriage asks whether there is any good news. 'So we were also eager to have a child, so using spacing before conception may be bad for health'.

Migration and Adolescent Reproductive Health

Migration in the context of Adolescent Pregnancy brought out some important dimensions and characteristics of Adolescent Mother and Primigravida women. Result shows more than three fourth of the participants were from Maharashtra only namely:-
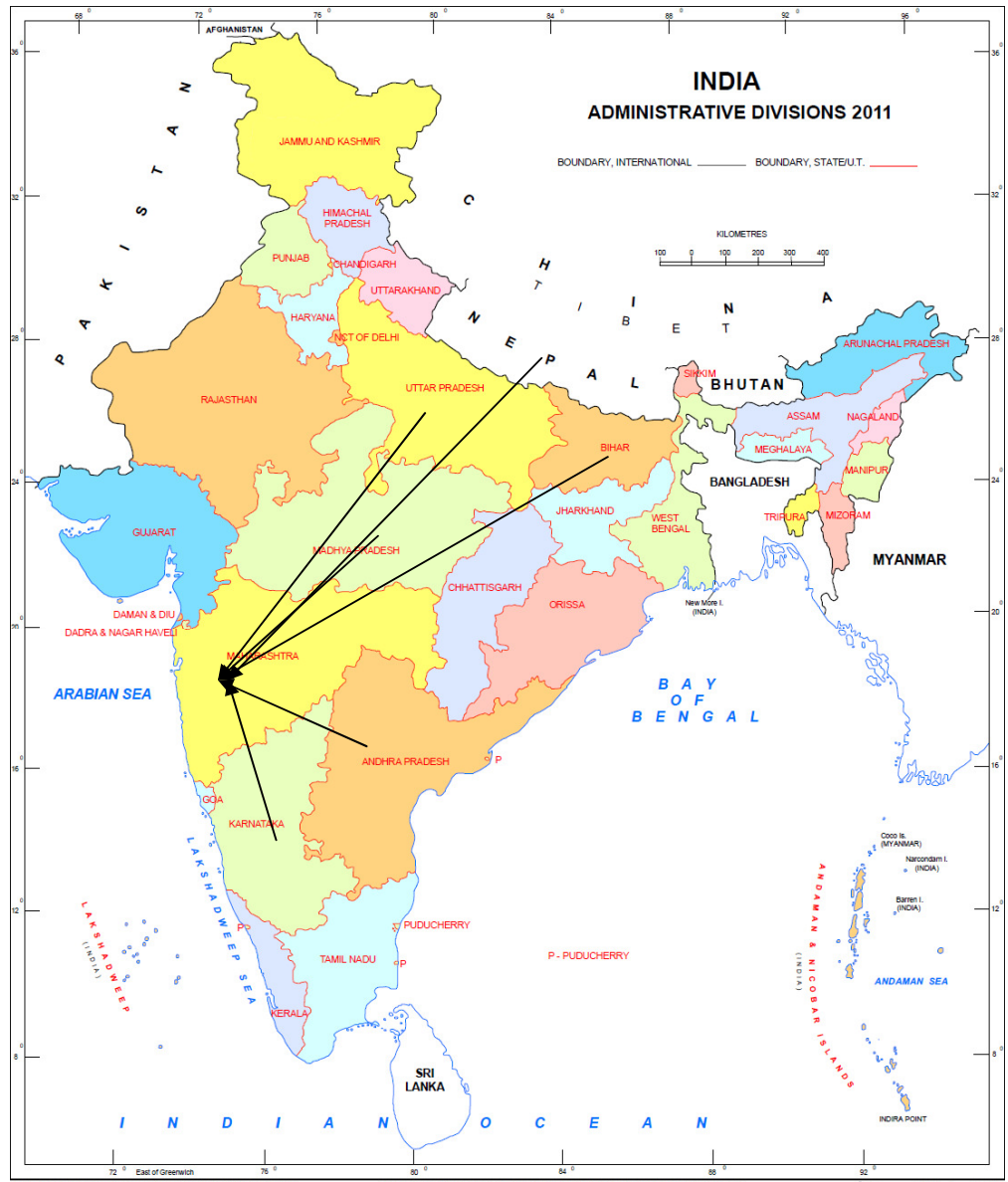
- Marathwada (Aurangabad Division)- Aurangabad, Nanded, Beed, Latur,Jalna, Hingoli, Osmanabad, and Parbhani District.
- Paschim Maharshtra (Pune Division) – Satara, Sholapur, Kolhapur and Pune District
- Khandesh (Nashik Division) – Ahmednagar ,Nandurbar and Jalgaon District
- Vidharbha (Amravati Division) – Akola and Buldana District
- Vidharbha(Nagpur Division) – Gondia District

Vidharbha and Marathwada region are comparatively less developed as a result marginal farmers and landless agricultural laborers migrate seasonally or permanently to western Maharashtra for in search of employment survival and future development. The study respondents covered in the study belonged mostly from to draught prone areas like Akkalkot, Barsi ,Pandrapur (Solapur), Baramati ,Daud ,Purandar (Pune) Paltan (Satara) , Ahmednagar, Tuljapur ,Umarga (Osmanabad) etc . The type of migrants belongs to respondents whose parents have migrated and settled in Pune, Husband has migrated for job or women migrated after marriage mostly. Other respondent belong to states which include Karnataka (mainly Gulbarga, Bijapur and Bidar), Andhra Pradesh (Raichur, Hyderabad), Bihar , Uttar Pradesh and Madhya Pradesh. The inter country migration include few cases from Nepal.

Migration in India is often perceived as a male movement and female as their 'associational migrants' largely attributed to marriage or as dependents (Mahapatro, 2011). But the female are outnumbering the male counterparts. Another way is women from low income category, after marriage migrates with their husband and get into employment in order to support family called 'sequential migration' (Vishwanathan, 1994). Study population in urban slum showed migration of parents and marriage as the main cause of migration (Fulfer,2013 ,NSS GoM 2008) in the slum. Only 16.5% came for work or to reside in the relative's residence. In the Bivariate analysis [72.9%] adolescent belonged to Maharashtra and [38.8%] migrated because their husband moved to the city for job [sequential migration] or marriage

[marriage migration].The share of other states is more among Adolescent mothers than primigravida women. Duration of stay in urban place 10 years or more [35.3% vs 44.7%] with p=0.32 was among adolescent married girls as compared to primigravida women. Duration of stay is long enough to imbibe urban culture or new networks. Another implication of migration studied is whether the stay in urban slum has brought 'new urban networks' or the existence of 'village networks' or 'continuum'. Migration direction means rural –rural migration, rural –urban migration, urban –urban and urban-rural migration and study found more rural –urban migration in this context.

Diagram 4 Migration from different states to PCMC (in the study area)

Diagram 5 Migration from other Districts of Maharashtra to PCMC
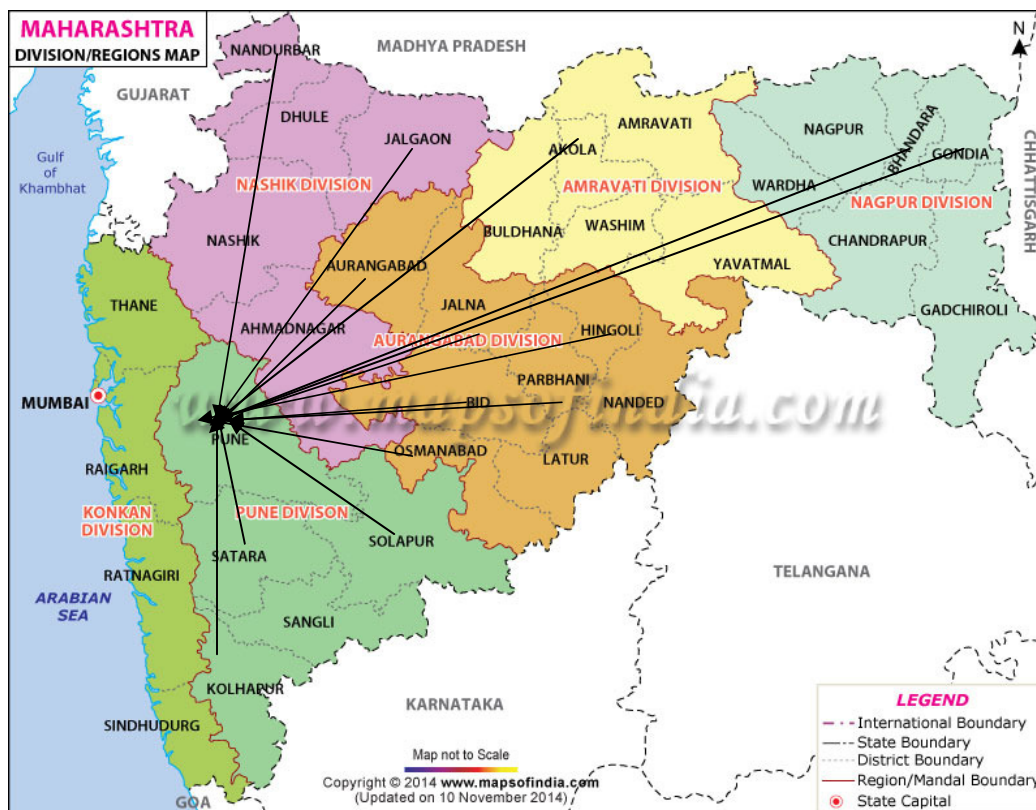
Kinship and marriage

One of the greatest concerns for most of the parents is to marry their daughter. India is rich and diverse with respect to marriage and kinship patterns, gender role and ideology and economic structures across states (Jejeebhoy and Sathar, 2001 & Singh 2005). Kashyap (2004) explains in his study, with urbanization and migration, kinship bonds have been weakening in urban areas. However, there is also evidence that the kinship system is changing, adapting itself to the newer demands. In urban areas, this extended kinship system has proven to be a viable organization even today, as it has facilitated the adaptation of its individual members to city life by providing shelter and other material assistance. What linkages were found regarding kinship boundaries of their spouse? Marriage is destiny for nearly all women in South Asia, where arranged marriage as the norm and Hindu value virginity at first marriage. All the first marriage is thought to be the responsibility of elders (Leela Dube, 1997) .As one of the greatest concern of most of the parents in India is to find 'a best suitor'. As the participants mostly stayed in in-laws house, so respondents natal and her husband's linkages were traced. In the study urban slum, the best 'suitor' [51.2%] was relatives

someone known to them or belongs mostly to same caste and kinship. 32.94% selected relatives from the parents natal district (father or mothers) while [21.17%] from the same natal district also. When the choice of different area came, they still gave preference to distant relatives or social circle [16.47%]. The next category of 'suitor' belonged to different slum (Inter slum) out of which 3 cases were relative and 3 non relative(proximity and distance makes them create marriage network) .Those 4 cases from Nepal, also preferred to find suitor from Nepal only so was the case with other states namely Bihar, Uttar Pradesh. Marriage distance (defined) as distance between the brides' natal and conjugal house. Ravindra Kaur 2010 in 'Across region marriages' explained mostly marriage pattern typically emphasized physical, besides social distance ,this distance parameters of an identifiable local community endogamy (marriage within caste) place certain spatial geographical limits to spread of marriage networks and as the Indian setting we practice a patrilocal form of decent accompanied by patrilocal and virilocal residence by virtue of which women almost always move from natal homes to her conjugal (husbands' home) so was the case of the respondents and case study respectively. It is interesting to note even though the average stay in Pune was long still only [11.76%] preferred open choices in arranged marriage or love marriages. It goes with the concept, 'women who migrate for marriage especially to areas where they have no prior caste or kinship links tend to create marriage networks around themselves'. A prospective study in Karnataka shows almost three quarters of women in the study were between 18-24 years old, 14% below 18, 35% were married to relatives, most commonly maternal cousin or uncle (Ramakrishna et al.2008) . In an edited book on 'Urban Sociology in India' by MSA Rao quotes Radhakamal Mukherje, who stated caste organization remains quantitatively same in cities, towns and villages. The overall conclusion is cities and villages are the elements of same civilization (Rao, M.SA, 1974). So there were consanguineous (blood relatives) marriages or cross cousin marriages with matrilateral cross cousin or patrilineal cross cousins marriages. The study also showed 33.33% preferred relatives from matrilineal side while 66 % patrilineal relatives. No association was found between age at marriage and relatives. Case study projects strong bond of kinship, lineage and caste endogamy in two cases while one case was of lov marriage.

"I was married to my maternal uncle's son .Both our parents migrated from Sholapur District". (Case A-1 Kadam an 18 year old married Adolescent Girl presently staying in Anand Nagar Slum, Chinchwad with her husband and her maternal home is at Dalvinagar Slum (1Km away).

"We were staying in the same slum just two lanes apart, we fell in love and eloped .Later my parents married us officially and gave dowry. First my parents resisted and disagreed because I belong to Mang and he is Buddhist"(Case A-3 Shinde is a 20 year old women, born and brought up at Anandnagar ,married and staying in neighborhood with in-laws and husband in Anandnagar only). When I interviewed, she had come to her mother's residence for delivery). "Iam not interested to continue studying because after studying also I will have to do domestic tasks and mend house, so why should I take so much task?"

She sounded disappointed as she was married early and lost interest in life. She was 18 years old when married from Udalamb ,Bidar District (her natal village)."Our marriage was arranged by parents and elder male members of the family as my husband is a close relative from her father's side (Atya Cha Mulga)" ."My husband migrated from Bidar four years ago".(Case A-7 Jadav is 21 years old is a resident of Kandobamal Chawl staying with her husband and 11 months baby girl .She studied upto 11th but could not complete her studies as she failed in one subject due to her marriage) .

Different marriage pattern have different implication for married women and their social network in the society. Exogamous marriages generally uproot women which is not very common in the studied slums. While in endogamous marriages women remain in contact with the natal home and other social network so she gets long time kinship affection and ties between two families and based on the above study there will be less restriction on the married women for the utilization of health care services and maternity care (Desai & Lijuan Wu .,2006) . Migration, marriage and cultural practices interact in complex ways (Fulford, 2013).

Sexual Education and Awareness

Socio –cultural determinants are a threat to women's health and health indicators of India. The health facility alone cannot put full impact on the health of mother and child but education and culture can make change. Presten et al., 1991 suggested that

culture and social systems use more important determinants of health than health systems themselves. Knowledge on contraception and pregnancy is very important especially for adolescent, so that they can make right choice whether they want unprotected sexual contact or not. In many South Asian country, to talk about sex and marriage is a taboo and are not discussed in the family (Kapadia ,1966) . Most of the literature states mother discusses about menses ,menstrual hygiene but about no sex education .

All the study locations were within the city limits with accessible network of schools, Anganwadi, Private hospital, PCMC dispensaries, PCMC hospitals and other means of communication. This means they had many sources for information. Right to correct information is important so they can enjoy the freedom to make their own choices, live empowered and surround them with enabling atmosphere to promote freedom. Knowledge about Sexual and Reproductive health among three fifth of participants from domestic domains like mother (51%) and friends (14.4%) even staying amidst all these sources.

she said , " I was madly in love with Arjun and parents were objecting ,so we eloped consequently married." Conception was unplanned. "We were unaware of the contraceptive usage and did not have self restrain from sex". "I was not taught about sex education by anyone mai nadan thee". (Case A-4 Bojkure is 19 years old and has two children (a 2 month old baby girl & a two and half 2.5 year old baby girl)and had one abortion. She was born and brought up at Gandhinagar slum ,studied upto 12th and dropout due to her marriage. Her pregnancy details Ist:- She conceived at 16 and baby girl is now aged 2 years and 5 months. IInd :-Again got pregnant and aborted by taking pills at home and didnot visit any hospital .IIIrd : delivered her second child at the age of 17 years and 9 months)

The case clearly depicts how vulnerability makes adolescent fall in the clutches of negotiating their life and having high fertility. When compared on education on menstrual hygiene, only one fourth of respondents were educated on sex education. Mother played the role of educator for less than one fourth respondents. Regarding mother as the educator, the response of Adolescent married girl was twice more than primigravida women. While among adult women the source of informant was more teachers and friends. The knowledge of family planning methods is less compared to

sex education and menstrual hygiene (20.6%) and awareness level of adolescent was much more poorer so is the case in a study in Maharashtra conducted in 2006,young married are less informed about sexual and reproductive matters (8% early married & 27% married later)[IIPS and Population Council -2008] . Source of primary information could be significantly associated with marriage age and education on menstrual hygiene (p<0.017) and sex education (p<0.14).In Rural Gujarat study quoted that lack of adequate knowledge about sexual matters an contraceptive result in early and successive pregnancy and sexual disharmony(Sharma & Sharma Vinit ,1996)

Sociology of male child /preference of male child

The concept of conception is studied with reference to the respondents. Whether the adolescent married girls had clarity of their pregnancy as to when to conceive first and why? Tradition still looms in the attitude and culture practices, only 35.9% and 16.5% primigravida and adolescent married girls responded progressively for planning. Among Adolescent married girls, more than three fourth had no preconception idea about pregnancy.

Primigravida Women "I conceived immediately after three months and want at least 2 children but preferably a male child also. If not, then they may want to take another chance". She said, "No spacing method is adopted so I may or may not have an issue soon but it depends on God's wish, male child is depended on God and if more children are born, it is Gods wish." (Case A-2 Bhosale is a 23 year old , resident of Anand Nagar slum migrated from Haraijul , Latur District Maharashtra . She belongs to Mang/Mathana – SC community and studied only upto middle class, dropped out due to disinterest in studies and the school was far away from native village). Her husband is a 24 year old and studied upto middle class. He dropout due to poverty and financial constraint at home and is presently working in an office. Her husband is a relative (both husband's elder brother's wife and she are sisters) and belong to same native place).

Key informant Mother in law ----She said, "Girls and boys should be married at the legal age only which prevents many health problems if married early as frequent delivery weakens the womb and the baby". In our family, marriage decision is taken by elders but preference is given to girls residing in the same locality. It is also ideal

to have small family with 2 children. She feels she is a blessed woman as she has three boys .The reason given was , 'vanshacha diva', 'Gharsambhalanesatti mulga pahije ', 'Parampara chalu rahene sathi','Jemaii che ghari rahne avagad astyhe'. "Conception, is a decision to be taken by the family, spacing before an issue is not good for health".(Case study B-10 Sable is a 53 year old residing in Bauhd nagar slum and a Mother-in-law. She is primary school educated, married at 16 or 17 years and belongs to Buddhist community. She is working as Madatnis (Anganwadi) and shares her home with members).

The case study brings out indeciciveness regarding use of contraceptive and strong preference of male child is reflected so is the opinion of key person (mother-in-law)who has progressive opinion when it come to conception and male child she is in the clutches of traditional cultural beliefs. In this study, power discourse is given as 'Decision' regarding first pregnancy mostly is taken by others i.e other than self. The others in study and control group primary decision makers are mother-in-law (11.4% vs 23.7%).Four percent more primigravida women compared to adolescent mothers are ready to wait regarding first pregnancy. It was very surprising to note 77.1% adolescent mothers and 52.6% primigravida women had 'no idea of pregnancy' while twice the number of primigravida gave opinion as studying as one reason or husband wanted or accepted as gift of god. Women are not the primary decision makers when it comes to seeking health care in many parts of India (Bandyopadhyay, and Macpherson, 1998) .There was no significant association between age and early conception but preference to have a boy or girl was significantly associated with first pregnancy (p =0.029).The study also brings out another feature , more adult women compared to adolescent mothers(9.4% vs 20.0%) opined for no preference of sex during child birth while more healthy baby is preferred among adult women (29.4% vs 16.5%) adolescent mothers. Adult Primigravida women preferred more male, female and healthy babies compared to adolescent mothers.

Knowledge about sex determination

Determinant for the sex of the child is correctly stated by fifty percent of respondents. While ambiguity still prevails among 49.5% with answers like God, female (mother) and both regarding determinant of sex. The study stated 'Father' as determinant of sex by Primigravida women (69.4% vs 31.8% p <0.0001), where as God as determinant

of sex of the child among adolescent married girls (29.4% vs 63.5%, p< 0.0001).This clearly demarks the poor knowledge and education regarding sex education among younger women. Attitude of both groups were taken regarding the number of children they desire as well as their husband. Only very few gave negative response for preference of son in both the groups. This aligns with India's patrilineal and patriarchal family system, having a son is imperative for the continuation of family line (Dyson and Moore, 1983; Kapadia, 1966). Even though no association could be brought out but responses shows adolescent wanted more number of children (boys as well as girls) compared to primigravida women. Husband's preference for 2 sons' is more compared to female (20.0% vs 1.2%). Both the study and control group look for 2 boys or one boy. The same is in Mandya District showing Son's preference to daughters (Sekher & Neelambar, 2010).

Decision making and Autonomy

Decision makers about family size showed no significant difference between the study and control group. Decision lies more on husband and mother-in -law among both the groups. The self autonomy and decision making among respondent was found slightly higher among primigravida women compared to adolescent married girls (10.6% vs 8.2%).Even though no association was found but it shows reduced levels of autonomous decision making and self efficacy (Santhya et al., 2010) among adolescent girls. Female autonomy is important in the context of adolescent women because younger women often lack negotiating skills within the family for health care as well as there is a lack of availability and accessibility to health facilities (Kavitha ,2015). Various studies quoted in a paper to examine how intra-familial decision making affects women's ability to access and use maternal health services conducted through 12 focus group discussions and 81 individual interviews with total 185 expectant and lactating mothers in Ghana decision making regarding access to use of skilled maternal health services is strongly influenced by the values an opinions of husbands, mother-in-law, traditional birth attendants and other family community members, more than those of individual childbearing women (Ganle et al., 2015)

Conclusion

In a study on early marriage of girls in contemporary Bengal, Malda shows "the role of a girl is defined in terms of marriage and reproduction. It further included social

institutions of family, kinship, caste and religion govern the parental concern" (Biswajit Ghosh, 2011). The question raised is why after six decades of Independence, a progressive state like Maharashtra still has not come out of the clutches of child marriage and early conception. The urban slum areas of PCMC under study shows the proportion of adolescent married girls are significantly more than primigravida women (p<0.0001). Age specific dominant personal was regarded as head of the family including husband, mother-in-law or father-in -law. The literacy level of Adolescent Married girls was found lower than Primigravida women. Even though key informants (mother –in-law) showed inclination towards significance of education, still they were not the decision makers in family. The gravity of problem and progress is severely affected as the literacy levels of the decision makers are low and even 22.89 percent are illiterate. Majority of the respondents and their family members are engaged in unskilled and semiskilled work. No association was found between Income and study and control group. But family monthly income was found higher due to more people engaged in jobs from each family. It gets equated as the average number of family members was also found higher with 4.12. More than sixty percent of the respondents belonged to 'backward communities' namely SC,ST, OBC, NT,VJNT etc. General or open category was more among primigravida women but no association was found. Age along with sex is the basic dimensions of population composition and characteristics which relate to adolescent pregnancy are used to ascribe social roles which may vary from culture to culture. Study did not bring any significant association between age and religion but majority were Hindu followed by Buddhist.

Prevalence of child marriage was found common in the urban slum area even though majority were aware of the legal age of marriage. Median age of marriage of respondent is 3 years less than primigravida women (19.3 vs 16.7 p<0.0001) so is husband's median age is one year lesser among the primigravida and adolescent (23.7 vs 22.4, p< 0.0001) .The main causes shows the girls are regarded 'vulnerable' once they attain puberty and parents 'push' the girls in to marriage in the name of 'safety' and for protecting 'sexuality and virginity' in maintaining family 'family honour'. The decision of marriage still lies in the hand of elders is inclining towards 'patriarchy' so also Power and authority for the selection of 'best suitor', determining

the age at marriage, and daily family affairs (through case study) even continuing the education of the respondent. Women's ability to take decision individually or in consultation with other members of the family or household is an important determinant of reproductive health of adolescent pregnancy. Autonomy is a multidimensional concept with personal autonomy encompasses, at minimum, self rule that is free from both controlling interference by others and from certain limitation such as inadequate understanding that prevents meaningful choice (Ganle et al., 2015). The study puts light on to the fact that the with lower education of the head of the family and patriarchy asserts more control/interferes in adolescent married girls decision with reference to age at marriage, selection of mate ,continuation of education thus making the docile and vulnerable. Case study highlight urban slum is not safe for beautiful girls and migration as a common feature. Sociologist view migration as a social process in which society provides a nurturing ground for making migration socially conditioned. Of the migration sequential and marriage migration is common with migrant flow from rural –urban is common. Strong kinship system with caste endogamy is followed with more preference to marriage to patrilineal cross cousin producing congenial social environment for reproductive health of women .The duration of stay at Pune was more than 10 year so it could create marriage network. Significant association was found between marriage age and education, as age at effective marriage is a determinant of adolescent pregnancy. Preference of Son is given weightage by both groups, still ambiguity regarding pregnancy 'no idea'is more among adolescent groups. Responses as ' Father' as determinant of sex of male child is more among primigravida women (p<0.0001) and Other factors were give more by adolescent married girls (p<0.0001). Patriarchy dominates in the study as well as in -depth study, male child is required for 'lighting the pyre, security of the family, staying with girls is culturally difficult, continue our lineage'. Adolescent married girls are also affected by gender socialization. Gidden's describes children from different sexes are socialized into their gender roles. Gender socialization inextricably intertwined with the insidious internalization of gender bias through socialization processes places the girl child in a precarious situation.

Intra-familial decision is still with husband or mother-in- law or father-in-law among both the groups. The young age of the adolescents married girls are 'vulnerable' not only in natal home but also spouse's (affinal home). The social and demographic determinant like age at marriage, lower education level, poverty and lack of safety in slums for girls pushes her in the vicious circle   The causative factors for vulnerability patriarchy, practice of child marriage and fertility proving, and preference of male child give rise to Adolescent pregnancy even after many interventional programs.

4.2.3 GYNEAC AND OBSTETRIC HISTORY (TABLE -3)

According to UNICEF, no girl should become pregnant before the age of 18 because she is not yet physically ready to bear children. Babies of mother younger than 18 tend to be born premature and low birth weight (LBW). Such babies are more likely to die in the first year of life. Mehra and Agarwal 2004 quoted Narayanan Patel, 'Adolescent Fertility in India: an analysis based on NFHS data, 2000' that 'one in six births to adolescents is mistimed or unwanted'. A systematic review of literature by Azevedo et al. 2014 by means of online data search shows (period 2002-2012) concludes the main neonatal complication found was prematurity, low birth weight, perinatal mortality and other maternal complication are hypertensive pregnancy disorders, abortion, urinary infections. The study also could link up neonatal mortality to be strongly influenced by determinants such as LBW, prematurity as well as maternal complication related to Adolescent pregnancy.

Age at Menarche

Age at attaining menarche is a significant determinant for the onset of puberty, a step to adulthood from childhood. Age of menarche varies with different states and region. In the study slum area majority of girls attained menarche below 15 years with average age 13.0 years (S.D ±1.1 years). In Bivariate analysis below 15 years at menarche (87.1% vs 89.4%) among primigravida and adolescent mothers showed no significant association between two groups (Sharma et al., 2003).

Age at first conception

'Age of conception and delivery is very significant because the development of pelvic canal is slower than that of the early teenage spurt of long bones'. Conception is considered as the yardstick for the bifurcation of adolescent married girls and primigravida women. The distribution of data is based on the age of first pregnancy as

the determinant. It is very astonishing to note 3 cases were pregnant even below 15 years (21.8%), between 16-17 years and 28.2% between 18-19 years. Among young women age 15-19 in Maharashtra 14% have began childbearing a little lower than the National average (16%) (NFHS-3).Low gynecological age was (defined as conception within two years completed of menarche) was present among one fourth of the cases. The mothers age has confound risk of infant death as the IMR for adolescent is 40% higher than of older mothers 107.3 and 75.8% per 1000 live births (Narayanan et al., 2000)

Methods used for confirmation of pregnancy (tests)

Most common test for confirmation of pregnancy for two groups were physical examination and urine test followed by blood test, ultrasound (where needed) and all the above. Both the study and control group utilized the same methods of confirmation through the, PCMC hospital or PHC or Rural hospital and private hospital.

Weight and Body Mass Index (BMI) of the respondent

Low BMI can also be an indicator of biological immaturity in adolescent girls, thus if BMI is regarded as a risk factor of adverse pregnancy outcome (Althabe et al., 2015) . With reference of weight gain among pregnant women shows significant difference was found between age at first pregnancy (p =0.009) ; suggesting that the proportion of respondents having weight less than 40 kg was more among adolescent married girls (11.0% vs 26.6%) as compared to their counter parts (Mehra and Agrawal 2004). Underweight women are 26.7% which points to poor nutrition and lack of dietary supplement. The study area from the urban slum, majority belonged to backward community, early marriage with underweight is more than one fourth which is a gravious issue of concern and intervention. Another emerging data of underweight was only 17 cases (20.7%) were adult women while 26 cases (32.9%) were adolescent ,again pointing to risk among young women.

Age at the time of delivery

The prevalence of adolescent pregnancy was cited among ≤15 to 18 years (23.6%) respondents against the marriage of 56.4% with the age of ≤15 to 18 years. The concept of early conception was found among less than one fifth of populations under the study. Only 17.6% had delivery after 21 years of age. Age at delivery is also

significantly associated with age at first pregnancy (p <0.0001) which suggest that the proportion of respondents delivered before 18 years i.e early age was more among adolescent married (1.2% vs 45.9%) as compared to primigravida women.

Gender of child and Current age of the child (at the time of the data collection)

Nearly equal number of male children was born to primigravida adult women and adolescent mothers while female children were nearly 6 % more among adolescent group. Son preference refers to the change in the wide range of values and attitude which get manifested in many different practices like neglect of daughter and preference for male child. In the study area more than sixty percent of the children are below one year. Among primigravida and adolescent mothers (64.7% vs 58.8%) below one year followed by 13 to 18 months and above 18 months. In the inclusion criteria children below 24 months were only included because of effective recall of medical history.

Low Birth weight (LBW) of children

The incidence of low birth weight is defined as the proportion of new born weighing less than 2500 g . In 2013 nearly 22 million newborns were estimated 16% of all babies born globally are LBW (UNICEF). Various review of literature shows that LBW is responsible for 60% of infant mortality in the first year of life. The cases of LBW is higher in Asia than elsewhere, predominantly due to malnourishment of mother prior to or during pregnancy micronutrients and proteins required in early pregnancy and calories and other nutrients later (Muthayya ,2009).She quoted in her study that LBW leads to an impaired growth of infant with its attendant risks of a higher mortality rate, increased morbidity. The second category 2500-2999 g is also equally risky with higher chances of mortality. The study area show one fourth infants born are underweight (LBW). Bivariate shows early marriage has a direct correlation with LBW as 36.5% of the babies born to adolescent are LBW while only half among primigravida women (p=0.007). In a similar study quoted by (Sharma et al., 2003) a hospital based study in New Delhi showed that maternal age of less than 20 years is a significant risk factor for LBW. In a prospective cross sectional study in tertiary level hospital 28.2% were LBW babies and 18% LBW were born to mothers less than 20 years (Patel et al., 2015)

Utilization of Health services

Utilization of maternal health care services plays a decisive role in reducing maternal, infant and child mortality in India. As early marriage leads to early conception within the marriage, it is determinable effect on girl's social, economic, autonomy, psychological and physical health. There have been various studies showing maternal health care in lower among adolescent women than adult women (Sharma et al. 2001; Kavitha 2015). World Health Organisation's commission of Social determinants of health 2008 drew our attention towards the broader context on inequalities in health care access. Health system does not just mean infrastructure or mere structure. Joris 2011 quoted power imbalances in society to tackle inequitable distribution of power, money and resources, research on health care access as social determinant of health or the social determinant of access to health care of social quality. The paper further adds the concept of habitus, Boudieu 'for recognizing the individual's agency and capacity to respond to socio-structural barrier that shape his /her health service encounter ,which comprises the health seeking process and interactions between patients an medical staff'.

The health structure in slums varies from city to city. The slums under study had ICDS services in place and PCMC dispensaries within 1 to 1.5 km away from their residence. Private practioneers (GPs) with unani, Hat vaidya , Ayurveda ,Homeo are catering to all the slum population. They are all practicing within the slum or near vicinity of the slum. The study area shows respondents and family member's preferred to take 'Prioritization of diseases' .All key personnel show pregnancy and delivery an issue to approach to Government or PCMC hospitals for the utilization of health service among women. PHC centers have been utilized by women residing in municipal area or who went to natal village for delivery which was sometimes 1-5 km. Private Hospitals were utilized by people who had money or in case of risk to infants or during serious emergency mostly during delivery. Transportation is comparitatively easier in slum areas as they are all within the city limits. Slums had auto rickshaw or tempo with drivers residing in the slums so during night hours in case of emergency sometimes these two vehicles were accessible to the emergency patients.

Private Practioner is a health service provider located in the Slum or near to the slum whose catchment area is the slum population under study. The study covered 4

doctors. Case D-1 is a BUMS doctor working in Ghadhinagar slum since 20 years. He expressed his views and shared his experiences –"Ghandhinagar slum has been growing since I have started practicing. The common ailment for which women and children come to me is for problems like Cold & Cough, Anemia and weakness, Body ache ,Stress and weakness, Respiratory Tract Infection (1-2 cases yearly) Leucorrea (3-4 cases monthly), PID is common . Abortion cases (induced – after marriage as well as before marriage cases) are referred to gynaecologist /Talera /YCMH and Uterus Prolapse due to high fertility. I have been coming across the rising cases of TB and drop out cases which are referred to Talera Muncipal Hospital as well as few cases of HIV who are referred to NARI as referral cards are available with him. Among children malnutrition also is present". They follow home remedies, superstitious beliefs in baba etc but where ever admission, surgery or emergency they go to municipal hospitals as they are cheaper and accessible". He pointed out another important feature is young boys and men are mostly addicted to alcoholism which leads to domestic violence and so minor injury cases also come to his clinic.

Case D-2 is a BAMS doctor who has 30 years experience in community outreach services as well as runs a clinic in Chichwad Gaon and provides services to Bijlinagar slums as well as JUNNRUM settlements. She narrated cases where in residents whose natal home is this slum and married in ruralcome for delivery without prior medical history or ANC records earlier 10 years back but now people are aware of the significance of ANC so keeps and carry records wherever they move. Case she narrate 'a women was in labour but her dilation was only around 3-4----,so she suggested to wait and lie down in room. Her relative 'dadi sas' told her to push hard so the delivery will be soon. When I came back, I found the women pushing hard without dilation she will get exhausted which is not good……The pregnant lady was saying, dadi sas told donot listen to them I have seen so many deliveries'. She said, "most of my cases are of STI/RTIgenital urinary problems, infection ,Leucorria, menstrural problem, uterine prolapse, common issues cold cough, sometines after miscarriage, pregnancy detection etc". They are mostly hiding their diseases from family and come with husband when condition becomes severe and painful. 'Cultural silence' is common among women .Superstition and cultural taboos for pregnant women is strictly followed, keep pregnant women safe from evil eyes. Backache, stress

and Anaemia is very common among women. Eating poor nutritious food also leads to problems, like eating in last many a times keeps them devoid of nutritious food component.

Case D-3 is BAMS Doctor, Practicing in Hospital and private clinic near to Dattanagar covering Ramnagar and the industrial /small workshops since one year. She narrated that 'most common community residing here are Vadari and Lamani. They marry very soon and even get separated also. Official divorce is not their concept but all live adjacent. I found a few with two wives and having more than five children with them. With the onset of puberty, the girl's movement is restricted. Mostly very few adolescent girls come for counseling or with health problem. The age at pregnancy is always hided so as to avail JSY benefits. Follow-up for any ailment is difficult because once they become a little better they donot turn up. Common ailment regarding women which I encountered are Anaemia and weakness, Body ache ,Stress and weakness ,Cold & Cough/viral fever, UTI cases (8-9 cases monthly). They mostly go for work and donot have habit to drink water or take timely food hence they suffer from health problem. They donot maintain good Hygiene- oral and body .Once ANC is detected they go to municipal hospital as it is cheaper. But they are not very regular and turn to hospital when problem becomes severe. Postnatal problem and No concept of delaying first pregnancy like upper middle class family. They are prone to infection, Abortion cases (induced – after marriage as well as before marriage cases) referred to gynecologist –Talera /YCMH. They even have illicit affairs which lead to domestic violence. Alcoholism is very common which leads to poverty and domestic violence. High rate of fertility with 2-3 children are very common. Preference for government hospital is very common among the woman and men for delivery as it is cheaper and accessible. They also migrate to other places in rented houses. Girls drop out more due to marriage while boys due to disinterest towards studies, need additional income in family or being independent. They even go to medical store for local ailment and take pills. Other alternative medicine is taken commonly for arthritis, infertility, stomach problem etc and they follow lot of cultural practices post delivery.

Case D-4 is BHMS Doctor practicing since 10 years in Bhosari area covering Chawls of Bhosari and other urban area. Cases which he come across ranges from skin

infection, eye infection, common cold and cough to STI/RTI. TB cases are referred to Talera Hospital .Women issues he came across are limited mostly Anaemia, blood loss , dysmerrogea ,Stress, weakness and fatigue , Giddiness and hypertension, Diabetis, Jaundice, Headache, Neckpain, backache shoulder pain is common, Tooth ache and Water born other diseases .ANC cases goes to other private socialized maternity homes or Bhosari Muncipal hospital. Women mostly go to government hospital for contraceptive and spacing. Early marriage is there but he feels the trends are decreasing as girls now go to school atleast till 12th or even college.

All the four cases, even though the areas were different but problem of women are similar. Anemia is very common so is early marriages. The opinion brings out the fact thre is prevalence of availing Govt services for delivery and carry the burden of disease till it becomes severe.

Place of delivery and mode of Delivery

Very interesting fact came up ,only 17 cases (10%) delivery was conducted at home while 90% at the hospital (institutional delivery) with more than half at PCMC or PHC ,30 percent at private hospitals and 47 percent at Government Rural hospital or YCMH. Home deliveries among adolescent was more than adult women (Sharma et al. 2003; NFHS-2 report).DLHS-4 (2012-13) show urban institutional delivery 95%, government establishment 40.3%, private health institution 55.3% and delivery at home (4.0%). Bivariate analysis shows more number of home deliveries (one case more) was found among and adolescent mothers. NFHS 3 data shows two out of three births in Maharashtra take place in a health facility, and one out of three takes place at home so NFHS-3 66%, NFHS-2 53% and NFHS -1 45% are the percentage of institutional delivery(Sharma, 2003).This show there is gradual increase in institutional delivery ,so was the case in PCMC urban Slum . Referral hospital like RH or YCMH was more utilized by among adolescent indicating more prevalence of referral cases among them compared to adult women. These indicate high risk pregnancy among the respondents. Those deliveries which are conducted at home was assisted either by mother, relative, untrained birth attendant (TBA). ANM or Doctors assisted majority cases where delivery was institutional. In case of home delivery, the cord was usually cut after the placenta came out often without adequate care for a sepsis with sterilized scissor or

new blade. NFHS-3 , data shows 83% home births are assisted by clean blade to cut the cord.

The delivery period is defined as the time from the commencement of active labour until the delivery of placenta. Mode of delivery plays key role in determining the personnel assisting at delivery (Kavitha, 2015). Out of the 133 cases in the study , normal vaginal delivery was more among adolescent than among primigravida women (Blomberg et al., 2014) .While caesarean delivery was more among primigravida adult women (24.7% vs 17.6%)and adolescent . No significant association was found between the study and the control group regarding normal and caesarian delivery. Jeha et al., 2015 quoted various studies suggesting older teenage years 17-19 have the least risk of caesarean delivery so is the case in this study .

A case of home delivery ……..

Case A-14 Mrs Jadhav a 20 year old primigravida women, resident of Khandobamal Bhosari, migrated from Jharkhand and living in Bhosari since 2 yrs. She dropped out of school as she failed in 10th and belongs to a big joint family of 15 members. Her father is a farmer (Ner village of Jahanabad district UP) but works in other farms as his land is unproductive. She was married in 2012 at 18 to a 29 year old man studied upto 12th, arranged by parents. He is an AC mechanic working with a firm and earns Rs 8000 /- .She was married early due to deformity in her eye. Her eye is affected by early cataract which cannot be treated and is gradually affecting her second eye. After her conception, she regularly took treatment from 4th month at Bhosari PCMC Hospital   ,took iron tablets , vitamin & other medicines given .comments – she was anaemic, no proper weight gain was the risk she faced. All were monitored by the doctor regularly. As her follow-up visit was on Saturday 28th April, she was told to come and admit on Monday. But at night Saturday she had labour pain with extreme emergency and no one to take her to hospital so all the neighbours came forward helped to deliver (All women never delivered any baby before) .They used hot water, new blade and some thread which took 2 hours including cleaning of the baby. On Monday at hospital further examination was done, baby girl was born vaginally on 28/9/2014 wt 2.400 kg .Post delivery admission for neonatal care & postnatal care was done at hospital . Baby girl further was given immunisation & health advice. 'I want my daughter to study & get a better status than me as education is the key to

progress. I want a small family of two children because in this increasing inflation one cannot afford to have more children I want a boy also. I come from a poor family and married to a poor man what else to desire for '.

Obstetric problem/morbidity

Maternal age plays an important role during pregnancy and its outcome. The health of the Adolescent girl after delivery is exposed to various risk extraneous and intraneous factors. Each period is significant in the whole process of child birth to child care. It is not just the biological factors which play a crucial role but socio-cultural dimension, health seeking behavior, also plays vital role in seeking and acceptance of the health care and its mortality and morbidity. As per th data given by PCMC health Department for the three years (2011-14) out of total population 1825510 infant mortality (16) & maternal mortality (70), 189704 IMR (15) and MMR (73) while for the year 2013-14 it was 1970096 (9.7) anf MMR (73).

Prevalence of complications /problem during prenatal period

The Indian women migrate due to marriage of Indian women, caste endogamy and kinship system binds as well as moves them from natal home to the affinal relatives. Her first conception is a mark of proving her fertility and care and support from the affinal relatives is given. Prenatal period is crucial for the mother and child. A major component of antenatal care is prenatal care. The dietary requirement is more, ie a pregnancy in total duration consumes about 60,000 k cal over and above normal metabolic requirements. On an average, a normal healthy woman gains about 12 kg of weight during pregnancy but several studies indicated the weight gain of poor Indian women averaged 6.5 kg during pregnancy. Thus pregnancy requires extra calories and nutrients requirement. Personal Hygiene should be maintained with 8 hours of sleep at least 2 hours rest after midday meals, light household work and advised but manual work adversely may affect the fetus. Warning signs during these periods are swelling of the feet, fits, headache, blurring of vision, bleeding or discharge from vagina or any other unusual symptoms. During this period, 'Mother Craft' education on child care is given for the preparedness for child birth and child care (Park, 2011:486).

Reproductive morbidities during the prenatal period are abdominal pain and anemia (which is taken seriously as it may lead to miscarriage), vaginal slight bleeding, severe bleeding, cold and cough, swelling on face and hands, high fever, severe

headaches and gastrointestinal symptoms such as lack of appetite and vomiting.In the study area (urban slum) 95 cases (55.9%) showed complication during prenatal period, out of which majority utilized Govt health facility followed by private hospital. The data suggest 72.6% were accompanied by parents and only one fourth by husband to the hospital. This shows very congenial environment in the slum area under study. In prenatal period, the proportion of complication during pregnancy was more among adolescent mothers (36.5% vs 75.3%,p <0.0001) as compared to primigravida adult women. No significant association could be brought between the study and control group regarding the utilization of health services. The complication faced were anaemia, abdominal pain, swelling on face and foot, vomiting and lack of appetite, cough and cold and vaginal bleeding. The uni-variate logistic regression modelling of occurrence of complications during pre-natal period suggest that it is significantly associated with younger women [74.3% vs 53.9%, Odds Ratio (OR) = 2.47, 95% Confidence Interval (C. I.): 1.07 – 5.69; p = 0.034], women with lower age at marriage [71.4% vs 50.0%, OR = 2.50, 95% C. I.: 1.28 – 11.41; p = 0.008], adolescent pregnancy i.e. women with pregnancy between the age 15 – 19 years [78.0% vs 38.3%, OR = 5.74, 95% C. I.: 2.88 – 11.41; p < 0.0001], women with less eating habits [70.4% vs 42.6%, OR = 3.20, 95% C.I.: 1.48 – 6.93; p = 0.003] and non-consumption of balanced diet [69.3% vs 48.9%, OR = 2.37, 95% C. I.: 1.24 – 4.51; p = 0.009] as compared to their counterparts / reference population. The finding implies that among adolescent women, complication during prenatal period is 5.39 times more likely to occur than adult women.

Prevalence of complication/problem during perinatal period.

The perinatal outcomes are preterm birth (live birth at < 37 weeks gestation) . Low birth weight (live birth weighing < 2500g at birth) still birth (fetal deaths occurring >500 g (22 weeks gestation or 28 week gestation), early neonatal death (0-6 days after birth), neonatal death (0-28 days after death). So perinatal death (mortality) is neonatal birth plus still birth (Althabe et al., 2015)

Perinatal problem was faced by 19 women of whom 8 are primigravida adult women and 11 adolescent mothers. Even though morbidity could not be statistically associated with first pregnancy the problem is more among adolescent mothers. Comparison of NFHS1 &2 data reflects a decline in neonatal, infant and under five

mortality cases from 1991-98 however the rates continue to be higher in mothers less than 20 years compared to 20-29 years age group (Mehra & Agarwal 2004) .Reproductive complication during perinatal period couldnot be statistically associated between the two groups so was the case with the utilization of health facility. Most of the respondents preferred private hospital to government hospital during the complication. This study also goes by Michielsen et al., 2011 where in health seeking preferences were studied like for minor illness (cough, fever, headache or stomach problems they go to small private providers while public care becomes an alternative when the cost of treatment are commonly high so they prefer public sector but on serious complication again the confine to private sector. .

Abortion/Miscarriage

Abortion is theoretically defined as termination of pregnancy before the fetus become viable (capable of living independently). This has been fixed administratively at 28 weeks when the foetus weighs approximately 1000g (Park, 2011:468). Abortion are categorized as spontaneous and induced. It is also called nature method of birth control. Abortion whether induced or spontaneous should be handled by skilled medical personnel as early complication of abortion include hemorrhage, shock, sepsis, uterine perforation, cervical injury etc. In this study, out of 16 cases of abortion, more number of abortion occurred among adolescent mothers than primigravida women (12.9% vs 5.9%, p<0.115) (Sharma et al., 2003). In pregnancy outcome of CEHAT study shows induced abortion about twice more in urban areas than in rural areas .Of the 290 adolescent cases of birth,37 cases of spontaneous abortion of which 12 cases were of induced abortion was recorded .The study further showed of the total conception 2.6% were of adolescent abortion. Similarly in PCMC slum area out of 16 cases of abortion 10 occurred in the first pregnancy and 6 during the second ordinal no of pregnancy, 2 were induced and rest spontaneous. The reason given was anemia, weakness and hard work without proper rest. It is important to mark that in many cases of spontaneous abortion none the family members suggested to go to doctor for safe cleaning (DNC) and mostly follow-up was left unattended by herself. It is based on the mostly the recall of respondent and few records. This may lead to severe morbidity among women or their future fertility and good health.

Neonatal deaths

Neonatal deaths can be divided into still births, early neonatal deaths and neonatal deaths. When fetal deaths occur > 500g or 22 weeks gestation it is called still birth. Neonatal deaths, deaths occur 0-6 days after birth while neonatal deaths occur between 0-28 days after birth. During perinatal period, still birth was one case during first pregnancy and one case during second pregnancy has been noted in the study. Still births are slightly higher among adolescent 15-19 years so was neonatal mortality (Althabe et al., 2015) .Early and neonatal death occurred in ordinal no of pregnancies 3 cases in the first and one in the second case were all born to adolescent mothers aged 15-19 years and found significant (p<0.043) (Awasthi and Pandye 1998, Santhya and Jejeebhoy 2003) . The reason of death recorded low birth weight, congenital malformation, and diarrheal diseases.

Low birth weight

Birth weight of an infant is one of the single most determinants of its chances of survival and healthy growth. In this group there can be preterm, term and post term babies. The area under study indicated preterm pregnancies. Preterm pregnancy occured in 9 cases out of 170 cases enrolled for the study out of which 8 cases were born to adolescent mothers (15-19 year) while one case to primigravida adult women (4.4% vs 1.2% ,p<0.016) is found significant. One of the most detrimental outcomes of Low Birth weight is growth retardation in the young girl which perpetuates a vicious circle of female nutrition throughout adulthood and in my study (small mother have small babies), socio and economic disadvantages into the next generation (Mehra and Agrawal , 2004).

Preterm babies are born too early before 37 weeks of gestation. Out of the 8 cases of preterm babies were born to adolescent mothers (4 cases) who had faced multiple birth as well as abortion. In this urban slum study preterm pregnancy was significantly associated (p=0.016) among the two groups suggesting Preterm and LBW rates (are higher in adolescent (15-19 years) compared to adult (Althabe et al., 2015, Jeha et al., 2014). In another study the incidence of preterm deliveries was 5 times more incidences among adolescent and was found significant (Chahande et al., 2002-07). In an online data base study of systematic review of literature by Azevedo et al., 2014 show neonatal mortality was higher than neonatal complications of all other deliveries. In perinatal differences Mukhopadhyay et al.2010 Shows the adolescent

mothers have greater proportion of premature deliveries (27.7%), LBW (38.95%) and rate of still birth (5.1%) compared to adult mother. Another prospective, population based multicounty shows study risks of preterm birth and LBW were significantly higher among both early and older adolescent, with the highest risks observed in the <15 year old group (Althabe et al., 2015). The study further observed increased risk in perinatal outcomes among adolescent compared to adults.

Case of Preterm birth during perinatal period

Case A-5 Phuge a 19 year old married adolescent girl staying at Kandobamal Chawl in Bhosari Area and could not complete her studies due to marriage after 11th . She is married to a distant cousin (from maternal side) 30 years old man, 12th pass and working as an Attendant in a private hospital earning Rs 8000/month. She was married on 14/5/2012 at Hingoli (her native place) and presently staying in her in-laws home since 2 years. At the time of marriage she was seventeen years and 6 months and her husband 28 years follow Buddhism. She stays in joint family with Father -in- law, Mother- in- Law ,husband and her kid. Her Husband's sister is who stays in neighbourhood was present at the time of study as she was 7th month pregnant (age 20) . Mother- in- law very authoritatively stated ,she is working as domestic help and earns Rs 5000-6000/- month .Her father-in- law is 12th pass and working as Attendant at Sant Dyaneshwar Hospital earning Rs 9000/-month (approximately family income is Rs 24000/-) and her father-in-law is an alcoholic and also has taken loan for her sister-in-law's marriage. She conceived 8 months after marriage (18 years and 2 months) and delivered a baby girl at Kulkarni Hospital (Private Hospital) near her residence at Bhosari. She was born underweight preterm with weight 1.300 gms. The baby was kept in incubator for 7 days. There were many complication during pregnancy anaemia -5.9gms, high fever and B.P was also high (high blood pressure). Mode of delivery was virginal but had to be given one bottle blood. She did regular ANC check up and prenatal complication included vomiting, weakness, and did not consume IFA tablets due to bad odour. She looked drawn, aloof and stressed due to frequent sickness.The baby was admitted for 5 days in April suffering from Measles with bronchopneumonia with anaemia. The baby is 11 months old very pale, short, red brown hairs and presently her weight is just 3.2 kg . This is the third time the baby is admitted. Her in-laws and husband stated that she does not

take good food, so her baby is also sick and weak. She want reluctant to spell out her opinion as her mother in law was stating more about her family size etc.Opinion No 1: Mother in Law said, "She expects her son should have at least a male child that carries their family name". Opinion No 2: Her husband said , "Vah apana khyal nahi rakhathi isliya har vakth bimar rahati".He wants her to complete her education so that she can join some SHG groups and earn money.

Case A-6 Chavan is 20 years old (Date of Birth 17.09.1993) adult women from Bhosari . Her first born infant died on 21.2.2014. She left her education after 11th due to disinterest was married on 19th Nov 2013 at 19. She was born and brought up in Bhosari from the same chawl. She was married to a close cousin (from maternal side) 24 years old, 12th pass and working in a company earning Rs 7000-8000/month. She lives in an extended family with Father in law (55) , Mother in Law (50) , Brother in law (33) , Sister in law (25) and her 2 kids aged 4 and 1 years old . Her parents stay 2 lanes behind her house. Total family income is Rs 20,000/- per month. Her father-in- law is the head of the family and takes all decisions with her husband and his brother. She conceived immediately after marriage, everyone in the family and relatives were eagerly enquiring about any good news. "By Gods grace I made my family proud, I conceived after 4 months". Blood test and urine sample were taken to confirm her pregnancy in the 3rd month. She took regular ANC check up from 5th months onwards, TT and IFA tablets. Sonography show (26/7/13) Single ,live intra uterine foetus of 8 WOD ±5 days of gestation ,LMP =25/5/13 D = 8 WOD EDD= 1/3/14 ,Sonography : 28/11/2013 Single live intrauterine foetus breech presentation with average gestational age of 24 weeks 4 days, Sonography : 2/1/2014 Single live intrauterine foetus in Vertex presentation with average gestational age of 29 weeks 3 days. Sonography: 21/2/2014 Obstetrics 'relates single live intrauterine foetus in vertex presentation with average gestational period of 34 weeks. Good fetal biophysical profile seen constitutionally small foetus. She was admitted on 23/2/14 to 28/2/2014.Baby born on 23/1/14 and died .Diagnosis – Primi C 8 mA c threatened preterm. (primi 8th month ammenorea)She narrated, "Marriage is important and so are children. Life revolves around these domestic affairs only. Relatives, function, children, food and household work engage every girl and so what different I am

expected to do". She is aware of spacing method but discussing with family is difficult.

A case of still birth

Case A-8 Rasal is a 24 year old women (records 25yrs) who has gone through an ordeal of Still Birth (delivering a dead child). She has a 4 year old boy who is enrolled at anganwadi at Gawali mata slum in Bhosari. While studying another case I came across this case of interest .She discontinued her study after 9th due to poverty. She said, ' I am not interested to continue my study as even after studying, I have to do the same domestic tasks and mend house, so why should I take so much task? She was married in the year 2010 at 19 years and a native of the same Chawl . She is staying in her in –laws home in an extended family. Marriage was arranged by parents and elder male members of the family. Everything was fixed, so she abided by their match choice. She is married to her close cousin (from maternal side), 27 years old, 12th pass and working in a company earning Rs 6000-7000/month. Presently she stays with her younger Brother in law (24) , his wife (20) her two children (3 year old daughter), 2 year old daughter and 9 months baby girl and her son (4 year old) and sometimes her in-laws also visit them. Both the ladies are not working. Total family income is Rs 15,000/- per month . They hold BPL ration card, when I visited the house it was full of kids. Kids pulling each other, playing ,crying , shouting both women frequently shouting to silence the kids. The house had 2-3 packets of supplementary food for lactating mother and 2 packets for their 2 children who were weak & undernourished. All supplementary food is provided by Anganwadi. She started her ANC checkup from third month at Jijamata PCMC Hospital . Her lab test and sonography shows she gained gained weight time of 4+ and 53 kg at the delivery. Interpretation by subject: 'She narrated all her ordeal. During her check up in the 8th month she was told the foetus is ok, all parameters are ok except the amniotic fluid is less. We went home peacefully. In the last checkup on 3 rd September 2013 they said the fluid is less and asked to but to come with sonography for which she was sent outside. The radiologist told on 4th September there is something wrong you go to hospital immediately. When they reached Jijamata Hospital the doctor again told the fluid is less and referred to YCMH . Later they told the baby could not survive. She was complaining if they were aware the fluid is less they could have done operated
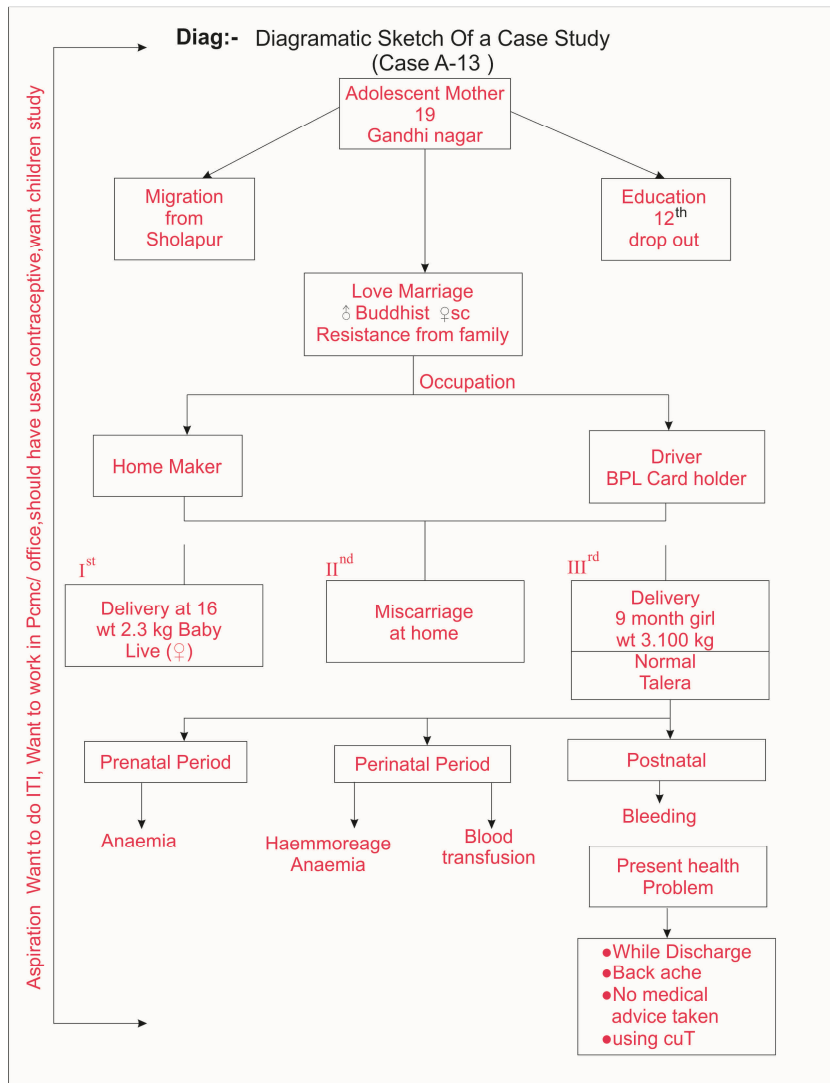
and saved her child. We could have paid or we could have even gone to private hospital. They didnot disclose the gravity of the problem. Next time I will go to private hospital only'. Last sonography shows gestation of 35.3, severe oligohydromnios and fetal cardiac activity absent. She was admitted on 4/9/2013 discharged on 6/9/2013.She was very depressed by the loss and said will wait for another 6 months and probably conceive and later undergo family planning operation . Life revolves around in this cultural practice. Mother in law was scolding saying she should have taken very good care of herself. Husband is supportive and cooperative. She has no aspiration in life but wants her children get educated and earn money.

Qualitative analysis of the case A-5 depicts adolescent girl physically weak, with high level of mortality, Low birth weight preterm pregnancy, psychologically stressed with lack of decision power and entangled in the patriarchal system taking reproduction not as a problem or illness but a natural process which everyone goes through. In the second case an adult women who married (endogamous kinship system), early conception with cultural customs following modern medicine ending in preterm morbidity. Gender and patriarchy pushes women in a vulnerable position. Yet they found utilizing modern medicine. Case A-10 is a typical case of forceful marriage, early marriage an early consumption with endogamous and marriage within the kinship in the name of protecting sexuality and virginity in urban slum. School dropout opens the door for marriage and the girl moves into the clutches of patriarchy from patriarchy. Private Health facility was selected out of convenience. Case A-8 is an adult woman who had still birth married to close relative from maternal side. This case put forth various angle and reason for the death wherein the mother and family were not appraised properly the risk earlier leading to ambiguity in death. It also shows high fertility, lack of contraceptive use and awareness put the woman at reproductive and obstetrics morbidity .All the cases showed drop out from school and marriage. Malnourishment and anemia is common among the cases.

Prevalence of complication/problem during postnatal period.

Deaths occurring from 28 days- to- life or 28 to life-less than one year are called 'Post neo natal deaths'. It is understood that neonatal deaths are dominated by endogenous factors, post neonatal deaths is dominated by exogenous (i.e environment and social factors). The study area show 3 cases of deaths of which two during first delivery and

one in the second ordinal order of birth. The two cases are among adolescent mothers. Two cases were born to adolescent mothers and association was not found significant and reason of death by malnutrition and high fever (brain fever). Care and support of the mother and the new born after delivery is known as postnatal care and the period Post natal period. It is very significant to prevent complication, restoration of health of mother, breast feeding and family planning services. Certain complications which arise are puerperal sepsis, thrombophlebitis, secondary hemorrhage, urinary tract infections and mastitis. Hence ideally checkup should be done twice a day during the first three days, once a day till umbilical cord drops (Park, 2011 :488). The post natal period included the time from the expulsion of placenta until six weeks after delivery. Post natal complication was recorded among 15.29% women; of which 5 cases belonged to primigravida women while nearly four times more i.e 21 cases among adolescent mothers. A study shows that access to PNC services is dependent on obstetric factor (mother's age and parity) (Pandhya et al. 2013) Treatment behavior show most of them preferred to treat at home while only when the morbidity was very severe then they get treatment at private clinic followed by Government hospital. Mayank (2008) in her study show care seeking women prefers care at home. In another study, Post partum period cultural factors play an important part in the chain of decision making (Jayashree R et al. 2008). Regarding health care ,most women donot take decision instead other members dictate whether a women's condition warrants treatment and what type of care she receives (Barua and Kurz ,2001) .Severity of the morbidities are considered based of the hospitalization or referral services. In the study area also PNC has not given much care and support from the family. Complications or morbidity faced by 19 women during perinatal period of which three fourth that faced complications or morbidity were treated at private health facility followed by government. As the respondent were mostly staying at natal home, parents accompanied and gave care and support. No significant association was found between the study and control group. Diagram --6

Diag:- Diagramatic Sketch Of a Case Study
(Case A-13)

Adolescent Mother
19
Gandhi nagar

Migration
from
Sholapur

Education
12th
drop out

Love Marriage
♂ Buddhist ♀sc
Resistance from family

Occupation

Home Maker

Driver
BPL Card holder

Iˢᵗ

Delivery at 16
wt 2.3 kg Baby
Live (♀)

IIⁿᵈ

Miscarriage
at home

IIIʳᵈ

Delivery
9 month girl
wt 3.100 kg
Normal
Talera

Prenatal Period

Anaemia

Perinatal Period

Haemmoreage
Anaemia

Blood
transfusion

Postnatal

Bleeding

Present health
Problem

●While Discharge
●Back ache
●No medical
  advice taken
●using cuT

Aspiration Want to do ITI, Want to work in Pcmc/ office,should have used contraceptive,want children study

110

A case of Morbidity /complication

"I had my periods (menarche) at 12 years of age followed by heavy bleeding (dysmenorrhea) for 2-3 years and conceived immediately after my marriage at 18 itself". Her medical report shows her post natal haemogram and Hb 9.6gms. "I feel very weak, always have headache and backache, and want lie-down and takes rest frequently. I even have pain on my hip region". (Case A-5 Phuge a 19 year old married adolescent girl staying at Kandobamal Chawl in Bhosari Area and could not complete her studies due to marriage after 11th. She is 4.2 feet height and 40kg weight and has a 11 month old weak baby girl)

Case A-4 Bojkure is 19 years old living with two children (a 2 month old baby girl & a two and half year old baby girl) and had one abortion. She was born and brought up at Gandhinagar. Marriage shattered her dreams as she aspired to do technical education like ITI and work at PCMC office or company. Her husband is 24 years, 9th pass and working as Driver earning 8500/month approximate (BPL card holder). She was married on 6th December 2009 at 16. She is Telugu (Sholapur District) but born and brought up at Gandhinagar, belongs to OBC category and he is Buddhist. It was a love marriage which was strictly opposed by both her parents (a neighbourhood romance). She conceived at 16 and delivery was normal, baby weighing 2.3kg wt at Private hospital. She fed breast milk and within half an hour of delivery. IInd:-Again got pregnant and aborted the 4 weeks baby by taking pills at home. She didnot go to any hospital. IIIrd: She delivered her second child at the age of 17 years and 9 months a baby girl weighing 3.100kg normal at Talera hospital. She did regular ANC checkup but IFA tablets were not consumed as had vomiting sensation on smelling the IFA tablets. She took ample of rest, pre and post natal care was taken care in her both family (natal and spousal). In her IIIrd delivery she had severe bleeding and had to be given 2 bottles blood. She is presently facing problem of white discharge and back ache.

Case A-10 Phakir is a 18 year old adolescent (records 19 yrs) who has gone through an ordeal of Child Birth delivering a baby boy on 9th August 2014 at Burute hospital Bhosari . She was a resident of Bhosari , presently married and staying with her in-laws at Sholapur . She came to her maternal home for delivery and has been residing since 5 months. Shakira got married in the year 2013 when she was 17 years old .

She is married to her father's sister's son who 11th passes and runs a small hotel at Sholapur. She started her ANC checkup from third month at Sholapur Govt hospital later moved to her natal place Bhosari in 7th month. During 9th month she weighed 70 kg height 4,8" . She took TT. Iron & folic acid and 4 ANC checkup .Regular food habits and regular intake of non vegetarian food was taken. Sonography Reports showed no anomalies. She delivered by caesarean section on 9th August 2014 .The last report is as follows :- 2/8/2014 LMF :5/11/2013   EDD = 12/8/2014 Fetal age LMP =38 wks 4 days A single live intrauterine gestation is seen .Presulates =Cephalic Placenta fundo body anterior Grade II Cephalic Length = 4.20 cm Internal =closed FHR = Shows normal activity & movement -141bpm Liquid adequate = AFI   10.5 Fetal Skull appeared normal, four chamber beat views appear normal. Fetal lungs, stomach & kidneys appear normal .No obvious anomalies seen . Triple vessel cord is seen .No evidence of cord around the neck .Impression: single live intrauterine foetus Pregnancy corresponds to 38 weeks 0 day FDD by USG 16.08.2014 Foetal Wt : 3278gm

She said , ' during her check up in the 9th month she was told the foetus is ok , all parameters are ok .She need to wait on 2nd August 2014 they said all the parameters are ok in sonography. On 8th evening fluid started to come out, hence we enquired with the nurse should she be brought to hospital immediately?. She said to wait and observe. In the mean time the fluid continued to flow. The next morning when they reached hospital, the doctor said it is too late. LCS should be done. The irony is they have not been given discharge card till date. Lack of emergency response, Illiteracy and distance of the hospital lead to caesarean section looks the causative agents. Today at 18, she is a mother of a baby boy. Unfortunately her ambition to become a teacher vanished in air .Her mother wishes her to study in commerce, as it can be given externally".(Case A-10 Phakir , a muslim 18 year old adolescent (records 19 yrs) who has gone through an ordeal of Child Birth delivering a baby boy on 9th August 2014 at Private hospital . She was a resident of Bhosari , presently married and staying with her in-laws at Sholapur . She came to her natal home for delivery. All ambition was shattered by her dominant father and culture. Her father is a driver and owns a jeep with an income of around Rs7000/- & mother works as a domestic

help at various houses and earns around Rs 3000.All her relatives from maternal side are residing nearby & collects garbage from colonies).

Key Informant Case B-6 Khan is a 40 year mother –in –law residing in Gandhinagar slum. She studied up to 8th class married when she was 16 years old. She is a house wife and shares her work with her daughter. She has 1 son (youngest) and 2 daughters, out of which one is married. " In our Muslim community girls and boys are married at very early age but I want they should be married when they are older (at legal age)".She said, "Shadi Bachpan me kiya to bahut dikatte hoti hai ,Shareer kamjor rahta hai .Today I am suffering from body pain, heavy bleeding during periods , backache, tension etc". "My husband is the decision maker of the family and my daughters marriage was also fixed by my husband's elder brother's and other members and preferred boy from same community/ native place .If one speaks of ideal family then it is two children . Son is a preference of all communities to carry name of the family. She said she wouldn't advice to her daughter to use any spacing method but they can do operation after two children is a good option .She added "planning immediately after marriage is very difficult because you donot know the family mostly but even if you know the mother-in-law will never discuss this issue to the new bride, so how is it possible. How everyone will react is an important thing? Early Conception is every one's expectation after marriage. 'Education is important but for girls we cannot wait long because in their community every one enquires why she is not married'.

Perception of key informant (mother in law) Case B-9 Mehtre is a 60 year ,belongs to Matang community (ST) and residing in Ghandhinagar slum . She is illiterate and married when she was around 15 years old, engaged in house work and shares her home with 5 members. She has two daughters and one son, all married. She said Girls and boys should be married only when they grow fully (uncertainof definite age). Girls should be married at older age because otherwise they face lot of health problem. 'Iam facing that problem due to construction work and heavy object lifting my uterus have come out (Anga bahir alle). All this problems these children should not face. Frequent delivery also creates the problem. But at that time there were no one to educate us.

Signs and symptoms as reported by the respondent

Antepartum complication faced by adolescent mother and primigravida adult mother	
Gestational Diabetes	Abdominal Pain
Vaginal spotting	Cough and fever
Swelling on foot	Vomiting
Anemia	
Loss of Appetite	
Intrapartum complication faced by adolescent mother an primigravida adult mother	
Multiple Birth	Abnormal presentation of fetus
Heavy Bleeding	Convulsions/fits
High Fever	Amniotic fluid
Fetal distress/asphyxia	Breathlessness
Caesarean section	Anemia
Difficulty in Urination	
Post partum complication faced by adolescent mother and primigravida adult mother	
High Blood Pressure	Leucoria
Anemia	Heavy Bleeding
Ref : Signs and symptoms faced by the two groups has been classified with reference to Jayashree Ramakrishna et al.2008 from 'Reproductive Health in India New Evidence'2008 regarding obsteritic morbidity	

The study indicates the prevalence of perceived morbidity during prenatal period (55.9%), perinatal period (11%) and post natal period (15.29%) and complication /morbidity among children 19.41 %(Ramakrishna et al., 2008). Mehra and Agarwal (2004) quoted that 'the most frequently encountered complications during pregnancy and labor are toxemia of pregnancy, eclampsia, preterm labor and cephalopelvic disproportion. The risk of toxemia of pregnancy has been shown to be three times higher. Fetal distress during labour, respiratory distress syndrome (RDS), icterus and trauma (birth injuries) have been reported more frequently for offspring of teenagers'. Gestational diabetes mellitus (GDM) was encountered by one case, which was found among adolescent mother showing risk (D.Jeha et al.2014) even though it was a small figure. Hypertensive disorder among primigravida adult was found more compared to adolescent (28.6% vs 17%) hence no significant association was found (as documented in various reviews quoted by Jeha et al., 2014) . The morbidity could be

significantly associated among primigravida adult and adolescent mothers (36.5% vs 75.3% p< 0.0001) (Sharma AK et al 2003) . 'Adolescent Pregnancy: Current trends and issues' bring many important correlating fact regarding teenage and high risk pregnancy that young age may be associated with increased risk of complication during pregnancy, biological and social factors, when bearing a child she may not have fully completed her own growth pregnancy weight or height, poor nutrition, inadequate prenatal care all may lead to obstetrical complications. This undoubtefully goes with the study conducted in the area of urban slum of PCMC.

Complication faced by infants

After child birth the major problems faced by 33 children, of which 30 cases are born to adolescent mothers and 3 cases to adult mothers (p<0.0001), association is significant i.e. this pointing that the morbidity of infants born with problem or complication after birth are more among adolescent mothers. The complications are Low birth weight, preterm babies, congenital malformation, baby born with twisted foot and Respiratory Distress Syndrome (RDS) .Nine Preterm pregnancy are recorded and could be significantly associated with the two groups(p=0.016). One case was found who were suffered from RDS but was found to infant born to adult mother. Majority utilized private hospital followed by Government hospitals. But those who treated at home are more among adolescent.

4.2.4 ANTE NATAL CARE CHARACHTERISTICS (Table No-4)

Antenatal Care (ANC) is the care of woman during pregnancy. The objective of ANC clinic is to achieve healthy mother and child. Ideally in ANC clinic a pregnant woman consults once a month for 7 months, next 2 months once a week. Three minimum visits are expected Ist at 20th week, 2nd visit at 32 weeks and 3rd visit at 36 weeks. Investigations include physical examination, laboratory tests-urine stool, and blood count with Hb estimation, blood grouping and Rh estimation following visit also include weight gain, BP, Hb, Lab, Iron and folic acid supplementation immunization against tetanus, referral if necessary. The identification of High Risk pregnancy is also equally important like malpresentation (Breech Tranverse), Antepartum haemmorrhage, pre-eclampsia & eclamsia, anemia, prolonged pregnancy or other pregnancy associated diseases. ANC services in India has increased by 12 percent

between 1992 and 2006(Data from NFHS -1 ,2,& 3) but increase among poor was only 0.1 percentage (as quoted by Linda Sanneving et al., 2015)

ANC services

87.2% received ANC services which are a very important step for MCH services. 91.8% primigravida mothers and 82.4% adolescent mothers availed the ANC services. The variation shows, lesser number of Adolescent mothers availing the same. Even though the frequency of cases is not large but result show mother-in-law was not interested in ANC checkup as 'we never went to hospital' and other reason was the hospital timing.

Anemia

More than 63% of the mothers are suffering from Anaemia which again marks equally among primigravida and adolescent mothers. Anaemia and interrelated complication shows morbidity among four cases during perinatal period and during cases of blood transfusion during delivery to save the the mother. No association was found between the two groups but proves maternal anaemia is a commonly encountered problem in almost all pregnancy ie no significant difference in the risk of maternal anemia between adults and adolescent (Al-Ramahi 2006).

A case of anaemia

"I conceived immediately after three months and started medication after 2 months at Talera Hospital .I delivered at my maternal home at Latur Govt Hospital. My only problem was she I was anaemia (9.6gms) , 49 kg , 5" and presently Iam only 45 kg. ANC check up , IFA tablets and were taken regularly. I delivered a baby girl weighing 2.430 kg and Immunisation is regularly given to the 7 month baby (she could not locate the immunisation card)". Prenatal symptoms included frequent vomiting till 8th month. After delivery her vomiting stopped but still she donot want to eat as she has no appetite for food. She is very pale, weak due to which she finds difficulty in doing her daily chorus. As she has no one to assist her, she cannot take rest. Anganwadi worker advised for proper diet provided supplementary food and advised her to consult doctor. (Case A-2 Bhosale is a 23 year old, resident of Anand Nagar slum migrated from Haraijul, Latur District Maharashtra. She belongs to Mang/Mathana – SC community and studied only upto middle class, dropped out due to disinterest in studies and the school was far away from native village. Her husband

is a 24 year old and studied upto middle class but poverty compelled him to earn early. Her husband is a relative (both husband's elder brother's wife and she are sisters) and belong to same native place).

Service Delivery:

Health services were provided mostly by Medical Officer followed by Private Doctors and ANM. The respondents status of receiving ANC services during pregnancy was not statistically associated with age at the first pregnancy (91.8% vs 82.4% p=0.152)

Number of ANC visits

The results bring to light positive MCH services as maximum availed 3 ANC visit irrespective of the group. Immunization show a staggering 100% taking Tetanus Toxoid (TT injection irrespective of home or institutional) .As even those who had their delivery at home also have been visiting clinics. The reason for home delivery was lack of transportation, emergency, distance of the hospital from natal village, time of the delivery etc. It is very progressive to understand the data. A review on the situation of reproductive and child health in urban areas noted that there were consistent differences in antenatal care coverage of slum and non slum areas. While 74% of women in non slum areas received 3 or more ANC checkups, only 55% of the women in slum did. 27.7% of infants in slums had LBW compared to 18% of those born in non slum areas (Kapadia et al., 2002)

Iron and folic acid supplementation

Iron deficiency is most common nutritional deficiency in both developed and developing world. It is estimated that <50 percent of women do not have adequate iron stores for pregnancy. Iron intake and requirement increase during pregnancy from 0.8mg/day in the first trimester to 7.5mg/day in the third trimester. Average requirement during the entire gestation is approximately 4.4mg/day. It is also stated if the poor iron status is there it may affect birth weight and preterm births(Muthayya, 2009).This study show Iron and folic acid (IFA) supplementation show three fourth consumed IFA tablets . The few cases who abstained were more adolescent mothers. Five times more adolescent mothers were scared of side effects (p<0.053) and 5 cases elders were not interested to give tablets due to side effects and 'they never took it, what harm it produced'.

Utilization of Referral Services

Utilization of Referral Services show adolescent mothers were referred twice more than the primigravida mothers. Only two cases turned down the referral services due to the distance of the referral hospital and due to financial constraint. This also points to positive attitudes health seeking behavior.

Attitude and perception of Male persons <40 living in the same slums were taken regarding marriage, family planning, family size, gender and health service. All men believe in modern medicine and utilized health services mainly for pregnancy and delivery. They all preferred Government hospitals as it was financially cheaper and accessible to them. Only in few cases emergency or complication or survival of the infants prompted them to go to private hospital. The main belief was 'pregnancy and delivery need constant monitoring and medication and also admission either long or for short period so it is better to go to government hospital'.

Case C-1 "Modern medicine and delivery in hospital is safe for the mother and child health".Case C-2 " All my children were born at hospital". Case C-4 "My both children were delivered at hospital and I married my daughter only after she attained 18 years" C-5 All the deliveries were conducted at Government hospitals as they are cheaper".C-8 "I am a vegetable vendor and poor so Government hospital was easier".C-9 "Eventhough I donot know much about reproductive complication, but we availed PCMC hospital services as it is safer for pregnancy". Case C-11 " Iam an illiterate man with 5 children ,I cannot afford to go to private hospital".

Post natal care of mother and the new born after delivery is known as post natal care. Post natal complication which holds priority goes to referral hospitals or hospital but rest are treated at home. Family planning issues find last position for intervention, as no one suggests for the same. Breast feeding and cultural practices regarding mother and child care are mostly done at family level.

Conclusion

Adolescent pregnancy appears to have increased risks on both the mother and the infant. The adolescent mother is exposed to increased risk of anemia, inadequate breast feeding initiation, increased risk of pre births, low birth weight children. Different cultures have diverse attitude and perspective on Adolescent pregnancy. While in the study slum also it is customary to marry early, conceive early and are

forced into the system of 'Child care', domestic activities and care and support of the whole family. In her first pregnancy, she is elevated to a position of prominence in her affinal as well as natal family when she proves her 'fertility '. The bonding is found stronger when she is married to consanguineous or cross cousin marriages ie family known to her. The reproductive health services donot get broken as it is customary to go to maternal home for her first delivery atleast. The result is better service delivery during pregnancy which directly gives positive effect on MCH services and outcomes. The morbidity could be significantly associated among primigravida adult and adolescent mothers (36.5% vs 75.3% $p< 0.0001$) .This undoubtefully goes with the study conducted in the area of urban slum of PCMC.

Status of woman and decision making power of women play a significant role because of the existing marriage pattern .Young women have less say in decision making within the family and lack of resources among the older women. While when women are married young, they have their spouses are mostly older, so lack of autonomy status and decision making power play a vital role due to the age difference between spouses and the cultural norm of having a birth soon after marriage because it negotiates her decision making.

The study throws light to the important changes in some components of Reproductive Child Health in the study area in PCMC , where medicalization of 'Delivery' an important change where in the slum women is seen preferring institutional deliveries, preference for skilled manpower for delivery, high rate of immunization and acceptance of modern methods. Medicalization is a process which occurs on at least three different levels, conceptually, institutionally and within the doctor patient interaction. Conceptually areas when the problem is referred as medical problem .Institutionally it occurs when medical personnel legitimize the problem at as medical issue. Within the doctor patient relationships, medicalization occurs when an individual is diagnosed and treated for a problem. Medicalization of female reproductive process has led to the female body being viewed 'as a medical problem from the cradle to the grave The study shows, 'child birth is a culturally defined asset within the universal of a common human evolutionary heritage and 'delivery' has been medicalized by urban slum population conceptually as the reproductive technology has been accepted by the slum population for their welfare , safety of their

progeny and accessibility of cheap health delivery to this population . The power structure and role players in the male dominated patriarchy are 'father-in law, husband and other dominant role players like Mother-in-law, doctor's role in delivery to reduce complication.

4.2.5 DIET HISTORY AND NUTRITION (TABLE 5)

Maternal nutrition is an important determinant from public health point of view. Diet is most wanted component in the process of pregnancy and development. It affects the mother's as well as the infant's health. Nutrition is directly linked to body mass index and the weight again during pregnancy and the risk of Low Birth Weight infants. Culture and nutrition are link in India because pregnancy is usually viewed as a normal physiological phenomenon that doesnot require any intervention by health care professionals only in the event of problem the pregnant women are advised to take medical help. It has been documented in reviews that women are believed to have little control over their pregnancies or its outcome. During Adolescent period, women are physically immature and psychologically unprepared to experience the unsuccessfully pregnancy on their physical and mental health. With amalgamation of poor nutrition and early childbearing exposes young women to serious health risks during pregnancy and childbirth (WHO, 2003) Leela Dube in 'Caste and Women' states a caste has a distinctive culture, a certain commonality that imports a sense of identity to its members. These practices inturn are learned largely within the family and kinship networks of pollution and purity etc.

Dietary patterns and Changes in food habits

The dietary patterns shows women consuming thrice (Breakfast, Lunch and dinner) is highest with 67.1%. Bivariate analysis show more adult women took food three times compared to adolescent mothers(71.8% vs 62.4%) ,to the opposite more adolescent mothers skipped one meal or breakfast than adult women. The figures throw light on whether the dietary pattern shows any significant change during pregnancy as it is scientifically expected. In Pregnancy the total duration consume about 60,000 k cal over and above normal metabolic required while lactating mothers' require 550 kcal a day (Park,2011: 485). The study showed no change in dietary pattern was among 30 % of the respondents during prenatal period. While the proportion of women who reported 'eating less 'was significantly more (23.5% vs 43.5% p< 0.0001) among

adolescent mothers than primigravida women and was significantly associated. Reason given looked the customary practice that 'if they eat more ,the baby will be big and delivery will be difficult'(11.8% among Adolescent mother and 9.4% primigravida women).Nausea and vomiting was one of the leading cause of consuming less food among adolescent mothers .Pregnant and lactating mothers are particularly vulnerable to the effects of malnutrition. The adverse effects of maternal nutrition have been documented like maternal depletion, low birth weight, anaemia, toxemia of pregnancy, post partum hemorrhage, all leading to high mortality and morbidity. It is an eye opening that nearly equal percentage do not consume balanced diet during or after pregnancy of which significantly less (65.9% vs 40.0% p=0.001) among adolescent mother than primigravida women. Nutrition of mother during pregnancy influences the weight of the neonate. Macro and Micro deficiencies, infections, addictions in urban slums predispose mothers to adverse pregnancy outcomes and low birth weight (Fernandez ,2003) . This urban slum study in PCMC area also shows significant infants born <2500g LBW (25.9%), BMI of mothers (26.7%) were underweight.

Physical rest and sleep /physical activity during pregnancy

Pregnancy marks some restriction of activities and taking rest during pregnancy to avoid complication. The pregnant women must get 8 hours sleep with 2 hours sleep after the midday meal.It is advisable to do light household work but manual physical labour during late pregnancy may affect the fetus (Park 2011: 485) .Out of the 81 subjects who took proper care , adolescent shared lesser number compared to primigravida women (p=0.091) . These paints gloomy picture younger mothers are more at risking their and their infant's life. Another important aspect that came out was 9.4% had abortion and out of many reason one was as they were engaged in heavy work like lifting and domestic burden.

Breast feeding and Prelactal feed

Breastfeeding practice is remarkably a healthy practice to provide best nutrition to the infants. 'In India as average Indian mother, although poor in nutritional status then also breast feeds her infant upto two years'. Ideally no other food is required to be given until 6 months after birth, after which they are supplemented by additional foods rich in protein and other nutrients. It is also reported that those infants who are

breast fed has greater chances of survival than a child artificially fed (Park ,2011: 496). Another effective outcome of breast feeding lowers infant mortality by safeguarding against gastrointestinal ,respiratory infections and Protein Energy Malnutrition (PEM).In the study, majority (92.9%) were fed within an hour of the delivery. More primigravida women fed their baby within the half-an hour than adolescent mothers. Delivery with perinatal morbidity was among 19 cases and 36 cases underwent caesarean section. The sign and symptoms adolescent mothers perceived regarding feeding difficult as mothers were in critical condition in ICU and unaware of feeding posture. A normal delivery mother should initiate breastfeeding within the first hour of birth and 4 hours following caesarean section.

Cultural practice of first feed

Breast feeding is a healthy practice to create a bonding between the mother and infant (baby) ,WHO and UNICEF has developed a baby friendly hospital initiative (BFH) which has proved highly successful in encouraging proper infant feeding practice ,starting at birth (Park, 2011; 497).Before initiation of breast feeding infants may be given prelactal feed like boiled water, sugar water, honey, cow's milk or goat's milk etc. It is sometimes given with the help of gold ring on the infants tongue. Even there is a practice to give gold. In the study the most favored food item was honey, honey with water or sugar water. No statistical association was found but adolescent women followed the practice more than primigravida. Post partum practices are usually initiated, practiced and enforced by elderly female of the family

4.2.6 DETERMINANTS OF FERTILITY AND CONTRACEPTIVES

Contraceptive Knowledge and use

The success of the Maternal Child Health program and service delivery depends upon human sexuality, reproduction and contraception. All this depends upon effective communication about family planning and sexuality. In many South Eastern Countries there is strong taboo exists to talk about sex till marriage and virginity of girls are highly valued. Adults perceive sexual and reproductive health information an education as 'not needed' and dangerous for morality in the society (IWHC, 2009). Fertility depends on at what age girls enters into marriage/sexual intercourse and enters into reproductive period of life which has an impact on her fertility. The length of her reproductive span ascertains her fertility.

Delay in second child

The study enquires in whether they want a second child immediately to explore her fertility inclination and decision. It shows nearly equal percentage of adult and adolescent mothers want an issue immediately (27.1% vs 28.2% ,p=0.064) . Majority (54.1%) do not want an issue immediately. The study population show, 20% women were using any contraceptive method of which (23.5% are primigravida and 20% adolescent women .There is a wide gap between knowledge and practice of the usage of contraceptive methods. The reason is lack of autonomy and decision making power on reproductive rights of the women. She is unable to put forward her desire even before her husband or other authoritative persons.

"I was madly in love with him and parents were objecting, so we eloped consequently married." Conception was unplanned. We were unaware of the contraceptive usage and did not have self restrain from sex. Today she repents for what happened. We could have waited for 3 years at least for children if we were aware of contraceptive use. Now she is using Copper T".

I am presently facing problem of white discharge and back ache. (Case A-4 is 19 years old, studied upto 12th and has two children and had one abortion. She was born and brought up at Gandhinagar) .

Key informant Mother in law -"Conception *is a decision to be taken by the family, spacing before an issue is not good for health and Copper T there is lot of bleeding. So I did not advice my daughter in law to use it" (Case study B-10 Sable is a 53 year old residing in Bauh nagar slum and a Mother-in-law. She is primary school educated, married at 16 or 17 years and belongs to Buddhist community. She is working as Madatnis (Anganwadi) and shares her home with members).*

"Conception after marriage is the decision of the couple, how can I decide on this issue?' Operation should be done after 2 children. Spacing and contraceptive can be used (Case Study B-4Patil is a 45 year mother residing in Pimpri slum. She studied upto 10th class and married when she was 18 years old. She is a house wife and shares her home with 4 member family. She belongs to Kunabi caste (SC) & Hindu Religion).

"Everyone after marriage asks whether there is any good news. So we were also eagar to have a grant child. I will not allow my daughter –in-law to use

contraceptive before". Case B-8 Mehtre is a 51 year mother –in –law residing in Dalvinagar slum, studied upto 8th class , married at 17 years old. She is a house wife and shares her home with 5 members. She is engaged in domestic work assisting her daughter-in –law as well as looking after newborn child. She has 2 daughters and 1 son, all married. She belongs to Matang community.

The three mother-in-law belonged to backward community are the dominant participant of patriarchal structure where spacing and contraceptive is still in their hands ie the Power and reproductive health rights. While Case A-4 is a case of elopement without the knowledge of sexual and reproductive awareness.

Delay in first child

Delay in first conception was narrated by 3-4 cases, but in practice the reason was clinical. The power play of patriarchy supersedes and they become the decisions makers. Infact this is not a topic of discussion 'conceiving is regarded as a natural process or a law of nature or this is common'. As it is customary for a married girl to move from natal to affinal home after marriage, it is not convenient to in custom to discuss this issue to anyone. Mean age of first pregnancy ±SD 19.2[±1.9] while mean age of marriage was 18.2[±2.0].When more indepth study finds adult women married at 19.3[±1.6] while adolescent 16.7[±1.5] p=0.0001. This even highlights more 'delay of the first child' is never an issue whether adult or teen. Putting pressure on the young wife (adolescent) to become pregnant in the first year of marriage was strongly influence by mother –in-law as exhibited in this study also (Alka Barua & Kathleen Kurz 2008)

Knowledge of spacing method and its types

It is astonishing to know more than two third (70.6%) knew about spacing method. Adolescent mothers are less informed as compared to its counterparts. Contraceptive are preventive methods which help women to avoid unwanted pregnancy. They include temporary and permanent methods. It is broadly grouped into spacing method and terminal methods. Spacing method includes condoms, diaphragm, and vaginal sponge. Intrauterine devices are IUD medicated or bioactive IUC release either metal ions (copper) or hormones popularly known as Cu-T. Hormonal contraceptive include oral pills. Post connectional method or termination of pregnancy like abortion. Terminal methods (sterilization) include male and female sterilization. Popular

method found among the urban slum women were CuT (locally called Tambi) , hormonal contraceptive like pills, Mala D /oral pills and tubectomy.

Reproductive Morbidity

Reproductive morbidity has been classified in different periods prenatal, peri natal and postnatal morbidities. Women were most likely to report to at least one health problem during the post natal period if they had suffered from morbidity during delivery (p<0.006) .The urban slum (PCMC) data also points that delivery related morbidity is high similar to another study (Mayank and Bhandari 2008). The study highlights women whether primigravida women or adolescent mother both presently are suffering from one or more health morbidities. Weakness is a common ailment which three fourth of women are suffering. It was significantly more among adolescent mother (P<0.0001), headache (p<0.0001) and stress (p<0.0001). So younger married girls who conceive, go through the process of pregnancy have more chances of facing reproductive health morbidity than adult women. Twice more number of adolescent faced abdominal pain compared to adult women (15.3% vs 36.5% p=0.002) similar was the case regarding vaginal discharge (11.8%vs 28.2% p=0.007) . Case A-6 shows the reproductive problems she is presently facing while case A-13 shows a backward community poor migrant women, married as an adolescent faced obsteritic morbidity of neonatal death of male infant, followed by second successful pregnancy of baby girl and still not accessing contraceptive and entangled in the cultural pressure in and of male child and risking for further pregnancy without spacing. All the 15 cases are struggling in the clutches of poverty and early marriage highlighting the underlining fact that backward community are vulnerable to poverty, early marriage, early conception, gender and patriarchy, morbidity and morbidity due to high fertility and due to lack of prenatal and post care. Just targeting institutional delivery does not solve the issue of Adolescent pregnancy. Gender sensitization also demands a macroscopic analysis Adolescent life. Socializing and gender does mould the girl, to a bride, to a mother and so on …..

 "I had her menache at 12 years of age with irregular periods. Iam presently having backpain and problem white discharge and weakness but not taking any medicine".(Case A-6 Chavan is 20 years old (Date of Birth 17.09.1993)   adult women from Bhosari . Her first born infant died on 21.2.2014. She left her education

after 11th due to disinterest was married on 19th Nov 2013 at 19. She was born and brought up in Bhosari from the same chawl. She was married to a close cousin (from maternal side) 24 years old)

"I studied up to 10th grade in rural school at Bijapur Karnataka and had to leave school because of marriage .My parent did not want to continue my studies as they felt a right match is more difficult to get if the girl is very educated and we were very poor at that time. My father was very poor as we only owned a non irrigated land. We were three siblings and my father and mother worked as contract workers to sustain our family. My husband also belongs to the nearby village same district and we were married on 8th April 2010 when we were 17 and 22 years old. He is my ataya's son (father's sister's son paternal side). All the elder male members arranged my marriage. My father-in-law also works as contract labourer and earns approx Rs 6000/- as Mason monthly .I had my periods 13 and suffered from dysmennorea for 2 years for which I took aurvedic medicine. I conceived immediately and delivered a baby boy. It was a preterm pregnancy in the 8th month. The baby weighed 2.5 kg .I had fits during the delivery. The baby was alive for 3 days and died of multiple organ failure (that is what the Doctor said). The delivery took place in Karnataka. During the period the baby was hospitalized. Second child was born when I was 20, a baby girl . Due to one death special care was taken and ANC checkup was taken at private hospital. It was a normal delivery. Complication was anemia and weakness. For three to four months, bed rest was taken. Baby is healthy (Wt 2700 gms) and is 10 days old". Regular checkups were done after first month only with 5-6 ANC checkups. She took balanced diet, plenty of rest and care and support from the family. She is aware of contraceptives and family planning techniques. But preference of male child is present in the family. All are interested to have a baby boy including herself. 'It is everyone's need, so there is nothing new. 'All domestic affairs are taken by her husband and herself. She wants to educate her daughter and teach her be self sufficient.   (Case A-13 Pawar (21) adult women and married as an adolescent and is a lactating mother. At the tender age of 17 she was married and she had two pregnancies, one live child & one neonatal death. She studied upto 10th class. She belongs to Lamani community. She is staying with her husband in Shantinagar slum.

4.2.7 HEALTH SEEKING BEHAVIOR ,MEDICAL PLURALISM AND CULTURE

Health seeking behavior is governed by multiple factors especially the beliefs, attitudes and perception of pregnancy, reproductive illness, treatment and quality of the services provided. Anthony Gidden's observes that the Global cosmopolitan society resulting from Globalization in a society living after the end of tradition but it does not mean the tradition disappears. On the contrary it continues to flourish in different versions everywhere. He further added tradition as invented and reinvented and Gidden's advocated the tradition not only still alive but is in also resurgent (Dasthagir ,2015) . G.S Ghurye examines the practices of human being with regards to the disposal of human body like the placenta ,fallen tooth and the after birth. This looks into the process of cultural diffusion and cultural growth (Nagla, 2005) . Another fact the origin and causes of illness may be attributed to a combination of cultural as well as natural elements. Belief and interpretation regarding disease causing agents as well as taxonomy and etiology of diseases had intercultural variation (Tribhuwan and Gambhir, 1995). Health seeking behavior among the study population pictures pregnancy care and delivery has been conceptually medicalized as majority preferred to institutional delivery and Pre and post care. Cultural practices finds place in childcare during Prenatal and post natal period. A custom to play 'Gota' immediately after marriage is a game played by holding gota tightly by the bride. The groom has to remove, the thread are woven all around the bride and groom. Later at home the girl puts a blouse on the grinding stone and it is swayed in the cradle imagining infant. This is a beginning of conceptual custom for early pregnancy. Later during the seventh month also it is customary to display food, snacks fruits in front of the pregnant women and two utensil covered having peda and barphi is kept ,followed she is asked to remove the lid without knowing . If she picks up peda she will have boy child and if she chooses unknowing barphi she will have baby girl.

Cultural practices followed by different communities on Mother and child care

S.No	Period		
Muslim community (cultural	5th month Chori-choli Ootibharan	Oti (signifies) womb is given to the pregnant women only once	To satisfy the food carvings of pregnant women
practice done at husbands	7th month cerebration	Pregnant woman wears new dresses, ornaments and she is gifted with all	This also signifies procreation and

relative) .	Dohal Jevan	auspicious things, eatables. Elder women, relative and neighboring women participate followed by food or snacks.	performed when a women goes from inlaws house to natal home. It endows happiness to the pregnant women.
	After delivery care:	Soonth (dry ginger) ,Jeera ,Kaju ,Badam is powdered and mixed in milk and given to the mother	For proper milk nursing the baby
		Dingka ladoo : All dry fruits, Dingka, Methi is mixed to make ladoo	It prevents the women from body pain, backache and keeps healthy
		Oil massage is given to the baby by senior women/dai/mother/mother-in-law (While massage special care is taken for head, banbi, ears and nose. Mother is given massage for month with oil (coconut or mustard oil) by senior person /dai /relative etc.	They believe a good massager can make the body supple, healthy and makes the body curves prominent.
	Naming Ceremony: After 6 months	Naming ceremony is performed either in the parents or husbands house.	

Buddhist &Kunabi caste Bharan caste (OBC) Sonar caste , Matang community (ST) .			
	7th month of Pregnancy Dohle Jevan (cultural practice done at husbands relative)	5th month : Chor-choli program/oti is given by married women Pregnant woman wears new dresses, ornaments and she is gifted with all auspicious things, eatables. The number of women who give gifts mainly are in odd numbers (7 or 9 or more). Others participate in the function followed by lunch. Date and time is fixed in consultation with the pandit.	This signifies procreation and performed when a women goes to her in laws house from natal home. It is performed by only married women with a reason that she may give birth to baby boy.
Buddhist community	Dietary patterns	Soup of goat leg Goat leg Fry , Dinga Ladoo Before Delivery : Women are given powdered dry coconut , Badi Soanph, Ajwain all mixed together Eat only very light food. No spicy food is given only Rice ,dal or Bhakri ,Dinga ladoo,Sheera (Sweet rava) Kheer of Sewai	This soup prevents the mother from backache. To avoid acidity Improvement in milk for feeding
Maratha community	Dietary Pattern	Dinga Ladoo as stated above After Delivery : Soak Methi and eat Avoid eating Khobra Avoid eating spicy food	
	Post Natal care and celebration	Dingka ladoo : All dry fruits, Dingka, Methi is mixed to make ladoo	It prevents the women from body pain, backache and keeps

		Diet : Sheera of Wheat flour (a sweet item made with ghee) ,Bajeechi Pej (Bajree's porridge) (Kunabi caste) Diet includes Rice and Jaggery for mother ,Small quantity of Neem water to be given to mother (Matang ST) .	healthy
Vadari community		Diet : Fish curry(Bombil fish) is given to lactating mother Hot Bhakri is eaten Khobra (dry coconut) + dates (dry) is powdered and given to lactating mother	Easy to digest and healthy
		Kalwan : Lasun (Garlic) ,Jeera and pepper is powdered and given to the mother after delivery for some months	To avoid acidity, Pitha, and other diseases to mother and new born baby who is dependent on the mother for milk.
		Dohal Jevan	
	Naming Ceremony: After---- months	Naming ceremony is performed either in the parents or husbands house. The 5th month and 1st birthday (Barse) is celebrated.	
		Oil massage: Oil massage is given to the baby for 6 months to 1 yearby senior women/dai/mother/mother-in-law (While massage special care is taken for head, banbi, ears and nose. Upto 45 days they give smoke of 'SHEEPACHE DHUR'. Mother is also given massage for 45 days with oil (coconut or mustard oil) by senior person /dai /relative etc with 'SHEEPACHE DHUR'. (Both mother and child is given the smoke together). Lemon leaves are put in water and boiled, that water is used to sponge (Shekayachi) (Matang ST)	They believe a good massager can make the bone's hard and body It is believed the Dhur (smoke) includes all medicated herbs so keeps the mother and child preventing from diseases, healthy and good sound sleep. To relieve from body pain.
Lamani Community			
	7th month of Pregnancy	Same as above	
	After delivery	They give one spoon neem juice Neem leaves with the branches are boiled. Then the hot leaves are sponged all over the mothers body .	This is given to reduce infection This is done to reduce infection)

	Post natal period	A concoction given made from Kalimiri + Soonth+ Jaypathri+Pipal landi + Ova + Dal Chini + Sagar Gota all the items are to be powered and put in it in water for boil then reduced and given to mother .	It prevents from infection and gives strength.
		Method make a paste of Bajri, Hulga, Sonth,gur . Eat it in the morning empty stomach	To improve milk among Lactating mother
		Goat Soup is given to the delivered women	which will relives her from backache and make the body healthy and strong
		Hard Rotti is avoided , allowed to eat rice (less quantity) ,dal ,curd prepared from ghee and are preferably given soft and tender items After taking food ,Badi Soaph is taken They are allowed to sleep	which are easy to digest and keep the lactating mother and baby fit. to avoid acidity Good for mother and child
	Avoidance/Abst inence :	Food prepared for mother after delivery (It is not to be prepared in front of anyone to keep away from evil eye . Food given only after 8 days of Delivery They avoid lifting heavy objects. After delivery, She cannot be touched she has to perform her duty herself washing ,cleaning, massaging ,cooking for herself & other self chorus	

Ref : This table has been prepared based on the narration given by senior women in Case study B-1 to B-15 of (40+) either are mother-in-law , Sister-in-law, old women in the family.

Neonatal Care

- Soonth + Jeera (are powdered) added in water and boiled . Ghee is added to the mixture and given to infant after 3 days as a drop .

- Jeera + ghee+water = is boiled and cooled given 3 days to the infants (feed used by Muslim)

- If milk is not sufficient for the infant then Goat's milk is given

- Maratha community : First feed given to babies (jeebh me chatana)Ghee with Honey is given on the tongue of the new born baby

Om is written on the tongue on the new born baby with gold ring dipped in honey (belief is the baby will develop into a smart and intelligent boy or girl).

- Before initiation of breast milk some may give prelacteal feed on infants tongue like boiled water, sugar water, goat milk .

- Infants are mostly fed when the cry anytime during day or night.(same as Bandhopadhyay M ,2003)

- The placenta of the infants is buried in the courtyard to keep away from evil eye.

Other beliefs found

- Pregnancy and delivery is regarded as normal physiologic phenomenon which donot us intervention only in case of emergency.

- Food taboos are related to hot and cold foods. Hot food is avoided in the prenatal periods while preferred in post natal period.

- Physical activity is common among the urban slum women

- Birth: Laboring women are isolated due to birth related pollution belief.

- After birth: Confinement is a process to protect mother and infant from evil eye.

- During eclipse pregnant women are not allowed to move out, to evade from evil eye.

The ethenomedical specialist use diverse method to diagnose and interpret causes and interpret culturally like the mid wife or the senior women of the family.

These are the three women who are experienced to conduct delivery. They were functional 7-8years back now only in emergency they are called. There role in the society is restricted to emergency service and advisory to needy women. The shift to utilization of health services at affordable cost is turning maximum women in urban slum to seek Government facility followed by private facility.

Pregnancy is identified by symptoms like Missing periods, vomiting, even Pathology report by one lady.

Identification of month: Four finger when placed on stomach then if it is close to umbilical cord then it is 5th month. Movement decides then other month, Touch

senses will be used, Two finger dilation, Three finger dilation, Full dilation is during full term

Place of delivery: Secluded room Closed room

She advices the clients not to take any food preferably before delivery and given only plain tea without milk(decoction tea)/hot beverage.The other home remedies like induce labour pain Sawai kheer (made of wheat) is given to induce heat in the body & Labour pain .In such circumstances delivery takes sometimes take 1 hr or 2 or more .

Appearance : If the women is conceiving a boy, the appearance pregnant women will look pale , small stomach & white P.V discharge .If women is conceiving a girl then she has healthy appearance , large stomach and fresh looks with red discharge.

Care of the cord: They cut the chord 2-3 inches above with clipping. Chords are cut and sometimes use turmeric or oil as it keeps the chord clean. Some prefer to use talcum powder & keep the wound dry.

*Labour complication: **Prematurity**, meaning that baby weight was very less and mother may find difficulty to push. By Massage and pressing from umbical region enhances delivery. They encountered only two cases in their lifetime.*

Retained Placenta: The most common practice is to massage the abdomen or pushing cloth or her hair into the women's mouth.

Recommended Food during and after Pregnancy: Preferably drinking of boiled water to avoid any gastric ailment and dysentery, eating less spicy food, normal diet with bhakri & sprouts. Pregnant ladies are asked to keep themselves busy working like sweeping, cleaning, mopping, avoid lifting weights to have delivery without complication during last months. Food like Moong dal, Rice with ghee, Laddu made of methi (to reduce Backache and rejuvenation of muscles.)

Post Natal Care and Care of New Born

Cleaning: Mouth of the newborn is cleaned by putting finger in mouth and dirt is removed, so also nose and ear /eyes are cleaned.

Crying : The baby is upturned, patted on back gently if the baby cries then everything is ok and normal. But if it doesn't then they utter the name of any dear one who died before and the baby stops crying. The other belief is to worship

Broom, patta etc to remove evil forces. The items like mustard /chilly are then thrown to the fire to remove evil spirit. If still the child doesn't stop crying then she recommends consulting doctor.

Talu Bharane (Sinciput, the fore part of head): Special care is taken A for Talu (fore part) as they believe it helps in the overall development of brain . She applies oil gently with great care moving round-round over it.

[Case-D-1 ,60 year old Female from Pimpri serving in Res Boudhvihar, ,Pattrashed,Railwayline(Lamani),Morewasti (Bihari & UP, Case-D-2 Female residing in Bhosari Chawl serving in Bhosari area only on emergency now since 7-8 years ,Case D-3 ,48 Female ,Morhe Chawl,Karalwadi]

Some of prominent persons like Anganwadi Sevika, madatnis, local women and men where enquired about the area's issue related to Adolescent pregnancy. So these are the noting of some opinion and perception:-

A Senior Citizen Joghandand and Prominent leader of the Bhimshaktinagar community .It is established in 1997.Most of the residents are from Maharashtra and they are engaged into various occupation like Laborer, Company employees, small business etc.They mostly belong to Hindu, Lamani, Vadari and Muslim community and fall in the category of SC ,ST, OBC,NT,VJNT .Problems faced by the community pertain to Lack of basic sanitation facilities (toilets),Renovation and maintenance of Infrastructure facilities, people are unemployed,Need for a common community hall for conducting functions ,Lack of school in the near vicinity .Marriages are mostly arranged by parents and elders, love marriages and inter community marriages . Mostly marriages have a practice of **Kanya dan** *bride's father gives gifts to the groom's parents. Compared to the nearby marriages in the bigger chawls, the cost of expenses of marriage is less .Most of the people take loan to meet the expenses of the marriage. Early marriages are common. 'In my opinion it is due to the insecurity of girls in slums, both the parents are working and no one at home, school dropouts an economic reasons'. (Local Leader C-15)*

Another local leader Gaikwad from Ghadhinagar slum gave similar opinion about the slum infrastructure and increasing settlement in an around Ghandhinagar. This he said brings more pressure to infrastructure and deterioration of hygiene. Many new tenants are coming from AP, Karnataka and UP. The lanes are very congested, so

there is no proper aeration or sunlight .Early marriage and high fertility is present. Now a day's people even to go to private hospitals but mostly relay on municipal hospital.People mostly take loan for marriage, starting business, death rituals and sickness.

"Most of the residents are from Maharashtra, Andhra Pradesh and few from Karnataka.They are engaged in Small business, Construction Labour work, ,Fish business etc.There is lot of changes in the attitude an perception of Vadari and Lamani community regarding adolescent marriages. Most of the girls in Indiranagar are school going and parents prefer to marry only after 12th.or graduation. Insecurity of girls and fear of elopement only pushes parents for stringent action. Concept of planning their first pregnancy is only a remote dream. Alcoholism and other intoxicants are very common so it leads to violence and clashes. Tobacco chewing is present among women also. Contraceptive and spacing is a difficult topic for discussion till date. Delivery is mostly done at municipal hospitals. Cleanliness of community is also a very difficult issue here". People are daily wage earners so donot avail PCMC hospital facilities due to the time constraint. Those Boys and girls who mainly drop after 7th (as till it is free) and later they have to spent for books ,accessories and fees. Girls are made to sit at home to look after younger ones as both parents go for work and remain out of home. Eve teasing /conflicts are very common, so some times keep the girls at home to avoid this confrontation.Most of the of adolescent girls in the slum pass their time by Taking out lice from hair, Taking care of young ones (younger sibling), watching TV ,Washing and cleaning and Gossiping". (C-16 Indiranagar)

"Community and slum is situated amidst industries and workshop which gives people of Ramnagar more opportunity of jobs at home or workshop. Pawar community is well to do and prefer education and early marriage is very rare. On one side of Ramnagar slum has residents from Nepal or from other hindi speaking belt. Due to the presence of Ram mandir many religious activity is conducted. As it is present on road hence it is easily accessible for transportation to hospital and regular immunization drive is conducted in our anganwadi. Alcoholism is common, but no other problem is mentionable".

"Lot of development is going on in the nearby, new building construction is going on at fast rate. Milind nagar People have become progressive. Early marriage is very sporadic. Nutrition and anaemia is common among women. People are responsive to immunization drive and go to hospital for delivery. Many families even go to private hospital due to convenience and paying capacity and better care. Cleanliness is good in the community. There is conflict in the earlier venue so we running anganwadi in temporary place. The local leaders have given assurance to construct a new anganwadi soon…"

"In Bhimnagar area ,lot of development is going on in the nearby, new building construction is going on at fast rate. Earlier it was also known as sanitary colony as they are mostly engaged in sanitary work in municipality. Early marriage is not very common but elopement and love marriages compel girl's parents to marry them early. People commonly prefer municipal hospitals but private hospital is preferred in severe cases. Nutrition and anemia is common among women as women hardly take good care of their health. People are aware of the government schemes.

"Dattanagar is situated very close to Ramnagar. Residents are mostly migrants or living since long and belong to various religion and backward community. Vadari and Lamani community reside in one side of Dattanagar while localities mostly on the other side. Early marriage is prevalent. As both parents move out to work so the elder girls either look after their younger sibling or get married. People prefer municipal hospital as well as private hospital due to time factor or for emergency. Women are least bothered about their health. They consider pregnancy as a natural process which everyone go through. Girls and boys drop out from school ,it is very common".

"Anandnagar has become small due to the construction of malls and other expansion, so there is reduction in number of huts. Most of the people avail municipal hospitals but only very few who are richer go to private facility. Adolescent marriages have reduced phenomenally in our area. People are sending boy and girls to school but still drop out are there. Many water born diseases infection, HIV/AIDS are also prevalent in the area. Contraceptive and spacing is not very common but people use tambi mostly but all depends on the male child".

All the responses points to medicalization of delivery but still there is cultural stigma which makes them to adhere to tradition. Fertility still needs strong interventional plan to reduce the size of the family. Private hospitals are always thought by people with money for better care. Significance of study is felt but in practice there hurdles like patriarchy and concept of sexuality and virginity. All the residents had many complaints related to infrastructure and basic necessities and cleanliness more than this issue.

4.2.8 CHILD WASTAGE BY ORDINAL NUMBER OF PREGNANCIES /LIVE BIRTHS

Outcome of adolescent pregnancy (Table 21) clearly projects child wastage prevalence at first pregnancy was 8.9% and at the second pregnancy it was 24.2% .Individual level overall prevalence during the study was 13.5% against the ordinal no of pregnancies it was 11.3%.Miscarriages and abortion was highest among child wastage with 5.9%. As the second pregnancy was mostly with Adolescent married girls, it is also pointing to the high risk of mortality. This also suggest early pregnancy outcome is significantly associated .It bring to light young women are particularly vulnerable to poor sexual and reproductive health and they especially have poor access to safe abortion in the study.Adolescent pregnancy have a higher experience of adverse outcome of fetal wastage ,miscarriage and still birth (UNFPA, 2003). When determinates of child wastage was analyzed with various variables caste was found significant (p=0.007), age at marriage (p=0.004) and age at first pregnancy (p=0.014) Family type whether joint, nuclear or extended, or occupational status like skilled, semiskilled or unskilled, education level couldn't be statistically associated but the LBW, Nutrition and diet lack of awareness was statistically associated with low education level. The multi variate regression modeling of the study shows the age is significant factor for poor outcomes (Gogoi, 2014). This study also found, mother's age was found to be significantly associated with reduction in neonatal mortality (Zanini et al., 2011).

Conclusion

The women with low BMI is found higher among women of low caste, low class and with more children compared to the women higher class and with fever children (Kailas Sarap, 2013) . The results are the reflection of health condition of the study

area where in one fourth of women suffering from low BMI which shows under nutrition. The culture and custom plays a significant role in influencing women to stick to routine diet and higher among adolescent were found eating less in the pretext of easy delivery. The socially backward community residing in the urban slum of PCMC also clearly depicts pregnancy and child birth as 'Reproductive identity' and so neither the women, nor her affinal family generally see gynecological problems that are co terminus with pregnancy as reproductive health issues deserving real concern (Ramasubban and 2008) . Gender and socialization of women to culturally defined norms make them accept and accommodate the discomfort and pain which arise from delivery and reproductive problems that bring into their life. It is not generally addressed in the family and only on severity it is brought to the municipal hospital as they are in accessible distance and cheaper. Hence the obstetrics or gynecological morbidity is mostly carried on by women. It also highlights the family members or social network 'prioritize the illnesses'

4.3 HYPOTHESIS TESTING

1. Early marriage and early conception among urban poor is related to lack of education.

The results shows half of the women had sexual intercourse by the age of 18 years and median age of marriage of adolescent married girls was found three years less than primigravida women.Subsequently the proportion of husbands married below the age of 21 years also were more among adolescent than their counterparts.Age at the time of delivery is significantly associated with adolescent married girls. Based on the multivariate logistic regression of adolescent pregnancy is significantly associated with women of younger age i.e adolescent mothers, middle and secondary –level educational attainment. This suggests that adolescent pregnancy is more likely to occur among women with younger, less educated. This supports the research and this result is statistically significant with confidence level 95% and level of significance less than 0.0001.Eventhough no respondents were found illiterate but the head of the family i.e decision makers of the family were illiterate (22.89%) and mostly primary educated suggesting lack of education strongly influence adolscnt pregnancy.

2. Adolescent mothers have higher incidence of anemia and related complication.

Result with Univariate analysis shows 63% of the mothers are suffering from anemia while bivariate analysis could not find significant association. Further uni-variate logistic regression modelling of low birth weight of child suggests that the proportion of low birth weight of child was significantly associated with younger women **[Table-11]** . In addition, after controlling the socio-demographic characteristics to estimate the true of independent variables on child wastage, multi-variate logistic regression modelling of child wastage determines that child wastage was also associated with women with early age. This concludes that women with early age marriage and women with adolescent pregnancy are more likely to have increased risk of child wastage than their counterparts **[Table -24].** Mutivariate logistic rgrssion modelling of co-morbidities during perinatal and post natal show morbidities during pregnancies are more likely to occur among adolescent mothers. Adolescent Pregnancy could be statistically associated with Low birth weight children, preterm pregnancy, child wastage with higher rates so also reproductive morbidity especially during preinatal period. This shows adolescent group have higher complication related to anaemia eventhough anaemia could not be statistically associated. There are other symptomatic indicators which points to anaemia, even in case studies also eight cases out of 15 suffered from anaemia and related complication.

3. Urban adolescent pregnant are vulnerable to poor contraceptive use and unsafe pregnancy wastage.

The multi-variate logistic regression modelling of lack of awareness about spacing method predicts that women with middle-level education were more likely to beunaware about the spacing methods as compared to adult women.The univariate logistic regression modelling about spacing method is found associated with younger women ,educational attainment upto primary and pregnancy at adolescent age. Child wastage was associated with women with early age at marriage and first pregnancy.After controlling socio demographic characteristics to estimate true independent variables on child wastage also determines it is associated with early pregnancy. The prevalence of child wastage was four times more in second pregnancy which was among adolesent mothers suggesting vulnerability to poor contraceptive use and unsafe pregnancy wastage.The result supports the research hypothesis.

4. Maternal morbidity and low birth weight are major outcome of adolescent pregnancy.

Maternal morbidity during prenatal, perinal and postnatal was analysed. The univariate logistic regression suggest that morbidity/complication during prenatal period was significantly associated with younger women and lower age at marriage , women eating less food and nonconsumption of balanced diet. The finding show complication during prenatal is 5.39 times more likey to occur among adolescent married girls.The co- morbidities also was significantly associated with adolescent pregnancy and likely to occur among women with middle education, nonconsumption of balanced diet and pregnant at younger age.

Bivariate analysis show primigravida (15.3% vs 36.5% ,p<0.0007) adolescent had LBW baby.The uni-variate logistic regression modelling of low birth weight of child suggests that the proportion of low birth weight of child was significantly associated with younger women lower age at marriage , adolescent pregnancy i.e. Pregnancy between the age 15 – 19 years [30.6% vs 12.9%, OR = 2.97, 95% C. I.: 1.35 – 6.49; p = 0.007] and non-consumption of balanced diet [31.3% vs 13.3%, OR = 2.96, 95% C. I.: 1.37 – 6.38; p = 0.006] . Thus statistical analysis supports the statement younger women are more prone to bear low birth weight children and maternal morbidity and low birth weight are major outcome of adolescent pregnancy.

CHAPTER –V

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1: SUMMARY OF FINDINGS

Adolescent pregnancy still remains a quest for study as child marriage remains in practice in India. So we find pregnancy under the umbrella of family system and with approval of the society is still prevalent. This study was undertaken in the urban slum setting of Pimpri Chinchwad Municipal Corporation within the city limits. It made an attempt to examine Adolescent Pregnancy quantitatively collecting data through face to face interview (170 cases) with the help of interview schedule and in-depth case study qualitatively (15 cases) and interview guide for key informant (32 cases) with additional inputs on attitude and perception of key informant) on the above subject.The study adopted descriptive study design and interpretation utilisd mixed method approach. In which the qualitative data was presented in the dialogue form thoughout the interpretation. The qualitative and quantitative data collection was done from 2013 to 2015 followed by statistical analysis in SPSS version 12 and interpretation. Total 170 respondents were covered from slums and chawls namely. The study covered 18 slums/chawls from PCMC namely Vidyanagar, Dalvinagar, Gandhinagar, Ajantanagar, Bhimnagar, Morewadi Slum, Ganeshnagar, Bhatnagar/Baudhnagar, Kharalwadi, Shantinagar, Dattanagar, Ramnagar, Landewadi, Milindnagar, Indiranagar, Gawlimata, Bhimsaktinagar and Khandobamal.In the context of the six objective formulated, and the four hypothesis formed the framework of the study and the summary is systematically presented in the same format of interpretation and is below.

5.1.1 SOCIO-ECONOMIC AND DEMOGRAPHIC DETERMINANTS

1. Age of the respondent shows there were 21.2 percent adolescent respondents and 78.8 percent primigravida women (20-24) with median age 21 years (I.Q.R : 2 years). On bivariate analysis the proportion of adolescent married girls were significantly more as compared to primigravida adult women (2.4% vs 40.0%, p<0.0001).This brings out the prevalence of adolescent or child marriage in the urban slum of PCMC.

2. Dominant personnel(head of the family) belong to age group 20-31(45.88%) mostly husbands in nuclear family followed by 37.82% above 50 years i.e they are either mother-in-law or father- in-law in most of the cases.

3. Education level shows more Adolescent mothers had primary education compared to adult women (primigravida) (11.8% vs 25.9%, p =0.135). Those educated till higher secondary and above are more among adult women than adolescent mothers. So it is self explanatory that the higher is the age of marriage, age of the first pregnancy and marriage can be postponed.

4. Head of the family are the respondent's husband, father-in-law or the mother-in-law .The illiteracy level of head of the family was higher in comparison with respondent (22.89%). The percentages of education of other family member's show majority were educated upto middle or secondary level. Low levels of literacy adversely affect reproductive and sexual awareness.

5. Head of the family (37 cases) are Mother-in -law, husband (80 cases) and Father-in-law 41 cases and other relatives 11 cases. The role, power and status are given according to the age of the members present in the family. Nuclear families are headed by husband while joint family or extended family was headed by either mother-in-law or father-in-law.

6. The size of the family in the study area constitute majority 4-6 members (53.35%) , followed by 3 member family (42.94%), and 7 members and above (4.70%). No significant association was found between two study groups but nuclear family is 4% more among primigravida women vs. joint family 5% more among the adolescent married group showing change is towards adult pregnancy.

7. Houses of the study areas are squatter settlements, temporary, some with concrete maximum with one room/ some with 2 rooms. 90% of the roofing was either tin sheets. Small open bathing space (mohri in Marathi) is present where washing ,cleaning and bathing was done together. Room livability and aesthetics are poor with hardly any ventilation or windows. Public toilets are the between 10-20 families, even more. Open gutters are flowing in front of most of the houses and open defecation by children is a common sight. Source of potable drinking water is present between 8-10 or sometimes more huts. Toilets are between 10-20 families. Even though PCMC has constructed public toilets but open defecation is a common sighting.

8. As this study enrolled mostly lactating mothers, at the time of the study majority were home makers, others were mostly engaged in unskilled work like construction labour, domestic worker, sweeper, and vegetable hawker, self employed like vegetable vendor. Mostly the monthly income ranges from $\leq$ INR 7000 to ,INR 7001-9000 (43.35 %) with 4.12 as an average size of the family .

9. Majority of the participants are Maharshtrian and Hindu (76.5%) equally among primigravida women and adolescent mothers. Out of the total Buddhist, adolescent mothers outnumbered adult women. One third of the population belonged to backward community (SC, OBC ST,VJNT & others).

5.1.2 SOCIAL DETERMINANTS: MARRIAGE AND GENDER CHARACTERISTICS

1. The proportion of women married below 18 years was significantly associated more among adolescent married girls (14.1% vs 62.4% ,p <0.001) than primigravida adult women . Median age of marriage of respondent was 3 years less than primigravida women (19.3 vs 16.7 p<0.0001).

2. In the case of husband, median age is one year lesser among the adult and adolescent (23.7 vs 22.4, p< 0.0001). In a survey, the study groups (15-24) result shows 63%, women married before 18, were less educated, have somehow worked before marriage, timing of marriage was less consulted whereas for those who were married later reported were consulted by father (37.6%) and other by male relatives like uncle, elder brother, mother's natal relatives and still proves marriage decisions remain in the preview of family.

3. This study also goes by the documented fact that earlier age at sexual intercourse for women than men is a consequence of the fact that in Maharashtra first intercourse largely occurs within the marriage and women marry at younger age than men (NFHS-3).

4. The reason of dropping out of school shows parents are not interested as well as elders objected for further studies among adult and adolescent mothers (40% vs 35.3%).

5. Migration is seen mostly from draught prone areas or parents have migrated and settled in Pune or Husband migrated for job and women accompanied him or women

migrated after marriage mostly. Other respondent belong to states which includes Karnataka, Andhra Pradesh, Bihar, Uttar Pradesh and Madhya Pradesh. The inter country migration included few cases from Nepal.

6. Majority were migrants or migrants settled in Pune indicating rural –urban migration.

7. Marriage partner [51.2%] is relatives someone known to them or belongs mostly to same caste and kinship. 32.94% selected relatives from the parents natal district (father or mothers) while [21.17%] from the same natal district also. When the choice of different area came, they still gave preference to distant relatives or social circle [16.47%]. The next category of 'suitor' belonged to different slum (Inter slum) out of which 3 cases relative and 3 non relative.

8. There were consanguineous (blood relatives) marriages or cross cousin marriages with matrilateral cross cousin or patrilineal cross cousins marriages. The study also showed 33.33% preferred relatives from matrilineal side while 66 % patrilineal relatives.

9. In endogamous marriages women remain in contact with the natal home and other social network so she gets long time kinship affection and ties between two families. This also indicates lesser restriction on the married women for the utilization of health care services and maternity care.

10. Regarding mother as the educator, the response of Adolescent married girl was twice more than adult women and also there were other sources of information for them like teachers and friends.

11. Source of primary information could be significantly associated with marriage age and education on menstrual hygiene ($p<0.017$) and sex education ($p<0.14$).

12. More than three fourth of Adolescent married girls, had no preconception idea about pregnancy. It was very surprising to note 77.1% adolescent mothers and 52.6% primigravida women had 'no idea of pregnancy'

13. While ambiguity in perception still prevails among 49.5% with answers like God, female (mother) and both regarding determinant factor of sex of the child. The study stated 'Father' as determinant of sex by Primigravida women (69.4% vs 31.8% $p <0.0001$), where as adolescent responded more for God (29.4% vs 63.5%, $p<$

0.0001).This clearly demarks the poor knowledge and education regarding sex education among younger women and contraception.

14. Decision lies more on husband and mother-in -law among both the groups. The self autonomy and decision making among respondent was found slightly higher among primigravida women compared to adolescent married girls (10.6% vs. 8.2%).

5.1.3 GYNEAC AND OBSTETRIC CHARACTERISTICS

1. Age of menarche was below 15 years with average age 13.0 years (S.D ±1.1 years).

2. Conception is considered as the yardstick for the bifurcation of adolescent married girls and primigravida women by the researcher. It is worth noting that 3 cases of pregnancy were recorded even below 15 years, (21.8%) between 16-17 years and 28.2% between 18-19 year.

3. The prevalence of adolescent pregnancy was cited among ≤15 to 18 years (23.6%) respondents against the marriage of 56.4% with the age of ≤15 to 18 years. The concept of early conception was found among less than one fifth of populations under the study.

4. Nearly equal number of male children was born to primigravida adult women and adolescent mothers while female children were nearly 6 % more among adolescent group.

5. No significant association was found between the study and the control group regarding normal and caesarian delivery.

6. In the study area (urban slum) 95 cases (55.9%) showed complication during prenatal period, out of which majority utilized Govt health facility followed by private hospital. In prenatal period, the proportion of complication during pregnancy was more among adolescent mothers (36.5% vs 75.3%,p <0.0001) as compared to primigravida adult women.

7. The finding also implies that among adolescent women, complication during prenatal period is 5.39 times more likely to occur than adult women. The uni-variate logistic regression modelling of occurrence of complications during pre-natal period suggests that it is significantly associated with younger women, women with lower age at marriage, adolescent pregnancy i.e. women with pregnancy between the age 15 – 19

years, women with less eating habits and non-consumption of balanced diet as compared to their counterparts / reference population.

8. Post natal complication was recorded among 15.29% women, of which 5 cases were to adult women while nearly five times more i.e (21) cases among adolescent mothers. The complication faced by the respondents was high blood pressure, anaemia, leucoria and heavy bleeding.

9. Complication or perceived morbidity during prenatal period (55.9%) , Perinatal period (11%) and post natal period (15.29%) and complication /morbidity among children 19.41%.The morbidity could be significantly associated among primigravida adult and adolescent mothers (36.5% vs 75.3% $p < 0.0001$)

10. Health problems was faced by 33 children, of which 30 cases are born to adolescent mothers and 3 cases to adult mothers ($p<0.0001$). The complications are Low birth weight, preterm babies, congenital malformation, baby born with twisted foot and Respiratory Distress Syndrome (RDS)

11. 91.8% adult and 82.4% adolescent mothers availed the ANC services. The variation shows, lesser number of Adolescent mothers availing the same. The respondents status of receiving ANC services during pregnancy was not statistically associated with age at the first pregnancy (91.8% vs. 82.4% $p=0.152$). Immunization shows a staggering 100% taking Tetanus Toxoid (TT injection) irrespective of home or institutional delivery.

12. More than 63% of the mothers were suffering from Anemia which again marks equally among adult and adolescent mothers. This study show Iron and folic acid (IFA) supplementation show three fourth consumed IFA tablets . The few cases who abstained are more adolescent mothers. Five times more adolescent mothers were scared of side effects ($p<0.053$) and 5 cases elders were not interested to give tablets due to side effects and 'they never took it, what harm it produced'.

13. Utilization of Referral Services show adolescent mothers were referred twice more than the primigravida mothers. Only two cases turned down the referral services due to the distance of the referral hospital and due to financial constraint. This even indicates the lesser the age of pregnancy more is the complication.

14. Post natal severe complication which family holds as priority goes to referral hospitals or hospital but rest are treated at home. Family planning issues find last position for intervention, as no one suggests for the same. Breast feeding and cultural practices regarding mother and child care are mostly done at family level.

5.1.4 NUTRIONAL DETERMINANTS

1. Weight gain among pregnant women shows significant difference in age at first pregnancy (p =0.009) suggesting that the proportion of respondents having weight less than 40 kg was more among adolescent married girls (11.0% vs. 26.6%) as compared to their counter parts Another emerging result regarding BMI shows was only 17 cases (20.7%) were adult women while 26 cases (32.9%) were adolescent were underweight.

2. In the study area more than sixty percent of the children are below one year. Among adult and adolescent mothers (64.7% vs. 58.8%) were below one year followed by 13 to 18 months and above 18 months. In the inclusion criteria children below 24 months were only included because of effective recall of medical history.

3. The study showed no change in dietary pattern among 30 % of the respondents during prenatal period. While the proportion of women who reported 'eating less 'was significantly more (23.5% vs. 43.5% p< 0.0001) among adolescent mothers than primigravida women. Women believed in the practice 'if they eat more, the baby will be big and delivery will be difficult' (11.8% among Adolescent mother and 9.4 primigravida women). Pregnant and lactating mothers are particularly vulnerable to the effects of malnutrition.

4. Out of the 81 subjects who took proper care, adolescent shared lesser number compared to primigravida women (p=0.091) . These paints gloomy picture younger mothers are more at risking their and their infant's life.

5. In the study, majority (92.9%) were fed within an hour of the delivery. More primigravida women fed their baby within the half-an hour than adolescent mothers. 36 respondent underwent caesarean section

6. Cultural practice of prelactal feed was followed by 54.03% mothers. Post partum practices were usually initiated, practiced and enforced by elders of the family which shows no clinical correlation.

5.1.5 DETERMINANTS OF FERTILITY AND CONTRACEPTIVE

1. Mean age of first pregnancy ±SD 19.2[±1.9] while mean age of marriage was 18.2[±2.0] and adult women married at 19.3[±1.6] while adolescent 16.7[±1.5] p<0.0001. This even highlights 'delay of the first child' whether adult or teen did not arise. Putting pressure on the young wife (adolescent) to become pregnant in the first year of marriage was strongly influenced by mother-in-law as exhibited in this study also.

2. Majority (54.1%) donot want an issue immediately but 20% women only were found using any contraceptive method of which (23.5%) are primigravida and (20%) adolescent women There is a wide gap between knowledge and practice of the usage of contraceptive methods.

3. Qualitative analysis showed the mother-in-law plays a pivotal role /dominant person of patriarchal structure where spacing and contraceptive is still in their hands ie the Power and reproductive health rights.

4. More than two third (70.6%) knew about spacing method. Adolescent mothers are less informed as compared to its counterparts.

5. In this study, power discourse is given as 'Decision' regarding first pregnancy mostly is taken by others i.e other than self. The others in study and control group primary decision makers were mother-in-law (11.4% vs 23.7%).

6. There was no significant association between age and early conception but preference to have a boy or girl was significantly associated with first pregnancy (p =0.029).The study also brings out another feature , no preference of sex during child birth is given more among adult women compared to adolescent mothers(9.4% vs 20.0%) while more healthy baby is preferred among adult women (29.4% vs 16.5%) adolescent mothers. Adult Primigravida women preferred more male, female and healthy babies compared to adolescent mothers.

7. The study highlights women whether primigravida women or adolescent mother both presently are suffering from one or more health morbidities. Weakness is a common ailment which three fourth of women are suffering. It was significantly more among adolescent mother (P<0.0001), headache (p<0.0001) and stress (p<0.0001)

8. Younger mothers face more reproductive health morbidity than adult women. Twice more number of adolescent faced abdominal pain compared to adult women (15.3% vs 36.5% p=0.002) similar was the case regarding vaginal discharge (11.8%vs 28.2% p=0.007) .

5.1.6 HEALTH SEEKING BEHAVIOUR AND CULTURE

1. Health seeking behavior shows pregnancy care and delivery has been conceptually medicalzed as majority preferred to institutional delivery.

2. But prenatal health seeking care, post natal care and childcare 'cultural practices' finds place

3. Neonatal care, easy delivery tips and detoxication, caste and religion based concept of food, prenatal food avoidance, special food for lactating mothers, postnatal food for good health and vitality etc and superstitious belief to protect pregnant women, lactating women and infants are followed in most of the respondents irrespective of age. There is sometimes thin line demarcating modernity and tradition.

4. Prioritization of diseases is common where in which ailment or illness requires medication. Study found ANC follow-up is sometimes neglected in the pretext that everything is ok and per the family judgment. Postnatal severity only brings them to hospital which others are taken care at home level. So was the case of abortion, where proper medical advice is not taken.

5. The role of traditional birth attendant as now limited to emergency care or as advisory to the elders in the family.

5.1.7 CONSEQUENCES OR OUTCOME OF ADOLESCENT PREGANACY

1. In this study, out of 16 cases of miscarriages /abortion more number of abortion occurred among adolescent mothers than primigravida women (12.9% vs. 5.9%, p<0.115)

2. Early and neonatal death occurred in ordinal no of pregnancies 3 cases in the first and one in the second case were all born to adolescent mothers aged 15-19 years and found significant (p<0.043)

3. Preterm babies are born too early before 37 weeks of gestation. Out of the 8 cases of preterm babies were born to adolescent mothers (4 cases) who had faced multiple

birth as well as abortion. In this urban slum study preterm pregnancy was significantly associated (p=0.016).

4. Qualitative analysis of the case A-5 depicts adolescent girl physically weak, with high level of mortality, Low birth weight preterm pregnancy, psychologically stressed with lack of decision power and entangled in the patriarchal system taking reproduction not as a problem or illness but a natural process which everyone goes through. In the second case an adult women who married (endogamous kinship system), early conception with cultural customs following modern medicine ending in preterm morbidity. Gender and patriarchy pushes women in a vulnerable position.

5. The study area show 3 cases of deaths of which two during first delivery and one in the second ordinal order of birth. Two cases were born to adolescent mothers and association was not found significant and reason of death by malnutrition and high fever (brain fever).

6. Outcome of adolescent pregnancy clearly projects child wastage prevalence at first pregnancy was 8.9% and at the second pregnancy it was 24.2%.

7. Early marriage could could be statistically associated with child marriage (23.1% ,P< 0.0001) while age at first pregnancy among adolescent is more (20%) and Primigravida (7.1%) p=0.018.

8. When determinates of child wastage was analyzed with various variables caste was found significant (p=0.007), age at marriage (p=0.004) and age at first pregnancy (p=0.014). Family type whether joint, nuclear or extended, or occupational status like skilled, semiskilled or unskilled, education level couldn't be statistically associated but the LBW, Nutrition and diet lack of awareness was statistically associated with low education level.

9. The uni-variate logistic regression modelling of low birth weight of child suggests that the proportion of low birth weight of child was significantly associated with younger women with primary education, lower age at marriage , adolescent pregnancy i.e. Pregnancy between the age 15 – 19 years and non-consumption of balanced diet .

10. Multi-variate logistic regression modelling of low birth weight predicts younger women [adjusted Odds Ratio (aOR) = 3.67; 95% C. I.: 1.11 – 12.15, p = 0.03] at increased risk of delivering the low birth weight babies as compared adult women

11. Multi-variate logistic regression modelling of occurrence of complications during pre-natal period determines adolescent pregnancy i.e. pregnancy at the age of 15 – 19 years as an independent predictor implicates that among adolescent women, complications during pre-natal period was 5.39 times more likely to occur than primigravida women.

12. Findings suggest that co-morbidities during pregnancy period more likely to occur among women with middle-level school education, pregnant at an adolescent age [i.e. pregnancy at the age of 15 – 19 years – adolescent pregnancy] and non-consumption of balanced diet as compared to their counter parts.

13. The multi-variate logistic regression modelling of Lack of -awareness about spacing method predicts that women with middle-level education [31.6% vs 17.9%, adjusted Odds Ratio (aOR) = 3.97; 95% C. I.: 1.26 – 12.51, p = 0.019] and pregnancy at adolescent age [aOR = 6.56, 95% C. I.: 2.73 – 15.74; p < 0.0001] were more likely to unaware about the spacing methods as compared to their counterparts / reference population.

14. Adolescent pregnancy is more likely to occur among women with younger, less educated, construction labourer, and those married at early age as compared to their counterparts. In addition, uni-variate logistic regression modelling of adolescent pregnancy was also associated with sex education. It suggests that women who had not obtained sex education were more likely to associate with adolescent pregnancy as compared to their counterparts [43.7% vs 25.0%, OR = 2.32, 95% C. I.: 1.08 – 5.01, p = 0.031]

Figure 1 Relatioship matrix shows Adolescent Girls/ mothers are interwoven in the social relationship matrix in urban slum which follows rural –urban continuum characteristics. She is socialized and her social gender construction is governed within the family, natal and Affinal home, community and society and Health intuition run by State/Muncipal corporation including policies and program.
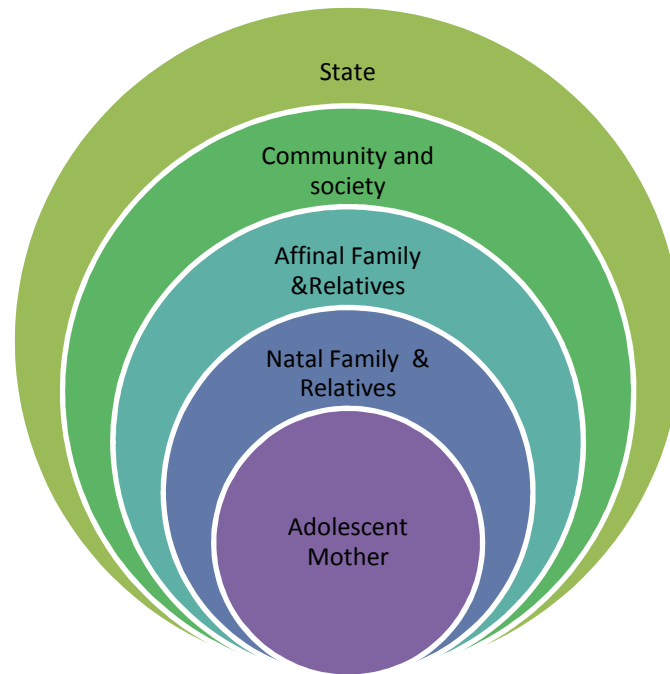
Figure 1 Relationship Matrix of Adolescent

5.2 CONCLUSION

In conclusion, determinants, causes and consequences, all have been brought on the same platform to understand the topic in brief. The sociological perspective of Adolescent Pregnancy features the sociological concepts and causes of early marriage and early conception .The traditional concepts of Kinship and caste system, Family as an Institution, medical Pluralism, Socialization process of gender, and culture moves through the whole thesis from the socio economic and demographic indicators to the consequences or outcome of adolescent pregnancy. Gender roles are evident in the socialization process of a small girl to adolescent to a mother. Control over women's bodies and sexuality is a crucial aspect of reproductive freedom (Arya et al., 2001). The result implies marriage is regarded as entry to adulthood whether she is 15 or 25 years old. Women are expected to be mothers whether she wants to be mother or compelled to be mother. In society like India which is predominantly patriarchal and patrilineal, men are superior so women even though engaged in productive work also remain inclined to men for the decision which is found in the case of 'marriages', 'selection of mate', 'deciding family size', 'selection of appropriate time for marriage', 'going to hospitals', 'using contraceptive', 'prioritization of diseases' etc. The study when looked upon

whether the adolescent married girls enjoy good status in reproductive health or power? This goes deep into the search for answer in the findings of the study.

The urban slum under coverage of study dominated by 'backward communities' namely SC, ST, OBC, NT, VJNT etc. Age specific dominant personal were regarded as head of the family including husband, mother-in-law or father-in-law. The literacy level of Adolescent Married girls was found lower than Primigravida women . The heterogeneous urban culture is regarded hostile and unsafe by majority of parents as they both are working leads to early marriages. So they should get married at the appropriate 'time' within the preview of family. Marriages are mostly arranged in the family by father or elder male members with or without the consent of girls 'Girls are docile'. But it also highlights the '*Pressure of marrying girls off at young age'*. Marriage has been historically universal and it still remains so` (Dyson an Moore, 1983). Early marriage was associated with reduced levels of autonomous decision making and self sufficiency (Santhya, Usha Ram et al., 2010). That is one of the reasons for conceptions immediately after marriage. It is necessary to prove her fertility or her ability to produce offspring, especially of the male sex. Power is derived from reproductive ability in terms of son to make life secure and stable than producing female child (Chatterjee, 1993: 65).It is interesting to note even though the average stay in Pune was long enough to have impact but only a small percentage preferred open choices in arranged marriage or love marriages. Preference of male child in the study area of PCMC also shows the same characteristics 'when she has childbirth her status is raised in the family and if it is a boy, the status in the family becomes more stronger' (Hammad and Rajoria, 2013). Every comment stops to one point i.e small size of family is preferred but more than three fourth of adolescent married girls had no idea of conception. The same percentage is aware of contraceptive but less than one fourth is using it, because of indecisiveness and pressure from elders (patriarchy).

Power and Patriarchy dominates in the study as well as in -depth study, male child is required for 'lighting the pyre, security of the family, staying with girls is culturally difficult, continue our lineage'. Delay in second child shows nearly equal percentage of adult and adolescent mothers want an issue immediately (27.1% vs 28.2% ,p=0.064) . Even though majority donot want an issue immediately but there is a wide gap between

knowledge and practice of the usage of contraceptive methods. The reason is lack of autonomy and decision making power on reproductive rights of the women. High fertility means more morbidity and mortality among women in the reproductive health front, this when we speak of young mothers it is very gravious.

Socio economic deprivation remains significant factor in the urban health services but this study throws light to medicalization of 'Delivery' as an important change where in the slum women is seen preferring institutional deliveries, preference for skilled manpower for delivery, high rate of immunization and acceptance of modern medicine. Reproductive Child Health in the study area of PCMC , where *the main belief was 'pregnancy and delivery need constant monitoring and medication and also admission either long or for short period so it is better to go to government hospital'*. The weight gain among pregnant women shows significant difference with age at first pregnancy (p =0.009) ; suggesting that the proportion of respondents having weight less than 40 kg was more among adolescent married girls (11.0% vs 26.6%) as compared to their counter parts.

Culture and nutrition are linked in India because pregnancy is usually viewed as a normal physiological phenomenon that doesnot require any intervention by health care professionals. Only in the vent of problem the pregnant women are advised to take medical help which is a positive step. More adolescent mothers skipped or were negligent towards food than adult women. Balanced diet during or after pregnancy could be significantly associated (65.9% vs 40.0% p=0.001) among adolescent mother than primigravida women. Another important aspect that came out was among 9.4% who had miscarriage/abortion, one of the main reason was they were engaged in heavy work like lifting and domestic burden/drugery. A prevalence of prelactal feed is seen in the study which includes boiled water, sugar water, honey, cow's milk or goat's milk etc.

Health seeking behavior and medical pluralism is governed by multiple factors especially the beliefs, attitudes and perception of pregnancy, reproductive illness, treatment and quality of the services provided. The result shows some favorable conditions for reproductive health are the prevalence of Endogamous marriages keeps the women in contact with the natal home and other social network.So she gets long time kinship affection and ties between two families favorable for the utilization of health care

services and maternity care. Second is utilization of health services.This shows, in the study area 'delivery' has been medicalized by urban slum population conceptually as the reproductive technology which has been accepted by the slum population for their welfare , safety of their progeny and accessibility to cheap health delivery system. The poor health seeking behaviour are Qualitative analysis of ten cases of 40+ women influence on contraceptive usage as most of them disagreed for the usage except in one case . It also indicated after the birth of a son the sterilization can be done and some pointed to side effects of spacing before first conception. Among Adolescent married girls, more than three fourth had no preconception idea about pregnancy. Reproductive Autonomy in this study, power discourse is given as 'Decision' regarding family size decision lies more on husband and mother-in -law among both the groups. There is a wide gap between knowledge and practice of the usage of contraceptive methods. The reason is lack of autonomy and decision making power on reproductive rights of the women. During prenatal, perinatal and post natal period, health seeking behavior and cultural practices also are given by care givers (mostly senior members of the family or relatives or women from neighbourhood) along with medicalization of delivery. These practices shown in case study are followed by both study and control group which may not be clinically proven methods and may lead to morbidity. United Nation's Convention on the Elimination of all forms of discrimination against women (1995) and the World conference held in Vienna in 1993 hoped that all states will recognize and accept the universality and indivisibility of Human Rights of women .WHO also reaffirms the equality of human rights of women and men in the society and family. All these bodies identified traditional cultural practices during pre and post natal period are harmful for the overall development of women. In the study area, some of the traditional cultural practices are still followed strongly like ' Forced feeding of infants, early marriages, various taboos or practices which prevent women from controlling their own fertility, nutritional taboo and traditional birth practices, son preferences' and its implication for state of girl child, female infanticide, early pregnancy and high cost of marriage is seen in the Health data of Maharashtra. 'Educational status is also affected by dropping out of school. The result of qualitative data shows disinterest towards life, stress, worthlessness, and emotional turmoil in decision making'.

Health Consequences or Outcome of adolescent pregnancy of urban slum of PCMC go with various studies earlier conducted. The child wastage prevalence at first pregnancy was 8.9% and at the second pregnancy 24.2%. The childwastage among 170 cases (Individual level) overall prevalence during the study is 13.5% against the ordinal no of pregnancies it was 11.3% while Sharma et al., (2002) noted it was 2.5 times higher among pregnant teenagers compared to adult mothers. Miscarriages / abortion is highest child wastage with 5.9%. Adolescent pregnancy have a higher experience of adverse outcome of fetal wastage, miscarriage and still birth (UNFPA, 2003). When determinates of child wastage was analyzed with various variables caste was found significant (p=0.007) so also age at marriage (p=0.004) and age at first pregnancy (p=0.014). Family type (joint, nuclear or extended), occupational status (skilled, semiskilled or unskilled) or education level donot seem statistically associated with LBW. The multi variate regression modeling of the study shows the age is significant factor for poor outcomes (Gogoi, 2014). Similarly also found, mother's age was significantly associated with reduction in neonatal mortality (Zanini et al., 2011). During perinatal period abortion/miscarriage, still birth (Santhya et al., 2010) neonatal deaths ,low birth weight (Patel and Patel, 2015; Chandande, 2002) preterm pregnancies (D.Jeha ,2015; Goonewardene et al.,2005) were the complication faced and proved in qualitative and quantitative analysis. Another factor is adolescent mothers have lower caesarean deliveries and higher normal rates to vaginal deliveries (Al Ramahi et al., 2006; Blomberg, 2016).

5.3 RECOMMENDATION

Based on evidence from the research study, I would like to recommend the following to all agencies including Government, Private NGOs, Policy makers, Implementers and for future researchers.

5.3.1RECOMMENDATION FOR CIVIL SOCIETY

- Education is the key to any constructive intervention. Preventing girls and boys from dropping from education not only make them susceptible but also vulnerable to many extraneous factors. It is note worthy that the better they are educated more they keep themselves away from social and economic poverty.

- Behavior Change communication (BCC) is an effective tool to change to positive attitude, opinion and perspective towards Adolescent. Collaboration with local NGOs, Peer educators and prepare a committee with representation from grass root level , programs can be adolescent friendly

- Establish ARSH friendly clinics in private –public partnership for boys as well as girls.

- Programmes should be designed to incorporate senior members of the family. The male participation should be ascertained

- Various studies as well as present studies highlight institution of marriage is very powerful. The fact remains strong in the social processes as a great challenge for adolescent pregnancy prevention programme.

- Involvement of parents in the Reproductive Health Education and counseling can break the iceberg to understand the real facts of adolescent marriage, pregnancy and conception.

- Breaking the custom of preference of male child:-Preference of male child is still strongly holding fertility decision when women are subjugated to bring a heir to carry their family name. This not only affects fertility, size of the family, gender discrimination, and sex ratio but also affects the women's health. So educating the elders of the family is more important than eligible couple.

5.3.2 RECOMMENDATION FOR SERVICE PROVIDERS

- Strong referral system and follow-up should be efficient so that there is 100% utilization of health services.

- Encourage community involvement in the Adolescent Reproductive Sexual Health (ARSH) programme by Integrated Child Development Scheme. In rural sector panchayat raj Institution and Village health committee are found in place but in urban sector there are only few programes like ICDS at the grassroot level. So there is a need for more community involvement to strengthen delivery system and BCC.

- Adolescent are already the beneficiary of the ICDS project so Interslum, Intraslum coordination can help the families of adolescent to be educated on problems of early marriage , early conception and track the married couple . Tracking will help to ascertain the unmet need and increase contraceptive use also.

- Adolescent Reproductive and Sexual Education should encompass components like knowledge of pregnancy and subsequent action after conception. It should also include contraceptive use,its availability , popular brands, cost feasibility and source etc. The education should include the adolescent girl's mother sothat she can educate her daughter correctly.

- Sex education should be made culture friendly so that all caste, creed, religion can incorporate it. It should act as an educator or as a first aid kit to the adolescent.

- Monitory security in the form of health insurance should be given with parent- private- public partnership so that she can benefit in need.

- Strengthen the urban public health care system at all levels, particularly the RCH services.

- As the density of population of slum population is very high, reaching the needy is a challenge. There is a need to increase the number of clinics and dispensaries so that each and every morbidity can be addressed.

- Network with NGOs: - The public and private sector should share information regarding Adolescent health more constructively to avoid duplication and increase credibility.

- The study brings out high rate of spontaneous miscarriages opting for cheaper and unscientific methods. Illegal abortion is a cause of serious health complication and even death of women the world over so is the case at urban slum level. Even though in India abortion is legalized by Medical Termination of Pregnancy Act, 1972, majority are not aware or are not easily accessible. So they resort to unsafe means which increases morbidity and mortality.

- The result implies that clinicians/counselors should counsel young mothers highlighting the positive consequences of adolescent pregnancy , the obsteritic complications and favorable neonatal outcome.

5.3.3 RECOMMENDATION FOR POLICY MAKERS

- Enumeration of all boys and girls school drops out to be linked to ICDS as well as with ANM or ASHA.

- To intersectorial coordination at policy and program fronts: - There are now various policies and strategies which supplement and complement each other so integration of policies should be done to avoid duplication of efforts.

- The urban slum data is clubbed with the urban data which even includes the affluent community. Hence we are unable to get a clear picture of the community staying in this congregation of urban slum.

- Create data base specifically for urban poor separately including migrating population.

- Formulate comprehensive national strategy and program for action to cater the adolescent population of urban slum.

- Compulsory education and retention in the schools till 18 years for the girls.

- Policy makers need to take into account culture, regional variation, economics-poverty, religion, caste, kinship, customs and language while making programs for adolescent.

- Urban Health Service Delivery system should function like the rural infrastructure. The hierarchy of dispensaries hospitals and referral hospital should make clear to the pregnant women and relative. Emergency numbers of ambulance and vehicle available should be enumerated and a list should given to pregnant women's house.

- Developments of National Health Policy on Adolescent health needs.

- Allocation and distribution of money as recourses for smooth running of the program.

- When women's mortality is considered, the government policy related to women's health is limited to contraception, abortion and maternity services. From one terminology to another we are moving like *FAMILY PLANNING to FAMILY WELFARE* to now *REPRODUCTIVE AND CHILD HEALTH,* but the basic framework of our outlook is the same. This should change at policy level to have a greater impact.

- When we look into the family welfare programme, it is still related to incentive and disincentive like barring people from contesting election or getting a government seat. But sterilization after 3-4 children has no significance. The

women are crushed down by the weight of fertility and she struggles with reproductive morbidities which remains mostly unattended. So there is a need to change our perspective and more emphasis should be given to spacing than permanent method.

5.3.4 RECOMMENDATION FOR ACTIVE SURVEILLANCE SYSTEM

Based on the study conducted in the 18 slum pockets of PCMC , the significant points to be incorporated for further intervention are: -

- Those slums which are expanding i.e newer areas or hutments are getting added to the old or unauthorized have more prevalence of adolescent pregnancy than the older areas or areas amidst city or in the near vicinity of the roads.
- Another important factor which emerged is where there is more concentration of backward community there has more prevalence of adolescent pregnancy.
- Area which has more migration and influx of new migrants should be given more priority while drafting surveillance system.
- Intervention or awareness program should incorporate elder members of the family with the eligible couple, to keep the program fully successful.
- Adolescent Skill Development program and Education on Sexual and Reproductive health should include Conception or how one becomes pregnant, menarche and ideal gap for pregnancy between menarche and pregnancy.
- Spacing and contraceptive should be given top priority while imparting education and awareness to the adolescent.
- An active tracking system can be developed for urban slum adolescent linking ICDS units , dispensary or Municipal Hospitals to track their marriage and pregnancy.
- Any child wastage should be tracked including abortion so as to prevent the future occurrence.
- Documentary evidence can be incorporated while registration or enrolling in hospitals to prevent ambiguity in the age of girls.
- Result shows education is the most powerful tool for change so all girls and boys should study upto higher secondary or vocational trade.

- Medical pluralism, traditional practices and cultural taboos should be scientifically explained to the whole family .Child care and post natal care should be given equal weightage as full ANC coverage and institutional delivery.

- Concept of Sexuality and virginity should find a place in the Sexual and Reproductive health of Adolescent.

- Adolscent marriages among long stay was more in the study due to insecurity hence active orientation program like small documentary, use of media and advertisement should be done to educate girls.

- Veernacular booklet can be introduced through NGOs for education on sexual and reproductive health.

- ANM and Anganwadi can rope in some local men and women to mobilise and dessiminate information of marriage and delivery .These women can be given token of appreciation or money to motivate the members.

5.3.5 RECOMMENDATION FOR FUTURE RESEARCH

- The result points to the need for individualizing ANC and PNC surveillance programmes and obstetric care, categorizing age grouping with adverse obstetric and neonatal outcomes. This should be evaluated for further researches.

- Data base of Adolescent Pregnant women, Adolescent marriages (boys and girls) with reference to fertility behavior need to be understood and generated to formulate future policy.

- Study of Rural –urban continuum and the traditional cultural practices followed should be made in detail to understand the culture of urban slums.

- Child wastage and abortion need to be addressed separately and comprehensively to understand the consequences and lacunae.

- Health inequality can bring out facts for the construction of effective urban policy.

- Large data sampling study should be conducted, so that models prepared can be effectively replicated.

- Creation of data banks for slums should be done under one umbrella to track all diseases communicable and non communicable diseases.

To **conclude** it is evident that Maternal Mortality and Infant mortality in the developing country like India continue to be a serious public health problem and contributes to higher morbidity among adolescent mother and infant. So is the case with the area under this study. Finding highlights the role of patriarchal and power structure sidelining women in subordinate position and making adolescent married girl more docile and vulnerable. Her ignorance towards pregnancy and contraceptive usage makes the situation worse with deteriorating urban environment. Traditional practices on one side and acceptance of modern reproductive technologies on the other side go side by side. The positive result emerged is full immunisation of mother and child and institutional delivey 'medicalization' with utilisation of cost effective public health services. She becomes a 'tool' amalgamated in the cultural integration, prioritization of diseases and poverty leading to high fertility and morbidity. The study also recommends a constructive effort to segregate the slum population data as the need of the hour. The result also projects Health and illness is not objective states but socially constructed categories. The result shows 'pregnancy' is a phenomenon which is not a private problem but strong relationship between status, gender roles, social cultural practices and the process medicalization of delivery.The experience of pregnancy is profoundly shaped by various degrees of patriarchy and cultural health practices. Motherhood is regarded as 'Natural normative process' to all women and conception is significant to prove her fertility and preference of male child. The coexistence of tradition and medicalization emerged in the study.Based on above data we can conclude the patriarchial ideology that prioritise marriage as a universal truth, moves towards domestication for women with limited autonomy in decision making and early conception .All these have a negative impact on women, and she carries the burden of morbidity throughout her life time.

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APPENDIX

APPENDIX-I

LIST OF SLUMS IN PCMC

S.No	Name and area of slum	No of Huts in slum	Population
1.	Udyognagar, Chinchwad	652	2976
2.	Link Road, Pattrashed	686	3019
		1338	5995
3	Sharad Nagar, Nigdi	233	1074
4	Samrat Nagar, Nigdi	55	215
5	Rajnagar , Nigdi	365	1607
6	Sidhate Nagar ,Nigdi	109	427
7	Morewasti, Chikhali	552	2162
8	Annabhau Satthe Nagar ,Wakad	143	697
9	Khandoba basti, Bhosari	125	591
		1582	6773
10	Vidya Nagar,Akurdi	1164	4409
11	Ambedkar Nagar, Akurdi	222	966
12	Ramnagar, Akurdi	427	1707
13	Dattanagar,Akurdi	1391	5822
14	Shatinagar ,Bhosari	657	3117
		3861	16021
15	Shastrinagar, Pimprinagar	452	1661
16	Subhash Nagar, Pimpri	493	1854
17	Ambedkarnagar ,Pimpri	574	1773
18	Sanjay Ghanhi nagar,Pimpri	316	1272
19	Baldevnagar ,Pimpri	230	697
20	Mahatma Gandhinagar , Pimpri	113	359
21	Baudhnagar ,Pimpri	863	3620
22	Bhimnagar /Sanitary Chawl Pimpri	286	1035
23	Niradharnagar ,Pimpri	612	2297
24	Sanjay Ghandhi nagar Pimpri	237	941
25	Nashik Phata, Kasarwadi	154	617
		4330	16126
26	Bhoirnagar,Chinchwad	44	237
27	Saibaba nagar,Chinchwad station	292	1278
28	Kalakhadak, Wakad	561	2078
29	Rajeevgandhinagar , Pimple gurav	423	1990
30	Tapgeer nagar ,Kalewadi	90	417
31	Gandhinagar, Pimpri Chauk	1451	6768
32	Bharatmatanagar, Pimpri station	107	405
33	S.No 68 to 74 Dhapodi	1579	6171
34	Jaibhimnagar, Dhapodi	695	2689
		5250	22033
35	Vetalnagar,chinchwad	1289	5458
36	Adeshnagar,Pimpri	134	621
37	Milindnagar ,Pimpri	501	1933

38	Uttam Nagar ,Pimpri	25	75
		1949	8087
39	Durga Nagar,Pimprinagar	285	1134
40	Kalbhorenagar, Akurdi	87	313
41	Mahatma Phulenagar, Akurdi	509	2261
42	Ajanta Nagar ,Akurdi	920	4600
43	Anasahebmagarnagar,Akurdi	315	1408
44	Indira Nagar,Chinchwad station	823	3608
45	Landewadi, Bhosari	923	3867
46	Balajinagar,Bhosari	1856	7606
47	Ghaneshnagar ,Bhosari	133	535
48	MahatmaPhulenagar,Bhosari	1289	5168
49	Gawalinagar,Bhosari	650	2574
50	Morewadi,Near Court	915	3607
		8420	35547
51	Indiranagar, Pimpri	129	519
52	Kailasnagar,Pimprinagar	292	1175
55	Ganeshnagar,Pimprinagar	94	388
54	SanjayGhandhinagar-Bo Hadewadi	376	1462
55	Vittal Nagar ,Pimpri Vaghera	1367	6769
		2258	10313
56	Jaimalhar-Akurdi	72	264
57	Anandnagar-Chinchwad Station	2282	10418
58	Vijay Nagar,Chinchwad	252	1158
59	Santosh nagar,Chinchwad	56	270
60	Sudeshnagar,Chinchwad	49	177
61	Mahatobanagar,Wakad	288	1470
62	Herabai Landege chawal ,Kasarwadi	225	1300
63	Ratilal Bhagawandas, Phugewadi	26	115
64	Gurudattanagar,Nanokar Chawal	96	754
65	Vaishalinagar, Near Pimpri Telco	58	210
66	Ambedkarnagar, Nehrunagar	85	374
67	Yashwantnagar, Nehrunagar	162	611
68	Siddhatenagar,Dhapodi	1124	4163
69	Mahatma Phulenagar,Dhapodi	382	1185
70	Limbare Chawal-Phugewadi	188	756
71	M.B.Camp-Kiwale	643	2533
		5988	80862

APPENDIX II   CASE STUDY AND KEY INFORMANT

The study included case study and key informants which is denoted in alphabets A-denotes cases from adolescent or adult /special cases, B-denotes Key informant Senior women, C-denotes Key informant Senior men ,D-denotes Key informant Local Health providers/mid wife /Anganwadi workers

CASE STUDY

This is the analysis of the case study conducted in the study area**.** This has been presented in the discussion in dialogue form at the respective places where there is a need to elucidate the perception, attitude and behaviour.

Case	Case Category	Age	Area
Case -A1	Early marriage & Early conception	18	Anandnagar
Case- A2	Prim gravid woman	23	Anandnagar
Case -A3	Early Marriage & Early conception	20	Anandnagar
Case -A4	Early pregnancy & poor sex education knowledge	19	Gandhinagar
Case -A5	Adolescent Pre term pregnancy	19	Khandobamal Bhosari
Case -A6	Neonatal Death	20	Gawane wasti Bhosari
Case -A7	Domestic violence & Primigravida woman	21	Bhosari
Case- A8	Still Birth	24	Gawlimata Bhosari
Case -A9	Family Planning & fertility	28	Ghandhinagar
Case- A10	Forceful Adolescent marriage & early Conception	18	Bhosari
Case -A11	Adolescent Love Marriage	18	Gandhinagar
Case- A12	Family Planning & fertility	21	Shantinagar
Case- A13	Adolescent Mother & Fertility	21	Shantinagar
Case- A14	Home delivery	20	Bhosari
Case -A15	Forceful Adolescent marriage & early Conception	16	Vidyanagar

EARLY MARRIAGE AND EARLY CONCEPTION (INTER SLUM MARRIAGE)
Case A1 ----is a 18 year old married Adolescent Girl. She is staying in Anand Nagar Slum, Chinchwad with her husband and her maternal home is at Dalvinagar Slum. Both slums are just 1 km away from each other. She is married to her maternal uncle's son and her in-laws and parents migrated from Sholapur District.
Educational Background:
She discontinued her study after 5, as she was not interested in studies. Later she was helping her mother in daily chorus and looking after her younger siblings.
Marital status:
 She is married to Baba Kadam of Anandnagar. He is an unskilled worker. In her medical Health card she has mentioned 20 years to avoid legal complication.
Parents Background:
They are literate and are engaged in daily wages work and domestic work. She has 2 brothers and 3 sisters. Her parents are financially poor and reside in 20 x 10 room at Anand nagar Chinchwad .
Physical appearance:

5,2" with 45 kg wt fair complexion and beautiful . hospital records) .

Present Status

She is 3 month pregnant and delivery date Nov 17th 2014 with Hb 10.3gms (21.04.2014 PCMC). She stays in a joint family with her husband, his 4 brothers and 3 sisters. He is the youngest of all. (at the time of study)

- Narration by Geeta's Mother- in-law

Mother Ambu Bai Shivraj Gade ,54 year old is very dominating and interfere in all her personal decision. Her Mother in law said, "She was married at 12 before she attained puberty to extremely poor family with an alcoholic husband and having frequent illicit affairs. She had to struggle to meet her daily ends. She started working after her first delivery at 14 as domestic maid in residential colony. She (Mother in Law) said, "People were very generous to donate utensils and other accessories to start a life at Dalvinagar." She never took any hospital assistance for any of her delivery. She delivered all her kids at home and worked till the last day of her delivery. She used to prepare her delivery Kit herself a blade, clip and hot water. As her delivery pain starts she keeps everything together and delivers and cleans her baby herself. She never faced any difficulty. She has constructed 4 separate houses for her children all facing to one common passage for proper communication.

Eldest is illiterate, married to woman from another neighbouring slum and has 4 children. His wife frequently fights with husband and leaves his home .She deserted him two years back as she was fed up of atrocities and her disinterest to family life. In the meantime, his mother choose a suitable girl from neighbourhood (Dalvinagar)and got married to a 17 year old. She is presently having 1 year old daughter. Later the first wife returned and started staying with them. Again she fought with the new wife and ultimately she left her home with 3 children leaving one child (during case study 2014). Second and third son are married and have 3 and 4 children. Fourth Son is Baba Kadam married working as contract labourer married to Geeta.

All her children are school dropout and earn upto 5000-6000 Rs. This only approximate cost as they donot have regular income.

Health consciousness and health delivery status

For any major aliment, they go to Talera Hospital or YCMH are satisfied by services. She narrated another fact (Ambubai -Mother –in-law) was sick and had with difficulty is sitting, knee pain, joint pain and body ache. She consulted a local God man at ' Pimpalgaon' named 'Firangibai temple'. He charges only Rs 50 and after Gods prayers he has to wait for food rice and sambar. After taking the food, he gives medicine which is a mixture of herbs and other material. He gives medicine at home but with some strict instructions like keeping all the private parts clean, abstinence during menstrual hygiene, avoid intoxicants, non vegetarian food, alcohol etc. Now she is feeling better.

Her eldest son had very big tumour on his shoulder which was cured by Baba (a young 35-37 year old man) .

When Enquired If she believes in Baba so much, Why does she allow her daughter in law to take health services from hospital? 'She replied that today's girls are very fragile (Najuk) so cannot they cannot bear pain or suffering'. She is taking ANC services at Talera hospital on the advice of Anganwadi Workers . She is availing the benefits under Janani Suraksha Jojana.

When enquired, why she married her son at this younger age ? She said, "Sabhi jagah muhmarene se acha hi bandh k rakhan."Spacing or family planning could not be discussed in front of mother in law. She narrated (mother in law) that the field staff of

HIV/AIDS enquired about sexuality to this young couple which she hated. She said, " Hamare bacchee bahut seedhe hai unhe eh tedha rastha malum nahee."

CASE-A2
MIGRANT PRIMAGRAVIDA WOMAN

Case A-2 is a 23 year old, and is a resident of Anand Nagar slum. Her native place Haraijul , Latur District Maharashtra . She belongs to Mang/Mathana community

Educational Qualification: 8th pass and is a school dropout. The reason for drop out is the disinterest in studies and the school was far away from native village.

Husband : She is married to Bhosale of Anand nagar Slum. He is 24 year old and droped school after 7th due to poverty and financial constraint at home. He is working with MPTA office earning Rs 6000/-

Family Background : She stays with her mother in law , husband , three brother -in-law aged Santosh 28, Ajit 20, Saheb 17,and her kid .

Economic Income of family : Mother in law works at MIDC earning 5000/- per month, Husband -5000-6000 /month Santosh – 2500/- Ajit & Saheb work at Big Bazaar shopping mall getting 4000/-each. Annual Income of family –Rs 2,46000/annum

Marriage : She is native of Haraijul Latur and is Sister of Bhaujai (Brothers wife) . Both her husband and she belong to same native village. She was married on 24th June 2012 at 21 and her husband 22.

Pregnancy : She conceived immediately after three months . She started medication when she was 2 months pregnant at Talera Hospital .She delivered at her maternal home Latur. She had her delivery at her maternal home Latur at Govt Hospital. The only complication she had was anaemia (9.6gms) . Her wt during delivery was 49 kg , 5" and presently she is only 45 kg. She took ANC check up , IFA tablets and Hb 9.6gms. She delivered a baby girl weighing 2.430 kg . Immunisation is regularly given to the 7 month baby (she could not locate the immunisation card).

House : The house is comparatively bigger with 2 rooms size 12 x 10 foot . She owes a sewing machine an showed inclination to learn more tailoring class . She wants to learn more about tailoring class and earn. Rooms are not plastered, very shabby and not ventilated with poor hygienic condition.

Family Expectation: She wants 2 children but preferably a male child also. If not, then they want to take another chance. She said ,"No spacing method is adopted so I may or may not have an issue soon but it depends on God's wish, male child is depended on God and if more children are born ,it is Gods wish." She fed her baby within half an hour .

Health Problem: Prenatal symptoms included frequent vomiting till 8th month. After delivery her vomiting stopped but still she doesnot want to eat as she has no appetite for food. She is very pale, weak due to with daily chorus and lack of proper diet. As she has no one to assist her, she cannot take rest. Anganwadi worker gave her advice for proper diet, provided supplementary food and advised her to consult doctor.

CASE-3
Early marriage and Early conception   24/4/2014

Case A-3 is a 20 year old(date of birth 30/10/1993) , born and brought up at Anandnagar ,married and staying in neighbourhood with in-laws and husband in Anandnagar. When I interviewed, she had come to her mother's residence for delivery.

Educational Qualification: She studied upto class 12th pass and is interested to continue her for studies.

Husband : She is married to Shinde ,a 25 years old and born and brought up at Anandnagar only.

Marriage She is married to Shinde on 6/01/2013 .She belong to Mang/Mathang and Buddhist (boy) . As they were staying nearby and they fell in love and eloped. Later their both parents officially married them off. He is also 12th pass and is a driver. After marriage, Mathura's parents helped him financially in purchasing Sumo ,Mini Bus and reconstructed his parental house. He now manages these vehicles and takes trip to and fro Mumbai.

Family Background: She stays with her mother in law , husband ,Brother in law , his wife and one kid her .

Economic Income of family : Driving and the transport business gives him Rs 30000-40000/-monthly income, Brother in law also earns Rs 7000/- and hold yellow ration card.

Maternal House : She resides in a big house with 2 rooms size 12 x 10 foot . They belong to a rich family in the slum as her father has a truck and other vehicle. He is engaged into scarp business so they are financially very sound. She was a pampered child between two brothers. She own a sewing machine and wants to learn more about tailoring class . House is in good hygienic condition.

Pregnancy: She started medication when she was 3 months pregnant at Talera Hospital. On 16th March 2014 (LMP -12/06/13) she delivered a baby girl in YCMH hospital. Her baby girl weighed 2.5 kg . She underwent caesarean delivery as liquid burst open and baby did toilet in her stomach so Caesar was done (primi C TT/oligo C distress) . She did regular checkups from 3rd month onwards. Her Haemogram was 12.6 gms. Baby girl is very fair and beautiful.

Family Expectation: She wants two children but preferably a male child.

Health Problem: She is healthy and gets lot of attention and care from mother's house. She is suffering from psoriasis and applying only cream due to delivery. She is undergoing treatment since she was 4 years old from dermatologist. Psoriasis is on both her hands with red patches. Her mother stated once she will have two kids then the doctor said he will give full treatment.

<div align="center">

Case :4

</div>

EARLY PREGNANCY DUE TO LACK OF SEX EDUCATION

Case A-4 is 19 years old and has two children (a 2 month old baby girl & a two and half 2.5 year old baby girl)and had one abortion. She was born and brought up at Gandhinagar.

Educational Qualification: She studied upto 12th and dropout due to her marriage. She is interested to pursue her education especially technical education like ITI . She aspires to work at PCMC office or company. "She very disappointedly mentioned her inability to leave her education."

Husband : She is married to Bojkure 24 years old, 9th pass and working as Driver . He has been living in Gandhinagar slum since birth and earns Rs 8500/month.

Marriage : She married Arjun on 6th December 2009 at 16. She is Telugu(Sholapur District) but born and brought up at Gandhinagar ,belongs to OBC category and he is Buddhist . It was a love marriage which was strictly opposed by both her parents (a neighbourhood romance).

Present Family Background: She stays with her husband and her two kids. All her relatives are staying nearby.

Economic Income of family: He earns more than Rs 8500 per month. They hold BPL card.

Pregnancy:

- Ist:- She conceived at 16 and baby Anvita C Bojkure now aged 2 years and 5 months. Delivery was normal ,baby weighing 2.3kg wt at Private hospital. She fed breast milk and within half an hour of delivery. ANC checkup was taken after 2 months of pregnancy.
- IInd :-Again got pregnant and aborted the 4 weeks baby by taking pills at home. She didnot go to any hospital .
- IIIrd : She delivered her second child at the age of 17 years and 9 months .Her name Trisha Bojkure is 3.100kg normal at Talera hospital.

She did regular A NC checkup but IFA tablets were not consumed as had vomiting sensation on smelling the IFA tablets smell. She took ample of rest, pre and post natal care was taken care of her both families. In her IIIrd delivery she had severe bleeding and had to be given 2 bottles blood . Her Hb was 10 at the time of delivery; wt is 48 kg & height -5.3 inches.

House: She lives in a small house with 1 room size 10 x 10 foot. Rooms are plastered, Clean but not ventilated. Hygienic condition is very poor as it is on a very congested lane and open drainage in front.

Family Expectation: She wanted only 2 children but her mother-in-law is insisting for a male child. She aspires to work at PCMC office or company .She disappointedly said about her discontinuity of education and early marriage.

Ignorance: When enquired about early marriage and conception and its reason ,she said , " I was madly in love with Arjun and parents were objecting ,so we eloped consequently married." Conception was unplanned. 'We were unaware of the contraceptive usage and did not have self restrain from sex.' Today she repents for what happened. 'We could have waited for 3 years atleast for children if we were aware of contraceptive use'. Now she is using Copper T.

Health Problem: She had her menache at 11 and gets lot of attention and care from her parental house. She is presently facing problem of white discharge and back ache.

CASE : 5
ADOLESCENT PRETERM PREGNANCY   **Dat**e : 28/4/2014

Case-A-5 Fhuge a 19 year old married adolescent girl staying at Kandobamal Chawl in Bhosari Area . She has an 11 month old baby girl (baby very weak).

Educational Qualification: She studied upto 11th but could not complete her studies due to her marriage. Her husband wants her to complete her education so that she can join some SHG groups and earn money. She looks very stressed due to her baby's health .

Husband : She is married to Fhuge ,a distant cousin (from maternal side) 30 years old, 12th pass and working as an Attendant at a Hospital Bhosari . He was born and brought up at Bhosari and earns Rs 8000/month.

Marriage: Priyanka was married on 14/5/2012 at Hingoli (her native place) . She is staying in her in –laws home since 2 years. When she was 17 years and 6 months old and Ganesh 28 years ,3 months . Both then follow Buddhism.

Present Family Background: She stays with her Father -in- law , Mother- in- Law ,husband and her kid. Her Hushand's sister is staying in neighbourhood. She was present at the time of study as she was 7th month pregnant (age 20) . Mother- in- law very authoritatively stated ,she is working as domestic help and earns Rs 5000-6000/-month .Her father-in- law is 12th pass and working as Attendant at Sant Dyaneshwar Hospital earning Rs 9000/-month.

Economic Income of family: Total family income is Rs 24000/- per month. Her father in law is alcoholic so earning fluctuates and they have also taken loan for her Nanad's marriage (Husband's sister) which they hav to repay. They hold orange ration card.

Pregnancy :

- She conceived 8 months after marriage (18 years and 2 months) and delivered a baby girl at Kulkarni Hospital (Private Hospital) near her residence at Bhosari . She was born underweight preterm with weight 1.300 gms. The baby was kept in incubator for 7 days. There were many complication during pregnancy anaemia -5.9gms, high fever and B.P was also high . Her delivery was normal 1 bottle blood was also given.
- She did regular ANC check up and suffered from morning sickness for 4 months. She used to eat very less food due to vomiting , she became very weak. She even didn't bother to take IFA tablets due to its bad smell.

House: She resides in a small house with 1 room size 10 x 10 foot. Hygienic condition is very poor as it is in a very congested lane and drainage flowing in front.

Family Expectation: She was not enthusiastic and energetic during the conversation. She looked very withdrawn and aloof. The baby was admitted on 17th April 2014 and discharged on 22nd April 2014. Baby was suffering from Measles with bronchopneumonia with anaemia. The baby is very pale, short, red brown hairs and presently her weight is just 3.2 kg. This is the third time when the baby is admitted. Her in-laws and husband stated that she does not take good food ,so her baby is also sick and weak.

Family Expectation: She was reluctant to spell out her opinion as her mother in law was stating more about her family size etc.

Opinion No 1: Mother in Law said that she expects her son should have at least a male child that carries their family name.

Opinion No 2: Her husband said that she doesnot take good care of herself so she get sick frequently.

Ignorance: When enquired about early marriage and conception and its reason, she said, "I did what my parents and elders wanted." Conceiving early is marriage as 'everyone who visits the family asks KAAY VISHESH AAHE KA' ? More over if kids are not born then what will I do at Home. Both are aware about contraceptive yet they were unaware about its usage.

Health Problem: She had her menarche at 12 years of age followed by dysmennorgea for 2-3 years and first pregnancy was at 18.2 .She is 4.2 feet height and 40kg weight. She still has haemogram 9.6gms and feel, severely weak, frequently suffering from headache and backache. She frequently feels to lie-down and takes rest. She has pain in her hip region and stressed. Her husband wants to learn some vocational training, so she can become member of Self Help Group and get loan.

CASE : 6

Case A-6 Chavan is 20 years old (Date of Birth 17.09.1993) and presently staying with her husband and family in Gawanewasti chawl, Bhosari . Her first born infant died on 21.2.2014

Educational Qualification: She Studied upto 11th but could not complete her studies due to her marriage. 'She is not interested to continue her study as she feels that even after studying she has to do domestic tasks and mend house, so why should I take so much task ?' She is disappointed as she was married early and showed disinterest towards life.

Marriage : Priyanka was married on 19th Nov 2013 at 19 . She was born and brought up in Bhosari from the same chawl. She is staying in her in –laws home in an extended family. Marriage was arranged by parents and elder male members of the family. She said , "My views were not at all taken but I was introduced to the boy before marriage."

Husband: She is married to Chavan, a close cousin (from maternal side) 24 years old, 12th pass and working in a company . He was born and brought up in Bhosari and earns Rs 7000-8000/month.

Present Family Background : She stays with her Father in law(55), Mother in Law (50) , Brother in law (33 , Sister in law (25) and her 2 kids aged 4 and 1 years old . Priyanka's parents stays 2 lanes behind her house.

Financial Income of family: Total family income is Rs 20,000/- per month. They hold yellow ration card . Her father- in- law has land holding at Latur, so many agricultural produce like jawari, vegetables are brought from village ,which helps them to maintain the family needs in this meagre income. Her father- in- law is the head of the family   Mostly all decisions are taken by male members.

Pregnancy:

- She conceived immediately after marriage, everyone in the family and relatives were eagerly enquiring about any good news. By Gods grace I made my family proud, I conceived after 4 months."
- Blood test and urine sample taken to confirm her pregnancy in the 3rd month. She took   regular ANC check up from 5 months onwards. She suffered from morning sickness for 4 -5 months .She ate very less during the period . She had aversion towards oily food. She took TT injection and IFA tablets. All the checkups were done in private hospital.
- Sonography : (26/7/13) Single ,live intra uterine foetus of 8 WOD ±5 days of gestation
  LMP =25/5/13   D = 8 WOD   EDD= 1/3/14
- Sonography : 28/11/2013 Single live intrauterine foetus breech presentation with average gestational age of 24 weeks 4 days
- Sonography: 2/1/2014 Single live intrauterine foetus in Vertex presentation with average gestational age of 29 weeks 3 days. Constitutionally small to anybody in any manner.
- Sonography: 21/2/2014 Obstetrics'relates single live intrauterine foetus in vertex presentation with average gestational period of 34 weeks. Good fetal biophysical   profile seen constitutionally small foetus.
- She was admitted on 23/2/14 to 28/2/2014.Baby born on 23/1/14 and died Diagnosis – Primi C 8 mA c threatened preterm. (primi 8th month ammenorea)

House : She stays in a house 1 room size 12 x 12 foot with 2 room and a big passage . Rooms are plastered, clean and ventilated. Hygienic condition is good and there is lot of open space.

Family Expectation : She was not enthusiastic and energetic during the conversation. She looked very depressed by her loss. Her mother was answering many questions. After delivery she was given oil massage and hot smoke (as a part of delivery care).Her mother stated doctor has said to take rest and advised not to conceive for 6 months. They (parents) will follow the advice and abide by it for the welfare of their daughter.

Ignorance: Priyanka narrated, "Marriage is important and so are children. Life revolves around these domestic affairs only. Relatives, function, children, food and household work engage every girl and so what different I am expected to do". She is aware of spacing method but discussing with family is difficult.

Health Problem: She had her menache at 12 years of age. She always had irregular periods. She is 4.10", 55 kg wt and blood group AB+. She is presently having

backpain and problem white discharge and weakness. All family members believe in modern medicine.

CASE -7

Domestic violence and adult women.

Case A-7 Jadav is 21 years old and staying with her husband and 11 months baby girl in Bhosari.

Educational Qualification: She studied upto 11th but could not complete her studies as she failed in one subject due to her marriage.

Marriage: She is married on 6th May 2011 when she was 18 years old and married from Udalamb, Bidar District. She was born and brought up at Bidar Karnataka. Both of them belong to the same village. She is staying in independently in nuclear family. Marriage was arranged by parents and elder male members of the family. Her husband is a close relative from her fathers side (Atya Cha Mulga) .

She said she was married after 18 so as to avail the benefit of the Karnataka Govt. As girl child was born they have given gift and one lakh insurance for her baby. So her immunisation card is also at Bidar.

Husband: She is married to Jadhav, her father's sister's son. He is 8th pass and is working in a hotel nearby. He was born and brought up in Bidar & migrated 4 years ago to Pune for work. He has been   staying in Bhosari since 2 years in a rented house at Kandobamal. His duty hours are 10 am -10 pm till the hotel is closed and earns Rs 10000/- per month. Her first born is a girl Sanskruti is 11 months old.

Present Family Background: She stays with her husband and baby .

Pregnancy:

- Blood test and urine sample was taken to confirm her pregnancy in the 2nd month. She took   regular ANC check up from 2nd months onwards from private hospital . She suffered from morning sickness for 4 -5 months .She ate very less during the period . She took TT injection and IFA tablets. All the checkups were done in private hospital.
- Jadhav was told to take rest till her delivery, so she had to move to her parent's home. She was weak and her uterus had to be stitched as it had chances to open.So special care was taken.
- One bottle was given during delivery.

House : House with 1 room size 10 x 10 foot . Hygienic condition is not good and there is congestion and flowing gutter in front.

Aspiration: She was not enthusiastic during the conversation. She said, "My husband says let children be born then we can do operation".

Family situation: She was reluctant to spell out her opinion .She told that her husband had an illicit affair when she had gone to her mother's home for delivery care. The woman is a widow with 3 children working in the same hotel. Th neighbours informed her he even stays with her.

Health Problem: She had her menache at 12 years of age. She is 5", 40kg wt . She is presently having backpain and head ache.

Note: After one month, Jyoti left her husband with her daughter to Bidar due to domestic violence and illicit affair with the 40+ women.

CASE-8

Case A-8 Rasal is a 24 year old women (records 25yrs) who has gone through an ordeal of Still Birth   delivering a dead child . She has a 4 year old boy who is enrolled at anganwadi at Gawali mata slum in Bhosari. I met the girl and came to know about the sad news so thought to interview and take the case.

Educational Qualification: She Studied upto 9th but could not complete her studies due to her poverty. She is not interested to continue her study as she feels even after studying, she have to do domestic tasks and mend house, so why should she take so much task?

Marriage: Suvarna was married in the year 2010 at 19 years old born and brought up at Bhosari from the Gawane wasti Slum . She is staying in her in –laws home in an extended family. Marriage was arranged by parents and elder male members of the family. Everything was fixed, so she abided by their views.

 Husband: Vinod Rasal close cousin (from maternal side) is her husband who is 27 years old, 12th pass and working in a company . He also belongs to Bhosari and earns Rs 6000-7000/month.

Present Family Background : She stays with her younger Brother in law (24) , his wife (20) her two children (3 year old daughter) 2 year old daughter and 9 months baby girl and her son (4 year old). Both ladies are Home maker .

Financial Income of family: Total family income is Rs 15,000/- per month . They hold BPL ration card, when I visited the house it was full of kids . Kids pulling each other, playing, crying , shouting both women frequently shouting to silence the kids. The house was a total mess. Even neighbours children were playing in this chaos. The house had 2-3 packets of supplementary food for lactating mother and 2 packets for their 2 children who were weak & undernourished. All supplementary food are provided by Anganwadi.

Pregnancy

Suvarna started her ANC checkup from third month at Jijamata PCMC Hospital lab test and sonography. Height 5.2 wt 48 kg (presently). Regular food habits were maintained as she never found time to eat more and at frequent interval. She gained weight time of 4+ and was 53 kg at the delivery.

Sonography Reports

18/3/2012

LMF: 3/12/2012   F/V at 13 weeks

22/8/2013

A single live intrauterine foetus seen in vertex. Foetal murmur = present Foetal movement = present

Amniotic Fluid = less   Oligohydromnia   Placenta = posterior

Growth parameter

B.P.D	82.6 mm	33	co	5d
HC	30.2 mm	33	co	1d
AC	275 mm	33	co	5d
FL	63.7 mm	32	co	d

Foetal Maturity = 32 co 6 day

Foetal wt   = 1953gm

LMF=30/12/12   EDD = 6/10/13

USG 4/9/2013   Refferal to Jijamata

LMF : 30/12/2012   Gestational Age : 35.3

A single non viable foetus seen in cephalic presentation. Liquid volume is less than adequate suggesting severe oligohydromnios. No retroplacental clot. Fetal cardiac activity is absent. Mild Spaulding ring cover riding of skull bones is seen (at this stage)

Fetal abdomen revels interfaces (air in bowel) Mild hydrops fetal is noted .

	Cms	Weeks of gestation
Biparital dia	9.2	37.3

Head circumference	32.1	36.1
Abdominal Circumference	29.4	33.2
Femur Length	6.6	33.6
USG averaged gestational age		35.2

FETAL DEMISE

IUD delivered by Dr Rajesh : Male child born on 4/9/2013 10.30 pm wt 2.250 kg

She was admitted on 4/9/2013 discharged on 6/9/2013

Diagnosis IUD delivered on 4/9/13

Hb: 11.00   TLC: 8530   PBD : 2.57 lakhs   HIV : negative

Interpretation by subject: She narrated all her ordeal. During her check up in the 8th month she was told the foetus is ok, all parameters are ok except the amniotic fluid is less. We went home peacefully. In the last checkup on 3 rd September 2013 they said the fluid is less and asked to come with sonography for which she was sent outside. The radiologist told on 4th September there is something wrong you go to hospital immediately. When they reached Jijamata Hospital the doctor again told the fluid is less and YCMH. Later they told the baby could not survive. S*he was complaining if they were aware the fluid is less they could have done caesura and saved her child. we could have paid or we could have even gone to private hospital. They didnot disclose the gravity of the problem. Next time I will go to private hospital only.*

She was very depressed by the loss and even though she is trying to forget the incident of the nine months baby girl opens the wound. She will wait for another 6 months and probably conceive and later undergo family planning operation. Life revolves around in this cultural practice. Mother in law was scolding saying she should have taken very good care of herself. Husband is supportive and cooperative. She has no aspiration in life but wants her children   get educated and earn money. She didnot take rest after delivery and domestic liabilities and more to fulfil.

CASE : 9

FAMILY PLANNING ISSUES

This woman I came across accidently while having a discussion at Gandhinagar slum. Case A-9 Khan (28) year old and 7 month (22 weeks) pregnant women with beautiful eyes and tired physique came with her three children . I wondered how can women so smart in communication and looks engrossed in such domestic burden.

She has a 6 year old daughter who is a great help to her and goes to nearby school, second daughter 4 years old going to anganwadi , and her third child 2 year old is boy naughty and difficult to manage single handily.

Her Family background: She is born and brought in Gandhinagar slum and just in the neighbourhood . Her parents are Telugu migrated from Gulbarga. They have 2 son and 2 daughters. There some relatives are from Sholapur. Her one brother & family is settled at Bangalore, Another brother & family are with parents. He is into scrap business and also an alcoholic. Her relation with her father is very strainful due to her marriage.

She was married at 18 to a boy from Sholapur, a distant cousin. After marriage she came to know that he was not normal and always runs from relationship. She stayed three months but hardly saw her first husband. One day she left him and came home at Gandhinagar. She stayed at her parent's home. Her father used to work in Sintering job and his colleague used to come home frequently .He Gradually got closer to her who was 21 and he was 30 years old at that time. He was a Muslim and belonged to District Siddharthpur in Uttar Pradesh. Her parents objected her marriage, so they eloped to Delhi as he had some old colleagues and got married at Delhi.   After some

months they came back, started living in Gandhinagar. All her relatives except her father accepted the matrimony. He still doesnot speak to her.

Her family life is now fulfilling the needs of her husband and children. He is earning around Rs 10000 per month. And they are having a two room house in the first floor. The staircase is risky for her children as it is very narrow. Her relation with her husband was good earlier but gradually it is deteriorating. She only speak to him whenever needed. She narrated , " He is only interested in Sex and food ".

When enquired why she didnot think of Small family? She wanted to do Family Planning operation after the third child. She was taken to OT YCMH but due to severe Anemia and hypertension her surgery couldnot be conducted. She was advised by the doctor to come after one month after good food and medication. She thought she will go this month, next month & so on .... till that time she again got pregnant. She said, " Yeh sub mere hath main nahee hai". Now she has decided whatever happens she will get the operation done.

She is 5.3 and 53 kg weight . She is very tired as no one is there to look after her children, washing cleaning and cooking. She is extremely stressed and tired. Her Hb is 10 now after medication. All her delivery was normal and only once she had haemorrhage and given 1 bottle of blood (blood transfusion) was given. She has studied upto 11th class and couldnot complete her education. *She has no control over her body and life .*

CASE : 10

Case A-10 Phakir is a 18 year old adolescent (records 19 yrs) who has gone through an ordeal of Child Birth delivering a baby boy on 9th August 2014 at Burute hospital Bhosari . She was a resident of Bhosari , presently married and staying with her in-laws at Sholapur . She came to her maternal home for delivery and has been residing since 5 months.

Educational Qualification: She Studied upto 12th but could not complete her studies due to parental pressure. She was not interested in marriage and it was reflected in all her marriage album. Her makeup washed away in her tears. There was kajal all under her eyes .She strongly refused to marry. She was excellent in studies. She scored 88% in state board and completed her 12th during pregnancy in commerce with flying colours (76%) without attending college. She wanted to pursue her study in mathematics and wanted to be a teacher. All ambition was shattered by her dominant father and culture.

Parental Background: Shakira is the youngest sibling. She has an elder brother who is 20 yrs old, completed BBA and looking for job. He is unmarried. Her father is a driver and owns a zeep with an income of around Rs7000/- & mother works as a domestic help at various houses and earns around Rs 3000/-.. They are presently staying in own house ,furnished and beautiful. All her relatives from maternal side is residing nearby & collects garbage from colonies.

Marriage : She got married in the year 2013 .She was 17 years old . She was born and brought up at Bhosari Chawl . She is staying in her in –laws home in a joint family. Marriage was arranged by parents and elder male members of the family. Everything was fixed, so she abided by their views. Reason for early marriage by her father was as both the parents are working it is not safe to leave a beautiful, fair girl at home without elder's supervision.

Husband: She is married to Phakir, a close relative from her father's lineage. He is her father's sisters son 20 years old, 11th pass and assisting his father to run a small hotel at Sholapur .He was born and brought up in Sholapur earning jointly 15000-20000/month.

Present Family Background: She stays with her husband, father in law (55 yrs),Mother in law (46 yrs) ,unmarried sister in law (29 yrs) very obese . All the three ladies are Home makers.

Pregnancy

She started her ANC checkup from third month at Sholapur Govt hospital. She moved to Bhosari (mothers home) in 7th month. During 9th month she weighed 70 kg height 4,8" . She took TT. Iron & folic acid and 4 ANC checkup .Regular food habits with regular intake of non vegetarian food was taken . Special Godhbharai function was held in 7th month & exchange of eatables.

Sonography Reports showed no anomalies. She delivered by caesarean section on 9th August 2014 .The last report is as follows:-

2/8/2014

LMF :5/11/2013   EDD = 12/8/2014 Fetal age LMP =38 wks 4 days

A single live intrauterine gestation is seen .Presulates =Cephalic Placenta fundo body anterior Grade II Cephalic Length = 4.20 cm Internal =closed FHR = Shows normal activity & movement -141bpm

Liquid adequate = AFI   10.5

Growth parameter

B.P.D   36 weeks   3d
HC   32.81mm
AC   33.18 cm
FL   7.78 cm

Fetal Skull appeared normal, four chamber beat views appear normal. Fetal lungs, stomach & kidneys appear normal .No obvious anomalies seen . Triple vessel cord is seen .No evidence of cord around the neck .

Impression : single live intrauterine foetus

Pregnancy corresponds to 38 weeks 0 day

FDD by USG 16.08.2014 Foetal Wt : 3278gm

Hb : 10.8   HIV : negative

Interpretation by subject :

 She narrated all her ANC journey. During her check up in the 9th month she was told the foetus is ok , all parameters are ok .She need to wait and peacefully. In the last checkup on 2nd August 2014 they said all the parameters are ok in sonography. On 8th evening fluid started to come out, hence they enquired with the nurse should she be brought to hospital immediately?. She said to wait and observe. In the mean time the fluid continued to flow. The next morning when they reached hospital, the doctor said it is too late. LCS should be done. The irony is they have not been given discharge card till date.Lack of emergency response, Illiteracy and distance of the hospital lead to caesarean section.

Today at 18, she is a mother of a baby boy. Unfortunately her ambition to become a teacher is still a distant dream which she may or may not fulfil. Her mother wishes her to study in commerce, as it can be given externally. Muslim orthodox culture and fundamental nature of male members have   written her destiny. ....

CASE :11

Case A-11 Bhandekar is 18 year old, married adolescent lactating mother. At this tender age she is the mother of 2 children (2 yrs 2 months and a 1 month baby).

Educational Qualification: She Studied up to 7th grade in PCMC School. She was not interested in studies as she failed and was ashamed to sit in the same class. Her father said that if she is not interested in studies then why to continue her studies?

Marriage: She started dating a boy from neighbourhood. She was 13 and boy 15. Both were madly in love. She belonged to Vadari community and boy Buddhist. Romance bloomed and both eloped to Hyderabad where they were married at very tender age of 16 and boy 18. After some time they returned back as their money finished.

Parental Background : During the study, when I visited the house two sisters both lactating mothers ,one (Radha) who came from Jejuri for delivery and another sister (the respondent-) came from same slum Ghandhinagar for delivery . The apathy ---- A big 2 room (rectangular) shape 20 x 10 shabby all around . The house was full of people. Father , Mother , A elder brother ,his wife & 2 kids , 2 unmarried sisters , dadi (father's mother old 80 year)

Husband: Bhandekar (24) 8th pass and is working in a company earning Rs 8000/- . They were married on 20th March 2011, when he was 18. Both of them were resident of Ghandhinagar slum .

Present Family Background: Now they are staying with his parents .In her in-laws house she stays with Bhandekar (Father- -in law – 50 years old) illiterate and working for a salary of Rs.5000/month Bhandekar (Mother in Law -45 yrs) and illiterate . Her Nanad (sister in law) is 21 who a student.

Pregnancy

- She conceived immediately at 16 yrs and delivered a baby girl on 8/1/2012. Complication was she anaemic and suffered from breathlessness. She delivered in the 8th month (pre term) pregnancy . Baby was kept in incubator for 2 days. Baby weight: 2300 gms . Delivery through caesarean session at YCMH . Baby Meera is 2 yrs & 2 months old now but still she is weak. After 22 days again she was admitted with fever.

- The second child Bhandekar born on 5/2/2014. Baby was 3250 gms by caesarean session at YCMH . She delivered the second child when she was 19 years .Baby is 1 month old. I found him rapped in cotton cloth tightly in summer with tinned roof .The room was so it was very hot. Breast feeding was not done after half hour, now feeds regularly.

- Regular checkups were done after 7th month with 2-3 ANC checkups. She didnot adopt special dietary habits during pregnancy. Today she eats rice with some vegetables. Poverty looks very rampant in the family. (Her sister a lactating mother was taking meals Rice + small quantity of vegetable + i piece of raw mango) .

She has heard about family planning methods but do not have any plan to use it.

She said, "If we had known about spacing method then we would have waited for atleast 3-4 years". Now she feels she should have studied, she could have a better life.

Interpretation:

Sonali is very beautiful, fair and coming from poor family compared to in- laws. Slum is very unsafe place of girls.

CASE: 12

Case A -12 Dhande (20) is a lactating mother. She became pregnant 4 times with 2 alive children and 2 deaths. She stays in Shantinagar with her family.

Educational Qualification: She Studied up to 7th grade in PCMC School. She left her school because of lack of transportation facility .Her parents migrated from Konkan and belong to Vadari community.

Parental Background : She belonged to economically poor family, 4 siblings with the respondent in the third line. As both the parents were construction labourers, no

one stayed at home, so all girls were married early .They are also the resident of same slum.

Marriage: Nanda is married to Dhande (26) from Shirgonda Kokan gaon. They married in the year 2008 at 14 and 19 years. She was married immediately after her first menarche. He is a near relative in her maternal side (Uncle's son). They belong to the nearby village. They are all very poor, so out of the poverty they were all married very young. She and her husband are the only earning member with a total monthly average income of Rs 10,000-11,000 only . All the family decisions are made by her husband, father & mother.

Pregnancy

Both of them were unaware of family planning methods or a clear concept of marriage as they were under age

Early conception is the outcome of early marriage.

- She conceived immediately at 15 yrs and delivered a baby girl named Kajal who is today 5 yrs old. It was normal delivery at home. It was a home delivery assisted by her mother.
- Second child was born when she was 16 years and 8 months . It was a baby boy who died after 2 months suffering from congenital heart disease. (infant death) (Wt 2725 gms)
- The third chiLd was born at 17.11 and survived only for 2 days. The baby girl died at hospital Complication was it was a premature baby delivered at 8th month . (neonatal death) (wt 2100 gms) cause of death not known.
- The fourth child   Soham was born when she was 19 .8 The wt of the baby was 2750 gms . Today the baby is 1 yrs & 2 months . In this pregnancy everyone including her inlaws and parents took great care of her.
- Regular checkups were done after 4th month (2-3 ANC checkups). Dietary habits show she did not eat regularly, no special care was taken for diet as no one told her to do so..

She is least bothered about her fertility status. Today she is suffering from anaemia; constant body ache, frequent giddiness and she do not want any more issues. Still she has not undergone FP surgery or is using any spacing methods. She & her husband do not have awareness and concept of good quality of life. It is not very big issue to be discussed 'we are suffering from any disease'. The reports shows heamogram is 6.6gms. *Cultural practices are very strong, marriage to conceiving is decided by family not individual.*

CASE: 13

Case-A -13 Pawar (21) is a married adolescent and a lactating mother. At the tender age of 17 she was married and she had 2 pregnancies, one live child & one neonatal death. She studied upto 10th class. She belongs to Lamani community. She is staying with her husband in Shantinagar slum.

 Educational Qualification: She Studied up to 10th grade in rural school .She migrated from Bijapur Karnataka. She left her school because of marriage .Her parent didnot want to continue her studies as they felt a right match is more difficult to get if the girl is very educated.

Parental Background   : She belonged to economically poor family, non irrigated land and three siblings. Parents work as contract workers .

 Marriage: She is married to Pawar (35) from Karnataka. They married in the year 8th April 2010 at 17 and 22 year. She was married immediately after matriculation He is her ataya's son (father's sister's son paternal side). They belong to the nearby village. All the elder male members arranged her marriage. Her father -In –law (55)

stays with then and works as contract labourer earning Rs 5000/- and her husband earns around Rs 6000/- as Mason. Marriage was fixed by her father.

Pregnancy

She had her menarche at 13. She suffered from dysmennorea for 2 years for which she took aurvedic medicine.

- She conceived immediately at 17 yrs and delivered a baby boy. It was a preterm pregnancy in the 8th month. The baby weighed 2.5 kg .She had fits during the delivery. The baby was alive for 3 days and died of multiple organ failure (that is what the octor said). The delivery took place in Karnataka. During the period the baby was hospitalised
- Second child was born when she was 20 . It is a baby girl. Due to one death special care was taken and ANC checkup was taken at private hospital. It was a normal delivery. Complication was anaemia and weakness. For three to four months, bed rest was taken. Baby is healthy (Wt 2700 gms) and is 10 days old.
- Regular checkups were done after 1st month only with 5-6 ANC checkups. She took balanced diet, plenty of rest and care and support from the family.

She is aware of contraceptives and family planning techniques. But preference of male child is present in the family. All are interested to have a baby boy including herself. 'It is everyone's need, so there is nothing new. 'All domestic affairs are taken by her husband and herself. She wants to educate her daughter and teach her to stand on her leg'.

CASE :14

Case –A 14 Yadhav is a 20 year old primi gravid women , who delivered a baby girl at home (Home Delivery) even though she was undergoing regular health checkup at Bhosari PCMC hospital till 9th month. She is a resident of Khandobamal and staying with husband. She migrated from Jharkhand and living in Bhosari since 2 yrs.

Educational Qualification: She failed in class 10th, so she dropped out of school and engaged in domestic chorus .She comes from a big joint family of 15 members, she has an elder brother who is married and staying with her parents, elder sister married & residing in the neighbouring village, herself & a younger brother.

Parental Background: Her parents are farmers and poor. They have 5 bhigga zameen which is unproductive. Most of the villagers either migrate to Pune or to Delhi.

 Marriage: Sangeeta got married in the year 2012 when18 years old. Her husband migrated from (Ner village) of Jahanabad district, which is also the her home town. He migrated to Pune in 2008 for work.

Husband: Her husband's name is Jadhav 29 yrs old and studied unto 12th. He is a AC mechanic working with a firm and earns Rs 8000 /- Marriage was arranged by their parents .He saw the girl only after marriage. When enquired why she married at 18 to a man so older to him? She said, "The deformity in her eyesight". Her eye is affected by early cataract which could not be treated and is gradually affecting her second eye. All this compelled her to keep her opinion to herself. All her in-laws and relative stay at Ner village except her sister-in-law 30 yr old who migrated earlier to

Present Family Background: She stays with her husband, and 5 month baby girl. All her in-laws and relative stay at Ner village except her sister-in-law 30 yr old and her husband staying nearby by. They all basically are farmers migrated in search of work in turn money.

Pregnancy

She got pregnant after some time .Marriage means procreation which is understood by everyone .She started her ANC treatment from 4th month onwards .She took regular

iron tablets, vitamin & other medicines given from Bhosari PCMC Hospital . Height 5.1 & wt 50 kg .

ANC Checkups

23/6/2014   wt 51kg   Hb   9.9
2/7/2014   wt 53 kg   Hb   10.1   B.P   101/58
/8/2014   wt 50 kg
6/8/2014   wt 52 kg   105/66
19/8/2014   wt 51.3 kg Hb 9.0   UA   nil   U/15   ------------15
3/9/2014   wt 52   kg
19/9/2014   wt 51.8 kg

28/ 9/2014   51.8 kg   In the morning she was asked to take sonography & come get admitted on Monday . As it was a Saturday, she was sent home. Sonogaphy Reports showed no anomalies. Yet she so she was went home   due to the unavailability of doctors on Sunday.

Hb : 9 gm

Pt delivered vaginally on 28/9/2014 wt 2.400 kg

HIV -----NR

Prim C H NAD   BP =110/70   P/A = soft   PV   No bleeding

How /who did the home delivery

As it was emergency on Saturday, all the neighbours came forward together three neighbouring women, helped to deliver .All women never delivered any baby before) and help the women in distress. They kept hot water, new blade and some thread ready for delivery. The delivery process went for 2 hours including cleaning of the baby. The next day they consulted the doctor for detail checkups.

She was delivered by normal home delivery due to the unavailability. The last report is as follows:-

28/7/2014   Age : 20 yrs

A single live,cardic activity well cephalic presentation & longitudinal lie at present scan.

Fetal Skull, spine appears normal.

Fetal Stomach, bladder & kidney normal.

Liquor is adequate

Placenta –fundo anterior & shows Grade II & III maturity

Internal o2 –closed cervical length -4.0

 Growth parameter

B.P.D   71   mm   28   3d
                      wks
HC   26.1 mm 28   O days
                      wks
AC   242mm   29
                      wks   1days
FL   5.4 mm   29
                      wks 4 days
HR   Normal
                      142 bpm

Average age   : 29 wks   O days   14 days
 Fetal wt   1238 gm /i   180 gms
LMP   26/12/2013
Gestational Age by LMP   = 30wks   4 days

EDD by LMP = 2/10/2014
EDD by USG = 13/10/2014
Single live Intrauterine , pregnancy of average maturity
29 wks 0 days
Fetal internal growth is good
Remarks
Post delivery admission for neonatal care & postnatal care. Baby Shradda is well ,taken immunisation & health advice.
Mother
Mother wants her baby to study & get a better status than her. Education is the key to progress. She is in opinion to have small family of two children because in this increasing inflation one cannot afford to have more children. But she also want a baby boy . She comes from a poor family and married to a poor man .They donot have even cooking gas, as they donot own a ration card .She stays in 12 x 10 room , and compelled to cook in stove with kerosene . When I went to interview, her quota of kerosene was finished. She was cooking in Diesel in this small room with no ventilation.*She is happy and contented with what she has as nothing more can happen to improve her situation.*

CASE: 15
Case A-15 - 16 year old adolescent (records 18 yrs) who has gone through an ordeal of Child Birth delivering a baby girl PCMC hospital Akurdi . She was a resident of Vidyanagar slum, presently married and staying with her in-laws at Hadapsar. She came to her maternal home for delivery and has been residing since 4 months.
Educational Qualification: She Studied upto 9th but could not complete her studies due to parental pressure and marriage . She was not interested in marriage but her parents forced her to marry as a suitable match came.
Parental Background: Her parents migrated from Gulbarga, Karnataka 35 years back. She is the youngest of the 4 siblings.
Marriage: Case 15 got married on 1/7/2012 at 14. She was married before she attained menarche. She was born and brought up at Vidyanagar slum. She is extremely beautiful, fair and humble. Nisha is married to her uncle from Akkalkot. Marriage was fixed by the elders and then informed to her.
(During the case study, she was very reluctant to give the details. After some preliminary information was taken rest information was given by her sister-in-law who narrated the whole story.)
Husband: She is married to Thombare 25 year's old and 12th pass. He working in Police department .He earns more than Rs 10,000/-(approx)
Present Family Background: She stays with her husband, father- in- law (59 yrs), Mother- in- law (53 yrs) ,cousin brother (22 yrs) very obese . Father-in-law and cousin brother are doing business and earns more than Rs12000/- .
Pregnancy
She started her ANC checkup from second month at Private Hospital. She moved to Vidyanagar (mothers home) in 7th month. She took TT. Iron & folic acid and 4 ANC checkup Regular food was not taken as she had vomiting and uneasiness. Special Godhbharai function was held in 7th month & exchange of eatables.
At the tender age of 16 is the mother of a 2 month old baby girl. The baby weighed 2900 gms and delivery was normal. Before the delivery, she was admitted once (8 months 6 days) at hospital for weakness and stomach pain. She is 50 kg and 5.2 heights. She fed her baby within half an hour after delivery. She follows the instruction of her elders. She will stay at her mother's home for another 3 months. All

the decision regarding family, male child and her future is in the hand of her husband. She said "kon mala vicharnar, majjha navra sagnar kay karache ahe."

KEY INFORMANT
40+ Married Women and Senior
Perception and Attitude on early marriage and adolescent pregnancy and cultural health practices

Key Informant Case B-1 Shaikh is a 55 year mother –in –law residing in Gandhinagar slum. She has studied upto 6th class and married when she was 14 years old. She is a house wife and shares her work with her daughter-in –law. She has 2 sons and 2 daughters, all married off.
Perception and attitude:
In Muslim community girls and boys are married at very early age but she believes they should be married at legal age only 18 for girls and 21 for boys.
She said, "Kami vayath lagna kele ki javabdari yogya padathinee karu sakathnahi". For every decision she relies on someone who is not good for her health and overall development. She always prefers to select a suitor form same place or same native place or relative.
It is ideal to have 2 children only. 'My children have 1 or 2 children only'. Son is a preference for all community as dynasty of the family should go on. She wouldn't advice to use any spacing method but they can do operation after two children. Conception is a topic which is addressed commonly to the girl. "Kuch Kush khabar hai kya?" She is the decision maker of all domestic and welfare of their son, daughter –in-law and grand children.
Education is important but so is all the other responsibilities like work, domestic work, looking after children. She donot want her daughter in law to work.
Cultural Practices:
7th month of delivery: Ootibharan (cultural practice done at husbands relative). Pregnant woman wears new dresses, ornaments and she is gifted with all auspicious things, eatables. Elder women, relative and neighboring women participate followed by food or snacks.
After delivery care: Soonth (dry ginger) ,Jeera ,Kaju ,Badam is powdered and mixed in milk and given to the mother (For proper milk nursing the baby)
Dingka ladoo : All dry fruits, Dingka, Methi is mixed to make ladoo (It prevents the women from body pain, backache and keeps healthy)
Naming Ceremony: After 6 months Naming ceremony is performed either in the parents or husbands house.
Oil massage: Oil massage is given to the baby by senior women/dai/mother/mother-in-law (While massage special care is taken for head ,banbi ,ears and nose. They believe a good massager can make the body supple, healthy and makes the body curves prominent.
Mother is given massage for month with oil (coconut or mustard oil) by senior person /dai /relative etc.

Key Informant B-2 Ganage is a 55 year mother –in –law residing in Kalewadi slum. She has studied upto 6th class and married when she was 16 years old. She is a house wife and shares her home with 6 member family. She is engaged in domestic work assisting her daughter-in –law as well as looking after grant children. She has 2

sons and 2 daughters, 3 married and 1 boy is yet to marry. She belongs to Chamar caste (ST) .

Perception and attitude:

Girls and boys should be married at 18 and 21 years of age . She said, " Laukar Lagna Kele tari bal neet hotat nahi ani Mulgi chi poorna vadh zaleli naste (Sharirache)".

She will prefer a boy from neighboring area and of same community only.

It is ideal to have 2 children only. But for the family's prosperity, 'VANSH', 'Mahataranche Katti Manun'   (protection during old age) son is very much needed. 'All the family decision is taken by me, my husband and son',said Shata Bai. Every one after marriage asks whether there is any good news. Contraceptive usage is not good for health as with Copper T there is lot of bleeding. So I did not advice my daughter in law to use it .

Education is important but so is all the other responsibilities like work, domestic work,looking after children. She donot want hr daughter in law to work.

Cultural Practices:

5th month : Chor –Choli program

7th month of Pregnancy : Dohle Jevan (cultural practice done at husbands relative) . Pregnant woman wears new dresses, ornaments and she is gifted with all auspicious things, eatables. The number of women who give gifts mainly are in odd numbers (7 or 9 or more). Others participate in the function followed by lunch . Date and time is fixed in consultation with the pandit.

Dingka ladoo : All dry fruits, Dingka, Methi is mixed to make ladoo (It prevents the women from body pain, backache and healthy)

Naming Ceremony: After---- months Naming ceremony is performed either in the parents or husbands house.   The 5th month and 1st birthday (Barse) is celebrated.

Oil massage: Oil massage is given to the baby for 6 months to 1 year by senior women/dai/mother/mother-in-law (While massage special care is taken for head ,banbi ,ears an nose. They believe a good massager can make the bone's hard and body supple. Upto 45 days they give smoke of 'SHEEPACHE DHUR'.

Mother is also given massage for 45 days with oil (coconut or mustard oil) by senior person /dai /relative etc with 'SHEEPACHE DHUR'. (Both mother and child is given the smoke together) . It is believed the Dhur (smoke) includes all medicated herbs so keeps the mother and child preventing from diseases, healthy and good sound sleep.

Key Informant B-3 Shinde   is a 52 year mother –in –law residing in Vidya Nagar slum . She has studied upto 8th class and married when she was 16 years old. She is a house wife and shares her home with 6 member family. She is working as Madatnis in Anganwadi as well as looks after grant children. She has one son and three elder daughters, of which 3 are married and 1 girl is yet to marry. She belongs to Buddhist Community (OBC) & Hindu Religion.

Perception and attitude:

Girls and boys should be married at 18 and 21 years of age . She said, " Laukar Lagna Kele Khub Samasya Mulila Hoto" .

She married off all her girls after 18 only and she preferred boys from the same area ,so it is easy to find the background of the boy and their family.

It is ideal to have 2 children only.But every one especially my in laws family and husband wanted to have son so I have a big family. Sons are very important in family because, 'Mahatarpani Katthi manun Mulga Pahije ani vay zale nantar kaun

sambalnar'. Conception after marriage is very important in girl's new family. Every one enquires about it. Operation can be done after 2 children.

Education is important but it depends upon the family and their financial situation. Now a days the cost of Marriage is very costly , so the parents have to bear the expenses of studies an marriage,so early marriages still occur. Family affairs are looked after by my husband.

Cultural Practices:

5th month : Chor –Choli program

7th month of Pregnancy: Dohle Jevan (cultural practice done at husbands relative) . Pregnant woman wears new dresses, ornaments and she is gifted with all auspicious things, eatables. They display all the eatables like during the Gauri Pooja. The number of women who give gifts mainly are in odd numbers (7 or 9 or more). Others participate in the function followed by lunch. Date and time is fixed in consultation with the pandit.

Dingka ladoo: All dry fruits, Dingka, Methi is mixed to make ladoo (It prevents the women from body pain, backache and healthy)

Food: Only hot food is given. Food includes Ghee, Jaggery, Loni are included in the diet. Milk also is given so the baby will also get ample of milk for nursing.

Naming Ceremony: After---- months Naming ceremony is performed either in the parents or husbands house.   The 5th month and 1st birthday (Barse) is celebrated.

Oil massage: Oil massage is given to the baby for 6 months to 1 year by senior women/dai/mother/mother-in-law (While massage special care is taken for head, banbi, ears an nose. They believe a good massager can make the bones hard and body supple. Mother is also given massage for 45 days with oil (coconut or mustard oil) by senior person /dai /relative etc with 'SHEEPACHE DHUR'. (Both mother and child is given the smoke together). It is believed the Dhur (smoke) includes all medicated herbs so keeps the mother and child preventing from diseases, healthy and good sound sleep.

Key informant B-4 Patil   is a 45 year mother residing in Pimpri slum. She studied upto 10th class and married when she was 18 years old. She is a house wife and shares her home with 4 member family. She is engaged in domestic work. She has 2 daughters of which one is married. She belongs to Kunabi caste & Hindu Religion .

Perception and attitude:

Girls and boys should be married at 18 and 21 years of age . She said, " Samazdar kami asthat ani Alpabuddhi asthat."

She will prefer a boy from anywhere but he should be educated and have good work.

It is ideal to have 2 children. But for the family's prosperity, 'VANSH', 'Mahataranche Katti Manun'   (protection during old age) son is needed. 'We both together take decision regarding the welfare of our daughters'. 'Conception after marriage is the decision of the couple, how can I decide on this issue?' Operation should do after 2 children. Spacing and contraceptive can be used.

Education is important, so I educated both my Girls. She adds, "We what is in store in one's life, it is always good to study."

Cultural Practices:

7th month of Pregnancy: Dohle Jevan (cultural practice done at husbands relative) . Pregnant woman wears new dresses, ornaments and she is gifted with all auspicious things, eatables. The number of women who give gifts mainly are in odd numbers (7 or 9 or more). Others participate in the function followed by lunch. Date and time is fixed in consultation with the pandit.

Diet: Sheera of Wheat flour (a sweet item made with ghee) ,Bajeechi Pej (Bajree's porridge) Dingha ladoo : All dry fruits, Dingha, Methi is mixed to make ladoo (It prevents the women from body pain, backache and healthy)

Dinkha ladoo is given early is the morning after brush with one glass of milk. Then after some time both the mother and child is given massage, Dhur and after feeding both go to sleep.

Naming Ceremony: After-months Naming ceremony is performed either in the parents or husbands house. The 5th month and 1st year birthday (Barse) is celebrated.

Oil massage : Oil massage is given to the baby for 6 months to 1 year by senior women/dai/mother/mother-in-law (While massage special care is taken for head ,banbi ,ears an nose. They believe a good massager can make the bones hard and body supple. Upto 45 days they give smoke of 'SHEEPACHE DHUR'.

Mother is also given massage for 45 days with oil (coconut or mustard oil) by senior person /dai /relative etc with 'SHEEPACHE DHUR'. (Both mother and child is given the smoke together). It is believed the Dhur (smoke) includes all medicated herbs so keeps the mother and child preventing from diseases, healthy and good sound sleep.

Key Informant B-5 Waghere is a 40 year mother in from Pimpri slum. She has studied upto 10th h class and married when she was 19 years old. She is a house wife and shares her home with3 member family. She has only one daughter and yet to marry. She belongs to Bharan caste & is a Hindu.

Perception and attitude:

Girls and boys should be married at 18 and 21 years of age . She said, "Laukar Lagna Kele ki Javabdari kkhub mottha astho aani Thras Hoto" .

She wants to marry her daughter after she finishes her Graduation only and a boy of thir caste, employed and educated.

It is ideal to have 2 children only. 'But I have only one child' . "June lokane Vansha che diva manun Mulka Pahijee" said Rupali. Conception is the decision of the couple not in laws.

Education is important in life .F`amily affairs are looked after by my husband.

Cultural Practices:

5th month : Chor –Choli program

7th month of Pregnancy: Dohle Jevan (cultural practice done at husbands relative). Pregnant woman wears new dresses, ornaments and she is gifted with all auspicious things, eatables. They display all the eatables like during the Gauri Pooja. The number of women who give gifts mainly are in odd numbers (7 or 9 or more). Others participate in the function followed by lunch. Date and time is fixed in consultation with the pandit.

Diet: Dingha ladoo- All dry fruits, Dingha, Methi is mixed to make ladoo (It prevents the women from body pain, backache and healthy) ,Kharik Ladoo, Rava kheer (Samolina sweet item prepared in milk),Piitawani Only hot food is given.

Naming Ceremony : After---- months Naming ceremony is performed either in the parents or husbands house. The 5th month and 1st birthday (Barse) is celebrated.

Oil massage : Oil massage is given to the baby for 6 months to 1 year by senior women/dai/mother/mother-in-law (While massage special care is taken for head ,banbi ,ears an nose. They believe a good massager can make the bone's hard and body supple. Upto 45 days they give smoke of 'SHEEPACHE DHUR'.

Mother is also given massage for 45 days with oil (coconut or mustard oil) by senior person /dai /relative etc with 'SHEEPACHE DHUR'. (Both mother and child is given the smoke together) . It is believed the Dhur (smoke) includes all medicated

herbs so keeps the mother and child preventing from diseases, healthy and good sound sleep.

Key Informant B-6 Khan is a 40 year mother –in –law residing in Gandhinagar slum. She has studied up to 8th class and married, when she was 16 years old. She is a house wife and now shares her work with her daughters. She has one son (youngest) and two daughters of which one is married.

Perception and attitude:

In Muslim community girls and boys are married at very early age but she believes they should be married when they are older (at legal age 18 for girls and 21 for boys). She said, "Shadi Bachpan me kiya to bahut dikatte hoti hai ,Shareer kamjor rahta hai .Today I am f suffering from body pain, heavy bleeding during periods , backache, tension etc". "My husband is the decision maker of the family and my daughters marriage was also fixed by my husband's elder brother's and other members and preferred boy from same community/ native place .If one speaks of ideal family then it is two children . Son is a preference of all communities to carry name of the family. She said she wouldn't advice to her daughter to use any spacing method but they can do operation after two children is a good option .She added "planning immediately after marriage is very difficult because you donot know the family mostly but even if you know the mother-in-law will never discuss this issue to the new bride, so how is it possible. How everyone will react is an important thing? Early Conception is every one's expectation after marriage. 'Education is important but for girls we cannot wait long because in their community every one enquires why she is not married'.

Cultural Practices:

7th month of delivery: Oottibharan (cultural practice done at husbands relative) . Pregnant woman wears new dresses, ornaments and she is gifted with all auspicious things, eatables. All elder woman, relative and neighbours participate followed by food or snacks.

After delivery care: Soonth, Jeera ,Kaju ,Badam is powdered and mixed in milk and given to the mother (For proper milk nursing the baby)

Dingka ladoo: All dry fruits, Dingha, Methi is mixed to make ladoo (It prevents the women from body pain, backache and healthy)

Naming Ceremony: After 6 months, Naming ceremony is performed either in the parents or husbands house.

Oil massage: Oil massage is given to the baby by senior women/dai/mother/mother-in-law (While massage special care is taken for head ,banbi ,ears an nose. Oil is put in the ear ,nabhi ,centre of head .After one month haldi is used for girls to retain good skin colour They believe a good massager can make the body supple, health and all the curves prominent.

Mother is given massage for month with oil (coconut or mustard oil) by senior person /dai /relative etc.

Key Informant B-7 Vagulkar is a 50 year mother –in –law residing in Pimpri slum . She has studied upto 5th class and married when she was 17 years old. She is a house wife and shares her home with 5 member family. She is a house wife as well as looks after grant child. She has 1 son (married). She belongs to Sonar caste & a Hindu .

Perception and attitude:

Girls and boys should be married at 18 and 21 years of age . She said early marriages should be avoided. She married her son after 21 and she preferred girls from the same native place, so that we get feedback from relatives.

It is ideal to have 2 children but it is natural to have preference for male child. It is a natural process because 'to run the lineage and family name & old age . Conception

after marriage is very important, which puts married girls in better position in the family.

Education is important but it depends upon the family and their financial situation. . Family affairs are looked after by my husband and son .

Cultural Practices:

5th month: Chor –Choli program

7th month of Pregnancy : Dohle Jevan (cultural practice done at husbands relative) . Pregnant woman wears new dresses, ornaments and she is gifted with all auspicious things, eatables. They display all the eatables like during the Gauri Pooja. The number of women who give gifts mainly are in odd numbers (7 or 9 or more). Others participate in the function followed by lunch . Date and time is fixed in consultation with the pandit.

Diet : Dingka ladoo- All dry fruits, Dingha, Methi is mixed to make ladoo (It prevents the women from body pain, backache and healthy) Porridge (Madge) made from Hulga is given ,kheer is made putting Ghee, Jaggery and milk . It is belive it increases the milk of nursing mother .

Naming Ceremony   : After---- months Naming ceremony is performed either in the parents or husbands house.   The 5th month and 1st birthday (Barse) is celebrated.

Oil massage : Oil massage is given to the baby for 6 months to 1 year by senior women/dai/mother/mother-in-law (While massage special care is taken for head ,banbi ,ears an nose. They believe a good massager can make the bone's hard and body supple. Upto 45 days they give smoke of 'SHEEPACHE DHUR'.

Mother is also given massage for 45 days with oil (coconut or mustard oil) by senior person /dai /relative etc with 'SHEEPACHE DHUR'. (Both mother and child is given the smoke together) . It is believed the Dhur (smoke) includes all medicated herbs so keeps the mother and child preventing from diseases, healthy and good sound sleep.

Key Informant -8 Mehtre is a 51 year mother –in –law residing in Dalvinagar slum . She has studied upto 8th class and married when she was 17 years old. She is a house wife and shares her home with 5 members . She is engaged in domestic work assisting her daughter-in –law as well as looking after newborn child. She has 2 daughters and 1 son, all married. She belongs to Matang community.

Perception and attitude:

Girls and boys should be married at 18 and 21 years of age. "I married my elder daughter at 17 because she eloped with a boy of different caste". This is a great problem of slum children as they are exposed to TV and different peers, so it is difficult to protect their children.

Marriage is decided by male persons but preference is given to native place. .

It is ideal to have 2 children but if boy is not there then it is required to have more number of children. Male child is related to , 'VANSH', 'Ghar cha diva ' . 'All the family decision is taken by me, my husband and son',said Padma. Every one after marriage asks whether there is any good news. 'So we were also egar to have a grant child'. " I will not allow my daughter –in-law to use contraceptive before".

Education is important for girls because she can teach her children.

Cultural Practices:

5th month: pooja is performed for Sarvai Devi an well fare of pregnant women.

7th month of Pregnancy : Dohle Jevan (cultural practice done at husbands relative) . Pregnant woman wears new dresses, ornaments and she is gifted with all auspicious things, eatables. The number of women who give gifts mainly are in odd numbers (7

or 9 or more). Others participate in the function followed by lunch . Date and time is fixed in consultation with the pandit.

Diet : Dingha ladoo : All dry fruits, Dingha, Methi is mixed to make ladoo (It prevents the women from body pain, backache and healthy) , diet includes milk an bhakri,Peethvadi,Soup of goat legs are given to mother to avoid backpain afterwards.

Naming Ceremony: After---- months Naming ceremony is performed either in the parents or husbands house.   The 5th month and 1st birthday (Barse) is celebrated.

Oil massage: Oil massage is given to the baby for 6 months to 1 year by senior women/dai/mother/mother-in-law. By doing this the baby sleeps peacefully and mothers do not get backache or other body pain. . Upto 45 days they give 'SHEEPACHE DHUR'(smoke).

Mother is also given massage for 45 days with oil (coconut or mustard oil) by senior person /dai /relative etc with 'SHEEPACHE DHUR'. (Both mother and child is given the smoke together) . It is believed the Dhur (smoke) includes all medicated herbs so keeps the mother and child preventing from diseases, healthy and good sound sleep.

Key Informant –B-9 Mehtre is a 60 year mother –in –law residing in Ghandhinagar slum . She is illiterate and married at 15 (approx) years old. She is a house wife and shares her home with 5 members . She is engaged in domestic work. She has 2 daughters and 1 son, all married. She belongs to Matang community.

Perception and attitude:

'Girls and boys should be married at once they grow fully. (Probably 18 and 21 years of age). Girls should be married at older age because otherwise they face lot of health problem. 'Iam facing those problem due to construction work and heavy object lifting my uterus have come out (Anga bahir alle). All this problems these children should not face. Frequent delivery also creates the problem. But at that time there were no one to educate us'.

Marriage is decided by elders but preference suitors are selected from their native place. .

It is ideal to have small family with 2 children. Male child is related to, 'VANSH', 'Gharsambhalanesatti mulga pahije ', 'All the family decision is taken by elders'. She said, "Yes , one should have baby soon after marriage .It is not good to use modern method before in reproductive time".

Education is sufficient for girls because no matter what they have to look after the family.

Cultural Practices:

7th month of Pregnancy: Dohle Jevan (cultural practice done at husbands relative) . Pregnant woman wears new dresses, ornaments and she is gifted with all auspicious things, eatables. The number of women who give gifts mainly are in odd numbers (7 or 9 or more). Others participate in the function followed by lunch. Date and time is fixed in consultation with the pandit.

Diet : Dingka ladoo-: All dry fruits, Dingha, Methi is mixed to make ladoo (It prevents the women from body pain, backache and healthy) , diet includes Rice and Jaggery for mother ,Small quantity of Neem water to be given to mother .

Naming Ceremony: After---- months Naming ceremony is performed either in the parents or husbands house.   The 5th month and 1st birthday (Barse) is celebrated.

Oil massage : Oil massage is given to the baby for 6 months to 1 year by senior women/dai/mother/mother-in-law. By doing this the baby sleeps peacefully and mothers do not get backache or other body pain. . Upto 45 days they give 'SHEEPACHE DHUR'(smoke).

Mother is also given massage for 45 days with oil (coconut or mustard oil) by senior person /dai /relative etc with 'SHEEPACHE DHUR'. (Both mother and child is given the smoke together) . It is believed the Dhur (smoke) includes all medicated herbs so keeps the mother and child preventing from diseases, healthy and good sound sleep.

Lemon leaves are put in water and boiled, that water is used to sponge (Shekayachi) to relieve from body pain.

Key Informant B-10 Sable is a 53 year old mother –in –law residing in Bauh nagar slum. She studied upto 2nd and married at   16 or 17 years   . She is working as Madatnis (Anganwadi) a house wife and shares her home with members . She is blessed with 3 son and all are married. She belongs to Buddhist community and a Hindu.

Perception and attitude:

Girls and boys should be married at the legal age only. Girls if married early they face many health problems. Frequent delivery also weakens the womb and the baby .

Marriage was decided by elders but preference was given to girls residing in the same area.

It is ideal to have small family with 2 children. She feels she is a blessed woman as she has three boys .The reason given were , 'vanshacha diva', 'Gharsambhalanesatti mulga pahije ', 'Parampara chalu rahene sathi','Jemaii che ghari rahne avagad astyhe'.   The family decision is taken by elders' .Conception, is a decision to be taken by the family, spacing before an issue is not good.

Education is important for girls because girls can become self sufficient.

Cultural Practices:

7th month of Pregnancy: Dohle Jevan (cultural practice done at husbands relative) . Pregnant woman wears new dresses, ornaments and she is gifted with all auspicious things, eatables. The number of women who give gifts mainly are in odd numbers (7 or 9 or more). Others participate in the function followed by lunch . Date and time is fixed in consultation with the pandit.

Diet : Dingha ladoo-: All dry fruits, Dingha, Methi is mixed to make ladoo (It prevents the women from body pain, backache and healthy) ,

Naming Ceremony : After---- months Naming ceremony is performed either in the parents or husbands house.   The 5th month and 1st birthday (Barse) is celebrated.

Oil massage : Oil massage is given to the baby for 6 months to 1 year by senior women/dai/mother/mother-in-law. By doing this the baby sleeps peacefully and mothers do not get backache or other body pain.   . Upto 45 days they give 'SHEEPACHE DHUR'(smoke).

Mother is also given massage for 45 days with oil (coconut or mustard oil) by senior person /dai /relative etc with 'SHEEPACHE DHUR'. (Both mother and child is given the smoke together) . It is believed the Dhur (smoke) includes all medicated herbs so keeps the mother and child preventing from diseases, healthy and good sound sleep.

40 + Married Men
PERCEPPTION AND ATTITUDE ON EARLY MARRIAGE AND ADOLECSENT PREGNANCY

Case C-1 Mr .Ubale, a 44 year old man resident of Landewadi Slum. He has studied up to higher Secondary and employed in a company at Bhosari. He is married and has two children .Wife is also a resident to the same slum and qualified and it was an arranged marriage. His parents migrated from Hadapsar for job to Bhosari.

Perception and attitude:

He thinks the ideal age of marriage is 21 for boys and 18 for girls. The legal age of marriage is correct but 'Muli mothi jhali ki bhiti watthe'. Parents are scared they will elope, marry from different caste or from different community. 'Tyamule loke laukar lagna kartaht'. He emphasized the importance of education and said 'Shikshana Mule Manusache Sarvangeen Vikas Hote'. He believes in small family norms and use of contraceptive and tubectomy (family planning). Ideal family requires one boy and girl. He said," Kahi lokane don muli asthat ther, thy mulga satti prayas kartat . 'Tyancheth kahi chuk nahi'. 'Mulege Ghareche diva Ahe' . He understands the significance of modern medicine and believes all the delivery should be done in the hospital. 'Today's woman is not experienced as our elders on antenatal or post natal care if delivery is done at home'.

Case C-2 Karpe is 49 year old man resident of Chikhali Slum and Buddhist. He studied upto 11th and dropped out to help his father. He is presently running a small Pan shop at the Chikhali chowk. He is married and his wife belongs to his native village from Ahmednagar district .His father migrated with his family out of poverty. He has three children (two son and one daughter).

Perception and attitude:

He thinks the ideal age of marriage is 21 for boys and 18 for girls. Legal Marriage age is correct but and he says in rural area there is more prevalence of early marriage but in urban areas schools are nearby so girls and parents prefer to teach at least till 10th . He said, " Me maji mulgila dahavi paranth shikshan denaar ,parathu thila shikshan avadath nahi". "Zopadpatti mulin sathi chakla nasthe thari ami ghari kadak niyam ahe ani thiche bhave pan thicha var laksha thevathath". Marrying early is not good for the boy and girl's health. He prefers to marry his daughter after 18 only.

He emphasized education is important in life .He believes in small family norms but his definition of family means 2 sons and one daughter. He adds 'Kutum lahhan ,Sukh Mahaan'. Small family has better coordination and needs can be fulfilled satisfactorily. He understands significance of modern medicine and believes all the delivery should be done in the institution.

Case C-3 More is 44 year old man resident of Ajanta Nagar Slum and is a Hindu. He is an Arts graduate and working in company at MIDC Bhosari . He is married and his wife belongs to Chinch wad gaon . He is born and brought up in Pune .He has two children (1 son and 1 daughter).

Perception and attitude:

His abides by the legal age of marriage, 21 for boy and 18 for girl. Marriage after legal age is correct as then only the boy and girl will be mature enough to take the burden of marriage. Basti has sometimes different culture because it is very congested and no space for the privacy for older children. In our places as there is no much work you will find all are engaged in watching TV. There is prevalence of early marriage in our area because family has more number of children, poverty, lack of space so they marry an ' Zimmdarei ko kam kardete' (want to reduce the responsibility) .

He emphasized the importance of education and can think about one's development .He believe in small family norms which include one boy and one girl. Boys are very important for the family and Vansha. He adds 'Kutum Niyojan kele thar purush var bhaar padath-nahi' ' lahhan ,Sukh Mahaan'. He relies on allopathic and takes his family to PCMC hospital.

Case C-4 is 49 years old man resident of Chikhali Slum and belongs to OBC community. He studied upto 9th and dropped out from school to work. He is presently working in a shop .He is married and his wife belongs to his native Daund district .His

father migrated with family out of poverty and landlessness. He has four children (1 son and 3 daughters).

Perception and attitude:

He thinks one should marry at older age to control the size of family . He thinks ideal age for marriages is 24 for boys and 21 for the girl.' Now Iam suffering with the same problem which my father faced –more feeding mouth'. 'Now my wife and Iam are stressed and unable to meet the family needs'. I had to marry my daughter at 16. I am aware about the contraceptive and family planning ' Zivan asach asthat, thyachat ammi khai karu sakatnahi'.

 He adds ,"Education is only for economically well off family, my mother is an efficient lady and decides the prenatal, antenatal and post natal care. She took care of all my children and they are all well" . His daughter is now going to hospital for antenatal checkup she is pregnant because the hospitals are closr for registration and followup.

Case C-5 Vaghchaure is 41 year old man ,resident of Chinchwad Slum and belongs to OBC community . He studied upto 10th class and is presently working in a small company .He is married and his wife belongs Pune district .He migrated to his wife's home town from Sholapur for job. He has 2 children (1 son and 1 daughter).

Perception and attitude:

He is of an opinion that to marry at early age because then boys and girls get mature enough to shoulder the burden of family and children. The boys and girls become responsible couple. 'Hee amche gramin bhagamede hoto ,kahi navin nahi aahe'.The age can be 17,18 for girls and 20,21 for boys.'I have married my daughter at 18'.

He said he is aware about the contraceptive methods from TV. His wife has done operation also. He abides by the decision of his parents who visit them frequently. His daughter has a 2 months child and stays in Chinchwad Gaon.

 He said education does not play a significant role in poor man's life. It is costly to educate children and in urban setup and difficult to manage. He stated that his parents and wife were efficient to take care during the delivery of their daughter; still delivery was conducted at Hospital as 'he did not want to take any chance'. PCMC Hospitals are nearby and cost effective, so it is easy to access it .

Case C-6 Shirsat is 45 year old man resident of Bhimnagar Slum and belongs General category Hindu community . He studied upto 2nd class only   and dropped out due to economic constraints .He is a vegetable vender using hand cart. He is married and his wife is from same slum.He has five children (3 boys and 2 girls) .

Perception and attitude:

He thinks one should marry at early age because ,'it is all my parents and family members marry early.He thinks ideal age of marriage will be 19 for boys and 16 for girls. He said,'Economic problem and poverty forces them to take this steps'. He added small family is easier to manage. He said he is not very interested in educating his children because education may be free but lot of things are needed ,who will look after younger sibling and he needed helping hand in his business .He is unaware for family planning methods . All his 4 children were delivered at home by dai and mother . There was no complication but during the fifth delivery only she was taken to hospital.

Case C-7 Sawant is 47 year old man resident of Ajanta Nagar Slum and Buddhist. He studied upto 7th only.. He is a small businessman selling construction material. He is married and his wife belongs to his native village from Daund district .He migrated to Pune for job. He has four children (two sons and two daughters).

Perception and attitude:

He thinks, the ideal age of marriage is 18 for boys and 16 for girls .'Slums and urban places are not very safe for boys as well as for girls'. He is aware of legal age but does not feel any significance. He is interested in medium family structure. He said , " All decision regarding marriage is taken by his father and mother and also about size of the family". He adds, "I considers them as the only well wishers" .He doesnot find any importance of education in his family as there is too much poverty ,so survival itself is very difficult . He feels it is always safe to have institutional delivery but all other care and support can be given by his mother.

Case C-8 Gilani is 43 year old resident of Ajanta Nagar Slum and belongs to Muslim community . He studied upto 2nd class and is presently running a small Snack centre (Vada Pav) .He is married and his wife belongs to Pune district .He is born and brought up at Pimpri and shifted to Ajanta Nagar for job. He has 5 children (2 sons and 3 daughters).

Perception and attitude:

He is of an opinion to marry at early as everyone marry nearly in the same age . "Mer hizab s ladki ka umber 14 aur lade ka 17-18 hona chahiye". 'Maine bhi apne bachoo ki shadi yahi umbre me kyiya'

He said he is aware about the contraceptive methods from TV but " Hamare Muslim me gunah hai". Bacche Allah ki den hai. " Humeh bada parivar ,Kabul Hai".

He said education does not play a significant role in poor man's life. ' Hamare theen bacche ghar mai huye , sabhi delivery meri Mami sas n karaya'.For sickness we go to the hospital and my daughter got her delivery done in the hospital. It is definitely safe and healthy for the baby. We are giving immunization to all our Grand Children.

Case C-9 Pathan is 43 year old man resident of Ajanta Nagar Slum and belongs to Muslim Community . He studied upto 10th. He is running a vegetable business selling vegetable in hand cart. He is married and his wife belongs to his native Sholapur district .His father migrated with family out of poverty. He has four children (two son and two daughters).

Perception and attitude:

He thinks one should marry at younger age especially for girls. Once she attained menarche, parents should search for an appropriate suiter. So he considers 17 would be appropriate for girls and boys around 22 as he has to look after the family. I married my daughter at 15 to our native village

He said education is only for economically well off family. ' Our elders are all very efficient to antenatal care and post natal care so Delivery can be conducted at home or Institution.

Case C-10 Bagban is a 40 year old ,Muslim man resident of Gandhinagar Slum .He belongs to Muslim Community .He is illiterate and sells fruits in hand cart in colonies .His wife belongs to Morvadi slum , working as domestic maid. He is born and brought up at Gandhinagar . He has 6 children (4 sons and 2 daughters).

Perception and attitude:

In Muslim community, girls and boys marry early . It is a common practice in the community. So he thinks the appropriate age to marry a girl is at 14 and for boys 17-19. He is aware of the legal age but he thinks everybody does like that in their community .He has heard of contraceptive method but dosnot use it . It is not advisable in their community .Small family is economically good but 'humko koyee problem nahi atta hai kyo ki hum sab kam karte hai'.

He said all his grand children are studing in PCMC schools as well as his two children. He has already married his two children, all between the age of 16-17 .His

daughters have children . He said delivery can be done at home or hospital if required both depend on the emergency.

Case C-11 Kumbhar is 45 year old man resident of Bhimshakti nagar Slum and belongs SC Hindu community . He studied upto 4th class only .He is a construction labourer and married. His wife is also a construction labourer from Bhimshaktinagar Slum .He has four children (2 boys and 2 girls) .

Perception and attitude:

He thinks one should marry at early age, 'we working parents have to leave their elder children home, which is not very secured and safe'. ' We are scared they will elope or marry some outside caste'.

'I believe girl can be married at 15 and boys at 18-19'. He said he is not very interested in educating his children because education they cannot afford it .He is aware for family planning methods. But his wife has done operation after 4 children. Small family is good but they did not adopt any methods. My mother and wife take decision about family and taking care of children. Delivery should be conducted in the supervision of Nurse or doctor still his mother knows many things about delivery.

Case C-12 Metke is a 44 year old man resident of Bhimshaktinagar Slum and belongs to OBC community. He studied upto 3rd class only and dropped out due to poverty and more number of siblings. He is presently working as Mason with construction group. He is married and his wife belongs to Jadavwadi (Pune) .His father migrated with family out of poverty. He has three children (2 sons and 1 daughter).

Perception and attitude:

He thinks one should marry at younger age as he married at younger age. He thinks ideal age for boys is 18 and 15 for girls. His wife is also working with same construction site, to meet the family needs. ' I married my son at `19 within our community and he has one baby also'. He said , "Kutumb Niyojan Garajeche Aahee" 'Today I feel, I should have married my son after 24-25 because he is burdened by family early like me'.

He said that education is only for economically well off family. He also added they go to the local doctor when ever there is a need, as he is available at night hour also. Only in emergency they go to PCMC hospital or YCMH.

Case C-13 Gaikwad is a 42 year old, resident of Ajanta Nagar Slum. He belongs to Hindu Community and belong to OBC community .He has studied upto 3rd class and works as a mason in construction site .He is married ,wife belongs to same slum and has three children (2 sons and 1 daughter).

Perception and attitude:

He said he was married at young age , but at that time he was unable to resist the arranged marriage. He wants his son to marry after he earns something for himself and support the family. He thinks boys should be married after 21 while girls at 17-18 because of the insecurity at home and Vasti.

He has heard of contraceptive method but did not use it . He said all his grand children are studding in PCMC schools as well as his two children. Delivery should be done at institution in doctor's presence.

Case C-14 Maske is a 44 year old man residing in Vidya nagar slum. He has studied upto 12th class. He is engaged in Painting work. He is OBC and married from the same slum. They both belong to Alandi Pune,district. He has two children (one boy an one girl) . His wife has done operation also.

Perception and attitude:

He said he was married after the completion of his study. He said the ideal age of marriage is 21 for boys and 18 for girls. He wants his son to marry after he completes his graduation an starts earning. He is aware about contraceptive and operation. It is useful to control population and restricting the family size .

He is aware about the importance of education, 'shikshanamule chaan kam bhettahoo". Good job means, good earning and prosperity. All his children are born at hospital and want everyone to follow the same path. It is safe for the mother and child.

Key Informant C-15 Information is given by Joghand , Senior Citizen and Prominent leader of the community .Bhimshaktinagar It is situated in Morewasti, Chikhali and established in 1997.Most of the residents are Maharashtrian and they are engaged into various occupation like Laborer, Company employees, small business   etc.They mostly belong to Hindu, Lamani, Vadari and Muslim community and fall in the category of SC ,ST, OBC,NT,VJNT .

Problems faced by the community pertain to:-
- Lack of basic sanitation facilities (toilets)
- Renovation and maintenance of Infrastructure facilities
- People are unemployed
- Need for a common community hall for conducting functions
- Lack of school in the near vicinity
- Issue of ration card

Marriages are mostly arranged by parents and elders, love marriages and inter community marriages . Mostly marriages have a practice of Kana dan bride's father gives gifts to the groom's parents. Compared to the nearby marriages in the biggers chawls ,the cost of expenses of marriage is less .Most of the people take loan to meet the expenses of the marriage.

Early marriages are common. In my opinion it is due to the insecurity of girls in slums, both the parents are working and no one at home, school dropouts an economic reasons.

Key informant C-16 anganwadi workers **:** Indiranagar is situated near Double Tree hotel ,besides IBMR ,Near Chinchwad Railway station . Most of the residents are from Maharashtra, Andhra Pradesh and few from Karnataka.They are engaged in Small business, Construction Labour work, Labour work ,Fish business etc.
They mostly belong to Lamani and Vadari community
Problems faced by the community pertain to:-
- Lack of basic sanitation facilities (toilets)
- Unhygenic practices
- Renovation and maintenance of Infrastructure facilities
- People are daily wage earners so donot avail PCMC hospital facilities due to the time constraint.
- Those Boys and girls who are mainly after 7th (as till it is free) and later they have to spent for books ,accessories and fees.
- Girls are made to sit at home to look after younger ones as both parents go for work and remain out of home .
- High rate of alcoholism in the region.
- Eve teasing /conflicts are very common, so some times th keep the girls at home to avoid this confrontation.

Most of the of adolescent girls in the slum pass their time by Taking out lice from hair, Taking care of young ones (younger sibling), watching TV ,Washing and cleaning an Gossiping.

Marriages are mostly arranged by parents /elders or love marriages. Preference is given grooms from same slum or nearby slum or native village (maternal or paternal) or relatives. Love marriages give rises to lot of clash in within family and community. Mostly marriages are simple but lot of expenses are spent on food and drink.

Early marriages are not common. Now days girls are getting educated and more and more boys get dropped out in this slum. Marriage after 18 is more common among girls in Indiranagar. The average population of the area is 4000.
Reason for early marriages is:- Insecurity of girls in slum,No one is at home in day time as both the parents are working ,School dropouts ,Economic reasons
Remark : I myself witnesses a Group Clash at Indiranagar on 22/4/2014-at 12.20 pm Group Clash started as a pregnant women riding with a man was hit by bike belonged to a Vadari boy from Indiranagar. Then the clash turned to inter community clash and no one was bothered about the pregnant women or taking her to hospital.

Health Providers of the community : PRIVATE PRACTIONEER
Case D- 1 Rizwan Qualification: BUMS (Pune University) Experience in the area: Practicing in Gandhinagar slum since 20 years. Common ailment regarding women which he comes across during practice is as follows:-
- Anaemia and weakness
- Body ache ,Stress and weakness
- Respiratory Tract Infection
- Cold & Cough
- Leucorrea (3-4 cases monthly)
- RTI cases (1-2 yearly)
- PID common
- Abortion cases (induced – after marriage as well as before marriage cases) referred to gynaecologist –Talera /YCMH
- TB cases are also rising – with drop out cases also
- Uterus Prolapse cases after 40 + very common due to high fertility rates among them.
- Malnutrition among children also present
- HIV cases are also present referred to NARI as referral card is available with him.

He narrated that there is rampant alcoholism among young boys and men which leads to domestic violence. Cases of minor injury also come to him.
Case D- 2 BAMS Experience in the area: Practicing in Hospital and private clinics near to Chinchwad slum 30 years.
Common ailment regarding women is as follows:
- Anaemia and weakness
- Body ache ,Stress and weakness
- Respiratory Tract Infection
- Cold & Cough

- Leucorrea (3-4 cases monthly)
- UTI cases (3-4 cases monthly)
- Poor Hygiene
- Only turn to hospital when problem becomes severe
- Prevalence of early marriage and early conception
- No concept of delaying first pregnancy like upper middle class family
- Bad Cervix and infection
- Illicit affairs and domestic violence
- Abortion cases (induced – after marriage as well as before marriage cases) referred to gynaecologist –Talera /YCMH
- TB cases are also rising – with drop out cases also
- Uterus Prolapse cases after 40 + very common due to high fertility rates among them.
- HIV cases are also present referred to NARI as referral card is available with him.

Alcoholism is very common which leads to poverty and domestic violence. High rate of fertility 2-3 children very common. Preference for government hospital is very common among the woman and men for delivery as it is cheaper and accessible. Irregularity and dropout is very common due to lack of time due to the nature of job, lack of awareness. They even go to pharmist for local ailment and take pills. Other alternative medicine are taken commonly for arithritis, infertility, stomach problem etc.

Case D-3 Dr.Bhosale BAMS Experience in the area: Practicing in Hospital and private clinics near to Dattanagar and Ramnagar and the industrial /small workshops since one year.

She narrated that 'most common community residing here are Vadari and Lamani. They marry very soon and even get separated also. Official divorce is not their concept but all live adjacent. She found more than ten couples with two wives and having more than five children with them. With the onset of puberty, the girl's movement is restricted. Mostly very few adolescent girls come for counseling or health problem. The age at pregnancy is always hided so as to avail JSY benefits. Follow-up for any ailment is difficult because once they become a little better they donot turn up.

Common ailment regarding women is as follows: -
- Anaemia and weakness
- Body ache ,Stress and weakness
- Cold & Cough
- UTI cases (8-9 cases monthly). They mostly go for work and donot have habit to drink water or take timely food hence they suffer from health problem
- Poor Hygiene- oral and body
- Once ANC is detected they go to municipal hospital .But there also they are not very regular.
- Only turn to hospital when problem becomes severe
- Postnatal complication
- Prevalence of early marriage and early conception
- No concept of delaying first pregnancy like upper middle class family
- Bad Cervix and infection

- Illicit affairs and domestic violence
- Abortion cases (induced – after marriage as well as before marriage cases) referred to gynecologist –Talera /YCMH
- Uterus Prolapse cases after 40 + is very common due to frequent pregnancy

Alcoholism is very common which leads to poverty and domestic violence. High rate of fertility, average 2-3 children is very common. Preference for government hospital is very common among the woman and men for delivery as it is cheaper and accessible. Irregularity and dropout is very common due to lack of time due to the nature of job, lack of awareness. They also migrate to other places in rented houses. Girls drop out more due to marriage while boys due to disinterest towards studies, need additional income in family or being independent. They even go to medical store for local ailment and take pills. Other alternative medicine is taken commonly for arthritis, infertility, stomach problem etc and they follow lot of cultural practices post delivery.

Dr. D-3 BHMS Experience in practicing since 10 years in Bhosari area covering ea Chawls of Bhosari and other urban area. Cases which he come across ranges from skin infection, eye infection, common cold and cough to STI/RTI. TB cases are referred to Talera Hospital.

- Women issues he came across :-
- Anaemia, blood loss , dysmerrogea
- Stress, weakness and fatigue
- Giddiness and hypertension
- Diabetis
- Jaundice
- Headache
- Neckpain, backache shoulder pain is common
- Tooth ache
- Water born other diseases

ANC cases goes to other private socialized maternity homes or Bhosari Muncipal hospital. Women mostly go to government hospital for contraceptive and spacing. Early marriage is there but he feels the tends are decreasing as girls now go to school atleast till 12th or even college.

Anganwadi Sevika and madatnis

"There is lot of changes in the attitude and perception of Vadari and Lamani community regarding adolescent marriages. Most of the girls in **Indiranagar** are school going and parents prefer to marry only after 12th.or graduation. Insecurity of girls and fear of elopement only pushes parents for stringent action. Concept of planning their first pregnancy is only a remote dream. Alcoholism and other intoxicants are very common so it leads to violence and clashes. Tobacco chewing is also present among women also. Contraceptive and spacing is a difficult topic for discussion. Delivery is mostly done at municipal hospitals. Cleanliness of community is a very difficult issue here" **Case D-4 Opinion by Staff of Anganwadi.**

"Community and slum is situated amidst industries and workshop which gives people of **Ramnagar** more opportunity of jobs at home or workshop. Pawar community is well to do and prefer education and early marriage is very rare. One side of Ramnagar

slum has residents from Nepal or other hindi speaking belt. Here due to the presence of Ram mandir many religious activity is conducted. As it is present on road hence it is easily accessible for transportation to hospital and regular immunization drive is conducted in our anganwadi. Alcoholism is common, but no other problem is mentionable". **Case D-5 Opinion by staff of Anganwadi**

"Lot of development is going on in the nearby, new building construction is going on at fast rate. **Milind nagar** People have become progressive. Early marriage is very sporadic. Nutrition and anaemia is common among women. People are responsive to immunization drive and go to hospital for delivery. Many families even go to private hospital due to convenience and paying capacity and better care. Cleanliness is good in the community. There is conflict in the earlier venue so we are running anganwadi in temporary place. The local leaders have given assurance to construct a new anganwadi soon…" **Case D-6 Opinion by staff of Anganwadi**

"Lot of development is going on in the nearby, new building construction is going on at fast rate. Earlier it was also known as sanitary colony as they are mostly engaged in sanitary work in municipality. Early marriage is not very common but elopement and love marriages compel girls parents to marry them early. People prefer municipal hospital commonly but private hospital is preferred in evere cases. Nutrition and anemia is common among women as women hardly take good care of their health. People aware of the government schemes ". **Case D-7** Opinion of the staff of Anganwadi Local Leader : The number of household in the **Bhimnagar slum** is approximately 2000 and the population will be on an average 6000- 7000.

"Dattanagar is situated very close to Ramnagar. Resident are mostly migrants or living since long and belong to various religion and backward community. Vadari and Lamani community reside in one side of Dattanagar while localities mostly on the other side. Early marriage is prevalent. As both parents move out to work so the elder girls either look after their younger sibling or get married. People prefer municipal hospital as well as private hospital due to time factor or for emergency. Women are least bothered about their health. They consider pregnancy as a natural process which everyone go through. There is high drop out of girls and boys from school " **Case D-8 Opinion of the staff of Anganwadi**

Appendix –III   ETHICS CLEARENCE LETTER

LOKMANYA MEDICAL RESEARCH CENTRE
(Ethical Committee)

Dr. G. T. Panase
Chairman
Ethical Committee
Dr. Prakash V. Bhatlawande
M. D. (PSM)
Member Secretary

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Ref. No. : LMRC/EC/ 5 1 2   Date : 24-01-

Ethical Clearance

With reference to the Synopsis and the Interview schedule submitted by Beena Rajan, A PhD research scholar with Tilak Maharashtra Vidyalaya Pune Sociology Department on the topic **'ADOLESCENT PREGNANCY: DETERMINANTS, CAUSES AND CONSEQUENCES: A sociological Perspective** *(With reference to married adolescent residing in urban slums of Pimpri Chinchwad Municipal Corporation (PCMC) in Pune District of Maharashtra)'* on 13th Jan 2014 ,we give the concurrence for the study.

The dissertation work done for the Degree of Doctor of Philosophy and involves   collection of data by face to face interview guided by research tool with prior consent from respondent (lactating mothers) .The respondents are not exposed to any invasive or noninvasive procedure during the study.

Dr. Praksh Bhatlavande
Secretary
Ethics Committee

Dr. Prakash V. Bhatlawande
Member Secretary
Ethical Committee
Lokmanya Medical Research Center

Lokmanya Medical Research Centre,

Chinchwad, Pune - 411033

APPENDIX –IV   RESEARCH TOOLS

TILAK MAHARASHTRA VIDYAPEETH
DEPARTMENT OF SOCIOLOGY, PUNE
INTERVIEW SCHEDULE
ADOLESCENT PREGNANCY: DETERMINANTS, CAUSES AND CONSEQUENCES: A sociological Perspective
(With reference to married adolescent residing in urban slums of Pimpri Chinchwad Municipal Corporation (PCMC) in Pune
District of Maharashtra)

Information given by the respondent will be kept confidential and will be used for PhD research work only

	INTERVIEW DETAILS					
No	Questions	Answers	Skip to	Code box		
1.	Date of first Interview					
2.	Date of final Interview					
3.	Consent status	Consented for interview -- 1				
4.	Language of interview	Hindi ---1 Marathi--2 Other specify-				
5.	Signature of respondent			Signature		

PART-IBACKGROUND INFORMATION RESPONDENT LOCALITY , HOUSEHOLD & PLACE				
6.	Name of vasti	---------------------		
7.	Name of Anganwadi	--------------------		
8.	Household Survey No	--------------------		
9.	PCMC Health Centre	-------------------01		
10.	Nearest Private Clinic	--------------------		
11.	What is your name?	-----------------		
12.	What is your age ?	----------------		
13.	Type of respondent	Lactating mother 01 Other 02		
14.	What is your education?	Primary(upto 4th) 01 Secondary (upto 7th)02 Higher secondary School (upto 10th) 03		

		Upto 11-12th 04		
		Graduate 05		
		Illiterate 06		
		Other specify 97		
15.	What is the relationship with head of family?	Self 01		
		Daughter 02		
		Granddaughter 03		
		Daughter in law 04		
		Sister in law 05		
		Other specify 97		
16.	What is your occupation ?	Labourer 01		
		Construction Labourer 02		
		Domestic worker 03		
		Self Employed 04		
		Hawker 05		
		Vegetable vender 06		
		Home maker 07		
		Other specify 97		
		No answer 99		

	Income			
17.	Your Caste	General 01		
		Schedule Caste 02		
		Schedule tribe 03		
		Other backward comm. 04		
		VGNDT 05		
		Other specify 97		
18.	Your religion	Hindu 01		

		Buddhist 02		
		Christian 03		
		Muslim 04		
		Other specify 97		
19.	State of Migration	Maharashtra—01		
		Karnataka—02		
		Bihar----03		
		Other specify----------		
20.	City/District of migration	Name of district ---------01		
		City -----------------02		
21.	Period of stay in Pune/reason of migration	-----------------yrs		
		Reason -------------------------		
22.	Type of family	Nuclear 01		
		Joint 02		
		Extended 03		

Family Details 23

S.No	Name of the family member	Relation with the respondent	age	sex	Education	occupation	Monthly income

PART -III MARRIAGE & GENDER

24	When Did you get Married ?	Date---------------------------		
25	How old were you at the time of your marriage ?(in complete years)	Age at marriage ---yrs----		
26	Your husband's age at marriage?	Your husband's age-------		
		Donot Know ------ 98		
27	Is your husband your relative?	Yes ----------------01	If yes then what is your relation?	

		No-----------------02		
28	If no ,then what his native place ?			
29	Do you know the legal age of marriage?	Girls----------01 Boys-----------02 Donot know ---99		
30	Who took the decision of your marriage	Father ---01 Elder male members ---02 Mother ---03 Female members –04 Other specify--97		
			Skip if she is illiterate	
31a	Where you Studying when you got married?	Yes----01 No------02		
b	Reason for leaving school /college	Marriage ---01 Distance of School ---02 No transportation facility----03 Parents not interested in study ----04 Elders objected----05 All the above ---06 Other specify--97		
32	Why do you think your parents married you at early age?	Both parents working so it is not safe to keep girls alone-------1 Urban slum is not a safe place for grown up girls----2 Scared that we will elope----3 Economic problem/poverty -----4 Other specify ----------5		
33	Did anyone educate you about	Yes –01	No then skip question	

		Menses /Menstrual Hygiene?	No---02	no 35	
			Donot Know-- 98		
34		If yes who taught you	Teacher--01		
			Friends---03		
			Mother –02		
			Other specify---97		
35		Did anyone educate about sex education?	Yes -----01	Skip question 37 if answer is No	
			No----02		
36		If yes who taught you about sex education?	Teacher--01		
			Friends---03		
			Mother –02		
			Other specify---97		
37		Did your education include family planning methods ?	Yes---01		
			No---02		
			Donot know--98		
38		Did you want to conceive in the first year itself?	Yes--------01		
			Can plan to wait-----02		
			Other specify -----97		
39		Whom would you prefer to have a boy or a girl ?	Male child------01 female child-----02 healthy baby-------03 no preference-----04 other specify------97		
40		Who determines the Sex of the child?	Father----01		
			Mother----02		
			God-------03		
41		How many children (boy/girl) do you want ?	Boys--------------	Mention numbers	
			Girls--------------		
42		How many Children (boy/girl) do you ?	Boys--------------	Mention numbers	
			Girls--------------		
43		Who decides the size of the family?	Mother-in –law---01		
			Father-in-law----02		

		Husband------03
		Herself--------04
		Other reason specify----97		

PART _IV OBSTETRIC HISTORY

44	How old were you when you attained menarche?	Age at menarche -----yrs Donot know --- 98		
45	What was the age of your first pregnancy?	Age at Ist pregnancy -----01 Don't Know--- 98		
46	What test did you undergo for confirmation?	Physical Examination---01 Blood test---------------02 Urine test -----------------03 Ultrasound---------------04 All the above--------------05 None of the above------06		
47	What is your most recent weight and Height?	Wt------- kg--01 Height cm---------------02		

48 DETAIL OF DELIVERY (present baby)

| Name of child | Gender of Child Male-----01 Female ---02 | Age of mother at delivery (Years) | Weight of baby at the time of delivery --------- | Place of delivery

01 – Home

02 – PHC
03 – private hospital
97 – Other (Specify) | Delivery conducted by
01 – Mother
02 – Relative/ neighbor
03 -UTBA
04 – TBA
05 – ANM
06 –Doctor
97 – Other (Specify) | How was the delivery conducted?

Nornal delivery—01
 Caesurae---01 | If the delivery was conducted at home how was the umbical cord cut?

Blade ---01
Knife---02
Stone---03
Scissor---04
Other specify---97
Was it sterilized | Outcome of Delivery
01 – Live birth
02 – Still birth
03 – Miscarriage/ abortion |

						? Yes—01 No----02	

Obstetric history (b)
49 Complications during periods of maternity
Prenatal period

Ordinal no. of pregnancy	Complications faced if any and type of complication	Type of treatment	Who got her treatment	Results of pregnancy

50.Perinatal period

Ordinal no. of childbirth	Complications if any and type of complication	Type of treatment	Who got her treatment	Results

51.Postnatal period

Ordinal no. of childbirth	Complications if any and type of complication	Type of treatment	Who got her treatment	Results

52. Abortion & Infant death

49 Month	week/month		Treatment during this problem	
Abortion				
Neonatal death				
Infant death				
Premature delivery				

PART V: ANTENATAL CARE

53	Have you received any antenatal service/s during pregnancy?	Yes……………..01 No……………02 Don't Know……99		
54	Did you get any antenatal check up during pregnancy?	Yes…………..01 No……… …00 Don't know/ ……99		
55	What are the reasons for not getting antenatal care?	No faith……..01 Timings are inconvenient……02 Have to lose one day's wage to attend ANC…………03	**MULTIPLE RESPONSES POSSIBLE**	

		Mother in law does not feel it important -----04 Other Specify)_____97		
56	If yes from whom did you receive ANC check-up?	(ANM).....01 Medical Officer.........02 Pvt. Doctor..............03 Other Specify)_____97	**MULTIPLE RESPONSES POSSIBLE**	
57	How manytimes did you receive ANCl checkup?	No of ANC Checkup -------		
58	Did you receive tetanus toxoide (TT) injections?	Yes……………..01 No…………………02	Skip 59 if answer is yes	
59	What were the reasons that TT injection was not received?	Unaware of the injection ….01 Place of immunization inconvenient……02 No transportation facility---03 No need was felt ----03 Fear of side reactions……....04 Other (Specify)____97	MULTIPLE RESPONSES POSSIBLE	
60	Did you consume IFA tablets?	Yes……………..01 No………………02	Skip 61 if answer is yes	
61	Why didn't you consume IFA tablets?	Not received………….01 Scared of side effects……………02 Elders did not feel it was required ------------------03 Other (Specify)_____ 97	MULTIPLE RESPONSES POSSIBLE	
62	Did you experience any complications during pregnancy?	Yes………….01 No………… 02	Skip 63 if no	
63	What complications do you experience during pregnancy?	Convulsions………...01 Bleeding…………..02 Swelling of legs…………….03 Lack of blood……………04 Fever…………..05 Gestational diabetes……....…06 High blood pressure……………….07 Wrong position of fetus…………..08 Complications due to twins……….09 Other (Specify) _____	MULTIPLE RESPONSES POSSIBLE	
64	Were you referred to other hospital anytime during Pregnancy?	Yes…………...01 No………………02 No need ------------03	Attempt 66 question if answer is NO	
65	What were the reasons for not availing referral services during pregnancy?	Place of referral to far……………01 Doctors are not usually available...02 Economic reasons………….03 Lack of transport…………..04 Husband did not want……………..05 Elders felt no need……………06 Other (Specify)_____ 97	**MULTIPLE RESPONSES POSSIBLE**	
PART – 06 DIET HISTORY				

No.	Question	Responses	Notes	
67	How many meals do you have in a day?			
68	Was there any change in your food habits during pregnancy?	Eating more……………...01 Eating less………………02 No change…………03	**Skip 69 if answer is 01**	
69	What are the reasons for less food intake?	For easy delivery…………..01 Elders advice…………………02 By my Choice ….....03 Nausea and vomiting……………...04 Other (Specify)_____97 Don't know………99	**MULTIPLE RESPONSES POSSIBLE**	
70	Do you consume balance diet during pregnancy/ lactation?	Yes ----01 No------02		
71	Did you restrict your activities during pregnancy ?	Yes -----01 No------02		
72	What are the reasons for restricting physical activities/ daily routine?	On doctor's advice…….………….01 For better health of fetus/baby…...02 To prevent complications…………03 Elders advice………04 Other (Specify)_____97	**MULTIPLE RESPONSES POSSIBLE**	
73	Do you feed your baby ?	Yes ---01 No----02	**If No specify reason**	
74	Did you feed your child within half an hour ?	Yes ---01 No----02		
75	If No the specify the reason			
76	What was given first to taste on your baby s tongue ?			
77	Do you want the second child soon?	Yes ---01 No------02		
78	Do you use any contraceptive?	Yes-------01 No---------02 Other specify -----97		
80	Do you know about spacing method?	Yes ------01 No--------02		
81	If yes name some methods?			
PART -07 HEALTH SEEKING BEHAVIOUR & PRACTICES				
82.	Information regarding general Complaints			
	Weakness	Yes ---01 No -----02		
	Constant Headache	Yes ---01 No -----02		
	Abdominal Pain	Yes---01 No------02		
	Vaginal Discharge/white discharge	Yes----01 No--------02		
	Stress	Yes----01 N0--------02		
83	Other relevant comments			

TILAK MAHARASHTRA VIDYAPEETH
DEPARTMENT OF SOCIOLOGY ,PUNE

Interview guide

Case study of Adolescent/primigravida mothers/ special cases

ADOLESCENT PREGNANCY: DETERMINANTS, CAUSES AND CONSEQUENCES: A sociological Perspective
(With reference to married adolescent residing in urban slums of Pimpri Chinchwad Municipal Corporation (PCMC) in Pune District of Maharashtra)
All the facts will be qualitatively interpreted to substantially support the topic & bring out etiology, health practices and medical plurism of urban slum

Name :

Age:

Marital status:

Physical appearance :

Economic Income/background

Parents Background:

Education and significance of education among girls

Present Status

Marriage age /Marriage Decision &role of elders/Husband/ relative or not/

Environment & Livability

Pregnancy & Treatment

Conception ,contraceptive and decision making

Family/your expectation

Obstetric healthproblems/ General Health problems faced:

Problems of infants and children/health practices :

Present Health Problem

Name of the key person   **Beena Rajan**
                                                              Research Scholar

TILAK MAHARASHTRA VIDYAPEETH
DEPARTMENT OF SOCIOLOGY ,PUNE

Interview guide (Senior Women)

ADOLESCENT PREGNANCY: DETERMINANTS, CAUSES AND CONSEQUENCES: A sociological Perspective
(With reference to married adolescent residing in urban slums of Pimpri Chinchwad Municipal Corporation (PCMC) in Pune District of Maharashtra)
Confidentiality will be maintained and data will be utilised only for research purpose .

All the facts will be qualitatively interpreted to substantially support the topic & bring out etiology, health practices and medical pluralism of urban slum

Name :

Age:

Qualification:

Years of Experience:

Health provider of area:

Education and significance of education among girls

Marriage age and function

Marriage Decision &role of elders

Conception ,contraceptive and decision making

Life of young girls

General Health problems they come across:

Prevalence of Adolescent Marriage:

Problem of adolescent pregnancy:

Problems of infants and children/health practices :

Women health problem/health practices

Prevalence of infectious diseases:

Preference of Allopathic/alternative medicine

Referred cases:

Major issues of slum:

Traditional Health Practices:

Name of the key person   **Beena Rajan**
                                                                              Research Scholar

ADOLESCENT PREGNANCY: DETERMINANTS, CAUSES AND CONSEQUENCES: A sociological Perspective *(With reference to married adolescent residing in urban slums of Pimpri Chinchwad Municipal Corporation (PCMC) in Pune District of Maharashtra)*

Confidentiality will be maintained and data will be utilised only for research purpose .

All these facts will be qualitatively analysed to substantially support the topic.

Name :

Age:

Qualification:

Designation:

Years of Experience:

Area of coverage (slums & Chawls):

ANC Checkups & follow-ups:

General Health problems of pregnant mothers:

PNC Checkups & follow-ups :

Prevalence of Adolescent cases (approx- monthly/yearly:

Complication faced during delivery:

High Risk pregnancies & referral system:

Health Problems of infants:

Arogya satra at slums and immunisation:

Difficulties faced by you in health delivery:

Recommendation to prevent adolescent pregnancies:

Mrs. Beena Rajan
PhD Scholar

ADOLESCENT PREGNANCY: DETERMINANTS, CAUSES AND CONSEQUENCES: A sociological Perspective *(With reference to married adolescent residing in urban slums of Pimpri Chinchwad Municipal Corporation (PCMC) in Pune District of Maharashtra)*
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All these facts will be qualitatively analysed to substantially support the topic.

Name :

Age:

Qualification:

Occupation :

Marital Status :

No of Children:

Perception about size of family :

Perception regarding age of marriage for boys and girls:

Perception towards contraceptive usage:

Concept of ideal family and sex of children

Perception about the significance of education:

Health and utilization health on or before or after delivery:

Traditional regional practices on pregnancy;

Role of elders

Views of marriage and adloscent marriage.

Years of Experience:

Area of coverage (slums & Chawls):

General Health problems of pregnant mothers:

Complication faced during delivery:

High Risk pregnancies & referral system:

Mrs. Beena Rajan
PhD Scholar