

Maternal and Child Health Inching Ahead, Miles to Go

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The data from the Rapid Survey on Children conducted in 2013–14, released after an inexplicable delay and still in a summary fashion, show some but patchy progress between 2005–06 and 2013–14 in maternal and child health indicators. A preliminary analysis indicates that in those areas where special efforts were made, such as in increasing institutional delivery and expanding immunisation coverage, some results are seen. This calls for greater investments in health and nutrition within a more comprehensive approach.

The data of the Rapid Survey on Children 2013–14 (RSOC) conducted jointly by UNICEF and Ministry of Women and Child Development (MWCD) was finally released in July this year after much controversy and speculation on why it was not being made public. This is the first nationally representative data set on a number of health and nutrition indicators that is available after the National Family Health Survey-3 (NFHS-3) which was conducted in 2005–06. While information from other sources, such as microstudies, programmatic Health Management Information System (HMIS) and from the Annual Health Survey (AHS) (not for all states though) indicated some trends in health indicators, what was missing was comparable data that could be used to analyse not just the trends but also to evaluate what caused these changes.

While economic growth rates accelerated after 2005–06, this period also saw a number of interventions by the central government in relation to health and nutrition, including the introduction of the National Rural Health Mission (NRHM), Janani Suraksha Yojana (JSY) and the expansion of the Integrated Child Development Services (ICDS). A proper assessment of their impact can be possible with the availability of a recent and comparable data set, ideally available at the individual/household level. The RSOC data released as of now are only the fact sheets giving all-India and state-level averages for some indicators and therefore this kind of detailed analysis is not yet possible. However, these do provide some information to get a sense of the trends in this period.

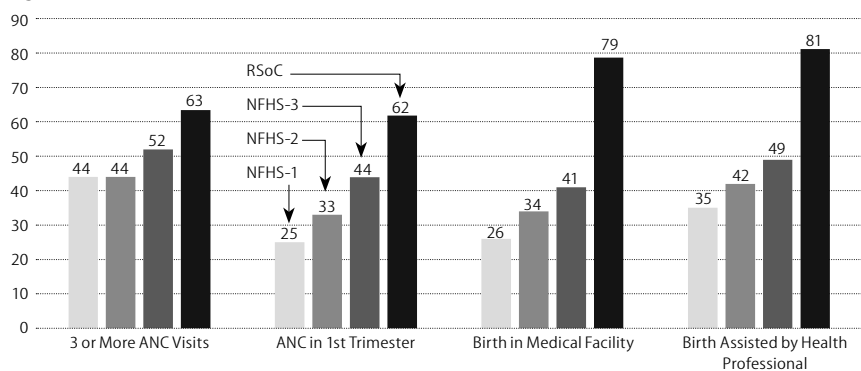
Maternal Health

Improving maternal health has been one of the main objectives of the NRHM (GOI 2005). While we know that India has failed to meet the Millennium Development

Goal (MDG) targets in relation to maternal mortality (*Hindu* 2015), the results of the RSOC also show that there is some positive development in indicators related to access to services, while others are slow in improving. As seen in Figure 1 (p 17), there is a tremendous improvement in delivery care, represented by a doubling of the proportion of births taking place in a medical facility as well as an increase in the births assisted by health professionals. Such an increase has been attributed by other studies to the combined efforts of the cash incentives under the JSY, expansion of primary healthcare (PHC) services, availability of ambulance services, etc. However, studies have also raised questions on the quality of care available in these institutions and the fact that although there has been a significant progress in delivery care, this does not seem to be reflected adequately in the outcome indicators related to maternal mortality and morbidity (Rai and Singh 2012; Lim et al 2010; Kumar and Dansereau 2014).

Further, Figure 1 also shows that the increase in the coverage of antenatal care (ANC) services has not been as much as that in delivery services. The percentage of women making ANC visits three or more times (as recommended) has gone up from 52% to only 63% and a similar percentage of women has reported having an ANC in the first trimester. Therefore, a third of pregnant women in the country are still not even getting the basic recommended ANC. This also points to the question on whether the single-minded focus on enhancing institutional deliveries has taken the attention away from other essential interventions for maternal health. Similarly postnatal care (PNC) in RSOC data does not show much change with only 39% of women receiving PNC within 48 hours of discharge/delivery (37% in NFHS-3). The first two days after delivery are a critical period for mothers and check-ups during this time are important to prevent maternal mortality.

According to the RSOC data, of the mothers who were aware of the JSY and Janani Shishu Suraksha Karyakram (JSSK) schemes, 47% availed of the JSY but only 14% availed of any benefits of the

Figure 1: Trends in Maternal Health Indicators

NFHS 1 pertains to 1991–92, NFHS-2 to 1998–99, NFHS-3 to 2005–06 and RSoC to 2013–14.

JSSK. While the JSY provides for a cash incentive for institutional delivery, the JSSK provides for cashless treatment for all services related to maternal and neonatal health.¹

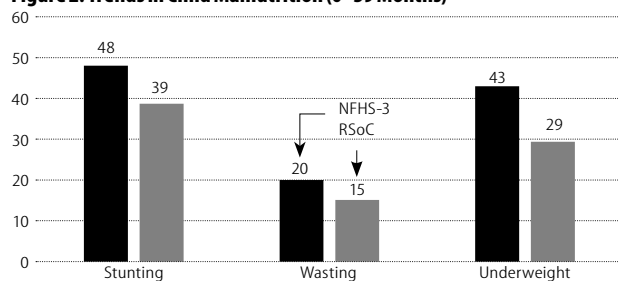
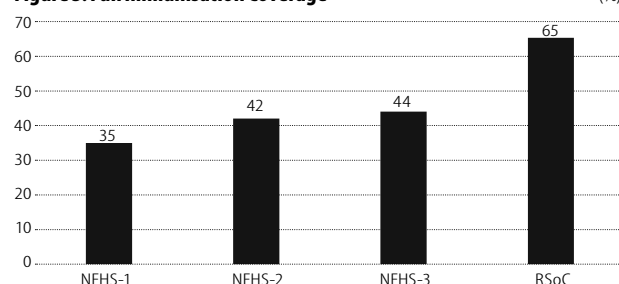
Overall, as far as maternal health indicators go, the RSoC data suggest that much more needs to be done to enhance the access to comprehensive services for pregnant and lactating women. Although there are some improvements in access to care in terms of women delivering in institutions and/or being assisted by a health professional during delivery, there are large gaps in terms of antenatal and postnatal care being received.

Further, based on the preliminary information available in the fact sheets, the RSoC data show that the inequities in terms of wealth/income and caste groups remain. For instance, while the percentage of births taking place in an institution is 93% for the highest wealth quintile, it is 61% among the lowest wealth quintile. The corresponding figures are 80% and 44% for women receiving three or more ANC visits and 49% and 23% for receiving PNC within two days of delivery.

Child Health and Nutrition

In relation to child health and nutrition as well, the RSoC results present a mixed bag. As far as child nutrition indicators go, there definitely seems to be a faster rate of progress compared to earlier. There was hardly any reduction in child malnutrition (for children under three years) between NFHS-2 (1998–99) and NFHS-3 (2005–06) (43% underweight in NFHS-3 compared to 40% in NFHS-2). However, the recent RSoC data (2013–14) seems to show greater improvement

with prevalence of underweight among children under five years of age decreasing from 43% to 29%. The data of NFHS-2 are not directly comparable with RSoC because NFHS-2 collected anthropometric data for only children under three years of age while RSoC reports on malnutrition data for children under five years of age. Once the detailed data of the RSoC is available it will be possible to look at only data for children under three for comparison with NFHS-2.

Figure 2: Trends in Child Malnutrition (0–59 Months)**Figure 3: Full Immunisation Coverage**

The data also shows an improvement in breastfeeding indicators which directly influence both child mortality as well as nutrition. According to RSoC data, 45% children were breastfed within 24 hours after birth and 65% of children aged 0–5 months were exclusively breastfed (25% and 47% respectively, under NFHS-3). However, as far as complementary feeding

goes there is not as much of a change. In fact, there seems to be a decline with RSoC showing only 50% of children aged 6–8 months being fed complementary foods compared to 56% in NFHS-3 and further 20% children aged 6–23 months meeting minimum dietary diversity compared to 35% earlier. While these are worrying figures, once again a detailed analysis is only possible when further data from the RSoC is made available.

Immunisation coverage has gone up since NFHS-3, with 65% children in the age group of 12–23 months being fully immunised compared to 44% earlier. Immunisation is also another aspect which showed stagnation in the earlier surveys and so it is a positive development that there now seems to be an improvement.

State-level Trends

All past surveys have shown large state-wise variations in these indicators related to child health and nutrition. While a detailed state-level analysis is not possible here given the limits of space, some basic findings are presented.

Since, there are so many indicators, we use a simple index of child health to compare the rankings of different states. A similar index, called the ABC index (Achievements of Babies and Children) has been used in the past in the FOCUS report (CIRCUS 2006) as well as Khera and Dreze (2012). The index of child health² is a simple average of the normalised values of four indicators—percentage of children who are fully immunised, percentage of births taking place

with the assistance of a health professional, percentage of children who are not underweight and percentage of children who survive up to the age of five years. The index lies between 0 and 1, with higher values indicating better status of child health. All these indicators are available from the NFHS-3 and RSoC.

The rsoC does not have the under-five mortality rate, which has been taken from the Sample Registration System data for 2013 (SRS 2013). This data is presented in Table 1.

Table 1: Index of Child Health (2005–06, 2013–14)

S No	State	% of Children Who Survive to Age 5		% of Children Who Are Fully Immunized		% of Children Who Are Not Underweight		% Deliveries Assisted by Health Personnel		Index of Child Health	
		05–06	13–14	05–06	13–14	05–06	13–14	05–06	13–14	05–06	13–14
		1	Andhra Pradesh	93.7	95.9	46	74.1	67.5	77.7	74.9	93.3
2	Assam	91.5	92.7	31.4	55.3	63.6	77.8	31	74.9	0.24	0.33
3	Bihar	91.5	94.6	32.8	60.4	44.1	61.5	29.3	68.4	0.11	0.25
4	Chhattisgarh	90.9	94.7	48.7	67.2	52.9	66.1	41.6	64.2	0.26	0.32
5	Gujarat	93.9	95.5	45.2	56.2	55.4	66.4	63	89.6	0.43	0.44
6	Haryana	94.8	95.5	65.3	70.7	60.4	77.3	48.9	78.6	0.53	0.58
7	Himachal Pradesh	95.8	95.9	74.2	80.2	63.5	80.5	47.8	71.6	0.62	0.64
8	Jammu and Kashmir	94.9	96	66.7	59	74.4	84.6	56.5	74.9	0.66	0.56
9	Jharkhand	90.7	95.2	34.2	64.9	43.5	57.9	27.8	61	0.08	0.23
10	Karnataka	94.5	96.5	55	79.4	62.4	71.1	69.7	92.6	0.56	0.71
11	Kerala	98.4	98.8	75.3	83	77.1	81.5	99.4	99.5	0.98	0.97
12	Madhya Pradesh	90.6	93.1	40.3	53.5	40	63.9	32.7	79	0.10	0.23
13	Maharashtra	95.3	97.4	58.8	77.4	63	74.8	68.7	93	0.61	0.77
14	Odisha	90.9	93.4	51.8	62	59.3	65.6	44	83.7	0.33	0.35
15	Punjab	94.8	96.9	60.1	78.6	75.1	84	68.2	85.4	0.68	0.79
16	Rajasthan	91.5	94.3	26.5	60.7	60.1	68.5	41	85.8	0.23	0.42
17	Tamil Nadu	96.4	97.7	80.9	76.3	70.2	76.7	90.6	99.5	0.86	0.83
18	Uttar Pradesh	90.4	93.6	23	47	57.6	65.7	27.2	65.1	0.12	0.14
19	West Bengal	94	96.5	64.3	75.2	61.3	70	47.6	78.9	0.50	0.58
	India	92.6	95.1	43.5	81.1	57.5	70.6	46.6	81.1	0.34	0.47

The index of child health is an unweighted average of normalised values of columns 3 to 6. To arrive at the index, the indicators have been normalised using the procedure applied by the United Nations Development Programme (UNDP) for the Human Development Index (HDI), namely, $Y_i = (X_i - X_{min}) / (X_{max} - X_{min})$ where Y_i is the normalised indicator for state i , X_i is the corresponding pre-normalisation figure, and X_{max} and X_{min} are the maximum and minimum values of the same indicator across all states. The normalised indicator varies between 0 and 1 for all states, with 0 being the worst and 1 being the best. A simple average of the normalised values for the three indicators is the index of child health.

Age groups: “12–23 months” for immunisation; “below 5 years” for nutrition.

All data for 2005–06 is from NFHS-3. Data for all indicators for 2013–14 is from RSoC except for children who survive to age 5 which is from SRS (2013).

The absolute values of the index are strictly not comparable over two periods because of the normalisation applied. Inferences can however be obtained on the basis of ranking of states.

At both time points, Kerala, Tamil Nadu, Punjab and Maharashtra are amongst the best performers. This is borne out by other studies as well. Amongst the poorly performing states are the north Indian states of Chhattisgarh, Bihar, Jharkhand, Madhya Pradesh and Uttar Pradesh. While these states have been ranked in the bottom on indicators of health and nutrition for a long time, what the rsoC data show is that most of these states show some advance, although still far behind the levels of Kerala or Tamil Nadu.³ Uttar Pradesh, however, is a cause for concern as not only does it have the worst index for child health, there is also relatively slow improvement in the years since 2005. While it is beyond the scope of this article to analyse the reasons for these regional differences, what is clear is that the regional patterns in health

and nutrition outcomes remain largely unchanged with some states being much behind others. What are also required are studies to understand what worked in the states that achieved some success.⁴

The rsoC does collect some data on access to anganwadi centres and their services. Once again with the limited data available, it is difficult to make useful comparisons. A cursory look does show some expansion in the outreach of the ICDS. For example, 49% of children under three years are reported to be availing of supplementary nutrition in rsoC compared to 32.5% in NFHS-3 (44% and 33% respectively for children in the age group of 3–6 years). However, unit level data is necessary to make any further sense of how such an expansion could have affected nutrition outcomes.

Concluding Remarks

One of the main issues related to health and nutrition data in India is the lack of regular monitoring data that is available at a disaggregated level, that can be

used for analysis not just for research purposes but also to inform policy and programme. After a long gap of eight years, the rsoC data is now available making some of this analysis possible. However, a number of issues remain regarding consistency of sampling and definitions across different surveys which makes it difficult to study trends over a long period of time.⁵ In fact, what we need is data that is disaggregated even further, at least to the district level. For this, the District Level Household Survey (DLHS) or the AHS, both of which provide district level data but for different sets of states, need to be combined so that we have a nationally comparable and representative data set. Moreover, until the NFHS-4 comes, which has been long delayed, the rsoC can provide a valuable source of data provided that further details and the unit data are released soon.

Based on the limited data available, this article looks at some main indicators of maternal and child health, and nutrition. What we find is that while there are certainly some advances made in terms of these indicators, the outcomes are at best patchy with many areas showing stagnation. A preliminary look seems to indicate that in those areas where special efforts were made, such as increasing institutional delivery and expanding immunisation coverage, some results are seen. This calls for greater investments in health and nutrition with a more comprehensive approach addressing various aspects together. In the current context, where the central government in the name of decentralisation is withdrawing from its responsibility in many of these issues, there is a need to rethink whether that is a wise strategy. What is also worrying is that some of the crucial central interventions on nutrition and health have seen a massive cut in expenditure after the Fourteenth Finance Commission’s recommendations. Some states remain far behind and need all the support that they can possibly get and, overall, while we might be moving ahead, India still has large gaps to fill as far as providing universal health and nutrition services are concerned.

NOTES

- 1 See http://www.nhp.gov.in/janani-shishu-suraksha-karyakaram-jssk_pg.
- 2 The same index for 2005–06 was also used in Sinha (2013).
- 3 Tamil Nadu also seems to show stagnation. A look at the indicators shows that this is because of the decline in immunisation coverage while other indicators show improvement. For a couple of years following a few deaths of children (allegedly as a result of immunisation), there was a decline in immunisation in the state. This was also possible because as a response to the deaths the Government of Tamil Nadu withdrew immunisation in the community by the village health nurses and required all people to go to a health facility for the same. The reasons for the declining trend in immunisation in Tamil Nadu need to be looked into carefully and also checked whether this has continued over time.
- 4 For some discussion on reasons for state-wise variations and a similar index also see Khera and Dreze (2015).
- 5 See Menon and John (2015) for details on comparing nutrition data from different surveys in India.

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