



# Determinants of Nutrition in Nagaland, India

## Maternal and Child Health and Nutrition Services



**Utilization of key maternal and child health and nutrition services remains weak in Nagaland, suggesting an adverse impact on health and nutrition outcomes.**

**Improvements in antenatal care, child vaccinations and growth monitoring can be brought about by strengthening the platform of the Village Health and Nutrition Day and enhancing the capacity of frontline workers to act as agents of behavior change.**

## Introduction

While coverage of key maternal and child health and nutrition services in Nagaland has improved marginally over the last decade, most indicators continue to be low and worse than the national average. According to the National Family Health Surveys (NFHS), the proportion of women who had four or more antenatal care visits increased from 12 to 15 percent between 2005-06 and 2015-16, with the national average at 51 percent in the latter period.<sup>1</sup> Moreover, there is significant variation across districts; with coverage ranging from 1.5 percent in Longleng to 36 percent in Mokokchung.<sup>2</sup> With 33 percent of all births taking place in health facilities, coverage of institutional delivery remains low in the state (despite an increase from 12 percent in 2005-06), as compared to a national average of 78.9 percent in 2015-16.<sup>1</sup>

The proportion of children aged 12-23 months who have received all basic vaccinations<sup>3</sup> has improved from 21 in 2005-06 to 36 percent in 2015-16, but is substantially lower than the national average of 62 percent. Moreover, in 2015-16, only four percent of children under five years of age were weighed and eight percent of women received nutrition counselling at an Anganwadi Centre.<sup>1</sup> Provision of supplementary nutrition to women and children<sup>4</sup> is largely the

responsibility of Anganwadi Workers through the Integrated Child Development Services. In 2013-14, only 14 percent of children aged 36-71 months received supplementary food from Anganwadi Centres.<sup>5</sup>

## Methods

The mixed-method study included focus group discussions with mothers and fathers of young children (0-5 years), conducted in selected villages in two pilot districts of the Nagaland Health Project (Tuensang and Peren), followed by a quantitative survey across all districts in the state. The survey<sup>6</sup> was done in 55 villages, which were purposively selected from among those participating in the Nagaland Health Project, and covered 728 households with a woman who had had a pregnancy in the past two years. From each sampled household, the woman who had had a pregnancy in the past two years (n=676) and the household head (n=728) were interviewed.<sup>7</sup>

## Findings

This brief describes findings on utilization of key maternal and child health and nutrition services in selected parts of Nagaland.



## Antenatal Care

Among the sampled respondents, 88 percent of mothers (n=501) and 81 percent of currently pregnant women (n=175) reported to have consulted a provider for antenatal care, typically at Primary Health Centres (34 percent) and Community Health Centres (29 percent) with only about 3 percent using antenatal care services provided at the Village Health and Nutrition Day. Over 80 percent women reported to have received, on average, three antenatal care consultations. However, only 66 percent of mothers visited a provider for antenatal care within the first trimester of their pregnancy.

## Delivery

About 55 percent of mothers reported to have delivered in a health facility, with about 5 percent among them delivering at private clinics. The remaining 45 percent preferred to deliver at home. Findings from qualitative interviews also confirm a strong preference for home delivery due to geographic access and apprehensions about quality of care at facilities, particularly fear of surgical malpractices during a delivery, along with the comfort of delivering within the community in the presence of family members. Over half of all home deliveries are observed among the two poorest quintiles, while private facilities are chosen predominantly by the richest quintile. Only 54 percent of the mothers reported to have received the Janani Suraksha Yojana conditional cash transfer that is designed to encourage institutional deliveries.<sup>8</sup>

## Postnatal and Newborn Care

Of the mothers who delivered at a health facility, all reported that their baby was weighed immediately after birth. While 41 percent of respondent mothers reported to have received a postnatal care consultation, they stated that they were, on an average, checked only once during the first two months. 37 percent reported to have received counselling on breastfeeding after the delivery, with most mothers receiving this counselling from

a family member (42 percent) followed by a nurse/auxiliary nurse-midwife (39 percent) and Accredited Social Health Activist (ASHA) (30 percent). Among those who received this counselling, 70 percent of the mothers reported that they were advised on exclusively breastfeeding for six months.

## Supplementary Nutrition

77 percent of the respondent mothers reported to receive supplementary food from the Anganwadi Centre or Anganwadi Workers, mostly in the form of biscuits (91 percent) and pre-mixed food packets (61 percent). Similarly, 58 percent reported to have received Take Home Ration during their last pregnancy, comprising of rice (48 percent) and pre-mixed food packets (35 percent). On an average, women received such rations four times during their last pregnancy. A substantial proportion (93 percent) of mothers reported that they did not consume the ration by themselves but shared it with their children or other family members.

## Nutrition Counselling from Frontline Workers<sup>9</sup>

Of the sampled mothers who reported to receive services from Accredited Social Health Activists (41 percent) and Anganwadi Workers (62 percent) in the past month of the survey, nutrition counselling constituted only 26 and 10 percent of these services respectively. However, the survey of frontline workers from the same villages showed that over 90 percent reported to provide counselling services for maternal, infant and young child feeding practices. This discrepancy in the reports of mothers and those of frontline workers suggests a critical gap in quality of the counselling provided.

## Child Vaccination

For children aged 12-23 months included in the survey (n=164), information on immunization status was obtained from vaccination cards for 76 percent while the remaining were based on their mother's recall.<sup>10</sup> Using data from either source,



the survey found that only 16 percent have been fully vaccinated,<sup>11</sup> and 8 percent have not received a single vaccination. In the case of three-part vaccinations, such as DPT and Polio, there was a stark difference between the proportion receiving the first dose (42 and 60 respectively) and those completing all three doses (31 and 48 percent respectively). About half the respondents reported to have received vaccination for their children at the Village Health and Nutrition Day.

## Child Growth Monitoring

39 percent of mothers reported that their child's growth (only weight) was monitored in the past six months, with the service being used predominantly at a government health facility, Anganwadi Centre, Village Health and Nutrition Day, and during a home visit. This is further corroborated by the survey of frontline workers, which found that only 25 percent of ASHAs and 40 percent of Anganwadi Workers reported measuring the height and weight of a newborn during home visits. Similarly, qualitative interviews also suggested that they did not consider weighing the children regularly or referring cases of severely malnourished children as a primary responsibility.

## Conclusion

Utilization of key maternal and child health and nutrition services remains weak in Nagaland, suggesting an adverse impact on health and nutrition outcomes. The state needs to make concerted efforts for improving antenatal care to at least four visits through the length of the pregnancy, with a special focus on increasing antenatal during the first trimester. Strengthening delivery and quality of antenatal care, along with improving the implementation of the Janani Suraksha Yojana, is likely to increase institutional delivery rates. Vaccination and growth monitoring services for children, at all levels of service delivery, require urgent attention in the state, with a special emphasis on strengthening the platform of Village Health and Nutrition Day for providing these services. Similarly, enhancing the capacity of frontline workers, through competency-based trainings, use of job aides, and better performance incentives, could help to improve the quantity and quality of counselling provided and enable them to act more efficiently as agents of behavior change at the frontline. Through its interventions at the community level, the Nagaland Health Project is well placed to support improvements in these areas.

## Footnotes

- 1 International Institute for Population Sciences and ICF. (2018). National Family Health Survey - 4 (NFHS 4) India 2015-16: Nagaland.
- 2 Kohli, N., Nguyen, P., Avula, R., & Menon, P. 2017. Improving nutrition in Nagaland: Insights from examining trends in outcomes, determinants and interventions between 2006 and 2016. POSHAN Policy Note #28. New Delhi: International Food Policy Research Institute.
- 3 All basic vaccinations refer to BCG, measles, and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth).
- 4 Women receive supplementary food in the form of dry packets of take-home ration during pregnancy leading up to first six months of breastfeeding while children receive it in the form of take-home ration from six months to three years of age, and in the form of cooked food at the Anganwadi Centre every day from three to six years of age.
- 5 Ministry of Health and Family Welfare and UNICEF. Rapid Survey on Children. India 2013-14.
- 6 To detect a population proportion of children under two years of age who received an adequate diet (based on NFHS-4 for Nagaland), with a margin of error of 4.5%, confidence level of 95%, and design effect of 2, the survey would require a sample size of 540 households.
- 7 A total of 676 women were interviewed as 52 women were not present or available for the interview at the time of the survey.
- 8 Janani Suraksha Yojana is an intervention under the National Health Mission, which provides cash incentives to eligible (below poverty line and those belonging to the Scheduled Tribe social group) pregnant women for delivering in a government or accredited private facility.
- 9 Accredited Social Health Activists and Anganwadi Workers are the main frontline agents of the National Health Mission and the Integrated Child Development Services respectively, and are responsible for outreach services including nutrition counselling.
- 10 Don't know is counted as not received, and not applicable is counted as missing; only 8 vaccines (BCG, DPT, Polio (excluding polio at age 0) and measles are considered for no vaccination.
- 11 Implying that they have received their BCG vaccination, 3 injections of DPT, three doses of polio (excluding polio zero) immunization and measles vaccination.



© 2019 The World Bank  
1818 H Street NW, Washington DC 20433  
Telephone: 202-473-1000; Internet: [www.worldbank.org](http://www.worldbank.org)

## Some Rights Reserved

This work is a product of the staff of The World Bank. The findings, interpretations, and conclusions expressed in this work do not necessarily reflect the views of the Executive Directors of The World Bank or the governments they represent. The World Bank does not guarantee the accuracy of the data included in this work. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of The World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

## Rights and Permissions

The material in this work is subject to copyright. Because The World Bank encourages dissemination of its knowledge, this work may be reproduced, in whole or in part, for noncommercial purposes as long as full attribution to this work is given.

## Attribution

Please cite the work as follows: “World Bank. 2019. India: Nutrition Determinants and Strategies in Nagaland, Knowledge Brief - Determinants of Nutrition in Nagaland, India - Maternal and Child Health and Nutrition Services. © World Bank.”

All queries on rights and licenses, including subsidiary rights, should be addressed to World Bank Publications, The World Bank Group, 1818 H Street NW, Washington, DC 20433, USA; fax: 202-522-2625; e-mail: [pubrights@worldbank.org](mailto:pubrights@worldbank.org).

## Acknowledgements

This work was led by Patrick Mullen and Aarushi Bhatnagar, with contributions from Young Eun Kim, Mohini Kak, Bathula Amith Nagaraj, Neesha Harnam, Avril Kaplan and Mamata Baruah, under the oversight of Rekha Menon. The World Bank team would like to thank the Directorate of Health and Family Welfare and Department of Social Welfare, Government of Nagaland, the Nagaland Health Project team, Oxford Policy Management Ltd., the Kohima Institute and all study participants for their contributions.

This material has been funded thanks to the contributions of (1) UK Aid from the UK government, and (2) the European Commission (EC) through the South Asia Food and Nutrition Security Initiative (SAFANSI), which is administered by the World Bank. The views expressed do not necessarily reflect the EC or UK government’s official policies or the policies of the World Bank and its Board of Executive Directors.

# SAFANSI

Administered by:  **WORLD BANK GROUP**

