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“HEALTH STATUS OF ADOLESCENT GIRLS AND THEIR  
TREATMENT SEEKING BEHAVIOUR” -A COMMUNITY  
BASED CROSS SECTIONAL STUDY IN PEERANWADI  
SUBCENTRE OF PHC KINAYE - DISTRICT BELGAUM”

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**By**

Dr. SULA KSHANA PRABHU  
(REG. NO. BD0108004)

## Dissertation

Submitted to the  
KLE University, Belgaum, Karnataka

In Partial Fulfillment  
of the requirements for the degree of

M. D.  
in  
COMMUNITY MEDICINE

**Under the Guidance of**

**Dr. (Mrs.) VIJAYA A. NAIK** MD, DPH  
Professor and Head,

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**DEPARTMENT OF COMMUNITY MEDICINE,  
JAWAHARLAL NEHRU MEDICAL COLLEGE,  
BELGAUM, KARNATAKA**

**MAY - 2011**

**KLE UNIVERSITY, BELGAUM,  
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I hereby declare that this dissertation entitled  
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COMMUNITY BASED CROSS SECTIONAL STUDY  
IN PEERANWADI SUBCENTRE OF PHC KINAYE -  
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**Dr. SULKSHANA PRABHU**

## LIST OF ABBREVIATIONS USED

AHI	-	Adolescent Health Initiative
ANC	-	Antenatal Care
APM	-	Adolescent Pregnant Mother
BMI	-	Body Mass Index
CDC	-	Centre for Disease Control
CHC	-	Community Health Centre
CI	-	Confidence Interval
Cms	-	Centimeters
DBP	-	Diastolic Blood Pressure
df	-	Degree of Freedom
ESI	-	Employees State Insurance
FOGSI	-	Federation of Obstetrics and Gynaecology
gm	-	Gram
Govt	-	Government
Hb	-	Haemoglobin
ICMR	-	Indian Council of Medical Research
ICRW	-	International Centre for Research on Women
IDA	-	Iron Deficiency Anaemia
IEC	-	Information Education and Communication
INACG	-	International Nutritional Anaemia Consultative Group
Kgs	-	Kilogram
MDG	-	Millennium Development Goals
MF	-	Multiplication factor
MUAC	-	Mid Upper Arm Circumference

NCHS	-	National Centre for Health Statistics
NFHS	-	National Family Health Survey
NHANES	-	National Health and Nutrition Examination Survey
NNMB	-	National Nutrition Monitoring Bureau
No	-	Number
OR	-	Odds Ratio
PHC	-	Primary Health Centre
RCH	-	Reproductive and Child Health
RHTC	-	Rural Health Training Centre
SBP	-	Systolic Blood Pressure
SD	-	Standard deviation
SEAR	-	South East Asia Region
UNICEF	-	United Nations Children Emergency Fund
WHO	-	World Health Organization
$\chi^2$	-	Chi Square

## **ABSTRACT**

### **Background and Objectives**

Adolescence is a transitional period between childhood and adulthood. Present study was undertaken to determine health status of adolescent girls by studying morbidity patterns amongst them and to know treatment seeking behaviour of adolescent girls.

### **Methods**

This one year community based cross-sectional study was done at village Peeranwadi, PHC Kinaye, Belgaum. Four Hundred (400) adolescent girls were selected randomly from each block. Study was approved by Institutional Ethics Committee, Jawaharlal Nehru Medical College, Belgaum. Written informed consent was obtained from all participants. Information on socio-demographic variables, history regarding illness one month prior and treatment seeking behavior were recorded. Haemoglobin estimation was done by cyanmethaemoglobin method.

### **Results**

Majority (82.25%) had age between 10 to 14 years and mean age of study population was  $12.9 \pm 2.06$  years and 98.5% were literates. Of 400 adolescent girls, 51% had attained menarche. The mean height, weight and BMI was less among 10 to 14 years compared to 15 to 19 years ( $p=0.000$ ). In this study 15 (3.75%) were married and of them 60% were pregnant and all had registered for antenatal care. Most common morbidity reported in last one month was GI infections (14.75%), fever (12.75%) and dysmenorrhoea (12%). Prevalence of

anaemia was 75% and 49.75% had mild, 20.75% had moderate and 4.5% had severe anaemia. 61.25% had taken treatment of which 74.69% visited health facility for treatment, 19.21% took home remedy and 6.12% did not take any treatment. The place of treatment was decided by themselves in 20.81% whereas 78.78% family members were decision makers.

### **Conclusion and interpretation**

. In this study almost 75% of the girls were anaemic. Their status of anaemia is likely to worsen during pregnancy leading to complications including post partum haemorrhage. Although their literacy status and health seeking behaviour was on the better side, it needs to be still improved.

### **Keywords**

Adolescent Health; Treatment Seeking Behaviour; Morbidity Pattern;

# *CONTENTS*

<b>SL. NO.</b>	<b>TOPIC</b>	<b>PAGE NO.</b>
1	INTRODUCTION	1
2	OBJECTIVES	4
3	REVIEW OF LITERATURE	5
4	METHODOLOGY	21
5	RESULTS	32
6	DISCUSSION	54
7	CONCLUSION	63
8	LIMITATIONS	64
9	RECOMMENDATIONS	65
10	SUMMARY	66
11	BIBLIOGRAPHY	68
12	ANNEXURE I – CONSENT FORM	77
13	ANNEXURE II – PROFORMA	80
14.	ANNEXURE III – PHOTOGRAPHS	84
15	ANNEXURE III – MASTER CHART	86

## LIST OF TABLES

TABLE. NO.	DESCRIPTION	PAGE NO.
1	Age wise distribution of study participants	32
2	Educational status of study participants	34
3	Distribution of study participants according to socio-economic status	36
4	Distribution of study participants according to age and height	38
5	Distribution of study participants according to age and weight	38
6	Association of stunting with age among adolescent girls	39
7	Association of thinness with age among adolescent girls	39
8	Mean height, weight and body mass index among study participants	41
9	Distribution of study participants according to morbidities	43
10	Distribution of study participants according to grades of anaemia	45
11	Association of age with anaemia	46
12	Association of anaemia with socioeconomic status	47
13	Association between age, socio-economic status and grades of anaemia	48
14	Association of anaemia with menarcheal status	49
15	Distribution of study participants according to treatment seeking behaviour	51
16	Decision makers for treatment seeking behaviour of adolescent girls	53

## LIST OF GRAPHS

GRAPH NO.	DESCRIPTION	PAGE NO.
1	Age wise distribution of study participants	33
2	Educational status of study participants	34
3	Distribution of study participants according to socio-economic status	36
4	Association of stunting and thinness with age	40
5	Mean height, weight and body mass index among study participants	41
6	Distribution of study participants according to morbidities	44
7	Distribution of study participants according to grades of anaemia	45
8	Distribution of study participants according to treatment seeking behaviour	52

## LIST OF FIGURES

FIGURE NO.	DESCRIPTION	PAGE NO.
1	Map of Kiniye Primary Health Centre showing study area	21

## LIST OF PHOTOGRAPHS

PHOTO NO.	DESCRIPTION	PAGE NO.
1	Study area	84
2	Interviewing the participant	84
3	Blood collection for haemoglobin estimation	85
4	Adolescent girl involved in domestic work	85

## **INTRODUCTION**

Adolescence is a transitional period between childhood and adulthood. During this period, individuals move towards physical and psychological maturity and economic independence, and acquire their adult identity.<sup>1</sup> The term adolescence is derived from latin word ‘adolescere’ meaning to ‘grow, to mature’.<sup>2</sup>

This period is very crucial since these are formative years in the life of an individual when major physical, psychological and behavioural changes take place.<sup>1</sup> There are about 1.2 billion adolescents in the world equal to one fifth of world’s population and their numbers are increasing. Out of these, five million adolescents are living in developing countries. India’s population has reached one billion mark, out of which 21% are adolescents.<sup>3</sup>

The majority of the adolescents are out of school and therefore do not receive services from school-based health programs. Within the family, girls – especially older ones receive less health care and education, nutrition and fewer opportunities for employment than boys. There are limited choices available for the future and girls are caught in the cycle of early marriage, pregnancy and childbearing.

In a country like India due to various customs and common beliefs against girls, nutritional status which is often poor during early life gets worsened as the adolescent growth spurt occurs. Undernutrition in adolescent girls is of particular

interest because it results in poor pregnancy outcomes, particularly low birth weight, may also limit school achievement and work productivity.<sup>4</sup>

Undernourishment and neglect is reflected by their poor body size/growth and narrow pelvis as they grow into adolescence, making childbearing a great risk. Stunting among adolescents was high in nine of International Centre for Research on Women (ICRW) studies, Philippines 65%, Mexico 62%, Nepal 47%, Philippines (Cuba) 43%, Ecuador 50%, Benin 41%, India 32%, Guatemala (Longitudinal) 57%, Guatemala 27%.<sup>4</sup>

Adolescent girls are highly susceptible to anaemia on account of biases against females, inadequate diet, and practice of early marriage. In families with financial constraints, the female child is more likely to be neglected. The prevalence of anaemia may also be attributed to poor iron intake or diet having poor bio-availability of iron from typical cereal based diet, infections like malaria, hookworm infestation and blood loss through menstruation. Anaemia in adolescent girls, is responsible for irregular periods, miscarriages, stillbirths, premature births, low birth weight babies and death of the mother during child birth.<sup>5,6,7</sup> According to study carried out by ICRW, anaemia in adolescent girls was identified as the largest nutritional problem. The prevalence of anaemia is reported to be disproportionately high in developing countries that is, 55% in India, 42% in Nepal, 32% in Cameroon and 48% in Guatemala.<sup>4</sup>

During adolescence period, girls first experience menstruation and related problems, which is marked by feelings of anxiety and eagerness to know about this natural phenomenon. Traditional Indian society regards talks on such topics

as taboo and discourages open discussion on such issues. This leads to undesirable health seeking behaviour by adolescent girls and thus seek advice from quacks. Moreover routine health services do not have adequate coverage of adolescent health problems. This exaggerates the problems manifold.

Despite the fact that the present law in India envisages marriage of girls above the age of 18 years, early marriages are common in India. About 46% of girls get married below the legal age of marriage and 16% of women in the age group of 15 to 19 years become pregnant.<sup>8</sup>

The health of adolescents is also important by virtue of their large number. Realizing the importance, World Health Organization (WHO) has chosen the theme of WHO Day in 1985 “Healthy youth – Our Best Resources” for development of adolescents. The Federation of Obstetrics and Gynecology Society of India (FOGSI) dedicated the year 1999 to adolescent girl to highlight various problems faced by her.

Assessment of health status of adolescent girls and their treatment seeking behaviour has been least explored area of research in rural India. Adolescent girls being important segment of society needs proper attention of all the health problems for which reliable data is essential. Understanding the health problems of adolescent girls and their treatment seeking behaviour will help us in planning interventions for this vulnerable group.

As there are very few community based studies in rural areas on adolescent health and treatment seeking behaviour, the present study has been undertaken.

## **OBJECTIVES**

The objectives of the present study were;

1. To determine the health status of adolescent girls by studying morbidity patterns amongst them.
2. To know the treatment seeking behavior of adolescent girls.

## **REVIEW OF LITERATURE**

Prior to 1960s, the teenage years were regarded primarily as healthy period of life. The visits to the doctors were prompted by problems like a variety of infections, short stature, endocrine dysfunction, trauma, acne, menstrual disturbances, psychosocial and behavioral problems. The health of adolescents attracted global attention in the past two decades. Twentieth century has fortunately, brought many issues of the adolescents and their medical problems to the forefront.

Girls constitute 5.1% of adolescents in 10 to 14 years age group and 4.8% in 15 to 19 years age group.<sup>9</sup> Since the implementation of Reproductive Child Health (RCH) the adolescent health problem especially of girls have been envisaged and well taken account of.<sup>10</sup>

The 2001 census provisional figures indicate that only 54% of females are literate compared to 76% of males. According to the World Youth Report (1996), the total percentage of girls enrolled at the secondary level in the 15 to 19 years of age group was 38%, low compared to boys of the same age (59%). Girls drop out of school because of a lack of female teachers, distance of schools from their homes, parental fear for their daughter's safety, and failure in examinations.<sup>11</sup>

For young girls in India, poor nutrition, early childbearing, and reproductive health complications compound the difficulties of adolescent physical development. Anemia is one of the primary contributors to maternal mortality (20 to 25%) and is associated with compromised pubertal growth spurt

and cognitive development among girls aged 10 to 19 years. Nutritional deprivation, increased iron demand for adolescent growth, excessive menstrual losses of iron and early/frequent pregnancies aggravate and exacerbate pre-existing anemia and its effects. Most girls are not adequately aware of their increased nutritional needs for growth (especially increasing their food intake to meet calorie demands of pubertal growth), resulting in girls who are underweight and of short stature. Fifteen percent of ever-married adolescent girls are stunted; 40% have a body mass index below 18.5, and 20% have moderate or severe anemia. The poor nutritional status of these adolescent mothers increases obstetric risk during pregnancy and childbirth, contributes to maternal mortality, and puts their infants at risk. Neonatal and infant mortality rates among adolescent mothers are 60% higher than among infants born to mothers in the 20 to 29 years age group.<sup>11</sup>

In India, early marriage for girls receives religious and social sanction. Despite laws raising the legal age of marriage to 18 years for girls, there are strong cultural pressures on parents to marry their daughters early. The median age at marriage among women 20 to 49 years in India is 16.7 with a two-year difference between urban and rural women (18.7 versus 16.0).<sup>12</sup> Among married young women aged 15 to 19 years, autonomous decision making and freedom of movement is very low with only 38.6% involved in decisions about their own health care and 86% needing permission to go to the market.<sup>12</sup>

There are over 10 million pregnant adolescents and adolescent mothers in India, with one in six girls aged 13 to 19 years beginning childbearing.<sup>13</sup> The National Family Health Survey 2 (NFHS 2) from 1998-99 found that 56% of

adolescent girls are anemic and only 7.4% of married girls age 15 to 19 years use contraception. According to the NFHS-2, among mothers less than 20 years, only 68.7% received prenatal care from a health worker or professional, 79.9% received a three plus month-supply of iron and folic acid, 67.6% received two or more doses of Tetanus Toxoid, and only 41.6% were assisted at delivery by a skilled birth attendant.<sup>12</sup>

According to the Nutrition Foundation of India, the average age of menarche is 13.4; yet 50% of girls aged 12 to 15 years do not know about menstruation. This is true for rural as well as the urban poor. The lack of information can be attributed to a veil of secrecy that surrounds menarche.<sup>11</sup>

### **Health problems among adolescents**

Adolescence is a sensitive and important phase in an individual's life. A wide range of issues and concerns face adolescent girls in India, including nutritional deficiencies, reproductive health problems, pregnancy, sexually transmitted diseases, and mental and physical stress-related problems leading to abuse of tobacco and other habit-forming drugs.

A study on iron-deficiency anemia (IDA) in adolescence was conducted among 478 teen-age students in Shanghai during 1970. The study indicated that the intake of nutrients among the students was generally insufficient. The morbidities of IDA among female students were 32.6%. ( $p < 0.01$ ). The iron-deficiency sufferers were 61.8%. ( $p < 0.01$ ).<sup>14</sup>

A longitudinal, population-based study in 1988 was conducted to assess the impact of preschool stunting on adolescent height and age at menarche in rural West Africa on 1650 children aged 12 to 17 years with known height-for-age at the age of two to five years. The mean height during adolescence differed significantly according to preschool height-for-age for both boys and girls ( $p < 0.001$ ). Relative risk of adolescent stunting according to preschool stunting varied from two to four depending on age and sex. Estimated mean age at menarche was 17.2 [95% Confidence Interval (CI): 16.6 to 18.7], 16.5 (16.1 to 17.2) and 15.6 (15.2 to 16.0) years, respectively, for the three groups of preschool height-for-age ( $p < 0.001$ ). Among the girls aged 16 to 17 years, the increment was higher for those who had been stunted during preschool life ( $p < 0.01$ ). The study concluded that, some evidence of catch-up growth between the ages of five and seventeen years was found for stunted girls. The significant delay in sexual maturation of the stunted girls suggests that stunted children of both sexes have a possibility of catch-up growth after the age of 17 years.<sup>15</sup>

A study was conducted in 1994 to assess the need for health care for adolescents by obtaining baseline demographic, clinical, and microbiological data on reproductive tract infections and induced abortion in girls in a rural area of southeast Nigeria. The study reported that, among 868 females three percent of adolescent girls of age 14 to 16 years were married and 19% of Age 17 to 19 years were married. 71.6% of less than 17 year girls and 49% of 17 to 19 years girls were currently in school. The prevalence of pregnancy in less than 17 years was 8.8% and 17 to 19 years was 37.9%. Vaginal discharge was reported by

82.4%, 7.4% reported irregular periods in less than 17 years and 2.4% in 17 to 19 years.<sup>16</sup>

A cross-sectional survey was conducted in 2000 to assess the nutritional status of adolescent boys and girls in a rural community in Bangladesh carried out in 803 households, each containing at least one adolescent, sampled consecutively from four purposely-selected villages in Rupganj Thana, Narayanganj district. Results showed 67% of adolescents were thin [defined as body mass index (BMI) less than fifth percentile of WHO recommended reference] with 59% girls being affected. The prevalence of stunting [height for age less than third percentile National Centre for Health Statistics (NCHS) / WHO was 48% for both boys and girls and rose from 34% at age 10 years to 65% at age 17 years. According to International Nutritional Anaemia Consultative Group (INACG) (1985) cut-off values 98% of the girls were anaemic. Study concluded that rural Bangladesh adolescents suffer from high rates of malnutrition and almost universal anaemia.<sup>17</sup>

A study was conducted using data from nearly 600 adolescents aged 12 to 19 years in three districts of Kenya to focus on the relationship between pregnancy and dropout among Kenyan schoolgirls during 2001. Of the girls in the sample who have ever been to school, less than three percent are projected to have left as a result of pregnancy. Among these girls, the association between pregnancy and school leaving is strong: Respondents cited several other reasons for leaving school more frequently than pregnancy, including the inability to pay fees (37 girls), poor performance (nine girls), and lack of interest (eight girls).<sup>18</sup>

A summary of anaemia prevalence (2006) in some countries of the South-East Asia Region (SEAR) shows a great disparity within the Region. Inequalities are in rural and urban areas as well as in schoolgoing and non-schoolgoing adolescents. Irrespective of severity, the anaemia prevalence ranges between 12 to 100% within the Region. Prevalence of anaemia in adolescents in selected countries showed highest prevalence of anaemia in Bangladesh (98%) and lowest being in Indonesia (25.8%).<sup>19</sup>

According to WHO, globally anaemia affects 1.62 billion people which corresponds to 24.8% of population and prevalence among school age children is 25.4%. Summary of the results of surveys in SEAR countries in the year 2006 to assess adolescent nutritional status showed that prevalence of low BMI less than third percentile (thinness) and low height for age less than fifth percentile (stunting) was 67%, 36% and 32%, and 48%, 47% and 39% in Bangladesh, Nepal and Myanmar respectively.<sup>19</sup>

A study to focus on multi-dimensional aspects of health behaviours across different age groups and genders among urban and rural residents of Hubei, China during 2007 showed that, prevalence of smoking in 15 to 24 years rural females was 1.9% and alcohol use was 1.6% respectively.<sup>20</sup>

A study was done to assess the age at menarche using recall, its seasonality, and association with marital and nutritional status (using midupper arm circumference [MUAC]) among 3,923 female adolescents aged 12 to 19 years in a rural area of Bangladesh in 2009. The results showed that, age of onset of menarche among married adolescents (13%) occurred earlier than in those who

were unmarried ( $12.6 \pm 1.3$  years versus  $12.9 \pm 1.4$  years,  $p < 0.01$ ). In this rural population, the current age at menarche was found to be slightly lower than the previous estimates of 13.0 years in Bangladesh. Study concluded that an early onset of menarche was associated with season and better nutritional status of the female adolescents and may be associated with early marriage.<sup>21</sup>

A cross-sectional study was conducted in 2009 to assess nutritional status of 211 rural adolescent girls representing 650 randomly selected households from thirteen communities in Tigray. Height-for-age and BMI-for-age were compared to the 2007 WHO growth reference. Results showed that none of the households reported access to adolescent micronutrient supplementation. The girls were shorter and thinner than the 2007 WHO reference population. The prevalence of stunting and thinness were 26.5% and 58.3%, respectively. Lack of latrine facilities was significantly associated with stunting ( $p = 0.0033$ ) and thinness ( $p < 0.0001$ ). Age was strong predictor of stunting ( $r^2 = 0.8838$ ,  $p < 0.0001$ ) and thinness ( $r^2 = 0.3324$ ,  $p < 0.0001$ ). The study concluded that, under-nutrition was prevalent among the girls. Strategies to improve the nutritional status of girls need to go beyond the conventional maternal and child health care programs to reach girls before conception to break the intergenerational cycle of malnutrition. Further, carefully designed longitudinal studies are needed to identify the reasons for poor growth throughout the period of adolescence in this population.<sup>22</sup>

A study conducted in 1990 to assess nutritional status and treatment seeking behaviour in adolescent girls of eight villages, Bishnupur block, Calcutta showed 50.8% prevalence of anaemia and 78.8% prevalence of malnutrition. With regard to treatment seeking behavior, 67.7% received allopathic treatment,

23.6% received homeopathy treatment during illness. 78% of girl children were engaged in traditional household work with 8.8% school drop outs and 31.5% illiteracy.<sup>23</sup>

Anaemia status of adolescent girls belonging to an urban slum and rural areas by National Institute of Nutrition, ICMR in 1994 by measuring serum ferritin levels. Overall anemia was observed in 25% of the girls irrespective of their urban rural residence. A higher percentage of rural girls (37.5%) especially below the age of 12 years showed evidence of anemia. Thereafter, the prevalence was similar in both urban and rural girls who had not attained menarche. With increasing age, urban girls who had attained menarche showed an increase in the prevalence of anemia. The prevalence of iron deficiency (serum ferritin less than 12 micrograms/dL) showed 60% at less than 12 years to 28% at more than 14 years especially in the girls not attained menarche in the rural area.<sup>24</sup>

A cross-sectional study in 1996 using probability proportionate to size, cluster sampling method was conducted on 941 adolescent girls to assess the nutrient intake of adolescent girls belonging to low socio-economic group in 18 villages of Jaipur district, rural Rajasthan. The results showed that, diets were deficient in calories by 26 to 36%, and in proteins by 23 to 32%. Nutritional status as assessed by body mass index revealed that 8.1% of adolescent girls suffered from chronic energy deficiency (CED) grade I, 6.6% grade II CED, and 78.8% grade III CED. About 73.7% of subjects suffered from anemia and 43.6% had signs of vitamin B complex deficiency. The study concluded that, intervention strategies are needed to improve the dietary intake of adolescent girls so that their requirements of energy, protein, vitamins and minerals are met.<sup>25</sup>

Both quantitative and qualitative methods were used to assess the general and reproductive health of female adolescents in a rural district in Tamil Nadu, India during 1997. Among 190 girls, 30% of adolescents were anaemic, 20% suffered from joint pains and recurrent respiratory problems and 19.4% with white discharge. The Study showed that 25.3% girls had adequate knowledge regarding menstruation and 24.2% regarding contraception. Height and weight of the girls were less than fifth percentile of NCHS. Overall, the study indicated a need for both health education and special treatment services for girls from India who have suffered the health consequences of low socioeconomic status, unhygienic practices, and poor nutrition.<sup>26</sup>

A multicentric study recently completed in three regions of India during 1997 in Gujarat, Mumbai and Delhi showed that the prevalence of anaemia was between 57% to 65%, 62 to 65% and 48% to 50% respectively.<sup>27</sup>

A study was conducted on 130 girl students aged 13 to 17 years in Haryana during 1999 to assess their awareness and health seeking behaviour regarding menstrual and reproductive health. Mean age at menarche of the girls was  $13.6 \pm 0.83$  years. Commonest reported menstrual problem was dysmenorrhoea (40.7%) followed by irregular menses (2.3%) of which only 5.3% consulted a doctor and 22.4% took over the counter medications from the chemist shops. Girls preferred to consult parents (49.2%) and doctors (44.6%) for help at times of having reproductive health problems. This study highlights the need for educating school girls about adolescent health, pregnancy and reproductive health problems through schools and parents by the health professionals.<sup>28</sup>

The study conducted to assess the nutritional status of adolescent girls in village Chandawli of Haryana, rural north India in 1999 showed declining trend of prevalence of stunting 61.4% at 12 years of age to 27.3% at 17 years of age and prevalence of thinness varied between four percent to fifty-nine percent. Prevalence of anaemia in girls was 48%.<sup>29</sup>

The NFHS II survey (1998-99) reported that among young female adolescents (ages 10 to 14 years) 67% attended school. The corresponding figure for male adolescents was 80.2%. Location had a significant influence on the schooling. Reasons for not attending school were in (13.17%) education not considered necessary (15.87%) did not like school / not interested in studies. In rural areas only 32.7% of female adolescents (age 15 to 17 years) attended school compared to 60.5% of female adolescents in urban areas. For more than one quarter of girls lack of education was ascribed to their responsibilities for caring of siblings at home and other household responsibilities.<sup>30</sup>

According to 2000-2001 survey conducted by National Nutrition Monitoring Bureau (NNMB), India in the rural population of nine states showed that median intake of nutrients was less than recommended dietary allowance for all age groups of adolescents and in both sexes. Same survey reported that 39% of adolescent girls were stunted in the age group of 14 to 17 years and 35% in 10 to 13 years. The prevalence of anaemia ranged between 69 to 70% in adolescent girls (12 to 17 years). Twenty three percent of adolescent girls got married before the age of 18 years. Among married adolescent girls, 24.1% were short statured (less than 145 cms) and 18.6% were underweight (less than 38 kgs) exposing them to high risk pregnancy.<sup>31</sup>

A study was conducted in the year 2000 on adolescent girls of poor communities in urban areas of Delhi and rural parts of Bharatpur (Rajasthan). The results of the study showed that 61.9% of the subjects in the urban and 85.4% in the rural area were anaemic.<sup>32</sup>

A community based survey in Parganas in state of West Bengal in 2001 showed that 87.17% attained menarche with the mean age of 13.2 years. Only 25.17 experienced menstrual problems. 48.33% girls had health related problems in last 6 months. 13.8% took treatment in hospital, 32.8% in Primary Health Centre (PHC) / Community Health Centre (CHC), 18.9% from allopathic doctor, 78% from homeopathy doctor, 1.7% from ayurvedic doctor, six percent did not take any treatment and 64.6% of girls were accompanied by parents for treatment.<sup>33</sup>

A study conducted on 230 adolescent school girls of Indori in 2001 reported that, the average height and weight of the girls were higher than the Indian Council of Medical Research (ICMR) standards. Mean age of menarche was 13.5 years. 62% complained of dysmenorrhea. Prevalence of tonsillitis was 13.48%, pallor 6.52%, dental carries 5.22%, skin infection 1.3% and nasal polyp (0.87%).<sup>34</sup>

The results of a cross sectional study done in 2001 among 504 adolescent girls in rural Meerut, showed that 174 (34.5%) were anaemic. The prevalence of mild, moderate and severe anaemia was 19%, 14.1%, 1.4% respectively. Significant association of anaemia was found to be with type of family, socio-economic status, father's occupation, mother's education and family size.<sup>35</sup>

A study was undertaken in the year 2002 to assess the project on prevention and control of anemia in adolescent girls utilizing school system in rural areas Medak, a border district of Andhra Pradesh. Out of 1811 girls enrolled from 16 selected schools, 1516 subjects studying in classes VI to X were covered under the study in baseline survey. It was revealed that the mean age of subjects was  $12.4 \pm 1.44$  years. Majority of girls belonged to backward castes and were from poor socio-economic background. Signs and symptoms of anaemia like pallor, fatigue, breathlessness, poor appetite, lack of concentration in studies were reported by 12.5%, 14.1% 9.2% 26.5% and 86% of girls respectively. Iron deficiency anaemia was found to be the most common nutritional problem encountered by 81% of respondents. Mild, moderate and severe grades of anaemia was observed in 63.2%, 12.5% and 5.3% of respondents respectively.<sup>36</sup>

A community based cross-sectional study was conducted on 270 adolescent girls in rural area of Varanasi during 2003. The study reported vitamin A deficiency, pallor, dental caries, iodine deficiency disorders in 13.70%, 25.9%, 13.33% and 4.44% respectively. The study also showed that 30.74% girls were anaemic 68.52% were undernourished, 35.59% of them showed stunting and 54.44% presented with wasting. Anaemia was significantly more in non-menstruating girls and subjects not using foot-ware during defecation.<sup>37</sup>

A survey during 2003 was undertaken to assess the prevalence of iron, vitamin A and iodine deficiencies amongst rural adolescent pregnant mothers (APM) of five randomly selected villages of rural block of Udham Singh Nagar, Uttaranchal State. Mean age of adolescent pregnant mothers was  $17.8 \pm 1.5$  years and 86% of the APM were in the age group 16 to 19 years. It was found that

46.0% of the adolescent pregnant mothers were anaemic. The study indicated that, anaemia, vitamin A, and iodine deficiency existed as public health problems in the APM of the study area.<sup>38</sup>

Indian Council of Medical Research had undertaken study "District Nutrition Project" in 18 Districts from 13 states of India in 2004. In this study the overall prevalence of mild and moderate anaemia among adolescent girls was 50.9% and 32.1% respectively. Overall prevalence of severe anaemia was highest (24.3%) in Bikaner and the lowest (nil) in both Bishnupur and Kohima District.<sup>39</sup>

A study was done in 2005 to assess the health status, needs and health care seeking behaviour of 391 rural poor, dalit and adolescent girls in the 13 villages of Cheenamet Panchayat Kanchipuram district (Rural Tamilnadu). The study reported that 89% had attended School, 68% of literate girls were in school and only 8.35% girls were School dropouts. About 79% of those who were attending school were working. Mean age of menarche was 13.48 years in these girls. Majority (84%) of girls had three to five days of menstrual flow. About 82% of girls reported having had atleast one reproductive health problem during the survey. On an average two to five problems per girl were reported including dysmenorrhea, severe backache, white discharge and itches and sores in the genital areas. Forty five (45%) had gone to government hospitals for treatment, 23% were treated in private clinics, 16% received treatment from the village Health Nurse or through self medication. 46% suffered from reproductive morbidity five percent from general illness. The study indicated in addition to awareness, there is an urgent need for accessible health services for adolescent girls in rural areas.<sup>40</sup>

A study was conducted to examine the effects of education, work status, decision making and standard of living on maternal health care utilisation behaviour of adolescent on 1427 adolescent mothers of age group 15 to 19 years in four states of Bihar, Madhya Pradesh, Uttarpradesh and Rajasthan during 2006. The study reported that, age of marriage was lower among rural female adolescents. More than 73% of girls in rural areas were illiterate with mean age of 16.1 years at first delivery. Urban women were more likely to have received prenatal care from modern sources than rural women (74% and 42% respectively). The study concluded that, even up to primary level education could significantly increase the chance of using maternal health services from a modern health facility.<sup>41</sup>

A cross-sectional study was conducted in 2006 to asses the nutritional status of adolescents in rural area of Wardha. The study was carried out in two PHC areas of Wardha district with two stage sampling method. In the first stage, cluster-sampling method was used to identify 30 clusters in each Rural Health Training Centre (RHTC) area separately. In the second stage, systematic random sampling method was used to identify 10 households per cluster. The mean BMI for age was used for classifying the nutritional status with Centre for Disease Control (CDC) 2000 reference. The results showed that, overall, 53.8% of the adolescents were thin, 44% were normal and 2.2% were overweight. The mean BMI for girls was 15.54 kg/m<sup>2</sup>. The prevalence of thinness was significantly ( $p < 0.05$ ) higher in early adolescent girls with lower education (less than eighth standard) and coming from lower economic status.<sup>42</sup>

Another cross-sectional study to assess the epidemiological correlates of nutritional anemia was carried out in 2006 on adolescent girls of four villages of Kasturba Rural Health Training Centre, Anji, rural Wardha. The results showed that, prevalence of anemia was 59.8%. In univariate analysis, low socioeconomic status, low iron intake, vegetarian diet, history of worm infestation and history of excessive menstrual bleeding showed significant association with anemia. While Multivariate logistic regression analysis suggested that strongest predictor of anemia was vegetarian diet [Odds Ratio (OR)=5.83, CI=3.73-9.13] followed by history of excessive menstrual bleeding (OR=5.65, CI=1.26-25.38), iron intake less than 14 mg (OR=4.16, CI=2.08-8.31) followed by 14 to 20 mg (OR=2.07, CI=1.06-4.05) and history of worm infestation (OR=4.11, CI=1.70-9.93). However age, education, socioeconomic status, BMI and status of menarche did not contribute significantly.<sup>43</sup>

Since the implementation of RCH the adolescent health problems especially of girls have been envisaged and well taken account of. It is estimated that half of adolescent girls suffer from nutritional anaemia leading to 37% stunting. Recently conducted large population surveys in rural India indicate that the prevalence of anaemia ranges from 38 to 72% depending upon age and sex.<sup>44</sup>

According to United National International Children's Emergency Fund (UNICEF) (2002)<sup>45</sup> and NFHS 3 (2007)<sup>8</sup> prevalence of anaemia was 55% and 52.88% in adolescent girls of India respectively. An interventional study was done to assess the effectiveness of a weekly iron-supplementation regimen in Nashik during 2008. The study reported 54.3% prevalence of anaemia.<sup>46</sup>

A comparative cross-sectional study was conducted in 2008 to know the differences in epidemiological profiles, perceptions, socio economic losses, and quality-of-life losses and management of dysmenorrhoea in different settings for effective management among adolescent school girls (101 girls in urban areas and 79 girls in rural areas) in the district of Karimnagar. The results showed that, prevalence of dysmenorrhoea is 54% (53% in girls in urban areas and 56% in girls in rural areas) ( $p=0.05$ ). Sickness absenteeism (28 to 48%), socio economic losses are more prevalent among girls in urban areas than in girls in rural areas. Girls in rural areas resort to physical labor and other natural methods to obtain relief while the girls in urban areas are mainly depending on medications.<sup>47</sup>

A community based cross-sectional study was conducted in 2009 to assess nutritional status and reproductive problems in adolescent girls of 168 villages and 224 anganwadi centres of Ratnagiri district, Maharashtra. The study results showed that, two third of (69.37%) study subjects were undernourished, 41% were anaemic, three fourth of adolescent girls reported menstrual problems that is dysmenorrhea (44.27%) and white discharge (38.3%). School dropouts were reported in 22.4% girls. The study concluded that, adolescents are expected to enjoy a good health but this does not seem to be in rural areas of developing country like India, where poverty, malnutrition and repeated infection are rampant. To achieve the optimum health and development of the adolescent segment of the population there is a need to introduce a comprehensive Adolescent Health Initiative (AHI) at block level.<sup>48</sup>

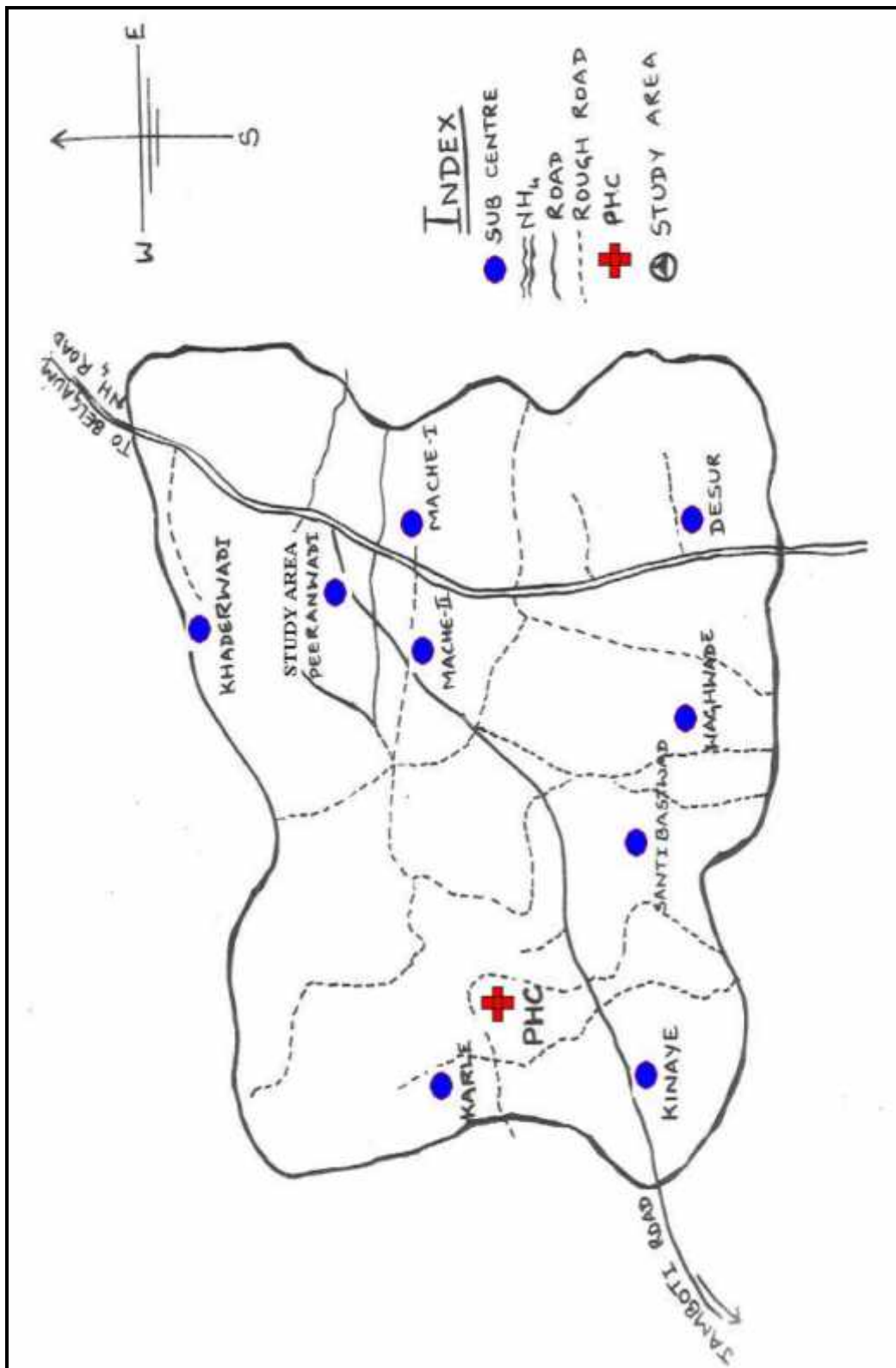


Figure 1. Map of Kinaye Primary Health Centre showing study area

## **METHODOLOGY**

### **Study Area**

The study was undertaken at village Peeranwadi, Primary Health Centre, Kinaye a rural field practice area of Department of Community Medicine, Jawaharlal Nehru Medical College, Belgaum. The village Peeranwadi is situated 10 Kms from Jawaharlal Nehru Medical College. It caters to a population of 10,600.

### **Study Design**

The present study was a community based cross sectional study.

### **Study period**

The study was conducted for a period of one year from January 2009 to December 2009.

### **Sampling size**

Assuming the prevalence of morbidity among adolescent girls to be 50%, the sample size was calculated from given formula

$$N = p q / d^2$$

Where,

N = Sample size

p = prevalence of morbidity

q = (100-p)

d = Error in estimation of p (10%),

Considering the above formula the sample size was calculated as 400.

### **Sampling procedure**

The population of Peeranwadi village is 10,600. As per census 2001<sup>49</sup>, adolescent age group constitutes 22% of the total population, considering 11% to be adolescent girls, the total number of adolescent age group was estimated as 1166.

The study area was divided into four geographical blocks consisting of two to three gali's of 110 households each (One block = 230 to 330 houses). Hundred (100) adolescent girls were selected randomly from each block by systematic random sampling method.

### **Selection criteria**

#### ***Inclusion***

- Adolescent girls of age group 10 to 19 years, staying in Peeranwadi village at least for the period of one year.

#### ***Exclusion***

- Girls who have migrated to Peeranwadi during one year.

### **Data collection**

Pilot study was carried out in the study population using a predesigned and structured questionnaire. Appropriate changes were made based on the study.

The study was approved by Institutional Ethics Committee, Jawaharlal Nehru Medical College, Belgaum. Based on the selection criteria the study subjects were selected and written informed consent (Annexure I) was obtained from all the participants. They were interviewed by using predesigned and pretested questionnaire (Annexure II).

The instruments used in this study included questionnaire, weighing machine, measuring tape, sphygmomanometer, stethoscope. All the instruments and techniques were initially standardized during pilot study.

A detailed questionnaire was prepared and was pretested and validated during the pilot study. It included the information on socio-demographic variables, family formation, dietary habits, educational status, obstetric history of married, history regarding illness one month prior and treatment seeking behavior.

Subjects were interviewed by the candidate in- person. Thorough clinical examination from head to toe was carried out with adequate privacy in a quite comfortable room at their household. It included general physical examination, measurement of height, weight, blood pressure, other vital signs and systemic examination. Although the study did not require, the treatment was given relevantly as per the individual case needs keeping in mind the ethical considerations. Morbid conditions requiring further investigation and special care were referred to the KLES Dr. Prabhakar Kore Charitable Hospital and District Hospital, Belgaum. The entire procedure lasted for about 45 minutes.

### **Haemoglobin estimation by cyanmethaemoglobin method<sup>50</sup>**

Haemoglobin estimation by cyanmethaemoglobin method was done for every participant in the study.

The two ml of venous blood was drawn by venepuncture (antecubital vein) under strict aseptic precautions. Further, 0.02 ml blood was mixed with five ml Drabkin's solution, a solution that contains ferricyanide and cyanide. The ferricyanide oxidizes the iron in the hemoglobin, thereby changing hemoglobin to methemoglobin. Methemoglobin then unites with the cyanide to form cyanmethemoglobin.

Cyanmethemoglobin produces a color which was measured in a photo electric colorimeter.

A qualified laboratory technician performed the above investigations according to the standard guidelines.

### **Data analysis**

The data was tabulated using Microsoft Excel Worksheet and analyzed using mean, proportions and percentages. The statistical analysis was done using SPSS statistical software using chi-square test and student 't' test.

### **Definition of study variables**

**Adolescent girl:** According to WHO 10 to 19 years aged girls were considered as adolescent girls.<sup>51</sup> Subjects were asked about their age and it was confirmed with

appropriate documents (Ration card). Age was recorded to the nearest completed year.

**Religion:** The subject's religion was noted and was grouped as "Hindu", "Muslim", and "Others" (Jain, Christian).

**Occupation:**<sup>52</sup>

Student: All children attending school or college.

Housewife: Women engaged in household duties but doing no other productive work to augment family income

**Educational status:** The subjects were asked about their educational qualifications and were grouped into

**Illiterate:** A person who could not read and write with understanding in any language.

**Literate:** A person who could read and write with understanding in any language.

**Primary school education:** A person who had studied up to 4<sup>th</sup> standard.

**Secondary school education:** A person who had studied up to 7<sup>th</sup> standard.

**Higher secondary school education:** A person who had studied up to 10<sup>th</sup> standard.

**College:** A person who had studied up to pre-university / diploma/ Tch/below degree class.

***Graduate:*** A person who had a bachelor's degree in any field.

***Type of family***<sup>53</sup>

**Nuclear family:** Married couple, along with their dependent children live in the same house.

**Joint family:** Many married couples and their children who live in the same household. Males are blood relatives and females of the family are related by either marriage or blood relation.

**Three generation family:** Married couple with married children and their kids (three generations) related to each other by direct descent live together.

**Broken family:** Is one where the parents have separated, or where death has occurred for one or both the parents.

***Food habits:*** The girls consuming meat were considered as taking 'mixed diet' and remaining as consuming 'vegetarian diet'

***Socioeconomic status:*** Per-capita monthly income of the family was calculated by dividing total monthly income of the family with total members in the family. Per capita income in Rupees per month was classified using the modified BG Prasad classification.<sup>54</sup>

**Modified B. G. Prasad Classification**

Socioeconomic class	Prasad's classification 1961 per capital income in Rs./ Month <sup>54</sup>	Modified Prasad's classification in the study period 2009. Per capital per month income (Rs.) <sup>55</sup>
I	100 & above	3600 & Above
II	50 – 99	1800 & 3599
III	30 –49	1080 & 1799
IV	15 – 29	540 & 1079
V	below 15	<540

Average consumer price index<sup>55</sup> for the year 2009 = 727

Modification was done with the aid of Multiplication Factor (M.F), which was obtained as below:

$$\begin{aligned}
 \text{M. F.} &= \frac{\text{Average Consumer price index for study period}}{100} \times 4.93 \\
 &= 727/100 \times 4.93 = 35.8
 \end{aligned}$$

**Tobacco use:** Subjects who had never smoked in any form of tobacco (beedi, cigar) and never used tobacco in any form viz gutka, pans were considered as “non smokers” and “tobacco non users” respectively. While those who had smoked either in the past or smoking at present and have used tobacco either in the past or using at present were considered as “smokers” and “tobacco users” respectively. The total duration of use was noted in years.

**Height:** The subject stood straight without footwear, with heels, buttocks and back touching the wall and arms hanging by side. The height was measured from head to heel. The coinciding reading was measured to the nearest 0.1 cm using a measuring tape.<sup>56</sup>

**Weight:** Body weight was measured without any foot wear and with minimal clothing to the nearest 0.1 kilogram using a standard portable weighing machine, which was standardized periodically during the study. The scale was adjusted to zero before each session and weight was recorded in kilogram.<sup>56</sup>

**Measurement of Body Mass Index (BMI):** The BMI was calculated using the formula given below.<sup>56</sup>

$$\text{BMI} = \text{weight (Kg)} / \text{Height (Meter}^2\text{)}.$$

**Stunting:** Stunting is defined as height-for-age less than third percentile of the NCHS reference data.<sup>56,57</sup>

**Thinness:** Thinness is defined as BMI-for-age less than fifth percentile of the National Health and Nutrition Examination Survey (NHANES) reference data.<sup>56</sup>

**Blood pressure measurement:** During the course of interview, two measurements of blood pressure on each study participant were recorded using mercury sphygmomanometer, first by palpatory method followed by auscultatory method as per standard guidelines. Both blood pressure measurements were obtained after the subject had rested for at least five minutes in a seated position. The first blood pressure measurement was recorded after obtaining sociodemographic information from study subject, while second was recorded

after a clinical examination. All blood pressure measurements were made on left arm of each subject, using a cuff of appropriate size at the level of the heart. The average of two systolic blood pressure (SBP) and diastolic blood pressure (DBP) were considered to describe the blood pressure of the participant. In cases where the two readings differed by over 10 mm Hg, a third reading was obtained and three measurements were averaged.

***Categorization of subjects by blood pressure levels:*** The subjects were divided into “Normotensives” or “Hypertensives” on the basis of their blood pressure levels.

**Normotensives:** Systolic blood pressure less than 140 mm Hg and Diastolic blood pressure less than 90 mm Hg.

**Hypertensives:** Systolic blood pressure 140 mm Hg or above Diastolic blood pressure 90 mm Hg.<sup>58</sup>

***Systemic examination:*** Brief examination of respiratory, cardiovascular, alimentary and nervous system was done.

***Morbidity:*** Defined as any departure, subjective or objective, from a state of physiological well being. The term is used equivalent to such terms as sickness, illness, disability etc.<sup>59</sup>

***Anaemia:*** Anaemia is said to be present when the haemoglobin (Hb) level in the blood is below the lower extreme of the normal range for the age and sex of the individuals. As per WHO, adolescent girls having haemoglobin percentage below

12 gm/dL and pregnant adolescent girls having haemoglobin below 11 gm/dL were considered as anaemic.<sup>60</sup>

**Grading of anaemia according to WHO criteria<sup>61</sup>**

<b>Grade</b>	<b>Hb Concentration (gm/dL)</b>
Mild	10 to 11.99
Moderate	7 to less than 10
Severe	Less than 7

***Teenage pregnancy:*** Pregnancy in a girl aged between 10 to 19 years is teenage pregnancy.<sup>62</sup>

***Full ANC Care:*** It is considered when the pregnant women receives atleast three antenatal checkup visits, one tetanus toxoid injection and consumes 100 or more iron folic acid tablets.<sup>63</sup>

***Menstrual problems:***

**Menarche:** Menarche is defined as beginning of the cycle of menstruation.<sup>64</sup>

**Dysmenorrhoea:** It is painful menstruation.<sup>65</sup>

***Treatment seeking behaviour:*** In terms of illness behaviour refers to those activities undertaken by individuals in response to symptom experience.<sup>66</sup>

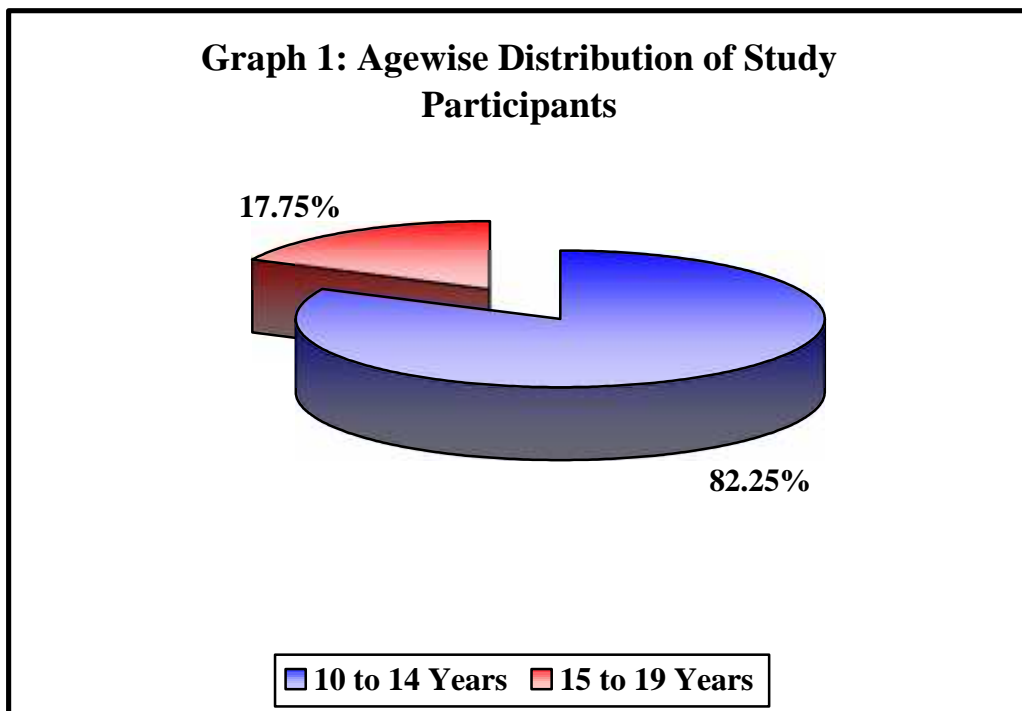
## RESULTS

The present study was conducted in the rural field practice area Peeranawadi, Primary Health Centre, Kinaye of Department of Community Medicine, Jawaharlal Nehru Medical College, Belgaum on 400 adolescent girls during the period of January 2009 to December 2009. The data obtained was tabulated and analysed as below.

### I. Socio-demographic variables

**Table 1. Age wise distribution of study participants**

Age (Years)	Study participants	
	Number	Percentage
10 to 14	329	82.25%
15 to 19	71	17.75%
<b>Total</b>	<b>400</b>	<b>100%</b>



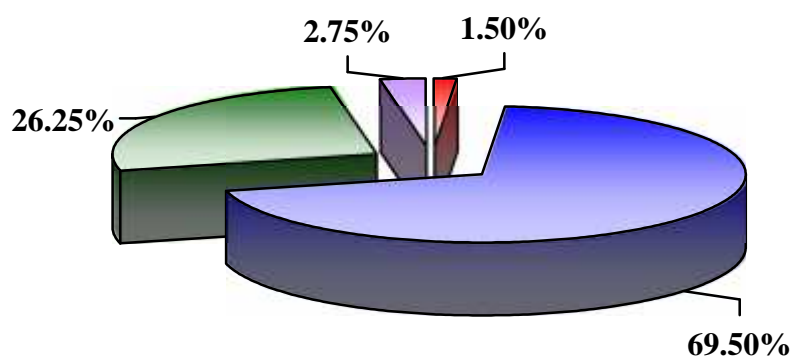
In the present study out of 400 adolescents, majority (82.25%) were between 10 to 14 years and 17.75% were between 15 to 19 years. The mean age among the study population was  $12.9 \pm 2.06$  years.

### **Religion**

Out of total girls studied, majority (73.5%) of them were Hindus and the others were Muslim (26.25%) and Christian (0.25%).

**Table 2. Educational status of study participants**

Educational status	Study participants	
	Number	Percentage
Illiterate	6	1.50%
Primary School	278	69.50%
High School	105	26.25%
Collegiate education	11	2.75%
<b>Total</b>	<b>400</b>	<b>100%</b>

**Graph 2: Educational status of study participants**

■ Illiterate ■ Primary School ■ High School ■ Collegiate Education

Out of 400 adolescent girls 394 (98.5%) were literate. Majority of the girls that is 278 (69.5%) were educated up to primary school followed by 105

(26.25%) up to high school and 11 (2.75%) up to collegiate education whereas, six (1.5%) girls were illiterate.

### **Current Status of Education**

Out of 400 adolescent girls, 360 (90%) were currently studying, six (6%) were illiterate and 34(8.5%) were school dropouts.

### **Reasons for Discontinuing Studies**

Among 34 school dropouts 13 (38.23%) discontinued their education because of domestic work, 14 (41.17%) because of opposition by parents three (8.82%) because of marriage, two (5.88%) discontinued to look after siblings and two (5.88%) due to financial problems.

### **Educational Status of Parents**

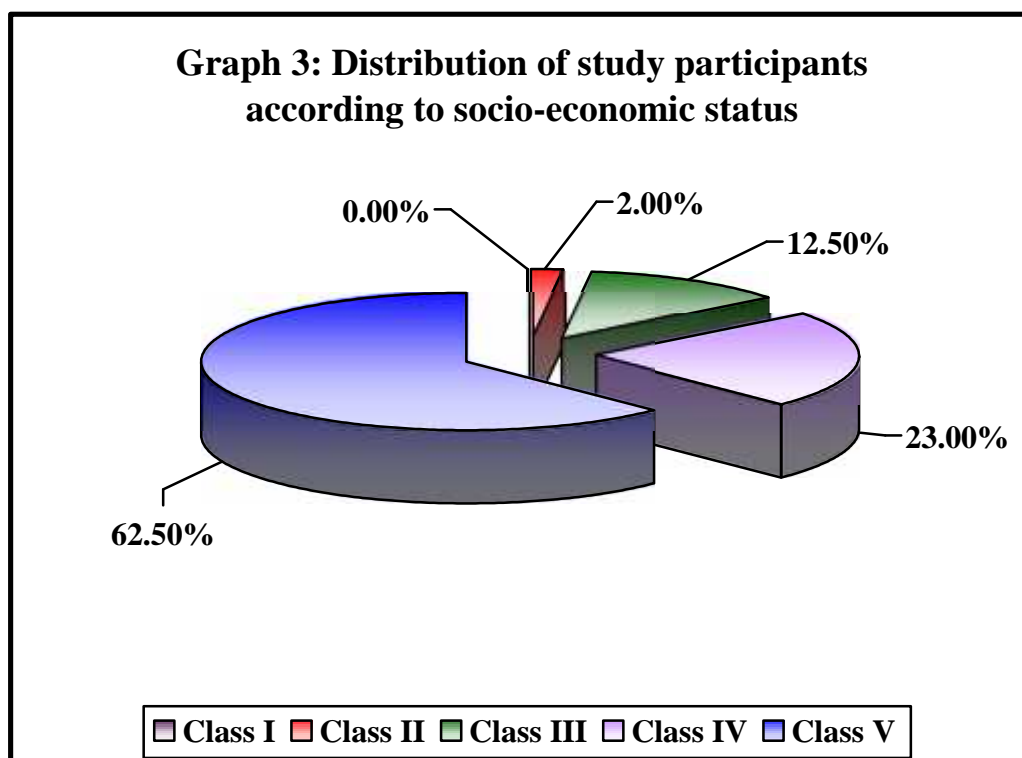
In the present study 317 (79.2%) fathers and 270 (67.5%) mothers were literates. 115 (28.8%) fathers were educated up to primary level, 137 (34.2%) up to high school and 65 (16.2%) up to college while, 151 (37.8%) mothers were educated up to primary school, 103 (25.8%) up to high school and 16 (4%) up to college.

### **Occupation**

In the present study, 360 (90%) were currently studying, 11 (2.8%) were house wives and 29 (7.2%) were doing domestic work.

**Table 3. Distribution of study participants according to socio-economic status**

Socio-economic status	Study participants	
	Number	Percentage
I	0	0
II	8	2
III	50	12.5
IV	92	23
V	250	62.5
<b>Total</b>	<b>400</b>	<b>100</b>



In this study eight (2%) belonged to class II, 50 (12.5%) belonged to class III, 92 (23%) belonged to class IV and 250 (62.5%) belonged to class V.

### **Type of Family**

Majority (63.5%) of the adolescent girls belonged to nuclear family followed by (29.3%) joint family and (7.2%) broken family.

### **Menarcheal status**

Out of 400 girls, 204 (51%) had attained menarche. Out of 204, three (0.8%) girls attained menarche at the age of 10 years, 20 (51%) by age of 11 years, 55 (13.8%) by 12 years, 75 (18.8%) of by 13 years and 40 (10%) by age 14 years, 10 (2.5%) by age 15 years and one (0.2%) by the age of 16 years. The mean age of menarche was  $13.00 \pm 2.15$  years.

### **Habits**

In the present study, majority 394 (98.50%) had no habits; three (0.75%) each had habit of pan and tobacco chewing.

### **Blood pressure**

In this study among the study participants mean SBP was  $111.50 \pm 8.11$  mm Hg and DBP was  $71.00 \pm 6.63$  mm Hg.

## II. Anthropometry

**Table 4. Distribution of study participants according to age and height**

Age (Years)	Total number	Height (Cms)	
		Mean	SD
10 to 14 years	329	136.02	11.34
15 to 19 years	71	150.74	6.40

The mean height of the study population was  $138.60 \pm 29.54$  cms with range minimum being 102.50 cms to maximum 165 cms. The mean height in the age group of 10 to 14 years was  $136.02 \pm 11.34$  cms and  $150.74 \pm 6.40$  cms. in the age group of 15 to 19 years.

**Table 5. Distribution of study participants according to age and weight**

Age (Years)	Total number	Weight (Kgs)	
		Mean	SD
10 to 14 years	329	27.45	6.95
15 to 19 years	71	39.21	5.55

In this study, the mean weight in the age group of 10 to 14 years was  $27.45 \pm 6.95$  Kgs and  $39.21 \pm 5.55$  Kgs. in the age group of 15 to 19 years. The overall mean weight of the study population was  $29.5 \pm 8.08$  Kgs with range being 15 Kgs to 55 Kgs.

**Table 6. Association of stunting with age among adolescent girls**

Age Group (Years)	Total number of adolescents	Study participants with Height for age < 3 <sup>rd</sup> percentile <sup>56</sup>	
		Number	Percentage
10 to 14	329	210	63.82%
15 to 19	71	29	40.84%

$\chi^2 = 12.828$

df=1

OR=2.56

p=0.0003

**Table 7. Association of thinness with age among adolescent girls**

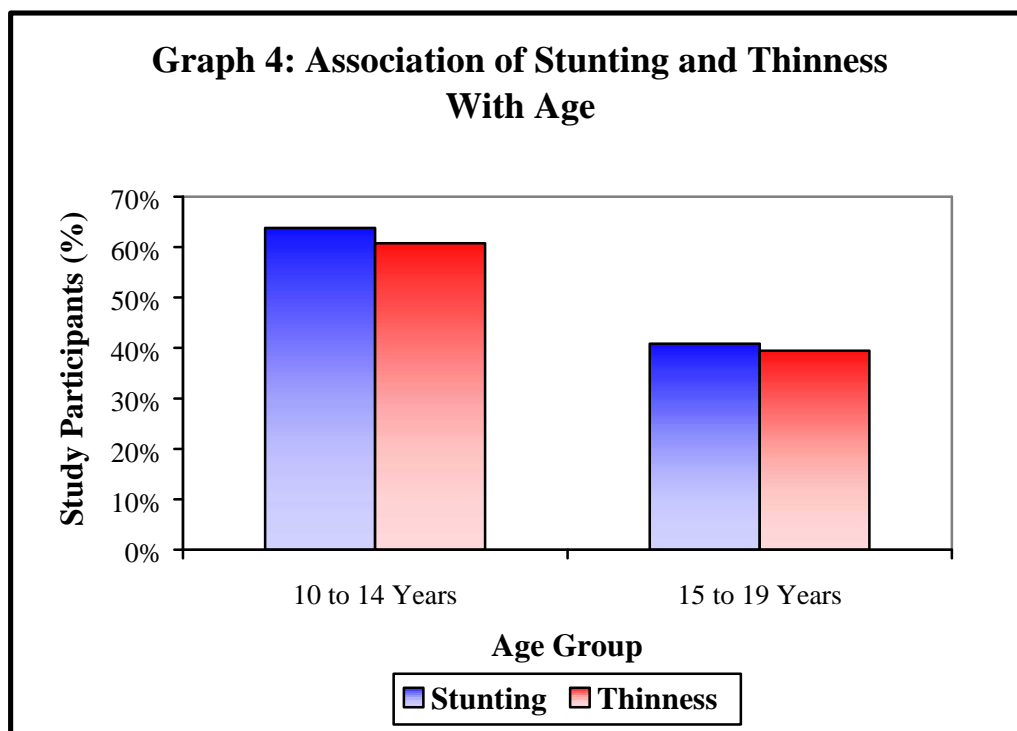
Age Group (Years)	Total number of adolescents	Study participants with BMI for age < 5 <sup>th</sup> percentile <sup>56</sup>	
		Number	Percentage
10 to 14	329	200	60.79%
15 to 19	71	28	39.43%

$\chi^2 = 10.861$

df=1

OR=2.38

p=0.0009

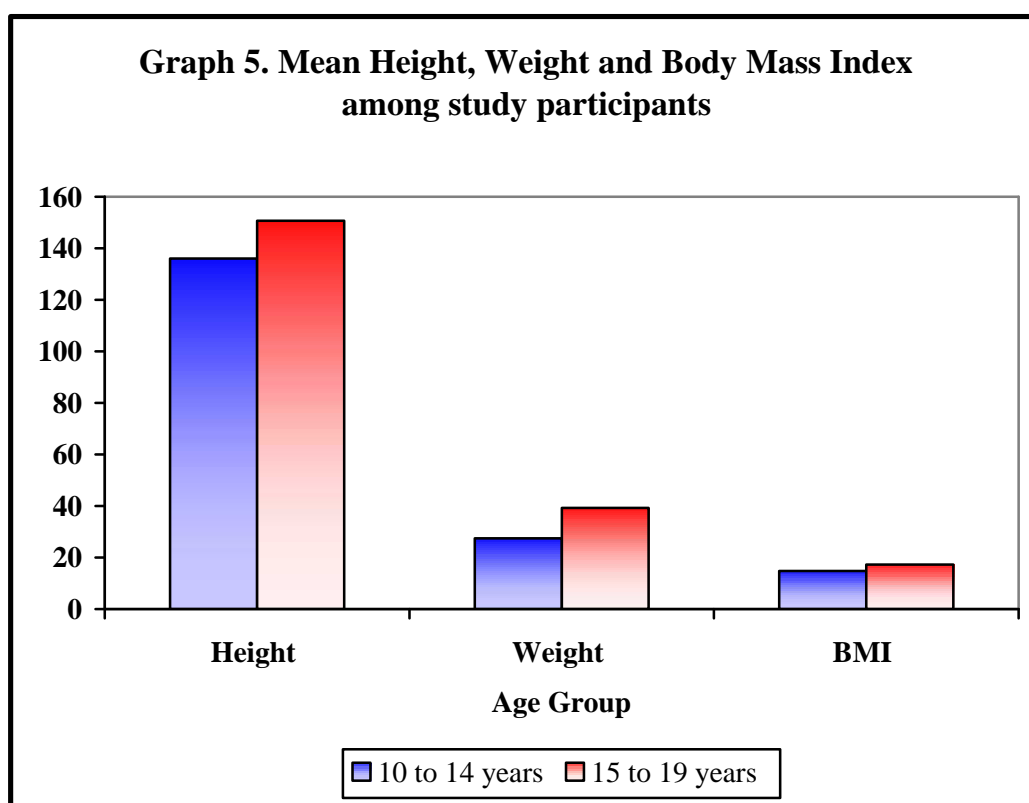


In this study adolescent girls between the age 10 to 14 years were more stunted (63.82%) as compared to 15 to 19 years (40.84%) based on less than third percentile of NCHS standards. This difference was statistically significant ( $p=0.0003$ )

In the present study adolescent girls between the age 10 to 14 years were more thin (60.79%) as compared to 15 to 19 years (39.43%) based on less than fifth percentile of NHANES standards. This difference was statistically significant ( $p=0.0009$ )

**Table 8. Mean height, weight and body mass index among study participants**

Anthropometry	10 to 14 years		15 to 19 years		't' value	df	'p' value
	Mean	SD	Mean	SD			
Height (Cms)	136.02	11.34	150.74	6.40	14.963	398	0.000
Weight (Kgs)	27.45	6.95	39.21	5.55	15.433	398	0.000
BMI (Kg/m <sup>2</sup> )	14.74	2.68	17.27	2.36	7.361	398	0.000



In the present study mean height, weight and BMI was less among the adolescent girls aged between 10 to 14 years compared to 15 to 19 years. This difference was statistically highly significant using 't' test ( $p=0.000$ ).

### **Marital status**

In the present study among 400 girls, 385 (96.25%) were unmarried and 15 (3.75%) were married. Of the 15 (3.75%) married girls four (1%) married before 18 years of age and 11 (2.75%) married after 18 years of age.

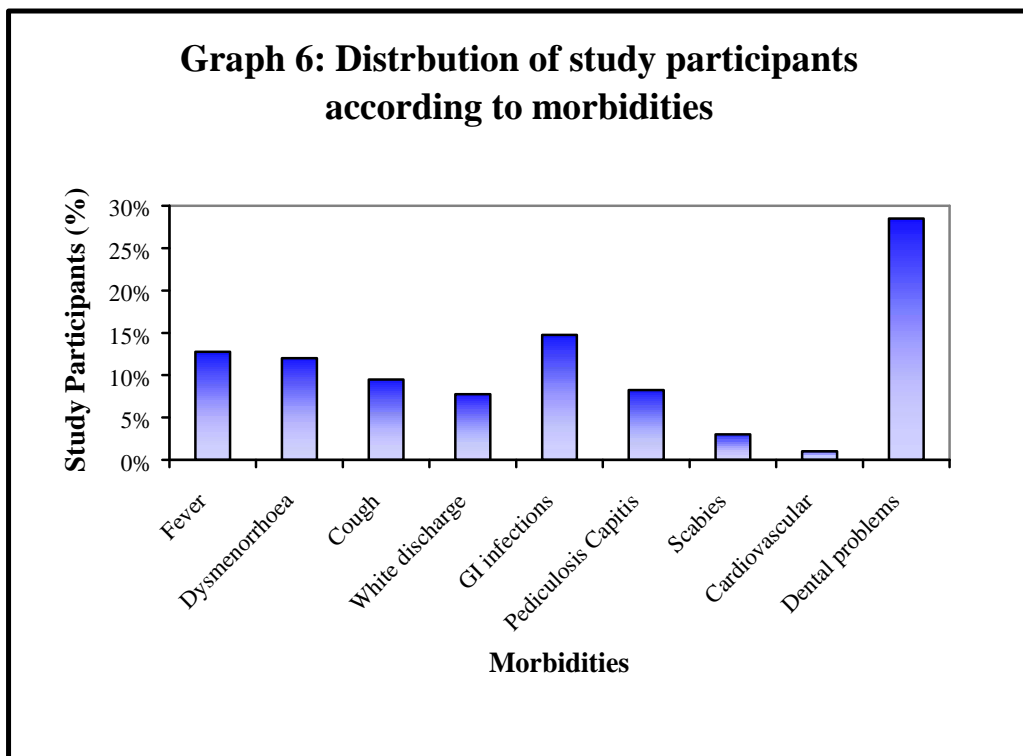
### **Teenage pregnancy and antenatal care**

Of the 15 (3.75%) married girls, nine (60%) were pregnant and all nine pregnant women were registered for antenatal care (ANC) care. Of them, four (44.44%) had registered in tertiary care centre. Two (2.22%) each in the primary health centre and private hospitals, and one (11.11%) in ESI Hospital. All of them had undergone antenatal checkups according to their duration of their pregnancy.

### III. Morbidity Profile

**Table 9. Distribution of study participants according to morbidities**

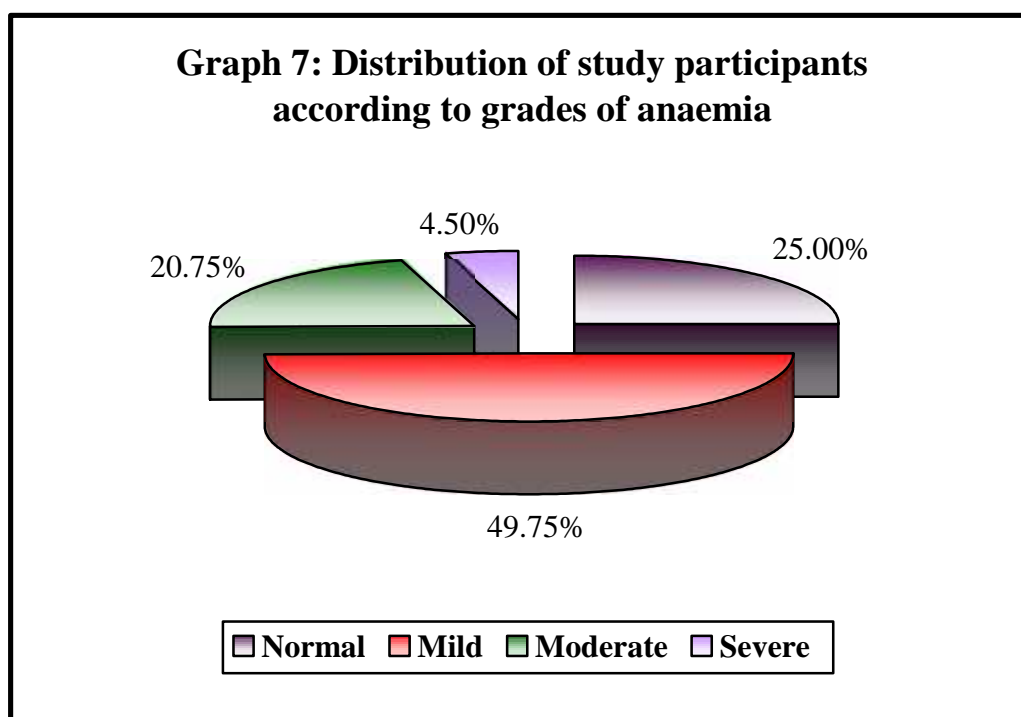
Morbidity	Study participants	
	Number	Percentage
Fever	51	12.75
Dysmenorrhoea	48	12.00
Cough	38	9.50
White discharge	31	7.75
GI Infections	59	14.75
Pediculous capitis	33	8.25
Scabies	12	3.00
Cardiovascular diseases	04	1.00
Dental problems	114	28.50



Among 400 adolescent girls, morbidity in the last one month has been gastrointestinal infections (14.75%), fever (12.75%), dysmenorrhoea (12%), cough (9.5%), white discharge (7.75%), dental problems (28.5%), pediculous capitis (8.2%), scabies (3%) and cardiovascular diseases (1%).

**Table 10. Distribution of study participants according to grades of anaemia**

Grades of anaemia	Hb Range (gm%)	Study participants	
		Number	Percentage
Normal	>12	100	25.0%
Mild	10-12	199	49.75%
Moderate	7-<10	83	20.75%
Severe	<7	18	4.5%
<b>Total</b>		<b>400</b>	<b>100%</b>



Over all prevalence of anaemia in adolescent girls was found to be 75%. Majority of them had mild anemia (49.75%) followed by moderate (20.75%) and severe (4.5%) anaemia.

**Table 11. Association of age with anaemia**

<b>Anaemia</b>	<b>Age 10 to 14 years</b>		<b>Age 15 to 19 years</b>	
	<b>Number</b>	<b>Percentage</b>	<b>Number</b>	<b>Percentage</b>
<b>Present</b>	250	75.98	50	70.43
<b>Absent</b>	79	24.02	21	29.57
<b>Total</b>	<b>329</b>	<b>100</b>	<b>71</b>	<b>100</b>

$$\chi^2 = 0.965$$

$$df = 1$$

$$p=0.326$$

Among adolescent girls between the age 10 to 14 years, 75.98% were anaemic while in the age between 15 to 19 years 70.43% were anaemic. However difference was statistically not significant (p=0.326)

**Table 12. Association of anaemia with socioeconomic status**

Socio- economic status	Anaemia					
	Present		Absent		Total	
	No.	%	No.	%	No.	%
Class I	00	0.00%	00	0.00%	00	100%
Class II	05	62.50%	03	37.50%	08	100%
Class III	36	72.00%	14	28.00%	50	100%
Class IV	69	75.00%	23	25.00%	92	100%
Class V	190	76.00%	60	24.00%	250	100%
<b>Total</b>	<b>300</b>	<b>75.00%</b>	<b>100</b>	<b>25.00%</b>	<b>400</b>	<b>100%</b>

$\chi^2=1.040$

Df=3

p=0.792

In this study out of 300 adolescent girls with anaemia, 250 (62.5%) belonged to class V, 92 (23%) class IV, 50 (12.5%) Class III and eight (2%) class II. Prevalence of anaemia was marginally high among class V (76%) as compared to class IV (75%), class III 72% and class II (62.5%). However, this difference was not found statistically significant (p=0.792).

**Table 13. Association between age, socio-economic status and grades of anaemia**

Age	SES	Anaemia						Non Anaemic		Total	
		Mild		Moderate		Severe		No	%	No	%
		No	%	No	%	No	%				
10 to 14 Years	<b>I</b>	0	0.00	0	0.00	0	0.00	0	0.00	<b>0</b>	<b>0.00</b>
	<b>II</b>	0	0.00	4	66.7	1	16.7	1	16.7	<b>6</b>	<b>1.50</b>
	<b>III</b>	7	17.5	23	57.5	0	0.00	10	25.0	<b>40</b>	<b>10.00</b>
	<b>IV</b>	15	20.0	40	53.3	1	1.3	19	25.3	<b>75</b>	<b>18.75</b>
	<b>V</b>	46	22.1	99	47.6	14	6.7	49	23.6	<b>208</b>	<b>52.00</b>
	<b>Total</b>	68	20.66	166	50.45	16	4.86	79	24.01	<b>329</b>	<b>82.25</b>
			$x^2=6.137$			<b>Df=6</b>		<b>p=0.408</b>			
15 to 19 Years	<b>I</b>	0	0.00	0	0.00	0	0.00	0	0.00	<b>0</b>	<b>0.00</b>
	<b>II</b>	0	0.00	0	0.00	0	0.00	2	100.0	<b>2</b>	<b>0.50</b>
	<b>III</b>	3	30.0	3	30.0	0	0.00	4	40.0	<b>10</b>	<b>2.50</b>
	<b>IV</b>	3	17.6	9	52.9	1	5.9	4	23.5	<b>17</b>	<b>4.25</b>
	<b>V</b>	9	21.4	21	50.0	1	2.4	11	26.2	<b>42</b>	<b>10.5</b>
	<b>Total</b>	15	21.12	33	46.47	2	2.81	21	29.57	<b>71</b>	<b>17.75</b>
			$x^2=3.528$			<b>Df=4</b>		<b>p=0.474</b>			

In this study 329 (82.25%) adolescent girls belonged to the age group of 10 to 14 years out of which 250 (62.50%) were anaemic. Among them 68 (20.66%) had mild, 166 (50.45%) had moderate and 16 (4.86%) had severe grades of anaemia and majority belonged to Class V (52%). However the association between socio economic status and grades of anaemia in this age group had no statistical significance (p=0.408).

In this study 71 (17.75%) adolescent girls belonged to the age group of 15 to 19 years out of which 50 (12.50%) were anaemic. Among them 15 (21.12%) had mild, 33 (46.47%) had moderate and two (2.81%) had severe grades of anaemia and majority belonged to Class V (10.5%). However the association between socio economic status and grades of anaemia in this age group had no statistical significance (p=0.474).

Prevalence of severe anaemia was highest in girls belonging to class V in both the groups.

**Table 14. Association of anaemia with menarcheal status**

Menarcheal status	Anaemia					
	Present		Absent		Total	
	No.	%	No.	%	No.	%
Attained	147	72.10%	57	27.90%	204	100%
Not attained	153	78.06%	43	21.94%	196	100%
Total	300	75.00%	100	25.00%	400	100%

$\chi^2=1.921$

Df=1

p=0.166

In this study 204 (51%) girls had attained menarche and 196 (49%) girls had not attained menarche. Prevalence of anaemia was higher in girls who had not attained menarche that is 78.06% as compared to girls who had attained menarche. However, this difference in prevalence of anaemia in relation to menarcheal status of adolescent girls was statistically not significant ( $p>0.166$ ).

#### **Association anaemia with diet**

In the present study, out of 300 adolescent girls with anaemia, 85 (21.25%) adolescent girls were taking vegetarian diet and 315 (78.75%) had mixed diet. Prevalence of anaemia was higher in girls on mixed diet that is 239 (75.9%) as compared to vegetarian girls 61 (71.8%). However, this difference was not statistically significant ( $p>0.438$ ).

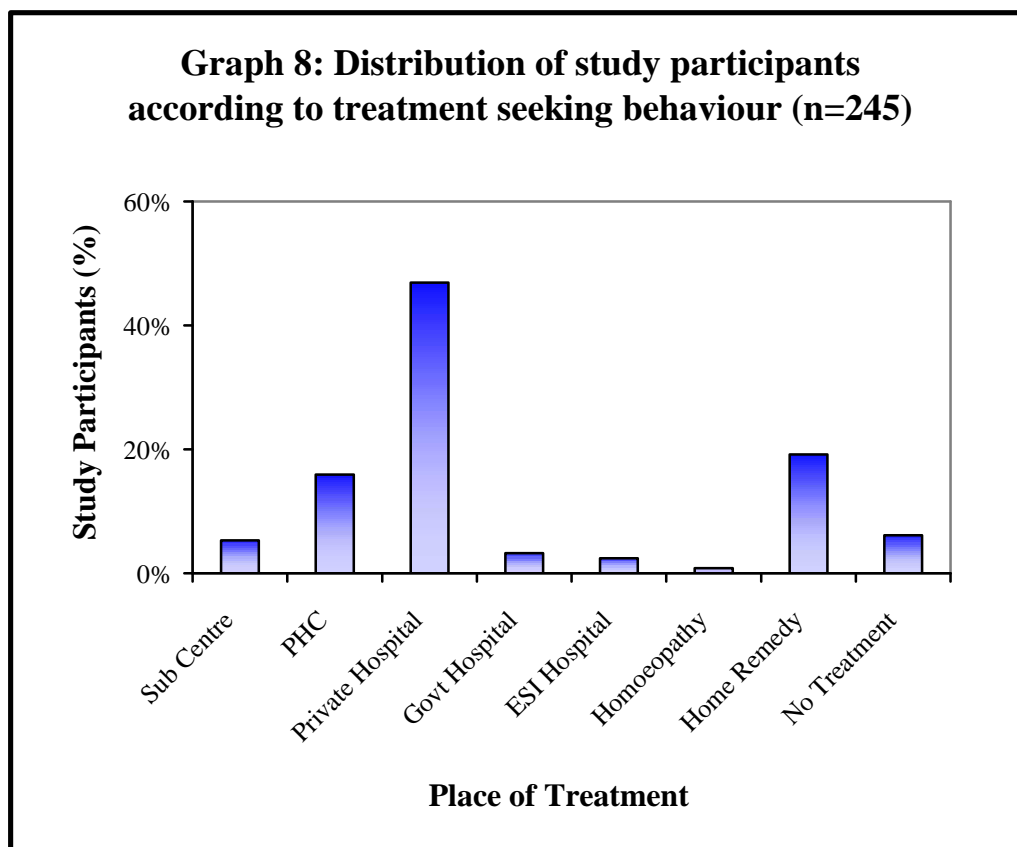
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#### IV. Treatment seeking behaviour

**Table 15. Distribution of study participants according to treatment seeking behaviour (n=245)**

Health facility	Study participants	
	Number	Percentage
Sub-centre	13	5.32
Primary Health centre	39	15.91
Private Hospital	115	46.93
Government Hospital	8	3.26
ESI hospital	6	2.44
Homeopathy	2	0.81
Home remedy	47	19.21
No treatment	15	6.12
<b>Total</b>	<b>245</b>	<b>100</b>



Out of 400 adolescent girls, 245 (61.25%) had sought for treatment for the health problems in last one month, of which 183 (74.69%) visited health facility for treatment, 47 (19.21%) took home remedy and 15 (6.12%) had not taken any treatment. Majority of them (46.93%) visited private hospital. The others preferred primary health centre (15.91%), sub centre (5.32%), government hospital (3.26%), Employees State Insurance (ESI) hospital (2.44%) and Homoeopathy hospital (0.81%).

**Table 16. Decision makers for treatment seeking behaviour of adolescent girls (n=245)**

<b>Decision makers</b>	<b>Study participants</b>	
	<b>Number</b>	<b>Percentage</b>
Self	51	20.82
Family members	193	78.78
Friends	1	0.40
<b>Total</b>	<b>245</b>	<b>100</b>

Out of 400 adolescents, 245 (61.25%) had taken treatment for the health problems in last one month, for which 51 (20.82%) had decided themselves about the place of treatment whereas for 193 (78.78%) family members were decision makers. Among the 15 married adolescent girls, five (33.33%) decided on their own whereas in 10 (66.67%) husband and in-laws were the decision makers.

## **DISCUSSION**

Increasing investment in improving the lives of adolescents will also have an impact on achieving several of the Millennium Development Goals (MDGs) that includes gender equality, education and improving maternal and child health. Nearly one fourth of India's population comprises of adolescents representing a vibrant human resource. What happens in the future depends to a large extent on the decisions taken by adolescents as they enter their reproductive years. Hence it is of utmost importance to strengthen efforts and formulate innovative strategies to channelize adolescents' energies in a constructive direction.

The present study was undertaken to assess health status of adolescent girls by studying morbidity patterns and the treatment seeking behavior among them.

### **Socio demographic profile**

The results of the present study showed that majority (82.25%) were between 10 to 14 years and 17.75% were between 15 to 19 years. The mean age among the study population was  $12.9 \pm 2.06$  years (Table 1). This is slightly different in the study<sup>25</sup> conducted in Rajasthan where, 74.38% adolescents were in the age group of 10 to 14 years and 25.6% between the age 15 to 18 years. Similar trend was also seen in a study<sup>17</sup> in Bangladesh, whereas a study<sup>48</sup> conducted in Ratnagiri reported 94.6% in the age group 15 to 19 years and 5.3% adolescent girls in between 11 to 14 years and mean age as 16.9 years.

In the present study majority (73.5%) were Hindus followed by Muslims (26.25%) and Christian (0.25%). Whereas, according to the NNMB survey<sup>31</sup> and NFHS 3<sup>8</sup> report 90.8% and 82% girls were Hindus respectively. Another study<sup>23</sup> conducted at Calcutta reported 50% as Hindus.

In the present study out of 400 almost 98.5% were literate of which 90% were currently studying. Government policy of free education to girls has resulted in favourable outcome. However 8.5% have been school dropouts. Of the 394 literate girls, 278 (69.5%) were educated up to primary school, 105 (26.25%) up to high school and 11 (2.75%) up to collegiate education (Table 2). Studies<sup>23,40,48</sup> conducted at Kolkatta, Tamilnadu and Ratnagiri reported literacy rate of 75% to 90% with 8% to 23% school dropouts. Whereas, a study<sup>43</sup> conducted in Wardha reported that 0.9% girls were illiterate while 50% girls had completed secondary level education and 5.6% completed collegiate education.

In the present study, 360 (90%) were studying, 11 (2.8%) were house wives and 29 (7.2%) were doing domestic work. Whereas a study<sup>42</sup> conducted in Wardha reported 14.1% were involved in domestic work and 9.8% were labourers.

The most common causes among the school dropouts in this study have been domestic work (38.23%), opposition by parents (41.17%) and marriage (8.82%). According to NFHS-2,<sup>30</sup> the most common causes for not attending school have been, education not considered necessary (13.17%), did not like schools and not interested in studies (15.8%), involvement in domestic work (24.5%) and did not afford fee (24.5%). The young girl is considered as a

domestic help and at the time of financial constraints the son is educated at the cost of daughters education.

In the present study, with regard to the parents educational status one fifth of fathers and one third mothers were illiterates. A study<sup>34</sup> from Indori reported 16.52% fathers and 33.4% mothers were illiterates. Another study<sup>35</sup> from Meerut reported that 32.93% mothers were illiterate. Whereas study conducted in Kolkatta<sup>23</sup> reported 60% illiteracy status among parents.

In this study, the literacy status among parents was high which could be the reason for the high literacy status (98.5%) among adolescent girls encouraging their daughters for education.

In this study 98% belonged to lower socio-economic strata (Class III, IV and V) and two percent belonged to Class II. None of the study participant was from Class I (Table 3). Wardha study<sup>43</sup> reported 79.7% participants from lower socio-economic strata whereas a study<sup>35</sup> conducted in Meerut reported 54.75%.

In the present study 63.5% of the adolescent girls belonged to nuclear family, 29.3% to joint family and 7.2% to broken family. Similar pattern was seen in a survey conducted by NNMB<sup>31</sup> on adolescent girls where, 62.9% belonged to nuclear family and 16.9% belonged to joint family. Similarly Meerut study<sup>35</sup> showed that 63.9% belonged to joint family.

In our study 51% had attained menarche. The mean age of menarche was  $13.00 \pm 2.15$  years. Results of several studies<sup>28,33,48</sup> have shown age of menarche ranging from 13.2 to 13.7 years. There are many factors influencing age at

menarche besides genetic make up of an individual such as nutritional status, socio-economic status and climate which determine age at menarche. It is known fact that poor socio-economic status and associated malnutrition delay menarche. However in the present study, 49% of adolescent girls had not attained menarche which could be due to lower socio-economic and poor nutritional status. In this study 49% have not attained menarche, may be due to low iron stores throughout childhood contributing to delayed menarche.

In the present study, majority 394 (98.5%) had no habits; three (0.75%) each had habit of pan and tobacco chewing. This is much less when compared with NFHS-3<sup>8</sup> survey report quoting 3.5% as the prevalence of tobacco consumption.

### **Anthropometry**

In this study the mean height of the study subjects was  $138.60 \pm 29.54$  cms with range being 102.50 cms to 165 cms. The mean height in the age group of 10 to 14 years was  $136.02 \pm 11.34$  cms and  $150.74 \pm 6.40$  cms in the age group of 15 to 19 years. The mean weight in the age group of 10 to 14 years was  $27.45 \pm 6.95$  Kgs and  $39.21 \pm 5.55$  Kgs in the age group of 15 to 19 years. The overall mean weight of the study population was  $29.5 \pm 8.08$  Kgs with minimum being 15 Kgs to maximum 55 Kgs (Table 4 and 5). Whereas a study<sup>25</sup> conducted in Rajasthan observed that in the age group of 10 to 14 years mean height and weight was more ( $148.10 \pm 7.30$  cms and  $34.10 \pm 5.80$  Kgs), however for the age group of 15 to 19 years the observations were similar to our study.

In this study adolescent girls between the age 10 to 14 years were more stunted (63.82%) as compared to 15 to 19 years (40.84%) based on less than third percentile of NCHS standards.<sup>56,57</sup> This difference was statistically significant ( $p=0.0003$ ) (Table 6). A study<sup>29</sup> conducted in Harayana also showed a declining trend of stunting from 12 years to 17 years whereas, according to 2000-2001 survey conducted by NNMB,<sup>31</sup> prevalence was 35% in 10 to 13 years and 39% in 14 to 17 years. Another study<sup>22</sup> in Tigray observed the prevalence of stunting as 26.5% and the study suggested that, age was strong predictor of stunting ( $r^2 = 0.8838, p<0.0001$ ).

In the present study adolescent girls between the age 10 to 14 years were more thin (60.79%) as compared to 15 to 19 years (39.43%) based on less than fifth percentile of NHANES standards.<sup>56</sup> This difference was statistically significant ( $p=0.009$ ) (Table 7). Whereas a study<sup>29</sup> conducted in Harayana showed that increasing trend of thinness among adolescent girls (four percent at 12 years and 59% at 17 years). Another study<sup>22</sup> in Tigray observed the prevalence of thinness as 58.3% and the study concluded that, age was strong predictor of stunting ( $r^2 = 0.3324, p<0.0001$ ).

However, in the present study mean height, weight and BMI was less among the adolescent girls aged between 10 to 14 years compared to 15 to 19 years (Table 8). This difference was statistically highly significant using 't' test ( $p=0.000$ ). This could be probably due to growth spurt which is known to occur between 12 to 16 years for girls.<sup>61</sup>

In this study, 15 girls were married among whom four were married before 18 years of age. According to NNMB survey<sup>31</sup> 23% girls marry before the age of 18 years whereas, NFHS-3<sup>8</sup> report has shown that 46% of Indian women marry below the legal age of marriage. The numbers of married girls in the present study as compared to NNMB and NFHS-3 report were comparatively less. However, inspite of legal age of marriage, 15 girls got married could be due to the social pressure and concern among the parents about getting the girl married at an early age.

In the present study 15 (3.75%) girls were married of whom nine (60%) were pregnant exposing themselves to all the risks of teenage pregnancy. Whereas according to NFHS-3,<sup>8</sup> 16% of adolescents between the age of 15 to 19 years become pregnant.

### **Morbidity profile**

In this study 61.25% had one or the other health problems in the last one month. The most common morbidities being fever (12.75%), dysmenorrhoea (11.25%), cough (9.5%), pediculous capitis (8.25%), white discharge (7.75%) and scabies (3%) (Table 9). Various studies<sup>26,28,33,34,40,48</sup> have reported prevalence of dysmeorrhoea to be 40 to 60%, joint pains and recurrent respiratory problems 20%, white discharge 19.4% and general illness as five percent. Study<sup>34</sup> conducted in Indori has reported the prevalence of tonsillitis 13.48%, dental caries 5% to 14%, skin 1.3%, nasal polyp 0.87% and iodine deficiency to be 4.44%. Variation in the morbidity pattern in the present study with regard to other

studies could be attributable to variation in the socio-economic status, environmental sanitation, personal hygiene and climatic conditions.

In this study majority of adolescent girls were anaemic (75%) and of them 46.75% had mild anemia, 20.75% had moderate and 4.5% had severe anaemia (Table 10). Study<sup>36</sup> from Rural Medak reported prevalence of anaemia as 81% (mild 63.2%, moderate 12.5% and severe 5.3%). Other studies<sup>19</sup> conducted in Bangladesh, Indonesia, Nepal, Mynamar, Srilanka report prevalence of anemia as 43%, 25.8%, 42%, 26.4% and 40% respectively. Whereas study<sup>26</sup> conducted in Tamilnadu reported 30% prevalence of anaemia. A very high prevalence of anaemia in this study could be due to lower socio-economic status and nutritional deficiency.

Various studies<sup>35,37</sup> have reported significant association of sociodemographic parameters like age, religion, socio-economic status, diet, menarcheal status, literacy status of parents with anaemia. However in the present study these sociodemographic parameters have not shown any statistically significant association with anaemia ( $p > 0.05$ ) (Table 11, 12, 13 and 14). In both the age groups, percentage of girls with severe anaemia has been more in class V socioeconomic group indicating that nutritional deficiency, ignorance could be the reasons for severe anaemia. Haemoglobin status of moderately and severely anaemic girls in both age groups if not corrected may expose them to high risk pregnancy in future.

**Treatment seeking behaviour**

In this study out of the 61.25% adolescent girls who had health problems in last one month, almost 75% visited health facility for treatment and 19% took home remedy. Almost 47% have taken treatment from private hospital and 27% have taken treatment from government sector like primary health centre, subcentre, ESI hospital etc (Table 15). A community based survey<sup>33</sup> in Parganas reported that 32.8% took treatment from government sector and six percent stayed back at home without treatment. A study<sup>40</sup> done in Kanchipuram reported that, 45% had gone to government hospital and 23% to private clinics. This difference in positive treatment seeking behaviour could be due to the influence of parents, elders in the family and various socio-demographic factors.

Out of 245 girls who had one or the other health problems, the decision regarding treatment seeking behaviour was made by family members (78.78%) (Table 16). Among the 15 married adolescent girls, five (33.33%) decided on their own whereas in 10 (66.67%) husband and in-laws were the decision makers. A community based survey<sup>33</sup> in Parganas, West Bengal reported that 64.6% of girls were accompanied by parents for treatment. In India, among married young women aged 15 to 19 years, autonomous decision making and freedom of movement is very low with only 38.6% involved in decisions about their own health care.<sup>12</sup>

Of the 15 (3.75%) married girls, nine (60%) were pregnant and all nine pregnant women were registered for ANC. Of them, four (44.44%) had registered in tertiary care centre. Two (2.22%) each in the primary health centre and private

hospitals, and one (11.11%) in ESI Hospital. All of them had undergone antenatal checkups according to their duration of their pregnancy. According to study<sup>41</sup> conducted in four states of India namely Bihar, Madhya Pradesh, Uttar Pradesh and Rajasthan showed that 42% of adolescent pregnant mothers received prenatal care. Another survey (NFHS-2),<sup>12</sup> among mothers less than age 20 years showed that, only 68.7% received prenatal care from a health worker or professional, 79.9% received a three plus month-supply of iron and folic acid, 67.6% received two or more doses of Tetanus Toxoid, and only 41.6% were assisted at delivery by a skilled birth attendant.

Strategies to improve the health status of adolescent girls need to go beyond the conventional maternal and child health care programs to reach girls before conception to break the intergenerational cycle of malnutrition. Health care seeking is a central issue in the treatment of morbidity. Illness or deviation from state of good health is subjective awareness of an individual. Cure or relief from it may be sought within or outside of medical/health facilities.

## **CONCLUSION**

Adolescent girls constitute an important segment of the population. Their health status influences their reproductive functioning – pregnancy outcomes, birth weight, pregnancy wastage etc. In the present study almost 75% of the girls were anaemic. Their status of anaemia is likely to worsen during pregnancy leading to complications including post partum haemorrhage. Although their literacy status and health seeking behaviour is on the better side, it needs to be improved. Socio-economic factors, literacy status, menarcheal status, diet etc seem to be not having any significant impact on the health status of adolescent girls.

Iron supplementation programmes specially meant for adolescent girls need to be introduced for both school going and non school going girls. Strict monitoring and quality control should be an important component of the programme which shall eventually ensure that no adolescent girl is anaemic.

## **LIMITATIONS**

The limitations of the study are;

- The study did not incorporate assessment of psychological and behavioural problems.
- The number of adolescents were not equal in the age group of 10 to 14 years and 15 to 19 years which might have affected the results.
- Detailed information on dietary intake has not been collected.

## **RECOMMENDATIONS**

On the basis of this study, the following recommendations have been made for the improvement of health status of adolescent girls in the community.

- As prevalence of anaemia is very high iron and folic acid supplementation should be provided through schools and anganwadis especially for the girls of lower socio economic status.
- Aggressive involvement of teachers, parents, panchayat raj institution, NGO's, mahila mandals, social activists for the planning and implementation of welfare programmes for adolescent girls is needed.
- An IEC campaign (information, education, and communication) should be carried out in the rural area periodically to raise the awareness of adolescent girls and their mothers about the personal hygiene and cleanliness, healthy nutritional practice like consumption of iron rich food and sprouted food etc.

## SUMMARY

The present community based cross-sectional study was undertaken to assess the health status of adolescent girls by knowing the various morbidity patterns among them and their treatment seeking behavior.

The duration of the study was for one year from 1<sup>st</sup> January 2009 to 31<sup>st</sup> December 2009. 400 adolescent girls aged 10 -19 years who were residents of Peeranwadi, a rural field practice area of the Department of Community Medicine, Jawaharlal Nehru Medical College, Belgaum were included in the study by random sampling.

Majority of participants (82.25) were in the age group of 10-14 years. More than 70% were Hindus and 63.5% belonged to nuclear family, 3.8% were married and housewives were 11 (2.8%). Majority (69.5%) of girls had primary education and 8.5% were school dropouts. Out of 400, 79.20% fathers and 67.5% mothers were literate. Majority of adolescent girls (85.5%) belonged to lower socioeconomic class and 204 (51%) attained menarche.

Age wise percentile distribution of height, weight and BMI of adolescent girls when compared to NCHS Standard were less at all ages. Overall 63.82% of age group 10 – 14 years and 40.84% of age group 15 – 19% were stunted and thinness was prevalent in 60.79% and 39.43%. The mean height, weight and BMI was less among the adolescent girls aged between 10 to 14 years compared to 15 to 19 years (p=0.000).

Out of 15 (3.75%) married adolescent girls 9 (66.66%) were pregnant and all of them had registered for ANC care.

In this study 61.25% had one or the other health problems in the last one month. The most common morbidities being fever (12.75%), dysmenorrhoea (11.25%), cough (9.5%) Pediculous capitis (8.25%), white discharge (7.75%) and scabies (3%). Prevalence of anaemia in the present study was 75% with 49.75% mild anaemia, 20.75% moderate anaemia and 4.5% severe anaemia.

With respect to health seeking behaviour almost 80% visited health facility for treatment and 19.2% took home remedy. Almost 47% have taken treatment from private hospital. almost 25% have taken treatment from government sector like primary health centre, subcentre, ESI hospital etc.

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## **ANNEXURE I - CONSENT FORM**

### **“HEALTH STATUS OF ADOLESCENT GIRLS AND THEIR TREATMENT SEEKING BEHAVIOUR”- CROSS SECTIONAL STUDY IN RURAL AREA.**

**INVESTIGATORS: Dr. Vijaya A. Naik, Dr Sulakshana Prabhu**

#### **Introduction**

You are being invited to participate in this study to find the health status and treatment seeking behaviour among adolescent girls- in rural area of Peeranwadi under Kinaye PHC

#### **Explanation of procedures**

In this study you will have to answer a few questions on nutrition, parity, age of menarche, habits and treatment seeking behaviour. Your general physical examination, abdominal and other system examination will be done and blood will be drawn for haemoglobin estimation.

The entire procedure may take about 30mins. If you agree to participate, you will be continued asking questions but the moment you don't want to continue then you can withdraw from the study.

#### **Possible Benefits**

The investigators does not promise or guarantee that you will receive direct benefits being in the study. It will benefit for the whole community

because by this study we will come to know the health status and treatment seeking behaviour among adolescent girls. This study will surely help in future for the improvement of health status by planning special programmes for adolescent girls.

### **Confidentiality**

Your identity will not be revealed. All information that is collected will be coded so that no one will know your identity.

### **Withdrawal**

Participation in this study is voluntary. If you don't wish to participate in this study, you will not lose benefits to which you are entitled.

### **Costs of participation**

The cost of the study will be borne by the researcher. There will be no additional cost to you for participating in this study.

### **Payment of Participation**

There will be no incentives to you for participating in this study.

### **Risks involved in the study to the participants**

There are no risks involved in this study. If you have any questions about this study you should contact Dr. Vijaya A. Naik and Dr Sulakshana Prabhu 9342611358. If you have any questions about your rights as a study participant,

you may contact Dr. V. D. Patil, Chairman, Jawaharlal Nehru Medical College Institution Ethics Committee on Human Subject Research at 08312741701.

**Legal Rights**

By signing this consent form, you are not waiving any of your legal rights.

**Publication Rights**

The results of the survey will be used for teaching and medical publications, however participant's identity will be kept confidential.

**Consent Statement**

I volunteer and consent to participate in this study. I have read the consent or it has been read to me in my own language. The study has been fully explained to me and I may ask questions at any time

_____	_____
Signature or left hand Thumb Impression (volunteer Subject)	Date

_____	_____
Signature of Person Obtaining Consent	Date

_____	_____
Signature of witness	Date

_____	_____
Parents Signature	Date

**ANNEXURE II – PROFOMA**

1. Name :
2. Age :
3. Address :
4. Occupation :
5. Religion : Hindu / Muslim / Christian / Jain / Others
6. Literacy status: Illiterate / Primary school / High school / College
7. Are you at present studying? Yes / No

If No reasons for discontinuation of school studies:

Domestic work / Opposition by parents / marriage /

To look after young siblings / others

8. Age of menarche:
9. Marital status : Married / Unmarried / Widow / Divorced.  
If married, age at marriage :
10. Total income of family in Rs / month: Percapita income:
11. Type of family: Nuclear / Joint / Broken / Others.
12. Parents education:
  - a. Father: Illiterate / Primary school / High school / College
  - b. Mother: Illiterate / Primary school / High school / College.
13. Food habits: Vegetarian / Mixed.
14. Habits if any: Smoking/Tobacco chewing/Pan chewing/Others.

15. Menstrual History

- a. Have you attained menarche ?      Yes /No.
- b. If yes age of menarche
- c. Duration of each cycle:
- d. Days of flow each cycle:
- e. Syntoms of discomfort : Dysmenorrhea
- f. Others \_\_\_\_\_

16. Did you have any of the following complaints in last 1 month

- Fever            Cough
- Abdominal pain            Any other (specify) \_\_\_\_\_
- If yes,

17. Where did you go for the treatment?

- Sub-centre            PHC
- Private doctor            Any other \_\_\_\_\_

18. Who decided for you to seek the treatment for that problem?

- Self            Parents
- In laws            Husband
- Any others \_\_\_\_\_

19. Do you have any of the following problems

- Menorrhagia            Dysmenorrhoea
- White discharge            Any other (specify) \_\_\_\_\_

20. To which health facility do you go for Treatment ?

- Sub-centre            PHC
- Private doctor            Any other \_\_\_\_\_

21. Who decides for you to seek treatment for these problems ?

Self  Parents

In laws  Husband

Any others \_\_\_\_\_

22. If married and pregnant at present

Duration of pregnancy \_\_\_\_\_

Registered Yes/No

If yes with whom \_\_\_\_\_

If no Why \_\_\_\_\_

No. of ANC checkups \_\_\_\_\_

By Whom \_\_\_\_\_

Have you received the following treatment : T.T. injection

Iron & folic acid

Albendazole

23. General physical examination

General appearance : Normal built / Moderate built / Obese.

Hair : Normal / Dull and dry / Pediculosis / Any other (specify)

Skin : Normal / Scabies / Pyoderma / Any other(specify)

Eyes : Conjunctiva : Pink / Pale / Inflammed

Sclera : Bitot spots / Yellow discolouration

Cornea : Normal / Dry / Hazy / Opaque /Ulcerated. / Others ;

Ears : Normal / Ear discharge / Any other(specify)

Nose : Normal / Polyps / Others

Tongue : Normal / Pale / Cyanosis / Fissured /Others.

Teeth : Normal / Stained / Caries / Cavities / others.(specify)

Gums: Normal / Bleeding / Others.

Nails : Pink / Pale / Koilonychia / Others

Any other findings :

**Vital Signs**

BP : mm. Hg.

Height : Cms.

Weight : Kgs.

Systemic Examination:

Respiratory System :

C.V.S :

P/A :

CNS :

Investigation : Hb. %

**ANNEXURE III – PHOTOGRAPHS**



**Photograph 1. Study area**



**Photograph 2. Interviewing the participant**



**Photograph 3. Blood collection for haemoglobin estimation**



**Photograph 4. Adolescent girl involved in domestic work**

# MASTER CHART

Sl. No.	Demographic Features										Menar che	Pregnancy Details				History	Anthropometry			General Physical Examination													Systemic examination				Morbidity Pattern		Treatment seeking behaviour		Menstrual problems		Treatment seeking behaviour										
	Age (Years)	Occupation	Religion	Educational status		Marital Status		SES	Parents Education			Status	Age (Years)	Duration (Months)	Registration		Place	ANC visits	ANC care	Food habits	Personal habits	Height (Cms)	Weight (Kgs)	BMI (Kg/m <sup>2</sup> )	Buit	Hair	Skin	Eyes	Sclera	Cornea	Ears	Nose	Tongue	Teeth	Gums	Nails	BP (mm Hg)		Respiratory system	Cardiovascular system	Per abdomen	Central nervous system	Musculoskeletal	Investigations Hb%	Morbidity	Type	Health care provider	Decision maker	Problems	Type	Health facility	Decision maker	
				Status	Reasons	Status	Age (Years)		Father	Mother																											SBP	DBP															
1	14	1	1	2	1	0	2	0	3	1	3	2	1	14	0	0	0	0	0	147.5	35	16.09	2	1	1	2	1	1	1	1	1	1	1	1	2	120	80	1	1	1	1	1	1	9.8	2	0	0	0	2	0	0	0	0
2	13	1	1	2	1	0	2	0	4	2	3	2	1	12	0	0	0	0	0	152.5	40	17.20	2	3	1	2	1	1	1	1	1	1	1	1	2	120	70	1	1	1	1	1	1	12.1	1	2	3	2	2	0	0	0	0
3	14	1	1	3	1	0	2	0	3	1	3	3	2	0	0	0	0	0	0	147.5	40	18.39	2	1	2	2	1	1	1	1	1	1	1	2	120	70	1	1	1	1	1	1	11.3	1	3	3	2	2	0	0	0	0	
4	11	3	2	2	2	1	2	0	4	2	2	2	2	0	0	0	0	0	0	130.0	20	11.83	2	1	1	2	1	1	1	1	3	1	2	120	70	1	1	1	1	1	1	10.1	1	0	0	0	2	0	0	0	0		
5	10	1	1	2	1	0	2	0	5	3	2	1	2	0	0	0	0	0	0	120.0	31	21.53	2	2	1	2	1	1	2	1	1	2	1	2	110	70	1	1	1	1	1	1	12.0	1	2	3	2	2	0	0	0	0	
6	12	1	1	2	1	0	2	0	3	2	2	2	2	0	0	0	0	0	0	142.5	32	15.76	2	2	1	2	1	1	1	1	1	3	1	2	110	90	1	1	1	1	1	1	10.4	1	1	2	5	2	0	0	0	0	
7	11	1	1	2	1	0	2	0	3	2	2	3	2	0	0	0	0	0	0	132.5	25	14.24	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	9.7	1	5	3	2	2	0	0	0	0	
8	10	1	1	2	1	0	2	0	3	2	3	3	2	0	0	0	0	0	0	125.0	26	16.64	2	2	1	2	1	1	1	2	2	1	2	110	70	1	1	1	1	1	1	12.2	2	0	0	0	2	0	0	0	0		
9	12	1	1	2	1	0	2	0	5	2	4	3	2	0	0	0	0	0	0	150.0	35	15.56	2	1	1	2	1	1	1	1	3	1	2	120	70	1	1	1	1	1	1	11.5	2	0	0	0	2	0	0	0	0		
10	11	1	1	2	1	0	2	0	5	2	3	2	2	0	0	0	0	0	0	135.0	25	13.72	2	1	2	1	1	1	1	1	1	1	2	120	70	1	1	1	1	1	1	11.3	1	2	1	2	2	0	0	0	0		
11	11	1	1	2	1	0	2	0	5	2	1	1	0	0	0	0	0	0	0	125.0	33	21.12	2	2	1	2	1	1	1	1	1	3	1	2	120	70	1	1	1	1	1	1	10.9	2	0	0	0	2	0	0	0	0	
12	12	1	1	2	1	0	2	0	3	1	2	1	1	11	0	0	0	0	0	147.5	30	13.79	2	1	1	2	1	1	1	1	1	2	1	2	120	70	1	1	1	1	1	1	8.0	1	4	2	2	2	0	0	0	0	
13	12	1	1	2	1	0	2	0	5	2	3	3	2	0	0	0	0	0	0	120.0	18	12.50	2	1	1	2	1	1	1	1	1	2	1	1	120	70	1	1	1	1	1	1	6.7	1	4	2	2	2	0	0	0	0	
14	12	1	1	2	1	0	2	0	3	2	2	3	1	12	0	0	0	0	0	125.0	19	12.16	2	1	1	2	1	1	1	1	1	2	1	2	120	70	1	1	1	1	1	1	12.1	1	2	2	2	2	0	0	0	0	
15	13	1	1	2	1	0	2	0	5	1	4	4	1	13	0	0	0	0	0	140.0	29	14.80	2	1	1	2	1	1	1	1	1	1	1	2	100	60	1	1	1	1	1	1	10.9	2	0	0	0	2	0	0	0	0	
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17	12	1	1	2	1	0	2	0	4	2	3	2	1	12	0	0	0	0	0	132.5	20	11.39	2	1	2	1	1	1	1	1	1	2	1	2	100	60	1	1	1	1	1	1	8.8	1	1	3	2	2	0	0	0	0	
18	14	1	1	3	1	0	2	0	4	1	3	2	1	12	0	0	0	0	0	157.5	36	14.51	2	1	1	1	1	1	1	1	3	1	2	110	70	1	1	1	1	1	1	12.4	1	4	4	2	2	0	0	0	0		
19	12	1	1	2	1	0	2	0	5	2	2	3	0	0	0	0	0	0	0	132.5	25	14.24	2	2	1	2	1	1	1	1	1	3	1	2	110	70	1	1	1	1	1	1	11.3	1	2	3	2	2	0	0	0	0	
20	11	1	1	2	1	0	2	0	3	2	4	2	2	0	0	0	0	0	0	122.5	25	16.66	2	1	1	2	1	1	1	1	1	3	1	2	110	70	1	1	1	1	1	1	10.9	1	0	0	0	2	0	0	0	0	
21	12	1	1	2	1	0	2	0	3	1	3	2	1	12	0	0	0	0	0	140.0	27	13.78	2	1	1	2	1	1	1	1	1	1	1	2	120	70	1	1	1	1	1	1	10.3	2	0	0	0	1	2	3	2	0	
22	12	1	1	2	1	0	2	0	5	1	3	2	2	0	0	0	0	0	0	140.0	22	11.22	2	1	1	2	1	1	1	1	1	3	1	2	110	70	1	1	1	1	1	1	6.8	1	4	3	2	2	0	0	0	0	
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24	13	1	1	2	1	0	2	0	5	1	3	2	1	13	0	0	0	0	0	145.0	32	15.22	2	1	1	2	1	1	1	1	1	1	1	2	120	70	1	1	1	1	1	1	12.1	1	1	3	2	1	3	3	2	0	
25	13	1	1	2	1	0	2	0	5	1	3	2	1	12	0	0	0	0	0	140.0	30	15.31	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	10.4	1	1	3	2	1	3	3	2	0	
26	14	1	1	3	1	0	2	0	4	1	2	3	1	14	0	0	0	0	0	152.5	40	17.20	2	1	1	2	1	1	1	1	1	2	1	2	110	70	1	1	1	1	1	1	11.2	1	3	3	2	2	0	0	0	0	
27	16	1	1	3	1	0	2	0	5	1	2	1	1	15	0	0	0	0	0	145.0	35	16.65	1	1	1	2	1	1	1	1	1	1	2	120	80	1	1	1	1	1	1	9.5	2	0	0	0	2	0	0	0	0		
28	14	1	1	2	1	0	2	0	3	1	2	3	1	13	0	0	0	0	0	145.0	36	17.12	2	1	1	2	1	1	1	1	1	1	2	120	80	1	1	1	1	1	1	12.1	1	2	3	2	1	3	3	2	0		
29	14	1	1	2	1	0	2	0	4	1	2	2	2	0	0	0	0	0	0	147.5	33	15.17	2	2	1	2	1	1	1	1	1	2	1	2	120	70	1	1	1	1	1	1	8.0	2	0	0	0	2	0	0	0	0	
30	12	1	1	2	1	0	2	0	4	1	2	2	1	11	0	0	0	0	0	127.5	24	14.76	2	1	1	2	1	1	1	1	1	1	2	130	70	1	1	1	1	1	1	12.2	2	0	0	0	1	1	3	2	0		
31	12	3	1	2	2	1	2	0	3	1	2	1	2	0	0	0	0	0	0	135.0	24	13.17	2	1	1	2	1	1	1	1	1	3	1	2	100	70	1	1	1	1	1	1	12.0	1	2	2	2	2	0	0	0	0	
32	12	1	1	2	1	0	2	0	4	1	3	2	2	0	0	0	0	0	0	135.0	24	13.17	2	3	1	2	1	1	1	1	1	1	2	120	70	1	1	1	1	1	1	10.3	1	1	3	2	2	0	0	0	0		
33	12	1	1	2	1	0	2	0	5	1	3	3	2	0	0	0	0	0	0	125.0	24	15.36	2	1	1	2	1	1	1	1	3	1	2	120	80	1	1	1	1	1	1	12.5	1	3	1	1	2	0	0	0	0		
34	11	1	1	2	1	0	2	0	5	1	1	1	2	0	0	0	0	0	0	130.0	23	13.61	2	3	1	2	1	1	1	1	3	1	2	110	70	1	1	1	1	1	1	8.3	2	0	0	0	2	0	0	0	0		
35	17	1	1</																																																		

# MASTER CHART

Sl. No.	Demographic Features										Menar che	Pregnancy Details				History	Anthropometry			General Physical Examination											Systemic examination				Morbidity Pattern		Treatment seeking behaviour		Menstrual problems		Treatment seeking behaviour														
	Age (Years)	Occupation	Religion	Educational status		Marital Status		Parents Education		SES		Type of family	Father	Mother	Status		Age (Years)	Duration (Months)	Registration	Place	ANC visits	ANC care	Food habits	Personal habits	Height (Cms)	Weight (Kgs)	BMI (Kg/m <sup>2</sup> )	Buit	Hair	Skin	Eyes	Sclera	Cornea	Ears	Nose	Tongue	Teeth	Gums	Nails	BP (mm Hg)		Respiratory system	Cardiovascular system	Per abdomen	Central nervous system	Musculoskeletal	Investigations Hb%	Morbidity	Type	Health care provider	Decision maker	Problems	Type	Health facility	Decision maker
				Status	Reasons	Status	Age (Years)	Father	Mother																															SBP	DBP														
38	13	1	1	2	1	0	2	0	5	1	2	3	1	13	0	0	0	0	0	2	0	143.5	38	18.45	2	1	1	2	1	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	10.2	2	0	0	0	1	3	3	2		
39	11	1	1	2	1	0	2	0	5	1	3	4	2	0	0	0	0	0	1	0	122.5	20	13.33	2	1	1	2	1	1	1	1	1	3	1	2	110	70	1	1	1	1	1	11.4	4	3	2	0	2	0	0	0				
40	13	1	1	2	1	0	2	0	5	1	1	1	1	13	0	0	0	0	0	1	0	142.5	31	15.27	1	1	1	1	1	1	1	1	1	1	2	100	70	1	1	1	1	1	12.1	2	0	0	2	0	0	0	0				
41	11	1	1	2	1	0	2	0	4	2	1	1	2	0	0	0	0	0	1	0	127.5	30	18.45	2	1	1	2	1	1	1	1	1	1	1	1	2	100	70	1	1	1	1	1	10.8	2	5	3	2	2	0	0	0			
42	12	1	1	2	1	0	2	0	4	1	4	3	2	0	0	0	0	0	2	0	130.0	22	13.02	2	1	1	1	1	1	1	1	1	3	1	2	100	70	1	1	1	1	1	11.4	1	1	3	2	2	0	0	0				
43	12	1	1	2	1	0	2	0	3	2	3	1	2	0	0	0	0	0	2	0	127.5	25	15.38	2	1	1	2	1	1	1	1	1	1	3	1	2	110	60	1	1	1	1	1	9.0	2	0	0	2	0	0	0	0			
44	12	1	1	2	1	0	2	0	3	3	1	2	2	0	0	0	0	0	2	0	132.5	24	13.67	2	1	1	2	1	1	1	1	1	3	1	2	110	70	1	1	1	1	1	10.6	2	0	0	0	2	0	0	0				
45	13	3	1	2	2	5	2	0	5	2	3	1	2	0	0	0	0	0	1	0	147.5	34	15.63	2	3	1	1	1	1	1	1	1	1	1	2	120	70	1	1	1	1	1	7.5	1	1	3	2	2	0	0	0				
46	12	1	1	2	1	0	2	0	5	1	2	2	2	13	0	0	0	0	2	0	127.5	25	15.38	2	1	1	2	1	1	1	1	1	3	1	2	100	70	1	1	1	1	1	12.2	2	0	0	0	1	2	2	2				
47	14	1	1	2	1	0	2	0	5	1	4	3	1	13	0	0	0	0	1	0	152.5	45	19.35	2	3	1	2	1	1	1	1	1	3	1	2	110	70	1	1	1	1	1	11.2	2	0	0	0	2	2	2	2				
48	13	1	1	2	1	0	2	0	5	1	3	4	2	0	0	0	0	0	1	0	135.0	25	13.72	1	1	1	1	1	1	1	1	1	1	1	1	1	110	70	1	1	1	1	1	11.9	2	0	0	0	2	0	0	0			
49	12	1	1	2	1	0	2	0	4	1	3	2	2	0	0	0	0	0	2	0	150.0	33	14.67	2	1	1	2	1	1	1	1	1	1	1	1	1	120	80	1	1	1	1	1	9.5	1	1	1	2	2	0	0	0			
50	11	1	1	2	1	0	2	0	4	2	3	3	2	0	0	0	0	0	2	0	120.0	25	17.36	2	2	1	2	1	1	1	1	2	1	1	110	70	1	1	1	1	1	12.3	1	1	3	2	2	0	0	0					
51	13	3	1	2	2	3	2	0	5	1	4	3	2	0	0	0	0	0	2	0	132.5	35	19.94	2	1	1	2	1	1	1	1	1	3	1	2	100	70	1	1	1	1	1	10.2	2	0	0	0	2	0	0	0				
52	15	1	1	3	1	0	2	0	3	3	4	3	1	13	0	0	0	0	2	0	145.0	45	21.40	2	1	1	2	1	1	1	1	1	2	1	2	120	70	1	1	1	1	1	10.9	2	0	0	0	1	2	3	2				
53	15	1	1	3	1	0	2	0	3	2	3	2	1	14	0	0	0	0	2	0	152.5	36	15.48	2	3	1	2	1	1	1	1	1	1	1	1	1	110	70	1	1	1	1	1	9.2	2	0	0	0	1	2	2	2			
54	12	1	1	2	1	0	2	0	5	1	3	2	2	0	0	0	0	0	2	0	152.5	31	13.33	2	1	1	2	1	1	1	1	1	2	1	1	100	70	1	1	1	1	1	12.5	2	0	0	0	2	0	0	0				
55	12	1	1	2	1	0	2	0	5	1	2	2	2	0	0	0	0	0	2	0	137.5	26	13.75	2	3	1	1	1	1	1	1	1	2	1	1	110	70	1	1	1	1	1	8.4	1	2	3	2	2	0	0	0				
56	15	1	1	3	1	0	2	0	5	2	3	3	1	13	0	0	0	0	2	0	160.0	43	16.80	2	1	1	2	1	1	1	1	1	1	1	2	120	80	1	1	1	1	1	11.4	2	0	0	0	1	5	0	0				
57	11	1	1	2	1	0	2	0	5	1	3	3	2	0	0	0	0	0	2	0	147.5	45	20.68	2	1	1	2	1	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	12.3	4	3	2	2	2	0	0	0			
58	14	3	1	2	1	2	0	5	1	3	2	1	13	0	0	0	0	0	2	0	157.5	25	10.08	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	10.8	4	4	2	2	2	0	0	0				
59	19	3	2	1	2	2	1	19	4	2	1	1	1	13	5	1	1	2	4	1	0	155.0	42	17.48	2	3	1	2	1	1	1	1	1	2	1	2	130	90	1	1	1	1	1	11.6	2	0	0	0	2	2	0	0			
60	17	3	1	1	2	2	1	16	4	2	1	1	1	14	7	1	3	3	5	2	0	155.0	30	12.49	2	2	1	2	1	1	2	1	1	2	1	2	120	80	1	1	1	1	1	11.2	2	0	0	0	1	3	0	0			
61	18	1	1	2	1	0	1	18	3	1	2	3	1	12	7	1	4	1	5	2	0	137.5	35	18.51	2	2	1	2	1	1	1	1	1	3	1	1	130	90	1	1	1	1	1	9.8	1	1	2	1	2	0	0	0			
62	16	3	1	3	2	2	2	0	3	1	3	1	1	13	0	0	0	0	2	0	150.0	45	20.00	2	1	1	2	1	1	1	1	1	1	1	1	1	110	70	1	1	1	1	1	12.1	2	0	0	0	1	3	0	0			
63	11	1	1	2	1	0	2	0	3	1	3	2	2	0	0	0	0	0	2	0	162.5	45	17.04	2	2	1	2	1	1	1	1	1	1	2	100	70	1	1	1	1	1	12.0	1	4	3	2	2	0	0	0					
64	13	1	1	2	1	0	2	0	5	1	4	3	1	13	0	0	0	0	2	0	142.5	26	12.80	2	3	2	2	1	1	1	1	1	2	1	2	120	80	1	1	1	1	1	9.6	1	4	3	2	1	4	0	0				
65	17	1	1	4	1	0	2	0	5	2	3	3	1	12	0	0	0	0	2	0	160.0	45	17.58	2	1	1	2	1	1	1	1	1	1	1	1	110	70	1	1	1	1	1	10.6	1	2	3	2	2	0	0	0				
66	12	1	1	2	1	0	2	0	5	1	3	3	2	0	0	0	0	0	2	0	157.5	50	20.16	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	12.2	1	2	3	2	2	0	0	0				
67	16	1	1	3	1	0	2	0	3	2	1	1	1	14	0	0	0	0	2	0	155.0	35	14.57	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	11.6	2	0	0	0	2	0	0	0				
68	11	1	1	2	1	0	2	0	4	2	3	3	2	0	0	0	0	0	1	0	132.5	26	14.81	2	1	1	2	1	1	1	1	1	2	1	1	110	70	1	1	1	1	1	11.0	1	5	3	2	2	0	0	0				
69	12	1	1	2	1	0	2	0	4	1	2	3	2	0	0	0	0	0	2	0	135.0	29	15.91	2	1	1	1	1	1	1	1	1	1	1	1	120	60	1	1	1	1	1	12.3	2	0	0	0	2	0	0	0				
70	13	1	1	2	1	0	2	0	4	2	4	2	1	12	0	0	0	0	2	0	127.5	21	12.92	2	1	1	2	1	1	1	1	1	3	1	2	120	80	1	1	1	1	1	12.0	1	5	3	2	2	0	0	0				
71	13	1	1	2	1	0	2	0	5	1	1	1	1	12	0	0	0	0	2	0	142.5	25	12.31	2	2	1	2	1	1	1	1	1	1	1	2	110	80	1	1	1	1	1	9.5	1	4	3	2	2	0	0	0				
72	11	1	1	2	1	0	2	0	5	1																																													

# MASTER CHART

Sl. No.	Demographic Features										Menar che	Pregnancy Details				History	Anthropometry			General Physical Examination										Systemic examination				Morbidity Pattern		Treatment seeking behaviour		Menstrual problems		Treatment seeking behaviour															
	Age (Years)	Occupation	Religion	Educational status		Marital Status		Parents Education		SES		Type of family	Father	Mother	Status		Age (Years)	Duration (Months)	Registration	Place	ANC visits	ANC care	Food habits	Personal habits	Height (Cms)	Weight (Kgs)	BMI (Kg/m <sup>2</sup> )	Buit	Hair	Skin	Eyes	Sclera	Cornea	Ears	Nose	Tongue	Teeth	Gums	Nails	BP (mm Hg)		Respiratory system	Cardiovascular system	Per abdomen	Central nervous system	Musculoskeletal	Investigations Hb%	Morbidity	Type	Health care provider	Decision maker	Problems	Type	Health facility	Decision maker
				Status	Reasons	Status	Age (Years)	Father	Mother																															SBP	DBP														
75	12	1	1	2	1	0	2	0	4	2	1	1	2	0	0	0	0	0	0	2	0	145.0	24	11.41	2	1	1	2	1	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	10.0	2	0	0	0	2	0	0	0	
76	15	1	1	3	1	0	2	0	4	1	4	2	2	0	0	0	0	0	0	2	0	145.0	30	14.27	2	1	1	2	1	1	1	1	1	1	1	2	100	70	1	1	1	1	1	1	10.3	1	4	3	2	2	0	0	0		
77	12	1	1	2	1	0	2	0	4	2	1	1	2	0	0	0	0	0	0	2	0	145.0	24	11.41	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	12.3	2	0	0	0	2	0	0	0		
78	12	1	1	2	1	0	2	0	3	1	2	2	2	0	0	0	0	0	0	2	0	122.5	24	15.99	2	1	1	2	1	1	1	1	1	5	1	2	110	70	1	1	1	1	1	1	11.2	2	0	0	0	2	0	0	0		
79	14	1	1	3	1	0	2	0	5	2	2	3	1	12	0	0	0	0	0	2	0	147.5	43	19.76	2	1	1	2	1	1	1	1	1	4	1	2	100	70	1	1	1	1	1	1	12.0	1	4	0	0	2	0	0	0		
80	16	1	1	3	1	0	2	0	4	3	3	2	2	0	0	0	0	0	0	1	0	152.5	38	16.34	2	1	1	2	1	1	1	1	1	2	1	2	130	90	1	1	1	1	1	1	10.4	2	0	0	0	2	0	0	0		
81	11	1	1	2	1	0	2	0	3	3	1	1	2	0	0	0	0	0	0	2	0	130.0	35	20.71	2	3	1	2	1	1	1	1	1	3	1	2	110	70	1	1	1	1	1	1	9.7	1	2	4	2	2	0	0	0		
82	16	1	1	3	1	0	2	0	4	1	3	3	1	15	0	0	0	0	0	1	2	147.5	37	17.01	2	1	1	2	1	1	1	1	1	5	1	2	110	70	1	1	1	1	1	1	12.2	1	4	3	2	1	2	0	0		
83	11	1	1	2	1	0	2	0	3	1	2	1	2	0	0	0	0	0	0	2	0	120.0	22	15.28	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	10.9	1	1	3	2	2	0	0	0		
84	14	1	1	3	1	0	2	0	5	1	1	2	1	14	0	0	0	0	0	2	2	152.5	40	17.20	2	1	1	2	1	1	1	1	1	1	1	2	120	80	1	1	1	1	1	1	11.3	1	4	0	0	2	0	0	0		
85	13	1	1	2	1	0	2	0	5	1	2	2	1	13	0	0	0	0	0	2	0	147.5	32	14.71	2	1	1	2	1	1	1	1	1	1	1	2	120	70	1	1	1	1	1	1	12.1	2	0	0	0	2	0	0	0		
86	15	1	1	3	1	0	2	0	5	2	1	1	1	14	0	0	0	0	0	2	0	145.0	31	14.74	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	12.0	1	4	3	2	2	0	0	0		
87	11	1	1	2	1	0	2	0	5	1	3	3	2	0	0	0	0	0	0	1	0	120.0	19	13.19	2	2	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	9.0	2	0	0	0	2	0	0	0		
88	12	1	1	2	1	0	2	0	5	1	1	1	2	0	0	0	0	0	0	2	0	147.5	25	11.49	2	1	1	2	1	1	1	2	1	2	110	70	1	1	1	1	1	1	12.5	1	1	3	2	2	0	0	0				
89	13	1	1	2	1	0	2	0	5	1	1	2	2	0	0	0	0	0	0	2	0	137.5	29	15.34	2	1	1	2	1	1	1	1	1	2	1	2	120	80	1	1	1	1	1	1	10.2	2	0	0	0	2	0	0	0		
90	12	1	1	2	1	0	2	0	4	2	3	2	2	0	0	0	0	0	0	2	0	142.5	25	12.31	2	1	1	1	1	1	1	1	1	1	1	2	120	80	1	1	1	1	1	1	9.6	2	0	0	0	2	0	0	0		
91	12	1	1	2	1	0	2	0	5	1	2	3	2	0	0	0	0	0	0	1	0	130.0	21	12.43	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	11.3	2	0	0	0	2	0	0	0		
92	15	1	1	3	1	0	2	0	4	1	1	1	1	14	0	0	0	0	0	2	3	152.5	39	16.77	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	11.7	2	0	0	0	1	3	0	0		
93	12	1	2	2	1	0	2	0	5	2	1	1	1	11	0	0	0	0	0	2	0	147.5	23	10.57	2	2	1	2	1	1	1	1	1	2	1	2	100	80	1	1	1	1	1	1	12.2	1	1	3	2	2	0	0	0		
94	12	1	2	2	1	0	2	0	5	1	1	1	2	0	0	0	0	0	0	2	0	147.5	22	10.11	2	3	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	11.6	1	2	3	2	2	0	0	0		
95	10	1	2	2	1	0	2	0	4	1	1	1	2	0	0	0	0	0	0	2	0	130.0	24	14.20	2	2	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	10.7	2	0	0	0	2	0	0	0		
96	12	1	1	2	1	0	2	0	3	1	2	2	1	12	0	0	0	0	0	2	0	152.5	25	10.75	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	11.0	2	0	0	0	1	3	0	0		
97	14	1	1	3	1	0	2	0	4	1	2	2	2	0	0	0	0	0	0	2	0	147.5	33	15.17	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	9.8	2	0	0	0	2	0	0	0		
98	14	1	1	3	1	0	2	0	4	1	1	1	1	12	0	0	0	0	0	2	0	147.5	40	18.39	2	3	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	12.0	2	0	0	0	2	0	0	0		
99	14	1	1	3	1	0	2	0	3	1	3	3	1	12	0	0	0	0	0	1	0	145.0	30	14.27	2	1	1	2	1	1	1	1	1	1	1	2	120	70	1	1	1	1	1	1	11.9	2	0	0	0	1	2	0	0		
100	14	1	1	3	1	0	2	0	3	2	2	1	1	14	0	0	0	0	0	2	0	140.0	36	18.37	2	1	1	2	1	1	1	1	1	1	1	2	130	80	1	1	1	1	1	1	12.2	1	2	3	2	1	2	0	0		
101	19	1	1	4	1	0	2	0	4	1	4	2	1	12	0	0	0	0	0	2	0	150.0	35	15.56	2	1	1	2	1	1	1	1	1	1	1	2	120	80	1	1	1	1	1	1	9.4	1	2	2	2	2	0	0	0		
102	19	1	2	3	2	2	1	17	5	2	3	3	1	13	0	0	0	0	0	2	0	157.5	45	18.14	2	1	2	1	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	10.3	2	0	0	0	1	2	4	4		
103	11	1	1	2	1	0	2	0	5	1	3	3	2	0	0	0	0	0	0	2	0	120.0	20	13.89	2	1	1	2	1	1	1	1	1	3	1	2	110	70	1	1	1	1	1	1	10.5	1	1	3	2	2	0	0	0		
104	18	2	1	3	2	1	1	18	4	2	1	1	1	13	4	1	5	2	5	2	0	142.5	32	15.76	2	1	1	2	1	1	1	1	1	3	1	2	120	80	1	1	1	1	1	1	11.3	1	2	4	2	2	0	0	0		
105	13	1	1	2	1	0	2	0	3	1	1	1	2	0	0	0	0	0	0	2	0	130.0	25	14.79	2	1	1	2	1	1	1	1	1	1	1	2	130	80	1	1	1	1	1	1	9.8	2	0	0	0	2	0	0	0		
106	13	1	1	2	1	0	2	0	5	2	1	1	1	13	0	0	0	0	0	2	0	150.0	35	15.56	2	1	1	2	1	1	1	1	1	1	1	2	120	80	1	1	1	1	1	1	9.6	1	2	3	2	1	2	0	0		
107	12	1	1	2	1	0	2	0	5	1	4	4	2	0	0	0	0	0	0	2	0	132.5	29	16.62	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	11.7	2	0	0	0	2	0	0	0		
108	12	1	1	2	1	0	2	0	5																																														

# MASTER CHART

Sl. No.	Demographic Features										Menar che	Pregnancy Details				History	Anthropometry			General Physical Examination											Systemic examination				Morbidity Pattern		Treatment seeking behaviour		Menstrual problems		Treatment seeking behaviour																		
	Age (Years)	Occupation	Religion	Educational status		Marital Status		Parents Education		SES		Type of family	Father	Mother	Status		Age (Years)	Duration (Months)	Registration	Place	ANC visits	ANC care	Food habits	Personal habits	Height (Cms)	Weight (Kgs)	BMI (Kg/m <sup>2</sup> )	Buit	Hair	Skin	Eyes	Sclera	Cornea	Ears	Nose	Tongue	Teeth	Gums	Nails	BP (mm Hg)		Respiratory system	Cardiovascular system	Per abdomen	Central nervous system	Musculoskeletal	Investigations Hb%	Morbidity	Type	Health care provider	Decision maker	Problems	Type	Health facility	Decision maker				
				Status	Reasons	Status	Age (Years)	Father	Mother																															SBP	DBP																		
	Status	Current status	Reasons	Status	Age (Years)	SES	Type of family	Father	Mother	Status		Age (Years)	Duration (Months)	Registration	Place		ANC visits	ANC care	Food habits	Personal habits	Height (Cms)	Weight (Kgs)	BMI (Kg/m <sup>2</sup> )	Buit	Hair	Skin	Eyes	Sclera	Cornea	Ears	Nose	Tongue	Teeth	Gums	Nails	SBP	DBP	Respiratory system	Cardiovascular system	Per abdomen	Central nervous system	Musculoskeletal	Investigations Hb%	Morbidity	Type	Health care provider	Decision maker	Problems	Type	Health facility	Decision maker								
112	15	1	1	3	1	0	2	0	5	1	3	2	1	13	0	0	0	0	0	0	1	0	140.0	35	17.86	2	1	1	2	1	1	1	1	1	1	1	1	2	120	80	1	1	1	1	1	1	1	1	12.0	2	0	0	0	1	3	2	2	0	0
113	17	1	1	4	1	0	2	0	3	1	4	3	1	13	0	0	0	0	0	1	0	162.5	40	15.15	2	2	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	1	1	9.3	2	0	0	0	1	3	3	2	0	0		
114	10	1	2	2	1	0	2	0	5	2	1	1	2	0	0	0	0	0	0	2	0	105.0	18	16.33	2	1	1	2	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	1	1	11.3	2	0	0	0	2	0	0	0	0	0			
115	11	1	1	2	1	0	2	0	5	1	3	2	1	0	0	0	0	0	0	2	0	137.5	26	13.75	2	3	1	2	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	1	1	11.2	2	0	0	0	2	0	0	0	0	0			
116	13	1	1	2	1	0	2	0	5	2	3	2	1	11	0	0	0	0	0	2	0	142.5	29	14.28	2	1	1	2	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	1	1	10.2	1	1	3	2	2	0	0	0	0	0			
117	14	1	1	3	1	0	2	0	4	2	3	1	1	14	0	0	0	0	0	2	0	142.5	42	20.68	2	1	1	2	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	1	1	12.1	1	4	3	2	2	0	0	0	0	0			
118	14	1	1	3	1	0	2	0	4	1	3	2	1	14	0	0	0	0	0	2	0	157.5	35	14.11	2	1	1	2	1	1	1	1	1	1	2	100	70	1	1	1	1	1	1	1	1	10.0	2	0	0	0	2	0	0	0	0	0			
119	10	1	1	2	1	0	2	0	4	2	1	2	2	0	0	0	0	0	0	2	0	120.0	28	19.44	2	1	1	2	1	1	1	1	1	1	2	100	60	1	1	1	1	1	1	1	1	12.0	2	0	0	0	2	0	0	0	0	0			
120	12	1	1	2	1	0	2	0	3	3	4	4	1	12	0	0	0	0	0	2	0	147.5	38	17.47	2	1	1	2	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	1	1	10.4	2	0	0	0	2	0	0	0	0	0			
121	16	3	1	3	2	2	2	0	3	3	1	2	1	13	0	0	0	0	0	2	0	147.5	38	17.47	2	1	1	2	1	1	1	1	1	1	2	100	70	1	1	1	1	1	1	1	1	12.3	1	1	3	2	2	0	0	0	0	0			
122	13	1	1	2	1	0	2	0	5	1	1	1	2	0	0	0	0	0	0	2	0	147.5	38	17.47	2	1	1	2	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	1	1	10.7	2	0	0	0	2	0	0	0	0	0			
123	18	1	1	4	1	0	2	0	5	1	4	1	1	13	0	0	0	0	0	1	0	155.0	45	18.73	2	1	1	2	1	1	1	1	1	2	1	130	90	1	1	1	1	1	1	1	1	10.9	2	0	0	0	2	0	0	0	0	0			
124	12	1	1	2	1	0	2	0	5	1	3	1	2	0	0	0	0	0	0	2	0	127.5	26	15.99	2	3	1	2	1	1	1	1	1	3	1	110	70	1	1	1	1	1	1	1	1	7.9	1	4	3	2	2	0	0	0	0	0			
125	14	1	1	3	1	0	2	0	3	3	1	3	1	13	0	0	0	0	0	1	0	152.5	29	12.47	2	1	1	2	1	1	1	1	1	1	2	100	60	1	1	1	1	1	1	1	1	12.5	2	0	0	0	2	0	0	0	0	0			
126	13	1	2	3	1	0	2	0	4	1	2	2	1	12	0	0	0	0	0	2	0	150.0	32	14.22	2	1	1	2	1	1	1	1	1	1	2	120	80	1	1	1	1	1	1	1	1	8.2	2	0	0	0	1	3	0	0	0	0			
127	13	1	2	3	1	0	2	0	4	1	2	2	2	0	0	0	0	0	0	2	0	137.5	25	13.22	2	1	1	2	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	1	1	11.2	4	3	2	0	2	0	0	0	0	0			
128	19	2	1	2	2	3	1	18	5	1	3	2	1	13	5	1	3	3	2	2	0	155.0	42	17.48	2	1	1	2	1	1	1	1	1	3	1	110	70	1	1	1	1	1	1	1	1	11.6	1	4	3	4	2	0	0	0	0	0			
129	13	1	2	2	1	0	2	0	5	1	1	1	1	12	0	0	0	0	0	2	0	155.0	29	12.07	2	1	1	2	1	1	1	1	1	1	2	110	80	1	1	1	1	1	1	1	1	8.6	2	0	0	0	1	2	0	0	0	0			
130	17	1	1	4	1	0	2	0	5	1	4	3	1	12	0	0	0	0	0	2	0	147.5	35	16.09	2	3	1	2	1	1	1	1	1	1	2	120	80	1	1	1	1	1	1	1	1	10.0	1	2	3	2	1	3	0	0	0	0			
131	16	1	1	3	1	0	2	0	5	1	4	2	1	13	0	0	0	0	0	2	0	142.5	32	15.76	2	1	1	2	1	1	1	1	1	1	2	130	90	1	1	1	1	1	1	1	1	12.1	2	0	0	0	0	2	0	0	0	0			
132	19	2	1	4	2	3	1	18	5	3	3	4	1	11	6	1	2	6	5	1	0	155.0	45	18.73	2	1	1	2	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	1	1	12.0	2	0	0	0	1	2	3	4	0	0			
133	13	1	1	2	1	0	2	0	4	3	3	3	2	0	0	0	0	0	0	1	0	125.0	22	14.08	2	1	1	2	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	1	1	11.6	1	1	3	2	2	0	0	0	0	0			
134	12	1	1	2	1	0	2	0	5	1	2	2	2	0	0	0	0	0	0	2	0	127.0	25	15.50	2	1	2	1	1	1	1	1	2	1	110	70	1	1	1	1	1	1	1	1	8.5	2	0	0	0	2	0	0	0	0	0				
135	12	1	1	2	1	0	2	0	4	2	1	1	2	0	0	0	0	0	0	2	0	135.0	33	18.11	2	1	1	2	1	1	2	1	1	1	2	120	60	1	2	1	1	1	1	1	1	11.4	1	1	3	2	2	0	0	0	0	0			
136	14	1	1	3	1	0	2	0	4	1	3	1	2	0	0	0	0	0	0	1	0	130.0	30	17.75	2	1	1	2	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	2	10.6	1	2	3	2	2	0	0	0	0	0				
137	13	1	1	2	1	0	2	0	5	1	3	2	1	13	0	0	0	0	0	2	0	130.0	28	16.57	2	1	1	2	1	1	1	1	1	1	2	120	70	1	1	1	1	1	1	1	1	11.2	1	1	3	2	2	0	0	0	0	0			
138	13	1	1	2	1	0	2	0	5	1	2	3	2	0	0	0	0	0	0	1	0	140.0	30	15.31	2	1	1	2	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	1	1	12.3	1	2	4	2	2	0	0	0	0	0			
139	12	1	1	2	1	0	2	0	5	1	3	2	2	0	0	0	0	0	0	2	0	128.0	22	13.43	2	1	1	2	1	1	2	1	1	2	1	120	80	1	1	1	1	1	1	1	1	11.0	2	0	0	0	2	0	0	0	0	0			
140	12	1	1	2	1	0	2	0	5	1	3	2	2	0	0	0	0	0	0	2	0	121.0	19	12.98	2	1	1	2	1	1	1	1	1	1	2	100	70	1	1	1	1	1	1	1	1	8.8	2	0	0	0	2	0	0	0	0	0			
141	12	1	1	2	1	0	2	0	4	1	2	2	2	0	0	0	0	0	0	2	0	133.0	23	13.00	2	3	1	2	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	1	1	10.0	2	0	0	0	2	0	0	0	0	0			
142	12	1	1	2	1	0	2	0	4	1	3	3	2	0	0	0	0	0																																									

# MASTER CHART

Sl. No.	Demographic Features										Menar che	Pregnancy Details					History	Anthropometry			General Physical Examination													Systemic examination				Morbidity Pattern		Treatment seeking behaviour		Menstrual problems		Treatment seeking behaviour								
	Age (Years)	Occupation	Religion	Educational status		Marital Status		SES	Parents Education			Status	Age (Years)	Duration (Months)	Registration	Place		ANC visits	ANC care	Food habits	Personal habits	Height (Cms)	Weight (Kgs)	BMI (Kg/m <sup>2</sup> )	Buit	Hair	Skin	Eyes	Sclera	Cornea	Ears	Nose	Tongue	Teeth	Gums	Nails	BP (mm Hg)		Respiratory system	Cardiovascular system	Per abdomen	Central nervous system	Musculoskeletal	Investigations Hb%	Morbidity	Type	Health care provider	Decision maker	Problems	Type	Health facility	Decision maker
				Status	Reasons	Status	Age (Years)		Father	Mother																											SBP	DBP														
149	16	1	1	3	1	0	2	0	5	2	2	2	1	13	0	0	0	0	0	155.0	45	18.73	2	1	1	2	1	1	1	1	1	1	1	1	2	120	80	1	1	1	1	1	9.3	1	3	3	2	1	3	2	2	
150	13	1	1	2	2	1	2	0	5	1	3	2	1	13	0	0	0	0	1	144.0	27	13.02	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	11.0	2	0	0	0	1	5	0	0		
151	13	1	1	2	1	0	2	0	5	1	3	1	2	0	0	0	0	0	137.0	27	14.39	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	10.0	2	0	0	2	0	0	0	0			
152	14	1	1	3	1	0	2	0	4	2	1	1	14	0	0	0	0	2	120.0	29	18.56	2	1	1	2	1	1	1	1	1	3	1	2	110	70	1	1	1	1	1	8.9	1	1	4	2	1	3	4	2			
153	15	1	1	3	1	0	2	0	4	3	3	2	1	15	0	0	0	0	2	145.0	30	14.27	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	9.1	2	0	0	0	2	0	0	0		
154	14	1	1	3	1	0	2	0	4	1	3	3	1	13	0	0	0	0	2	150.0	46	20.44	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	11.3	2	0	0	0	1	3	0	0		
155	14	1	1	3	1	0	2	0	3	1	2	1	14	0	0	0	0	2	142.5	26	12.80	2	1	1	2	1	1	1	1	1	1	1	2	120	70	1	1	1	1	1	11.4	2	0	0	0	2	0	0	0			
156	15	1	1	3	1	0	2	0	5	2	4	3	1	14	0	0	0	0	2	160.0	35	13.67	2	1	1	2	1	1	1	1	1	1	2	120	70	1	1	1	1	1	11.2	2	0	0	0	2	0	0	0			
157	13	1	1	2	1	0	2	0	5	2	1	1	2	0	0	0	0	2	140.0	35	17.86	2	1	1	2	1	1	1	1	1	1	1	2	100	70	1	1	1	1	1	10.5	2	0	0	0	2	0	0	0			
158	11	1	1	2	1	0	2	0	5	1	1	2	2	0	0	0	0	2	140.0	20	10.20	2	1	1	2	1	1	1	1	1	1	1	2	120	70	1	1	1	1	1	10.8	1	3	4	2	2	0	0	0			
159	15	1	1	3	1	0	2	0	5	1	2	1	14	0	0	0	0	2	165.0	42	15.43	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	10.7	2	0	0	0	1	2	0	0			
160	11	1	1	2	1	0	2	0	4	2	3	1	2	0	0	0	0	2	127.5	21	12.92	2	1	4	2	1	1	1	1	1	1	1	2	100	80	1	1	1	1	1	8.6	1	4	3	2	2	0	0	0			
161	11	1	1	2	1	0	2	0	4	1	1	1	11	0	0	0	0	1	130.0	21	12.43	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	9.2	2	0	0	0	2	0	0	0			
162	11	1	1	2	1	0	2	0	5	2	2	1	2	0	0	0	0	1	125.0	22	14.08	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	10.0	2	0	0	0	2	0	0	0			
163	11	1	1	2	1	0	2	0	4	2	4	2	2	0	0	0	0	1	120.0	25	17.36	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	10.9	2	0	0	0	2	0	0	0			
164	15	1	1	3	1	0	2	0	5	1	1	1	15	0	0	0	0	2	140.0	35	17.86	2	1	1	2	1	1	1	1	1	1	2	100	60	1	1	1	1	1	12.1	2	0	0	0	2	0	0	0				
165	14	1	1	2	1	0	2	0	5	2	3	3	1	14	0	0	0	0	2	155.0	43	17.90	2	1	1	2	1	1	1	1	1	1	2	110	70	1	1	1	1	1	10.2	1	3	0	0	1	2	0	0			
166	12	1	2	2	1	0	2	0	5	2	3	2	2	0	0	0	0	2	125.0	28	17.92	2	1	1	2	1	1	1	1	1	2	1	2	110	70	1	1	1	1	1	12.5	1	1	2	2	2	0	0	0			
167	10	1	2	2	1	0	2	0	5	2	2	1	2	0	0	0	0	2	117.5	25	18.11	2	1	1	2	1	1	1	1	1	1	2	100	60	1	1	1	1	1	10.0	2	0	0	0	2	0	0	0				
168	12	1	2	2	1	0	2	0	5	2	2	2	2	0	0	0	0	2	135.0	26	14.27	2	1	1	2	1	1	1	1	1	1	2	110	60	1	1	1	1	1	6.6	2	0	0	0	2	0	0	0				
169	12	1	2	2	1	0	2	0	5	1	2	2	2	0	0	0	0	2	137.5	19	10.05	2	1	1	2	1	1	1	1	1	1	2	100	60	1	1	1	1	1	6.9	1	3	3	2	2	0	0	0				
170	12	1	1	2	1	0	2	0	5	1	2	2	2	0	0	0	0	2	135.0	21	11.52	2	1	1	2	1	1	1	1	1	5	2	2	130	90	1	1	1	1	1	6.5	2	0	0	0	2	0	0	0			
171	13	1	1	2	1	0	2	0	5	1	2	2	1	13	0	0	0	0	2	142.5	28	13.79	2	1	1	2	1	1	1	1	3	1	2	120	80	1	1	1	1	1	11.6	2	0	0	0	1	3	0	0			
172	12	1	1	2	1	0	2	0	5	2	1	2	2	0	0	0	0	2	137.5	36	19.04	2	1	1	1	1	1	1	1	1	3	1	2	100	60	1	1	1	1	1	12.3	2	0	0	0	2	0	0	0			
173	12	1	1	2	1	0	2	0	5	1	2	2	1	11	0	0	0	0	2	130.0	20	11.83	2	1	2	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	7.4	1	4	2	2	1	3	0	0		
174	12	1	1	2	1	0	2	0	3	1	3	3	2	0	0	0	0	1	140.0	35	17.86	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	11.4	1	2	3	2	2	0	0	0			
175	13	1	1	2	1	0	2	0	4	1	3	3	1	12	0	0	0	0	2	142.5	35	17.24	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	7.3	2	0	0	0	2	0	0	0		
176	13	1	1	2	1	0	2	0	4	2	3	2	1	12	0	0	0	0	1	145.0	33	15.70	2	1	1	2	1	1	1	1	1	1	2	110	70	1	1	1	1	1	11.9	2	0	0	0	2	0	0	0			
177	13	1	1	2	1	0	2	0	4	1	2	3	1	12	0	0	0	0	2	135.0	25	13.72	2	1	1	2	1	1	1	1	1	1	2	120	70	1	1	1	1	1	12.5	2	0	0	0	2	0	0	0			
178	12	1	2	2	1	0	2	0	4	2	3	2	1	12	0	0	0	0	2	135.0	21	11.52	2	1	1	2	1	1	1	1	1	1	2	120	80	1	1	1	1	1	10.0	2	0	0	0	1	3	2	2			
179	14	1	1	3	1	0	2	0	4	1	2	2	2	0	0	0	0	2	147.5	29	13.33	2	1	1	2	1	1	1	1	2	1	2	110	70	1	1	1	1	1	10.7	1	4	3	2	2	0	0	0				
180	14	1	1	3	1	0	2	0	4	1	3	2	1	13	0	0	0	0	2	160.4	43	16.71	2	1	1	2	1	1	1	1	3	1	2	110	70	1	1	1	1	1	10.8	2	0	0	0	2	0	0	0			
181	12	1	1	2	1	0	2	0	5	1	3	1	11	0	0	0	0	1	147.5	28	12.87	2	1	1	2	1	1	1	1	3	1	2	120	70	1	1	1	1	1	9.2	2	0	0	0	1	2	0	0				
182	16	1	1	3	1	0	2	0	4	1	4	4	1	15	0	0	0	0	1	150.0	41	18.22	2	1	1	2	1	1	1	1	1	1	2	100	60	1	1	1	1	1	10.7	2	0	0	0	2	0	0	0			
183	16	1	1	3	1	0	2	0	5	1	4	2	1	13	0	0	0	0	2	147.5	39	17.93	2	1	1	2	1	1	1	1	1	1	2	120	80	1	1	1	1	1	12.1	2	0	0	0	2	0	0	0			
184	15	1	1	3	1	0	2	0	5	1	4	2	1	14	0	0	0	0	2	132.5	38	21.64	2	1	1	2	1	1	1	1	1																					



# MASTER CHART

Sl. No.	Demographic Features										Menar che	Pregnancy Details				History	Anthropometry			General Physical Examination													Systemic examination				Morbidity Pattern		Treatment seeking behaviour		Menstrual problems		Treatment seeking behaviour													
	Age (Years)	Occupation	Religion	Educational status		Marital Status		Parents Education		SES		Type of family	Father	Mother	Status		Age (Years)	Duration (Months)	Registration	Place	ANC visits	ANC care	Food habits	Personal habits	Height (Cms)	Weight (Kgs)	BMI (Kg/m <sup>2</sup> )	Buit	Hair	Skin	Eyes	Sclera	Cornea	Ears	Nose	Tongue	Teeth	Gums	Nails	BP (mm Hg)		Respiratory system	Cardiovascular system	Per abdomen	Central nervous system	Musculoskeletal	Investigations Hb%	Morbidity	Type	Health care provider	Decision maker	Problems	Type	Health facility	Decision maker	
				Status	Reasons	Status	Age (Years)	SES	Father																															Mother	SBP															DBP
223	14	1	1	2	1	0	2	0	5	2	3	1	1	14	0	0	0	0	0	0	1	0	147.5	39	17.93	2	1	1	2	1	1	1	1	1	1	1	1	2	120	70	1	1	1	1	1	1	1	1	12.0	2	0	0	2	2	0	0
224	14	1	1	3	1	0	2	0	5	2	3	1	2	0	0	0	0	0	0	2	0	147.5	38	17.47	2	1	1	2	1	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	1	1	10.3	2	0	0	0	1	3	3	2
225	16	1	1	3	1	0	2	0	5	1	3	3	1	14	0	0	0	0	0	2	0	147.5	37	17.01	2	3	2	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	1	1	12.4	2	0	0	0	1	2	3	2	
226	12	1	1	2	1	0	2	0	2	2	3	3	2	0	0	0	0	0	0	2	0	120.0	30	20.83	2	1	1	2	1	1	1	1	1	2	1	2	120	70	1	1	1	1	1	1	1	1	10.8	1	1	3	2	2	0	0	0	
227	14	1	1	3	1	0	2	0	5	1	2	2	1	13	0	0	0	0	0	2	0	132.0	22	12.63	2	3	1	2	1	1	1	1	1	2	1	2	120	70	1	1	1	1	1	1	1	1	10.7	2	0	0	0	2	0	0	0	
228	16	1	1	3	1	0	2	0	5	1	3	2	1	16	0	0	0	0	0	1	0	142.5	38	18.71	2	1	1	2	1	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	1	1	10.2	1	5	3	2	1	2	3	2
229	13	1	1	2	1	0	2	0	5	1	2	2	1	13	0	0	0	0	0	1	0	145.0	37	17.60	2	1	1	2	1	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	1	1	11.9	2	0	0	0	2	0	0	0
230	15	1	1	3	1	0	2	0	5	1	3	3	1	13	0	0	0	0	0	2	0	150.0	45	20.00	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	1	1	9.4	1	1	3	2	1	2	0	0	
231	13	1	2	3	1	0	2	0	5	1	4	3	2	0	0	0	0	0	2	0	150.0	23	10.22	2	1	1	2	1	1	1	1	1	1	5	1	2	120	80	1	1	1	1	1	1	1	1	11.2	2	0	0	0	2	0	0	0	
232	15	1	1	3	1	0	2	0	5	1	3	1	1	13	0	0	0	0	1	0	145.0	42	19.98	2	1	1	2	1	1	1	1	1	1	1	1	2	100	60	1	1	1	1	1	1	1	1	12.1	2	0	0	0	1	3	2	2	
233	15	1	2	3	1	0	2	0	3	1	3	1	1	15	0	0	0	0	2	0	155.0	41	17.07	2	1	1	2	1	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	1	1	11.6	1	1	3	2	1	5	0	0	
234	11	1	1	2	1	0	2	0	5	1	4	3	2	0	0	0	0	0	2	0	120.0	24	16.67	2	1	1	2	1	1	1	1	1	2	1	2	120	70	1	1	1	1	1	1	1	1	9.3	2	0	0	0	2	0	0	0		
235	12	1	1	2	1	0	2	0	5	2	3	3	1	12	0	0	0	0	2	0	130.0	26	15.38	2	1	1	2	1	1	1	1	1	1	1	2	120	70	1	1	1	1	1	1	1	1	11.2	2	0	0	0	2	0	0	0		
236	13	1	1	2	1	0	2	0	4	2	2	3	1	13	0	0	0	0	2	0	137.5	30	15.87	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	1	1	12.2	2	0	0	0	2	0	0	0		
237	14	1	1	3	1	0	2	0	5	1	4	3	1	13	0	0	0	0	2	0	150.0	32	14.22	2	1	1	2	1	1	1	1	1	3	1	2	100	60	1	1	1	1	1	1	1	1	10.6	2	0	0	0	2	0	0	0		
238	12	1	2	2	1	0	2	0	5	1	3	2	2	0	0	0	0	0	2	0	150.0	42	18.67	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	1	1	9.0	1	2	2	2	2	0	0	0		
239	13	1	1	2	1	0	2	0	5	3	2	2	1	12	0	0	0	0	2	0	152.5	35	15.05	2	1	1	2	1	1	1	1	1	2	1	2	120	80	1	1	1	1	1	1	1	1	10.0	2	0	0	0	1	5	0	0		
240	14	1	1	3	1	0	2	0	5	1	3	2	1	13	0	0	0	0	2	0	127.5	20	12.30	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	1	1	11.0	2	0	0	0	1	3	2	2		
241	12	1	1	2	1	0	2	0	5	1	4	3	1	11	0	0	0	0	2	0	122.5	20	13.33	2	2	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	1	1	9.2	2	0	0	0	1	3	0	0		
242	12	1	1	2	1	0	2	0	5	2	3	1	1	12	0	0	0	0	1	0	135.0	24	13.17	2	1	1	2	1	1	1	1	1	1	1	2	100	60	1	1	1	1	1	1	1	1	11.3	1	1	3	2	2	0	0	0		
243	14	3	1	2	2	2	2	0	2	2	3	2	1	14	0	0	0	0	2	0	142.5	32	15.76	2	1	1	2	1	1	1	1	1	1	2	120	80	1	1	1	1	1	1	1	1	11.6	2	0	0	0	2	0	0	0			
244	16	1	1	3	1	0	2	0	3	1	4	3	1	14	0	0	0	0	2	0	155.0	37	15.40	2	1	1	2	1	1	1	1	1	3	1	2	110	60	1	1	1	1	1	1	1	1	12.3	1	3	3	2	2	0	0	0		
245	17	1	1	4	1	0	2	0	3	1	3	2	1	13	0	0	0	0	2	0	152.5	46	19.78	2	1	1	2	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	1	1	12.0	2	0	0	0	1	2	3	2			
246	10	1	1	2	1	0	2	0	2	1	4	3	2	0	0	0	0	1	0	110.0	25	20.66	2	1	1	2	1	1	1	1	1	1	1	2	120	80	1	1	1	1	1	1	1	1	10.9	1	1	3	2	2	0	0	0			
247	10	1	2	1	1	0	2	0	5	1	2	1	2	0	0	0	0	0	2	0	117.5	16	11.59	2	1	1	2	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	1	1	12.4	1	2	1	2	2	0	0	0			
248	10	1	2	2	1	0	2	0	5	1	2	1	2	0	0	0	0	0	2	0	110.0	15	12.40	2	1	1	2	1	1	1	1	1	2	1	2	100	70	1	1	1	1	1	1	1	1	10.8	2	0	0	0	2	0	0	0		
249	13	1	2	3	1	0	2	0	5	2	4	2	1	13	0	0	0	0	2	0	137.5	32	16.93	2	1	1	2	1	1	1	1	1	1	2	120	70	1	1	1	1	1	1	1	1	11.3	2	0	0	0	2	0	0	0			
250	13	1	2	3	1	0	2	0	5	1	4	3	1	13	0	0	0	0	2	0	150.0	35	15.56	2	1	1	2	1	1	1	1	1	1	2	120	70	1	1	1	1	1	1	1	1	12.3	1	1	3	2	2	0	0	0			
251	13	1	2	2	1	0	2	0	5	1	1	2	1	13	0	0	0	0	2	0	147.5	33	15.17	2	1	1	2	1	1	1	1	1	1	2	120	70	1	1	1	1	1	1	1	1	11.6	2	0	0	0	2	0	0	0			
252	13	3	2	2	2	1	2	0	5	2	1	1	1	12	0	0	0	0	2	0	130.0	24	14.20	2	1	1	2	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	1	1	7.6	1	2	2	2	2	0	0	0			
253	12	1	2	2	1	0	2	0	4	1	4	2	1	12	0	0	0	0	2	0	132.5	22	12.53	2	1	1	2	1	1	1	1	1	1	2	120	70	1	1	1	1	1	1	1	1	10.4	2	0	0	0	2	0	0	0			
254	11	1	1	2	1	0	2	0	3	1	1	1	1	11	0	0	0	0	2	0	120.0	20	13.89	2	1	1	2	1	1	1	1	1	3	1	2	110	70	1	1	1	1	1	1	1	1	11.2	2	0	0	0	2	0	0	0		
255	11	1	2	2	1	0	2	0	4	1	3	3	2	0	0	0	0	0	2	0	117.5</																																			

# MASTER CHART

Sl. No.	Demographic Features										Menar che	Pregnancy Details				History	Anthropometry			General Physical Examination												Systemic examination				Morbidity Pattern		Treatment seeking behaviour		Menstrual problems		Treatment seeking behaviour											
	Age (Years)	Occupation	Religion	Educational status		Marital Status		SES	Parents Education			Status	Age (Years)	Duration (Months)	Registration		Place	ANC visits	ANC care	Food habits	Personal habits	Height (Cms)	Weight (Kgs)	BMI (Kg/m <sup>2</sup> )	Buit	Hair	Skin	Eyes	Sclera	Cornea	Ears	Nose	Tongue	Teeth	Gums	Nails	BP (mm Hg)		Respiratory system	Cardiovascular system	Per abdomen	Central nervous system	Musculoskeletal	Investigations Hb%	Morbidity	Type	Health care provider	Decision maker	Problems	Type	Health facility	Decision maker	
				Status	Reasons	Status	Age (Years)		Father	Mother																											SBP	DBP															
260	14	1	1	3	1	0	2	0	5	2	4	2	1	13	0	0	0	0	0	147.5	33	15.17	2	1	1	2	1	1	1	1	1	1	1	1	2	100	60	1	1	1	1	1	1	1	10.4	2	0	0	0	2	0	0	0
261	16	1	1	3	1	0	2	0	5	1	4	3	1	14	0	0	0	0	0	150.0	36	16.00	2	1	1	2	1	1	1	1	1	3	1	2	110	70	1	1	1	1	1	1	1	12.2	2	0	0	0	1	3	3	2	
262	15	1	1	3	1	0	2	0	5	1	3	3	1	14	0	0	0	0	0	142.5	34	16.74	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	1	12.0	2	0	0	0	2	0	0	0	
263	15	1	1	3	1	0	2	0	5	1	3	1	1	13	0	0	0	0	0	147.5	37	17.01	2	1	1	2	1	1	1	1	1	1	1	1	2	100	60	1	1	1	1	1	1	1	10.0	2	0	0	0	1	2	0	0
264	11	1	1	2	1	0	2	0	5	1	4	3	2	0	0	0	0	0	1	120.0	20	13.89	2	1	1	2	1	1	1	1	1	1	1	2	100	60	1	1	1	1	1	1	8.3	2	0	0	0	2	0	0	0		
265	13	1	1	2	1	0	2	0	5	1	2	1	1	12	0	0	0	0	0	132.5	28	15.95	2	1	1	2	1	1	1	2	1	1	1	2	110	70	1	1	1	1	1	1	1	10.6	2	0	0	0	2	0	0	0	
266	10	1	2	2	1	0	2	0	4	2	3	2	2	0	0	0	0	0	0	135.0	25	13.72	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	12.3	2	0	0	0	2	0	0	0		
267	10	1	2	2	1	0	2	0	5	1	2	2	2	0	0	0	0	0	0	122.0	25	16.80	2	1	1	2	1	1	1	1	1	1	1	2	100	60	1	1	1	1	1	1	11.8	2	0	0	0	2	0	0	0		
268	10	1	2	2	1	0	2	0	5	1	2	1	2	0	0	0	0	0	0	120.0	21	14.34	2	3	1	2	1	1	1	1	1	3	1	2	100	60	1	1	1	1	1	1	11.7	2	0	0	0	2	0	0	0		
269	13	1	2	3	1	0	2	0	5	1	2	2	1	12	0	0	0	0	0	150.0	37	16.44	2	1	1	2	1	1	1	1	1	1	1	2	120	80	1	1	1	1	1	1	8.2	1	1	3	2	2	0	0	0		
270	12	1	2	2	1	0	2	0	3	2	2	1	2	0	0	0	0	0	0	140.0	21	10.71	2	1	1	2	1	1	1	1	1	1	1	2	120	80	1	1	1	1	1	1	7.6	1	2	3	2	2	0	0	0		
271	14	1	1	3	1	0	2	0	2	1	2	1	1	12	0	0	0	0	0	150.0	28	12.44	2	1	1	2	1	1	1	1	1	2	1	2	110	70	1	1	1	1	1	1	12.1	2	0	0	0	2	0	0	0		
272	12	1	1	2	1	0	2	0	3	1	2	1	2	0	0	0	0	0	0	132.5	22	12.53	2	2	2	2	1	1	1	1	1	3	1	2	120	80	1	1	1	1	1	1	11.7	1	4	3	2	2	0	0	0		
273	10	1	1	2	1	0	2	0	3	1	3	2	2	0	0	0	0	0	0	121.0	19	12.98	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	12.5	2	0	0	0	2	0	0	0		
274	10	1	1	2	1	0	2	0	4	1	3	2	1	10	0	0	0	0	0	130.0	24	14.20	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	11.2	2	0	0	0	1	2	0	0		
275	16	1	2	3	2	1	2	0	4	1	3	2	1	13	0	0	0	0	0	150.0	40	17.78	2	1	1	2	1	1	1	1	1	1	1	2	110	80	1	1	1	1	1	1	8.2	2	0	0	0	1	5	3	2		
276	17	1	2	4	1	0	2	0	5	1	3	2	1	12	0	0	0	0	0	157.5	42	16.93	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	10.6	1	2	3	2	2	0	0	0		
277	13	1	2	2	2	5	2	0	5	3	1	1	1	13	0	0	0	0	0	142.5	31	15.27	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	10.7	2	0	0	0	2	0	0	0		
278	12	1	1	2	1	0	2	0	5	1	2	2	1	12	0	0	0	0	1	127.5	20	12.30	2	1	1	2	1	1	1	1	1	1	1	2	120	80	1	1	1	1	1	1	12.2	2	0	0	0	2	0	0	0		
279	13	1	2	3	1	0	2	0	5	1	2	4	1	13	0	0	0	0	0	140.0	30	15.31	2	1	1	2	1	1	1	1	1	1	1	2	100	70	1	1	1	1	1	1	11.2	2	0	0	0	2	0	0	0		
280	11	1	1	2	1	0	2	0	5	1	1	1	2	0	0	0	0	0	0	135.0	25	13.72	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	9.2	2	0	0	0	2	0	0	0		
281	16	1	1	3	1	0	2	0	5	2	2	2	1	13	0	0	0	0	0	155.0	45	18.73	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	11.5	2	0	0	0	1	3	0	0		
282	16	1	1	3	1	0	2	0	4	3	2	2	1	15	0	0	0	0	0	152.5	36	15.48	2	1	1	2	1	1	1	1	1	1	1	2	120	70	1	1	1	1	1	1	12.0	2	0	0	0	2	0	0	0		
283	16	2	2	3	2	2	1	16	4	1	3	3	1	14	0	0	0	0	0	160.0	45	17.58	2	1	1	2	1	1	1	1	1	1	2	120	80	1	1	1	1	1	1	12.4	1	4	4	4	1	3	4	4			
284	19	3	1	3	2	2	2	0	5	2	3	3	1	13	0	0	0	0	0	160.0	40	15.63	2	1	1	2	1	1	1	1	1	1	2	100	90	1	1	1	1	1	1	11.4	1	3	2	2	2	0	0	0			
285	16	1	2	3	1	0	2	0	5	1	2	3	1	12	0	0	0	0	0	160.0	45	17.58	2	1	1	2	1	1	1	1	1	1	2	120	70	1	1	1	1	1	1	7.8	2	0	0	0	1	2	0	0			
286	19	2	2	3	2	1	1	18	5	2	2	2	1	14	0	0	0	0	0	155.0	50	20.81	2	1	1	2	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	10.5	2	0	0	0	2	0	0	0			
287	13	1	1	2	1	0	2	0	5	1	1	2	1	13	0	0	0	0	0	157.5	25	10.08	2	1	1	2	1	1	1	1	1	1	2	120	70	1	1	1	1	1	1	10.7	2	0	0	0	2	0	0	0			
288	18	2	2	2	2	2	1	18	5	1	2	2	1	13	0	0	0	0	0	157.5	50	20.16	2	1	1	2	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	11.0	1	4	4	2	2	0	0	0			
289	14	1	2	3	1	0	2	0	5	1	1	1	1	11	0	0	0	0	0	142.5	21	10.34	2	1	1	2	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	12.0	2	0	0	0	2	0	0	0			
290	12	1	2	2	1	0	2	0	5	1	2	2	1	0	0	0	0	0	0	165.0	45	16.53	2	1	1	2	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	10.0	1	4	3	2	2	0	0	0			
291	10	1	1	2	1	0	2	0	5	1	4	3	2	0	0	0	0	0	0	140.0	38	19.39	2	1	1	2	1	1	1	1	1	1	2	100	70	1	1	1	1	1	1	9.2	2	0	0	0	2	0	0	0			
292	10	1	1	2	1	0	2	0	5	2	4	4	2	0	0	0	0	0	0	132.5	26	14.81	2	1	1	2	1	1	1	1	1	3	1	2	100	60	1	1	1	1	1	1	10.4	2	0	0	0	2	0	0	0		
293	13	1	2	2	1	0	2	0	3	1	2	3	1	13	0	0	0	0	0	142.5	30	14.77	2	1	1	2	1	1	1	1	1	2	1	2	100	60	1	1	1	1	1	1	12.2	2	0	0	0	2	0	0	0		
294	12	1	1	2	1	0	2	0	5	1	4	3	2	0	0	0	0	0	1	128.0																																	

## MASTER CHART

Sl. No.	Demographic Features										Menar che	Pregnancy Details				History	Anthropometry			General Physical Examination										Systemic examination				Morbidity Pattern		Treatment seeking behaviour		Menstrual problems		Treatment seeking behaviour													
	Age (Years)	Occupation	Religion	Educational status		Marital Status		SES	Parents Education			Status	Age (Years)	Duration (Months)	Registration		Place	ANC visits	ANC care	Food habits	Personal habits	Height (Cms)	Weight (Kgs)	BMI (Kg/m <sup>2</sup> )	Buit	Hair	Skin	Eyes	Sclera	Cornea	Ears	Nose	Tongue	Teeth	Gums	Nails	BP (mm Hg)		Respiratory system	Cardiovascular system	Per abdomen	Central nervous system	Musculoskeletal	Investigations Hb%	Morbidity	Type	Health care provider	Decision maker	Problems	Type	Health facility	Decision maker	
				Status	Reasons	Status	Age (Years)		Father	Mother																											SBP	DBP															
297	14	1	2	3	2	4	2	0	4	1	2	2	1	14	0	0	0	0	0	147.5	31	14.25	2	1	1	2	1	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	1	10.1	1	2	1	2	2	0	0	0
298	11	1	1	2	1	0	2	0	4	1	4	1	2	0	0	0	0	0	128.0	30	18.31	2	1	1	2	1	1	1	1	1	1	1	1	2	110	60	1	1	1	1	1	1	1	10.0	2	0	0	0	2	0	0	0	
299	15	3	2	3	2	1	2	0	2	1	2	2	1	14	0	0	0	0	155.0	35	14.57	2	1	1	2	1	1	1	1	1	1	1	2	100	60	1	1	1	1	1	1	1	12.3	2	0	0	0	1	2	0	0		
300	13	1	1	2	1	0	2	0	5	1	2	2	2	0	0	0	0	1	132.5	35	19.94	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	12.0	2	0	0	0	2	0	0	0			
301	12	1	1	2	1	0	2	0	3	1	3	3	2	0	0	0	0	2	142.5	43	21.18	2	1	1	2	1	1	1	1	1	1	1	2	120	80	1	1	1	1	1	1	11.2	2	0	0	0	2	0	0	0			
302	11	1	2	2	1	0	2	0	5	2	2	3	2	0	0	0	0	2	140.0	22	11.22	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	7.9	2	0	0	0	2	0	0	0			
303	12	1	2	2	1	0	2	0	4	1	4	1	2	0	0	0	0	2	125.0	22	14.08	2	1	1	2	1	1	1	1	1	2	1	120	80	1	1	1	1	1	1	10.7	1	1	3	2	2	0	0	0				
304	12	1	2	2	1	0	2	0	5	1	3	2	2	0	0	0	0	2	137.5	26	13.75	2	1	1	2	1	1	1	1	1	1	2	120	80	1	1	1	1	1	1	12.1	1	1	3	2	2	0	0	0				
305	16	1	1	3	1	0	2	0	5	1	3	3	2	0	0	0	0	1	152.5	35	15.05	2	1	1	2	1	1	1	1	1	1	2	100	70	1	1	1	1	1	1	8.2	2	0	0	0	2	0	0	0				
306	14	1	1	2	1	0	2	0	3	1	3	2	2	0	0	0	0	1	142.5	35	17.24	2	1	1	2	1	1	1	1	1	1	2	120	80	1	1	1	1	1	1	10.9	2	0	0	0	2	0	0	0				
307	12	1	2	2	1	0	2	0	5	1	2	2	1	11	0	0	0	2	122.5	20	13.33	2	1	1	2	1	1	1	1	1	3	1	130	80	1	1	1	1	1	1	11.9	2	0	0	0	1	2	0	0				
308	14	1	1	3	1	0	2	0	5	1	2	1	1	12	0	0	0	1	145.0	30	14.27	2	1	1	2	1	1	1	1	1	1	2	130	90	1	1	1	1	1	1	12.2	1	4	3	2	2	0	0	0				
309	15	1	1	3	1	0	2	0	5	2	2	2	1	14	0	0	0	2	142.5	32	15.76	2	1	1	2	1	1	1	1	1	1	2	120	80	1	1	1	1	1	1	10.5	2	0	0	0	2	0	0	0				
310	10	1	2	2	1	0	2	0	5	1	4	2	2	0	0	0	0	2	120.0	21	14.58	2	1	1	2	1	1	1	1	1	1	2	130	90	1	1	1	1	1	1	12.1	2	0	0	0	2	0	0	0				
311	12	1	3	2	1	0	2	0	5	1	4	4	2	0	0	0	0	2	130.0	23	13.61	2	1	1	2	1	1	1	1	1	1	2	120	70	1	1	1	1	1	1	10.4	2	0	0	0	2	0	0	0				
312	11	1	2	2	1	0	2	0	5	1	2	3	2	0	0	0	0	2	140.0	22	11.22	2	1	1	2	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	11.2	2	0	0	0	2	0	0	0				
313	12	1	2	2	1	0	2	0	5	1	2	1	2	0	0	0	0	2	127.5	22	13.53	2	1	1	2	1	1	1	1	1	1	2	120	80	1	1	1	1	1	1	7.9	2	0	0	0	2	0	0	0				
314	10	1	1	2	1	0	2	0	5	2	4	3	2	0	0	0	0	1	107.5	16	13.85	2	1	1	2	1	1	1	1	1	1	2	100	70	1	1	1	1	1	1	8.2	1	3	4	2	2	0	0	0				
315	10	1	2	2	1	0	2	0	5	3	3	3	2	0	0	0	0	2	120.0	17	11.81	2	2	1	2	1	1	1	1	1	1	2	120	80	1	1	1	1	1	1	12.0	2	0	0	0	2	0	0	0				
316	10	1	2	2	1	0	2	0	5	1	3	2	2	0	0	0	0	2	127.5	24	14.76	2	1	1	2	1	1	1	1	1	1	2	110	60	1	1	1	1	1	1	12.2	1	2	4	2	2	0	0	0				
317	12	1	2	2	1	0	2	0	5	2	1	1	2	0	0	0	0	2	137.5	21	11.11	2	3	1	2	1	1	1	1	3	1	2	110	70	1	1	1	1	1	1	11.9	2	0	0	0	2	0	0	0				
318	12	1	2	2	1	0	2	0	5	3	2	2	1	12	0	0	0	2	135.0	23	12.62	2	1	1	2	1	1	1	1	1	1	2	100	60	1	1	1	1	1	1	10.4	2	0	0	0	1	2	0	0				
319	10	1	2	2	1	0	2	0	5	1	1	1	2	0	0	0	0	2	120.0	21	14.58	2	1	1	2	1	1	1	1	1	3	1	100	60	1	1	1	1	1	1	9.1	2	0	0	0	2	0	0	0				
320	12	1	2	3	1	0	2	0	5	1	4	3	2	0	0	0	0	2	130.0	24	14.20	2	1	1	2	1	1	1	1	1	1	2	110	80	1	1	1	1	1	1	11.4	2	0	0	0	2	0	0	0				
321	13	1	2	3	1	0	2	0	5	1	3	3	1	11	0	0	0	2	150.0	29	12.89	2	1	1	2	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	9.3	2	0	0	0	2	0	0	0				
322	12	1	2	2	1	0	2	0	5	1	2	2	2	0	0	0	0	2	130.0	23	13.61	2	1	2	2	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	11.7	2	0	0	0	2	0	0	0				
323	10	1	1	2	2	2	2	0	4	2	1	1	2	0	0	0	0	1	112.5	18	14.22	2	1	1	2	1	1	1	1	1	1	2	120	80	1	1	1	1	1	1	10.2	2	0	0	0	2	0	0	0				
324	10	1	1	2	1	0	2	0	4	1	4	4	2	0	0	0	0	2	145.0	18	8.56	2	1	1	2	1	1	1	1	1	1	2	130	90	1	1	1	1	1	1	12.3	2	0	0	0	2	0	0	0				
325	13	1	1	2	1	0	2	0	5	1	1	1	1	2	0	0	0	1	122.5	20	13.33	2	1	1	2	1	1	1	1	1	1	2	120	90	1	1	1	1	1	1	11.4	2	0	0	0	2	0	0	0				
326	14	1	2	3	1	0	2	0	3	3	1	1	1	13	0	0	0	2	140.0	30	15.31	2	1	1	2	1	1	1	1	3	1	110	70	1	1	1	1	1	1	11.2	2	0	0	0	1	2	3	2					
327	14	1	1	3	1	0	2	0	5	3	3	1	1	14	0	0	0	2	150.0	30	13.33	2	1	1	2	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	11.9	2	0	0	0	2	0	0	0				
328	12	1	1	2	1	0	2	0	4	2	2	3	2	0	0	0	0	1	147.5	22	10.11	2	1	1	2	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	12.2	2	0	0	0	2	0	0	0				
329	12	1	2	2	1	0	2	0	5	1	2	1	2	0	0	0	0	2	150.0	28	12.44	2	1	1	2	1	1	1	1	1	1	2	120	70	1	1	1	1	1	1	10.1	1	1	3	2	2	0	0	0				
330	13	1	1	2	1	0	2	0	5	1	4	2	1	13	0	0	0	1	125.0	25	16.00	2	1	1	2	1	1	1	1	1	1	2	120	80	1	2	1	1	1	1	12.1	1	4	3	2	1	3	3	2				
331	14	1	1	3	1	0	2	0	5	1	2	2	1	13	0	0	0	1	147.5	34	15.63	2	1	1	2	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	10.8	2	0	0	0	2	0	0	0				
332	10	1	1	2	1	0	2	0	5	2	3	2	2	0	0	0	0	2	125.0	21	13.44	2																															

## MASTER CHART

Sl. No.	Demographic Features										Menar che	Pregnancy Details					History	Anthropometry			General Physical Examination													Systemic examination				Morbidity Pattern		Treatment seeking behaviour		Menstrual problems		Treatment seeking behaviour							
	Age (Years)	Occupation	Religion	Educational status		Marital Status		SES	Parents Education			Age (Years)	Duration (Months)	Registration	Place	ANC visits		ANC care	Food habits	Personal habits	Height (Cms)	Weight (Kgs)	BMI (Kg/m <sup>2</sup> )	Buit	Hair	Skin	Eyes	Sclera	Cornea	Ears	Nose	Tongue	Teeth	Gums	Nails	BP (mm Hg)		Respiratory system	Cardiovascular system	Per abdomen	Central nervous system	Musculoskeletal	Investigations Hb%	Morbidity	Type	Health care provider	Decision maker	Problems	Type	Health facility	Decision maker
				Status	Current status	Reasons	Status		Age (Years)	Father																										Mother	Status														
334	13	1	1	2	1	0	2	0	5	1	2	1	2	2	0	0	0	0	0	137.5	26	13.75	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	10.2	2	0	0	0	2	0	0	0
335	13	1	1	2	1	0	2	0	5	1	1	2	1	13	0	0	0	0	1	127.5	29	17.84	2	1	1	1	1	1	1	1	1	3	1	2	120	70	1	1	1	1	1	1	11.2	2	0	0	0	1	2	3	2
336	12	1	1	2	1	0	2	0	5	1	4	3	2	0	0	0	0	1	140.0	33	16.84	2	1	1	1	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	12.2	2	0	0	0	2	0	0	0	
337	12	1	1	2	1	0	2	0	5	1	3	3	2	0	0	0	0	2	138.0	26	13.65	2	1	1	1	1	1	1	1	1	1	1	2	100	70	1	1	1	1	1	1	10.3	1	1	3	2	2	0	0	0	
338	12	1	1	2	1	0	2	0	4	1	2	1	2	0	0	0	0	2	142.5	20	9.85	2	1	1	1	1	1	1	1	5	1	2	100	60	1	1	1	1	1	1	10.4	1	1	3	2	2	0	0	0		
339	12	1	1	2	1	0	2	0	5	1	1	1	2	0	0	0	0	2	137.5	21	11.11	2	2	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	11.5	2	0	0	0	2	0	0	0	
340	12	1	1	2	1	0	2	0	5	1	3	2	2	0	0	0	0	1	140.0	22	11.22	2	1	1	2	1	1	1	1	5	1	2	110	70	1	1	1	1	1	1	9.2	1	4	3	2	2	0	0	0		
341	10	1	1	2	1	0	2	0	4	1	4	3	2	0	0	0	0	1	140.0	28	14.29	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	10.0	1	1	3	2	2	0	0	0	
342	18	2	2	4	2	1	1	18	5	2	3	3	1	14	8	1	2	4	5	2	152.5	40	17.20	2	1	1	2	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	10.4	1	1	3	1	1	1	3	2
343	16	1	2	3	1	0	2	0	5	2	1	1	1	14	0	0	0	2	150.0	36	16.00	2	1	1	2	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	9.3	2	0	0	0	1	2	3	2		
344	14	1	1	3	1	0	2	0	5	1	3	2	1	13	0	0	0	2	140.0	31	15.82	2	1	1	2	1	1	1	1	1	3	1	2	110	70	1	1	1	1	1	1	12.0	1	1	3	2	2	0	0	0	
345	12	1	1	2	1	0	2	0	5	2	1	1	2	0	0	0	0	2	147.5	28	12.87	2	3	1	1	1	1	1	1	1	1	1	1	100	60	1	1	1	1	1	1	8.4	1	1	3	2	2	0	0	0	
346	15	1	1	3	1	0	2	0	4	1	1	1	1	14	0	0	0	2	152.5	32	13.76	2	1	1	2	1	1	1	1	1	1	1	120	80	1	1	1	1	1	1	11.9	2	0	0	0	1	2	0	0		
347	12	1	1	2	1	0	2	0	5	1	1	1	2	0	0	0	0	2	137.5	26	13.75	2	1	1	2	1	1	1	1	1	1	1	2	100	70	1	1	1	1	1	1	11.9	1	2	3	2	2	0	0	0	
348	14	1	1	2	1	0	2	0	3	2	1	2	1	14	0	0	0	2	147.5	34	15.63	2	3	1	2	1	1	1	1	1	1	1	2	120	80	1	1	1	1	1	1	12.3	2	0	0	0	2	0	0	0	
349	16	1	1	3	1	0	2	0	5	1	1	1	1	15	0	0	0	2	147.5	42	19.30	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	12.4	2	0	0	0	1	2	0	0	
350	12	1	1	2	1	0	2	0	5	1	3	2	2	0	0	0	0	2	135.0	26	14.27	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	8.2	1	1	2	2	2	0	0	0	
351	12	1	1	2	1	0	2	0	5	1	2	1	2	0	0	0	0	1	126.0	17	10.71	2	1	1	2	1	1	1	1	1	1	1	2	100	70	1	1	1	1	1	1	12.1	2	0	0	0	2	0	0	0	
352	17	2	2	3	2	3	1	17	2	1	2	2	1	14	0	0	0	2	157.5	45	18.14	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	12.2	1	3	2	4	1	3	2	4	
353	14	1	1	4	1	0	2	0	4	1	1	1	1	13	0	0	0	2	160.4	40	15.55	2	3	1	2	1	1	1	1	1	2	1	110	70	1	1	1	1	1	1	11.2	2	0	0	0	2	0	0	0		
354	12	1	2	2	1	0	2	0	5	3	2	2	2	0	0	0	0	2	137.5	23	12.17	2	1	1	2	1	1	1	1	1	1	1	2	100	70	1	1	1	1	1	1	6.5	2	0	0	0	2	0	0	0	
355	13	1	2	2	1	0	2	0	2	2	1	1	1	12	0	0	0	2	152.5	27	11.61	2	3	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	6.7	2	0	0	0	1	5	2	2	
356	13	1	1	2	1	0	2	0	5	1	4	2	1	13	0	0	0	2	134.0	25	13.92	2	1	1	2	1	1	1	1	1	2	1	100	60	1	1	1	1	1	1	10.8	2	0	0	0	1	2	3	2		
357	10	1	1	2	1	0	2	0	5	3	3	1	2	0	0	0	0	2	142.5	25	12.31	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	6.6	2	0	0	0	2	0	0	0	
358	14	1	1	3	1	0	2	0	5	2	2	1	1	13	0	0	0	2	152.5	35	15.05	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	6.8	2	0	0	0	2	0	0	0	
359	13	1	2	2	1	0	2	0	5	1	3	2	1	13	0	0	0	2	147.5	42	19.30	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	11.8	1	3	3	2	1	2	3	2	
360	13	1	1	2	1	0	2	0	5	1	2	1	1	13	0	0	0	2	132.5	30	17.09	2	3	1	2	1	1	1	1	1	3	1	2	120	70	1	1	1	1	1	1	9.2	2	0	0	0	2	0	0	0	
361	14	1	2	3	1	0	2	0	5	3	3	2	1	14	0	0	0	2	142.5	36	17.73	2	1	1	2	1	1	1	1	1	1	1	2	120	70	1	1	1	1	1	1	12.3	2	0	0	0	1	2	0	0	
362	11	1	1	2	1	0	2	0	5	1	1	1	2	0	0	0	0	2	130.0	30	17.75	2	2	1	2	1	1	1	2	1	1	5	1	100	60	1	1	1	1	1	1	9.1	1	4	3	2	2	0	0	0	
363	13	1	1	2	1	0	2	0	4	1	3	2	2	0	0	0	0	2	144.0	29	13.99	2	1	1	2	1	1	1	1	1	1	1	2	100	70	1	1	1	1	1	1	10.6	1	1	2	3	2	0	0	0	
364	15	1	1	3	1	0	2	0	5	1	1	1	1	13	0	0	0	2	147.5	35	16.09	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	6.6	2	0	0	0	2	0	0	0	
365	19	2	1	3	2	2	1	18	5	1	2	2	1	13	5	1	2	4	5	1	142.5	48	23.64	2	3	1	2	1	1	1	1	1	1	2	130	90	1	1	1	1	1	1	9.2	2	0	0	0	1	5	3	4
366	15	1	1	3	1	0	2	0	4	1	2	3	1	15	0	0	0	2	142.5	30	14.77	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	6.7	2	0	0	0	1	2	2	2	
367	12	1	1	2	1	0	2	0	5	1	3	2	2	0	0	0	0	2	125.0	18	11.52	2	1	1	2	1	1	1	1	1	1	1	2	100	70	1	1	1	1	1	1	6.0	2	0	0	0	2	0	0	0	
368	12	1	1	2	1	0	2	0	5	1	3	3	1	12	0	0	0	2	135.0	35	19.20	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	1	12.4	1	4	3	2	2	0	0	0	
369	14</																																																		

# MASTER CHART

Sl. No.	Demographic Features										Menar che	Pregnancy Details				History	Anthropometry			General Physical Examination											Systemic examination				Morbidity Pattern		Treatment seeking behaviour		Menstrual problems		Treatment seeking behaviour											
	Age (Years)	Occupation	Religion	Educational status			Marital Status		Parents Education			Status	Age (Years)	Duration (Months)	Registration		Place	ANC visits	ANC care	Food habits	Personal habits	Height (Cms)	Weight (Kgs)	BMI (Kg/m <sup>2</sup> )	Buit	Hair	Skin	Eyes	Sclera	Cornea	Ears	Nose	Tongue	Teeth	Gums	Nails	BP (mm Hg)		Respiratory system	Cardiovascular system	Per abdomen	Central nervous system	Musculoskeletal	Investigations Hb%	Morbidity	Type	Health care provider	Decision maker	Problems	Type	Health facility	Decision maker
				Status	Current status	Reasons	Status	Age (Years)	SES	Type of family																											Father	Mother														
371	14	1	1	3	1	0	2	0	5	2	3	3	1	14	0	0	0	0	0	150.0	34	15.11	2	1	2	2	1	1	1	1	1	2	1	2	110	70	1	1	1	1	1	9.2	1	3	3	2	1	2	0	0		
372	12	1	1	2	1	0	2	0	5	1	3	3	2	0	0	0	0	0	124.2	20	12.97	2	1	1	2	1	1	1	1	1	3	1	2	110	70	1	1	1	1	1	11.1	2	0	0	0	2	0	0	0			
373	14	1	1	3	1	0	2	0	5	1	2	2	1	12	0	0	0	0	135.0	26	14.27	2	1	1	2	1	1	1	1	1	3	1	2	110	70	1	1	1	1	1	6.6	1	1	3	2	2	0	0	0			
374	11	1	2	2	1	0	2	0	5	2	2	1	2	0	0	0	0	0	120.0	30	19.20	2	2	1	2	1	1	1	1	2	1	2	100	70	1	1	1	1	1	12.1	2	0	0	0	2	0	0	0				
375	10	1	1	2	1	0	2	0	5	2	3	1	2	0	0	0	0	0	120.0	25	17.36	2	1	1	2	1	1	1	1	1	3	1	2	110	70	1	1	1	1	1	11.7	1	5	3	2	2	0	0	0			
376	12	3	2	0	2	1	2	0	5	1	1	2	2	0	0	0	0	0	150.0	28	12.44	2	1	1	2	1	1	1	1	1	3	1	2	110	70	1	1	1	1	1	7.6	2	0	0	0	2	0	0	0			
377	13	1	2	2	1	0	2	0	4	1	4	2	2	0	0	0	0	0	127.5	28	17.22	2	1	1	2	1	1	1	1	1	3	1	2	110	70	1	1	1	1	1	10.7	1	4	3	2	2	0	0	0			
378	11	1	2	2	1	0	2	0	5	2	1	1	2	0	0	0	0	0	135.0	18	9.88	2	1	2	2	1	1	1	1	1	1	1	1	100	50	1	1	1	1	1	10.4	2	0	0	0	2	0	0	0			
379	11	1	2	2	1	0	2	0	5	2	2	1	2	0	0	0	0	0	132.5	16	9.11	2	1	1	1	1	1	1	1	1	3	1	1	110	70	1	1	1	1	1	8.2	2	0	0	0	2	0	0	0			
380	13	1	1	2	1	0	2	0	5	1	1	1	1	12	0	0	0	0	142.5	36	17.73	2	1	1	1	1	1	1	1	1	2	1	1	110	70	1	1	1	1	1	6.0	1	1	3	2	1	2	0	0			
381	12	1	1	2	1	0	2	0	5	1	3	3	2	0	0	0	0	0	132.5	25	14.24	2	1	1	1	1	1	1	1	1	1	1	1	110	70	1	1	1	1	1	10.6	2	0	0	0	2	0	0	0			
382	13	1	1	2	1	0	2	0	4	1	3	3	1	13	0	0	0	0	145.0	30	14.27	2	3	1	2	1	1	1	1	1	1	1	1	100	60	1	1	1	1	1	12.2	2	0	0	0	1	3	0	0			
383	10	1	1	2	1	0	2	0	3	1	4	3	2	0	0	0	0	0	127.5	24	14.76	2	1	1	2	1	1	1	1	1	3	1	2	110	70	1	1	1	1	1	11.2	2	0	0	0	2	0	0	0			
384	11	1	1	2	1	0	2	0	5	1	3	2	2	0	0	0	0	0	127.5	21	12.92	2	1	1	2	1	1	1	1	1	3	1	2	100	60	1	1	1	1	1	6.5	1	4	3	2	2	0	0	0			
385	11	1	1	2	1	0	2	0	5	2	3	1	2	0	0	0	0	0	130.0	28	16.57	2	1	1	2	1	1	1	1	1	2	1	2	90	70	1	1	1	1	1	9.4	2	0	0	0	2	0	0	0			
386	10	1	1	2	1	0	2	0	5	3	2	1	1	10	0	0	0	0	137.5	26	13.75	2	1	1	2	1	1	1	1	1	5	1	2	110	80	1	1	1	1	1	12.3	2	0	0	0	1	2	0	0			
387	10	1	2	1	2	4	2	0	5	1	1	1	2	0	0	0	0	0	122.5	21	13.99	2	1	2	2	1	1	1	1	1	4	1	2	110	70	1	1	1	1	1	12.6	1	2	1	2	2	0	0	0			
388	12	1	1	2	1	0	2	0	5	1	3	3	2	0	0	0	0	0	152.5	29	12.47	2	1	1	2	1	1	2	1	1	2	1	2	100	60	1	1	1	1	1	6.8	1	5	3	2	2	0	0	0			
389	12	1	1	2	1	0	2	0	5	1	1	1	2	0	0	0	0	0	152.5	28	12.04	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	12.0	1	1	3	2	2	0	0	0			
390	11	1	2	2	1	0	2	0	5	3	4	1	2	0	0	0	0	0	130.0	17	10.06	2	1	1	2	1	1	1	1	1	1	1	2	110	70	1	1	1	1	1	12.1	2	0	0	0	2	0	0	0			
391	10	1	1	2	1	0	2	0	5	1	3	3	2	0	0	0	0	0	135.0	20	10.97	2	1	1	1	1	1	1	1	1	2	1	2	120	80	1	1	1	1	1	11.4	1	3	3	2	2	0	0	0			
392	13	1	2	2	2	5	2	0	5	2	3	2	1	13	0	0	0	0	150.0	26	11.56	2	1	1	1	1	1	1	1	1	2	1	2	120	70	1	1	1	1	1	9.0	2	0	0	0	1	5	0	0			
393	12	1	2	2	1	0	2	0	3	1	3	2	2	0	0	0	0	0	127.5	28	17.22	2	1	1	2	1	1	1	1	1	1	1	2	100	60	1	1	1	1	1	11.5	2	0	0	0	2	0	0	0			
394	12	1	2	2	1	0	2	0	5	1	2	3	2	0	0	0	0	0	132.5	24	13.67	2	1	1	2	1	1	1	1	1	2	1	2	110	70	1	1	1	1	1	12.2	2	0	0	0	2	0	0	0			
395	11	1	1	2	1	0	2	0	2	2	4	3	2	0	0	0	0	0	125.0	30	19.20	2	1	1	2	1	1	1	1	1	5	1	2	100	70	1	1	1	1	1	11.6	2	0	0	0	2	0	0	0			
396	10	1	1	2	1	0	2	0	5	1	1	1	2	0	0	0	0	0	117.5	18	13.04	2	1	1	2	1	1	1	1	1	1	1	1	110	70	1	1	1	1	1	9.2	2	0	0	0	2	0	0	0			
397	10	1	2	2	1	0	2	0	4	1	1	1	2	0	0	0	0	0	147.5	17	7.81	2	2	1	2	1	1	1	1	1	3	1	2	110	70	1	1	1	1	1	6.6	1	2	1	1	2	0	0	0			
398	13	1	2	2	1	0	2	0	5	1	2	1	1	12	0	0	0	0	127.5	18	11.07	2	2	1	2	1	1	1	1	1	1	1	100	60	1	1	1	1	1	6.5	2	0	0	0	1	2	0	0				
399	10	1	2	2	1	0	2	0	5	2	1	1	2	0	0	0	0	0	117.5	18	13.04	2	1	1	2	1	1	1	1	1	1	2	1	110	70	1	1	1	1	1	12.1	2	0	0	0	2	0	0	0			
400	12	1	2	1	2	2	2	0	5	2	3	1	1	11	0	0	0	0	132.5	25	14.24	2	1	1	2	1	1	1	1	1	2	1	2	100	60	1	1	1	1	1	11.4	2	0	0	0	1	3	3	2			

## **ANNEXURE IV - KEY TO MASTER CHART**

### Occupation

- 1 - Student
- 2 - Housewife
- 3 - Domestic work

### Religion

- 1 - Hindu
- 2 - Muslim
- 3 - Christian

### Educational Status

#### Status

- 1 - Yes
- 2 - No

#### Current status

- 1 - Illiterate
- 2 - Primary School
- 3 - High School
- 4 - College

#### Reasons for discontinuation of school studies

- 1 - Domestic Work
- 2 - Opposition by Parents
- 3 - Marriage
- 4 - To look after young siblings
- 5 - Financial problems

Marital status

- 1 - Married
- 2 - Unmarried

Socio economic Status

- 1 - Class I
- 2 - Class II
- 3 - Class III
- 4 - Class IV
- 5 - Class V

Type of family

- 1 - Nuclear
- 2 - Joint
- 3 - Broken

Literacy status of parents

Father

- 1 - Illiterate
- 2 - Primary School
- 3 - High School
- 4 - College

Mother

- 1 - Illiterate
- 2 - Primary School
- 3 - High School
- 4 - College

## Menarcheal status

1 - Yes

2 - No

## Pregnancy details

## Registration

1 - Yes

2 - No

## Place

1 - KLES Dr. Prabhakar Kore Hospital

2 - Civil Hospital

3 - Primary Health Centre

4 - Private Practitioner

5 - ESI Hospital

## ANC Care

1 - Tetanus toxoid injection

2 - Iron and folic acid

3 - Albendazole

4 - All

5 - Only Iron and Tetanus toxoid injection

## Personal Habits

## Food habits

1 - Vegetarian

2 - Mixed

Habits

0	-	No habits
1	-	Tobacco chewing
2	-	Pan chewing

General Physical Examination

Built

1	-	Normal
2	-	Moderate
3	-	Obese

Hair

1	-	Normal
2	-	Dull and dry
3	-	Pediculosis
4	-	Others

Skin

1	-	Normal
2	-	Scabies
3	-	Pyoderma
4	-	Others

Eyes

1	-	Pink
2	-	Pale

Sclera

- 1 - Normal
- 2 - Bitot's spots
- 3 - Yellow discolouration

Cornea

- 1 - Normal
- 2 - Dry
- 3 - Hazy
- 4 - Opaque
- 5 - Ulcerated

Ears

- 1 - Normal
- 2 - Ear discharge

Nose

- 1 - Normal
- 2 - Polyps

Tongue

- 1 - Normal
- 2 - Pale
- 3 - Cyanosis
- 4 - Fissured

Teeth

- 1 - Normal
- 2 - Stained

- 3 - Caries
- 4 - Cavities
- 5 - Multiple problems

Gums

- 1 - Normal
- 2 - Bleeding

Nails

- 1 - Pink
- 2 - Pale
- 3 - Kailonychia

Systemic examination

Respiratory system

- 1 - Normal

CVS

- 1 - Normal
- 2 - Rheumatic heart disease

Per abdomen

- 1 - Normal

Central nervous system

- 1 - Normal

Msuculoskeletal system

- 1 - Normal
- 2 - Polio

## Morbidity pattern

## Morbidity

- |   |   |     |
|---|---|-----|
| 1 | - | Yes |
| 2 | - | No  |

## Type

- |   |   |                |
|---|---|----------------|
| 0 | - | No complaints  |
| 1 | - | Fever          |
| 2 | - | Cough          |
| 3 | - | Abdominal pain |
| 4 | - | Others         |
| 5 | - | Multiple       |

## Treatment seeking behaviour

## Place of treatment

- |   |   |                       |
|---|---|-----------------------|
| 0 | - | No treatment          |
| 1 | - | Sub-centre            |
| 2 | - | Primary health centre |
| 3 | - | Private Hospital      |
| 4 | - | ESI Hospital          |
| 5 | - | Home remedy           |

## Decision makers

- |   |   |         |
|---|---|---------|
| 1 | - | Self    |
| 2 | - | Parents |
| 3 | - | In-laws |
| 4 | - | Husband |
| 5 | - | Friends |

## Menstrual problems

## Problems

- |   |   |     |
|---|---|-----|
| 1 | - | Yes |
| 2 | - | No  |

## Type

- |   |   |                 |
|---|---|-----------------|
| 0 | - | No complaints   |
| 1 | - | Menorrhagia     |
| 2 | - | Dysmenorrhoea   |
| 3 | - | White discharge |
| 4 | - | Others          |
| 5 | - | Multiple        |

## Treatment seeking behaviour

## Place of treatment

- |   |   |                       |
|---|---|-----------------------|
| 0 | - | No treatment          |
| 1 | - | Sub-centre            |
| 2 | - | Primary health centre |
| 3 | - | Private Hospital      |
| 4 | - | ESI Hospital          |
| 5 | - | Home remedy           |

## Decision makers

- |   |   |         |
|---|---|---------|
| 1 | - | Self    |
| 2 | - | Parents |
| 3 | - | In-laws |
| 4 | - | Husband |
| 5 | - | Friends |