## 4.2    Health Statistics

**4.2.1**    Health is an important factor that contributes to human wellbeing and economic growth and is equally important for all irrespective of their sex. However, Gender influences people's access to and experience with healthcare. Lack of access to resources and decision-making power, restrictions on mobility etc., make access to health information and services more difficult for women and girls than men and boys. Further, Women experience unique health issues and conditions, from pregnancy and menopause to gynaecological conditions. Lack of training and awareness amongst health care providers and health systems of the specific health needs of women and girls also pose a challenge. Consequently, women and girls face greater risks from unintended pregnancies, cervical cancer, malnutrition, child marriage, adolescent fertility etc. Some of these aspects have been examined in this section.

**4.2.2**    Information on current and cumulative fertility is essential in monitoring the progress and evaluating the impact of the population program in the country. The data on birth intervals are important since short intervals are strongly associated with child mortality as well as poor health condition of the mother. The age at which childbearing begins can also have a major impact on the health and well-being of both the child and the mother. The level of current fertility is one of the most important parameter because of its direct relevance to population policies and programs. Measures of current fertility presented in this section include age-specific fertility rates (ASFR), the total fertility rate (TFR), the general fertility rate (GFR), and the crude birth rate (CBR).

*Age-Specific Fertility Rate is defined as the number of live births in a specific age group of women per thousand female populations of that age group*

$$ASFR = \frac{\textit{No. of Live Births in a particular age-group}}{\textit{Mid-Year Female Population of the same age-group}} *100$$

**4.2.3**    ASFR are useful in understanding the age pattern of fertility. It is evident that from 2016 to 2020, ASFR **(Table 2.1**) in the age group of 20-24 and 25-29 has reduced

*Total fertility rate is defined as the average number of children expected to be born per woman during her entire span of reproductive period assuming that the age specific fertility rates, to which she is exposed to, continue to be the same and that there is no mortality*

from 135.4 and 166.0 to 113.6 and 139.6 respectively which may probably be because of the awarenes of economic independency by attaining proper education and securing a job. If this is the case, it can be treated as a symbol of breaking the barriers created by the society around women on the misconception of "early marriage and have children". The ASFR for the age 35-39 for the above period has increased from 32.7 to 35.6 which shows that after settling in the life, women are thinking of expansion of family. Even though the adolescent fertility rate (15-19 years) showed a random trend but the rate being 11.3 in 2020 is a problem to be addressed through awareness and augmentation of existing policies and programs, considering that ASFR is the most sensitive fertility index. The mean age at marriage has slightly gone up from 22.1 years in 2017 to 22.7 years in 2020. For rural areas, it has increased from 21.7 years to 22.2 years while in urban areas it has increased from 23.1 to 23.9 years **(Table 2.4)**. The ASFR in the age group of 15-19 years **(Table 2.3)**, i.e. adolescent fertility rate was 33.9 for illiterate population whereas 11.0 for the literate. This rate, obviously, is zero for graduates and above and considerably lower for even those who are literate but without any formal education (20.0) as compared to illiterate women re-emphasising the importance of imparting education to women

**4.2.4** The Total Fertility Rate (TFR) is a useful measure for examining the overall level of fertility. It may be noted that TFR has reduced from 2.3 in 2016 to 2.0 in 2020, slightly lower than the replacement level fertility **(Table 2.1)**. In rural areas, TFR has reduced from 2.5 to 2.2 while in urban area it has reduced from 1.8 to 1.6. TFR tabulated by educational level of the mother shows, as expected, that the rate for illiterate mothers at 3.1 is far higher than that of the literate mothers (1.9). It was as low as 1.6 for graduate mothers, reemphasising the importance of imparting education to women, which at present the government is focusing on through its various programmes and policies. This will help ensuring a stable population.

**4.2.5** The infant mortality rate (IMR), the number of infant deaths for every 1,000 live births, is positively correlated to fertility. Reduction in IMR brings down the number of



Figure 4.5: Infant Mortality Rate
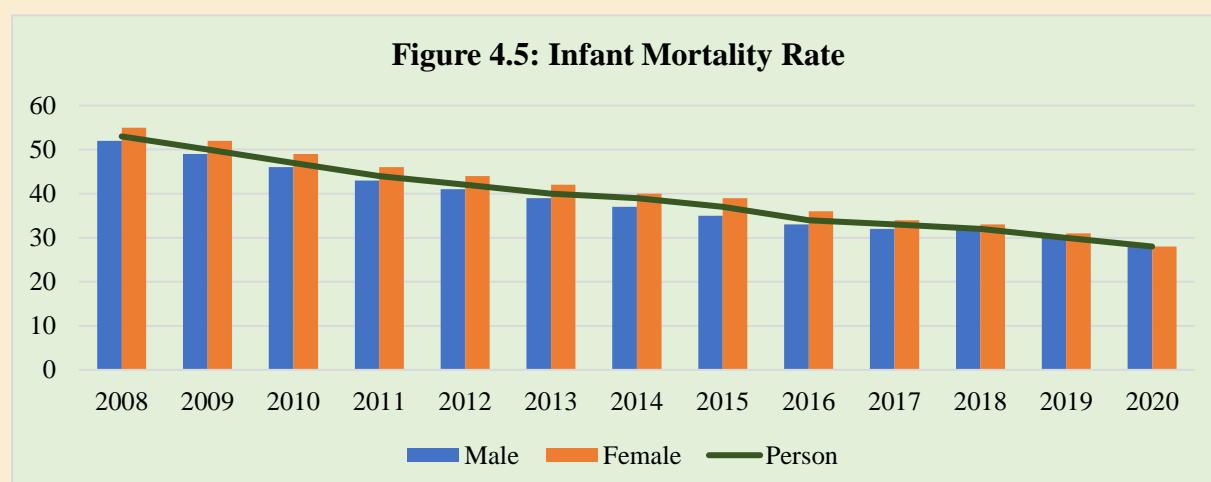
children born also. Further, the infant mortality rate also reflects the social, economic and environmental conditions in which children (and others in society) live, including their health care. It provides a snapshot of current health problems, suggest persistent patterns of risk in specific communities, and show trends in specific causes of death over time. Many causes of death are preventable or treatable and, therefore, warrant the attention of public health prevention efforts. Furthermore, because mortality data allow us to identify leading causes of premature death, they provide a valuable benchmark for evaluating progress in increasing years of healthy life for the residents. It can be observed that (**Table 2.5**), Infant Mortality Rate has been decreasing over the years for both male and female. Female IMR had always been higher than that of male but in 2020, both were equal at the level of 28 infants per 1000 live births. As per SRS, 2020, Kerala has the lowest IMR of 6 infants per 1000 live births whereas Madhya Pradesh has the highest IMR of 43. **(Table 2.6)**

*Infant mortality Rate refers to the measurement of mortality in the first year of life and is computed by (relating) the number of deaths under one year of age divided by 1000 live births in a given year*

$$\text{Infant mortality rate (IMR)} = \frac{\text{Number of infant deaths during the year}}{\text{Number of live births during the year}} \times 1000$$

*The under-five mortality Rate (**U5MR**) is the probability that a child born in a specific year or time period will die before reaching the age of five, subject to current age specific mortality rates. It is expressed as a rate per 1,000 live births.*

**4.2.6**  The under 5 mortality Rate (U5MR) is a key output indicator for child health and well-being. This is a closely watched public health indicator because it reflects the access of children and communities to basic health interventions such as vaccination, new-born health care facilities, medical treatment of infectious diseases and adequate nutrition. The U5MR data (**Table 2.7**) shows that it has decreased from 43 in 2015 to 32 in 2020. So is the case for both boys and girls and the gap between boys and girls has also reduced. Because of the interventions made by the governments through various programmes and policies, the U5MR had been reduced in the past and the effects of the programs will be reflected in the data in future as well.

**4.2.7** Various government interventions have not only had an impact on reducing mortality among children but have also resulted in a considerable increase in the longevity of life. Life expectancy at birth reflecting the overall mortality level of a population, is derived from life tables and is based on sex- and age-specific death rates using mortality data from Sample Registration System. It is evident that from 1990 onwards, the life expectancy has been steadily increasing and has reached 68.4

**Figure 4.6: Life Expectancy at birth by sex**
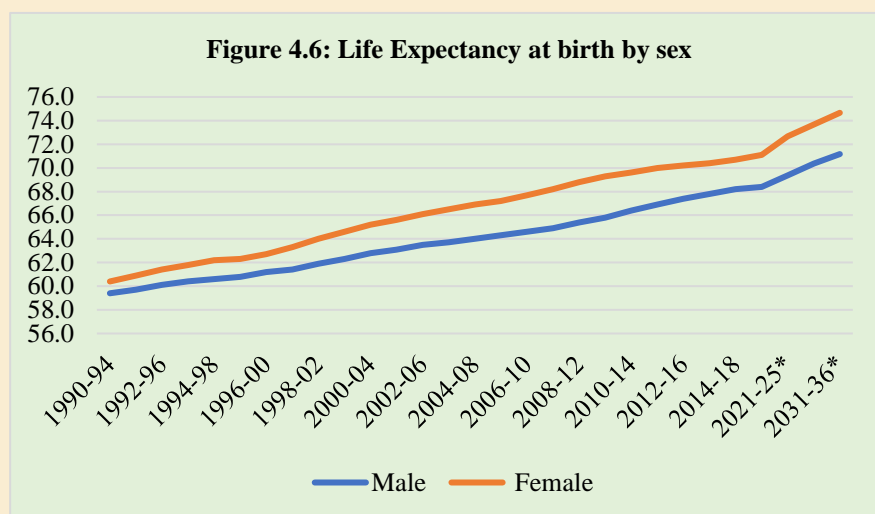


and 71.1 years for males and females respectively during 2015- 19 and is expected to reach 71.2 and 74.7 years respectively by 2031-36 **(Table 2.8a)**. Such a remarkable improvement in the life expectancy is evidence of medical and healthcare advancements in the country. During 2015-19, the latest period for which data on life expectancy at birth has been made available through SRS, the number varies from 63.7 to 74.3 years for males and from 66.2 to 78.0 years for females among the States. **(Table 2.8b)**.

> *The life expectancy at birth is the average number of years a person is expected to live under prevailing mortality conditions*

**4.2.8** Maternal mortality in a region is a measure of the reproductive health of women in the area. Many women in reproductive age-span die due to complications during and following pregnancy and childbirth or abortion. Maternal mortality is considered as a key

**Figure 3.7: Maternal Mortality Ratio**
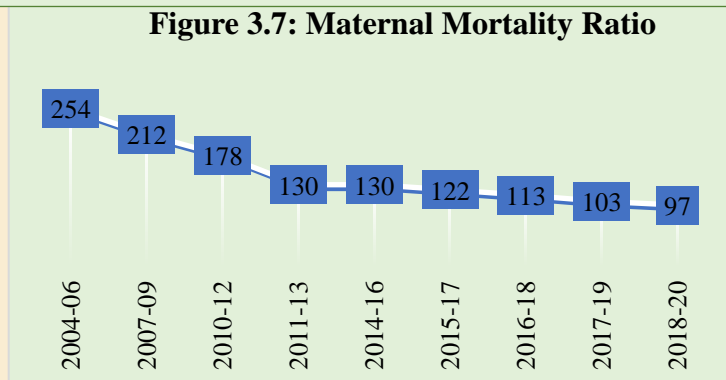


health indicator and the direct causes of maternal deaths are well known and largely preventable and treatable. Maternal mortality has been an issue of concern in India for many years, and one of the country's endless endeavours has been to improve maternal health and bring down the Maternal Mortality Ratio (MMR). The National Health Policy (NHP) 2017 laid down the target to bring the MMR in India below 100/lakh live births by 2020. MMR is also included as one of the SDG indicators and to bring it down to 70 by 2030 is explicitly laid down in SDG framework. Owing to ceaseless efforts by

the Government, India has successfully achieved the major milestone of bringing down its MMR (97/lakh live births in 2018-20), well in time and it should be possible to achieve the SDG target as well. The rate is already below 70 in eight States (**Table 2.9)**.

> *Maternal Mortality Ratio (MMR) refers to the number of women who die as a result of complications of pregnancy or childbearing in a given year per 100,000 live births in that year*

**4.2.9** Better Ante and postnatal care as also increase in births attended by skilled health personnel is expected to bring down maternal mortality. These data are being monitored through the National Family Health Survey (NFHS). Only 58.6 percent of mothers had antenatal check up in the first trimester and 51.2 percent of mothers had at least 4 antenatal care visits during 2015-16. As per the 5th Round during 2019-21, these numbers went up to 70 percent and 58.5 percent respectively. Further, while 62.4 percent of mothers received postnatal care from a doctor/nurse/LHV/ANM/midwife/ other health personnel within 2 days of delivery in 2015-16, the percent rose to 78 during 2019-21 **(Table 2.10)**. While in 2015-16, 78.9 percent of deliveries took place in health institutions and among the births that took place in home, 4.3 percent were attended by skilled health personnel, in 2019-21, the figures on the same parameters were 88.6 percent and 3.2 percent respectively **(Table 2.11)**. The difference shows that 16.8% non institutional deliveries/absence of skilled persons in deliveries in 2014-15 has been reduced to 8.2% in 2019-21. During 2019-21, around 90% of the births were attended by skilled health personnel which is a remarkable achievement attained through various programmes implemented by Central/State Governments. However, maternity care needs to be further stepped up.

**4.2.10** Anaemia is a major public health issue to be focused on. Among pregnant women, iron deficiency anaemia is also associated with adverse reproductive outcomes such as preterm delivery, low-birth-weight infants, and decreased iron stores for the baby, which may lead to impaired development. Failure to reduce anaemia may result in millions of women experiencing impaired health and quality of life, and may impair children's development and learning. Anaemia is an indicator of both poor nutrition and poor health and the figures for anaemia among women of India (**Table 2.12)** shows a deep concern. During 2015-16, 53.2 percent of non-pregnant women aged 15-49 years were anaemic which increased to 57.2 percent during 2019-21. Among pregnant women aged 15-49 years, 50.4 percent were anaemic during 2015-16 which rose to 52.2 percent during 2019-21. To address this issue, pregnant women are given iron & folic acid. This might be the reason that anaemia is more prevalent among non-pregnant women (57.2%) than pregnant women (52.2) (as per NFHS-5).

**Figure 4.8: Anaemia among Women**
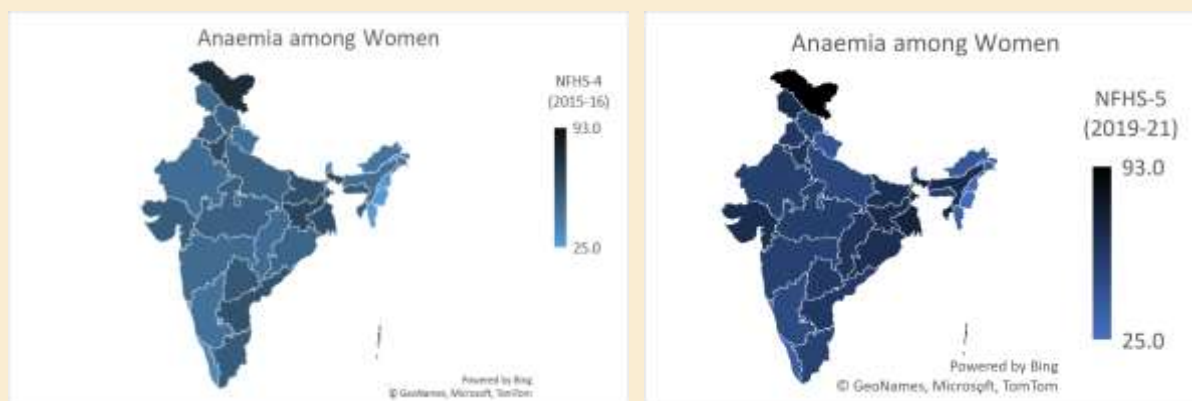


*Source: National Family Health Survey, MoHFW*

## General Health Indicators

**4.2.11** The tobacco epidemic is one of the biggest public health threats ever faced. All forms of tobacco are harmful, and there is no safe level of exposure to tobacco. As per NFHS-5(**Table 2.16 )** during 2019-21, 38 percent of males and 8.9 percent of females above the age of 15 years used tobacco. This percent was more than 50% among male adults in the States of Andaman & Nicobar Islands, Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Odisha and Tripura. Among female adults, it is more than 50% in Mizoram and Tripura and less than 1% in Punjab and Chandigarh.

**4.2.12** Obesity, another health problem is not just a cosmetic concern. It's a medical problem that increases the risk of other diseases and health problems, such as heart disease, diabetes, high blood pressure and certain cancers. Proportion of adult male who are obese increased from 18.9% in 2015-16 (NFHS-4) to 22.9% in 2019-21 (NFHS-5). Similarly, in adult females also, the proportion increased from 20.6% to 24.0% during the same reference period **(Table 2.17)**. Specific measures to address this problem need to be taken.