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Data DENT
Data for Decisions to Expand Nutrition Transformation

Tracking India's Progress on Addressing Malnutrition and Enhancing the Use of Data to Improve Programs

Report

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NITI Aayog is the premier policy "think tank" of the Government of India, providing both directional and policy inputs. NITI Aayog designs strategic and long-term policies and programs for the Government of India and provides relevant technical advice to the central government and the states.

About IDinsight

IDinsight is a global advisory, data analytics, and research organization that helps development leaders maximize their social impact.

About DataDENT

Data for Decisions to Expand Nutrition Transformation (DataDENT) is a four-year initiative that aims to strengthen the data value chain for nutrition globally and in several focus countries, including India. It is supported by the Bill & Melinda Gates Foundation and is implemented by IFPRI, Johns Hopkins University, and Results for Development.

About POSHAN at IFPRI

POSHAN (Partnerships and Opportunities to Strengthen and Harmonize Actions for Nutrition in India) is a multi-year initiative that aims to build evidence on effective actions for nutrition and to support the use of this evidence in decisionmaking. It is supported by the Bill & Melinda Gates Foundation and led by IFPRI in India.

About POSHAN Reports

POSHAN Reports aim to provide evidence-based guidance to support policy and program actions for nutrition in India.

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List of Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
AMB	Anemia Mukt Bharat
ANC	Antenatal Care
ANM	Auxiliary Nurse Midwife
ARI	Acute Respiratory Infection
ARSH	Adolescent, Reproductive and Sexual Health
ASHA	Accredited Social Health Activist
AWC	Anganwadi Centre
AWW	Anganwadi Worker
BCG	Bacillus Calmette–Guérin
BFHI	Baby-Friendly Hospital Initiative
BPL	Below Poverty Line
CBE	Community-Based Events
CHC	Community Health Centre
CNNS	Comprehensive National Nutrition Survey
DAP	District Action Plan
DataDENT	Data for Decisions to Expand Nutrition Transformation
DH	District Hospital
DHS	Demographic Health Survey
DLHS	District Level Health Survey
DPT	Diphtheria, Pertussis and Tetanus Toxoids
FP	Family Planning
FSSAI	Food Safety and Standards Authority of India
GHI	Global Hunger Index
GoI	Government of India
HBNC	Home-Based Newborn Care
HBYC	Home-Based Care for Young Children
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
ICDS	Integrated Child Development Services
ICDS–AMPR	Integrated Child Development Services—AWC Monthly Progress Report
ICDS–CAS	Integrated Child Development Service–Common Application Software
IDFC	Intensified Diarrhoea Control Fortnight
IEC	Information, Education and Communication
IFA	Iron and Folic Acid
IFPRI	International Food Policy Research Institute
ILA	Incremental Learning Approach
IMCI	Integrated Management of Childhood Illnesses
IMI	Intensified Mission Indradhanush
IMR	Infant Mortality Rate
INR	Indian Rupee
IYCF	Infant and Young Child Feeding
JSSK	Janani Shishu Suraksha Karyakaram
MAA	Mother's Absolute Affection
MAM	Moderate Acute Malnutrition
MDD–W	Minimum Dietary Diversity–Women
MCP	Mother and Child Protection
MDD	Minimum Dietary Diversity
MDM	Mid Day Meal
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MHRD	Ministry of Human Resource Development
MIS	Management Information System
MLA	Member of the Legislative Assembly
MMR	Maternal Mortality Ratio
MoHFW	Ministry of Health and Family Welfare
MP	Madhya Pradesh

MUAC	Mid-Upper Arm Circumference
MWCD	Ministry of Women and Child Development
NA	Not Applicable
NCR	National Capital Region
NDD	National Deworming Day
NFHS	National Family Health Survey
NGO	Non-Governmental Organization
NHM	National Health Mission
NIN	National Institute of Nutrition
NIPI	National Iron Plus Initiative
NPPNB due to VAD	National Prophylaxis Programme against Nutritional Blindness due to Vitamin A Deficiency
NRC	Nutrition Rehabilitation Centre
NREGS	National Rural Employment Guarantee Scheme
NVBDC	National Vector Borne Disease Control Program
OPV	Oral Polio Vaccine
ORS	Oral Rehydration Salts
PDS	Public Distribution System
PHC	Primary Health Centre
PMMVY	Pradhan Mantri Matru Vandana Yojana
PMO	Prime Minister's Office
PMSMA	Pradhan Mantri Surakshit Matritva Abhiyaan
POSHAN	Partnerships and Opportunities to Strengthen and Harmonize Actions for Nutrition in India
PRI	Panchayati Raj Institutions
PW	Pregnant Women
RCH	Reproductive and Child Health
RTF	Right to Food Campaign
RTI	Reproductive Tract Infections
RUTF	Ready-to-Use Therapeutic Food
RGSEAG	Rajiv Gandhi Scheme for Empowerment of Adolescent Girls
SAG	Scheme for Adolescent Girls
SAG–RRS	Scheme for Adolescent Girls–Rapid Reporting System
SAM	Severe Acute Malnutrition
SBA	Skilled Birth Attendant
SBCC	Social and Behavior Change Communication
SC	Sub-Centre
SD	Standard Deviation
SHG	Self-Help Group
SN	Supplementary Nutrition
SNP	Supplementary Nutrition Programme
SPMU	State Programme Management Unit
SSA	Sarva Shiksha Abhiyan
STI	Sexually Transmitted Infections
TBD	To Be Decided
THR	Take-Home Ration
TSC	Total Sanitation Campaign
TT	Tetanus Toxoid
UIP	Universal Immunization Programme
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
UPHC	Urban Primary Health Centre
VHND	Village Health and Nutrition Day
VHSC	Village Health and Sanitation Committee
VHSNC	Village Health Sanitation and Nutrition Committee
VHSND	Village Health, Sanitation and Nutrition Day
WCD	Women and Child Development
WHA	World Health Assembly
WHO	World Health Organization
WIFA	Weekly Iron and Folic Acid
WIFS	Weekly Iron and Folic Acid Supplementation
WRA	Women of Reproductive Age

Executive Summary

Data systems and their usage are of great significance in the process of tracking malnutrition and improving programs. The key elements of a data system for nutrition include (1) data sources such as survey and administrative data and implementation research, (2) systems and processes for data use, and (3) data stewardship across a data value chain. The nutrition data value chain includes the prioritization of indicators, data collection, curation, analysis, and translation to policy and program recommendations and evidence-based decisions. Finding the right fit for nutrition information systems is important and must include neither too little nor too much data; finding the data system that is the right fit for multiple decisionmakers is a big challenge.

Developed together with NITI Aayog, this document covers issues that need to be considered in the strengthening of efforts to improve the availability and use of data generated through the work of POSHAN Abhiyaan,[1] India's National Nutrition Mission. The paper provides guidance for national-, state-, and district-level government officials and stakeholders regarding the use of data to track progress on nutrition interventions, immediate and underlying determinants, and outcomes. It examines the availability of data across a range of interventions in the POSHAN Abhiyaan framework, including population-based surveys and administrative data systems; it then makes recommendations for the improvement of data availability and use.

To improve monitoring and data use, this document focuses on three questions: what types of indicators should be used; what types of data sources can be used; and with what frequency should progress on different indicator domains be assessed.

INDIA'S POLICY FRAMEWORK FOR NUTRITION

India has a robust policy framework for nutrition that covers most evidence-based interventions (Vir et al. 2013); it also has large-scale national program platforms in place (Integrated Child Development Services and National Rural Health Mission) whose mandate is to deliver diverse nutrition interventions (Avula et al. 2013). The National Nutrition Strategy (NITI Aayog 2017) and POSHAN Abhiyaan (MWCD 2018) provide an updated strategic framework for action to improve nutritional outcomes for children, pregnant women, and lactating mothers. POSHAN Abhiyaan's mission-mode approach provides an impetus to strengthen not only the implementation but also the monitoring and measurement of progress. The Mission explicitly notes that NITI Aayog has a mandate to lead the monitoring and evaluation of POSHAN Abhiyaan.

WHAT TO MEASURE AND FOR WHAT PURPOSES?

1. Programs must track progress on intervention coverage in order to know whether policy efforts are reaching populations throughout the key biological periods such as the first 1,000 days.
2. For each intervention type, it is also useful to track progress on the most relevant immediate and underlying determinants. For example, in relation to nutritional counseling, it is useful to measure individual dietary diversity as an immediate determinant and household food security as an underlying determinant.
3. National nutrition strategies must track progress on indicators on all the target outcomes but must do so in meaningful timeframes.

WHAT ARE SOME USES OF DATA IN THE CONTEXT OF INDIA'S NUTRITION PROGRAMS?

Potential data uses at different levels (national, state, and district) include the following:

1. Progress tracking, reporting, and assessing impact

[1]The Prime Minister's Overarching Scheme for Holistic Nutrition (POSHAN) Abhiyaan or National Nutrition Mission, is Government of India's flagship programme to improve nutritional outcomes for children, pregnant women and lactating mothers. Launched by the Prime Minister on the occasion of International Women's Day on 8 March, 2018 from Jhunjhunu in Rajasthan, POSHAN Abhiyaan directs the attention of the country towards the problem of malnutrition and addresses it in a mission-mode.

2. Strategy refinement

3. Program refinements and course correction

Each of these uses requires both the availability of data and careful choices of what data to use, in what timeframes and for what decisions. To this end, to support effective monitoring of POSHAN Abhiyaan activities and improve data use, a range of mechanisms have been set up at the national, state, and district levels. And indeed, a number of data systems are available that can be leveraged to assess progress on nutrition determinants and outcomes and to inform evidence-based decisions and actions. Data on intervention coverage, determinants, and nutrition outcomes are available from population-based household surveys such as the National Family Health Survey (IIPS 2015), the Comprehensive National Nutrition Survey (MoHFW, UNICEF, Population Council 2019), and surveys conducted under the Aspirational Districts Programme (NITI Aayog 2018) by third-party organizations such as IDinsight and the Tata Trusts. Data on program inputs and intervention coverage, and even some outcomes, are also available from administrative data systems which gather data from core ministries and departments that deliver a range of health and nutrition services.

Given the plethora of potential data uses, data sources, data visualizations and data use mechanisms that already exist in India, there is also potential for data confusion. We aimed, therefore, to develop a comprehensive framework of indicators aligned to India's nutrition programs and to map available data to this framework. Our goal was to provide multiple potential users of data in India's nutrition eco-system with an overview of what indicators are useful to examine, and what data is available to support effective data use. Our review also highlights gaps in data availability to enable data producers to close gaps.

WHAT DID WE DO?

We first generated a comprehensive list of evidence-based interventions, determinants, and impact indicators that align with POSHAN Abhiyaan's program framework and then identified potential indicators for each of these. POSHAN Abhiyaan's interventions cut across the life cycle, from preconception, pregnancy, delivery, postnatal and newborn care, through early childhood and adolescence. We focused on immediate determinants such as maternal nutrition, infant and young child feeding (IYCF), and child health, as well as a range of underlying determinants such as poverty, food security, sanitation and early marriage. In terms of nutritional outcomes, we focused on the goals of POSHAN Abhiyaan as well as on the nutrition-related Sustainable Development Goals (SDGs) to which India has committed.

Using this comprehensive list of indicators for interventions, determinants, and outcomes that is based on the POSHAN Abhiyaan framework, we then examined the availability of data on these indicators across multiple data sources, including population-based household surveys and administrative data. To assess data availability, we reviewed the questionnaires used in the National Family Health Survey (IIPS 2015), the Comprehensive National Nutrition Survey (MoHFW, UNICEF, Population Council 2019), and the Aspirational Districts Programme Survey (first and second rounds 2018/2019) by IDinsight and Tata Trusts (NITI Aayog 2018). We also reviewed the currently available indicators in administrative data sources of the Health Management Information Systems (MoHFW 2015), Integrated Child Development Services–Anganwadi Centre Monthly Progress Report (MWCD 2012), and ICDS–Common Application Software (CAS) (IFPRI 2018). We assessed whether the data sources included the information to create or compute a relevant indicator; if information was available, we then indicated the availability of data against the potential indicator.

WHAT DID WE FIND?

1. ***A number of data systems can be leveraged to monitor progress and to inform evidence-based decisions and actions.***

   In India, data on intervention coverage, determinants, and outcomes are available from both population-based household surveys and administrative data systems; these can be leveraged to monitor progress and to inform evidence-based decisions and actions. Since data is available from multiple sources, comparing indicators from different surveys or from survey and administrative data is challenging. While

interpreting findings, it is therefore important to consider differences in data collection mechanisms across sources; these include differences in sampling, questionnaire design, frequency of data collection, recall periods, and referenced age groups. While interpreting and using data from administrative systems, it is also important to consider denominators, the accuracy of reporting, and differences in reference periods for different administrative data systems.

2. ***Data can and should be used for a range of decisions in the context of India's nutrition efforts.***

Data can and should be used for tracking progress, reporting and assessing impacts, strategy refinement, and program refinement. These uses vary depending on whether they are at the national, state, district, or even subdistrict level. For each of these uses, it is critical to ascertain timely availability of data and effective uses of available data.

3. ***Data on program inputs are primarily available from a range of dashboards and monitoring systems but need consolidation and validation.***

Input indicators refer to the resources needed to support the implementation of an intervention or program; these include financial and human resources, training, and infrastructure. They are primarily tracked by the administrative monitoring systems of Integrated Child Development Services (ICDS) and by the health department. Additional information on the roll-out of different elements of POSHAN Abhiyaan is available from the following administrative dashboards:

- Anemia Mukt Bharat (AMB) dashboard (MoHFW 2020)
- Integrated Child Development Services–Common Application Software (ICDS–CAS)
- Jan Andolan dashboard (POSHAN Abhiyaan) (MWCD 2020)
- Pradhan Mantri Matru Vandana Yojana (PMMVY) dashboard (MWCD 2020)
- Swachh Bharat Abhiyaan dashboard (Ministry of Jal Shakti, 2020)
- Health management information systems (HMIS) website (MoHFW 2020)

Information on program inputs is available in a scattered manner from multiple data sources. For instance, information on nutrition-related social and behavior change communication (SBCC) activities is available from the Jan Andolan dashboard; information on the flow of finances for POSHAN Abhiyaan inputs is not available in a consolidated manner but could be consolidated from reported expenditures across ministries and line departments.

4. ***Data availability on intervention coverage varies by life stage and type of intervention.***

The availability of data on the coverage of interventions across life stages is as follows:

1. For adolescents, coverage data is scarce in both surveys and administrative systems.
2. For preconception, limited data is available on the contraception, food fortification, and coverage of iron and folic acid (IFA) supplementation interventions for women of reproductive age (that is, women between 15 and 49 years who are not currently pregnant or lactating).
3. For pregnancy, multiple data sources are available on the coverage of interventions, though the type of coverage indicators varies greatly across data sources. While indicators for measuring the coverage of antenatal care (ANC) interventions exist in multiple data sources, there is limited information for measuring the coverage of calcium supplementation, malaria prevention and treatment, counseling during pregnancy, and maternity benefits.
4. For delivery and postnatal care, most surveys and administrative systems provide data on institutional deliveries, deliveries attended by skilled birth attendants, and postnatal care for women and babies; information on kangaroo mother care (KMC), including skin-to-skin

carrying of low birth weight infants) and breastfeeding counseling is not measured across data systems, except in ICDS–CAS, and is limited; data is also very limited for newborn care interventions.

5. For early childhood, most indicators for measuring the coverage of interventions for infant and young childcare are covered to an extent either in population-based surveys or administrative data systems. Coverage data on immunization and micronutrients are embedded in most of the data systems; there are, however, limited options for tracking progress on the coverage of interventions related to infant and young child feeding counseling and the care of severely undernourished children.

5. *Data availability on immediate and underlying determinants of malnutrition.*

To achieve the nutrition outcomes under POSHAN Abhiyaan, several immediate and underlying determinants, including nutrition-related behaviors, need to be improved.

1. Research shows that child undernutrition is caused by inadequacies in food, health and care for infants and young children, especially in the first two years of life (immediate determinants). Mothers' and infants' access to nutrition-specific interventions can influence these immediate determinants.
2. At the household and community level, women's status, household food security, hygiene, and socioeconomic conditions further contribute to children's nutrition outcomes (underlying and basic determinants). Interventions such as social safety nets, sanitation programs, women's empowerment, and agriculture programs have the potential to improve nutrition by addressing the underlying and basic determinants.

The POSHAN Abhiyaan framework recognizes most of these determinants explicitly and others implicitly. Data on immediate determinants are available from diverse sources, but data are especially limited on nutrition-related behaviors.

Data availability on underlying determinants is better captured in survey results than in administrative data. Information on underlying determinants such as food security, poverty, and gender-related determinants are available from a range of surveys.

6. *Data availability on nutrition outcomes.*

POSHAN Abhiyaan aims to have an impact on eight nutrition-related outcomes: low birth weight, stunting, underweight, wasting, childhood overweight, and anemia among children, adolescents, and women of reproductive age (WRA). In addition, India is a signatory to the nutrition-related SDGs, which include targets for reducing the emerging challenges of overweight and non-communicable diseases; indicators on these need to be tracked as well.

Outcome indicators are covered in most surveys. The National Family Health Survey (NFHS) is a strong data system for tracking progress on all outcome indicators, except on anemia among adolescents at different levels. Interim data collection efforts (third-party surveys, etc.) could be useful for tracking the impact on outcomes in high-burden districts or in sentinel sites which are chosen to represent specific areas of concern or action. Given both measurement challenges and denominator challenges for outcome indicators in administrative data systems, we recommend that survey data should be prioritized for tracking progress on the outcomes of POSHAN Abhiyaan.

RECOMMENDATIONS

1. Data prioritization

In order to track progress towards POSHAN Abhiyaan goals and targets, a set of core indicators across the life cycle should be prioritized for monitoring the progress, diagnosis, and action in both population-based surveys and administrative data systems; these core indicators should be reviewed at national, state, and district levels across the existing review mechanisms.

2. **Promote data use**

   There is a need to create a strong culture of data appreciation and data use among actors across the nutrition space. To promote awareness around available data sources and their use, we need to ensure that all data users are aware of the design elements, challenges, and opportunities of each type of data source; to this end, guidance on different types of data sources and their use needs to be developed.

3. **Follow the theory of change, program and biological temporality**

   We recommend that early progress tracking for the nutrition mission should focus on system preparedness and readiness; in the second year, the focus should be on assessing coverage; and only in later years should the focus turn to assessing coverage and changes in determinants and outcomes that are relevant to the program roll-out. Impacts on outcomes such as stunting should only be explored once changes are seen in coverage, immediate and underlying determinants.

4. **Tracking progress on inputs and intervention coverage**

   Multiple data sources for input and coverage indicators means that a careful reconciliation of findings from survey data and administrative data systems is required. Strengthening interoperability of nutrition data across data systems could also help to resolve issues with coverage indicators and support decisionmaking. Finally, it is also recommended that data use cases should be developed for survey and administrative data on intervention coverage.

5. **Monitoring progress on determinants**

   It is recommended that population-based survey data be used both for progress tracking and diagnostic exercises to decide on which immediate and underlying determinants, including nutrition behaviors, are major challenge areas for the region. It is important to include implementers and sectors that are addressing underlying determinants such as poverty, food security, sanitation and gender in POSHAN Abhiyaan monitoring and strategic review meetings at all levels (national, state, district).

6. **Monitoring progress on outcomes**

   Using population-based survey data for progress tracking ensures that all nutrition target indicators are covered; efforts to improve the quality of data on nutrition outcomes from administrative systems for program use should be supported but we discourage the use of data from administrative systems to track population-level progress on outcomes.

7. **Data stewardship**

   A primary data stewardship entity such as NITI Aayog should work in combination with related state-level entities in order to ensure coordinated monitoring of progress, strategy refinement, and support in the use of data for program refinement. This entity must provide guidance on the use of data to all major committees and review platforms.

CONCLUSIONS

Tracking India's progress on malnutrition at the national, state and district levels using timely, relevant and high quality data is an achievable goal but it will require key investments at different points along the nutrition data value chain. Together, these investments can strengthen the strategic use of data in ways that improve the reach and impact of India's mission to address malnutrition.

1. Introduction

The key elements of a data system for nutrition include: (1) data sources, including survey data, administrative data, and implementation research; (2) systems and processes for data use; and (3) data stewardship across a nutrition data value chain. The nutrition data value chain includes elements of prioritization of indicators, data collection, curation, analysis, translation to policy and program recommendations, and evidence-based decisions. Finding the right fit for nutrition information systems is important and there should be neither much nor too little data; finding the right fit for a data system that works for multiple decisionmakers is an even bigger challenge.

Developed together with NITI Aayog—which is primarily responsible for monitoring POSHAN Abhiyaan, India's National Nutrition Mission launched in early 2018—this document lays out issues to consider in strengthening efforts to improve the availability and use of data. This "approach paper" provides guidance that can be used by national-, state-, and district-level stakeholders on issues that should be considered with regard to the use of data to track progress on nutrition interventions, immediate and underlying determinants, and outcomes. It aims to serve POSHAN Abhiyaan, the government's flagship initiative, but is also applicable to a range of other efforts to improve nutrition. It specifically examines the availability of data from both population-based surveys and administrative data systems in the context of POSHAN Abhiyaan's intervention framework. In addition, it lays out issues to be considered in strengthening efforts to improve the use of data in the context of POSHAN Abhiyaan, and makes key recommendations related to improving data availability and improving the use of currently available data.

To improve nutrition monitoring and strengthen data use, it is useful to ask and address the following questions:

1. What types of indicators should be used, and for what purpose?
2. What types of data sources can be used?
3. With what frequency should progress on different indicator domains be assessed?

This document focuses on these questions and does the following.

1. To address the question of what to measure, it proposes a comprehensive framework of indicators that is based on relevant nutrition conceptual frameworks, the POSHAN Abhiyaan administrative framework and a theory of change for POSHAN Abhiyaan.
2. To answer what data sources to use, it draws on a review of data availability for the set of indicators and indicator domains included in the framework.
3. To address the question of with what frequency progress on different indicator domains should be addressed, it draws on the nutrition evaluation literature and on the potential theory of change for POSHAN Abhiyaan.

INDIA'S POLICY FRAMEWORK FOR NUTRITION: FROM INPUTS TO IMPACT

POSHAN Abhiyaan aims to reduce stunting, anemia, and low birth weight across high malnutrition burden districts. It recognizes the need for convergence and coordination such that the benefits of government schemes and programs reach women and children in the first 1,000 days. The Abhiyaan aims to improve service delivery and interventions using technology, behavioral change, and convergence.

POSHAN Abhiyaan builds on a robust policy framework for nutrition that covers most evidence-based interventions (Vir et al. 2013); it also has large-scale national program platforms in place (Integrated Child Development Services and the National Health Mission) whose mandate is to deliver diverse nutrition interventions (Avula et al. 2013). The National Nutrition Strategy (NITI Aayog 2017) and POSHAN Abhiyaan now provide an updated strategic framework for

action to improve nutritional outcomes for children, pregnant women, and lactating mothers. The POSHAN Abhiyaan's mission-mode approach provides an impetus to strengthen not only the implementation but also the monitoring and measurement of progress.

The POSHAN Abhiyaan framework also lays out determinants of nutritional outcomes that are targeted by various interventions, schemes and programs included in the overall framework. These include maternal nutrition, newborn care practices, and infant feeding, as well as care practices, and underlying determinants, such as age at marriage and childbearing, and sanitation. And finally, it articulates a clear set of targeted outcomes.

From the perspective of developing a comprehensive framework of indicators, the conceptual framing of interventions leading to determinants which then lead to improved outcomes is central to what is proposed in this document. This theory of change for POSHAN Abhiyaan and the linked interventions and programs are, therefore, used to define the full set of indicators and indicator domains in this approach paper.

THEORY OF CHANGE FOR POSHAN ABHIYAAN

The theory of change for POSHAN Abhiyaan outcomes is based on several assumptions that map to the key components of POSHAN Abhiyaan: improving capacities, using technology, the convergence of multiple programs, and behavior change communications. (Details on assumptions related to specific components are given in Figure 1)

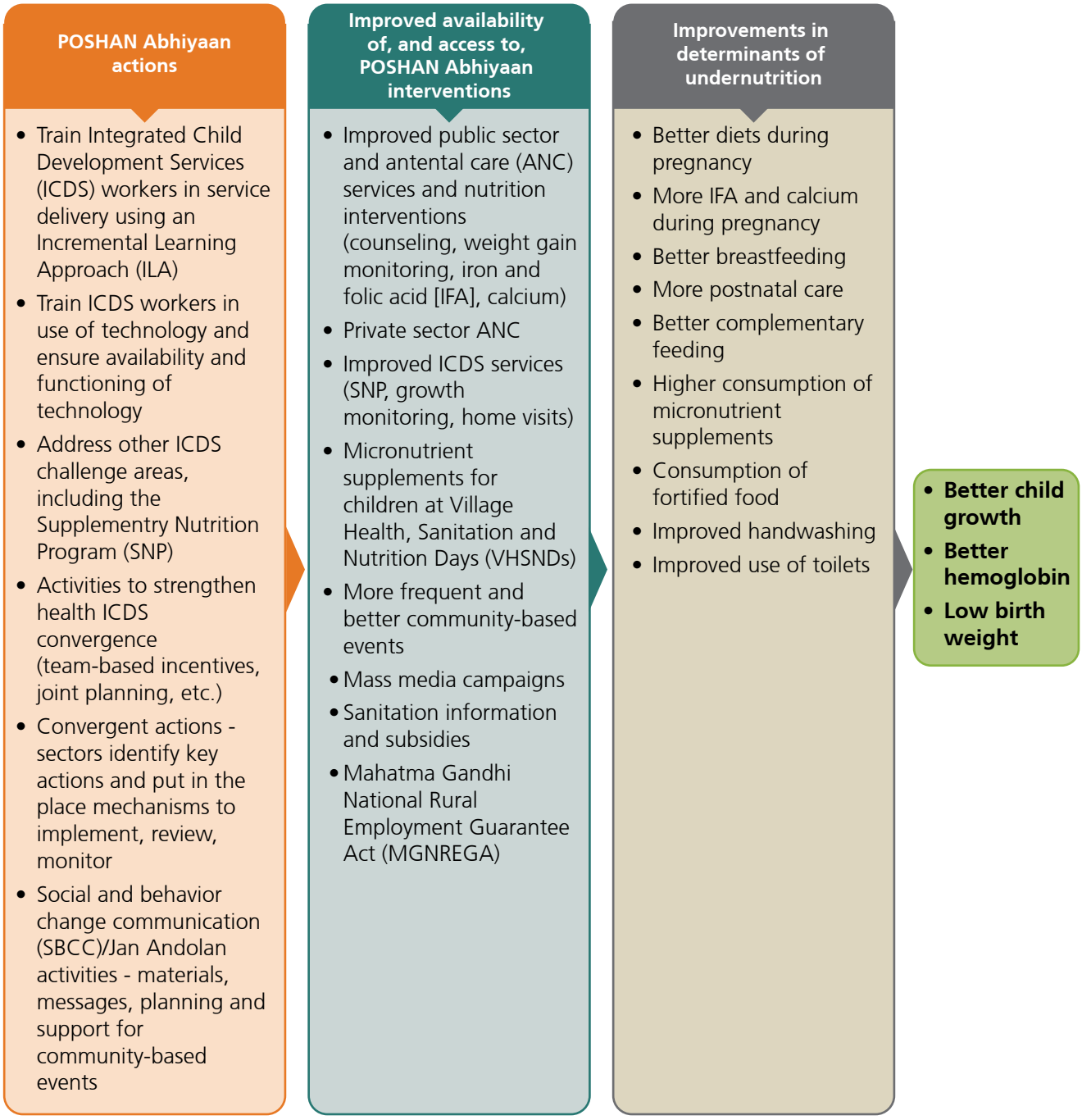
1. It assumes that core components related to technology, capacity building, and social and behavior change will trigger a series of changes that will improve the availability and quality of nutrition interventions in the ICDS and health system. It also assumes that the multisectoral convergence component will induce collective action in multiple sectors.
2. It assumes that putting these interventions in place will address both the immediate and underlying determinants of poor nutritional outcomes; these include behaviors such as dietary practices for women and children, the use of micronutrient supplements and food supplements, and sanitation practices. It also assumes that multisectoral convergence-related actions will help to address the underlying challenges of gender, sanitation, and poverty.
3. Finally, the theory of change assumes that changing these determinants will in turn lead to improved outcomes on POSHAN Abhiyaan targets including child growth and anemia.

ASSUMPTIONS IN THE THEORY OF CHANGE

Some key assumptions in the overall theory of change are related to:

1. ***Improving capacities of frontline workers:*** Through Incremental Learning Approach (ILA) training, is it assumed that there will be an improvement in the quality of public sector health and nutrition services and an enhanced capacity for supporting the delivery of high impact interventions such as counseling and growth monitoring.
2. ***Use of technology:*** The assumption is that technology adoption by frontline workers, including the use of smartphones, dashboards, and other features of the technology, will lead to better coverage and quality of service delivery.
3. ***Cross-sectoral convergence actions:*** The assumption is that establishing convergence committees at the state, district, and block levels will facilitate decentralized and convergent planning, implementation, and review of actions at the community level; this, in turn, assumes that convergent planning activities can bring together the actions of different sectors to address determinants of undernutrition at the household level.
4. ***Social and behavior change communication (SBCC):*** It is assumed that SBCC actions, especially Jan Andolan related activities such as community-based events and mass media, will lead to improved knowledge, motivation, and skills, and that households will adopt behaviors to achieve impact.
5. Linked to this, there is an overarching assumption that, especially at the district level, ***delivering all these components together,*** will lead to an improvement in the reach, quality, and intensity of high impact nutrition-specific interventions in the first 1,000 days of life and other interventions addressing underlying drivers.

Figure 1: Potential theory of change for POSHAN Abhiyaan



6. It is assumed that these will lead to ***improvements in household practices,*** such as dietary diversity, care during pregnancy and early childhood, and household conditions including improved sanitation.

7. Finally, an ***ultimate assumption around the biological theory of change*** is that over time, for women and children exposed to these interventions at critical biological periods, there will be improvements in nutritional outcomes.

ADDRESSING TEMPORALITY IN THE THEORY OF CHANGE

In addition to the considerations above, there are two major issues related to temporality that should be considered in assessing which indicators to monitor

at what time. The first is biological and the second is programmatic.

From a **biological** perspective, each nutritional outcome as specified in POSHAN Abhiyaan takes a different amount of time to respond to interventions; this temporal variability in the biological response of different outcomes has implications for how to think about monitoring.

Below, we offer two examples:

1. Child linear growth, which is used to assess the prevalence of population-level stunting, is a process that begins in utero and continues throughout childhood. For children under the age of five years, it is well established that peak responsiveness to interventions occurs in the first 1,000 days. This means that for a woman who entered her pregnancy in the first month of POSHAN Abhiyaan's launch (April 2018), the full impact of all interventions delivered to her and her child in the first 1,000 days should be assessed only in January 2021. Furthermore, if the systems are not fully ready to deliver all interventions in the first 1,000 days to all women and children, then their full impact on child growth can only be assessed in later years. Full impacts should only be assessed among children born to women who entered the 1,000 days period when all major interventions were fully in place.
2. The level of hemoglobin, which is used to assess the population prevalence of anemia, can improve in short periods of time—months rather than years—because the red blood cells that carry hemoglobin are formed continuously in the body and have a short life cycle. If interventions to address all major causes of low hemoglobin (iron, B vitamins, intestinal worms, and inflammation) are put into place, then the impact on anemia outcomes can be seen within a much shorter timeframe than interventions that address outcomes such as child growth.

From a **programmatic** perspective, systems strengthening efforts can take time, especially to deploy interventions at scale. Each of the core pillars of POSHAN Abhiyaan—capacity building, technological interventions, convergence planning and action, and social and behavior change interventions—takes time to design, develop, deploy at scale, strengthen, and sustain. This has implications for what should be monitored at what point in the Mission. We suggest that in its first year, the Mission should focus on monitoring preparedness and readiness; in the second year it should be on assessing coverage; and in later years the focus should be on assessing both coverage and changes in determinants and outcomes that are relevant to the program roll-out.

Hence, paying attention to both biological and programmatic issues related to temporality is central to the pragmatic tracking of progress.

2. Mechanisms and Data Systems to Monitor Progress on Nutrition Actions and Outcomes

Effective monitoring needs mechanisms and data to enable informed decisions. Below we have summarized several review and monitoring mechanisms that are available in POSHAN Abhiyaan to track progress.

EXISTING NUTRITION MONITORING MECHANISMS UNDER POSHAN ABHIYAAN

To support effective monitoring of POSHAN Abhiyaan activities and outcomes, various institutional mechanisms have been set up at the national, state, and district levels.

1. A national council has been established under the vice chair of NITI Aayog, and an executive committee has been set up which is chaired by the secretary of the Ministry of Women and Child Development. Both these committees have representation from all the aligned line ministries, partners, selected states, and districts; they are scheduled to meet every three months and a progress report is to be submitted to the prime minister every six months. NITI Aayog, which is the Government of India's policy think tank, provides oversight of monitoring and evaluation activities. A technical support unit (TSU) and a monitoring and data analytics cell have been established at NITI Aayog to periodically assess progress and impacts; also, formal partnerships with technical experts (Tata Trusts, Harvard University, IFPRI, IDinsight) support monitoring and data analytics. Partnerships with district-level support partners such as Tata Trusts and the Piramal Foundation strengthen the use of data.
2. State Project Management Units (SPMUs) are expected to function as State Nutrition Resource Centres, monitoring activities and providing direction for effective program implementation. A state convergence committee—headed by the most senior principal secretary, who is nominated by the chief secretary—is expected to facilitate sectoral departments to create their action plans; this includes monitoring of interventions under POSHAN Abhiyaan. There is no guidance in the public domain as to what should be monitored by the states.
3. District administrators are required to monitor progress at that level through a quarterly review meeting; meetings are convened by the district collector, who is expected to use a set of indicators across the continuum of care to review the data available from programs like the ICDS, the National Health Mission (NHM), and other sectors. Data for the quarterly reviews is to be provided by frontline workers, cross-checked at the block level, and validated by a district validation committee. Other mechanisms include reviews by sectoral officials, block dashboards (ICDS–CAS), the Jan Andolan dashboard, the Swachh Bharat dashboards, and data from third-party surveys such as the Aspirational Districts Programme Survey.

EXISTING DATA SYSTEMS TO SUPPORT DATA USE FOR NUTRITION

In India, data on intervention coverage, determinants, and nutrition outcomes is available from both population-based household surveys and administrative data systems.

Population-based household surveys include the National Family Health Survey (NFHS), the Comprehensive National Nutrition Survey (CNNS), and surveys conducted under the Aspirational Districts Programme by third-party organizations such as IDinsight and the Tata Trusts. Table 1 summarizes some key features of these surveys, and highlights the differences in geographic representativeness,

temporality, frequency, and data availability. Population-based surveys need to ensure the availability of data on relevant indicators in order to assess the coverage of interventions, key determinants, and levels of outcome. This data, obtained in given timeframes and with geographic representativeness, can be used to support appropriate decisions.

Administrative data systems include data from the core ministries and departments that deliver public services for health and nutrition. These also support improvements in the underlying determinants of nutrition. In India, these include the data systems from ICDS and the NHM for nutrition-specific interventions, and from other systems such as the Swachh Bharat Mission for sanitation, which can support improvements in underlying determinants of nutrition. Table 2 summarizes the key features of different administrative monitoring information systems. These administrative systems should generate data around common administrative boundaries such as blocks, districts, and supervisory service areas, and should support effective reviews and action.

Table 1: Summary of major population-based surveys on nutrition in India (1992–2019)

Survey name	Survey rounds	Geographic scope		Frequency	Data availability		Comparability	
		Geographic coverage	Level at which the survey is representative	Time between survey rounds	Time between end of survey and full report	Access to data	Reference group for child anthropometry	Target group of women respondents
National Family Health Surveys (NFHS)	NFHS 1 (1992—1993)	All India—24 states and Delhi National Capital Region (NCR)	National State		2 years (1995)	DHS website	< 4 years	Ever-married women age 13—49 years
	NFHS 2 (1998—1999)	All India— 25 states		6 years	1 year (2000)		< 3 years	Ever-married women age 15—49 years
	NFHS 3 (2005—2006)	All India— 29 states		7 years	1 year (2007)		< 5 years	All women age 15—49 years
	NFHS 4 (2015—2016)	All India—29 states and 6 union territories	National State District	> 9 years	1 year (2017)		< 5 years	All women age 15—49 years
Comprehensive National Nutrition Survey (CNNS)	CNNS (2017–2018)	All India— 30 states	National State	NA	Published	NHM website	0–4 years 5–9 years 10–14 years	All women age 15—19 years
Aspirational Districts Programme (ADP) Surveys[1]	Round 1 (May–Aug 2018)	27 districts (IDinsight) 85 districts (Tata Trusts)	District	6 months	Unknown	On request	< 5 years	Pregnant women, mothers of children < 5 years
	Round 2 (Jan–Feb 2019)	27 districts (IDinsight) 85 districts (Tata Trusts)	District	6 months	Unknown	On request	< 5 years	Pregnant women, mothers of children < 5 years

Note: [1]The Aspirational Districts Programme Surveys are ongoing; NHM = National Health Mission; DHS = Demographic Health Survey.

Source: NFHS Rounds 1, 2, 3 and 4; CNNS 2017-18; ADP Survey by IDinsight (Rounds 1 & 2).

Box 1: Broad issues to consider while using and interpreting data from different data sources

- Survey design elements such as sampling, questionnaire design, and questions that were used to create the indicators, can differ for population-based surveys; this has implications for interpretation.
- Population coverage can differ across data sources. Sample surveys intend to cover the entire population whereas monitoring information systems (MIS) data are limited to those who access government services; also, denominators in MIS data may need to be updated, for example estimates of pregnant women in a district.
- Reference periods can also differ; survey questions, for example, often ask for different reference periods than what is reported in MIS data.
- Administrative data entered by frontline workers may have several biases, both random and systematic, that can lead to inaccurate reporting; also, if training and field monitoring are limited, the survey data that is obtained can be of poor quality.
- If the indicators for intervention coverage are missing, it may mean that for some areas the data may be unavailable from either surveys or administrative data systems.

Table 2: Summary of key administrative data systems on nutrition in India

Administrative data system	Responsible ministry	Geographic scope		Frequency	Access to data	Web link
		Geographic coverage	**Level at which the data is reported**			
Health Management Information Systems (HMIS)	Health and Family Welfare, National Health Mission (NHM)	All India—29 states and 6 union territories	National State District	Monthly	Public	www.nrhm-mis.nic.in
Integrated Child Development Services Monitoring Information Systems (ICDS MIS)	Women and Child Development, ICDS	All India—29 states and 6 union territories	National State District Block	Monthly	Government	https://icds-wcd.nic.in/
ICDS-CAS dashboard	Women & Child Development, ICDS	All India—29 states and 6 union territories	National State District Block AWC	Real-time	Government	www.icds-cas.gov.in/a/icds-cas/login/
Jan Andolan dashboard	Women & Child Development, ICDS	All India—29 states and 6 union territories	National State District	Real-time	Public	www.poshanabhiyaan.gov.in/#/
Anemia Mukt Bharat dashboard	Health and Family Welfare, NHM	All India—29 states and 6 union territories	National State District	Quarterly	Public	www.anemiamuktbharat.info/dashboard/#/
Pradhan Mantri Matru Vandana Yojana (PMMVY) dashboard	Women & Child Development, ICDS	All India—29 states and 6 union territories	National State District	Real-time	Government	https://pmmvy-cas.nic.in
Swachh Bharat Mission dashboard	Drinking water and sanitation	All India—29 states and 6 union territories	National State District Village	Real-time	Public	https://sbm.gov.in/sbmdashboard/

Source: The web links provided in the table above.

3. Use of Data in the Context of India's Nutrition Efforts

In India, as noted above, nutrition information is accessed from multiple data sources, including surveys and routine administrative data systems. Data can and should be used for tracking progress, reporting and assessing impact, strategy refinement, and program refinement. These uses vary by levels, including national, state, district, and even subdistrict. For each of these uses, it is critical to ascertain timely availability of data and effective uses of available data. Below, we lay out key considerations for different data use cases.

TRACKING PROGRESS, REPORTING, AND ASSESSING IMPACT

1. Tracking helps to establish priorities and to monitor efforts aimed at achieving targets.
2. Reliable data to monitor progress must be available in timeframes necessary for reporting.
3. To track progress, data on program inputs and on coverage of interventions is useful in a short-term timeframe; data on immediate and underlying determinants is useful in a medium-term timeframe; and data on outcomes is useful in a long-term timeframe.
4. Data from both administrative systems and surveys can be used to track progress in the implementation of planned activities and can help prioritize actions in different geographies and timeframes.
5. Currently, one of the primary reporting mechanisms is the report on the progress of POSHAN Abhiyaan that is submitted to the Prime Minister's Office (PMO) every six months by NITI Aayog. This includes tracking progress and reporting on actions that are relevant to the timeframe of the Mission and to the progress anticipated in that time period. The first report to the PMO focused on reporting the states' readiness, while the second report focused on reporting the implementation of POSHAN Abhiyaan actions and on benchmarking intervention coverage. Subsequent reports should focus on the coverage of nutrition interventions and related behaviors.
6. The impact of the various components of POSHAN Abhiyaan and its linked programs can be effectively assessed with the help of well-designed impact evaluations; impact evaluation procedures should be planned early, but the impact assessment itself should not be done so early in the implementation that it could underestimate impact on major outcomes such as anthropometry.

STRATEGY REFINEMENT

1. The policy community needs timely data to enable refinement of nutrition strategies.
2. Strategy refinement is needed only periodically and should be undertaken by a broad range of stakeholders who have the analytic and programmatic experience necessary to develop effective strategies.
3. While considering a strategy, along with assessing which nutrition outcomes and determinants should be focused on, data on intervention coverage is also needed to guide refinement. In states or districts, for example, examining the data on intervention coverage can provide clear insights into which specific interventions should be targeted.
4. A range of data related to nutrition outcomes, the immediate and underlying causes of malnutrition and the reach of interventions are vital to an analysis of the nature of the nutrition challenge, its potential determinants, target groups and to the prioritization of interventions.
5. In POSHAN Abhiyaan, national strategy development was conducted in the 2017/2018 timeframe, prior to the development of the

Mission's approaches. It would be useful to consider a rapid mid-term strategy review for POSHAN Abhiyaan in 2020, with a special focus on high-burden states.

PROGRAM REFINEMENT AND COURSE CORRECTION

1. Program refinement is an ongoing process, and it must take place at levels where it is feasible to improve specific inputs in order to strengthen program activities.
2. The data necessary to improve program actions includes data on intervention inputs (HR, supplies, etc.) and intervention coverage.
3. Input indicators provide information on factors that affect program actions and include areas such as human resources, training, infrastructure, and supplies. These are usually available from administrative documents and routine health-related data systems and from ICDS; for example, a review of data on stock availability for iron and folic acid supplements could help identify issues related to supply chain improvement.
4. Data on the specific inputs needed for each POSHAN Abhiyaan intervention can help in bringing specificity to the assessment of the program inputs that need to be in place; a key need for program refinement, however, is a culture of program reviews that is grounded in data.
5. There is an accumulation of experience across India in terms of the diverse ways that program data are used for refinement of actions, but little documentation is available on approaches and their effectiveness.

4. Approach to Assessing Data Availability

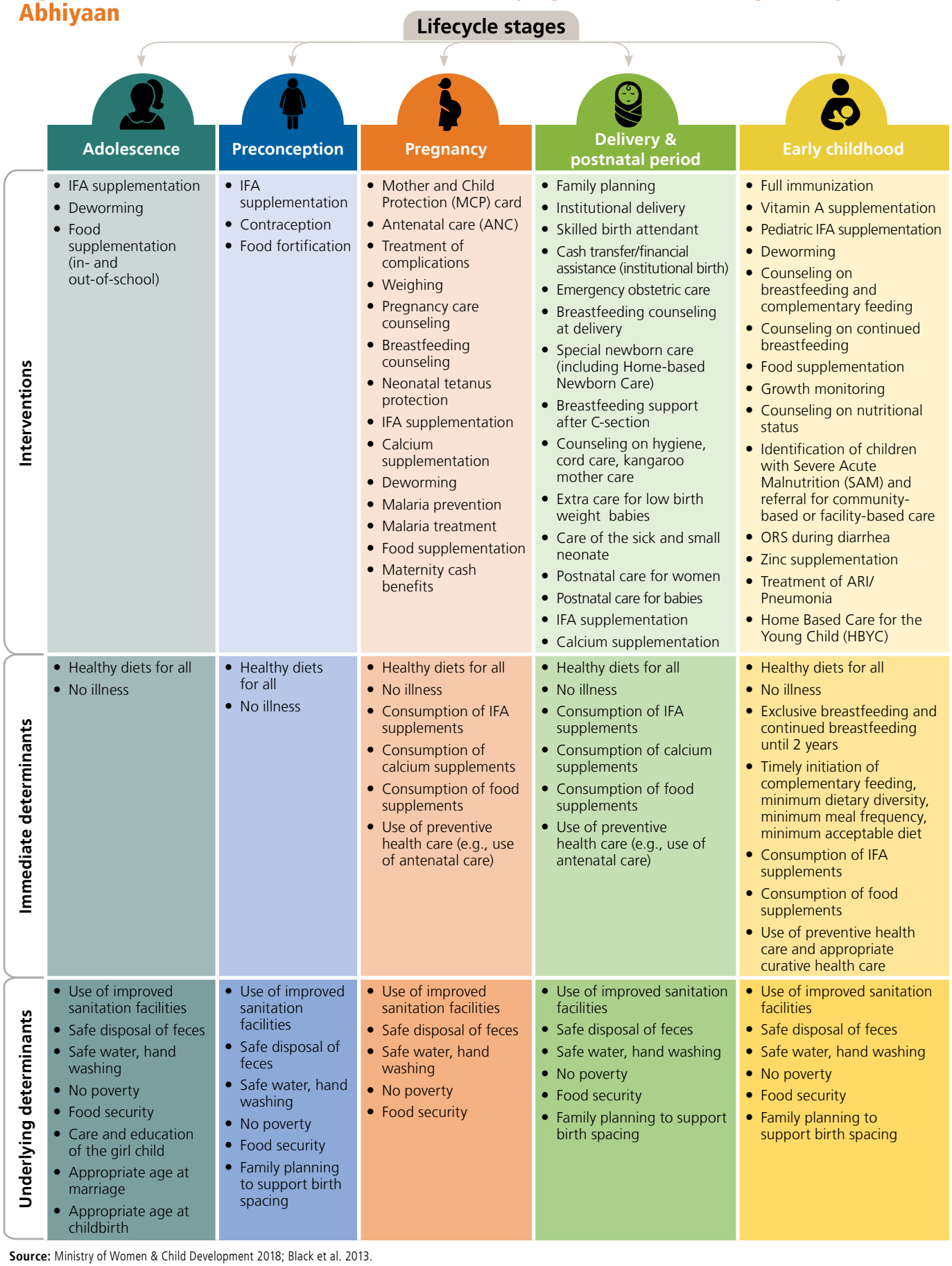
To assess data availability across a range of interventions, determinants/drivers, and impact indicators, we did the following:

1. We generated a comprehensive list of evidence-based interventions, determinants, and outcomes that align with POSHAN Abhiyaan's framework (Figure 2).
    a. Several indicators of interventions along the continuum of care from adolescence to early childhood were included; these focused on the essential interventions intended for delivery through the ICDS and health systems.
    b. A set of major determinants were identified, based on the nutrition literature and frameworks (Black et al. 2013); here we focused both on immediate determinants such as maternal nutrition, infant and young child feeding, and child health, as well as underlying determinants including sanitation and early marriage.
    c. For outcomes, we focused on the stated target goals of POSHAN Abhiyaan as well as on the nutrition-related SDGs to which India has committed.
2. Using a list of indicators for the interventions, determinants, and outcomes specified in the POSHAN Abhiyaan framework, we examined the availability of data on these across multiple data sources; data sources included population-based household surveys and administrative data. We reviewed the questionnaires used in NFHS–4 (2015–2016) (IIPS 2015), in the Comprehensive National Nutrition Survey 2016–2018 (MoHFW, UNICEF, Population Council 2019), and in the Aspirational Districts Programme Survey (first and second rounds 2018–2019) by IDinsight and Tata Trusts (NITI Aayog 2018). We also reviewed currently available indicators in administrative data sources of the India Health Management Information Systems (MoHFW 2015) and ICDS—AWC Monthly Progress Report (MWCD 2012) and ICDS–CAS (IFPRI 2018).

While reviewing these surveys and administrative data sources, wherever information was available we indicated the availability of data against the potential indicator; the information, however, was not necessarily a perfect match for the timeframe or age group specified in the indicator. The proposed list of potential indicators for interventions in Tables 4 to 11 could be considered when developing surveys and/or nutrition monitoring systems.

Across all data sources, we assessed whether the information to create or compute a relevant indicator was included. We summarized our findings across domains (interventions, determinants, and outcomes), listed them by data source, and reflected on the use of these indicators to track progress, provide strategic direction, and improve program implementation and uptake.

Figure 2: Interventions, immediate and underlying determinants targeted by POSHAN Abhiyaan



Source: Ministry of Women & Child Development 2018; Black et al. 2013.

5. Monitoring Progress on Inputs

Input indicators refer to the resources needed to support the implementation of an intervention or program; they include financial, human resources, training, and infrastructure. These are primarily tracked in the administrative monitoring systems of ICDS and the health department. Additional information on the roll-out of POSHAN Abhiyaan is available on the various administrative dashboards including: Anemia Mukt Bharat, ICDS–CAS, ICDS–CAS Governance, Jan Andolan (POSHAN Abhiyaan); Pradhan Mantri Matru Vandana Yojana; Swachh Bharat Abhiyaan, and the Health Management Information System.

Table 3 summarizes the sources of information on key inputs such as supplies, training, and activities related to each of the major POSHAN Abhiyaan interventions. Programmatic inputs are mostly available for all POSHAN Abhiyaan interventions; there are gaps, however, in the availability of information and, for the most part, the information necessary to monitor progress on program inputs is available in a scattershot manner from multiple data sources. The POSHAN Abhiyaan progress reports that are now being prepared by NITI Aayog for submission to the Prime Minister's Office make available some of that information.

On some inputs such as ICDS–CAS, which form a large component of the roll-out of POSHAN Abhiyaan, detailed information on procurement, distribution, and training/support is available both with state governments and with the Ministry of Women and Child Development; for inputs such as the roll-out of ILA training, information is more likely to be available at the state level; and information on social and behavior change communication (SBCC) activities is available from the Jan Andolan dashboard. At the time of writing this, it is not clear what information is available on the roll-out of convergent action planning, a key pillar of POSHAN Abhiyaan. On all these programmatic inputs, however, information is more likely to be available on the actual activities than on other inputs such as infrastructure and supplies, and training.

Information on the flow of finances for POSHAN Abhiyaan inputs is unavailable in a consolidated manner but it could be consolidated from the reported expenditures across ministries and line departments.

Table 3: Availability of input and activity indicators from administrative and other data systems

Interventions	Input indicators		Indicators on activities
	Supplies	Training	
Adolescence			
Iron and folic acid (IFA) supplementation	Stocks of IFA received and distributed; percentage of stocks available for IFA tablets (blue) (Anemia Mukt Bharat reference)	Anganwadi Workers (AWW)s trained in ILA Module 19 (Prevention of anemia in adolescent girls and children)	Enrollment: number of adolescent girls between 11 and 14 years old who are enrolled for Anganwadi services
Deworming	Percentage of stocks available for Albendazole 400 mg tablets	AWWs trained in ILA Module 19 (Prevention of anemia in adolescent girls and children)	National Deworming Day
Right age at marriage	NA	NA	Number of community-based events (CBEs); female/male participation in CBEs focused on adolescent diet, education, and age at marriage
	NA	NA	Number of Village Health, Sanitation and Nutrition Days (VHSNDs) focused on adolescent diet, education, and age at marriage

Interventions	Input indicators		Indicators on activities
	Supplies	Training	
	NA	NA	Number of home visits; female/male participation in home visits on adolescent education, diet, and age of marriage
	NA	NA	Number of Anganwadi centres/Urban Primary Health Centres (UPHCs) reported to have conducted Village Health and Nutrition Days (VHNDs), Urban Health and Nutrition Days (UHNDs), outreach, and "special outreach"
	NA	NA	Number of Anganwadi Centres (AWCs) where Kishori Diwas was celebrated in a particular month; number of AWCs that participated in two nutrition and health education counseling sessions
Preconception			
Contraception	Adequacy of stocks of various essential contraceptives; stocks of pregnancy testing kits received and distributed; stocks of *Nayi Pahel* kits (family planning kits for newly weds) received and distributed	AWWs trained in ILA Module 21 (Preparation during pregnancy: for newborn care and family planning); Accredited Social Health Activists (ASHAs) trained in Book No. 3 (Family Planning, reproductive tract infections/ sexually transmitted infections [RTIs/STIs], HIV/AIDS, and adolescent sexual and reproductive health [ARSH])	*Saas Bahu Sammelans* (mother-in-law–daughter-in-law meeting) conducted and number of participants attended (Mission Parivar Vikas); SAARTHI–Awareness on Wheels: number of blocks covered and number of clients counseled (Mission Parivar Vikas); number of Nayi Pahel kits distributed by ASHAs
Pregnancy			
Antenatal care (ANC)	Necessary stocks of supplies in health facilities for weight measurement, blood pressure testing, blood sampling, urine sampling, and abdominal examination	ASHAs trained in Modules 6 and 7; auxiliary nurse midwives (ANMs) trained in antenatal care	Number of CBEs on antenatal check-ups; female/male participation in CBEs; Pradhan Mantri Matru Vandana Yojana (PMMVY) women who have received third installment; Number of *godbharai* (baby-shower) events and number of beneficiaries participating
Counseling on nutrition	NA	AWWs trained in ILA Module 21 (Preparation during pregnancy)	Number of home visits to households with pregnant mothers
Tetanus injection (TT)	Stocks of TT received and distributed	NA	NA
IFA supplementation	Percentage of stocks available for IFA tablets (Red)	AWWs trained in ILA Module 21 (Preparation during pregnancy) and Module 7 (Preventing anemia in women)	Number of home visits; female/male participation in home visits; number of CBEs; female/male participation in CBEs on anemia; number of VHSNDs; female/male participation in VHSNDs on anemia
Calcium supplementation	Stocks of calcium tablets received and distributed	NA	NA
Deworming	Stocks of Albendazole received and distributed	AWWs trained in ILA Module 7 (Preventing anemia in women)	National Deworming Day
Food supplementation	Number of AWCs with take-home rations (THR) supply	NA	AWCs providing supplementary nutrition to pregnant women
Maternity cash benefits	NA	NA	Janani Shishu Suraksha Karyakaram (JSSK): number of pregnant women provided with free medicines/free diet/free diagnostics/ free home-to-facility transport/interfacility transfers/free drop back home PMMVY: number of women who received third installment

Interventions	Input indicators		Indicators on activities
	Supplies	Training	
Birth preparedness	NA	AWWs trained in ILA Module 20 (Preparation for institutional and home deliveries)	NA
Delivery and postnatal care			
Institutional deliveries	Availability of facilities and all supplies at facilities for deliveries	AWWs trained in ILA Module 20 (Preparation for institutional and home deliveries) ASHAs trained in Modules 6 and 7	Mothers who received financial assistance under Janani Suraksha Yojana (JSY); skilled birth attendance at facility: Institutional deliveries; postpartum care: number of women discharged within 48 hours
Skilled birth attendance	Availability of facilities and all supplies at facilities for deliveries	Same as above	Home deliveries attended by a skilled birth attendant; postpartum care: number of women receiving first check-up within 48 hours of home delivery
Early childhood			
Full immunization	Stocks of vaccines—diptheria, pertussis and tetanus toxoids (DPT), oral polio vaccine (OPV), measles, and measles rubella— received and distributed	AWWs trained in ILA Module 18 (Preventing illnesses to avert malnutrition and death)	Immunization sessions: number of sessions planned and held
Vitamin A supplementation	Stocks of Vitamin A received and distributed	AWWs trained in ILA Module 18 (Preventing illnesses to avert malnutrition and death)	Number of VHSNDs on immunization and Vitamin A supplementation
IFA supplementation	Stocks of IFA syrup received and distributed	AWWs trained in ILA Module 19 (Prevention of anemia in children and adolescent girls)	NA
Deworming	Stocks of Albendazole received and distributed	AWWs trained in ILA Module 19 (Prevention of anemia in children and adolescent girls)	National Deworming Day
Breastfeeding and complementary feeding promotion and support	Job aids for all home visits; birth facilities compliant with Baby-friendly Hospital Initiative (BFHI)	AWWs trained in ILA Modules 10 and 15 (Exclusive breastfeeding and supporting)	Number of home visits on breastfeeding; number of home visits on complementary feeding
	NA	AWWs trained in ILA Module 3 (Organizing CBEs), Module 6 (Complementary feeding: dietary diversity); Module 9 (Ensuring complementary feeding improves over time), Module 12 (How to ensure timely initiation of complementary feeding), Module 13 (Identifying and preventing severe acute malnutrition), Module 14 (Feeding during illness), Module 18 (Preventing illnesses to avert malnutrition and death)	Number of VHSNDs and female/male participation in VHSNDs on complementary feeding
	NA	NA	Number of VHSNDs, and female/male participation in VHSNDs on breastfeeding
	NA	NA	Number of CBEs on breastfeeding, participation of beneficiaries
	NA	NA	Number of Annaprashan Diwas (first rice-eating ceremony) events, participation of beneficiaries

Interventions	Input indicators		Indicators on activities
	Supplies	Training	
Food supplementation	Supplementary food received and utilized	NA	AWCs providing supplementary nutrition to children 0 to 3 years
	Number of AWCs with THR supply	NA	AWCs providing supplementary nutrition to children 3 to 6 years
	NA	NA	Supplementary nutrition (SN): number of days that morning snacks or breakfast, hot cooked meals, and THR are provided at AWCs
Growth monitoring	Availability of growth charts	AWWs trained in ILA Modules 8 (Assessment of growth in children) and 13 (Identifying and preventing severe acute malnutrition); ASHAs trained in Modules 6 (Complementary feeding: diet diversity) and 7 (Preventing anemia in women)	Number of VHSNDs
	AWCs with infant weighing scales for mothers and child weighing scales	NA	Total activities under the theme of growth monitoring
	NA	NA	Number of children weighed of total number of children eligible to be weighed (0 to 5 years)
	NA	NA	Number of home visits on growth monitoring
	NA	NA	Female/male participation in home visits on growth monitoring
Home-based care	NA	AWWs trained in Home-Based Newborn Care (HBNC) and Home-Based Care for Young Children (HBYC) programs	Number of newborns who received 6 or 7 home-based newborn care visits; number of children visited at the age of 3, 6, 9, 12, and 15 months
Identification of severe underweight	Availability of supplies needed to assess severe malnutrition (weighing scales, stadiometers, mid-upper arm circumference [MUAC] taps where used)	AWWs trained in ILA Modules 8 (Assessment of growth in children) and 13 (Identifying and preventing severe acute malnutrition)	Number of children referred from the total number of cases of severely underweight children; admittance (children who reach a facility)
Facility-based management of children with severe acute malnutrition (SAM)	Fully equipped Nutrition Rehabilitation Centres (NRCs)	NA	Number of children referred from the total number of cases of severely underweight children; number of children who reach a facility; number of children admitted to NRCs; appropriate care by all medical and community health workers on care for sick children
Oral Rehydration Salts (ORS) during diarrhea	Stocks of ORS received and distributed	Integrated management of childhood illnesses (IMCI) training, if relevant	Number of CBEs on diarrhea; female/male participation in CBEs
Zinc supplementation	Stocks of zinc (20 mg tablets) received and distributed	IMCI training, if relevant	

Source: HMIS reporting format, version 2015; ICDS-AMPR, version December 2012; ICDS-CAS; Incremental Learning Approach (ILA) Report.

6. Monitoring Progress on Intervention Coverage

Nutrition intervention coverage indicators reflect the extent to which people in need actually receive important health and nutrition interventions. Coverage indicators are typically calculated by dividing the number of people receiving a defined intervention by the population eligible for, or in need of, the intervention. Examples of coverage indicators include the proportion of women who receive IFA supplements during their antenatal care visits, the proportion of women who receive breastfeeding counseling, and the proportion of children who are measured or weighed.

This section features an overview of data availability for a set of interventions under POSHAN Abhiyaan across the lifecycle, starting with adolescence and ending with early childhood, by data source. In all the instances (Tables 4 to 11), for aspirational districts, data availability is based on a review of the second round of Aspirational Districts Programme (ADP) Survey questionnaires; for ICDS (AMPR/CAS), data availability in either ICDS–AMPR or ICDS–CAS is considered.

DATA AVAILABILITY ON INTERVENTIONS DURING ADOLESCENCE

Interventions for adolescent girls

Interventions for adolescent girls target both in-school and out-of-school adolescents and focus on IFA supplements, deworming, and food supplements.

1. *Iron and folic acid supplements and deworming:* In September 2018, in congruence with the POSHAN Abhiyaan, and building on previous policies on anemia, the Ministry of Health and Family Welfare (MoHFW) launched the Anemia Mukt Bharat strategy (National Health Mission n.d.) that aims to reduce the prevalence of anemia by 3 percentage points among adolescents between 2018 and 2022. Under this program, adolescent girls between 10 and 19 years are expected to receive IFA supplements once a week and deworming tablets once in six months. The interventions are to be delivered through the Ministry of Human Resource Development (MHRD) for in-school adolescent girls and by the Ministry of Women and Child Department (MWCD), through ICDS, for out-of-school adolescent girls. The MoHFW ensures supplies of IFA tablets and deworming tablets, monitors the program, and supports social mobilization.
2. *Food supplements:* Under the Scheme for Adolescent Girls (SAG), implemented by the MWCD, out-of-school adolescent girls between 11 and 14 years old are entitled to supplementary nutrition of 600 calories and 18–20 grams of protein and micronutrients, for 300 days in a year; they receive this in the form of take-home rations (THR) or hot cooked meals. The SAG is implemented using the platform of Anganwadi services of ICDS through AWCs. Under the National Programme of Mid Day Meal in Schools (MHRD n.d.), implemented by the MHRD, the scheme covers all children of upper primary classes (classes VI to VIII). The calorific value of a midday meal is fixed at a minimum of 700 calories and 20 grams of protein; 150 grams of food grains (rice or wheat) per child per school day are provided.

Summary of data availability on interventions during adolescence

Data on the coverage of interventions during adolescence is scarce, both in surveys and administrative data (Table 4).

Only the HMIS includes questions on the receipt of IFA supplements. The CNNS survey includes questions on the receipt and consumption of Albendazole or any other deworming tablets, whereas HMIS covers only the receipt of deworming tablets. The CNNS survey also asks questions on the receipt of supplementary food (THR).

Table 4: Potential indicators and data availability on interventions during adolescence

Interventions	Potential indicators	Population-based surveys			Administrative data	
		NFHS	CNNS	ADP Survey	HMIS	ICDS (AMPR/ CAS)
Iron and folic acid (IFA) supplementation	Percentage of girls between 10 and 19 years old who received any IFA in the last 1 month	✗	✗	✗	✓	✗
Deworming	Percentage of girls between 10 and 19 years old who received Albendazole or any other deworming drug in the last 6 months	✗	✓	✗	✓	✗
Food supplementation (out of school)*	Percentage of out-of-school girls between 10 and 19 years old who received food supplements in the last month	✗	✓	✗	✗	✗
Food supplementation (in-school)**	Percentage of in-school girls between 10 and 19 years old who received school meals in the last school year	✗	✓	✗	✗	✗

Note: * = Under the Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG) monitoring formats (quarterly and annual reports), coverage of supplementary nutrition (take-home rations) and hot cooked meals among 11 to 14 year olds and 14 to 18 year olds is included; ** = Under the Mid Day Meal Scheme (MDM), School Monthly Data Capture Format, the indicator for the actual number of days that a mid day meal was served and the total meals served during the month is reported for primary and upper primary levels (MHRD n.d.); NFHS = National Family Health Survey; CNNS = Comprehensive National Nutrition Survey; ADP = Aspirational Districts Programme; HMIS = Health management information system; ICDS (AMPR/ CAS) = Integrated Child Development Services (Anganwadi Centre Monthly Progress Report/Common Application Software).

✓ = Available; ✗ = Not available

Source: NFHS-4 (2015-16); CNNS (2017-18); ADP Survey Round 2; HMIS reporting format, version 2015; ICDS-AMPR, version December 2012; ICDS-CAS.

DATA AVAILABILITY ON INTERVENTIONS DURING PRECONCEPTION

Interventions during the preconception period

Interventions during preconception target all WRA between 15 and 49 years of age who are not currently pregnant or lactating; interventions focus on IFA supplementation, contraception, and food fortification.

1. The National Nutritional Anaemia Prophylaxis Programme initiated in 1970, was revised and expanded to include beneficiaries from all age groups namely children aged 6-59 months, 5-10 yr, adolescents aged 10-19 yr, pregnant and lactating women and women in reproductive age group under the National Iron Plus Initiative (NIPI) programme in 2011. Under the NIPI programme, all WRA—that is, between 15 and 49 years of age—are entitled to receive IFA supplementation once a week throughout the reproductive period (100 mg of elemental iron and 500 mcg of folic acid).
2. Under the NHM, the government has launched various programs to improve access to contraceptives and family planning services for WRA.
3. Food fortification is a recommended policy response to address micronutrient deficiencies. In 2011, the Government of India mandated the procurement of double fortified salt, fortified wheat flour, and edible oils in ICDS supplementary feeding programs. The MWCD, in collaboration with MoHFW, the Department of Food and Public Distribution, and the Food Safety and Standards Authority of India (FSSAI) promotes the use of fortified food articles in ICDS.

Summary of data availability on interventions during preconception

Limited data is available on the coverage of IFA supplementation interventions for WRA beyond the twelfth grade (Table 5); however, the monthly monitoring format on Weekly Iron and Folic Acid Supplementation (WIFS) includes data on IFA supplementation among boys and girls from the sixth to the twelfth grade. Girls from grades ten to twelve are also covered under WRA group as it extends from 15 to 49 years.

Limited data is available on interventions related to contraception and food fortification during the 15-to-49-year period. Data on contraception is captured by the NFHS, the CNNS survey, and HMIS; only NFHS and ICDS collect data on iodization of salt at the household and AWC levels.

Table 5: Potential indicators and data availability on interventions during preconception

Interventions	Potential indicators	Population-based surveys			Administrative data	
		NFHS	CNNS	ADP Survey	HMIS	ICDS (AMPR/ CAS)
Iron and folic acid (IFA) supplementation*	Percentage of women 15 to 49 years who are not currently pregnant or lactating, who received any IFA in the last 1 month	✗	✗	✗	✗	✗
Contraception	Percentage of women 15 to 49 years with an unmet need for family planning	✓	✓	✗	✓	✗
Food fortification	Percentage of households using iodized salt	✓	✗	✗	✗	✓

Note: *= Weekly Iron and Folic Acid Supplementation (WIFS) monthly monitoring format includes data on IFA supplementation among boys and girls from grades six to twelve; girls from grades ten to twelve are also covered under WRA group as it extends from 15 to 49 years; NFHS = National Family Health Survey; CNNS = Comprehensive National Nutrition Survey; ADP = Aspirational Districts Programme; HMIS = Health management information system; ICDS (AMPR/CAS) = Integrated Child Development Services (Anganwadi Centre Monthly Progress Report/Common Application Software).

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Source: NFHS-4 (2015-16); CNNS (2017-18); ADP Survey Round 2; HMIS reporting format, version 2015; ICDS-AMPR, version December 2012; ICDS-CAS.

DATA AVAILABILITY ON INTERVENTIONS DURING PREGNANCY

Interventions for pregnant women

Interventions for pregnant women focus on antenatal care, IFA and calcium supplementation, food supplements, deworming, malaria prevention and treatment, and maternity benefit cash transfers. Nutrition interventions for pregnant women are delivered by the MoHFW and MWCD through antenatal care offered at health facilities, VHSNDs, benefits like PMMVY, and community-based events, such as *godbharai* (baby shower).

1. *Antenatal care, including weight gain monitoring and counseling:* The Pradhan Mantri Surakshit Matritva Abhiyaan (PMSMA) program aims at high coverage of quality ANC, involving dietary counseling to pregnant mothers to reduce the prevalence of low birth weight babies; also, the Mother's Absolute Affection (MAA) program focuses on counseling for breastfeeding during pregnancy.
2. *Micronutrient supplements:* Under the National Iron Plus Initiative, the National Health Mission's ANC guidelines, and the national guidelines for calcium supplementation, all pregnant women should receive 100 days of IFA supplementation (each tablet containing 100 mg of elemental iron and 500 µg of folic acid) and calcium supplementation (500 mg elemental calcium and 250 IU Vitamin D3; two tablets a day after 14 weeks of pregnancy), along with special care as part of ANC check-ups.
3. *Deworming and malaria prevention:* The National Vector Borne Disease Control Program (NVBDCP) provides guidelines for malaria prevention and treatment.
4. *Food supplements:* Under the Supplementary Nutrition Programme (SNP) of ICDS, all pregnant women are entitled to receive THR through AWCs.
5. *Cash transfers during pregnancy:* The PMMVY program was launched in 2017 to provide maternity benefits to partially compensate for the loss of wages of pregnant women. Pregnant women are entitled to receive a cash benefit of INR 5,000 in three installments: 1) INR 1,000 at the time of early pregnancy registration; 2) INR 2,000 with at least one antenatal check-up after six months of pregnancy; and 3) INR 2,000 after the child's birth is registered and the child has received the first cycle of Bacillus Calmette–Guérin (BCG, or tuberculosis vaccination), OPV, diptheria, pertussis and tetanus toxoids (DPT), and Hepatitis B or its equivalent/substitute.

Summary of data availability on interventions for pregnant women

Multiple data sources are available on the coverage of interventions during pregnancy, though the types of coverage indicators that are included vary greatly across all data systems (Table 6). While indicators for measuring coverage of ANC interventions exist in multiple data sources, there is limited information for measuring the coverage of counseling during pregnancy; calcium supplementation; malaria prevention and treatment; and maternity benefits.

Table 6: Potential indicators and data availability on interventions during pregnancy

Interventions	Potential indicators	Population-based surveys			Administrative data	
		NFHS	CNNS	ADP Survey	HMIS	ICDS (AMPR/ CAS)
Mother and child care	Percentage of women between 15 and 49 years old who received the Mother and Child Protection (MCP) card after pregnancy registration	✓	✓	✓	✗	✓
Birth spacing	Percentage of women between 15 and 49 years old who are currently using any method to delay or avoid getting pregnant	✓	✓	✗	✗	✓
Any antenatal care (ANC)	Percentage of women between 15 and 49 years old attended by any trained provider at least once during pregnancy	✓	✓	✓	✗	✓
ANC during first trimester	Percentage of women between 15 and 49 years old attended by any trained provider during the first trimester of pregnancy	✓	✓	✗	✓	✗
At least four ANC visits	Percentage of women between 15 and 49 years old attended by any trained provider 4 or more times during pregnancy	✓	✓	✓	✓	✓
Treatment of complications	Indicator not specified	✗	✗	✗	✗	✗
Weighing	Percentage of women between 15 and 49 years old who were weighed during ANC	✓	✓	✓	✗	✓
Counseling*	Percentage of pregnant women between 15 and 49 years old who received health and nutrition education (individual or group counseling)	✓	✓	✗	✗	✓
	Percentage of pregnant women between 15 and 49 years old who received advice about their weight after being weighed	✗	✗	✗	✗	✗
	Percentage of pregnant women between 15 and 49 years old who received information on consuming additional food during pregnancy from any provider**	✗	✓	✗	✗	✗
	Percentage of women between 15 and 49 years old who received information on consuming IFA from any provider	✗	✓	✗	✗	✓
	Percentage of women between 15 and 49 years old who received information on consuming calcium from any provider	✗	✗	✗	✗	✗
	Percentage of women between 15 and 49 years old who received advice on breastfeeding from any provider	✓	✓	✗	✗	✓

Interventions	Potential indicators	Population-based surveys			Administrative data	
		NFHS	CNNS	ADP Survey	HMIS	ICDS (AMPR/ CAS)
	Percentage of women between 15 and 49 years old who received information on birth preparedness from any provider	✓	✗	✗	✗	✓
Tetanus injection (TT)	Percentage of women between 15 and 49 years old who received at least two TT injections during pregnancy	✓	✓	✗	✓	✓
IFA supplementation	Percentage of women between 15 and 49 years old who received any IFA during pregnancy	✓	✓	✓	✓	✓
Calcium supplementation	Percentage of women between 15 and 49 years old who received any calcium during pregnancy	✗	✗	✗	✓	✗
Deworming	Percentage of women between 15 and 49 years old who received any Albendazole during pregnancy	✓	✓	✗	✓	✗
Malaria prevention	Percentage of women between 15 and 49 years old who slept under a treated bed net during pregnancy	✓	✓	✗	✗	✗
Malaria treatment	Percentage of women between 15 and 49 years old who received treatment for malaria during pregnancy	✗	✗	✗	✗	✗
Food supplementation	Percentage of women between 15 and 49 years old who received any food supplements during pregnancy	✓	✓	✓	✗	✓
	Percentage of women between 15 and 49 years old who received food supplements for at least 6 months during pregnancy	✗	✓	✓	✗	✗
Maternity cash benefits***	Percentage of eligible women between 15 and 49 years old (who also meet other eligibility criteria) who received financial assistance during pregnancy	✗	✗	✗	✗	✓

Note: * = Village Health, Nutrition and Sanitation Days, community-based events such as godhbharai, and home visits during pregnancy contribute to 'counseling'; data on these activities in ICDS-CAS is a way for districts/blocks to track whether the activities related to pregnancy counseling are happening; ** Provider could be a health professional or auxiliarly nurse-midwife (ANM)/ASHA/AWW; *** Under the Pradhan Mantri Matru Vandana Yojana (a conditional cash transfer scheme for pregnant and lactating women) maternity cash benefit amounting to INR 5,000 is provided in three installments: 1) INR 1,000 at the time of early pregnancy registration; 2) INR 2,000 with at least one antenatal check-up after six months of pregnancy; 3) INR 2,000 after the child's birth is registered and the child has received the first cycle of Bacillus Calmette–Guérin (BCG, or tuberculosis vaccination), OPV, diptheria pertussis and tetanus toxoids (DPT), and Hepatitis B or its equivalent/substitute. The scheme is implemented by the Ministry of Women and Child Development; NFHS = National Family Health Survey; CNNS = Comprehensive National Nutrition Survey; ADP = Aspirational Districts Programme; HMIS = Health management information system; ICDS (AMPR/CAS) = Integrated Child Development Services (Anganwadi Centre Monthly Progress Report/Common Application Software).

✓ = Available; ✗ = Not available

Source: NFHS-4 (2015-16); CNNS (2017-18); ADP Survey Round 2; HMIS reporting format, version 2015; ICDS-AMPR, version December 2012; ICDS-CAS.

DATA AVAILABILITY ON INTERVENTIONS DURING DELIVERY AND POSTNATAL CARE

Interventions during delivery and postnatal care

Interventions during delivery and postnatal care focus on: 1) conditional cash transfers to support institutional delivery, 2) delivery by skilled health personnel, 3) counseling and support on early initiation of breastfeeding, 4) counseling on Kangaroo Mother Care, and 5) postnatal care of women and babies (Table 7).

Most of these interventions are delivered through the MoHFW platform of public health institutions and home visits by frontline functionaries.

Key schemes include:

1. Conditional cash transfers under the Janani Suraksha Yojana (JSY): these are aimed at the promotion of institutional delivery and postnatal care. Under the JSY, poor pregnant women are entitled to cash assistance for delivery in a government or accredited private health facility.

2. Janani Shishu Suraksha Karyakaram: under this program, launched in 2011, pregnant women and sick infants are entitled to coverage of out-of-pocket expenses incurred during delivery at the public health institutions, including caesarean section.

3. The Home-Based Care for Young Children (HBYC) programme: launched in September 2018, it implements additional home visits over and above the existing Home-Based Newborn Care (HBNC) visits for nutrition promotion.

Summary of data availability on interventions during delivery and postnatal care

Most surveys and administrative reports provide information only on institutional deliveries, deliveries attended by skilled birth attendants, and postnatal care for women and babies (Table 7). Information on breastfeeding support after a C-section and breastfeeding counseling is not captured across data systems, except in ICDS–CAS, whereas, Kangaroo Mother Care counseling is covered in NFHS, CNNS, and ICDS.

Table 7: Potential indicators and data availability on interventions during delivery and postnatal period

Interventions	Potential indicators	Population-based surveys			Administrative data	
		NFHS	CNNS	ADP Survey	HMIS	ICDS (AMPR/ CAS)
Skilled birth attendance and emergency obstetric care						
Institutional delivery	Percentage of women between 15 and 49 years who delivered in a health facility	✓	✓	✓	✓	✓
Cash transfer/financial assistance (institutional birth)	Percentage of women between 15 and 49 years who received financial assistance for delivering at a public /private accredited health facility	✓	✗	✗	✗	✓
Skilled birth attendant to support the birth	Percentage of women between 15 and 49 years who were attended by skilled health personnel during delivery	✓	✓	✓	✓	✓
Emergency obstetric care	Percentage of pregnant women between 15 and 49 years with obstetric complications	✗	✗	✗	✓	✓
	Percentage of complicated pregnancies treated with blood transfusion	✗	✗	✗	✓	✗
Newborn care						
Breastfeeding support after a C-section	Percentage of pregnant women between 15 and 49 years who had a C-section birth in the last two years and who received breastfeeding support at delivery	✗	✗	✗	✗	✓
Hygiene	Percentage of pregnant women between 15 and 49 years counseled on the importance of personal hygiene after delivery	✗	✗	✓	✗	✓
Cord care	Percentage of pregnant women between 15 and 49 years who received advice/ counseling on cord care	✓	✓	✗	✗	✓
	Percentage of newborns whose cord was cut with clean blade	✓	✗	✗	✗	✓
Kangaroo Mother Care (KMC) counseling*	Percentage of pregnant women between 15 and 49 years who received counseling on KMC	✓	✓	✗	✗	✓

Interventions	Potential indicators	Population-based surveys			Administrative data	
		NFHS	CNNS	ADP Survey	HMIS	ICDS (AMPR/ CAS)
Extra care for low birth weight babies**	Percentage of low birth weight babies who were visited on the first two days of birth at home	✗	✗	✗	✗	✗
	Percentage of low birth weight babies who received full schedule of Home-Based Newborn Care (HBNC) visits	✗	✗	✗	✓	✗
Care of the sick and small neonate***	Percentage of sick newborns referred by any health worker to a tertiary care facility	✗	✗	✗	✓	✗
Breastfeeding counseling at delivery	Percentage of pregnant women between 15 and 49 years counseled on exclusive breastfeeding within 30 days after delivery	✗	✗	✗	✗	✓
Postnatal care for women	Percentage of pregnant women between 15 and 49 years who received postnatal care while in a facility or at home following delivery within two days after birth	✓	✓	✗	✓	✓
Postnatal care for babies****	Percentage of children between 0 and 59 months who received first check-up by a health professional within two days of birth	✓	✓	✓	✓	✓

Note: * = Currently, there are no KMC indicators in the HMIS, so the Special Newborn Care Units (SNCU) online software is the portal for data entry on SNCU activities and contains a yes/no indicator on KMC, however it is not yet very reliable; ** = Home-Based Newborn Care (HBNC) guidelines 2014; *** = Indicators on sick and small neonate are tracked through Janani Shishu Suraksha Karyakaram (JSSK) in HMIS; **** = Data are available on the Home-Based Newborn Care program (in the HMIS) and postnatal home visits (in ICDS–CAS); NFHS = National Family Health Survey; CNNS = Comprehensive National Nutrition Survey; ADP = Aspirational Districts Programme; HMIS = health management information system; ICDS (AMPR/ CAS) = Integrated Child Development Services (Anganwadi Centre Monthly Progress Report/Common Application Software).

✓ = Available; ✗ = Not available

Source: NFHS-4 (2015-16); CNNS (2017-18); ADP Survey Round 2; HMIS reporting format, version 2015; ICDS-AMPR, version December 2012; ICDS-CAS.

DATA AVAILABILITY ON INTERVENTIONS DURING INFANCY AND EARLY CHILDHOOD

Interventions during infancy and early childhood

Interventions for infants and early childcare under POSHAN Abhiyaan are focused on complete immunization, Vitamin A supplementation, IFA supplementation, deworming, growth monitoring, counseling on breastfeeding and complementary feeding, food supplementation, screening and care of undernourished children, and early detection and care of illness (Table 8). Interventions are primarily delivered through the health and ICDS systems at AWCs and beneficiary homes.

1. *Immunization:* Mission Indradhanush was launched in 2014 to strengthen and re-energize the Universal Immunization Programme (UIP) and to achieve full immunization coverage for all children and pregnant women. The Intensified Mission Indradhanush (IMI) was launched in 2017 as a supplemental and aggressive action plan to achieve more than 90 percent coverage in select districts and urban areas where immunization coverage was low.
2. *Micronutrient supplements:* Under the National Prophylaxis Programme against Nutritional Blindness due to Vitamin A Deficiency (NPPNB due to VAD) there is a provision for administering megadoses of Vitamin A. Under Anemia Mukt Bharat, children between 6 and 59 months should receive 1 ml of IFA syrup biweekly, with each ml of syrup containing 20 mg of elemental iron and 100 mcg of folic acid.
3. *Deworming:* Under the National Deworming Day (NDD) Programme, children older than 12 months are expected to receive Albendazole twice a year on a fixed day, at a dosage of 400 mg Albendazole (half tablet) for children between 12 and 24

months and 1 tablet for children between 24 and 59 months.

4. *Counseling on Infant and Young Child Feeding (IYCF):* Frontline workers of health and ICDS programs are required to counsel beneficiaries on optimal IYCF practices, including breastfeeding and complementary feeding, at the AWCs and through home visits.

5. *Food supplementation:* Under the Supplementary Nutrition Programme (SNP) of ICDS, all children between 6 and 59 months are entitled to receive THR through AWCs.

6. *Growth monitoring:* Growth monitoring is one of the key activities conducted under ICDS; it is designed to detect growth faltering and to assess nutritional status. Children younger than three years are expected to be weighed once a month and children who are between three and six years old are expected to be weighed once in three months. If growth faltering is observed, AWWs are expected to refer those children to the medical system and provide them with additional food supplements.

7. *Facility-based management of severely malnourished children:* The MoHFW provides operational guidance for facility-based management of SAM children at Nutrition Rehabilitation Centres (NRCs). NRCs are facility-based units providing medical and nutritional care to SAM children under five years who have medical complications.

8. *Early detection of care and illness:* Under the Intensified Diarrhoea Control Fortnight (IDFC) launched in 2019, zinc is to be used as an adjunct to ORS in the management of diarrhea in children older than two months. The program is being implemented to raise awareness and thus to prevent deaths due to diarrhea.

Summary of data availability on interventions during infancy and early childhood

Most indicators for measuring the coverage of interventions for infant and young children are covered to an extent either in population-based surveys or administrative data systems (Table 8). Coverage data on immunization and micronutrients are embedded in most of the data systems. There are, however, limited options for tracking progress on the coverage of interventions related to counseling on the feeding of infants and young children and the care of severely undernourished children. Some are included in the ICDS–CAS, such as a community-based event called Annaprasan Diwas (first rice-feeding ceremony) and home visits on exclusive breastfeeding and complementary feeding.

Table 8: Potential indicators and data availability on interventions for infants and young children

Interventions	Potential indicators	Population-based surveys			Administrative data	
		NFHS	CNNS	ADP Survey	HMIS	ICDS (AMPR/ CAS)
Full immunization	Percentage of children between 12 and 23 months who received full immunization*	✓	✓	✓	✓	✓
Vitamin A supplementation	Percentage of children between 6 and 59 months who received Vitamin A supplements in the last 6 months	✓	✓	✗	✓	✓
IFA supplementation	Percentage of children between 6 and 59 months who received iron supplements in the last 7 days	✓	✓	✗	✓	✗
Deworming	Percentage of children between 12 and 59 months who received Albendazole or any other deworming drug in the last 6 months	✓	✓	✗	✓	✓

Interventions	Potential indicators	Population-based surveys			Administrative data	
		NFHS	CNNS	ADP Survey	HMIS	ICDS (AMPR/ CAS)
Counseling on complementary feeding**	Percentage of women between 15 and 49 years who received counseling on child dietary diversity in the last 2 years	✗	✗	✗	✗	✓
Food supplementation	Percentage of children between 6 and 35 months who received food supplements in the last 12 months	✓	✓	✓	✗	✓
Growth monitoring	Percentage of children between 0 and 59 months who were ever weighed in the last 12 months	✓	✓	✗	✗	✓
Counseling on nutritional status	Percentage of children between 0 and 59 months whose mothers received counseling	✓	✓	✗	✗	✗
Identification of severely underweight and provision of additional rations	Percentage of children between 0 and 59 months who were identified as malnourished and were given double rations in the last 3 months	✗	✓	✗	✗	✓
Facility-based management of children with severe acute malnutrition	Percentage of children between 0 and 59 months who were referred to a health centre or a nutrition rehabilitation centre after being weighed and identified as malnourished	✗	✗	✗	✓	✓
ORS during diarrhea	Percentage of children between 0 and 59 months who had diarrhea in the last two weeks and received ORS	✓	✓	✓	✗	✓
Zinc (20 mg) for 14 days with ORS in children over 2 months	Percentage of children between 2 and 59 months who received zinc and ORS during diarrhea in the last 2 weeks	✓	✓	✓	✗	✗
Treatment for ARI/ pneumonia	Percentage of children between 0 and 59 months who received advice or treatment for ARI/pneumonia in the last 2 weeks	✓	✓	✗	✓	✓

Note: * = Full immunization includes one dose of BCG vaccine, three doses of OPV, three doses of DTP3 vaccine, and one dose of measles vaccine; ** = Intervention on counseling on complementary feeding is also being tracked as part of Annaprasan Diwas activities, home visits on complementary feeding (ICDS–CAS), and Home-Based Care for Young Children (HCYC). Home visits on exclusive breastfeeding are also tracked through ICDS–CAS; ORS = oral rehydration salts; ARI = acute respiratory infection; NFHS = National Family Health Survey; CNNS = Comprehensive National Nutrition Survey; ADP = Aspirational Districts Programme; HMIS = Health management information system; ICDS (AMPR/CAS) = Integrated Child Development Services (Anganwadi Centre Monthly Progress Report/Common Application Software).

✓ = Available; ✗ = Not available

Source: NFHS-4 (2015-16); CNNS (2017-18); ADP Survey Round 2; HMIS reporting format, version 2015; ICDS-AMPR, version December 2012; ICDS-CAS.

7. Monitoring Progress on Immediate and Underlying Determinants of Malnutrition

To achieve the nutrition outcomes under POSHAN Abhiyaan—overcoming stunting, low birth weight, underweight, wasting, anemia in WRA, childhood overweight, anemia in children, and anemia among adolescents—several immediate and underlying determinants need to be improved.

1. Research shows that the immediate causes of child undernutrition are inadequacies in food, health, and care for infants and young children, especially in the first two years of life. Mothers' and infants' access to nutrition-specific interventions can influence these immediate determinants.
2. Underlying and basic determinants of children's nutritional outcomes at the household and community level include women's status, household food security, hygiene, and socioeconomic conditions. Interventions such as social safety nets, sanitation programs, women's empowerment, and agriculture programs have the potential to improve nutrition by addressing the underlying and basic determinants.

The POSHAN Abhiyaan framework recognizes most of these determinants explicitly and others implicitly.

Immediate determinants of maternal behaviors include consumption of IFA, consumption of 360 calcium tablets, and consumption of any food supplements during pregnancy. Immediate determinants on newborn care include early initiation of breastfeeding, exclusive breastfeeding, continued breastfeeding up to two years, timely initiation of complementary foods, and ensuring minimum dietary diversity. For infant and young childcare, determinants include consumption of food supplementation and consumption of IFA supplementation.

Table 9: Data availability on key behaviors and other immediate determinants

Interventions	Potential indicators	Population-based surveys			Administrative data	
		NFHS	CNNS	ADP Survey	HMIS	ICDS (AMPR/ CAS)
Women's dietary diversity during pregnancy	Minimum dietary diversity–women (MDD–W): proportion of currently pregnant women who consume at least 5 out of the 10 food groups	✗	✗	✗	✗	✗
Consumption of iron and folic acid (IFA) supplements	Percentage of adolescent girls between 15 and 19 years old who consumed IFA supplements in the last one week	✗	✓	✗	✗	✗
	Percentage of women between 15 and 49 years old who consumed IFA for 180 days or more during pregnancy	✓	✓	✗	✗	✓
	Percentage of women between 15 and 49 years old who consumed IFA for 100 days or more during lactation	✗	✗	✗	✗	✗
Consumption of calcium supplements	Percentage of women between 15 and 49 years old who consumed any calcium tablets during pregnancy	✗	✗	✗	✗	✗

Interventions	Potential indicators	Population-based surveys			Administrative data	
		NFHS	CNNS	ADP Survey	HMIS	ICDS (AMPR/ CAS)
	Percentage of women between 15 and 49 years who consumed 360 calcium tablets during pregnancy	✗	✗	✗	✗	✗
	Percentage of women between 15 and 49 years old who consumed any calcium tablets during lactation	✗	✗	✗	✗	✗
	Percentage of women between 15 and 49 years old who consumed 360 calcium tablets during lactation	✗	✗	✗	✗	✗
Consumption of food supplements during pregnancy	Percentage of women between 15 and 49 years old who consumed any food supplements during pregnancy	✗	✗	✓	✗	✗
	Percentage of women between 15 and 49 years old who consumed food supplements for at least 6 months during pregnancy	✗	✗	✓	✗	✗
Consumption of food supplements during lactation	Percentage of women between 15 and 49 years old who consumed any food supplements during lactation	✗	✗	✗	✗	✗
	Percentage of women between 15 and 49 years old who consumed food supplements for at least 4 months during lactation	✗	✗	✗	✗	✗
Early initiation of breastfeeding	Percentage of children between 0 and 23 months old who were breastfed within an hour of birth	✓	✓	✓	✓	✓
Exclusive breastfeeding under six months	Percentage of children between 0 and 5 months old who received only breast milk	✓	✓	✓	✗	✓
Continued breastfeeding at two years	Percentage of children between 20 and 23 months old who are fed breast milk	✓	✓	✓	✗	✗
Timely initiation of complementary feeding	Percentage of infants between 6 and 8 months old who receive solid, semisolid, or soft foods	✓	✗	✗	✗	✓
Minimum dietary diversity	Percentage of children between 6 and 23 months old who receive foods from four or more food groups	✓	✓	✗	✗	✓
Minimum meal frequency	Proportion of breastfed and non-breastfed children between 6 and 23 months old who receive solid, semisolid, or soft foods (also including milk feeds for non-breastfed children) the minimum number of times or more	✓	✓	✗	✗	✓
Minimum acceptable diet	Proportion of children between 6 and 23 months old who receive a minimum acceptable diet apart from breast milk	✓	✗	✗	✗	✓
Consumption of IFA supplements by children	Percentage of children between 6 and 59 months old who consumed at least 4 doses of iron supplements in the last 1 month	✗	✗	✗	✗	✗
Consumption of food supplements	Percentage of children between 6 and 23 months old who consumed ICDS food supplements	✗	✗	✗	✗	✗

Note: NFHS = National Family Health Survey; CNNS = Comprehensive National Nutrition Survey; ADP = Aspirational Districts Programme; HMIS = health management information system; ICDS (AMPR/CAS) = Integrated Child Development Services (Anganwadi Centre Monthly Progress Report/Common Application Software).

✓ = Available; ✗ = Not available

Source: NFHS-4 (2015-16); CNNS (2017-18); ADP Survey Round 2; HMIS reporting format, version 2015; ICDS-AMPR, version December 2012; ICDS-CAS.

Summary of data on immediate determinants of child nutritional outcomes

Data on the immediate determinants of child nutritional outcomes are available from diverse sources, but data on nutrition-related behaviors are notably limited (Table 9). Although administrative data sources like the ICDS–CAS include several behavioral indicators, a note of caution is that the administrative data systems and the survey systems usually compute IYCF indicators in different ways, leading to substantial comparability challenges. Administrative data are also subject to high levels of reporting bias when providers are aware that these intermediate outcomes are being tracked. In addition, some indicators, such as IYCF indicators, need to be computed using multiple survey questions so that they are of high quality, and administrative data does not usually allow for this. Therefore, we recommend that survey data be relied upon to assess trends and progress in critical immediate determinants including nutrition behaviors, dietary patterns, and consumption of supplements.

The underlying determinants of child nutritional outcomes include girl child education, adolescent preparation for becoming an adult, adolescent lifestyle and healthcare, marriage after 18 years of age, childbirth after 20 years of age, sanitation, safe water, toilet use, handwashing, and safe disposal of feces. Issues of poverty and food insecurity are not explicitly mentioned in the framework but are implicit in the recognition of other determinants and of some of the interventions such as food supplementation and cash transfers.

Summary on data on underlying determinants of child nutritional outcomes

Data availability on underlying determinants is better in surveys than in administrative data (Table 10); this is appropriate since survey questionnaires are better suited to capture this data. In addition to the surveys reviewed, additional data on underlying determinants—such as food security, poverty, and gender-related determinants—are available from a range of surveys.

Table 10: Data availability on underlying determinants

Interventions	Potential indicators	Population-based surveys			Administrative data	
		NFHS	CNNS	ADP Survey	HMIS	ICDS (AMPR/ CAS)
Care and education of the girl child	Percentage of women between 15 and 49 years old who completed high school (at least 10 years of schooling)	✓	✓	✓	✗	✗
Adolescent girl care	Indicator not specified**	✗	✓	✗	✓	✗
Right age at marriage	Percentage of women between 20 and 24 years old who were married when they were under 18 years of age	✓	✓	✗	✗	✓
Right age of childbirth	Percentage of women between 15 and 49 years old who had their first baby when they were under 20 years of age	✓	✓	✗	✗	✗
Sanitation	Percentage of households with children between 0 and 23 months old that have toilets (type to be defined)	✓	✓	✗	✗	✓
Safe water	Percentage of households with children between 0 and 23 months old living in households with safe water	✓	✓	✗	✗	✓
Toilet use (mother)	Percentage of households with children between 0 and 23 months old where the mother also used the toilet	✓	✓	✗	✗	✓

Interventions	Potential indicators	Population-based surveys			Administrative data	
		NFHS	CNNS	ADP Survey	HMIS	ICDS (AMPR/ CAS)
Handwashing	Indicator not specified	✓	✓	✗	✗	✓
Safe disposal of feces	Percentage of children between 0 and 23 months old whose stools were safely disposed***	✓	✓	✗	✗	✗
Poverty****	Percentage of households with children between 0 and 23 months old who have a Below Poverty Line (BPL) card	✓	✓	✗	✗	✓
Food insecurity	Percentage of 1,000-day households experiencing food insecurity*+	✗	✓	✗	✗	✗

Note: * = Indicators on girl child education are also monitored in Education department administrative data; ** = Adolescent girl care could include TV viewing habits, alcohol consumption, smoking, physical activity, IFA, multivitamin supplement consumption, and deworming; *** = Research studies do not recommend a survey indicator on practice, only observations or knowledge; **** = There are several schemes listed in the POSHAN Abhiyaan guidelines that could be considered for use in tracking poverty/food insecurity, including the Targeted Public Distribution System (which records the number of beneficiaries covered), the National Rural Livelihood Mission (which records the number of poor families provided with livelihood resources), and the Mahatma Gandhi National Rural Employment Guarantee Scheme (which records the number of unemployed persons who are provided with jobs); *+ = We highly recommend the use of one of several available food insecurity indicators in surveys, such as the Food Insecurity Experience Scale (FIES) questions used by the CNNS which measure different levels of food insecurity; NFHS = National Family Health Survey; CNNS = Comprehensive National Nutrition Survey; ADP = Aspirational Districts Programme; HMIS = Health management information system; ICDS (AMPR/CAS) = Integrated Child Development Services (Anganwadi Centre Monthly Progress Report/Common Application Software).

✓ = Available; ✗ = Not available

Source: NFHS-4 (2015-16); CNNS (2017-18); ADP Survey Round 2; HMIS reporting format, version 2015; ICDS-AMPR, version December 2012; ICDS-CAS.

8. Data Availability on Nutrition Outcomes

POSHAN Abhiyaan aims to have an impact on the following eight nutrition-related outcomes: low birth weight, stunting, underweight, wasting, childhood overweight, and anemia among children, adolescents, and WRA. India is also a signatory to the nutrition-related SDGs; these include targets for reducing overweight and non-communicable diseases, which are the current emerging challenge. Indicators on these need to be tracked as well.

Summary of data availability on nutrition outcomes

Outcome indicators are covered in most surveys (Table 11). The NFHS is a strong data system for tracking progress on all outcome indicators at different levels, with the exception of anemia among adolescents. Interim data collection efforts, including third-party surveys, would be useful for tracking the impact on outcomes in high-burden districts or in sentinel sites that are chosen to represent specific areas of concern or action.

The HMIS captures some data on low birth weight, wasting among children under five years old, and anemia in WRA; the ICDS–AMPR reports on low birth weight and underweight among children under five; the ICDS–CAS dashboard covers many indicators with the exception of childhood overweight and anemia in children and adolescents. The quality of administrative data on outcomes and of the field-level measurement processes that generate the data on outcomes, however, are known to be a substantial challenge; data from administrative systems, even when quality is reasonable, are also only available for the client populations of public services. Furthermore, in situations where the client populations use privately provided care they are not included in the denominators of those served by public health systems.

For these reasons, we recommend that survey data be prioritized to track progress on the outcomes of POSHAN Abhiyaan; survey data could indeed be compared with administrative data, and where administrative data is collected on outcomes a strong emphasis should be placed on improving measurement and data quality and assessing the denominators available.

Table 11: Data availability on nutrition outcomes

Interventions	Potential indicators	Population-based surveys			Administrative data	
		NFHS	CNNS	ADP Survey	HMIS	ICDS (AMPR/ CAS)
Anemia among adolescents	Percentage of adolescents between 15 and 19 years old whose hemoglobin levels are less than 12.0 grams per deciliter (g/dl)	✗	✓	✗	✗	✗
Anemia in women	Percentage of women between 15 and 49 years old with hemoglobin levels below 12.0 g/dl	✓	✓	✓	✓	✓
Anemia in children	Percentage of children between 6 and 59 months old whose hemoglobin levels are less than 11.0 g/dl	✓	✓	✗	✗	✗
Low birth weight	Percentage of infants born with birth weight < 2,500 grams	✓	✓	✓	✓	✓

Interventions	Potential indicators	Population-based surveys			Administrative data	
		NFHS	CNNS	ADP Survey	HMIS	ICDS (AMPR/ CAS)
Stunting among children	Percentage of children between 0 and 59 months old whose height-for-age z-score is more than 2 standard deviations (SD) below the median compared to the WHO Child Growth Standards	✓	✓	✗	✗	✓
Underweight among children	Percentage of children between 0 and 59 months old whose weight-for-age z-score is more than 2 SD below the median compared to the WHO Child Growth Standards	✓	✓	✗	✗	✓
Wasting among children	Percentage of children between 0 and 59 months old whose weight-for-height z-score is more than 2 SD below the median compared to the WHO Child Growth Standards	✓	✓	✗	✓	✓
Childhood overweight	Percentage of children between 0 and 59 months old whose weight-for-height z-score is more than 2 SD above the median of the WHO Child Growth Standards	✓	✓	✗	✗	✗
Overweight/obesity among adults (WHA)/ SDG target)	Age-standardized prevalence of overweight and obesity in persons aged 18 years or older (defined as body mass index ≥ 25 kg/m² for overweight and body mass index ≥ 30 kg/m² for obesity)	✓	✗	✗	✗	✗
High blood pressure among adult (WHA/ SDG target)	Age-standardized prevalence of raised blood pressure among persons aged 18 years or older, which is defined as systolic blood pressure ≥ 140 millimeters of mercury (mmHg) and/or diastolic blood pressure ≥ 90 mmHg) and mean systolic blood pressure	✓	✓	✗	✗	✗
High blood sugar among adults (WHA/ SDG target)	Age-standardized prevalence of raised blood glucose/diabetes among persons aged 18 years or older, which is defined as fasting plasma glucose concentration ≥ 7.0 millimoles per liter (mmol/l) (126 mg/dl) or on medication for raised blood glucose	✓	✓	✗	✗	✗

Note: NFHS = National Family Health Survey; CNNS = Comprehensive National Nutrition Survey; ADP = Aspirational Districts Programme; HMIS = Health management information system; ICDS (AMPR/CAS) = Integrated Child Development Services (Anganwadi Centre Monthly Progress Report/Common Application Software). WHA = World Health Assembly; SDG = Sustainable Development Goals.

✓ = Available; ✗ = Not available

Source: NFHS-4 (2015-16); CNNS (2017-18); ADP Survey Round 2; HMIS reporting format, version 2015; ICDS-AMPR, version December 2012; ICDS-CAS.

9. Aligning Data to Program Theory: An Illustration

The use of data to generate insights for programmatic action is best done when data is linked with the program theory, defined as the sequence of actions that leads from programmatic inputs to impacts; it is important to consider the program theory in developing effective approaches to monitoring and evaluation. Aligning data to program theory along the pathway from program inputs to program impacts can help to identify the most critical faltering points; when such data is aligned with the theory of change and then used in programmatic contexts in order to facilitate discussions and diagnoses of falter points, it can help strengthen insights about which areas to focus on for strengthening program coverage and quality. Table 12 describes the broad elements to be examined along a program theory.

Table 13 illustrates how data from multiple data systems—ICDS–CAS, HMIS, the Jan Andolan dashboard, NFHS, and ADP surveys—can be aligned to one program area: interventions to address anemia during pregnancy. Delivering these two evidence-based interventions—IFA supplements and deworming—requires the use of platforms (ICDS centres, ANC services, VHNDs and other community-based events) through which the intervention commodities (IFA tablets, deworming tablets), diagnostics (testing for anemia) and information on the use of these commodities can be delivered to client populations.

Table 13 also highlights that data on various elements across the program theory—from anemia-related program inputs to anemia-related impacts—are available from different data sources; however, the individual features of each potential indicator along with the program theory, depicted in Annex 2, illustrate examples of the data challenges that were emphasized earlier in this document (data source, temporality). Data on stocks of commodities, for example, are available from HMIS, while data on the opening of AWCs where VHNDs are to be held are available from ICDS–CAS; similarly, data on behavior change events related to anemia is available from the Jan Andolan dashboard, while data on whether women received such information or commodities is available from third-party surveys; data on testing for anemia is available from HMIS and the IDinsight surveys in aspirational districts, but not from any other data source.

Across the board, there are various challenges, including: aligning denominators and geographic boundaries; determining how data should be gathered for reporting to administrative systems; and aligning the temporality of data available from administrative systems with that available from surveys. Regardless of these issues, we believe that gathering data from multiple sources and aligning it with program theory can facilitate important conversations about program falter points and the issues to be addressed; this

Table 12: Description of broad elements along a program theory

Domains along the program theory or impact pathway	Description
Inputs	The structural and supply-side elements that must be in place in order for activities (outputs) to occur; these include commodity supply, infrastructure, human resources, and training of human resources
Outputs	The activities and services conducted by service providers; beneficiary participation
Outcomes	Nutritional behaviors as a result of these activities and services
Impact	Long-term nutrition outcomes

Source: IDinsight 2019.

could also help identify critical indicators that should be included in different data sources. The experience of training administrators in India using data that is aligned to a framework and program theory suggests that this process of alignment is useful in the creation of relevant discussions and in the extraction of insights on national-, state- and district-specific actions (IFPRI 2019).

Table 13: Indicator framework for iron and folic acid supplementation

Inputs	Activities	Outputs	Outcomes	Impact
Infrastructure: Sub Centres, Primary Health Centres, Community Health Centres, District Hospitals	**ANC:** Registration, 4+ ANC	**Administration:** Pregnant women given 180 IFA tablets	**Knowledge:** Pregnant women know IFA consumption	**Anemia:** Pregnant women who are anemic
Infrastructure: AWCs open yesterday	**ANC:** Registration, 4+ ANC	**Counseling:** Pregnant women received anemia and IFA counseling	**Self-efficacy:** Pregnant women can manage side effects	**Anemia:** Pregnant women moderate/ severely anemic (tested cases)
Staff: ASHA posts filled	**ANC:** Registration, 4+ ANC		**Consumption:** Mothers consumed IFA for 100 daya	
Staff: ANM posts filled	**CBEs:** Total, CBEs onw anemia, participation			
Staff: AWW posts filled	**VHSND:** Total			
Supply: Stocks received of IFA	**VHSNDs:** Total VHSNDs on anemia, participation			
Supply: Stocks distributed of IFA	**Home visits:** Pregnancy home visit			
Training: ASHA trained on module 6 and 7	**Anemia camp:** Total, participation			
Training: AWW trained on ILA module 21				
Third party data can fill gaps across				

Note: NFHS = National Family Health Survey; CNNS = Comprehensive National Nutrition Survey; ADP = Aspirational Districts Programme; HMIS = Health management information system; MPR = monthly progress report; ICDS (AMPR/CAS) = Integrated Child Development Services (Anganwadi Centre Monthly Progress Report/Common Application Software); PHC = Primary Health Centre; CHC = Community Health Centre ; DHC; AWC = Anganwadi Centre; ASHA = Accredited Social Health Activist; ANM = auxiliary nurse-midwife; AWW = Anganwadi Worker; IFA = iron and folic acid; ANC = antenatal care; CBE = community-based events; VHSND = Village Health, Sanitation and Nutrition Days; SC = sub-centre.

Source: NFHS-4 (2015-16); ADP Survey by IDinsight; HMIS reporting format, version 2015; ICDS-AMPR, version December 2012; ICDS-CAS; Jan Andolan Dashboard.

= HMIS; = ICDS MPR/ICDS-CAS; = Jan Andolan Dashboard; = NFHS-4; = Data gap (Third party)

10. Recommendations

1. Data prioritization

A set of core indicators at national, state and district levels should be prioritized for monitoring progress, diagnosis, and action.

To track progress towards POSHAN Abhiyaan goals and targets, a set of core indicators across the life cycle should be prioritized for monitoring the progress, diagnosis, and action in both population-based surveys and administrative data systems. These core indicators should be reviewed at national, state, and district levels across the existing review mechanisms. The data review highlights that several possible indicators are available for each intervention and from multiple data sources; it is therefore important to identify core data sources based on the potential data use scenarios, for example, use of population-based survey data sources for evaluation of coverage or reach, or use of administrative data sources for program reviews and refinement.

2. Promote data use

Develop guidance on different types of data sources and their use in order to promote awareness; strengthen capacities of officials to effecetively use data to improve planning and decisionmaking.

There is a need to create a strong culture of data use among officials at all levels in the nutrition space. In order to promote awareness around available data sources and their use, we need to ensure that all data users are aware of the design elements, challenges, and opportunities of each type of data source. We recognize the need to develop and provide guidance on the different types of data sources, what data are needed, and how to effectively use data for progress tracking, strategy development, and program refinement. At the same time, it will be useful to support and incentivize district- and subdistrict-level officials in the integration, analysis, and use of nutrition data from multiple sectors and systems in order to improve planning and decisionmaking. As part of this process, it will be important to strengthen the capacity of staff to perform these activities across the data value chain.

3. Follow the theory of change, program and biological temporality

We recommend that early progress tracking for the nutrition mission should focus on system preparedness and readiness; in the second year, the focus should be on assessing coverage; and only in later years should the focus turn to assessing coverage and changes in determinants and outcomes that are relevant to the program roll-out. Impacts on outcomes such as stunting should only be explored once changes are established in coverage, immediate and underlying determinants.

4. Tracking progress on inputs and intervention coverage

The use of multiple data sources for coverage indicators requires careful reconciliation of findings from survey data and administrative data systems; it is therefore important to ensure interoperability of nutrition data across data systems in order to support better-informed decisionmaking. It is also recommended that data use cases should be developed for survey and administrative data on intervention coverage.

There is a need to identify a narrow set of input and coverage indicators that should be tracked at all levels in order to strengthen program actions. Specific indicators/information and data sources for each of the major POSHAN Abhiyaan inputs need to be prioritized and selected on. Specific indicators/information for each of the major POSHAN Abhiyaan input indicators should be sourced from administrative data systems. There is a need for guidance to be provided on how to reconcile findings and insights when data on similar issues are available from multiple systems. Data use

cases need to be built out and tested in order to help prioritize and sequence the use of data from multiple sources for strengthening programs.

5. Monitoring progress on determinants

> *Use population-based survey data when available, and continue to strengthen data on nutrition behaviors from administrative systems.*

With regard to the use of data from diverse sources, survey data must be included primarily for diagnostic exercises that determine which immediate and underlying determinants, including behaviors, are the major challenge areas for the region. Issues related to underlying determinants must be included at review meetings and amplified during public campaigns. Implementers/sectors addressing underlying determinants must be included in POSHAN Abhiyaan monitoring and in strategic meetings at all levels (national, state, district).

6. Monitoring progress on outcomes

> *Use population-based survey data for progress tracking; strengthen data on nutrition outcomes from administrative systems for program use.*

Population-based household surveys must cover all nutrition target indicators; they should track indicators on emerging nutrition challenges even if they are not currently a key focus of POSHAN Abhiyaan, an example being non-communicable diseases (NCDs). The quality of measurement processes that generate administrative data on impact indicators should be reviewed. Efforts to improve the quality of data available on outcomes in administrative data systems should be supported. Data use scenarios should be identified by building on a good understanding of the current data use culture at different levels.

7. Data stewardship

> *A single data stewardship entity is essential for ensuring coordinated monitoring of progress, strategy refinement, and to support data use for program refinement.*

A single data stewardship entity must provide guidance to all major committees and review platforms. We recommend a strong role for a data stewardship body such as NITI Aayog, with related state-level entities. Monitoring bodies must have the capacity and mandate to analyze, communicate, and create a discourse around the use of data in order to strengthen programs and policies. A core monitoring framework and data use cases must be tested at the district and the state level in order to assess availability and relevance of data, both for tracking progress and supporting decisions.

11. Conclusions

The strong emphasis on data as a key ingredient in supporting India's progress on nutrition is encouraging. At the same time, this comprehensive report lays out numerous issues to consider in supporting the strategic use of data for progress tracking, strategy and program refinements, and around evaluation of India's efforts on nutrition. Each of these uses requires careful choices to be made about indicators, data sources, analysis time frames and more. In addition, our review highlights that current data systems need to be expanded to ensure availability of essential indicators at the national, state, and district level. Where data is available from multiple sources, we highlight the need to address and resolve the variability in indicator definitions, frequency of data collection, and geographic representativeness. Finally, it is essential that data stewardship entities provide guidance for different possible data use scenarios and support further prioritization of core indicators that should be available at all levels.

Tracking India's progress on malnutrition at the national, state and district levels using timely, relevant and high quality data is an achievable goal but it will require key investments at different points along the nutrition data value chain.

Annex 1: Aligning Indicators along a Program Theory of Change

Table 14: Example of interventions to address anemia during pregnancy

Category	Inputs	Interventions	Outcomes	Impact
Pregnancy	**Infrastructure** Indicator 1: Number of sub-centres (SCs)/Public Health Centres (PHCs)/ Community Health Centres (CHCs)/district hospitals (DHs) Source: HMIS Frequency: monthly Indicator 2: Number of AWCs open yesterday Source: ICDS–CAS Frequency: daily **Supply** Indicator 1: Stocks of IFA tablets (adult) received and distributed Source: HMIS Frequency: monthly Indicator 2: Stocks of Albendazole received and distributed Source: HMIS Frequency: monthly **Training on pregnancy** Indicator 1: Number of Anganwadi workers trained in Module 21 (Preparation during pregnancy) Source: Incremental Learning Approach (ILA) Report Frequency: monthly Indicator 2: ASHA training on Module 6 and 7 Source: NA Frequency: NA	**Community-Based Events (CBEs)** Indicator 1: Number of CBEs Source: Jan Andolan dashboard Frequency: monthly Indicator 2: Number of CBEs on antenatal check-up Source: Jan Andolan dashboard Frequency: monthly Indicator 3: Female/male participation in CBEs on antenatal check-up Source: Jan Andolan dashboard Frequency: monthly Indicator 4: Number of CBEs on anemia Source: Jan Andolan dashboard Frequency: monthly Indicator 5: Female/male participation in CBEs on anemia Source: Jan Andolan dashboard Frequency: monthly **Village Health, Sanitation and Nutrition Days (VHSNDs)** Indicator 1: Number of Anganwadi centres/ Urban Primary Health Centres (UPHCs) reported to have conducted Village Health and Nutrition Days (VHNDs)/Urban Health and Nutrition Days (UHNDs)/Outreach/Special Outreach Source: HMIS Frequency: monthly Primary Health Centres (UPHCs) reported to have conducted Village Health and Nutrition Days (VHNDs)/Urban Health and Nutrition Days (UHNDs)/Outreach/Special Outreach Source: HMIS Frequency: monthly Indicator 2: Pregnant women enrolled for Anganwadi services Source: ICDS–CAS Frequency: monthly Indicator 3: Number of VHSNDs on antenatal check-up Source: Jan Andolan dashboard Frequency: monthly Indicator 4: Female/male participation in VHSNDs on antenatal check-up Source: Jan Andolan dashboard Frequency: monthly	**Consumption of iron and folic acid (IFA) tablets** Indicator 1: Mothers who consumed IFA tablets for 100 days or more during pregnancy Source: NFHS Frequency: every few years **Anemia treatment** Indicator 1: Percent of severely anemic pregnant women who were treated against the percent of pregnant women who were shown by tests to be severely anemic Source: ADP Survey by IDinsight Frequency: every six months	**Anemia (moderate/ severe)** Indicator 1: Percent of pregnant women between 15 and 49 years old who are anemic (< 11.0 g/dl) Source: NFHS Frequency: every few years Indicator 2: Number of pregnant women having Hb level < 11.0 g/dl (tested cases) (moderate) Source: HMIS Frequency: monthly Indicator 3: Number of pregnant women having Hb level < 7.0 g/dl (tested cases) (severe) Source: HMIS Frequency: monthly

Category	Inputs	Interventions	Outcomes	Impact
		Indicator 5: Number of VHSNDs on anemia Source: Jan Andolan dashboard Frequency: monthly Indicator 6: Female/male participation in VHSNDs on anemia Source: Jan Andolan dashboard Frequency: monthly **Home Visits** Indicator 1: Number of pregnancy home visits Source: ICDS–CAS Frequency: monthly Indicator 2: Number of home visits Source: Jan Andolan dashboard Frequency: monthly Indicator 3: Number of home visits on anemia Source: Jan Andolan dashboard Frequency: monthly Indicator 4: Female/male participation in home visits on anemia Source: Jan Andolan dashboard Frequency: monthly **Antenatal Care (ANC) Registration** Indicator 1: Total number of pregnant women registered for ANC Source: HMIS Frequency: monthly Indicator 2: Percent of pregnant women registered for ANC against estimated pregnancies Source: ADP Survey by IDinsight Frequency: every 6 months Indicator 3: Out of the total number of women registered for ANC, number registered within first trimester (first 12 weeks of pregnancy) Source: HMIS Frequency: monthly Indicator 4: Percent of women registered for ANC within first trimester against total ANC registrations Source: ADP Survey by IDinsight Frequency: every 6 months **ANC check-ups** Indicator 1: Percent of mothers who had antenatal check-up in the first trimester Source: NFHS Frequency: every few months Indicator 2: Pregnant women who had had at least four ANC visits by the time of delivery Source: ICDS–CAS Frequency: monthly Indicator 3: Number of pregnant women who received four or more ANC check-ups Source: HMIS		
		Indicator 4: Percent of mothers who had at least four antenatal care visits Source: NFHS		

Category	Inputs	Interventions	Outcomes	Impact
		Frequency: every few years Indicator 5: Percent of pregnant women receiving four or more ANC check-ups, against total ANC registrations Source: ADP Survey by IDinsight Frequency: every 6 months		
		IFA administration Indicator 1: Number of pregnant women given 180 iron and folic acid (IFA) tablets Source: HMIS Frequency: monthly **Albendazole administration** Indicator 2: Number of pregnant women given one Albendazole tablet after first trimester Source: HMIS Frequency: monthly **Anemia testing** Indicator 1: Number of pregnant women tested for hemoglobin (Hb) four, or more than four times for respective ANCs against total ANC registration Source: HMIS Frequency: monthly Indicator 2: Percent of pregnant women tested for hemoglobin four, or more than four, times for respective ANCs against total ANC registration Source: ADP Survey by IDinsight Frequency: every 6 months		

Note: ADP = Aspirational Districts Programme; HMIS = Health management information system; ICDS–CAS = Integrated Child Development Services Common Application Software; NA= Not Available; NFHS = National Family Health Survey.

Source: NFHS-4 (2015-16); ADP Survey by IDinsight; HMIS reporting format, version 2015; ICDS-CAS; Jan Andolan Dashboard.

Annex 2: Organizing Framework of Indicators for POSHAN Abhiyaan

IDinsight has led a process for POSHAN Abhiyaan to organize key areas of the Mission under their theories of change and to align the relevant indicators, with their sources, to these theories of changes. The goal is to help government officials use data to diagnose the causes of problems and generate corresponding programmatic actions.

List of Organizing Frameworks

1. Adolescent girls' diet and anemia prevention
2. Right age of marriage and family planning
3. Antenatal care, maternal nutrition and micronutrient supplementation
4. Early initiation of breastfeeding
5. Care of low birth weight and sick neonates
6. Exclusive breastfeeding
7. Diarrhea prevention and management
8. Immunization and Vitamin A supplementation
9. Complementary feeding
10. Children's iron and folic acid supplementation, deworming, and supplementary nutrition
11. Growth monitoring and management of moderate acute malnutrition/severe acute malnutrition (MAM/SAM)
12. Handwashing and toilet usage.

Organization of Frameworks

- Inputs: the financial, human, and material resources used for an intervention
- Activities: actions taken or work performed through which inputs such as funds, technical assistance, and other types of resources are mobilized to produce specific outputs
- Outputs: products, and capital goods and services which result from an intervention
- Outcomes: the likely or achieved short-term and medium-term effects of an intervention's outputs. (OECD n.d.)

Data Sources

- HMIS
- ICDS Monthly Progress Report (MPR), CAS, ILA, Scheme for Adolescent Girls–Rapid Reporting System
- PMMVY
- Jan Andolan dashboard
- Swachh Bharat Mission
- NFHS–4
- Aspirational Districts Programme Survey (third-party surveys).

These 12 areas, identified in the organizing frameworks, contribute to long-term outcomes in the POSHAN Abhiyaan theory of change, including reducing stunting, wasting, underweight, and anemia. Long-term outcomes have not been included separately in each individual framework. The table below presents the theory of change of each area identified and aligns with relevant indicators and data sources in population-based surveys and administrative data sources.

Table 15: Theory of change with relevant indicators and data sources

Inputs	Activities	Outputs	Outcomes
Adolescent girls' diet and anemia prevention			
Infrastructure: Anganwadi centres open yesterday	**Enrollment:** Adolescent girls 11-14 years enrolled for Anganwadi services	**IFA administration:** Out of school adolescent girls (10-19 years) provided four IFA tablets at AWCs	**Consumption:** Adolescent girls consumed four IFA tablets
Staff: Anganwadi worker posts filled	**Community-based events (CBEs):** Total, CBEs for adolescent girls, participation	**IFA administration:** Girls 6th-12th class provided four tablets in school	**Diet:** Minimum dietary diversity of adolescent girls
Supply: Stocks received/ distributed of IFA - Blue (Adolescence 10-19 years)	**Kishori Diwas:** Number of AWC where Kishori Diwas was celebrated this month, participation in two nutrition and health education counseling	**Albendazole administration:** Out of school adolescent girls (10-19 years) provided Albendazole in AWCs	
Supply: Stock received of Albendazole 400 mg tablet	**Village Health Sanitation Nutrition Daye (VHSNDs):** Total	**IFA administration:** Girls 6th-12th class provided Albendazole in school	
Training: Training on ILA module 19 (prevention of anemia in girls and adolescents)		**Counseling:** Adolescent girls received IFA, Albendazole, diet counseling	
Right age of marriage and family planning			
Infrastructure: Sub centres, Primary Health Centres, Community Health Centres, District Hospitals	**Community-based events (CBEs):** Total, CBEs for adolescent girls, participation	**FP Administration:** Combined Oral Pill (COP) cycles distributed	**FP Use:** Non Scalpel Vasectomy (NSV)/Conventional Vasectomy conducted
Staff: ASHA and ANM posts filled	**Kishori Diwas:** Number of AWC where Kishori Diwas was celebrated this month, participation in two nutrition and health education counseling	**FP Administration:** Condom pieces distributed	**FP Use:** Interval Mini-lap (other than post-partum or post abortion) sterilizations conducted
Staff: Anganwadi worker posts filled		**FP Administration:** Centchroman (weekly) pill strips distributed	**FP Use:** Postpartum sterilizations (within seven days of delivery sterilizations conducted)
Supply: stocks received/ distributed of IUD 380A, IUD375A, condoms, oral contraceptive pills, Centchroman weekly pills, injectable contraceptive MPA, tubal rings, pregnancy testing kits (Nischay kits)		**FP Administration:** Pregnancy Test Kits (PTK) used	**FP Use:** Interval IUCD insertions (excluding PPIUCD and PAIUCD)
Training: Training on ILA module 21 (preparation during pregnancy: for newborn care and family planning)		**FP Administration:** Pregnancy Test Kits (PTK) used	**FP Use:** Postpartum (within 48 hours of delivery) IUCD insertions
		FP Counseling: Health worker ever talked to female non-users about family planning	**FP Use:** Injectable contraceptive Antara 1, 2, 3, 4, or more than 4 doses
		Counseling: Adolescent girls received information on right age of marriage and family planning	**Birth spacing:** Length of interval between birth
			Marriage: Percent of women age 20-24 years married before age 18 years

= HMIS; = ICDS MPR/ICDS-CAS; = Jan Andolan Dashboard; = NFHS-4; = Data gap (Third party)

contd...

Table 15 contd.

Inputs	Activities	Outputs	Outcomes
Antenatal care, maternal nutrition, and micronutrient supplementation			
Infrastructure: Sub centres, Primary Health Centres, Community Health Centres, District Hospitals	**Immunization sessions:** Number planned/held	**Counseling:** Women received counseling on immunizations	**Full immunization:** Children 9-11 months fully immunized- Male
Staff: ASHA and ANM posts filled	**Village Health Sanitation Nutrition Days (VHSNDs):** Total		**Full immunization:** Children age 9-11 months fully immunized- Female
Staff: Anganwadi worker posts filled	**PMMVY:** Women received third instalment		**Full immunization:** Children who are fully immunized (at age 1 year)
Supplies: Stocks received/ distributed of DPT, OPV, Measles, Measles Rubella			**Full immunization:** Children age 12-23 months fully immunized
Supply: Stock received/ distributed of Vitamin A			**Vitamin A:** Number of children received Vitamin A dose 1, 5, and 9
Training: Training on module 18 preventing illness to avert malnutrition and death			**Vitamin A:** Children age 9-59 months who received Vitamin A dose in last 6 months
Early initiation of breastfeeding			
Infrastructure: Sub centres, Primary Health Centres, Community Health Centres, District Hospitals	**JSY:** Mother who received financial assistance for JSY	**Counseling and support:** Women received counseling and support for early initiation of breastfeeding	**Practice:** Newborn breastfed within one hour of birth
Staff: ASHA and ANM posts filled	**Facility skilled birth attendance:** Institutional deliveries		**Practice:** Children breastfed at birth
Staff: ANM posts filled	**Facility skilled birth attendance:** Institutional deliveries		**Practice:** Children under three years breastfed within one hour of births
Training: Training on module 20 (birth preparedness) and module 4 and 15 (breastfeeding)	**Facility skilled birth attendance:** Institutional deliveries		
	Home skilled birth attendance: Home deliveries attended by a skilled birth attendant		
	Home skilled birth attendance: Home deliveries attended by a skilled birth attendant		

= HMIS; = ICDS MPR/ICDS-CAS; = Jan Andolan Dashboard; = NFHS-4; = Data gap (Third party)

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Table 15 contd.

Inputs	Activities	Outputs	Outcomes
Low birth weight and care for small and sick neonates			
Staff: ASHA posts filled	**Newborns weighed:** Number of newborns weighed at birth	**Identification of low birth weight:** Number of newborns having weight less than 2.5 kg	**Underweight:** Children under five years underweight
Staff: Anganwadi worker posts filled	**Postpartum care:** Women discharged within 48 hours	**Extra care of low birth weight**	**Underweight:** Children under five years underweight
Training: Training on module 5 and 11 (identification and care of weak newborn babies)	**Postpartum care:** Women receiving first checkup within 48 hours of home delivery	**Newborn care provided:** Monitoring temperature, skin, cord and eye care, measuring weight gain, detecting illness and high risk babies	
Training: Training on Home Based Newborn Care (HBNC)	**Postpartum care:** Mothers received postnatal care within two days of delivery	**Counseling:** Counseling on kangaroo mother care, breastfeeding, hygiene	
	Postpartum care: Postnatal care home visits		
	Newborn care visits: Newborns received 6/7 home based newborn care visits		
	Sick Newborn care: Admissions in Newborn Stabilisation Units (NBSUs) and Special Newborn Care Units (SNCUs)		
	JSSK: Number of sick infants provided free medicines/free diagnostics/free home to facility transport/interfacility transfers/ free drop back home		
Exclusive breastfeeding			
Staff: ASHA posts filled	**Postpartum care:** Women discharged within 48 hours	**Counseling:** Women received counseling and support for early initiation of breastfeeding	**Practice:** Children exclusively breastfed in the month
Staff: Anganwadi worker posts filled	**Postpartum care:** Women receiving first checkup within 48 hours of home delivery		**Practice:** Children under six months exclusively breastfed
Training: Training on module 4, 10, 15 (execlusive breastfeeding and supporting)	**Postpartum care:** Mothers received postnatal care within two days of delivery		
Training: Training on home based newborn care and home based young child care	**Newborn care:** Newborns received six or seven home based newborn care visits		
	Home based young child care: Children visited at age of three months		
	Home visit: Postnatal care and exclusive breastfeeding home visit		
	Community based events (CBEs): Total, CBEs on breastfeeding, participation		
	Village Health Sanitation Nutrition Days (VHSNDs): Total		

= HMIS; = ICDS MPR/ICDS-CAS; = Jan Andolan Dashboard; = NFHS-4; = Data gap (Third party)

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Table 15 contd.

Inputs	Activities	Outputs	Outcomes
Diarrhea prevention and management			
Infrastructure: Sub centres, Primary Health Centres, Community Health Centres, District Hospitals	**Newborn care:** Newborns received six home based newborn care visits after delivery	**Counseling:** Women received counseling on diarrhea management	**Diarrhea:** Childhood diseases diarrhea
Staff: ASHA and ANM posts filled	**Home based young child care:** Children visited at age of 3, 6, 9, 12, and 15 months	**Home based young child care:** Number of young children received ORS packet from ASHA	**Diarrhea treatment:** Diarrhea treated in inpatients
Staff: Anganwadi worker posts filled	**Community based events (CBEs):** Total, CBEs on hygiene, water and sanitation, participation	**ORS treatment:** Children with diarrhea in last two weeks received ORS	
Training: Training on module 18 preventing illness to avert malnutrition and death	**Community based events (CBEs):** Total, CBEs on diarrhea, participation	**ORS treatment:** Children with diarrhea in last two weeks received ORS	
	Village Health Sanitation Nutrition Days (VHSNDs): Total	**Zinc treatment:** Children with diarrhea in last two weeks received zinc	
		Zinc treatment: Children with diarrhea in last two weeks received zinc	
Immunization and Vitamin A supplementation			
Infrastructure: Sub centres, Primary Health Centres, Community Health Centres, District Hospitals	**Immunization session:** Number planned/held	**Counseling:** Women received counseling on immunization	**Full immunization:** Children 9-11 months fully immunized- Male
Staff: ASHA and ANM posts filled	**Village Health Sanitation Nutrition Days (VHSNDs):** Total		**Full immunization:** Children 9-11 months fully immunized- Female
Staff: Anganwadi worker posts filled			**Full immunization:** Children who are fully immunized (at age one year)
Supplies: Stocks received/ distributed of DPT, OPV, Measles, Measles Rubella			**Full immunization:** Children 12-23 months fully immunized
Supplies: Stocks received/ distributed of Vitamin A			**Vitamin A:** Number of children received Vitamin A Dose 1, 5, and 9
Training: Training on Module 18 preventing illness to avert malnutrition and death			**Vitamin A:** Children 9-59 months who received Vitamin A dose in last six months

= HMIS; = ICDS MPR/ICDS-CAS; = Jan Andolan Dashboard; = NFHS-4; = Data gap (Third party)

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Table 15 contd.

Inputs	Activities	Outputs	Outcomes
Supporting complementary feeding			
Staff: ASHA posts filled	**Home based young chlld care:** Children visited at age of 3, 6, 9, 12, and 15 months	**Counseling:** Women received counseling on complementary feeding	**Initiation of complementary feeding:** Children 6-8 months old initiated complementary feeding
Staff: Anganwadi worker posts filled	**Home visits:** Complementary feeding home visits		**Complementary feeding:** Children 6-24 months old given complementary feeding
Training: Training on module 3 (organizing CBEs), module 6 and 13 (complementary feeding)	**Community based events (CBEs):** Total, number of Annaprasan Diwas, participation		**Four food groups:** Children 6-24 months old consuming at least four food groups
Training: Training on home based young child care	**Community based events (CBEs):** Total, number of CBEs on CF, participation		**Adequate food:** Children 6-24 months old consuming adequate quantity of food at last visit
	Vliiage Health Sanitation Nutrition Days (VHSNDs): Total		**Complementary feeding:** Children 6-8 months receiving solid or semi-solid food and breastmilk
Children IFA, deworming, and supplementary nutrition			
Infrastructure: Sub centres, Primary Health Centres, Community Health Centres, District Hospitals	**Home Based Young Child Care:** Children visited at age of 3, 6, 9, 12, and 15 months	**IFA provision:** Number of children received IFA syrup from ASHA	**IFA consumption:** Number of children (6-59 months) provided 8-10 doses (1 ml) of IFA syrup
Infrastructure: Anganwadi centres open yesterday	**National Deworming Day**	**THR distribution:** Children 6-36 months received supplementary nutrition for 21 or more days	**Albendazole consumption:** Number of children (12-59 months) provided Albendazole
Staff: ASHA and ANM posts filled	**Enrollment:** Number of children 0-6 years old enrolled for Anganwadi services	**Supplementary nutrition distribution:** Children 36-71 months received supplementary nutrition for 21 or more days	**Consumption of take home rations:** Children 6-36 months consumed take home rations
Staff: Anganwadi worker posts filled	**Enrollment:** Anganwadis providing supplementary nutrition to children 0-3 years		
Supply: Stocks received/ distributed of IFA syrup	**Enrollment:** Anganwadis providing supplementary nutrition to children 3-6 years		
Supply: Stocks received/ distributed of Albendazole	**Supplementary Nutrition provision:** Number of days morning snacks/breakfast, hot cooked meals, and take home rations provided at AWC		
Supply: Supplementary food receipt/utilisation			
Training: Training on ILA module 19 (prevention of anemia)			
Training: Training on home based young child care			

= HMIS; = ICDS MPR/ICDS-CAS; = Jan Andolan Dashboard; = NFHS-4; = Data gap (Third party)

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Table 15 contd.

Inputs	Activities	Outputs	Outcomes
Growth monitoring and MAM/SAM management			
Infrastructure: Sub centres, Primary Health Centres, Community Health Centres, District Hospitals	**VIiiage Health Sanitation Nutrition Days:** Total	**Care and counseling:** Women and children received care and counseling on management of MAM/SAM	**Severe Acute Malnutrition:** Children severely wasted
Infrastructure: Anganwadi centres open yesterday	**Growth Monitoring:** Total activities under theme of growth monitoring		**Severe Acute Malnutrition:** Children severely wasted (out of children eligible to be measured)
Staff: ASHA and ANM posts filled	**Home based young child care:** Children visited at age of 3, 6, 9, 12, and 15 months		**Severe Acute Malnutrition:** Children severely wasted
Staff: Anganwadi worker posts filled	**Home visits:** Recently delivered, postnatal, exclusive breastfeeding or complementary feeding home visits		**Nutrition Rehabilitation Centre:** Children discharged with target weight gain
Supplies: Anganwadi centres with infant weighing scales and mother and child weighing scales	**Weighing efficiency:** Children weighed of total children eligible to be weighed (0-5 years old)		
Supplies: Anganwadi centres with growth charts	**Referrals:** Children referred out of cases of severely underweight		
Training: Training on ILA module 8 and 13 (Growth monitoring and SAM)	**Admittance:** Children reached facility		
	NRC Admittance: Children admitted to the nutrition rehabilitation centre		
Handwashing and toilet usage			
Staff: ASHA and ANM posts filled	**Newborn care:** Newborns received 6 home based newborn care visits after institutional delivery	**Counseling:** Women received counseling on handwashing	**Handwashing:** Children (6-24 months) whose mothers washed their hands prior to feeding during last visit
Staff: AWW posts filled	**Home based young child care:** Children visited at age of 3, 6, 9, 12, and 15 months	**Counseling:** Women receive counseling on toilet usage	**Open defecation:** Total number of open defecation free villages
Infrastructure: Individual Household Latrines (IHHL)	**Community based events (CBEs):** Total, CBEs on hygiene, water and sanitation, participation		**Toilet usage:** Households using improved sanitation facility
Staff: Swachchagrahi posts filled	**Community Led Total Sanitation (CLTS) triggering**		**Diarrhea:** Childhood diseases diarrhea
	Swachchagrahi home visits		

Note: NFHS = National Family Health Survey; CNNS = Comprehensive National Nutrition Survey; ADP = Aspirational Districts Programme; HMIS = Health management information system; MPR = monthly progress report; ICDS (AMPR/CAS) = Integrated Child Development Services (Anganwadi Centre Monthly Progress Report/Common Application Software); PHC = Primary Health Centre; CBE = Community-based events ; CHC = Community Health Centre ; DHC; AWC = Anganwadi Centre; ASHA = Accredited Social Health Activist; ANM = auxiliary nurse-midwife; AWW = Anganwadi Worker; IFA = iron and folic acid; ANC = antenatal care; ILA = Incremental Learning Approach ; IUCD = Intrauterine Contraceptive Device ; CBE = community-based events; VHSND = Village Health, Sanitation and Nutrition Days; SC = sub-centre ; DPT = Diphtheria, Pertussis and Tetanus Toxoids ; OPV = Oral Polio Vaccine ; JSY = Janani Suraksha Yojana ; LBW = Low birth weight ; MAM = Moderate Acute Malnutrition ; SAM = Severe Acute Malnutrition.

Source: NFHS-4 (2015-16); ADP Survey by IDinsight; HMIS reporting format, version 2015; ICDS-AMPR, version December 2012; ICDS-CAS; Jan Andolan Dashboard.

= HMIS; = ICDS MPR/ICDS-CAS; = Jan Andolan Dashboard; = NFHS-4; = Data gap (Third party); = SBM Dashboard

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