

National Family Health Survey -5 (Phase-II) India: A review of selected maternal and child health indicators in India

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Abstract - A country's progress relies on its citizen's health and productivity, which can majorly be achieved through adequate nutrition and healthcare for mothers and children. In this review paper secondary data related to selected Maternal and child health indicators from different states surveyed during National family health survey (NFHS-5) 2019–21 (Phase–II) is studied deeply in order to illustrate the trends and transition of maternal and child health indicators across 11 states/3 UTs in India. Indicators studied are the child mortality rate, status of maternity and delivery care, childhood immunization records, treatment of childhood illnesses in children under 5 years of age, child feeding practices, nutritional status of children, and anaemia among children. Based on specific variables related to mother and child health, the study's results were displayed graphically. National family health survey round two among 11 states UP has low performance and Arunachal Pradesh showed good performance towards reducing for Infant Mortality rate, Neonatal Mortality Rate and Under 5 mortality rate for immunization Odisha showed good performance and Arunachal Pradesh lack adequate immunization. Highest number of underweight children are in Jharkhand and least in Arunachal Pradesh. Stunting and wasting are highest in UP and Jharkhand, lowest in Punjab. Anaemic children below 5 years are reported maximum from Madhya Pradesh and minimum from Arunachal Pradesh. Maternal and child health (MCH) status situation analysis can endorse directed regional health initiatives aimed at raising maternal and child health status throughout India to achieve sustainable development goals towards health.

Keywords – *maternal and child health indicators, mortality, vaccination, nutritional status, diarrhoea, anaemia, underweight, obesity, wasting, stunting, Indian states, National family health survey.*

INTRODUCTION

Since 1992-1993 a population-based household survey, conducted countrywide in India; popularly known as the National Family Health Survey (NFHS). First survey of National family health survey was reported in 1992 among all states of India except Sikkim then in 1998-1999 rounds of National family health survey -2, National family health survey -3 in 2005-2006 and National family health survey in 2015-2016 (NFHS, 2024). In 2019–21 (NFHS–5 Phase II) Government of India (MoHFW, 2022) (IIPS & ICF, 2022) collected data from a sample of 636,699 households across India, with 101,839 men and 724,115 women living in India (IIPS & ICF, 2022). The latest NFHS-5 (National family health survey)survey was conducted and completed in two phases: Phase-I covered 17 states and 5 UTs from June 17, 2019 to January 13, 2020, and Phase-II covered 11 states and 3 UTs from January 2, 2020 to April 30, 2021 (MoHFW, 2022) (IIPS & ICF, 2022). The main objective of each National family health survey (NFHS, 2024) is to share high-quality data on family welfare, health, and new concerns associated with these areas is. Indicators related to preschool education, disabilities, washroom accessibility, death registration, menstrual bathing practices, causes and techniques of abortion, and measuring of the circumference of the waist and hips (IIPS & ICF, 2022) are also analysed during this survey. With time, it helped to reduce the vulnerable population in India by strengthening the health system and fostering the creation of family and health policies and initiatives (NFHS, 2024) (IIPS, 2024) (PIB, 2022). The results of the NFHS-5 survey also demonstrate the efficacy of the current health policies and initiatives among school going children, teenagers, and all women in their reproductive age groups (15–49 years old) which are the main targets of the maternal and child health care (MCH) (Addisse, 2003) to reduce morbidity and mortality among mothers and children. Globally, the importance of maternal and child health care is growing, especially in developing countries. India's maternal mortality ratio is 97/100,000 live births, decreased by 33 points from 130/ 100,000 live births in the year 2014-2016 (UNICEF, n.d.). Maternal and child health care include care given during pregnancy and childbirth, immunization of children, treatment of childhood illnesses such as diarrhoea and acute respiratory infections (ARI), medical conditions such as anaemia, feeding practices and children's nutritional status, and anthropometry such as height and weight according to age. Maternal and child health services are highly prioritized in reproductive, maternal, newborn, child and adolescent Health. The national and state government, healthcare providers, and other institutions all provide a variety of services and initiatives to achieve this (NHM, 2013). Furthermore, to offer suitable nutrition, family planning, adolescent health, and mother health Some of the other government programs are surakshit matritava aashwasan (SUMAN), 2019; Janani Shishu Suraksha Karyakaram (JSSK), 2011; POSHAN Abhiyan; vitamin A supplementation and iron-folic acid supplementation; Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA), 2016; Labor room quality improvement Initiative (LaQshya), 2017; Navjat Shishu Suraksha Karyakram (NSSK), etc (Roy, Singh, & Sikdar, 2023) (NHM, 2024). These national programs had reduced the infant and maternal mortality per 1000 live births (IMR) and per 100,000 live births (MMR), raises the percentage of institutional deliveries, and reduce childhood malnutrition and impairment (Roy, Singh, & Sikdar, 2023) (NHM, 2024).

REVIEW OF LITERATURE

Authors have focused on analysis of data from national family health survey and compared them with previous survey to see the trends in various indicators of health study conducted by (Tripathi, 2023) has written a review paper regarding key finding from NFHS-5 and compared it with NFHS-4 to see the trends of health status.

METHODOLOGY

An extensive in depth analysis of the National family health survey-5 report for the years 2019–21 is provided in this paper. The purpose of this review was to highlight the current situation of the mother and child health indicators. In the initial stage of review, we have selected the essential indicators that are important for mother and child health. For writing review paper significant indicators related to maternal and child health (MCH) were selected in order to obtain the important dimensions, such as health care use and needs, health status, and medical conditions of mothers and children, for the selected 11 states/3 UTs of India during round -2 of National family health survey-5 report. Subsequently, a thorough analysis of each of the chosen indicators was carried out using data obtained from the states and UTs. Finally, a graphical presentation was created to show the state-by-state data report for the specified metrics and performance.

RESULTS & ANALYSIS

The study's findings are presented graphically based on certain variables pertaining to mother services and child health care services. These indicators include the child mortality rate (Figure 1), status of maternity (Figure 2) and delivery care (Figure 3). Among 11 selected states during round two Uttar Pradesh showed highest neonatal mortality, infant mortality and child mortality rates and Arunachal Pradesh show least percentage (Figure 1). Status of maternity care among selected 11 states, Haryana state show highest and Arunachal Pradesh showed lowest percentage related to antenatal check-up frequency and Tamil Nadu state performed best in intake of iron folic acid tablets and registered pregnancies. Among 11 States, Jharkhand state show least percentage of institutional birth and Tamil Nadu state showed almost all birth by institutional delivery. Conduction of birth delivery at public health facility showed in highest proportionate by Madhya Pradesh state, Uttarakhand and Arunachal Pradesh showed less percentage for delivery at public health facility (figure 3).

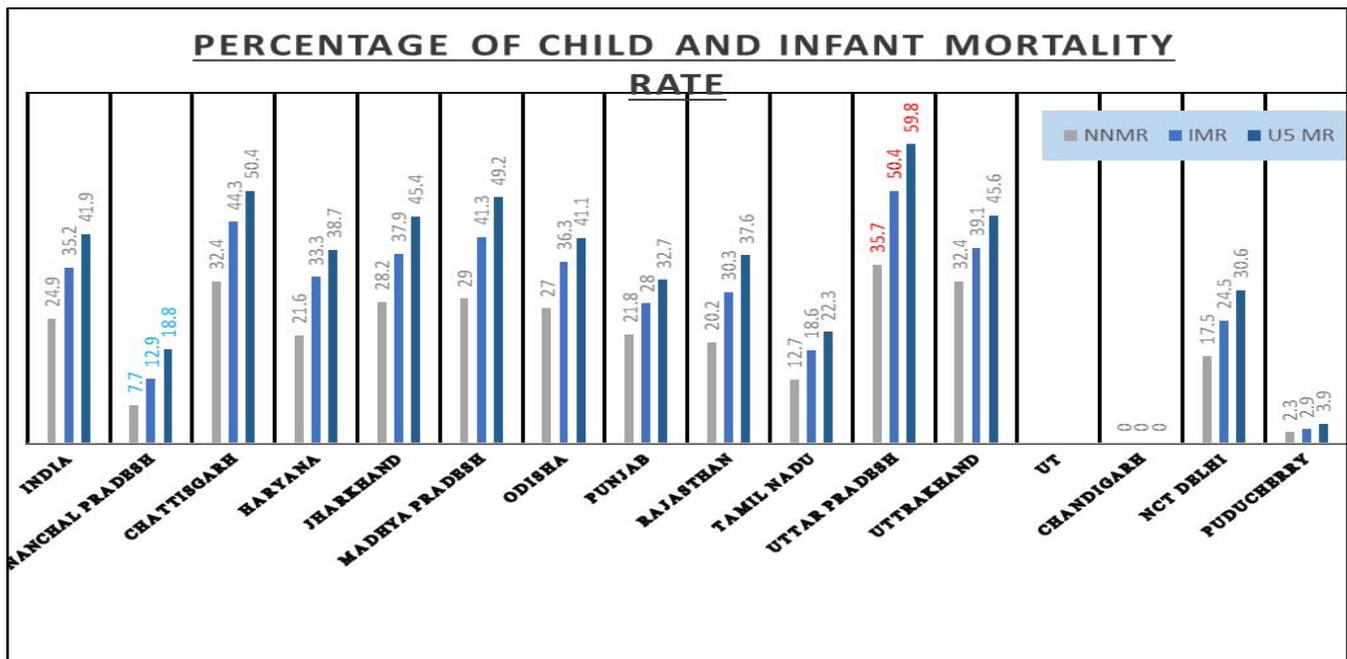


Figure 1 Status of NNMR, IMR and U5MR.

In phase-II of National Family Health Survey (NFHS-5) among selected 11 states Uttar Pradesh showed highest neonatal mortality rate, infant mortality rate and under5 age children mortality rate.

Maternity care status:

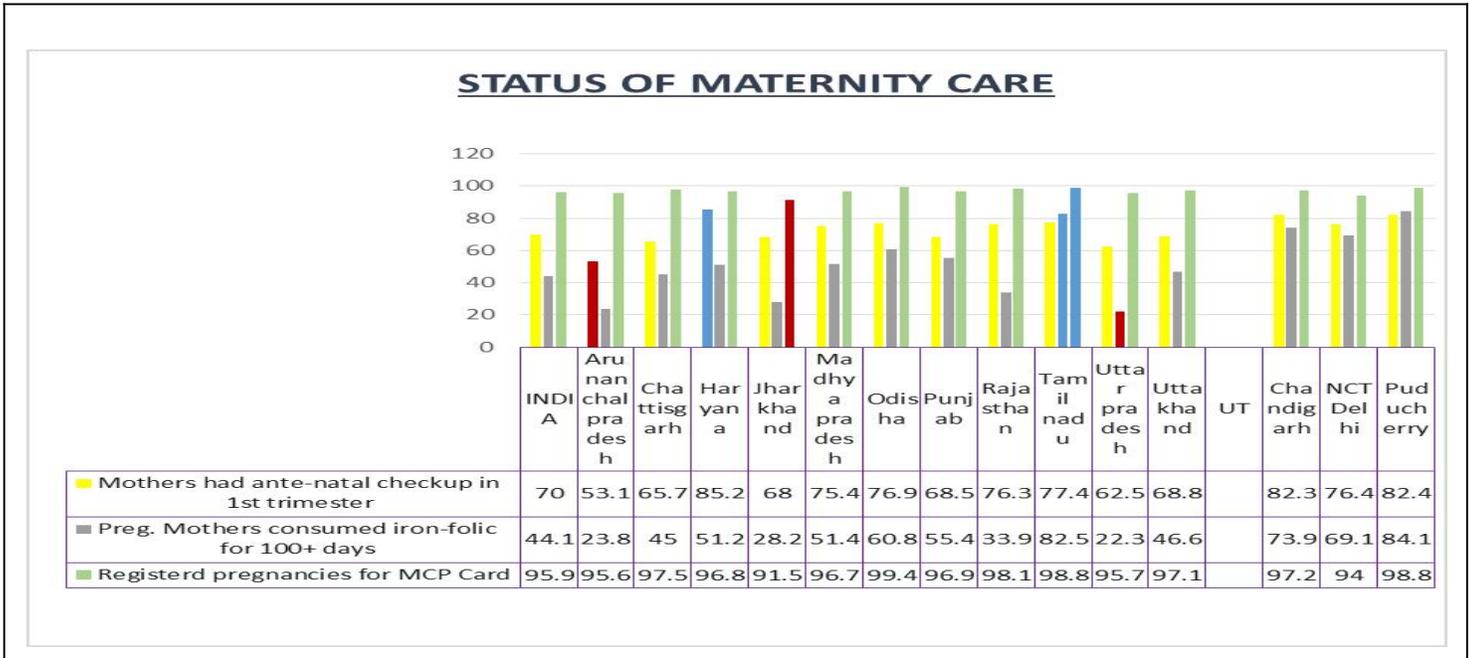


Figure 2: state wise status of maternity care

Status of child birth Delivery:

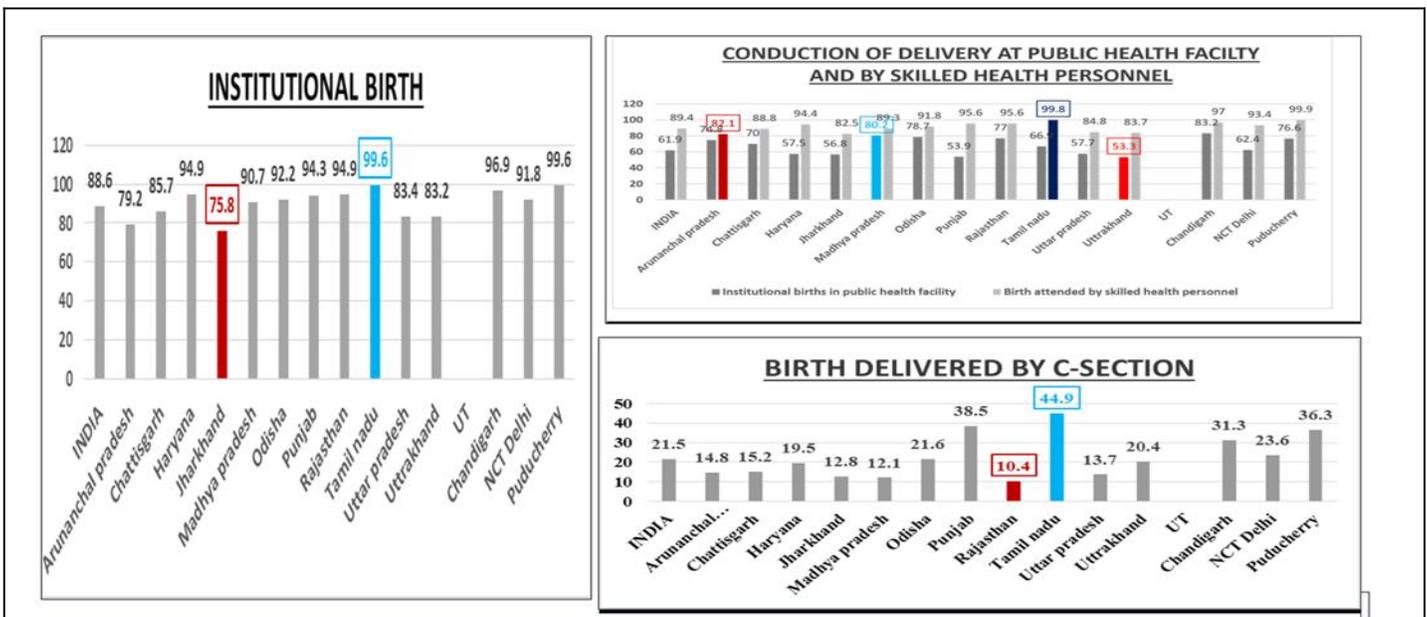


Figure 3: state wise status of delivery care in institutions, public health facilities and by c-section.

Analysis of child health services:

a. Vaccination among children till 24 months:

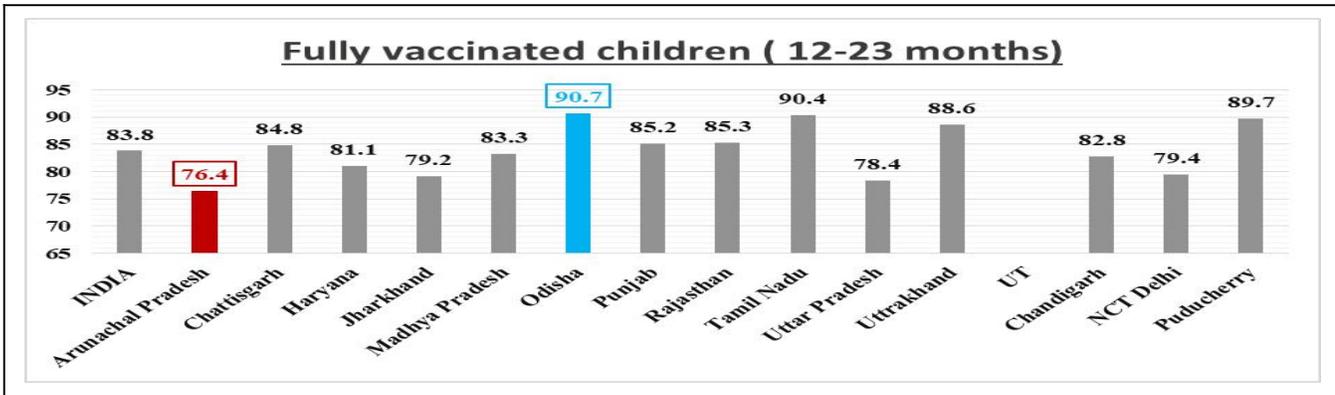


Figure 4 : Status of vaccination among children till 24 months.

Among 11 states Odisha state show the highest percentage in full vaccination among children (12-23 months) and lowest percentage in Arunachal Pradesh state (Figure 4). Among 11 states children in Odisha state showed highest percentage of identified cases related to diarrhoea, highest proportionate of children Chhattisgarh children are given ORS for diarrhoea and Rajasthan state show highest number of children received management of diarrhoea in health centre. ARI management is preferred more at health facility in Haryana state and least in Arunachal Pradesh (Figure 6).

b. Treatment of childhood disease (under 5 years of age):

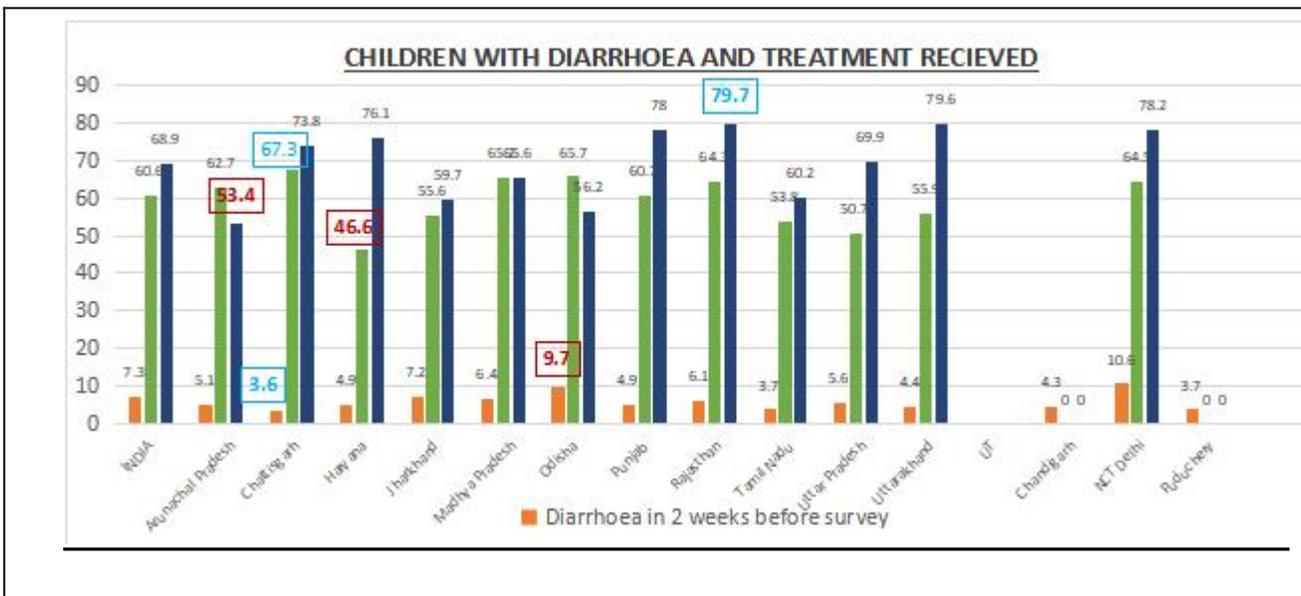


Figure 5: Status of children with diarrhoea and treatment received.

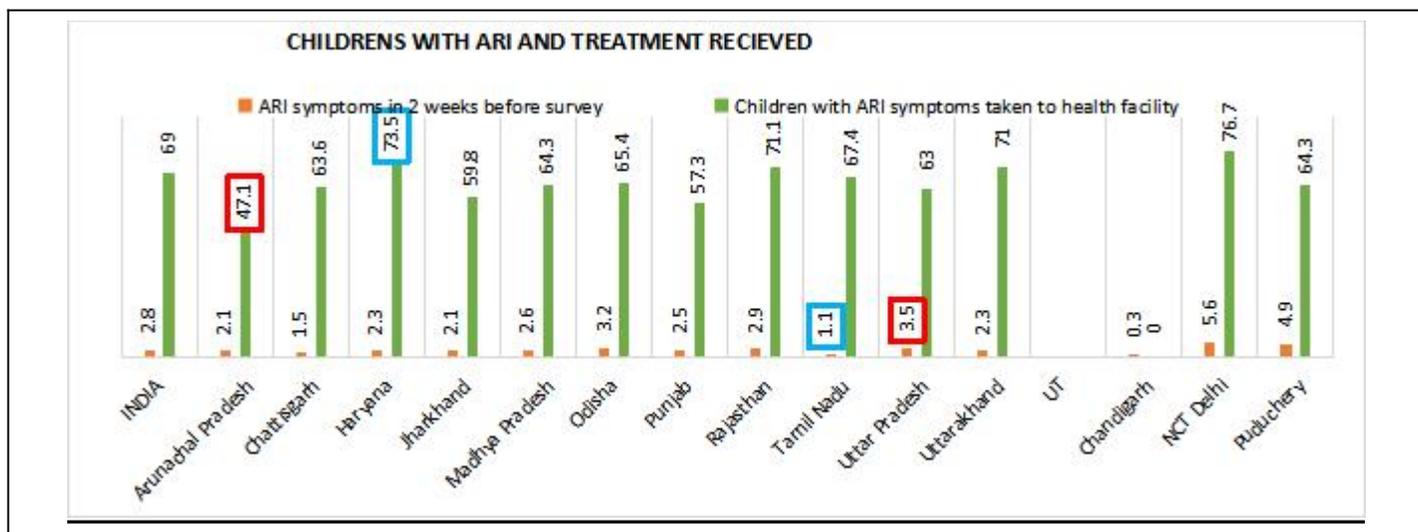


Figure 6: percentage of children identified with ARI and received ARI treatment

c. **Child feeding practices and nutritional status of children:** Among selected 11 states during phase two highest percentage of initiation of breast feeding with first hour of birth is shown by state Odisha and least by Jharkhand(Figure 7).Exclusive breast feeding is shown in good status by Chhattisgarh state and need to pay attention in Uttarakhand state (Figure 8). Least percentage of children for underweight among age 5 children is shown by Arunachal Pradesh but need to manage highest percentage of overweight children also, least obese case are in Madhya Pradesh(Figure 9). Jharkhand state need to look for management of underweight children among under 5 age children (Figure 9). Stunting and wasting problems among under 5 age was managed well in Punjab state and need more focus in UP and Jharkhand state (Figure 10). For under 5 age anaemia cases Arunachal Pradesh showed only 56.6% children which is although better than others but need to modify in all 11 states especially in Madhya Pradesh (Figure 11).

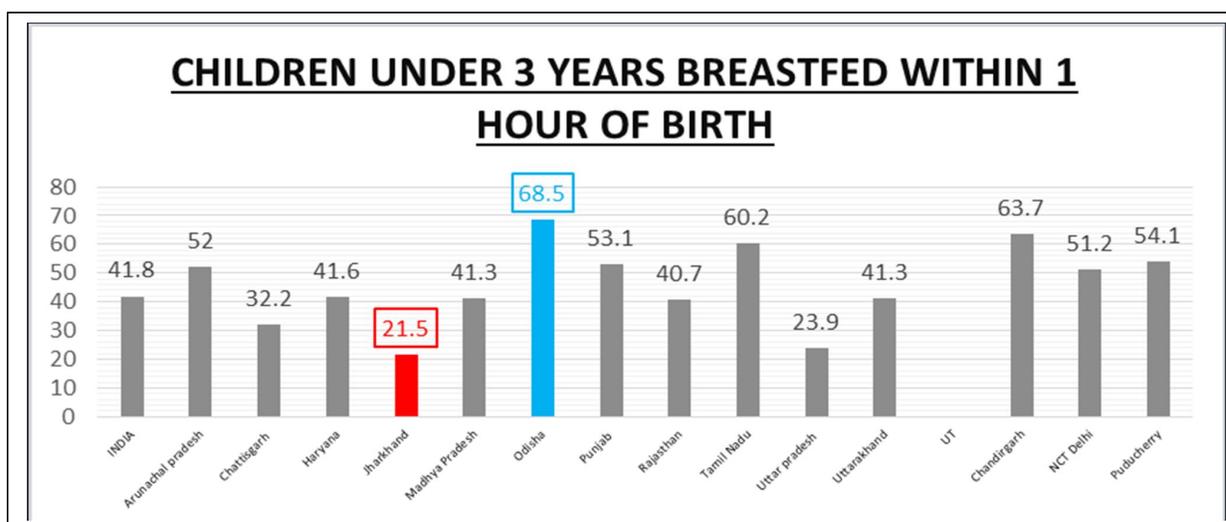


FIGURE 7: STATUS OF BREAST FEEDING INITIATION WITH IN 1ST HOUR OF BIRTH.

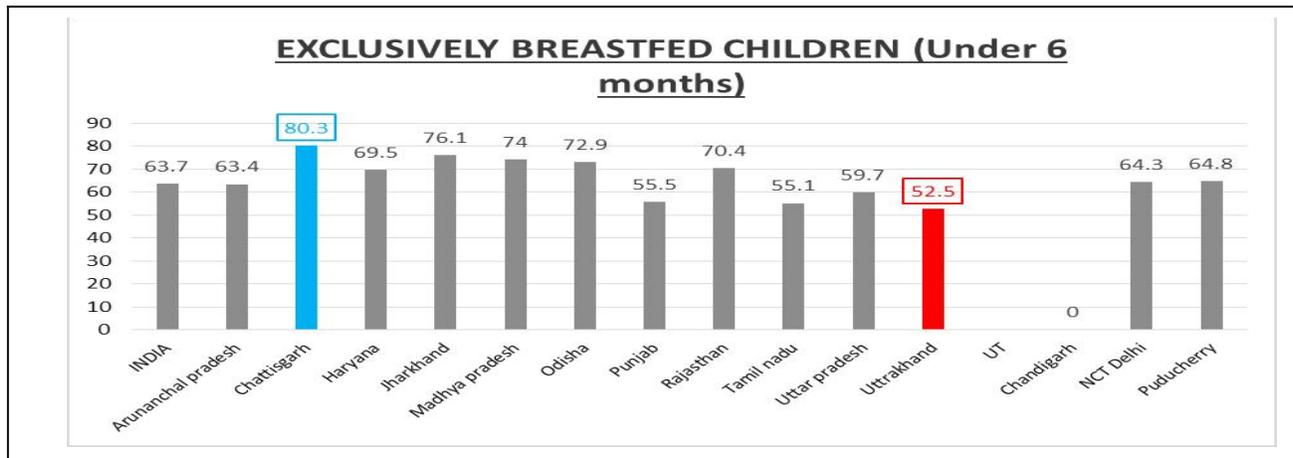


Figure 8: Status of Exclusive Breastfeeding.

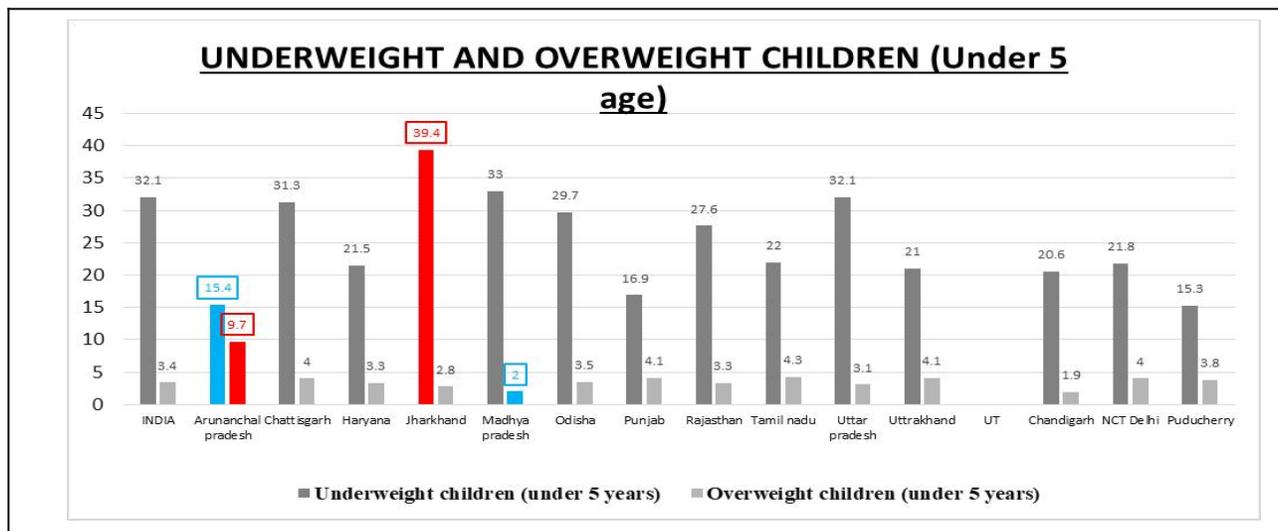


Figure 9: Status of Overweight and underweight children under 5 years

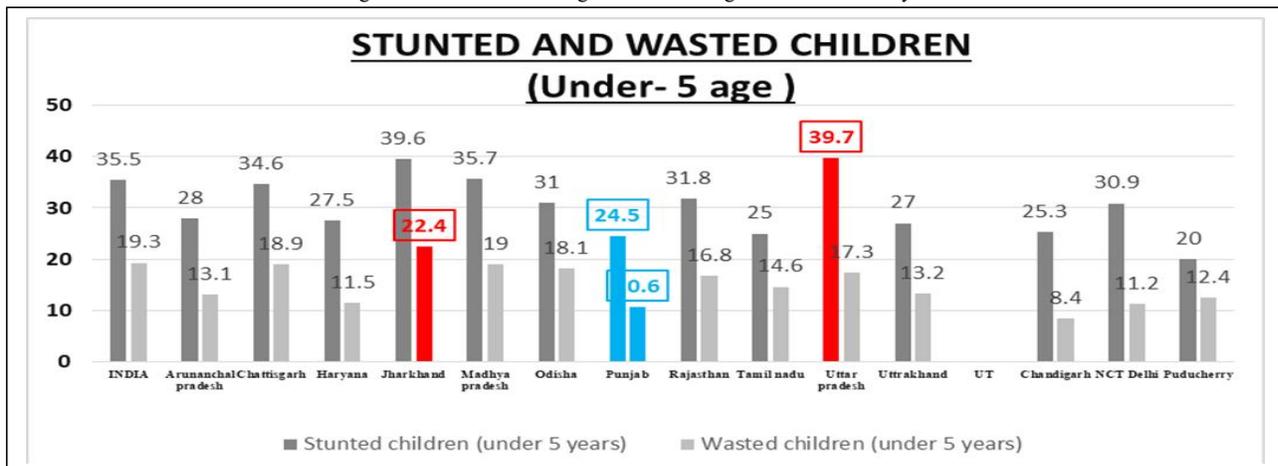


Figure 10: State wise status of stunting and wasting among under 5 age children national family health survey five round 2

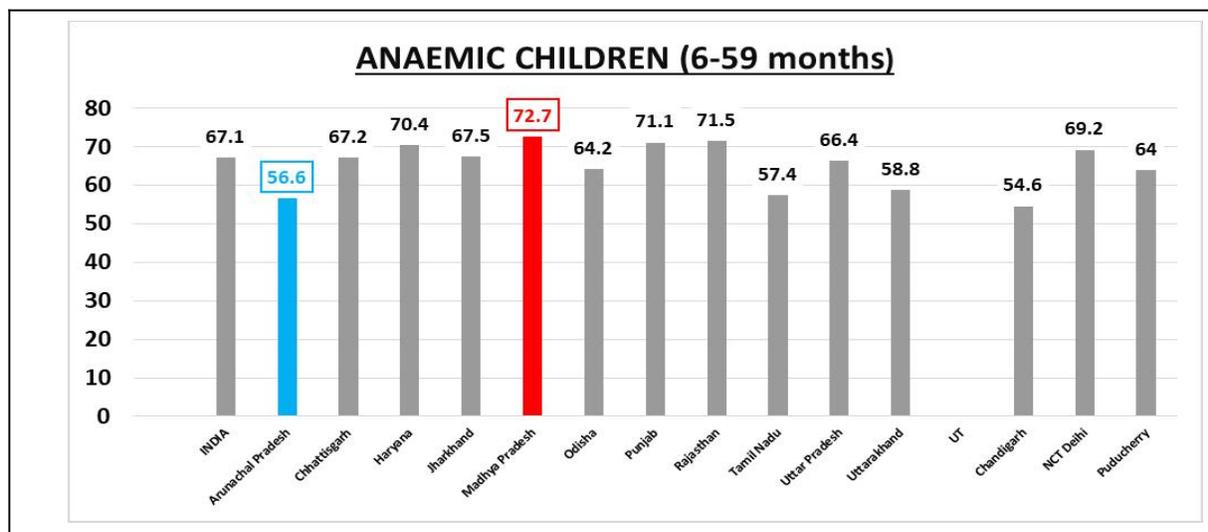


Figure 11: Status of anaemia among children between 6 months-59 months.

FUTURE SCOPE OF THE STUDY

The present state of Maternal and Child Health (MCH) indicators in India has been highlighted by this study using review method. Health care providers can compare their district's or health centre's performance to national data by looking at the indicators of their state. This allows them to take steps to improve their services, and future studies can examine the relationship between health policy and further improvements in the country's maternal and child health indicators. Limitation of the study is background related to current performance in not analysed in this paper so authors recommend further data mining can be done to over view the barriers related to unaccomplished targets of MCH indicator in poor performing states.

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