

An Assessment of Maternal Health and Nutritional Status of Women in the Reproductive Age in the Moradabad District

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Abstract

The maternal health and nutritional status of women in their reproductive age have great repercussions on pregnancy outcomes. Children of malnourished women are more likely to have low birth weight resulting in a higher infant mortality rate, stunted childhood, stunted adolescence, a weaker immune system more prone to infections and diseases resulting in lower physical and mental efficiency and lower life expectancy for future human resource. In this paper, an attempt has been made to analyze the maternal health and nutritional status of women aged 15-49 years in the Moradabad district of Uttar Pradesh on the basis of data from the National Family Health Survey 4, and District Level Household Survey. The study identifies, the high percentage of three or more birth order, very low coverage of full antenatal care, institutional deliveries, postnatal care, financial coverage under Janani Suraksha Yojana, and high maternal mortality rate with a high prevalence of anaemia and malnutrition in the women of reproductive age in the district, as the concentration risk factors associated with maternal health and nutrition.

Keywords- *Maternal Health, Nutritional Status, Delivery care, Maternal mortality rate*

I. Introduction

The United Nations standing committee on nutrition in its sixth report has highlighted that the role of maternal nutrition in the intergenerational cycle of growth faltering has not been recognized. Inequality based on gender is very much persistent and dominant in Uttar Pradesh and the same in Moradabad district which is reflected in the inequality-adjusted Human Development Index(IHDI) inclusive of nutritional and health indices. Moradabad district is the 26th most populous district, out of 640 districts in India, with 47.5 percent of the female population can be seen as one of the significant examples of persistent inequality in terms of maternal health and nutritional status. The situation needs critical analysis to identify the concentration risk factors associated with maternal health and nutrition and assess where and what level interventions should be targeted.

The available evidence indicates that gaps in almost all dimensions of maternal health and nutrition are very wide in the district and this inequality appears to have persisted over time. It is in the above context that the present study analyses the concentration risk factors associated with maternal health and nutritional status in the Moradabad district.

Study area

Moradabad district is situated in the western part of Uttar Pradesh between 28°21' to 28°16' Latitude North and 78° 4' to 79 Longitude East. It is situated on the banks of the Ramganga river, at a distance of 167 km from the national capital, New Delhi, and 344 km northwest of the state capital Lucknow. The city is known as Pital Nagri, ("Brass City") for its famous brass handicrafts industry. It is also the divisional headquarters of Northern Railway (NR). It is divided into four subdivisions and eight development blocks

Demographic Profile of Moradabad District

Moradabad district has a population of 47.72 lacs with 47.5 % of the female population. The district has a population density of 1,284 inhabitants per square kilometer. Its population growth rate over the decade 2001-2011 was 25.25%. Moradabad has a sex ratio of 908 females for every 1000 males, and a literacy rate of 58.37% with a female literacy rate of 47.86%.

II. Data and Methodology

The analysis is based on the data available from the fourth round of the National Family Health Survey carried out in Uttar Pradesh from 3rd February 2016 to 16th September 2016 by Goa Institute of Management (GIM), and Development and Research Services Pvt. Ltd.(DRS) and Population Research Centre, Department of Economics, University of Lucknow. NFHS-4 for the first time provides district-level estimates. In Moradabad information was gathered from 1,816 households, 2,487 women, and 363 men.

The study analyses how different indicators related to the maternal health and nutritional status of women are performing. The study variables included birth order, antenatal care, delivery care, postnatal care, maternal mortality, body mass index, and the prevalence of anaemia among women aged 15-49 years.

III. Analysis and Findings

Maternal Health

Birth order

In Moradabad, 46.4% of the births, during the three years preceding the NFHS4 survey, are of birth order three or more, higher than 41.6% at the state level, that is 46 births out of every hundred births are of birth order three or more, which is a serious concern for maternal health.

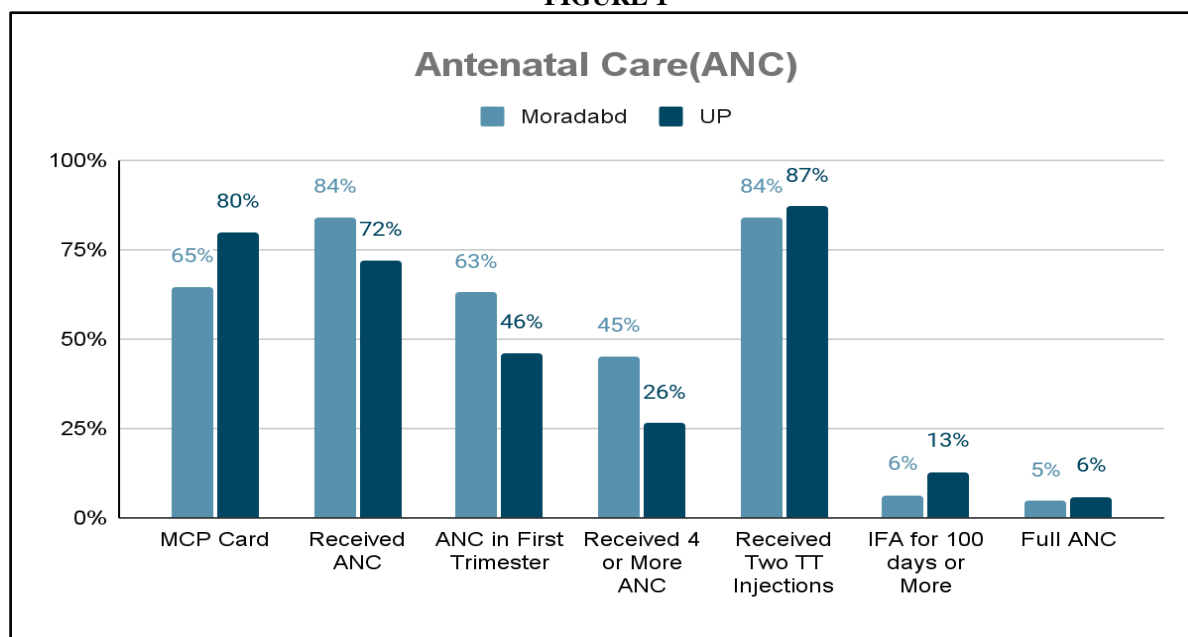
Antenatal Care

Antenatal care constitutes one of the key elements toward initiatives to promote safe motherhood. In Moradabad 64.5 percent of ever-married pregnant women in the age group of 15-49 years were registered for ANC for which mothers received Mother and Child Protection (MCP) card with a ratio of 67: 59 between rural and urban areas, 83.8 percent of mothers received any ANC with a ratio 83:86 between rural and urban areas, 63 percent of mothers had received ANC in the first trimester with a ratio of 61:66 between rural and urban areas, 45 percent of mothers received 4 or more ANC with a ratio of 41:54 between rural and urban areas, 84 percent of mothers received at least two TT injection with a ratio of 83:87 between rural and urban areas, 6.4 percent of mothers consumed IFA for 100 days or more with a ratio of 4:12 between rural and urban areas and 4.7 percent of mothers had a full ante-natal check-up with a ratio of 2:10 between rural and urban areas. The full antenatal check-up comprises at least four ANC visits, at least one Tetanus Toxoid vaccination received, and IFA supplementation for 100 days or more.

In addition, 70 percent of mothers received ANC from Government sources with a ratio of 76:57 between rural and urban areas, 41 percent of mother's blood pressure was checked, with a ratio of 36:56 between rural and urban areas 30 percent ever married pregnant women got haemoglobin percentage checked with a ratio of 26:49 between rural and urban areas and 39 percent of mothers who underwent ultrasound with a ratio of 33:53 between rural and urban areas.

There are differences by place of residence, between rural and urban areas of the district for different parameters of ANC, some differences are minor whereas some like full antenatal care, and IFA supplementation for a hundred days or more are prominent and need to be taken care of via implementation of various policies and programs of the government to extend the coverage of antenatal care.

FIGURE 1



Delivery Care

The percentage of live births delivered in a health facility is on a rising trend in consecutive health surveys. According to NFHS-4, 61.4 percent of deliveries in the district were institutional deliveries, with a ratio of 60.5: 63.4 between rural and urban areas, out of which 26 percent took place in public/government facilities and 35.4 percent in private facilities.

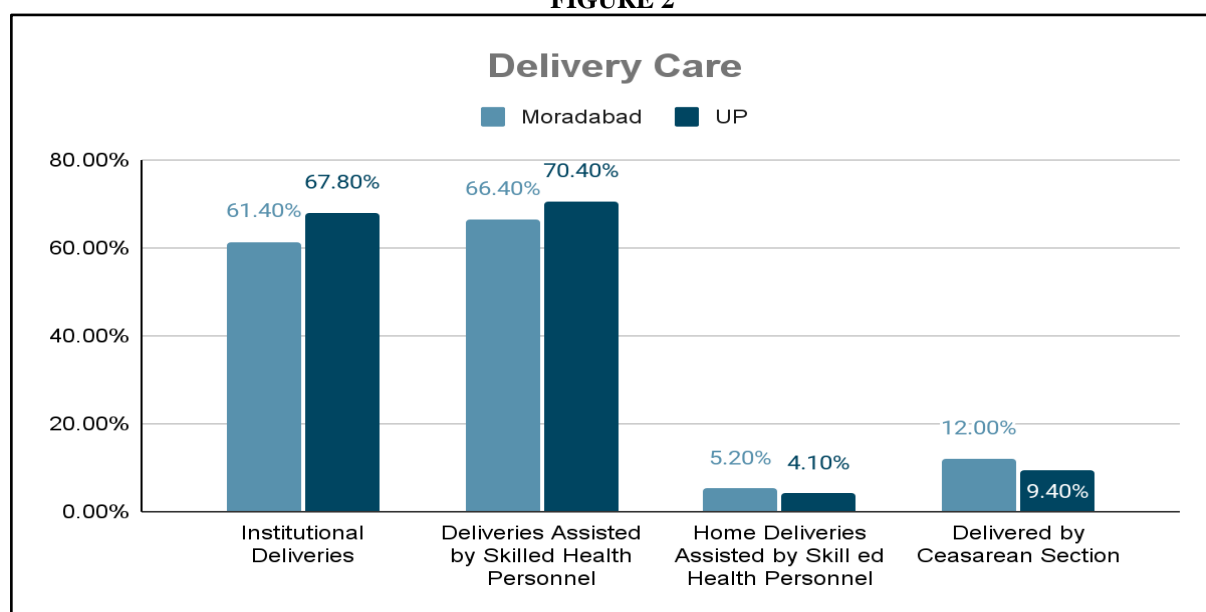
66.4 percent of deliveries were assisted by skilled health personnel which comprises the presence of any of the following: doctor, auxiliary nurse midwife (ANM), lady health visitor, and other health personnel with a ratio of 64:73 between rural and urban areas.

5.2% percent of the total deliveries that took place at home were assisted by skilled health personnel with a differential of 3.2: 9.8 between rural and urban areas.

Besides, 12 percent of births were delivered by caesarean section out of the total deliveries that took place, with a ratio of 4.6%: 30.4% in public and private health facilities and a ratio of 8.8%:19.3% between rural and urban areas.

The differential for deliveries by Caesarean Section is very prominent in deliveries in public and private health facilities and by place of residence between rural and urban areas pointing toward the need to review and regulate maternal deliveries.

FIGURE 2

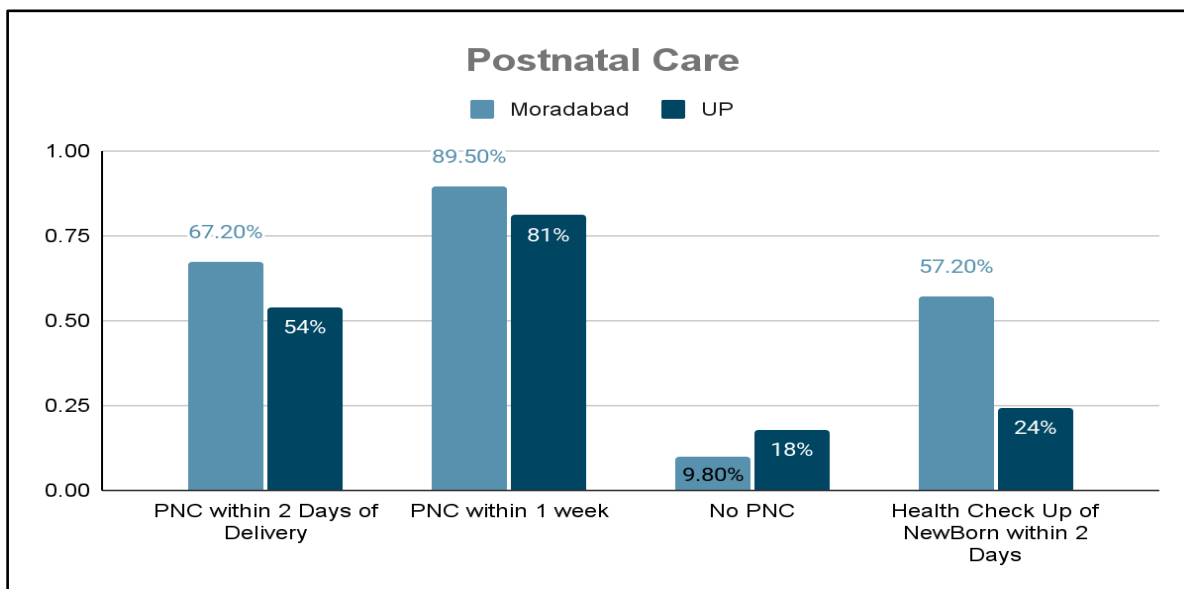


Postnatal care

Postnatal care is an essential component of maternal and child health care. Getting a Postnatal check-up soon after the birth of a baby or within 48 hours is crucial for the health of both the mother and the child. It is a vulnerable period as most maternal and newborn deaths occur during this period, especially immediately after the delivery. Postnatal care can prevent the majority of these deaths (Sharma et al, 2014). There is evidence to show that effective care during the pregnancy and at the time of delivery can lead to effective postnatal care.

In Moradabad coverage of postnatal care is inadequate. viz. 67.2 percent of mothers received a postnatal check-up within 48 hours(2days) of delivery for their most recent birth though higher than the state average of 54 percent. 89.5 percent of mothers received a postnatal check-up within one week of delivery better than the state average of 81%, and 9.8 percent of mothers did not receive any postnatal check-up which is lesser than the state average of 17.9%. Along with the first postnatal check-up of the mother, a check-up of the newborns is essential. In the case of health check-ups of newborns after birth, 57.2 percent of newborns received a check-up within 48 hours of birth whereas it is only 24% at the state level. In the case of institutional delivery, if the baby remained there for at least 24 hours, it was presumed that the first check-up was done within 24 hours. In postnatal care, the indicators are marginally better at the district level.

FIGURE 3



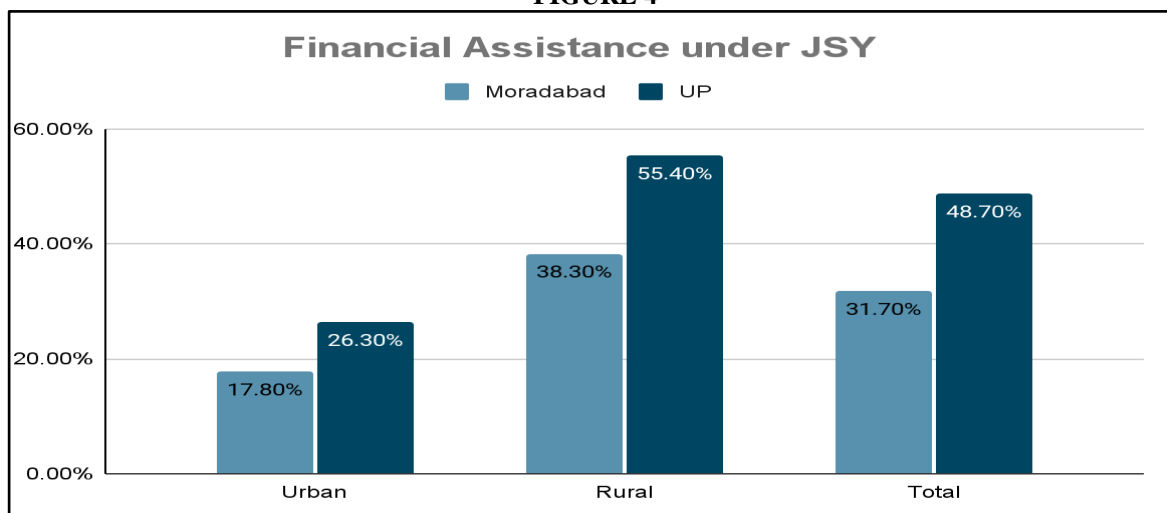
Financial assistance under Janani Suraksha Yojana

The Janani Suraksha Yojana (JSY) is one of the most important programs under the overall umbrella of NRHM aimed at reducing Maternal Mortality Ratio and Neonatal Mortality Rate by promoting institutional deliveries. Under the Scheme, cash incentives are provided to mothers and they are facilitated by Accredited Social Health Activists (ASHAs) to deliver their babies in a health facility.

In Moradabad 31.7 percent of mothers availed financial assistance for institutional delivery under JSY, lower than 48.7% at the state level all with better coverage in rural areas in comparison to urban areas. In Moradabad, the ratio of coverage in urban to rural areas is 17.8%: 38.3% whereas at the state level it is 26.3%:55.4%, in respect of the last outcome of delivery resulting in live birth/stillbirth.

The coverage of financial assistance under JSY is double in rural areas as compared to urban areas. With more than 40% of the Slum Population in urban areas at the district level, its coverage should be increased.

FIGURE 4

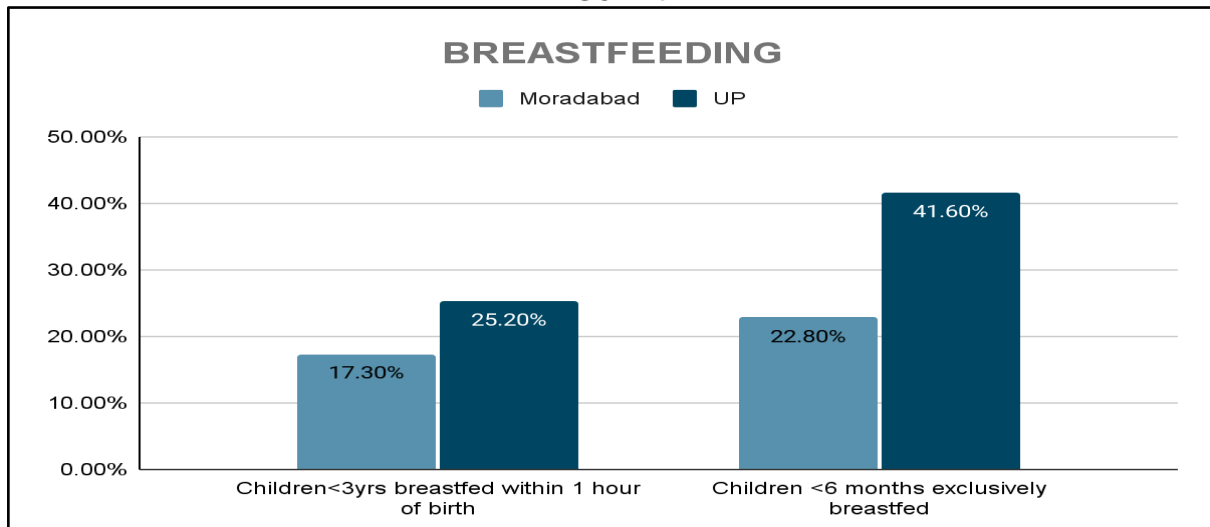


Breastfeeding

Breastfeeding is an unequalled way of providing ideal food for the healthy growth and development of the newborn. It has important implications for the reproductive health of the mother also. Early initiation of breastfeeding contributes to reducing neonatal mortality. It ensures early skin-to-skin contact which is important in preventing hypothermia and establishing the bond between the mother and her child. Early initiation of breastfeeding also **reduces the mother's risk of postpartum haemorrhage**, one of the leading causes of maternal mortality.

It is recommended that the newborn should be breastfed within one hour of birth and exclusively breastfed for the first six months and should continue breastfeeding along with appropriate complementary food up to two years of age and beyond to ensure optimal growth. In Moradabad, 22.8% percent of children under six months of age are exclusively breastfed but only 17.3% of children under three years of age are breastfed within one hour of birth which is much lower than 25.2% at the state level.

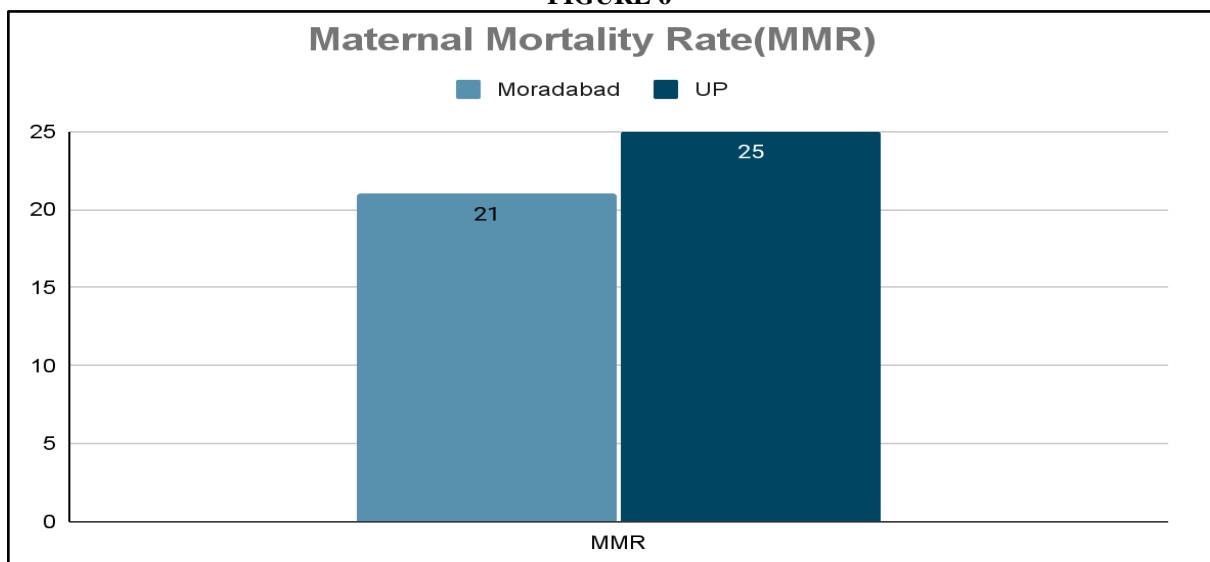
FIGURE 5



Maternal mortality rate

In Moradabad, the maternal mortality rate is 21, lesser than 25 at the state level which is a positive indicator of maternal health and nutritional status at the district level. But still, it is a point of concern as accordingly 1 in 50 mothers die for live birth which is a point of serious concern for maternal health and needs to be addressed.

FIGURE 6

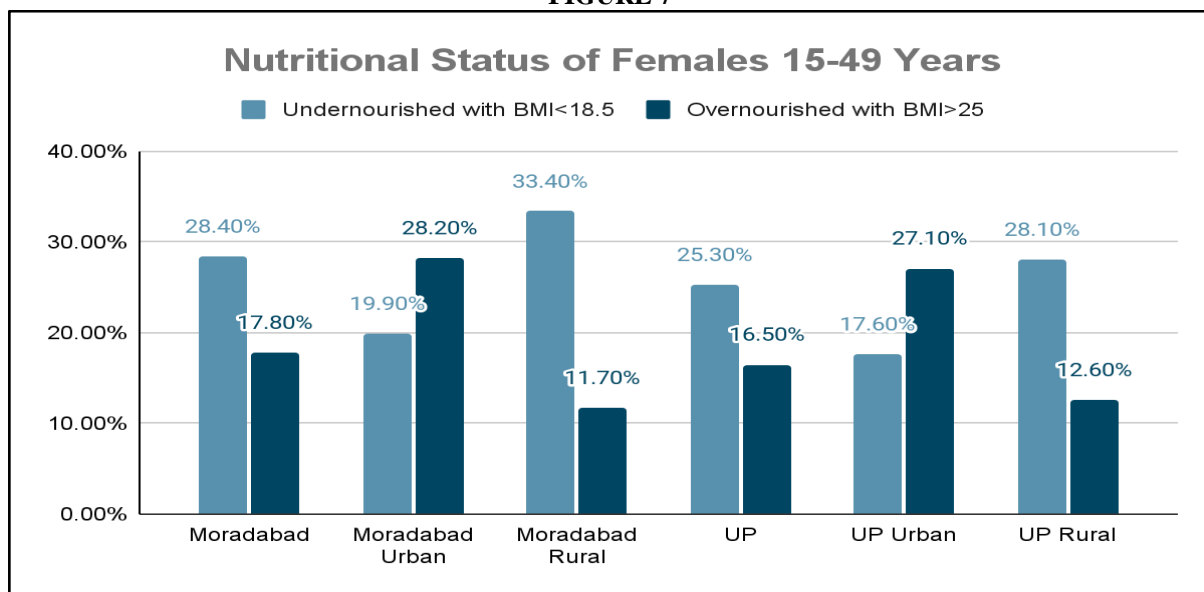


Nutritional Status

Women's nutritional status, a vital component of female health in all the life cycle stages, is still a point of concern in Moradabad. In the district 28.4 percent of women aged 15-49 years, excluding those who were pregnant or gave birth to a child in the preceding two months, are too thin with BMI lower than 18.5 kg/m² with a prominent differential between urban and rural areas of 19.9%: 33.4% and 17.8% are overweight or obese with BMI >25 Kg / m², with a prominent differential between urban and rural areas of 28.2%: 11.7%.

In the State 25.3 percent of women aged 15-49 years, are too thin with BMI lower than 18.5 kg/m² with a prominent differential between urban and rural areas of 17.6%: 28.1% and 16.5% are overweight or obese with BMI >25 Kg / m², with a prominent differential between urban and rural areas of 27.1%: 12.60%

FIGURE 7

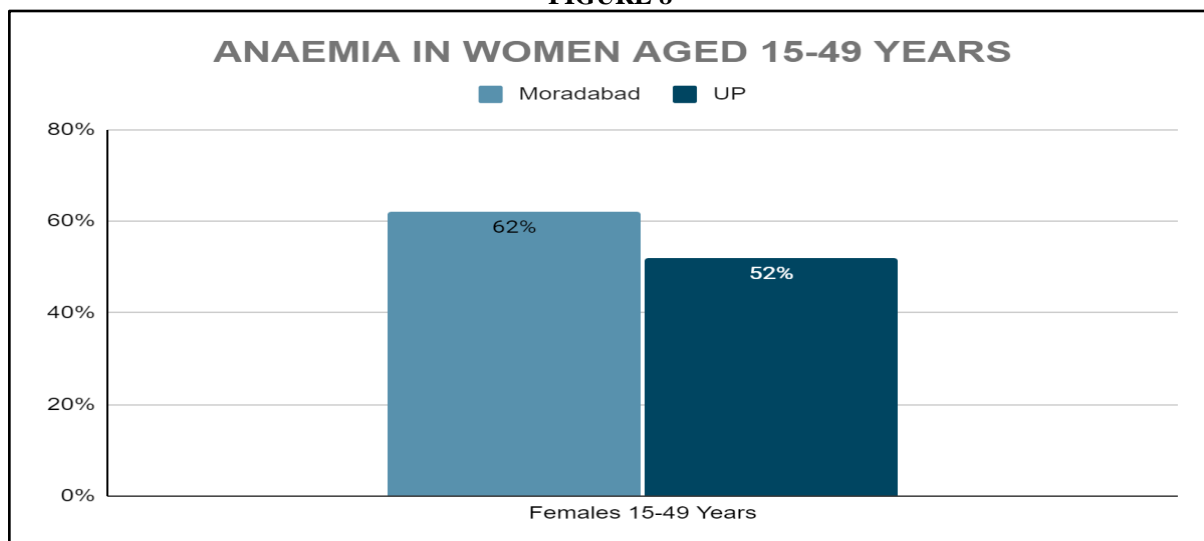


Anaemia in women aged 15-49 years

Anaemia is a condition that is marked by low levels of haemoglobin in the blood, (<12.0g/dl) in non-pregnant women and (<11.0g/dl) in pregnant women aged 15-49 years. Iron deficiency is estimated to be responsible for about half of all anaemia globally. Anaemia can result in maternal mortality, weakness, diminished physical and mental capacity, increased morbidity from infectious diseases, perinatal mortality, premature delivery, low birth weight, and (in children) impaired cognitive performance, motor development, and scholastic achievement.

Anaemia is a major health problem in Uttar Pradesh, especially among women and children. In Moradabad, 62 percent of women aged 15-49 years are anaemic as compared to 52 percent at the State level.

FIGURE 8



IV. Conclusion

The gaps in almost all dimensions of maternal health and nutritional status are really alarming in the Moradabad district of Uttar Pradesh with 46 percent of the births, with birth order three or higher which is very much reflected in the total fertility rate of 3. The coverage of full antenatal care is just 5 percent, a determining

parameter for pregnancy outcome and maternal health. Institutional delivery is just 61 percent and the deliveries assisted by any skilled person are only 66 percent which indicates high maternal risk during delivery. 12 percent of deliveries by caesarian section among institutional deliveries is also alarming. 10 percent of the mothers do not receive any postnatal care, the coverage of financial assistance under JSY is just 32 percent, too low to incentivize institutional deliveries. Children breastfed within one hour of birth, crucial for newborn and maternal health, is just 17 percent. 28 percent of the women aged 15-49 years are under-nourished, with a high prevalence of anaemia in 62 percent of the women. Above all the maternal mortality rate is 21, accordingly, 1 in 50 women die during live birth which is scary and a serious concern that needs to be addressed by all means of education, awareness, and effective implementation of interventions through coordination between government and non-government organizations leading to greater utilization of the available health care services.

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