

TRENDS IN FERTILITY, MORTALITY, NUTRITION AND HEALTH INDICATORS

Padam Singh, ICMR

1. Improvement in the standard of living and health status of the population has remained one of the important objectives in Indian planning. All five year plans had reflected long term vision consistent with the international aspirations of which India has also been a signatory. These long term goals have been stressed in National Population Policy, National Health Policy, National Nutrition Policy etc. These goals have to be achieved through improving the access to and utilization of Health, Family Welfare and Nutrition Services with special focus on under served and under privileged segments of population.

This paper highlights the trends in Fertility, Mortality, Nutrition and Health Indicators. In the analysis there is a heavy reliance on the important community based data sources viz. Census/SRS, NFHS, RCH/RHS, Multi-indicator Surveys of UNICEF, ICMR etc. The availability of data through these sources is as under :

- (i) **CENSUS:** Census 2001 has provided information on provisional population total at state level along with Sex ratio, Literacy etc.
- (ii) **SAMPLE REGISTRATION SYSTEM (SRS):** The SRS is the main source of data on Crude Birth Rate (CBR), Total Fertility Rate (TFR), Infant Mortality Rate (IMR), etc. at state level. These data are used for assessing the levels and studying the trends.
- (iii) **NATIONAL FAMILY HEALTH SURVEY (NFHS):** Two rounds of National Family Health Survey (NFHS-1 and NFHS-2) provide data on levels and change of various parameters at state level combined as well as by background characteristics such as literacy level, Socio-economic groups etc.
- (iv) **RCH RAPID HOUSEHOLD SURVEYS:** At the district level data on population related parameters are available through RCH/Rapid Household Surveys. These data are of immense use for identifying districts requiring special attention.
- (v) **(a) MULTI-INDICATOR SURVEYS:** Multi-indicator surveys done through UNICEF also provide information on various indicators.

(b) **ICMR SURVEYS:** Studies done by ICMR also provide information on many population related issues.

2. POPULATION

The National Population Policy (NPP) 2000 has laid down short-term, medium-term and long-term targets for stabilisation of population by 2045. One of the important medium term goals in NPP-2000 is bringing down the TFR (the average number of children a woman bears in her lifetime) at replacement level of 2.1 by 2010. The immediate objective is to address unmet need.

Backward States :

It has been emphasised in the NPP-2000 that the achievements in the backward states of UP, MP, Bihar, Rajasthan and Orissa will determine the time and the year in which the country is likely to achieve population stabilisation. An analysis of data available through various sources has been undertaken to highlight magnitude of population problem in backward states vis-a-vis the rest.

Although data on TFR are also available through NFHS as well as Multi-indicator Surveys, the one which has high acceptability is Sample Registration System and hence has been considered in the analysis of TFR. It may be important to mention that the states with high TFR broadly remain the same, inspite of variation in the TFR figures through these sources. Table 1 provides the information on TFR for backward states of U.P., M.P., Bihar, Rajasthan and Orissa using SRS.

Table 1 : Total Fertility Rate

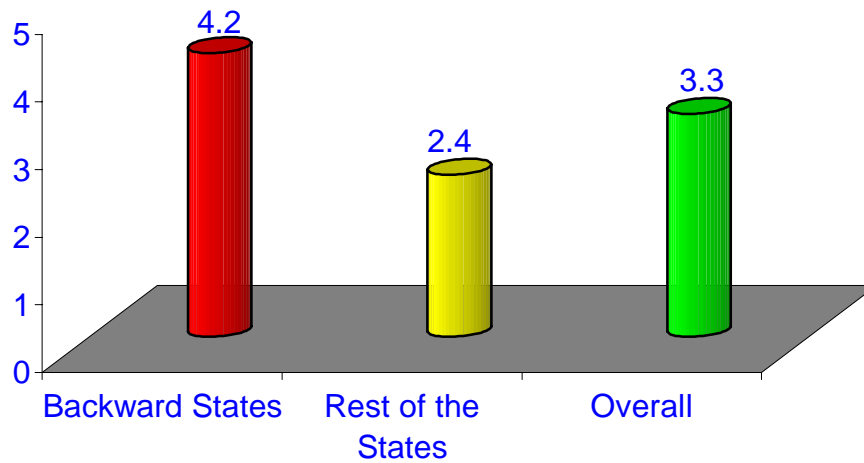
States	TFR
All India	3.3
Bihar	4.5
MP	4.1
Rajasthan	4.23
U.P.	4.83
Orissa	3.14

The group of backward states excepting Orissa has very high TFR. The state of Orissa which has TFR lower than the rest of the states in the group, has the highest infant mortality rate and undernutrition because of which the state has been grouped with other backward states as the goal is not only to achieve TFR of 2.1 but also to take care of reduction in IMR, MMR, malnutrition etc.

Based on SRS data, the TFR for the group of backward states (combined) is 4.2 is double the level than the desired TFR of 2.1 highlighting the magnitude of the talk.

Table 2 : Total Fertility Rate

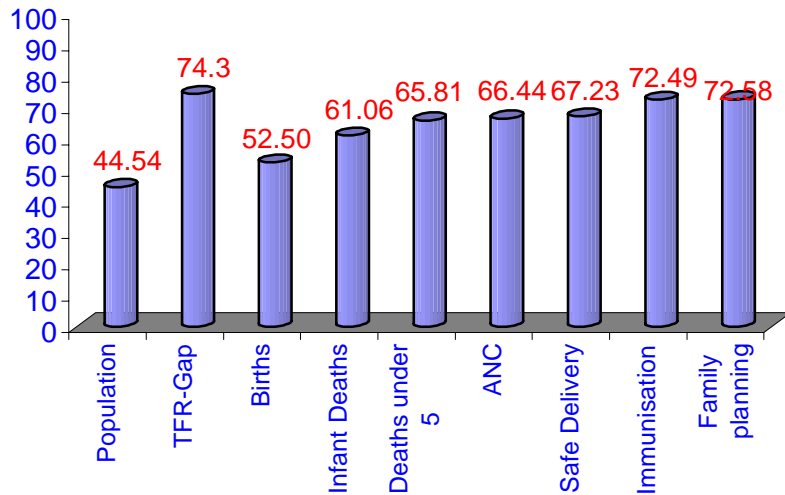
States	TFR
Backward States	4.2
Rest of the States	2.4
Overall	3.3



The shares of Backward states in terms of population, TFR gap and various indicators is presented in Table 3

Table 3 : Share of Backward States

Parameters	Share
Population	44.54
TFR Gap	74.3
Births	52.50
Infant Deaths	61.06
Deaths under 5	65.81
ANC	66.44
Safe Delivery	67.23
Immunisation	72.49
Family Planning	72.58



- These states though account for 45% of population, their share in TFR gap is about three fourth.
- Further their contribution in terms of births is above 55% which is because of very high birth rate in these states as compared to the rest of the country.
- The infant mortality in these states as well as the under 5 mortality rate continue to be very high and as a result these states together account for about 2/3 of infant and child deaths.
- The immediate objective of NPP-2000 is to take care of unmet need not only of Family Planning but also for other component of Reproductive Health. In this context it is observed that these states together account for as high as over 75% of unmet need of Family Planning and immunisation of children. The unmet need for antenatal care and safe deliveries is over 70 per cent.

The experience of states where TFR = 2.1 has been achieved, has demonstrated that different approaches have to be adopted in different situations.

* Goa the first administrative unit to achieve the replacement level of fertility, achieved it with high literacy and good health care infrastructure.

* In Kerala, the first State to achieve replacement level of fertility, the factors responsible were High status of women, female literacy, age at marriage and low infant mortality.

* Tamil Nadu which was the second state to achieve replacement level of fertility did so because of the strong social and political commitment, backed by good administrative support and ready availability of Family Welfare Services.

* Andhra Pradesh could achieve replacement level of fertility, in spite of relatively lower age at marriage and low literacy.

The approaches to be adopted in different states could be based on some of these individual success models or their combinations.

Identification of Demographically weak Districts: There are districts with very high TFR requiring special focus to achieve faster gains. It is therefore important to identify such districts with high TFR for proper targeting. But, the data are not available at district level. Of various indicators for which information is available at district level, the third and higher order births is known to be highly correlated with TFR. Therefore, using the theory of 'Small Area Statistics' the relationship of TFR and third and higher order births can be used in identifying the districts with varying levels of TFR. For this, NFHS data have been used in studying the relationship of 3rd and higher order births with TFR as this is the source which has acceptable data on both the indicators.

The Regression equation of TFR with third and higher order births (B3) is given below :

$$\text{TFR} = .321069 + .057467 * \text{B3}, R^2 = .78503$$

Evidently above relation has very high predictive power.

Using the relationship, the values of B3 corresponding to various values of TFR are given in Table 4.

Table 4 : Correspondence of TFR and third and higher order births.

TFR	B3
2.1	31.0
2.5	38.0
3.0	46.5
3.5	55.0
4.0	64.0

Based on the relationships of TFR with third and higher order births and the district level values of third and higher order births the districts have been classified according to different levels of TFR, viz. <2.1, 2.1 to 2.5, 2.5 to 3.0, 3.0 to 3.5, and >3.5. Table 5 provides the number of districts falling in different groups

Table 5 : Distribution of Districts by TFR Category

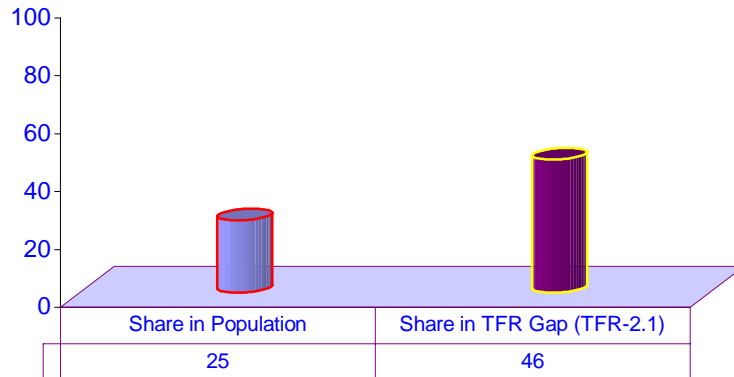
STATES	<2.1	2.1-2.5	2.5-3	3-3.5	3.5-4	>4	Total
ANDHRA PRADESH	17	4	2	0	0	0	23
BIHAR	0	0	1	9	31	2	43
GOA	2	0	0	0	0	0	2
GUJRAT	4	7	4	4	0	0	19
HARYANA	1	8	7	1	1	0	17
HIMACHAL PRADESH	6	3	2	1	0	0	12
J & K	2	2	2	1	4	2	13
KARNATAKA	11	4	1	4	0	0	20
KERALA	13	1	0	0	0	0	14
M.P.	0	1	13	28	3	0	45
MAHARASHTRA	9	11	9	1	0	0	30
ORISSA	0	2	15	13	0	0	30
PUNJAB	4	9	4	0	0	0	17
RAJASTHAN	0	0	4	17	9	0	30
TAMILNADU	21	2	0	0	0	0	23
UTTAR PRADESH	0	0	3	12	44	9	68
WEST BENGAL	4	6	2	6	0	0	19
North East	5	6	11	17	18	10	67
Delhi & Uts	8	1	2	1	0	0	12
TOTAL	107	67	82	115	110	23	504

Following are the salient observations emerging from this analysis.

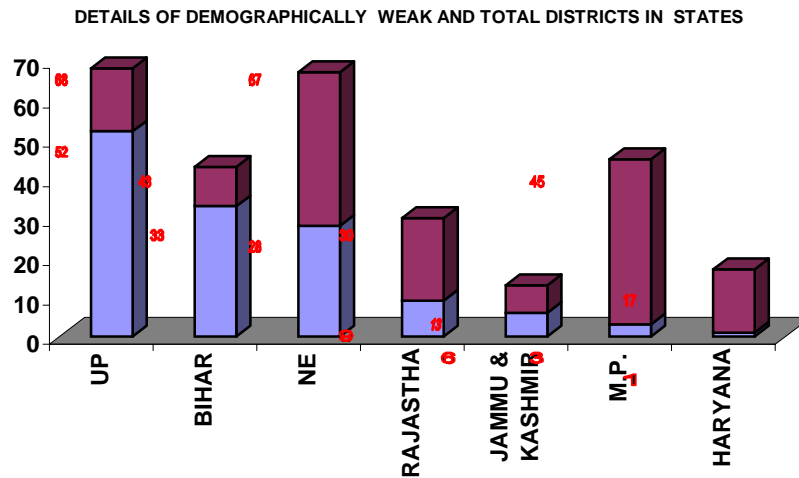
(a) In over 20% of districts the total fertility rate is less than 2.1 and in over 13% between 2.1 to 2.5. In over one-fourth of district TFR is beyond 3.5 and another about 40% between 2.5 to 3.5.

(b) The districts with TFR more than 3.5 numbering 133 could be termed as demographically weak districts which are required to be specially targeted for faster gains. These districts together account for about 25% of India's population and over 45% of TFR gap.

Share of 133 Districts



(c) These districts are mainly from the States of Uttar Pradesh (52), Bihar (33), North Eastern states (28), Rajasthan (9), J&K (6) Madhya Pradesh (3) and Haryana (1). Of 33 districts from pre-divided Bihar 9 belong to Jharkhand and of 52 districts from pre-divided U.P. only one belongs to Uttranchal.



In the states of U.P. and Bihar more than 3/4th of the districts fall in the category of demographically weak districts. The other states from where very high proportion falls in this category are Rajasthan (30%), J&K (45%), and North East (46%).

(d) On the other hand, in the States of Kerala and Tamil Nadu 93 and 91% of districts respectively have already achieved TFR of less than 2.1. In the state of Andhra Pradesh the percentage of districts with TFR less than 2.1 is 74% followed by Karnataka (55%) &

Himachal Pradesh (50%). The other states/UTs in this category are Goa, Pondicherry, Andaman & Nicobar, Chandigarh, Tripura and Pondicherry (UTs (67%).

(e) An analysis of data on other indicators indicated that in better performing districts, the availability of health infrastructure is better as reflected by over 75 percent institutional deliveries and full ANC as against corresponding figure of 15% in poor performing districts.

Table 6 : Selected Indicators (%) for Districts Falling in Different TFR Category

Indicator	Estimated TFR Category				
	<2.1	2.1-2.5	2.5-3	3-3.5	>3.5
Births order 3 or more	23.2	34.5	42.2	50.8	60.4
Est_TFR	1.66	2.32	2.76	3.22	3.78
Full ANC	73.7	51.4	32.0	24.2	18.9
Institutional Deliveries	74.5	50.3	36.6	25.8	17.2
Complete Immunisation	83.2	72.0	60.8	46.1	33.9
Sterilisation	48.0	40.9	36.5	29.6	15.9
Girls Marrying above 18 Years of Age	81.0	75.6	66.5	55.6	45.9
Female Literacy	46.9	39.2	31.0	23.6	20.5

These are the districts where the availability of health infrastructure is poor and therefore required to be strengthened. In better performing districts the female literacy is also very high as also low proportion marrying below 18 yrs. Efforts will have to be made to identify the factors responsible for poor achievements and area specific remedial measures have to be planned and implemented. Improvement in literacy as well as in availability and

access to family welfare services are needed in the demographically weak districts in order to achieve a faster decline in fertility rates.

The analysis has also demonstrated that there is convergence of all indicators with the main indicator of 3rd and higher order births considered in the study.

3.CENSUS 2001

The population of India stands at about 1027 million at the dawn of the twenty first century. The percentage decadal growth during 1991-2001 has registered the sharpest decline from 24.66 percent in 1971-81 and 23.86 percent in 1981-1991 to 21.34 percent in 1991-2001, i.e. a decline of 2.52 percentage point as against 0.80 percentage point in the earlier decade. The trends of population growth in India has been broadly in tune with the classical theory of demographic transition into four phases and India is supposed to have entered now in the fifth phase, of rapidly declining fertility.

Census 2001 results revealed decadal population growth of (>25.6) i.e. more than 20% to that at All India level in the following states.

Table 7 : States with Decardal Growth Rate >25.6 i.e. more than 20 % of All India Level

States	Decadal Growth Rate
Jammu & Kashmir	29.04
Haryana	28.06
Rajasthan	28.33
Uttar Pradesh	25.80
Bihar	28.43
Sikkim	32.98
Arunachal Pradesh	26.21
Nagaland	64.41
Manipur	30.02
Mizoram	29.18
Meghalaya	29.94

In the light of this trend, North Eastern states, J&K and Haryana are also required to be focused and included in the group of backward states.

Further, Census 2001 has revealed that in 2001 itself, India has already exceeded the estimated population for the year 2002, by about 14 million as compared to the projected value. Where as for UP and MP the observed population figures were very close to the

projected figures, the most of the population increase as compared to the projected figures came mainly from the states of Bihar, Rajasthan, Maharashtra, Gujarat, Haryana. Thus, an examination of the factors responsible for this difference would be of immense help in better projection for future.

4. FERTILITY TREND

National Family Health surveys provide very useful information on trends in fertility. Allowing for the fact that the estimated TFR by NFHS-2 is an under estimate, National Family Health Survey (NFHS)-2, has indicated that the TFR for India is on a declining trend which is mainly due to increase in the age at marriage and reduction in the age at sterilization.

The median age at marriage has increased by an year from the level 16.4 years in 1992-93 to 17.4 years by 1998-99. Although the proportion of women who marry young is declining rapidly, half the women even in the age group 20-24 have married before reaching the legal minimum age of 18 years. The adherence to legal age at marriage can reduce TFR by .3 points.

The median age for female sterilization has been declining in recent years and is now 26 years, one year earlier than in early 1990's. Even for women below 25 years of age, the proportion getting sterilized has increased to 40% in 1998-99 as against 30% in 1992-93.

NFHS has shown that groups within the population that have relatively higher fertility are women from rural, scheduled tribes and scheduled castes and illiterate and Muslim which are required to be targetted taking into account cultural, social, economic and behavioural aspects.

5. Unmet need for Family Planning Services

As per NFHS-2 ,for the year1998-99, the total demand for family planning was 64% of which 52% was for limiting and 12% for spacing. This is in contrast to the total demand of 60% during 1992-93 (NFHS-1) comprising of 46% for limiting and 14% for spacing. The total demand for family planning is the sum of the met need and the unmet need. The met need for family planning can be considered as those currently married women who are using family planning methods. By implication the Unmet need is defined as those currently married women who do not want any more children or want to wait before having another child but are not using contraception. For 1998-99 the unmet need was 15.8%; 8.3% for spacing and 7.5% for limiting. The unmet need for 1992-93 was about 20% of which 11% was for spacing and 8.5% for limiting. Percentage of total demand met was about 2/3 during 1992-93 which improved to three-fourth by 1998-99.

Analysis of unmet need for 1998-99 and 1992-93 revealed the following:

- (i) The total demand for family planning has increased by 4%. The increase in demand has come mainly for limiting method (more than 6% points). The demand for spacing has reduced (2 percentage points). This is contrary to the expectation that in recent years the demand for spacing methods is picking up.
- (ii) As to the met need measured in terms of eligible women currently using family planning methods combined for all methods, there is increase of about 7.5 percentage points mainly coming from the increase in the acceptors of limiting methods. For spacing methods there is in fact a slight decline.
- (iii) In 1998-99 as well as 1992-93 the unmet need for spacing is higher than the unmet need for limiting. The rural areas have higher unmet need as compared to urban areas. Further, in both the periods, the unmet need for limiting increases steadily with age.
- (iv) The unmet need for spacing is strong for younger women under age 25. For the younger women up to the age group of 24 years the demand for spacing method is as high as over 30% of which the met demand is only 6% and remaining about 25% as unmet need. So the woman in this age group are required to be addressed for a real increase in the met need as well as increase in the total demand.
- (v) Of various states Uttar Pradesh and Bihar had the highest unmet need for family planning. Also the unmet need is lowest for southern states specially Andhra Pradesh.
- (vi) The percentage demand satisfied is very low for spacing as compared to limiting methods. It is particularly lower for the states with high fertility rate Bihar, Rajasthan, Madhya Pradesh, Uttar Pradesh, Orissa, Meghalaya and Nagaland.
- (vii) However, a preference of son is still strong which leads to larger families as couples continue to have children until they reach their desired number of sons. It is satisfying to note that even the majority of rural and illiterate women with two children do not want more children.

The strategy to take care of unmet need has to be viewed with these facts. The concerted efforts have to be made therefore both for increasing the demand for spacing methods as well as for taking care of the unmet need for the same. Possibly the unmet need of spacing methods could not be addressed effectively, resulting thereby reduction in the demand for the same. For increasing the demand for spacing therefore, the relevant target group has to be focussed which is younger and literate women.

6. Reproductive Health

Maternal Mortality: The maternal mortality rate (MMR) in India remains very high at over 500 per thousand live births. Further there appears to be no sign of decline in MMR with time. This remains a matter of serious concern.

Antenatal Care: Use of recommended antenatal care is low, but progress has been made. Coverage for different antenatal services has increased, including tetanus toxoid injections and iron/folic acid supplementation. According to NFHS, Mothers of about two third of the children received at least one antenatal check-up and 44 percent received full antenatal check-ups as against 62% in 1992-93. For two thirds of these births, mothers received the recommended number of tetanus toxoid vaccinations as against 54% in 1992-93. Mothers receiving iron and folic acid supplementation during pregnancy were about 60% as against above 50% in 1992-93. One-third of births in India took place in a medical facility in 1998-99 as compared to one-fourth in 1992-93. States that performed much below the national average with regard to the provision of recommended components of antenatal care are Bihar, Uttar Pradesh, Madhya Pradesh, Rajasthan and several of the northeastern states.

The coverage levels were much higher as per the ICMR evaluation studies.

Breast Feeding: According to NFHS, Fifty-five percent of children under four months of age are exclusively breastfed. The median duration of breast feeding is slightly over two years, and the median duration of exclusive breast feeding is two months. There has been no increase in median duration of breast feeding but the median duration of exclusive breast feeding showed increase.

Reproductive Health Problem: According to NFHS, nearly 4 out of 10 currently married women report at least one reproductive health problem viz. abnormal vaginal discharge, symptoms of a urinary tract infection, and pain or bleeding associated with intercourse that could be symptomatic of a more serious reproductive tract infection. Among these women reporting any reproductive health problem, two-thirds have not seen anyone for advice or treatment. Further, women who seek advice or treatment for reproductive health problems do not usually go to government health professionals. These results suggest a need to expand reproductive-health services and IEC programmes that encourage women to discuss their problems with a health-care provider.

Chronic Energy Deficiency: Based on NFHS data using weight-for-height index (the body mass index), more than one-third (36 percent) of women in India are undernourished. Nutritional deficiency is particularly acute for women in rural areas, younger women and women in disadvantaged socioeconomic groups. Women who are undernourished are more likely to have children who are undernourished. The proportion of women undernourished is highest in Orissa (48 percent) and West Bengal (44 percent). Obesity is a problem among urban women from households with a high standard of living. Obesity is particularly prevalent in Delhi and Punjab.

ICMR data through National Nutrition Monitoring Bureau (NNMB) indicated improvement in the Nutritional Status of Women in terms of decline in proportion with CED. This trend was also observed for men.

Anemia: Anemia is widespread among women. Overall, 52 percent of women in India have some degree of anemia and 40 percent or more of women in every population subgroup are anemic. Anemia is a serious concern for women because it can be an underlying cause of maternal and infant death. It can also increase the risk of premature delivery and low birth weight. The prevalence of anemia is particularly high for scheduled-tribe women and poor women. Pregnant women are much more likely than non-pregnant women to be moderately to severely anemic.

The anemia levels were much higher by ICMR studies.

Adolescent Nutrition: Adolescents who are undergoing rapid growth and development are one of the nutritionally, vulnerable groups who have not received the attention they deserve. Where as under nutrition continues to be a major problem in adolescents, over years there has been some increase in obesity. As per ICMR studies problem of anemia is much more among adolescent girls than in the pregnant women.

7. CHILD HEALTH

Infant and Child Mortality Rate: Where as SRS data show stagnancy in IMR levels, as per NFHS the infant mortality rate has shown a decline of over 10 points from the level 78.5 per 1000 live births in 1992-93 to 66.6 in 1998-99. The decline in both neonatal and post neonatal mortality is about the same percentage points and almost of similar magnitude in rural and urban areas.

IMR greatly varies with age of mother, spacing with last birth and Antinatal care received. Infant mortality rate are more than two and one-half times as high for women who did not receive any of the recommended types of maternity related medical care than for mothers who did receive all recommended types of care. Infant mortality is almost 50 percent higher among children born to mothers under age 20 than among children born to mothers age 20-29. Infant mortality is nearly three times as high among children born less than 24 months after a previous birth as among children born after a gap of 48 months or more. The IEC should incorporate appropriate messages based on these.

The trend observed in IMR and child mortality in NFHS although at variance with SRS is consistent. In NFHS-2 the infant fertility rate has been estimated for 5 year periods of 0 - 4 years and 5 - 9 years and similar estimation was done for NFHS-1 as well. It is satisfying to that the estimates of IMR as well as under 5 mortality for the period 5 - 9 years preceding NFHS-2 is very close to the estimates of 0 - 4 year preceding NFHS-1 which correspond broadly to the same period.

The child mortality rate, 29 deaths at age 1-4 years per 1,000 children reaching age one, also declined from the corresponding rate of 33 per 1,000 in NFHS-1.

Child mortality is considerably higher among girls than boys, especially in rural areas. The under 5 mortality has shown a decline of about 15 points from the level of 109 per 100 live births in NFHS-1 to 95 in NFHS-2.

Immunisation: Immunization coverage, although far from complete, has improved substantially. According to NFHS-2, 72 percent of children age 12-23 months have been vaccinated against tuberculosis, 63 percent have received three doses of the polio vaccine and 51 percent have been vaccinated against measles. Dropout rates for the series of DPT and polio vaccinations continue to be a problem. Coverage has improved for all major vaccines, but dropouts and measles are still a problem. Among major states, Bihar, Assam, Rajasthan, Uttar Pradesh, and Madhya Pradesh stand out as having lower vaccination coverage levels. The public sector is the primary provider of vaccinations: 82 percent of immunized children received vaccinations from a government source.

The coverage levels were higher as per ICMR studies.

Illness: Illness is common among children in India. As per NFHS-2, thirty percent of children under age three had fever during the two weeks preceding the survey, 19 percent had symptoms of ARI, and 19 percent had diarrhea. The levels are higher as compared to NFHS-1. About two-thirds of the children who had symptoms of ARI or diarrhoea were taken to a health facility or health-care provider same as that in NFHS-1. Among children sick with diarrhoea in the two weeks prior to the survey, the proportion who were given some form of ORT varies from 90 percent in Kerala, 76 percent in Goa, and 73 percent in West Bengal to 34 percent in Rajasthan and 36 percent in Uttar Pradesh. The proportion given ORS varies from 56 percent in Goa and 51 percent in Manipur to only 15-16 percent in Bihar and Uttar Pradesh.

Anemia among Children: The highest anemia levels among children are in Haryana, Rajasthan, Bihar and Punjab. Nearly three-quarters (74 percent) of children age 6-35 months are anemic, with very little variation in anemia rates for children in most of the population.

In young children, anemia can impair cognitive performance, behavioural and motor development, scholastic achievement, as well as increase susceptibility to infectious diseases.

Undernutrition among children: Little less than half of children under age three years in India are underweight slightly less than that in 1992-93 (53%). Forty-six percent of children are stunted (52% in NFHS-1) and 16 percent are wasted (18% in NFHS-1). Undernutrition is much higher in rural areas than in urban areas, and is particularly high among children from disadvantaged socio-economic groups.

Undernutrition is most serious among children ages 12 to 35 months. However, there is some improvement vis-a-vis the situation in 1992-93.

8. MORBIDITY

The reliable data on Morbidity are not available. At the community level the NFHS-2 survey collected information on the prevalence of tuberculosis, asthma, malaria, and jaundice among all household members. Disease prevalence data based on such surveys needs to be interpreted with caution. However, the survey found that less than 1 percent of the population suffers from tuberculosis, 2 percent suffers from asthma, 4 percent suffered from malaria during the three months preceding the survey, and 1 percent suffered from jaundice during the 12 months preceding the survey. Further, survey revealed that the prevalence of all four conditions is higher in rural areas than in urban areas and among men than among women. Further, the levels are broadly similar as observed in the earlier NFHS-1 Survey. The information on illness among children and women have already been discussed in the corresponding sections.

Although improvement and increased access to health care have resulted in steep fall in mortality yet disease burden due to communicable diseases, non-communicable diseases and nutritional problems continue to be high. The likely scenario for 2020 on Disability Adjusted Life Years (DALYS) broadly due to communicable diseases, non-communicable diseases and injuries is projected to be as under:

Table 8 : DALYS BY MAJOR CAUSES

Communicable		24.5
Non-communicable		56.5
Injuries		19.0
Total	.o	100

Source : Murray CJL and Lopez AD, 1996

There have been substantial changes in the life style of the population. Impressive strides have been made in eradicating several of dreaded diseases and some are likely to be eradicated in near future, but there is increase in the diseases due to life style related changes. There is emergence of newer diseases as well as fear of re-emergence of some. Challenge for the health sector is to promote healthy life styles, improve access to and utilization of health care so that the country can achieve substantial reduction in mortality and morbidity. Occupational health and environmental health programme need be augmented to ensure that working population remain healthy and productive. With growing number of senior citizens there may be substantial increase in health care needs especially for management of non-communicable diseases.

9. Background Characteristics of the Survey Population

Sixty percent of households in India now have electricity and 39 percent have piped drinking water compared with 51 percent and 33 percent, respectively, at the time of NFHS-1. Sixty-four percent of households have no toilet facility compared with 70 percent at the time of NFHS-1.

About three-fourths (75 percent) of males and half (51 percent) of females age six and above are literate, an increase of 6-8 percentage points from literacy rates at the time of NFHS-1. The proportion of children attending school has increased for all ages, particularly for girls, but girls continue to lag behind boys in school attendance.

Undernutrition is widespread among women, while obesity affects better-off groups

More than one out of three women is undernourished according to the Body Mass Index (BMI), an indicator derived from height and weight measurements. Chronic energy deficiency is usually indicated by a BMI below 18.5 kg/m.

Nutritional problems are particularly serious for rural women, illiterate women, and scheduled-caste and scheduled-tribe women.

Obesity- which is reflected in a BMI of 25 or more – is becoming a problem among urban women high school educated women leading sedentary lifestyle. About one-fourth of these women have a BMI of 25 or higher. In Punjab and Delhi more than 3 in 10 women are obese. Obesity is a risk factor for a number of chronic illnesses.

The states with the highest levels of undernutrition among women are Orissa (48 percent) and West Bengal (44 percent). In Orissa, nearly one out of two women is undernourished.

Nearly one-fifth of children had symptoms of acute respiratory infection (ARI). A similar population had diarrhoea during this period. ARI, primarily pneumonia, is a leading cause of childhood deaths.

More than 60 percent of children who had ARI and diarrhoea were taken to a health facility or provider for treatment.

Anemia among Children

The highest anemia levels among children are in Haryana, Rajasthan, Bihar and Punjab.

In young children, anemia can impair cognitive performance, behavioural and motor development, scholastic achievement, as well as increase susceptibility to infectious diseases.

However, there is some improvement vis-a-vis the situation in 1992-93. Nearly three-quarters (74 percent) of children age 6-35 months are anemic, with very little variation in anemia rates for children in most subgroups of the population.

Undernutrition among children

Little less than half of children under age three years in India are underweight slightly less than that in 1992-93 (53%). Forty-six percent of children are stunted (52% in NFHS-1) and 16 percent are wasted (18% in NFHS-1). Undernutrition is much higher in rural areas than in urban areas, and is particularly high among children from disadvantaged socio-economic groups.

Almost half of children under three years of age are underweight, a measure of short -and long-term undernutrition. A similar percentage are undernourished to the extent that their growth has been stunted (46 percent) .

Undernutrition is most serious among children ages 12 to 35 months.

Unmet needs for Family Welfare services

The National Family Health Survey (NFHS) 1992-93 had provided an independent nation wide evaluation of the progress and problems in delivery of Family Welfare services in the country. The survey confirmed that in spite of obvious constraints and inadequacies, the governmental network can, and does, provides most of the MCH and contraceptive care (Figure 20):

The 2-Child norm has become stronger since the early 1990s:

There is decline in the unmet need from the level of 20% during 1992-93 to 16% during 1998-99.

The desired number of children is little above 2 as against the actual number little less than 3.

More than 70 percent of currently married women with 2 children do not want more children in 1998-99, compared with 60 percent in 1992-93.

Even the majority of rural and illiterate women with two children do not want more children.

There are inter-regional variations. Although the ideal family size among women (ages 20 to 24) is between 2 and 3 children. Women from Bihar, Arunachal Pradesh, Manipur, Meghalaya, Mizoram and Nagaland want 3 children or more.

Preference for sons is still strong

Son preference is very strong in states like Uttar Pradesh, Bihar and Rajasthan, which leads to larger families as couples continue to have children until they reach their desired number of sons.

Although age at marriage is rising, early marriage and childbearing are still common

Marriage continues to take place at young ages, with half of young women marrying before the legal age of 18.

The median age at first birth among women ages 25 to 29 has not changed substantially. The adherence to legal age at marriage may itself reduce the TFR by 2-3 decimal point.

Literacy levels are rising

Literacy levels among both women and men have improved. Three out of four men are literate and half of women are literate.

Those with literacy skills are better able to access information. Higher female literacy is also associated with lower fertility levels.

School attendance is improving among young people

The percentage of boys and girls ages 11 to 14 attending school has improved substantially; 80 percent of boys and 67 percent of girls in this age group attend school.