Save the Children

PUBLIC EXPENDITURE REVIEW FOR NUTRITION IN JHARKHAND

CBGA

Project Conceptualisation and Editing

Asadullah (CBGA), Dr. Antaryami Dash (Save the Children),
Pranab Kumar Chanda (Save the Children), Subrat Das (CBGA)

Authors:

Rahat Tasneem (CBGA), Mampi Bose (CBGA)

Research Inputs

Ajay Pal Singh, Happy Pant, Nilachala Acharya, Shruti Ambast, Shweta Tiwary (CBGA),
Dr. Atefh Ali, Dr. Sharmistha Das, Sonal Rai, Soumi Halder (Save the Children)

For more information about the study, please contact: info@cbgaindia.org

Cover Photo Credit

David Lofman

Designed by

Common Sans, 1729, Sector 31, Gurgaon, Haryana

Published by

Centre for Budget and Governance Accountability (CBGA)

B-7 Extn./110A (Ground Floor), Harsukh Marg, Safdarjung Enclave,
New Delhi-110029
Phone: +91-11-49200400/ 401/ 402
Email: info@cbgaindia.org
Website: www.cbgaindia.org

AND

Save the Children

Bal Raksha Bharat, 1st & 2nd Floor, Plot No. 91, Sector - 44
Gurgaon (Haryana) - 122003, India
Phone: +91 124 4752000, 4752100

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Abbreviations

AB-PMJAY	Ayushman Bharat-Pradhan Mantri Jan Aarogya Yojana
AJJPY	Adim Jan Jati Pension Yojana
AMRUT	Atal Mission for Rejuvenation & Urban Transformation
ANC	Ante-natal Care
ANM	Auxiliary Nurse Midwife
ARR	Annual Rate of Reduction
ASHA	Accredited Social Health Activist
AWC	Anganwadi Centre
AWW	Anganwadi Workers
AY	Annapurna Yojana
AYUSH	Ayurvedic, Yoga and Naturopathy, Unani, Siddha and Homeopathy
AAY	Antyodaya Anna Yojana
BCC	Behavior Change Communication
BMI	Body Mass Index
CAF&PD	Consumer Affairs, Food & Public Distribution
CBGA	Centre for Budget and Governance Accountability
CDPO	Child Development Project Officer
CFQC&TI	Central Fertilizer Quality Control and Training Institute
CMAM	Community Management of Acute Malnutrition
CMTC	Community Managed Training Center
CNNS	Comprehensive National Nutrition Survey
CSO	Civil Society Organization
CSS	Centrally Sponsored Scheme
DAY	Deendayal Antayodaya Yojana
DBT	Direct Bank Transfer
DDG	Detail Demands for Grants
DNI	Direct Nutrition Interventions
DPR	Detail Project Report
DW&S	Drinking Water & Sanitation
EBB	Educationally Backward Block
EmOC	Emergency Obstetric Care
FCI	Food Corporation of India
FPS	Fair Price Shop
FMR	Fianancial Management Report
FY	Financial Year

GoJ	Government of Jharkhand
HBNC	Home Based Newborn Care
HBYC	Home Based Young Care
HCM	Hot Cooked Meal
HH	Household
HSS	Health Systems Strengthening
HVA	High Value Agriculture
ICDS	Integrated Child Development Services
IEC	Information Education and Communication
IFA	Iron Folic Acid
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
IGMSY	Indira Gandhi Matritva Sahyog Yojana
IGNDPS	Indira Gandhi National Disability Pension Scheme
IGNOAPS	Indira Gandhi National Old Age Pension Scheme
IGNWPS	Indira Gandhi National Widow Pension Scheme
IMNCI	Integrated Management of Newborn and Childhood Illness
ITN	Insecticide Treated Nets
IUCD	Intrauterine Contraceptive Device
IYCF	Infant and Young Child Feeding
JHIMDI	Jharkhand Horticulture Intensification by Micro Drip Irrigation
JSNM	Jharkhand State Nutrition Mission
JOHAR	Jharkhand Opportunities for Harnessing Rural Growth
JSLPS	Jharkhand State Livelihood Promotion Society
JSSK	Janani Shishu Suraksha Karyakaram
JSY	Janani Suraksha Yojana
JTELP	Jharkhand Tribal Empowerment & Livelihoods Project
KGBV	Kasturba Gandhi Balika Vidyalaya
LLIN	Long Lasting Impregnated Bednets
LPCD	Litres per Capita per Day
MAA	Mother's Absolute Affection
MDM	Mid-Day Meal
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
MIDH	Mission for Integrated Development of Horticulture
MO	Medical Officer
MoH&FW	Ministry of Health and Family Welfare
MoRD	Ministry of Rural Development
MOVCDNER	Mission Organic Value Chain Development in North Eastern Region

MoWCD	Ministry of Women and Child Development
MPI	Multidimensional Poverty Index
MSF	Medecins Sans Frontieres
NBA	Nirmal Bharat Abhiyan
NCD	Non-Communicable Disease
NCOF	National Centre of Organic Farming
NFBS	National Family Benefit Scheme
NFDB	National Fisheries Development Board
NFHS	National Family Health Survey
NFSM	National Food Security Mission
NGCP	National Goiter Control Programme
NHM	National Health Mission
NIPI	National Iron Plus Initiative
NLUM	National Urban Livelihood Mission
NMOOP	National Mission on Oilseeds and Oil Palm
NMSA	National Mission for Sustainable Agriculture
NNM	National Nutrition Mission
NRAA	National Rainfed Area Authority
NRC	Nutrition Rehabilitation Center
NRDWP	National Rural Drinking Water Programme
NRLM	National Rural Livelihood Mission
NSAP	National Social Assistance Programme
NSI	Nutrition Sensitive Interventions
NSSK	Navjat Shishu Suraksha Karyakram
NTFP	Nontimber Forest Produce
NVBDCP	National Vector Borne Disease Control Programme
OBC	Other Backward Class
ODA	Official Development Assistance
OPD	Outpatient Department
ORS	Oral Rehydration Solution
P&L	Pregnant and Lactating
PDS	Public Distribution System
PER	Public Expenditure Review
PHH	Priority Household
PHS	Priority Household Scheme
PKVY	Paramparagat Krishi Vikas Yojana
PMAY	Pradhan Mantri Aawas Yojana
PMMVY	Pradhan Mantri Matru Vandana Yojana

PRI	Panchayati Raj Institutions
PVTG	Particularly Vulnerable Tribal Group
RAD	Rainfed Area Development
RKSK	Rashtriya Kishore Swasthya Karyakram
RKVY	Rashtriya Krishi Vikas Yojana
RMNCH+A	Reproductive, Maternal, Newborn Child plus Adolescent Health
RMSA	Rashtriya Madhyamik Sikhsha Abhiyaan
RoP	Record of Proceeding
SAC	Social Action Committee
SAG	Scheme for Adolescent Girls
SAM	Severe Acute Malnutrition
SBA	Swachh Bharat Abhiyan
SBA	Skilled Birth Attendance
SBM-G	Swachh Bharat Mission-Gramin
SC	Scheduled Caste
SCA	Special Central Assistance
SHG	Self Help Group
SLUSI	Soil and Land Use Survey of India
SMAF	Sub Mission on Agro Forestry
SNP	Supplementary Nutrition Programme
SPIP	State Programme Implementation Plan
SSA	Sarva Siksha Abhiyaan
ST	Scheduled Tribe
STD	Sexually Transmitted Diseases
SUN	Scaling Up Nutrition
THR	Take Home Ration
TSP	Tribal Sub Plan
UNICEF	United Nations International Children's Emergency Fund
VHND	Village Health Nutrition Day
VHSC	Village Health and Sanitation Committee
VO	Village Organisation
WASH	Water and Sanitation
WHO	World Health Organization
WIFS	Weekly Iron and Folic Acid Supplementation
ODF	Open Defecation Free
IHHL	Individual Household Latrine

Executive Summary

Rationale and Objective of the study

Current efforts for nutrition fail to yield desired results, as they often do not take into account local socio-cultural and economic context, and social protection aspects. To this end, the present study is undertaken to understand undernutrition, interventions, and budget in the context of Jharkhand to contextualize the interventions to the local needs.

a. To review and outline the steps/actions that Government of Jharkhand has taken to achieve the Nutrition Mission's objectives.

b. To analyse and comment on budget allocation, release, and expenditure on Nutrition Specific and Sensitive programmes at the state level for the last five financial years and analyse resource adequacy at the state level.

c. Recommending way forward.

Analytical Framework and Methodology

Data for Jharkhand's performance with respect to key nutrition indicators and interventions have been compiled from National Family Health Survey (NFHS), and the recently published Comprehensive National Nutrition Survey (CNNS), 2019. Gaps in Jharkhand's progress have been assessed against National Nutrition Mission targets and global targets set by WHO-UNICEF by taking the projected prevalence of undernutrition and by measuring the actual annual rate of reduction (ARR).

To understand the drivers of undernutrition in Jharkhand, UNICEF's conceptual framework of the determinants of child undernutrition was adopted that classifies the determinants as immediate, underlying, and basic. Based on this, interventions are classified Direct Nutrition Interventions (DNIs) and Nutrition Sensitive Interventions (NSIs). Adopting the categorization framework provided by Menon et al. (IFPRI, 2016), DNIs are categorized into five broad categories. NSIs are mapped across six sectors presented by Acharya et al. (2017). To this, women empowerment is also included for the purpose of this study.

Using the method of secondary research, DNIs and NSIs at national and state level have been enlisted by reviewing the Detail Demand for Grants (DDG) of different departments, State Programme Implementation Plan (SPIP) for NHM, action plan and economic survey of the State, scheme guidelines and other information available on department websites.

Budgetary data pertaining to allocation and expenditure has been collected from the DDGs of different departments and Record of Proceedings (RoPs) for NHM components to determine the trend in budget expenditure on DNIs and NSIs. The adequacy of the budget for ICDS-SNP has been assessed against the government's prevailing unit cost norms and the intended coverage. The utilisation of fund has been studied for ICDS-SNP, Scheme for Adolescent Girls (SAG), and Pradhan Mantri Matru Vandana Yojana (PMMVY) using data from DDGs, district treasury and district level perception survey, and for Janani Suraksha Yojana (JSY) and Iron Folic Acid (IFA) for children using data from the financial management report for NHM.

Findings

Jharkhand has the highest rate for wasting and underweight, and the third highest rate of stunting in India, as well as a very high prevalence of anemia. However, the prevalence of exclusive breastfeeding is well above the national average. The prevalence of undernutrition is higher in rural areas specially for stunting, underweight, and anaemia in both children and women. While stunting is highest among Scheduled Castes, the prevalence of wasting, underweight, and anaemia is highest among Scheduled Tribes. West Singhbhum district shows the highest prevalence of stunting, underweight, and anemia in children, third highest rate of anemia in women, and fourth highest prevalence of wasting. Palamu is one of the top five performers across all indicators except stunting.

Immediate drivers of undernutrition in Jharkhand include: inadequate diet; declining rate of complementary feeding; low body mass index (BMI) among women, and high prevalence of Vitamin A deficiency. Underlying drivers of undernutrition in Jharkhand driven by social structures such as gender discrimination, or economic conditions such as poverty and economic development include early marriage and pregnancy; low education among women; and high rate of open defecation. These underlying determinants are also more prevalent in the rural areas.

Jharkhand has been making concentrated efforts against undernutrition. The State launched its own nutrition mission in 2015 and stands at the 9th place out of the 19 large States for implementation of National Nutrition Mission (NNM). The State is delivering the 21 identified DNIs through 16 schemes under umbrella ICDS and NHM programme. Jharkhand is also making serious efforts towards changing underlying causes of undernutrition through 27 State schemes implemented by nine State departments apart from the 16 central schemes implemented by nine Union ministries.

These efforts are reflected in the improved intervention coverage for nutrition over the decade, 2006-16. However, while supplementary nutrition for both children and P&L women is better than the national average, Ante-natal Care (ANC), IFA consumption among women and children, institutional delivery, skilled birth attendant, birth registration, vitamin A supplementation, deworming and zinc treatment among children remains lower than the national average. Micronutrient supplementation like IFA consumption, therapeutic zinc etc. has less than 20 per cent coverage. Antenatal care related interventions and other interventions such as institutional delivery, skilled birth attendant, and birth registration that requires public health infrastructure are better in urban areas as well as for other backward classes (OBCs) while intervention provided through anganwadis and Accredited Social Health Activist (ASHA) workers such as supplementary food, and information, micronutrients supplements are doing better in rural areas, Scheduled Tribes being most benefited under these interventions.

Both WCD and Health budget received priority during 14th FC period as budget for both the departments increased at higher rates than total state budget in Jharkhand. Expenditure on schemes like NHM and ICDS also increased. However, despite an increase in ICDS budget since 2014-15, the share of ICDS in total outlay for WCD dropped. Total budget for DNIs declined during first two years of 14th FC period and started increasing after that. However, it hovered around 1 per cent of total state budget during the entire period under consideration. The State of Jharkhand was lagging behind Bihar, Chhattisgarh, Odisha and Uttar Pradesh in terms of share of DNI budget in total state budget. The highest share of DNI budget was spent on supplementary feeding during this period, followed by cash transfer programme, micronutrient supplementation and deworming, SAM treatment, and Behaviour Change and Communication. Several departments like Agriculture and Allied activities, Education, Health, Water and Sanitation, Rural Development, and Women and Child Development have spent on nutrition sensitive programmes. Jharkhand provide social assistance and protection through its State funded mirror image pension

schemes, State Social Security Pension Scheme, which provides pension to old people, widows, people with AIDs/HIV and most importantly to primitive tribal. However, the resource allocation is not adequate to deliver nutrition intervention at scale and deserves further attention.

The state of fund utilisation varies significantly across schemes in Jharkhand. Utilisation of funds under direct nutrition intervention components needs to be improved since utilisation under ICDS-SNP and PMMVY is below eighty per cent in the State and the same under SAG has been declining consistently for quite some time now. As a result of this poor fund absorption capacity, there was decline in budgetary allocation in successive years. Also, there exists lack of transparency in budget data.

West Singhbhum features among bottom three districts in terms of nutrition interventions in Jharkhand. Expenditure pattern of the district on important DNI components requires serious attention. There are a number of issues to be dealt with in order to ensure optimal utilisation of funds and effective implementation of the programmes on the ground. These are: delay in fund flow, centralised procurement, rigid scheme guidelines, staff shortages and capacity issues.

Recommendations

For effective implementation of nutrition interventions and fund ultilisation therein, following measures are required:

- More focus on the public health infrastructure in the rural and tribal dominated areas.
- Increased budget allocation for DNIs such as Supplementary Nutrition Programme, and IFA and Calcium supplementation for pregnant and lactating women.
- Decentralised planning and budgeting.
- Revision of unit costs and flexibility in utilization of budget.
- Decentralised procurement under ICDS for SNP.
- Monitoring of convergence through co-coverage data.
- Local recruitment of staff for NHM and new medical colleges as a long-term measure.
- Incremental learning approach training and training to data operators on scheme guidelines and to other departments on their roles towards nutrition.
- Adoption of better practices from other States like Uttarakhand's initiative to adopt SAM child, Odisha's Newlywed couples' meeting etc.

In addition, the unexpected global pandemic COVID-19 has necessitated even more focus on nutrition requiring more budget and need based planning.

1

PREVALENCE AND DRIVERS OF UNDERNUTRITION

1.1 Introduction

India, despite considerable economic progress over the last two decades as well as progress towards better nutrition outcomes in the last decade still carries the burden of malnutrition. The progress towards nutrition is also highly variable across the Indian states as well as within states, possibly due to variation in the determinants as well as interventions targeted at nutrition. Global Nutrition Report- 2018 identifies stunting and anaemia as two major forms of malnutrition in India among others. The report further states that the country is off course to meet any of the global nutrition targets.

India experiences malnutrition in its under-five population that is inter-generational, and hence requires life cycle approach with a continuum of care that covers adolescent girls, pregnant and lactating (P&L) mothers, and children from 0-6 years of age.[1] Realizing the extent of undernutrition and its significance in public health, India launched National Nutrition Mission (NNM) commencing in 2017-18 laying down ambitious targets to be reached by 2022. The mission converges the nutrition related interventions across the ministries i.e. Integrated Child Development Services (ICDS), Pradhan Mantri Matru Vandana Yojana (PMMVY), Scheme for Adolescent Girls (SAG) of Ministry of Women and Child Development (MoWCD); Janani Suraksha Yojana (JSY), National Health Mission (NHM) of Ministry of Health and Family Welfare (MoH&FW); Swachh Bharat Mission (SBM) of Ministry of Drinking Water & Sanitation (DW&S); Public Distribution System (PDS) of Ministry of Consumer Affairs, Food & Public Distribution (CAF&PD); Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) of Ministry of Rural Development (MoRD); Drinking Water & Toilets with Ministry of Panchayati Raj and Urban Local Bodies through Ministry of Urban Development.[2]

Jharkhand, the State under study as presented in Section 1.4.1. has made significant improvement across all indicators of nutrition, performing even better than the national average in case of exclusive breastfeeding. The present chapter includes conceptual framework and methodology adopted for the study, socio-demographic landscape of Jharkhand, major nutritional outcomes and gaps therein, as well as drivers of undernutrition in the State. Chapter two of the report discusses the State's policy framework on nutrition, and nutrition interventions and delivery platforms. Chapter three presents an analysis of the budget, and resource adequacy. Chapter four presents utilization of the funds and issues therein.

1.2 Socio-Demographic and Economic Landscape of Jharkhand

Situated in the Eastern region of India, Jharkhand was carved out of Bihar in the year 2000. It is the 15th largest State in India with a geographical area of 79,714 sq. kms. across 24 districts, subdivided into 260 blocks and 32,620 villages. It is the 13th largest State in terms of population with a population size of 32.9 million and a population growth rate of 22.42 per cent over the last decade which is much higher than the national population growth rate of 1.64. Male population is 51.32 per cent while female population is 48.68 per cent.[3] Both sex ratio and child sex ratio are 948 in Jharkhand which is higher than that of India (sex ratio of 943 and child sex ratio of 919). Jharkhand has a literacy rate of 66.41 (Male: 76.84; Female: 55.42) against the national average of 74.04 (Male: 82.14; Female: 65.46).[4]

[1] Development Initiative, 2018; MoWCD, 2018
[2] MoWCD, 2018
[3] DevInfo, 2011
[4] Know India, n.d.

1.2.1 Urban and Rural Demography

Jharkhand is largely a rural state with 75.95 per cent of its population living in rural areas, and only 24.05 per cent living in urban areas. The rural population includes 12.77 million males, and 12.27 million females. Out of these, children below six years of age include 4.36 million. The rural sex ratio and the rural child sex ratio is 961 and 957 respectively. The literacy rate in rural areas is 61.11 (Male: 72.86; Female: 48.91).[5]

Major cities of Jharkhand are Dhanbad, Ranchi, Jamshedpur, Bokaro Steel, Deogarh, Adityapur, Hazaribagh etc. while Giridih, Palamu, West Singhbhum, and Hazaribagh are rural dominated districts. Although Ranchi is one of the major cities, the district also has a high percentage of rural population. The percentage of rural population to that of its total population is 56.8 in Ranchi district and it has one of the highest population of rural and tribal people in numbers. The urban population is made up of 4.15 million males and 3.77 million females, out of which 1.02 million are children below the age of six. The urban Jharkhand has a sex ratio of 910 and child sex ratio of 908. The urban literacy rate is 82.26 per cent (Male: 88.44; Female: 75.47).[6]

1.2.2 Tribal Demography[7]

Jharkhand has a tribal population of 8.64 million people that form 26.21 per cent of the total population, divided into 32 tribal groups. Gumla, Lohardaga, West Singhbhum, Ranchi, and Pakur are some of the tribal dominated areas. The literacy rate for Scheduled Tribes (STs) in Jharkhand is 57.1 (Male:68.2; Female:46.2). Tribal sex ratio is 990 (Rural: 991; Urban: 980).

1.2.3 Incidence of Poverty

Poverty is the basic cause driving the underlying and immediate causes of undernutrition. Rajpal et al. calls poverty as the 'strongest marker' of nutrition deprivation showing that the population in lowest quintile not only suffer from higher burden of undernutrition but also sees slow improvement.[8] As per NFHS-4 (2015-16) India report, 46.1 per cent of Jharkhand's population is in the lowest quintile. Jharkhand is one of the low-income States in India with 36.96 per cent of its population classified to be living below the poverty line (based on MRP consumption), against the national average of 21.92 per cent in 2011-2012. Looking

75.95 %

population live in rural areas; Giridih, Palamu, West Singhbhum, and Hazaribagh being rural dominated districts

26.21 %

tribal population concentrated in Gumla, Lohardaga, West Singhbhum, Ranchi, and Pakur

Jharkhand shows higher incidence of poverty in southern and eastern districts- West Singhbhum, Pakur, Dumka etc.

[5] Census 2011, n.d.
[6] Ibid.
[7] Ministry of Tribal Affairs, Government of India, 2014
[8] Rajpal et al., 2020

deeper, there is a wide range of inter-regional and inter district disparity in the incidence of poverty. Percentage of population below the poverty line in rural Jharkhand is 40.84 while that in urban Jharkhand is lower at 24.83 per cent.[9] Population below the poverty line is much higher in the southern and eastern districts of the State, such as West Singhbhum in south, and Sahibganj, Pakur, and Dumka in the east. The population below the poverty line in these districts ranges between 47-79 per cent.[10]

In terms of multi-dimensional poverty index (MPI) that goes beyond the traditional income/consumption measure of poverty to include different dimensions of poverty such as deprivation in health, education, and living standard etc., the State is doing even worse with 46 per cent of its population multi-dimensionally poor in 2015-16. Multi- dimensional poverty is also higher in the above mentioned districts with more than 56 per cent of population in West Singhbhum, Sahibganj, and Pakur being multi-dimensionally poor. The incidence of multi-dimensional poverty is highest in Pakur at 66 per cent while it is lowest in East Singhbhum at 25 per cent.[11] 19 out of 24 districts in the State are aspirational districts, reflecting relatively lesser social progress and overall development.

1.3 Rationale and Objectives of the Study

Rationale:

There is a high burden of undernutrition in India, and current efforts are not yielding desired improvements, one of the reasons being that they do not take into account local socio-cultural and economic context, and social protection aspects. To overcome this, there is a felt need to contextualize the interventions to local/family needs. Therefore, the rationale of this study is to develop an understanding of context of undernutrition in Jharkhand in terms of prevalence, gaps, interventions and gaps therein, budgetary allocation, utilisations and gaps therein to inform Save the Children's program for addressing these gaps with a potential to scale-up of the identified interventions at state and national level.

Objectives:

The study has following objectives:

a. To review and outline the steps/actions that Government of Jharkhand has taken to achieve the Nutrition Mission's aspiration (Nutrition Specific and Sensitive programme mapping and analysis in the State context).

b. To analyse budget outlays and expenditure-

- Analysis of Nutrition Specific and Sensitive programme outlays at the state level for the last five financial years.
- Analysis of fund allocation, release and utilisation at the state level.
- Analysis and comment on resource adequacy at the state level taking into account existing unit costs and targeted number of beneficiaries.

[9] Planning Commission, Government of India, 2013
[10] World Bank Group, 2016
[11] Centre for Fiscal Studies and Planning-cum-Finance Department, Government of Jharkhand, 2019

c. Technical inputs in designing tools, analysing and drafting a few section of report related to the Output Analysis in West Singhbhum.

d. Recommending the way forward.

- The gap in the fiscal provisioning, programme design and implementation.
- Estimating the achievement – with current progress vs aspirations.
- Resource Availability - Fiscal Space Analysis for nutrition-specific and nutrition-sensitive programmes (recommending the way forward).
- Programming way forward.

1.4 Conceptual Framework and Methodology

The analytical framework and methodology for the public expenditure review for nutrition in Jharkhand is presented in this section with reference to three of the four key objectives of the project. The third objective is not included in this report as it will be addressed through an additional exercise.

a. Setting the Context: Jharkhand's Performance in Improving Key Nutrition Indicators

Data on Jharkhand's performance with respect to key nutrition indicators have been compiled from the last two rounds of National Family Health Survey (NFHS) and the recently published Comprehensive National Nutrition Survey (CNNS), 2019. NFHS 3 and 4 provide data for two reference points over a ten-year period (2005-2006 and 2015-2016), which have been reviewed to identify the areas of progress and gaps with regard to nutrition outcome indicators for Jharkhand. The CNNS provides the most recent estimates for some of these indicators for 2018, which form useful reference points even though they may not be strictly comparable with NFHS.

Gaps in Jharkhand's progress have been assessed against two sets of nutrition targets: National Nutrition Mission targets and global targets set by WHO-UNICEF by taking the projected prevalence of undernutrition as provided by a recent study by Lancet (Lancet, 2019). Gaps have also been assessed by measuring the actual annual rate of reduction (ARR) against the rate required to meet these targets.

To understand the drivers of undernutrition in Jharkhand, UNICEF's conceptual framework of the determinants of child undernutrition has been adopted that classifies the determinants as:[12]

- Immediate determinants: Associated with dietary intake and disease, these determinants operate at individual level.
- Underlying determinants: Associated with household food security, maternal and child care and feeding resources, and access to water, health, and sanitation resources at household and community level.
- Basic determinants: Associated with inadequate financial, human, physical, and social capital and operating at a larger socio-economic and political context. These determinants associated with socials norms and poverty are the drivers of other causes and are not directly explored under this study but are seen as driving factors behind the underlying causes.

[12] United Nations Children's Fund, 2015

b. Mapping of Nutrition Interventions to Development Schemes in Jharkhand

Nutrition interventions have been classified into Direct Nutrition Interventions (DNIs) and Nutrition Sensitive Interventions (NSIs) and to enlist them, following categorization framework has been adopted. DNIs have been studied by adopting the categorization framework provided by Menon et al. (IFPRI, 2016) that presents and categorizes the 14 India Plus interventions into five broad actions / expected outcomes: (1) Behaviour Change and Communication (BCC), (2) micronutrient supplementation and deworming, (3) supplementary / complementary feeding, (4) care for sick and management of severe and acutely malnourished, and (5) others.[13] Emphasizing on the continuum of care, these DNIs target the first 1,000 days of life (from pregnancy to first two years of a child's life), women in reproductive age, and adolescent girls and are also encompassed in the national nutrition policy. Shrivastava et al. (CBGA, 2019) has added to this to present 21 DNIs used in this study.

These 21 DNIs are delivered through the schemes of two nodal ministries or departments, at the state level- Women and Child Development, and Health and Family Welfare. The relevant nutrition related centrally sponsored schemes (CSS) under these two ministries are identified as Integrated Child Development Services (ICDS) and National Health Mission (NHM). The Detail Demands for Grants (DDG) for ICDS and State Programme Implementation Plan (SPIP) for NHM are reviewed to place these DNIs under different scheme components or delivery platforms of ICDS and NHM. The analysis (relating to mapping of nutrition interventions to schemes in Jharkhand) is supplemented by a thorough perusal of scheme guidelines and other information available on department websites.

To identify and map NSIs, a sector wise approach has been used. Following the criteria followed by Acharya et al. (2017) in their rigorous study to identify the NSIs, six sectors under which NSIs are spread, are taken. These sectors are: (1) agriculture, livestock and fisheries, (2) education, (3) water, sanitation and hygiene (WASH), (4) health, (5) poverty alleviation and (6) food security and social safety nets. To this, women empowerment is also included for the purpose of this study to include initiatives taken by the State. Next, the same procedure for mapping the ministries with respective departments for these sectors is followed and then the Centre and State level schemes are mapped within these ministries and departments. These ministries' websites and DDGs for these departments have been reviewed to identify CSS that are nutrition sensitive. To identify State schemes for DNIs and NSIs, DDGs for concerned departments, action plan, and economic survey of the State have been reviewed.

c. Analysing Budget Expenditure, Adequacy, and Utilisation

Actual expenditure for 2015-16, 2016-17, and 2017-18, revised estimate for the FY 2018-19, and budget estimate for the FY 2019-20 has been collected from the DDGs of different departments and RoPs for NHM components to determine the trend in budget expenditure on DNIs. Actual expenditure for 2015-16, 2016-17, 2017-18, and 2018-19 and revised estimate for the FY 2019-20, and budget estimate for the FY 2020-21 has been collected from the DDGs of different departments to determine the trend in budget expenditure on NSIs.

The adequacy of the budget for Supplementary Nutrition Programme (ICDS-SNP) has been assessed against the government's prevailing unit cost norms and the intended coverage. The analysis for adequacy of nutrition sensitive programmes has not been undertaken in this study since it does not fit with the board framework of 'first 1000 days of nutrition', which has been used for conceptualising the report. Moreover, the analysis will provide only a limited policy uptake, largely unrelated to nutrition sector, as NSIs do not

[13] Menon, Mcdonald and Chakrabarti, 2016

affect nutrition directly, but create enabling environment for improving nutrition. The utilisation of the fund has been studied for ICDS-SNP, SAG, and PMMVY at State level using data from DDGs and at District level using data obtained from Chaibasa treasury, and that for JSY and Iron Folic Acid (IFA) for children by collecting data from the Financial Management Report (FMR). A survey has been conducted at West Singhbhum district for collecting perception of district officials on fund flow and utilisation issues.

1.5 Nutritional Outcomes and Gaps in Jharkhand

1.5.1 Nutrition Status

Although Jharkhand shows an improvement across all indicators of nutrition over the decade from 2006 to 2016, and then further in 2018 except in case of wasting, the performance of the State still remains lower than the national average across all indicators except low birthweight and exclusive breastfeeding even when the national average have worsened from 2006-2016 in case of wasting, and severe wasting. As per NFHS-4 (2015-16), Jharkhand has the third highest rate of prevalence of stunting in India, while it has the highest rate of prevalence for wasting and underweight in the country. The prevalence of anaemia both in children and in women of reproductive age is also very high and rate of reduction is low. Jharkhand has made progress in exclusive breastfeeding and it is well above the national average.

Table 1.1: Prevalence of Indicators of Undernutrition in Jharkhand and India

Indicator	JH (2006)	Jharkhand (2016)						JH (2018)	AI (2006)	AI (2016)	AI (2018)
		Total	Urban	Rural	SC	ST	OBC				
Stunting among children < 5 years (%)	49.8	45.3	33.7	48.0	52.2	48.8	43.6	36.2	48.0	38.4	34.7
Wasting among children < 5 years (%)	32.3	29.0	26.8	29.5	30.8	34.4	26.3	29.1	19.8	21.0	17.3
Severe wasting among children < 5 years (%)	11.8	11.4	11.1	11.4	-	-	-	6.4	6.4	7.5	4.9
Children under 5 years who are underweight (%)	56.5	47.8	39.3	49.8	53.9	55.1	44.3	42.9	42.5	35.8	33.4
Children with low birthweight (%)	19.1	14.7	-	-	-	-	-	-	21.5	18.2	NA
Exclusive breastfeeding (%)	57.8	64.8	63.1	65.2	-	-	-	-	46.4	54.9	NA
Anaemia among children aged 6-59 months (%)	70.3	69.9	63.2	71.5	71.9	78.4	66.8	-	69.4	58.6	NA
Anaemia among women of reproductive age (%)	69.5	65.2	59.6	67.3	66.4	75.0	61.9	NA	55.3	53.1	NA

Note: JH: Jharkhand, AI: All India
Source: Data for 2006 and 2016 are from NFHS 3 (2005-06) and NFHS 4 (2015-16) respectively; data for 2018 are from CNNS, 2019.

It is clear from the table that prevalence of different indicators of undernutrition is higher in rural areas across all indicators. This difference is even starker in case of stunting, underweight and anaemia in both children and women. The difference between the prevalence of stunting and underweight between rural and urban areas is 10 per cent or more. While this is positive for exclusive breastfeeding, higher incidence of other indicators means that the burden of undernutrition is heavier in rural areas. Further, looking at social groups divide, the prevalence of these indicators is higher among Scheduled Castes (SCs) and Schedules Tribes (STs) than other backward classes (OBCs) and others. While stunting is highest among Scheduled Castes, the prevalence of wasting, underweight, and anaemia is highest among Scheduled Tribes.

The prevalence of undernutrition is higher in rural areas, especially for stunting, underweight and anaemia in both children and women, and among Scheduled Tribes.

1.5.2 Projected Performance against the National and Global Aspirations

National nutrition targets which were laid down under National Nutrition Mission (NNM) focused on four indicators of low birthweight, stunting, underweight, and child and women anemia. In 2012-13, WHO and UNICEF members adopted Global Nutrition Targets for 2025 later revised for 2030, enlisting 9 targets that can be broadly classified under two sets of maternal, infant and young child nutrition targets, and nutrition-related non-communicable disease (NCD) targets. For the purpose of this study, maternal, infant and young child nutrition targets that enlist targets on stunting and wasting among children under five years of age, anemia among women of reproductive age and low birth weight among newborns are used as India experiences a malnutrition burden among its under-five population.

Jharkhand has :

- ***High gap against national standard:*** stunting (17.5%), anaemia in children (15.6%), and anaemia in women (14.5%).
- ***High gap against global target:*** stunting and wasting (12.5% for both), and anaemia in women (29.5%).
- ***Stunting, wasting, and anaemia*** are indicators requiring attention.

The Lancet Child Adolescent Health 2019 report has calculated the projected prevalence of malnutrition indicators up to 2022 and 2030 on the basis of trends for the period of 1990-2017. This projected prevalence is used to assess the gap against the national and global nutrient aspirations if the trends estimated up to 2017 for the indicators continue in Jharkhand as presented in the following table.

Table 1.2: Gaps Between Projected Prevalence of Undernutrition Indicators Against National and Global Targets

Indicators	National Nutrition Mission Targets 2022 (From 2017-2022)	Gap against NNM 2022 target (%)	Global Nutrition Target 2030 (From 2012-2030)	Gap against Global Nutrition Target 2030 (%)
Stunting	25% in 2022* (2 per cent annual reduction)	17.5	50% reduction in number of children younger than 5 years of age‡	12.5
Wasting	-	-	Prevalence of less than 3% by 2030	12.5
Underweight	2 percentage point reduction annually*	3.9	-	-
Low birthweight	2 percentage point reduction annually	9	30% reduction overall	2.5
Anaemia in children younger than 5 years	3 percentage point reduction annually†	15.6	-	-
Anaemia in women of 15-49 years of age	3 percentage point reduction annually	14.5	50% reduction overall	29.5
Exclusive breastfeeding	-	-	At least 70% prevalence overall in the first six month	1.5

Source: Lancet Child Adolescent Health 2019
*The Lancet report has estimated the National Nutrition Mission 2022 target for stunting and underweight for children younger than 5 years for consistency with the global targets instead of taking the given for children aged 0–6 years;
†The National Nutrition Mission 2022 target for child anaemia is for children aged 6–59 months; for consistency with the other targets, this has been estimated for children younger than 5 years.
‡A relative reduction in the prevalence of stunting instead of the absolute numbers has been estimated for consistency with other indicators, because all other targets are based on prevalence.

1.5.3 Inter-Temporal Trends in Undernutrition Indicators

Further, annual rate of reduction has been calculated for the decade 2006-2016 to get a more recent trend, as well as the rate of progress against required national and global targets in six and fourteen years respectively. Inter temporal trends help in identifying the most underperforming indicators of nutrition and thereby helps in directing focussed policy action.

- ***Increased ARR to meet NNM target required for underweight, low birthweight, and anaemia in women.***
- ***Increased ARR to meet global targets required for stunting, wasting, low birthweight, and anaemia in women.***
- ***Stunting, wasting, underweight, and anaemia in women are major cause of concern for undernutrition in Jharkhand.***

Table 1.3: Annual Rate of Reduction and Required Rate of Reduction as per as National and Global Targets for Jharkhand and India

Indicators	ARR in Jharkhand (%)	ARR in India (%)	Required ARR to meet national targets from 2016 to 2022 for Jharkhand (%)	Required ARR to meet Global target from 2016 to 2030 for Jharkhand (%)
Stunting among children < 5 years	0.88	2.21	2	4.83
Wasting among children < 5 years	1.07	-0.59	-	14.96
Severe wasting among children < 5 years	0.34	-1.46	-	-
Children under 5 years who are underweight	1.66	1.7	2	-
Children with low birth weight	2.58	1.65	2	2.52
Anaemia in children < 5 years	0.06	1.68	3	-
Anaemia among women of reproductive age	0.64	0.41	3	4.83

Source: Calculated by CBGA for this study

The table shows that Jharkhand is on track for meeting low birthweight target if it keeps the current rate of reduction and also has a higher rate of reduction for underweight. The rate of reduction for stunting, wasting, and anaemia needs to improve significantly despite it being better than the national rate of reduction in case of wasting and severe wasting. While the rate of reduction in prevalence of underweight is quite close to the required rate, it still needs to improve as well.

Looking at both the projected performance in Section 1.4.2 and the ARR in the present section, stunting and anaemia in women shows high gaps against the national and global target and slow rate of reduction, and are therefore most important action areas. Anaemia among children and underweight are not part of the targets set globally, they are important per national standard while wasting is important per global standard. Therefore, stunting, anaemia among women and children, and wasting are identified as indicators requiring most focus. Low birthweight and underweight are also important indicators but gaps and required ARR in their case is not stark. In fact ARR for low birthweight is more than the required rate at present. Therefore in the next section, these five indicators have been analysed and discussed.

1.5.4 Inter-regional Trends in Undernutrition Indicators

High degree of variance across districts means it is important to see the range of prevalence across districts to understand the full picture of the State. These variations in outcomes are a result of variance in determinants of nutrition as well as interventions undertaken. This district level analysis helps in focusing policy action as per a district's requirement.

West Singhbhum shows poor nutritional outcomes across all four indicators of stunting, wasting, underweight and anaemia, while Palamu shows good outcome across all indicators except stunting.

Stunting

Stunting among children below five years ranges from 38.5 per cent in Dhanbad to 59.4 per cent in West Singhbhum, and is higher than 40 per cent in 19 out of the 24 districts.

Wasting and severe wasting

The prevalence of wasting in children below five years of age varies from 20.3 per cent in Koderma to 43 per cent in Khunti. The prevalence of severe wasting ranges from 5.8 per cent in Deogarh to 27.3 per cent in Khunti.

Underweight

All districts have more than 40 per cent underweight children under five ranging from 40.6 per cent in Giridih to 66.9 per cent in West Singhbhum.

Anaemia in Women

All the districts of Jharkhand have reported more than 50 per cent anaemia among women of reproductive age ranging from 53.6 in Palamu to 78.8 per cent in Saraikela Kharsawan with little variation across districts. 20 out of the 24 districts have the prevalence of more than 60 per cent anaemia.

Anaemia in Children under Five

Just like anaemia in women, all districts show more than 50 per cent prevalence of anaemia in children ranging from 50.1 per cent in Latehar to 83.8 per cent in West Singhbhum. Except two districts (Latehar and Palamu) out of 24, all other districts have more than 60 per cent of anaemia in children.

Table 1.4: Five Districts With High and Low Prevalence of Undernutrition Indicators

Stunting		Wasting		Underweight		Anaemia in women		Anaemia in children	
Low Pre valence	High Pre valence	Low Pre valence	High Pre valence	Low Pre valence	High Pre valence	Low Pre valence	High Pre valence	Low Pre valence	High Pre valence
Dhanbad (38.5%)	West Singh bhum (59.4%)	Koderma (20.3%)	Khunti (43%)	Giridih (40.6%)	West Singh bhum (66.9%)	Palamu (53.6%)	Saraikela Kharsawan (78.8%)	Laterhar (50.1%)	West Singh bhum (83.8%)
Ramgarh (38.7%)	Godda (54%)	Giridih (23.6%)	Dumka (41.4%)	Koderma (42.2%)	Khunti (53.8%)	Latehar (53.9%)	Simdega (78.2%)	Palamu (59.5%)	Saraikela Kharsa wan (81.9%)
Simdega (38.2%)	Pakur (51.8%)	Palamu and Deogarh (23.8%)	East Singh bhum (40.6%)	Dhanbad (42.6%)	Dumka (53.5%)	Deogarh (55.9%)	West Singh bhum (72.8%)	Hazari bagh (64.3%)	Godda (80.7%)
East Singh bhum (39.3%)	Sahib ganj (50.2%)	Hazari bagh (24.5%)	West Singh bhum (37.5%)	Ranchi (43.8%)	Saraikela Kharsa wan (52.6%)	Chatra (56.6%)	Bokaro (72.4%)	Deogarh (64.6%)	Simdega (80.0%)
Bokaro (39.8%)	Chatra (49.6%)	Sahibganj (24.6%)	Bokaro (36.9%)	Palamu (43.9%)	Chatra (51.3%)	Garhwa (60.1%)	Godda (71.6%)	Khunti and Ranchi (64.8%)	Dumka (74.9%)

Source: NFHS 4 (2015-16)

West Singhbhum shows poor nutritional outcomes across all indicators. Godda, Dumka, and Saraikela Kharsawan shows poor nutritional outcomes for at least three indicators while districts like Chatra, Khunti, and Bokaro, show poor nutritional outcomes for at least two indicators. Some districts like East Singhbhum, and Sahibganj come out as top performers for one indicator while worst in terms of another indicator. Palamu district shows good outcome for four of the five indicators.

While it is seen in section 1.4.1., that the prevalence of undernutrition is higher in rural areas and among Scheduled Tribes, a deeper district level look in this section shows that not all districts showing poor performance across 2 or more indicators are rural or tribal dominated. Poverty is another factor affecting undernutrition along with rural and tribal demography. West Singhbhum, having high prevalence of all indicators, is both rural and tribal dominated as well as poor, and Khunti while showing relatively lower incidence of poverty is rural and tribal dominated. Out of these seven districts, West Singhbhum, and Dumka have more than 47 per cent of population below poverty line, while Godda, Saraikela Kharsawan, and Chatra have more than 35 per cent population below the poverty line. While data for Khunti is not available, Bokaro is among the district with relatively low incidence of poverty. Further, West Singhbhum, Godda, Dumka, Chatra also have a very high incidence of multidimensional poverty of above 56 per cent. Khunti also shows a high incidence of multidimensional poverty while Saraikela Kharsawan and Bokaro have relatively low level of multidimensional poverty. Given this picture, although a direct correlation

between poor districts and undernutrition cannot be established given other factors at play, these are the basic causes that drive the underlying causes. A direct correlation between poverty and undernutrition can be seen through the wealth quintiles. For examples, stunting in Jharkhand is 2.1 times higher in the lowest quintile than that of highest quintile.

1.6 Trends in Nutrition Interventions

Coverage of nutrition interventions also affects the outcomes of nutrition in a State as well as variability across State, and hence is important to get a holistic picture of outcomes and determinants in a State.

- ***Increased coverage against all intervention over the decade 2006-2016.***
- ***Supplementary nutrition for both children and P&L women in Jharkhand better than the national average.***
- ***Low consumption of IFA both during pregnancy and by children.***

The table presented below shows increased coverage by all interventions over the decade, the result of which is clearly visible in the improved outcomes. The coverage is still lower than the national average for many interventions such as Ante-natal Care (ANC), Iron Folic Acid (IFA) consumption among women and children, institutional delivery, skilled birth attendant, birth registration, vitamin A supplementation, and deworming and zinc treatment among children as seen in the table. However, Jharkhand is doing better than the national average in case of neonatal tetanus shots during ANC, supplementary nutrition for both children and pregnant and lactating mother. The consumption of IFA during pregnancy and by children, as well as therapeutic zinc for diarrhoea is less than 20 per cent (at 15.3 per cent, 17.3 per cent, and 19.1 per cent respectively), adding to high prevalence of anaemia in the State. Deworming in children is also quite low at 21.6 per cent.

Further looking at interventions across the urban and rural divide, as well as social groups, will provide a sense of variation that informs which intervention needs to be strengthened where and for whom. Antenatal care related interventions and other interventions such as institutional delivery, skilled birth attendant, and birth registration that requires public health infrastructure are better in urban areas as well as for OBCs while intervention provided through anganwadis and ASHA workers such as supplementary food, and information, micronutrients supplements are doing better in rural areas, Scheduled Tribes being most benefited under these interventions.

Looking at interventions for which district wise data is available, a very high variation among districts is identified except in case of iodized salt as presented in the table A.1 in the Annexure. Three districts with very low rate of interventions across each intervention are also identified in the table so that these interventions can be fortified in these districts. Out of the 14 interventions, West Singhbhum and Chatra are among the three bottom districts for 8 interventions, while Palamu is among the three bottom districts for 6 interventions.

Coverage or lack thereof of interventions for nutrition can be a contributing factor to the prevalence of undernutrition, adding to the immediate and underlying determinants. This picture of interventions coverage along with the determinants in the next section will provide a holistic picture of causes of undernutrition in Jharkhand and will inform the area of policy action to be focused upon.

Table 1.5: Coverage of Direct Interventions in Jharkhand and India (in %)

Nutrition Interventions	Jharkhand 2006	Jharkhand 2016						India 2006	India 2016
		Total	Urban	Rural	SC	ST	OBC		
ANC in first trimester	33.2	52	70.3	47.4	46.2	43.7	55.2	43.9	58.6
At least 4 or more ANC visits	18.2	30.3	52.0	24.7	26.3	22.3	32.4	37	51.2
Were given or purchased IFA	49.5	69.4	78.6	67.0	63.9	71.7	68.3	65.1	77.7
Consumed IFA for 100 or more days of pregnancy	9.5	15.3	26.8	12.4	12.7	14.5	14.8	15.2	30.3
ANC-Neonatal tetanus	67.7	91.7	95.5	90.8	88.9	89.3	93.7	76	89
Health and nutrition education during pregnancy	13.4	39.7	28.8	42.4	47.1	53.4	49.2	10.9	38.5
Health and nutrition education during breastfeeding	12.2	35.5	26.5	37.6	35.0	37.4	36.1	8.3	35.0
Supplementary food-Pregnancy	34.7	68.4	46.0	73.8	68.4	77.0	67.7	20.5	51.4
Institutional delivery	18.3	61.9	81.5	57.3	-	-	-	38.7	78.9
Skilled birth attendant	27.8	69.6	86.8	65.6	-	-	-	46.6	79.3
Birth registered of children under five	9.1	65	77.7	61.9	-	-	-	41.1	85.3
Supplementary food-lactation	35.9	63.6	43.2	68.5	63.3	71.1	63.1	16.5	47.5
Full immunization	34.2	61.9	67.0	60.7	-	-	-	43.5	62
Received Vitamin A supplement	17.9	54	50.2	54.9	53.4	52.7	55.1	16.5	60.2
Supplementary food-children (0-71 months)	36.5	50.8	33.3	55.0	52.1	55.8	50.0	26.3	48.1
ORS during diarrhoea	17.4	44.8	49.1	44.0	48.0	44.6	43.1	26	50.6
Paediatric IFA-(6-59 months)	3.5	17.3	13.8	18.2	16.9	17.0	17.5	4.7	26.1
Deworming-Children	5.4	21.6	20.4	21.9	18.1	21.3	22.3	11.9	31.4
Therapeutic zinc for diarrhoea	-	19.1	18.0	19.3	23.8	20.4	16.8	-	20.3
Salt iodization	92.7	97.6	98.9	97.2	97.5	97.3	97.5	47.5	93

Source: NFHS 3 (2005-06) and NFHS 4 (2015-16)

1.7 Drivers of Undernutrition in Jharkhand

It is important to look at the factors driving undernutrition in Jharkhand. Using the framework mentioned above, these drivers will be classified as immediate and underlying. Looking at the prevalence of undernutrition and gaps therein, as well as interventions undertaken, it is clear that although Jharkhand has made progress against all the indicators over the decade, there is still very high prevalence of stunting, wasting, underweight and anaemia. Therefore, in this section, the causes behind these indicators have been looked at to derive common causes that should be focussed upon while planning policy action.

1.7.1 Immediate Determinants

Immediate determinants are determinants associated with diet and disease as given in the framework and methodology. Diet related determinants include adequacy of diet, breastfeeding, complementary food, while disease or biological determinants include prevalence of NCDs like diarrhoea and infections as well as genetic determinants such as body mass index of mothers. In Jharkhand, only 7.2 per cent children in the age group of 6-23 months received adequate diet in 2016.

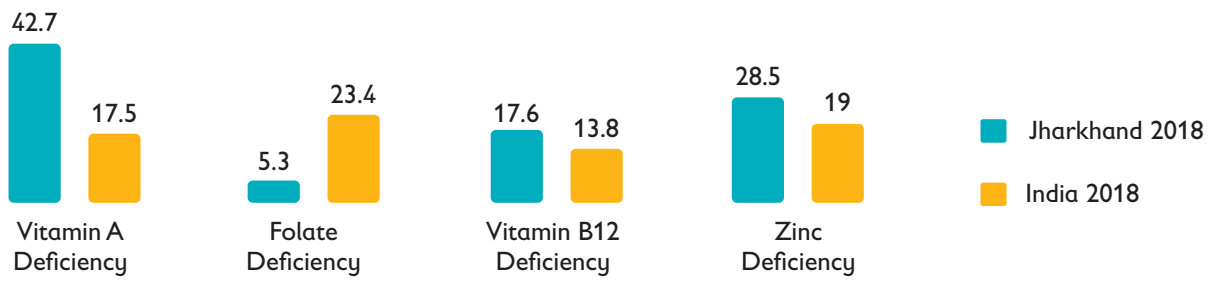
Important Jharkhand-specific immediate determinants of undernutrition:

- ***Inadequate diet***
- ***Declining rate of complementary feeding***
- ***Low BMI among women***
- ***High prevalence of Vitamin A deficiency***

Although, as per as the NFHS-4 (2015-16), Jharkhand has good record for breastfeeding, and it is well above the national average for exclusive breastfeeding with 64.8 per cent prevalence, only one-third (33.1 per cent) are instantly breastfed within one hour of the birth, thereby still leaving a large number without the highly nutritious first milk (colostrum) and the antibodies it contains. After the first 6 months, breastmilk is no longer enough to meet the nutritional needs of infants. Therefore, complementary foods should be added to the diet of the child. However, complementary feeding with breastmilk has declined from 60.2 per cent in 2006 to less than half of the children in the age group of 6-8 months (47.2 per cent).

Further CNNS 2018 reports a high level of vitamin A deficiency (42.7 per cent) in children of 1-4 years of age, along with 17.7 per cent Vitamin B12 and 28.5 per cent of zinc deficiency. Although the folate deficiency is as low as 5.3 per cent in this group, it is more prevalent at 23.8 per cent in children of 10-19 years old. Lack of Vitamin B12 and folate is one of the major causes of anaemia.

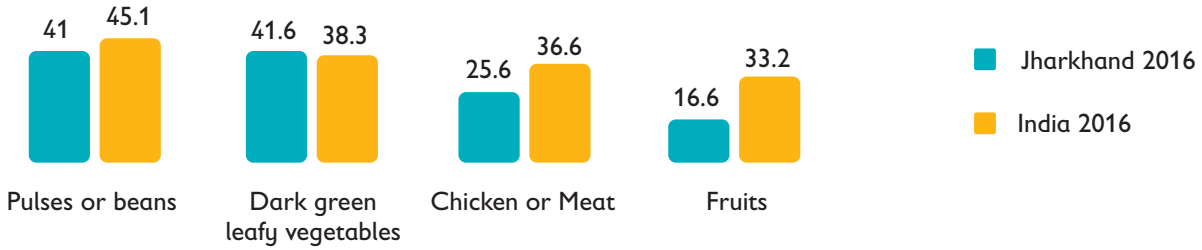
Figure 1.1: Prevalence of Micronutrient Deficiency in Children aged 1-4 years (in %)



Source: CNNS 2018

Further, while women's intake of iron and folate rich food in Jharkhand as shown in the table below is above the national average for green leafy vegetables, that of pulses or beans, fruits, and meat is quite low.

Figure 1.2: Women's Weekly Intake of Iron and Folate Rich Food (in %)



Source: NFHS 4 (2015-16)

Prevalence of diarrhoea and acute respiratory infection has both declined in Jharkhand over the decade and is quite low at 6.9 per cent and 3.2 per cent respectively. Although, the number of women with less than normal body mass index (BMI) has also declined, it is still quite high at 31.5 per cent. Such high percentage of women with less than normal BMI means that when these thin women give birth, their low BMI leads to undernutrition in babies as presented in the table below where the undernutrition indicators among the children is higher where mothers' BMI is lower.

Table 1.6: Children's Anthropometrics as per as Mother's BMI (in %)

Mothers' nutritional status	Stunting	Wasting	Underweight
Underweight (BMI <18.5)	50.6	33.1	55.7
Normal (BMI 18.5-24.9)	43.9	27.6	45.1
Overweight (BMI >25.0)	29.5	18.0	28.1

Source: NFHS 4 (2015-16)

Further, low BMI is more prevalent among ST and SC mothers as shown in table 1.7.

Table 1.7: Women's BMI as per as Social Category (in %)

Women's BMI	ST	SC	OBC	Others
BMI <17.0 (Severely thin)	13.3	14.6	12.9	8.2
BMI <18.5	34.9	34.8	31.3	21.5
BMI >25.0 (Overweight)	5.0	7.6	11.1	21.7

Source: NFHS 4 (2015-16)

Having this picture of diet and disease in Jharkhand, it can be summarised that inadequate diet of children, low semi solid complementary feeding, and high deficiency of micronutrients especially vitamin A as well as low BMI among women are glaring determinants of undernutrition.

1.7.2 Underlying Determinants

Underlying determinants including female literacy, early marriage and pregnancy, birth spacing, drinking water and sanitation facility, electricity facility at household level etc. are driven by larger basic determinants such as the social structures or norms such as gender discrimination, or economic conditions such as poverty and economic development.

Important Jharkhand-specific underlying determinants:

- ***Early marriage and pregnancy***
- ***Low education***
- ***High rate of open defecation***

The table presented below lists the identified underlying determinants in Jharkhand. The first four determinants driven by the social norms relating to lower value placed on girl's education as well as traditions of early marriage are associated with maternal and childcare feeding practices.

Table 1.8: Prevalence of Underlying Indicators in Jharkhand and India

Underlying determinants	Jharkhand 2006 (in %)	Jharkhand 2016 (in %)			India 2016 (in %)
		Total	Urban	Rural	
Literate women	37.1	59	79.0	51.5	68.4
Women with more than 10 years of education	15.1	28.7	51.1	20.2	35.7
Girls married before the age of 18	63.2	37.9	21.1	44.1	26.8
Teenage pregnancy	27.5	12	6.6	13.9	7.9
Households with improved drinking water source	57	77.8	88.6	74.4	89.9
Households with improved sanitation facility	15.1	24.4	59.0	12.4	48.4
Households with electricity	40.2	80	96.7	74.4	88.2

Source: NFHS 3 (2005-06) and NFHS 4 (2015-16)

The table shows that while female literacy has improved in Jharkhand over the decade, it is still below the national average as well as literacy among men which is 79.7 per cent. Literacy in women translates into delay in marriage and pregnancy, better maternal and child care and feeding practices, and thereby improved indicators of undernutrition. As shown in the table below, the undernutrition indicators are far less among children where mothers have more schooling. NFHS 4 data also show that young women with no schooling are more than thrice as likely to have begun childbearing as young women with 12 or more years of schooling.

Table 1.9: Children's Anthropometric as per as Mothers' Schooling (in %)

Mother's schooling	Stunting	Wasting	Underweight
No schooling	54.4	31.2	56.2
<5 years schooling	48.4	29.0	50.6
5-9 years schooling	43.0	29.3	46.9
10-11 years complete	38.4	26.6	40.8
12 or more years complete	29.7	24.5	31.4

Source: NFHS 4 (2015-16)

Jharkhand has also made a commendable improvement in reducing early marriage and teenage pregnancy; however, it still remains higher than the national average, with 37.9 per cent of girls married before 18 years of age. Early marriage and pregnancy translates to poor nutritional outcome for children and mothers through poorer maternal nutritional status, lower educational attainment, less access to health services during antenatal/postnatal care and early childhood, suboptimal complementary feeding practices, and poorer living conditions. As shown in the table 1.8, these determinants are stronger in the rural areas, and could be seen as contributing to higher prevalence of undernutrition in rural areas. The prevalence of teenage marriage and pregnancy in rural Jharkhand is more than double of that in urban Jharkhand.

In terms of infrastructure driven by economic context that are associated with creating a healthy household environment, Jharkhand has made significant progress in terms of improved drinking water source and electricity. However, use of sanitation facility although improved over the decade is still quite low at 24.4 per cent and much below the national average, and is even worse in rural Jharkhand with only 12.4 per cent households having access.

As undernutrition takes many forms, it is important to identify the determinants which are often common. In Jharkhand, the first three identified immediate determinants are common to all most essential indicators of undernutrition in Jharkhand- i.e. stunting, wasting, underweight, and anaemia, while vitamin A deficiency is common to all except anaemia. Similarly, all three identified underlying determinants, namely high prevalence of early marriage and pregnancy, low education, and high level of open defecation are common to identified undernutrition indicators. Further, nutrition interventions such as low consumption of both mothers and children push anaemia which is rampant in the State. Thereby, interventions/programmes must address the conditions that cause malnutrition.

1.7.2.1 Determinants Associated and Aggravated by Tribal Demography

As seen in Table 1.1, the prevalence of indicators of undernutrition is much starker in the rural areas and among STs. As 75.95 per cent of Jharkhand is ruralised with more than 90 per cent of the STs living in rural areas, and the West Singhbhum district under the study is also rural and ST dominated, it is important to look at factors that exacerbate the situation. The underlying immediate causes such as household food security, maternal and child care and feeding resources, and access to water and sanitation resources, working at household and community level can be different and much more difficult for the Scheduled Tribes caused by the basic causes such as socio-cultural and economic causes.

Social category wise demarcation is not available in the above table 1.8 as it is not provided in the NFHS report, but the difference in the underlying causes is much higher in the rural areas. Tribes are majorly in the rural areas. From this it is clear that the underlying causes are much stronger among the tribes. Household food security in rural and tribal area is low leading to inadequate diet and lower BMI among mothers as the tribes largely depend on agriculture for both food and income. Lean season lasting for about 6-8 months causes both food and income shortage thereby leading to poor diet intake. Tribal and rural areas also have limited access to safe drinking water and sanitation facility. Therefore special attention has to be paid to the underlying causes in these areas. NSIs encompassing social and food security programme that deals with underlying causes such as food security, agriculture and livelihood, poverty alleviation etc. must be focussed upon to reduce the higher underlying and basic causes.

2

Mapping of Nutrition Intervention and their Delivery Platforms

2.1 Nutrition Strategy and Interventions in Jharkhand

The State of Jharkhand is making a focused effort to combat undernutrition. Apart from national policies and schemes for nutrition being implemented in the State, the State has developed its own strategies and interventions. As per as NITI Ayog's ranking of implementation of the POSHAN Abhiyaan across States, Jharkhand stands at the 9th place out of the 19 large States, being one of the 10 States with an implementation score of over 70 per cent. Further, Jharkhand has had its own State mission- **Jharkhand State Nutrition Mission (JSNM)** even before the National Nutrition Mission came into the picture. Launched in 2015 by the Department of Women and Child Development & Social Security, Government of Jharkhand, JSNM is working towards making Jharkhand 'Kuposhan Mukt' state in 10 years. It is a convergent programme that functions as an autonomous body to foster inter-sectoral collaboration for nutrition between different departments involving the Health & Family Welfare, Women & Child Development, Planning, Food & Civil Supplies, Tribal Affairs, Panchayat, Rural Development, Education, Drinking Water & Sanitation and others.[14]

As per as the UNICEF framework used to study determinants of nutrition in Chapter 1, there are immediate and underlying determinants. Accordingly, interventions are designed to target these determinants can be grouped into two categories: Direct Nutrition Interventions (DNIs), and Nutrition Sensitive Interventions (NSIs). DNIs focused directly on nutrient deficits in an individual are targeted at addressing the immediate causes are largely delivered by health sector and women and child development in case of India. NSIs address the underlying or indirect cause of nutrition and are delivered by non-health sectors and are thereby multi-sectoral. In Jharkhand, these DNIs and NSIs are guided under the technical leadership of JSNM at state, district and block level by bringing together technical agencies and civil society organisations (CSOs).

Since 2016, the State of Jharkhand has been committed to the **Scaling Up Nutrition (SUN)** framework of action along with 61 countries and three other Indian States (Maharashtra, Uttar Pradesh and Madhya Pradesh). The SUN framework developed in 2010 in response to mounting global malnutrition whereby multiple stakeholders come together to tackle undernutrition by focusing on building an enabling environment for improving nutrition. Under the movement, resources are mobilised to scale up the coverage of locally relevant DNIs and NSIs supported by the multi-stakeholder platform comprising of civil societies, UN agencies, and other donors.[15]

In this chapter, various interventions, delivered through different schemes by different ministries and state departments are identified and listed so that their corresponding budget outlays can be traced and reviewed in the next chapter. Both centrally sponsored and state schemes that provide interventions are listed presenting a holistic picture of nutrition intervention in Jharkhand.

2.2 Direct Nutrition Interventions

In this section, DNIs are listed under five broad categories as per as the categorization framework specified in Chapter 1. In case of DNIs, CSS schemes and their components that deliver the DNIs are presented in the table.

16

components under the two CSS-NHM and ICDS deliver 21 DNIs.

[14] UNICEF India, 2015
[15] Scaling Up Nutrition (SUN) Movement, 2018

Table 2.1: Mapping of DNIs and Their Delivery Platforms Under CSSs

S. No.	DNI Category	DNIs	CSS	Scheme component	Nodal ministry	Delivery platform
1.	Behavior Change Composition	Counselling during pregnancy	NHM ICDS	Mother's Absolute Affection Programme through VHND Health and nutrition education by AWWs IEC component of NNM and JSNM through Jan Andolan	MoHFW MoWCD	AWC (ASHA, AWW, ANM)
2.		Counselling for breastfeeding to caregivers of children	NHM ICDS	Mother's Absolute Affection Programme through VHND Health and nutrition education by AWWs IEC component of NNM and JSNM through Jan Andolan	MoHFW MoWCD	
3.		Counselling for complementary feeding and handwashing to caregivers of children 0-6 months	NHM ICDS	Mother's Absolute Affection Programme through VHND Health and nutrition education by AWWs IEC component of NNM and JSNM through Jan Andolan	MoHFW MoWCD	
4.	Complementary /Supplementary Feeding	Complementary food supplements for children 6-36 months of age	ICDS (Anganwadi services)	Supplementary Nutrition Programme	MoWCD	AWC (AWW/ Second AWW/ Anganwadi Helper) Self Help Groups (SHGs) Others Anganwadi Services platform
5.		Supplementary food for pregnant and lactating women for 6 months after delivery	ICDS (Anganwadi services)	Supplementary Nutrition Programme	MoWCD	
6.		Additional food rations for severely underweight children 6-59 months of age	ICDS (Anganwadi services)	Supplementary Nutrition Programme	MoWCD	
7.		Supplementary food for adolescent girls	ICDS	Scheme for Adolescent Girls	MoWCD	

S. No.	DNI Category	DNIs	CSS	Scheme component	Nodal ministry	Delivery platform
8.	Micronutrient supplementation and Deworming	Vitamin A supplementation for children 6-59 months	NHM	Vitamin A Supplementation Programme	MoHFW	AWC Schools Health centers House to house by ANM and AWW
9.		ORS for treatment of diarrhoea for children under 5 years	NHM	Procurement of Zinc and ORS under Integrated Management of Neonatal and Childhood Illnesses (or IMNCI) under RMNCH+A Intensified Diarrhoea Control Fortnight	MoHFW	
10.		Therapeutic zinc supplements for treatment of diarrhoea for children under 5 years	NHM	Procurement of Zinc and ORS under Integrated Management of Neonatal and Childhood Illnesses (or IMNCI) under RMNCH+A Intensified Diarrhoea Control Fortnight	MoHFW	
11.		Deworming for children 12-59 months	NHM	Albendazole under National Iron Plus Initiative/ Weekly Iron and Folic Acid Supplementation	MoHFW	
12.		Deworming for adolescents 10-19 years	NHM	Albendazole under Weekly Iron and Folic Acid Supplementation	MoHFW	
13.		Deworming for pregnant women	NHM	Albendazole under National Iron Plus Initiative	MoHFW	
14.		Iron Folic Acid (IFA) supplements for children 6-59 months	NHM	National Iron Plus Initiative	MoHFW	
15.		Iron Folic Acid supplement for pregnant women and breastfeeding mothers	NHM	National Iron Plus Initiative (Budget for pregnant women under Janani Shishu Suraksha Karyakram)	MoHFW	
16.		IFA supplements for adolescents 10-19 years	NHM	Weekly Iron and Folic Acid Supplementation	MoHFW	

S. No.	DNI Category	DNIs	CSS	Scheme component	Nodal ministry	Delivery platform
17.		Calcium supplementation for pregnant women and breastfeeding mothers	NHM	Tab Calcium Carbonate (Budget reported under JSSK)	MoHFW	
18.		Salt iodization for general population	NHM	National Iodine Deficiency Disorder Control Programme	MoHFW	
19.	Treatment of Severe Acute Malnutrition	Facility-based treatment for children 6-59 months for children with severe acute malnutrition	NHM	Facility-based management of children with SAM	MoHFW	NRCs/ MTCs
20.	Others	Insecticide treated nets for pregnant women in malaria areas	NHM	Insecticide Treated Bednets (ITNs) or Long Lasting Impregnated Bednets (LLINs) under NVBDCP	MoHFW MoWCD	Public health facilities Community level camps AWC (AWW/ ASHA) ANM CDPO/MO
21.		Conditional cash transfer to pregnant lactating women	ICDS NHM	Pradhan Mantri Matru Vandana Yojana (PMMVY) Janani Suraksha Yojana (JSY)		

Note: The corresponding state departments to MoHFW and MoWCD are Health, Medical Education and Family Welfare Department, and Women, Child Development and Social Security Department.

2.2.1 Behavior Change Communication

Mother's Absolute Affection Programme (MAA) is a scheme under Reproductive, Maternal, Newborn Child plus Adolescent Health (RMNCH+A) component of NHM, launched in 2016 for generating awareness among pregnant women and lactating mothers, family members and society through community dialogue in order to promote optimal breastfeeding practices at **Village Health Nutrition Days (VHNDs)** now renamed as renamed Village Health, Sanitation and Nutrition Days. Capacity building of caretakers that is ASHA, AWW, on breastfeeding is also undertaken by the programme. MAA also has a provision of 1 day 'MAA' sensitization module and 4-day Infant and Young Child Feeding (IYCF) training module for ANMs in all sub-centers.[16] **VHND** is a platform under NHM for interfacing between the community and the health system, used for community dialogue by frontline workers like ASHAs and ANMs under MAA as well as for delivery of other services under NHM and ICDS such as ante natal checkups, weighing of children, immunization, registration of birth, and IFA tablets etc. It

[16] Ministry of Health and Family Welfare, Government of India, 2016

is organized once every month, preferably on Wednesdays at the AWCs or health sub centers in the village by Village Health and Sanitation Committee (VHSC) comprising the ASHA, the AWW, the ANM, and the PRI representatives. On VHND, ASHAs, Anganwadi Workers (AWWs), and others mobilize the villagers, especially women and children, to assemble at the nearest Anganwadi Centers (AWCs) whereby awareness and counselling on maternal and child health, family planning, sexually transmitted diseases (STDs), communicable diseases, nutrition, and sanitation is provided.

Nutrition and health education by AWWs: Nutrition and health education is provided to women in the age group of 15-49 years by AWWs to enhance the capability of the mother to look after the normal health and nutritional needs of the child. The fund sharing between the Union and State Government for this component of ICDS is in the ratio of 60:40.[17]

Jan Andolan, under POSHAN Abhiyaan serves to generate awareness, and develop attitudes and behavioral intent for mother and child care such as practicing optimal breastfeeding, complementary feeding, maternal nutrition and adolescent nutrition practices. Different platforms are used for Jan Andolan such as mass media, community media, frontline workers, etc.

Poshan Sakhis: Jharkhand has developed a cadre of Nutrition Counsellors or Poshan Sakhis who are spread across six high prevalence districts. They work along with Anganwadi Centres to improve Nutrition practice.[18]

2.2.2 Complementary and Supplementary Feeding

The supplementary feeding of children, and pregnant and lactating women is covered by the Supplementary Nutrition Programme under Anganwadi Services of ICDS, while that of adolescent girls is covered by the Scheme for Adolescent Girls (SAG) under ICDS. The Anganwadi Services (under Umbrella Integrated Child Development Services) is a centrally sponsored scheme for holistic development of children under 6 years of age and Pregnant Women and Lactating Mothers.

Supplementary Nutrition Programme (SNP) provides supplementary nutrition for a minimum of 300 days in a year to normal children below 6 years of age, severely under nourished children of 3-6 years, and pregnant and lactating mothers, in the form of Take-Home Rations (THRs) and hot cooked meal (HCM). Severely under nourished children are provided with additional food items in the form of micronutrient fortified food and/or energy dense food as THR. Presently, 3.65 million children in the age group of 3-6 years are benefitting from the programme. The scheme is being implemented through a statewide network of 38432 Anganwadi Centres in Jharkhand, funded by the Union and State Government in the ratio of 50:50.[19]

Scheme for Adolescent Girls has a nutrition component under which out of school AGs in the age group of 11-14 years are provided supplementary nutrition containing 600 calories, 18-20 grams of protein and micronutrients for 300 days in a year in the form of Take-Home Ration (THR) or Hot Cooked Meals (HCM) whichever is feasible. The scheme is implemented in all 24 districts covering 71,407 beneficiaries using the platform of Anganwadi Services of Umbrella ICDS Scheme through Anganwadi Centers (AWCs).[20] The nutrition component of the scheme is funded by the Union and State Government in the ratio 50:50.

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[17] Ministry of Women and Child Development, Government of India, n.d.
[18] Banerjee, 2017
[19] Centre for Fiscal Studies and Planning-cum-Finance Department, Government of Jharkhand, 2019
[20] Ministry of Women and Child Development, Government of India, 2018

2.2.3 Micronutrient Supplementation and Deworming

Vitamin A Supplementation Programme, under the RMNCH+A component of the NHM, specifies that children between nine months to five years are to given six monthly doses of vitamin A, adding up to a total of at least nine doses of Vitamin A by the 5th birthday. Jharkhand has been carrying Vitamin A supplementation systematically since 2008 under **Jharkhand Matri Shishu Swasthya Evam Poshan Maah** conducted biannually. This was recently observed successfully in May 2019 with technical support from UNICEF and IPE Global /WeCan.[21]

Procurement of Zinc and Oral Rehydration Solution (ORS) under Integrated Management of Neonatal and Childhood Illnesses (or IMNCI): This component of RMNCH+A ensures availability of ORS and Zinc at all sub-centres and with all frontline workers. It also promotes use of Zinc along with use of ORS in the case of diarrhoea in children.

Intensified Diarrhoea Control Fortnight was launched to ensure high use rates of ORS and Zinc in children with diarrhoea throughout the country in an intensified manner from 28 May to 8 June 2019. Under IDCF, ORS was distributed at household level along with a demonstration of preparation of ORS & Zinc, and ORS and Zinc corners were established at the health facility level for diarrhoea among children.

National Iron Plus Initiative (NIPI) under RMNCH+A component of NHM provides a minimum service package for the management of anaemia at different levels of care. Albendazole for children of 12-59 months, and IFA supplement and deworming for children of 6-59 months, adolescents of 10-19 year both in and out of school, and pregnant and breastfeeding women is provided under NIPI. Adolescents in school are reached through Weekly Iron and Folic Acid Supplementation (WIFS) described below, and 'out of school' adolescents are reached through AWCs.

Weekly Iron and Folic Acid Supplementation (WIFS) scheme is a community-based intervention that addresses nutritional anaemia through supervised administration of weekly iron and folic acid supplements to adolescents (boys and girls) in the age group of 10-19 years, enrolled in class VI–XII of government, government- aided and municipal schools as well as 'out of school' girls in both rural and urban areas. Bi-annual de-worming (Albendazole 400 mg) for adolescents of 10-19 years is also provided under WIFS along with information and counselling for improving dietary intake and preventive actions for intestinal worm infestation.

Tab Calcium Carbonate: Calcium supplementation for pregnant women and breastfeeding mothers are provided in the form of Calcium Carbonate tablet under Janani Shishu Suraksha Karyakaram (JSSK) under NHM.

National Iodine Deficiency Disorder Control Programme: National Iodine Deficiency Disorder Control Programme formerly known as National Goiter Control Programme (NGCP) being implemented since 1962 was renamed in 1992. The programme focus on enhancing consumption of iodized salt by developing both demand by means of IEC around the use of iodized salt and supply by collaborating with PDS to ensure the salt distributed is iodized.

2.2.4 Treatment of Severe Acute Malnutrition

Facility-based management of children with SAM: Care to children with severe acute malnutrition

[21] IPE Global, 2019

(SAM) in India is primarily through facility-based care. Nutrition Rehabilitation Center (NRC), known as Malnutrition Treatment Centres (MTCs) in Jharkhand, is the health facility unit where children with Severe Acute Malnutrition (SAM) are admitted and managed. NRC provides following services: 24-hour care and monitoring, treatment of medical complications, therapeutic feeding, sensory stimulation and emotional care, social assessment of the family for identifying and addressing contributing factors, counselling on appropriate feeding, care and hygiene, training on preparation of energy dense child foods using locally available, and affordable food items, follow up after discharge, and screening of children coming to OPDs /inpatient wards using weight for height/ length growth charts provided.[22]

Community management of acute malnutrition (CMAM): Given the magnitude of this problem in India, community-based programmes for the management of SAM are required. However, community management of acute malnutrition (CMAM) in India has not yet been undertaken at a national scale. The State of Jharkhand has undertaken CMAM pilots with UNICEF, Medecins Sans Frontieres (MSF), Save the Children and WorldVision.[23]

2.2.5 Others

The Insecticide Treated Bed nets (ITNs) or Long-Lasting Impregnated Bed nets (LLINs) under National Vector Borne Disease Control Programme (NVBDCP) under Communicable Disease Control Programme of NHM provide better and effective protection by keeping away mosquitoes as well as killing them. ITNs and LLINs also kill or keep away other insects and bugs like cockroaches, bedbugs, houseflies, fleas, etc.

Pradhan Mantri Matru Vandana Yojana (PMMVY), one of the schemes under umbrella ICDS is a Maternity Benefit Programme under which a cash incentive of Rs. 5000 is provided to Pregnant Women and Lactating Mothers (PW&LM) for the first live birth. The cash incentive provided leads to improved health seeking behavior amongst the pregnant women and lactating mothers.[24] The scheme is funded in the ratio of 60:40 between the Union and State Government.

Janani Suraksha Yojana was launched in 2005 to promote institutional delivery among poor women. Women registered under the scheme get a JSY card and a cash assistance of Rs. 1400 in rural areas and Rs. 2000 in urban area in Jharkhand for institutional delivery.[25] The scheme is funded wholly by the Union Government.

2.3 Nutrition Sensitive Interventions

NSIs are identified and listed under six sectors as per as the framework provided by Acharya et al. specified in Chapter 1. Schemes indirectly affecting nutrition outcomes under these six sectors are identified, listed, and explained in this section.

Nine Union Ministries across six sectors provide platform for 16 CSS that are nutrition sensitive; nine State departments provide platform for 27 State schemes.

[22] Ministry of Health and Family Welfare, government of India, 2011
[23] Banerjee, 2017
[24] Ministry of Women and Child Development, Government of India, 2017
[25] Ministry of Health and Family Welfare, Government of India, 2015

Table 2.2: Mapping of NSIs Under Their Respective Sectors and Departments

Sector	Nodal Department- Union Ministry (Corresponding State department)	Central Schemes	State Schemes
Agriculture, livestock and fisheries	Ministry of Agriculture and Farmers' Welfare (Agriculture, Animal Husbandry & Co-operative Department) Ministry of Rural Development (Rural Development Department)	National Food Security Mission (NFSM) National Mission on Oilseeds and Oil Palm (NMOOP) National Mission for Sustainable Agriculture (NMSA) National Horticulture Mission Rashtriya Krishi Vikas Yojana (RKVY) Blue Revolution	1. Kamdhenu Dairy Farming 2. Extension of National Horticulture Mission Programme in non-mission districts 3. Jharkhand Horticulture Intensification by Micro Drip Irrigation 4. Exchange - Distribution of Crop Seed on Subsidy
Education	Ministry of Human Resource Development (Department of School Education and Literacy) Ministry of Women and Child Development (Women, Child Development and Social Security Department)	Mid-Day Meal (MDM) Rashtriya Madyamik Sikhsha Abhiyaan subsumed under Samagra Sikhsha Abhiyaan	5. Mukhyamantri Vidyalakshmi Yojana 6. Free cycle distribution among girl students of general category 7. Free education for girls up to intermediate level 8. Free distribution of dress, textbook and copy to girl students 9. Jharkhand Balika Awasiya Yojana 10. Gift Milk to school children
Water, sanitation and hygiene (WASH)	Ministry of Drinking Water and Sanitation (Drinking Water and Sanitation Department) Ministry of Urban Development (Urban Development and Housing Department)	National Rural Drinking Water Programme (NRDWP) Swachh Bharat Abhiyan (SBA) / Swachh Bharat Mission (SBM) / Nirmal Bharat Abhiyan (NBA)	11. Rural pipe water supply

Sector	Nodal Department-Union Ministry (Corresponding State department)	Central Schemes	State Schemes
Health	Ministry of Health and Family Welfare (Health, Medical Education and Family Welfare Department)	Non DNI component of NHM (School Health Scheme)	12. Sanitary napkins for school going girls
Poverty alleviation	Ministry of Urban Development (Urban Development and Housing Department) Ministry of Rural Development (Rural Development Department) Ministry of Minority Affairs (Department of Welfare (now the Department of Scheduled Tribes, Scheduled Castes, Minority and Backward Class Welfare))	Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) National Rural Livelihood Mission (NRLM) / Ajeevika National Urban Livelihood Mission (NULM)	13. Urban Poverty Alleviation and Social welfare 14. JOHAR Scheme 15. Jharkhand Tribal Empowerment & Livelihoods Project (JTELP)
Food security and social safety nets	Ministry of Consumer Affairs, Food and Public Distribution (Food, Public Distribution and Consumer Affairs Department) Ministry of Rural Development (Rural Development Department) Ministry of Health and Family Welfare (Health, Medical Education and Family Welfare Department)	Public Distribution System / National Food Security Scheme National Social Assistance Programme (NSAP)	16. Mukhya Mantri Dal-Bhat Yojana 17. Distribution of salt 18. Distribution of sugar 19. Antyodaya Anna Yojana (AYY) 20. Annapurna Yojana 21. Priority Household Scheme (PHS) 22. State Social Security Pension Scheme 23. PVTG Dakiya Scheme
Women's empowerment	Ministry of Women and Child Development (Women, Child Development and Social Security Department) Ministry of Rural Development (Rural Development Department)		24. Mukhya Mantri Kanyadan Yojana 25. Mukhya Mantri Lakshmi Ladli Yojana 26. Tejaswini scheme 27. Sanjivani Scheme

2.3.1 Agriculture, Livestock and Fisheries

Six central schemes have been identified that are aimed at fortifying agriculture, livestock and fisheries thereby adding to the food resources and security. The funding pattern of all these schemes between the Union and State Government is 60:40.[26]

National Food Security Mission, launched in 2007-08 had five components: (i) NFSM-Rice, (ii) NFSM-Wheat, (iii) NFSM-Pulses, (IV) NFSM Coarse Cereals (Maize & Barley), (V) NFSM-Commercial Crops. The mission was revamped in 2018-19 to subsume NMOOP discussed next, seed village programme, and include NFSM-Nutri-Cereals, and therefore now have eight components. NSFM promotes increased production of these crops in a sustainable manner to enhance farm level economy (i.e. farm profits). The coverage of NFSM in Jharkhand as of 2018 is as follow:[27]

Jharkhand's Districts covered under NFSM	Crop wise districts covered under NFSM				
	Rice	Wheat	Pulses	Coarse cereals	Nutri-cereals
24	4	-	24	12	-

National Mission on Oilseeds and Oil Palm (NMOOP), launched in 2014 to increase productivity of vegetable oils has been subsumed with NFSM from 2018-19 as NFSM- (Oilseeds & Oil Palm). It is implemented through three Mini Missions with specific target- Mini Mission I on Oilseeds, Mini Mission II on Oil Palm, and Mini Mission II on Tree Borne Oilseeds. Mini Mission I and III are implemented in Jharkhand.[28]

National Mission for Sustainable Agriculture (NMSA)[29], made operational in 2014-15 aims at making farm sector more productive, sustainable, and remunerative through climate change adaptation measures. NMSA has various schemes under it - Rainfed Area Development (RAD), Sub Mission on Agro Forestry (SMAF), Paramparagat Krishi Vikas Yojana (PKVY), Soil and Land Use Survey of India (SLUSI), National Rainfed Area Authority (NRAA), Mission Organic Value Chain Development in North Eastern Region (MOVCDNER), National Centre of Organic Farming (NCOF), and Central Fertilizer Quality Control and Training Institute (CFQC&TI).

National Horticulture Mission was first launched in 2005 and is now one of the components under Mission for Integrated Development of Horticulture (MIDH). The mission working towards holistic growth of horticulture sector enhances horticulture production, augment farmers' income and strengthen nutritional security.

Rashtriya Krishi Vikas Yojana (RKVY)[30] was launched in 2007-08 to spur growth in agriculture and allied sector. The scheme now revamped as RKVY – RAFTAAR - Remunerative Approaches for Agriculture and Allied sector Rejuvenation, works towards reducing the yield gaps in important crops and thereby maximizing returns to the farms. It generates rural self-employment.

[26] Department of Agriculture, Cooperation & Farmers Welfare, Government of India, 2018
[27] Department of Agriculture, Cooperation & Farmers Welfare, Government of India, 2018a
[28] Ministry of Agriculture and Farmers Welfare, Government of India, n.d.
[29] Department of Agriculture and Cooperation, Government of India, 2014
[30] Department of Agriculture, Cooperation & Farmers Welfare, Government of India, n.d.

Blue Revolution- Integrated Development and Management of Fisheries:[31] All the ongoing schemes of the Ministry of Agriculture and Farmers Welfare, Department of Animal Husbandry, Dairying & Fisheries were merged under the umbrella of Blue Revolution. The restructured scheme provides focused development and management of fisheries, covering inland fisheries, aquaculture, marine fisheries including deep sea fishing, mariculture and all activities undertaken by the National Fisheries Development Board (NFDB). In Jharkhand, the scheme is working towards making the State self-sufficient in fish production through riverine fish farming and cage culture activities.

Kamdhenu Dairy Farming enhances milk production and rural income through dairying by providing support to dairy entrepreneurs for commercial dairy farming.

Jharkhand Horticulture Intensification by Micro Drip Irrigation Project (JHIMDI) funded by Japanese Official Development Assistance (ODA) loan aims at contributing towards development of agriculture and horticulture sector, poverty alleviation and also gender empowerment in Jharkhand through promotion of MDI. The project is targeting 30,000 farmers' households across 9 districts (Ranchi, Khunti, Pakur, Pashchimi Singhbhum, Lohardaga, Gumla, Simdega, Khunti, and Dumka) across 30 blocks of Jharkhand.[32] The farmers to be supported under the project are members of Self Help Group (SHG) formed by JSLPS and own or lease small farmlands.

Exchange, Distribution, and Seed Production: Under this State initiative, 109136.31 qtl. seeds of different crops for the Kharif season have been provided to the farmers as of November 2018 in the FY 2018-19.

Jharkhand has also undertaken a state funded initiative to extend National Horticulture Mission Programme in non-mission districts.

2.3.2 Education

Mid-Day Meal scheme:[33] In Jharkhand, National Programme for Nutritional Support to Primary Education under which each child in class I to V was provided with 3 kgs of rice per month for 10 months in a year was launched in 1995. Consequent to the Hon'ble Supreme Court's direction in 2001, cooked Mid-day meal scheme was launched by the state government of Jharkhand. Presently this scheme covers children of class I to VIII in Government, Local body and Government Aided Schools, Madarsa/ Makhtab and Alternative & Innovative Education (AIE) Centers. This scheme directly affects nutritional status as well as indirectly by enhancing school enrolment, attendance, and retention. The funding pattern under for this scheme is in the ratio of 60:40 between the Union and State Government respectively.[34]

Rashtriya Madhyamik Sikhsha Abhiyaan (RMSA)[35] was launched in March 2009 with the objective to enhance access to secondary education and to improve its quality. RMSA was subsumed under Samagra Siksha Abhiyaan in 2018-19 along with Sarva Siksha Abhiyaan, but while these are subsumed at central level they are viewed separately at the State level for their implementation and fund flow. The scheme promotes secondary education among girls. The fund sharing pattern between the Union and State Government of Jharkhand is 60:40.

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[31] Department of Animal Husbandry and Dairying, Government of India, n.d.
[32] State Rural Livelihood Mission, Government of Jharkhand, n.d.
[33] Ministry of Human Resource development, Government of India, n.d.
[34] Press Information Bureau, 2015
[35] Department of School Education & Literacy, Government of India, n.d.

Mukhyamantri Vidya Laxmi Yojana[36] is an initiative by the State Government to keep the underprivileged SC/ST girl students in school through monetary incentive. Under the scheme a sum of rupees 2000 is deposited (FD) in the account of grade VI SC/ST girl students and they are entitled to get the total amount when they take admission in grade IX. Usually they drop out of school after class 6 but because of this effort they remain in school till they complete basic education.

Jharkhand Balika Awasiya Vidyalaya: To promote Girls Education, the State has opened 57 Jharkhand Balika Awasiya Vidyalaya similar to Kasturba Gandhi Balika Vidyalaya in educationally backward blocks.

Jharkhand State has also undertaken various initiatives such as free bicycle, and free books, uniforms distribution among girl students as well free education up to elementary school for girls.

2.3.3 Water, Sanitation and Hygiene (WASH)

National Rural Drinking Water Programme (NRDWP) launched in 2009, aims at providing adequate and safe drinking water to the rural population of the country within a reasonable distance through creation of the infrastructure, ensuring service delivery and sustainability of water supply schemes. NRDWP 2013 guidelines raised the water supply target from 44 litres per capita per day (LPCD) to 55 LPCD and 98.49 per cent of the total rural habitation is fully covered receiving 55 LPCD of water as of December 2018. The programme is funded by the Union and State Government in the ratio 60:40.

In addition to this, the State of Jharkhand has rural pipe water supply and rural water supply, and urban water supply scheme under Drinking Water and Sanitation Department.

Swachh Bharat Mission aims to achieve universal access to safe and clean drinking water and improved sanitation facility and thereby targets underlying causes of undernutrition. In Jharkhand, under **Swachh Bharat Mission-Gram (SBM-G)**, SHGs formed under National Rural Livelihood Mission (NRLM) and Jharkhand State Livelihood Promotion Society (JSLPS) are involved in the construction of toilets, and as of September 2018, 2,75,000 individual household latrines (IHHLs) have been constructed. 29,564 villages have self-declared ODF.[37] Under SBM-G, a State level initiative **Swachh Jaldhara** has been launched to supply water directly to households (HHs) where toilets have been constructed through deep boring. **Under SBM-Urban**, 525 units of community toilets with 4098 seats, and 2, 13,917 IHHLs have been constructed in the mission period. The urban Jharkhand was declared ODF in October 2017. The programme is funded by the Union and State Government in the ratio 60:40.

2.3.4 Health

Non DNI component of NHM and ICDS: Health Systems Strengthening (HSS), and non DNI component of RMNCH+A, form the non DNI component of NHM that affects nutrition outcomes. HSS such as skill sets and standard treatment protocols required for provide quality RCH services and training packages that would provide these skill sets that include the Skilled Birth Attendance (SBA) training package for ANMs, the Navjat Shishu Suraksha Karyakram (NSSK) and the IMNCI packages for ANMs, the Home Based Newborn Care (HBNC) for ASHAs, and the Emergency Obstetric Care (EmOC) package for doctors are interventions that affects nutrition. RMNCH+A schemes provide non DNI component such as essential new born care, facility based sick newborn care, Home Based Newborn Care and Home-Based Young Care (HBYC) Programme, routine immunization, family planning, community-

[36] Jharkhand Education Project Council, n.d.
[37] Department of Drinking Water and Sanitation, n.d.

based promotion and delivery of contraceptives, menstrual hygiene, and adolescent health under Rashtriya Kishore Swasthya Karyakram(RKSK) etc. **School Health Scheme** provides preventive health checkups, health education, immunisation, micronutrient supplementation to school going children and adolescent. Jharkhand State continuously promotes family planning through counselling through Information, Education and Counselling (IEC) and BCC by AWWs, Sahiyas, ANM etc., family planning camps focussed on female sterilization and intrauterine contraceptive device (IUCD) services, capacity building of trainers.

Non DNI component of ICDS include additional honorarium to AWWs/ AWHs. The State of Jharkhand is paying additional honorarium of Rs. 1400 and Rs. 700 to AWWs and AWHs respectively from the State fund in addition to that granted by the Union Government.

2.3.5 Poverty Alleviation

Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) launched in 2006 provides an alternative source of income to workers in rural areas, particularly women and economically backward communities. In Jharkhand, apart from providing wage employment, the scheme is also developing productive community assets such as ponds, wells, and livestock shelters as well as assets for natural resource management, and for strengthening local governance. Jharkhand has 33, 54,283 active workers under MGNREGS[38] and 40.3 million man-days were created providing employment to 1.06 million HHs in the FY 2018-19.

Aajeevika - National Rural Livelihoods Mission (NRLM) replaced Swarnjayanti Gram Swarozgar Yojana in 2013. In 2016, it was renamed Deendayal Antyodaya Yojana – National Livelihoods Mission (DAY-NRLM). The scheme aims at enhancing livelihood and reduces poverty through developing institutional platforms for enabling rural poor to access gainful self-employment and skilled wage employment opportunities and financial services. NRLM also empowers women through their capacity building through community managed training centers (CSO). As of June 2018, 17.32 lakh families in 16,374 villages have been covered under NRLM schemes. 1.74 lakh SHGs called Sahkhi Mandal have been developed under the Jharkhand State Rural Livelihood Mission. These Sakhi Mandals have been federated into 10,157 village organizations and 402 cluster federations to work for financial inclusion and livelihood. The funding of the project is done by the Union and State Government in the ratio of 60:40.

National Urban Livelihood Mission (NULM)[39] was launched in 2013 to alleviate urban poverty by enabling urban poor to access self or wage employment and by providing shelters equipped with essential services to the urban homeless. In addition, the mission also addresses livelihood concerns of the urban street vendors by facilitating access to suitable spaces, institutional credit, etc. Under NULM, 1.05 lakh youths have been trained since inception, 18,641 beneficiaries have gained wage employment and 6492 beneficiaries have gained self-employment. 8840 SHGs have been developed with a revolving fund of Rs. 5 crores. 40 shelter homes have been developed and are running across 19 urban local bodies to provide shelter to the homeless and 18 new shelter homes are under construction. 117 vending zones are being planned to benefit 36,961 identified street vendor. The funding of the project is done by the Union and State Government in the ratio of 60:40.[40]

Jharkhand Opportunity for Harnessing Rural Growth (JOHAR scheme): A State initiative with

[38] Ministry of Rural Development, n.d.
[39] Ministry of Housing and Urban Affairs, n.d.
[40] Ibid.

support from the World Bank, was launched in 2017 under the Rural Development department to enhance and diversify household income in select farm and non-farm sectors (high-value agriculture (HVA), livestock, non timber forest produce (NTFP), fisheries, and irrigation). The scheme is implemented by producer groups formed under the scheme with an average of 50 members. Presently the scheme is covering 45 blocks in 17 districts of Jharkhand showing following progress in different sector:

HVA	Livestock	NTFP	Fishery	Irrigation
Approximately 50000 HHs covered with 20000 involved in Kharif crop production	Approximately 10000 HHs covered; 13 breeder villages; 8 livestock service centres	Approximately 2700 HHs covered	Approximately 4000 HHs covered; 2 aqua support centres	350 detail project reports (DPRs) approved and installed

Jharkhand Tribal Empowerment & Livelihoods Project (JTELP) is an International Fund for Agricultural Development (IFAD) supported project undertaken by the department of Welfare (now the Department of Scheduled Tribes, Scheduled Castes, Minority and Backward Class Welfare) for community empowerment, natural resource management, and livelihood enhancement in the 14 tribal sub plan (TSP) districts. The cost of the project for an eight year period of 2013-21 is Rs. 635 crores shared by IFAD (Rs. 280 crores loan contribution), MNREGA (243 crores), Special Central Assistance (SCA) (83 crores), GoJ (25 crores), and beneficiaries (4 crores).

2.3.6 Food Security and Social Safety Nets

Public Distribution System / National Food Security Scheme[41] is a food security system under which the Union government procures, stores, transport and bulk allocate good grains commodities like wheat, rice, sugar, and kerosene to the State governments through Food Corporation of India (FCI). The State government is then responsible for allocation within the State by identifying eligible families, issue of Ration Cards and supervision of the functioning of Fair Price Shops (FPSs).

National Social Assistance Programme (NSAP)[42] launched in 1995 provides public assistance to its citizens in case of unemployment, old age, sickness and disablement to ensure minimum national standard for social assistance. NSAP comprises of the following schemes:[43]

- ***Indira Gandhi National Old Age Pension Scheme (IGNOAPS):*** This is a scheme for old people in the age group of 60-79 years and above 80 years belonging to BPL families whose income is up to Rs. 7995 in the rural areas and up to Rs. 9974 in the urban areas. Those below 80 years receive a monthly pension of Rs. 600 of which Rs. 400 comes from the State exchequer. Persons in the age group 80 years and above receive a monthly pension of Rs. 700. 9.99 lakh people have benefited under the scheme till December 2018.
- ***Indira Gandhi National Widow Pension Scheme (IGNWPS)*** provides all widows belonging to BPL families and in the age group of 40 and 79 years with a monthly pension of Rs. 600 provided their annual income does not exceed Rs. 7995 and Rs. 9474 in the rural and the urban areas respectively. 2.67 lakh widows have received pension under this scheme as of 2018.

[41] Centre for Fiscal Studies and Planning-cum-Finance Department, Government of Jharkhand, 2019
[42] Ministry of Rural Development, n.d.a
[43] Centre for Fiscal Studies and Planning-cum-Finance Department, Government of Jharkhand, 2019.

- ***Indira Gandhi National Disability Pension Scheme (IGNDPS):*** All disabled persons belonging to the age group 18-79 years and conforming to the eligibility criteria under the Rights of Persons with Disabilities Act, 2016, are eligible for a pension of Rs. 600 per month if their annual income does not exceed Rs. 7995 in the rural and Rs. 9474 in the urban areas respectively. As on December 2018, 23,793 individuals have benefited under the scheme.
- ***National Family Benefit Scheme (NFBS):*** This scheme provides a one-time financial support of Rs. 20,000 to BPL families in the event of the death of an earning family member in the age group 18-60 years.

State Social Security Pension scheme: Under this scheme, all widows, disable persons, released bonded labor of over 18 years of age, people of 60 years and above with an annual income of Rs. 10,500 in the rural areas, and Rs. 12,500 in urban areas are eligible to receive a pension of Rs. 600 per month. The scheme is covering 3.2 lakh people as of 2018.

- ***Mukhyamnatri Adim Jan Jati (primitive tribes) Pension Yojana (AJJPY):*** This scheme covers 8 tribes identified as PVTG, providing families in these tribes with a monthly pension of Rs. 600. Currently, the scheme benefits 45,052 families.[44]
- ***Rajya Vidhwa Samman Pension Yojana:*** All widows above 18 years of age are provided with a monthly pension of Rs. 600 under this scheme. 1.58 lakh widows have received pension as of 2018.

Distribution of salt and sugar: Jharkhand government has undertaken distribution of iodized salt and sugar to families covered under NFSA (Antyodaya Anna Yojana (AAY)/ Priority Household (PHH) families) to fortify them against iodine and iron deficiency.

Mukhya Mantri Dal-Bhat Yojana[45] has been launched by the State government to offer quality food for the poor at affordable rate of Rs. 5 only, through public canteens and mobile food distribution vans. 377 Dal-Bhat centres has been running as of 2019-20, out of which only 12 runs at night.

Antyodaya Anna Yojana (AYY): 35 kg of rice/wheat per month is provided to Antyodaya families under the scheme at the subsidized rate of Rs. 1 per kg. The scheme presently covers 9 lakhs families.

Annapurna Yojana (AY): Under AY, 10 kg of free rice is given to individuals who are above 60 years of age and who are eligible for Indira Gandhi National Old Age Pension Scheme but are not receiving the benefit. The scheme is fully funded by the Union government and presently covers 54, 939 individuals.

Priority Household Scheme: Under this scheme, 5 kg of food grains (rice and wheat) per person is provided at a subsidized rate of Rs. 1 per kg to 47.89 lakhs households currently benefiting under the scheme.

Particularly Vulnerable Tribal Group (PVTG) Dakiya Scheme launched in April 2017 is an innovative state initiative to ensure food security and employment for the primitive tribal groups' families. Under this scheme, 35 kg of rice per month is provided to these families. It also provides employment to women as the packaging work under the scheme has been given to Sakhi Mandals under NRLM. Presently, the scheme covers 71,136 beneficiaries in 164 blocks of the 24 districts of Jharkhand.

2.3.7 Women's Empowerment

Mukhya Mantri Kanyadan Yojana provides financial assistance of Rs. 30,000 through direct bank transfer (DBT) for marriage to women with annual family income less than Rs. 72, 000. The scheme also

[44] Ibid.
[45] Ibid.

aims to check early marriage and dowry system. 3170 women benefited under the scheme in the FY 2018-19.

Mukhya Mantri Lakshmi Ladli Yojana scheme was launched in 2011 for families with not more than Rs. 72,000 yearly income to promote education of girls and discourage early marriage by providing them financial assistance. Under this scheme, the government invests Rs. 30,000 per year over a period of five years from the birth of the girl child in a post office account opened for the beneficiary. A certain fixed amount can be withdrawn upon reaching grade VI, IX, and XI. Additionally, in XI and XII grades, the girl is given Rs. 200 per month as a scholarship. Once the girl attains the age of 21, she receives Rs. 1, 08,600, provided she has passed grade XII and is married after the age of 18. As of FY 2017-18, there has been 2, 42,133 beneficiaries under the scheme. Previously implemented by the planning department, the scheme became a part of Department of Women, Child Development and Social Security from 2015-16.

Tejaswini Scheme was launched in 17 districts of Jharkhand for socio-economic empowerment of young girls and women of age 14-24 years through enabling their education and skill development, creation of SHGs. The project also equips these women with knowledge on health and hygiene. The scheme is World Bank assisted and it is implemented through Jharkhand Women Development Society.[46]

Sanjivani Scheme was initiated by the State government in 29 blocks of 13 Districts of Jharkhand under the banner of Jharkhand State Livelihood Promotion Society, Rural Development Department for empowerment of women by connecting them with SHGs whereby they are assisted in getting their entitlements and participate in the decision-making progress.[47]

[46] Centre for Fiscal Studies and Planning-cum-Finance Department, Government of Jharkhand, 2019
[47] Jharkhand State Livelihood Promotion Society, n.d.

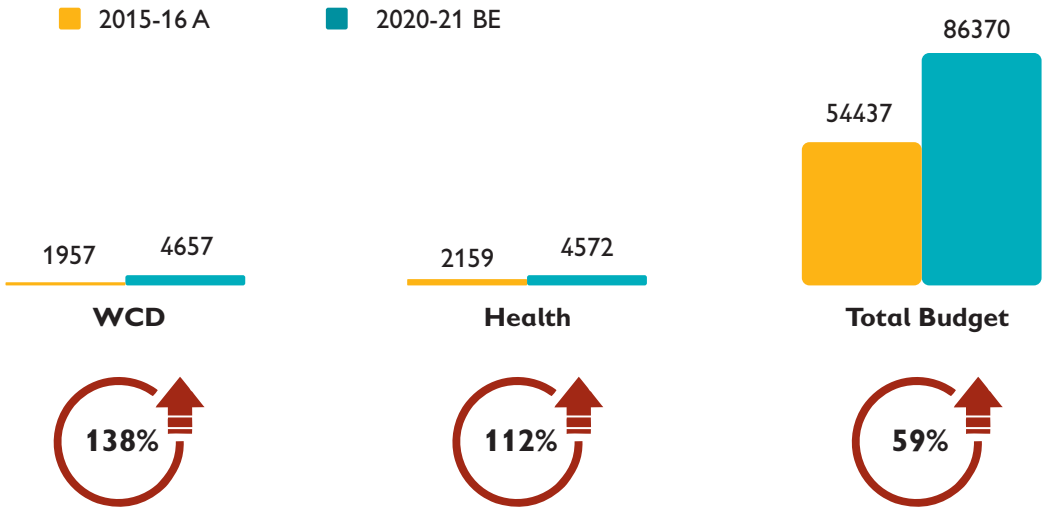
3

BUDGETS FOR NUTRITION

3.1 Budgets for Nodal Departments

The total budget for Jharkhand increased from Rs. 54,437 crores in 2015-16 (A) to Rs. 86,370 crores in 2020-21 (BE). There was only around 59 per cent increase in the total budget of the State during the Fourteenth Finance Commission period. While state budget for department of Women and Child Development (WCD) almost doubled during this period (from Rs. 1957 crore in 2015-16 (A) to Rs. 4657 crores in 2020-21 (BE)), budget for Health and Family Welfare department increased by 112 per cent (from Rs. 2159 crore in 2015-16 (A) to Rs. 4572 crores in 2020-21 (BE)). Health budget constituted around 4 per cent of total budget in 2015-16, and increased to 5.4 per cent of total budget in 2020-21. WCD constituted around 3.6 per cent of total budget in 2015-16 and its share increased to 5.5 per cent in total budget in 2020-21. Clearly, health and WCD budget received higher priority in Jharkhand during the 14th FC and first year of 15th FC.

Figure 3.1: Budget on WCD and Health as Compared to Total State Budget During 14th FC and First Year of 15th FC (in Rs. Crore)

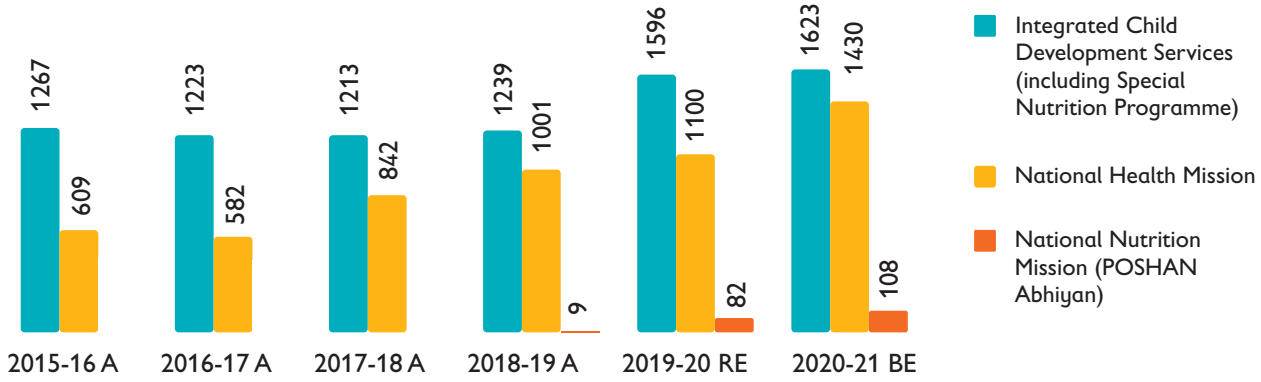


Source: Budget documents of Jharkhand, various years

3.2 Budgets for Important CSSs

Budget outlays for Integrated Child Development Scheme (ICDS) increased from Rs. 1266.62 crore in 2015-16 (A) to Rs. 1623 crore in 2020-21 (BE). Despite an increase in ICDS budget since 2014-15, the share of ICDS in total outlay for WCD dropped by almost 30 per cent, from 65 per cent in 2015-16 (A) to 35 per cent in 2020-21 (BE). Outlays for NHM increased from Rs. 608.61 crore in 2015-16 (A) to Rs. 1430 crore in 2020-21 (BE) and the proportionate share of NHM in total health outlays increased from 28 per cent in 2014-15 (A) to 31 per cent in 2020-21 (BE). Budget for National Nutrition Mission increased from Rs. 9 crore in 2018-19 (A) to Rs. 108 crore in 2020-21 (BE).

Figure 3.2: ICDS, NHM and NNM Budget During 14th FC and First Year of 15th FC (in Rs. Crore)



Source: Budget documents of Jharkhand, various years

3.3 Expenditure on Direct Nutrition Intervention (DNI)

3.3.1 DNIs and State Budget

According to Niti Ayog Jharkhand secures 9th position in implementation of POSHAN Abhiyaan based on four key themes, viz. a) Governance and Institutional Mechanism; b) Strategy and Planning; c) Service Delivery and Capacities; d) Programme Activities and Intervention Coverage.

The State has launched Sahiya Sangi portal to track the progress of HBNC (Home Based Newborn Care). The State has also initiated services for high risk babies. This system not only tracks the high-risk babies but also keeps track of visits for regular health checkup. Poshan Vatika is prominently being observed in three districts of Jharkhand, namely Hazaribagh, Ramgarh and East Singhbhum. Members of Sakhi Mandals are being provided special trainings focused on "Importance of Nutrition Garden and Cultivation Techniques". The food plates of the rural families in these regions contain nutrient rich foods.

However, nutrition status of the State remains gloomy due to inadequate budgetary provisions. Total budget for DNIs[48] declined from Rs. 678 crore in 2015-16 to Rs. 633 crore in 2017-18, and registered an increase thereafter to Rs. 1053 crore in 2019-20. The Central government slashed the budget outlays for ICDS in 2015-16 and 2016-17. Therefore, allocation for DNI component declined during that period. Moreover, according to RBI State finance report (various years), the State governments reduced their spending on nutrition and other social sectors during 2016-17 and 2017-18.[49] Jharkhand DISCOM was going through financial crisis in 2013-14 and was expecting a revenue deficit of Rs. 2359 crore in FY 2014-15. Outstanding debt and CPSUs dues of Jharkhand DISCOM reached to Rs. 1165.4 and Rs. 6050 crore respectively by the end of September 2015. Jharkhand had signed a tripartite MoU with the Ministry of Power and Jharkhand DISCOM in 2015, according to which the State had to take over 75 per cent of outstanding debt and 100 per cent of outstanding dues of CPSUs of DISCOM.[50] Jharkhand turned 75 per cent of debts into non-SLR bonds and borrowed under UDAY and ended up borrowing more than what

[48] Actual expenditure for 2015-16, 2016-17, and 2017-18, revised estimate for the FY 2018-19, and budget estimate for the FY 2019-20 has been collected from the DDGs of different departments and approved budget has been collected from ROPs for NHM components to determine the trend in budget expenditure on DNIs and NSIs.

[49] Reserve Bank of India, 2019

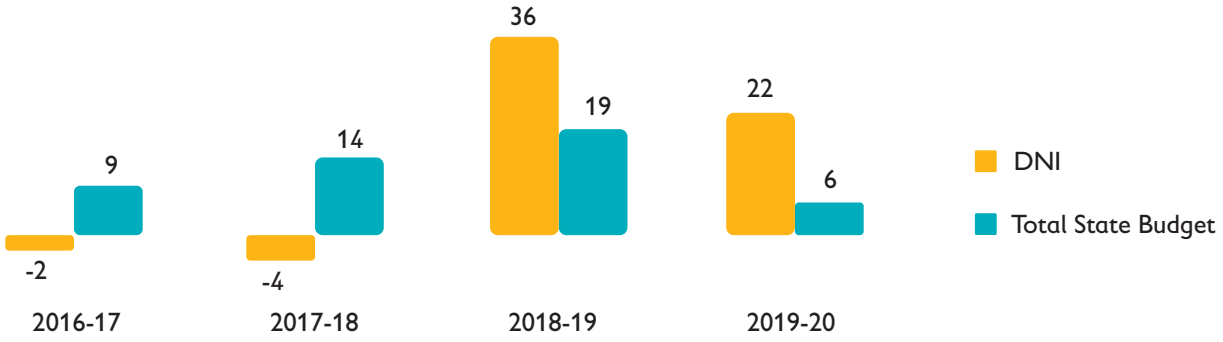
[50] Ministry of Power, Government of India & Government of Jharkhand, 2015

had been estimated in the beginning of the financial year during 2015-16 to 2017-18. The State incurred 20-30 per cent loss in Aggregate Technical & Commercial (AT&C) loss.[51] The State borrowed on average more than 89 per cent of what they had estimated in the beginning of the financial year and spent 13 per cent of revenue receipt on debt servicing.[52] Consequently, expenditure on social sectors was reduced significantly.

Per capita budget on DNIs declined from Rs. 474 in 2015-16 to Rs. 427 in 2017-18 and increased to Rs. 686 in 2019-20. Growth rate of DNI budget surpassed the growth rate of state budget in 2018-19 and 2019-20 indicating higher priority towards nutrition (Figure 3.3).

However, proportionate share of DNI budget in total state budget consistently hovers around 1 per cent during the entire period under consideration (Table 3.1). As per NFHS 4, Jharkhand has highest rate of wasting and underweight and third highest rate of stunting. It is clear that 1 per cent of State's budget on nutrition is not sufficient to improve its nutrition status.

Figure 3.3: Growth Over Previous Year: Outlays for DNIs and Total State Budget (in %)



Note: 2015-16 to 2019-18, actuals and 2018-19 (RE) and 2019-20 (BE) have been used for computing ICDS's DNI components. For NHM's DNI components, RoPs of various years have been used.

Source: Budget documents and RoPs of Jharkhand, various years

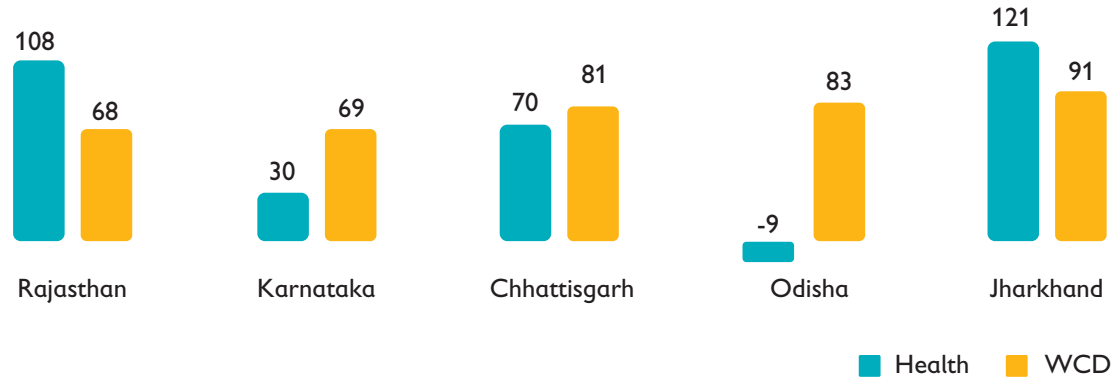
3.3.2 Priority for Nutrition-Across States Comparison

Population and demography can always influence priorities for nutrition budget and policies. However, looking at sectors' share in total budget is a normative approach to analyse the priority given to the sector in terms of spending money. Moreover, these schemes are not budgeted simply by using projected population figures. These are targeted schemes. Identifying beneficiaries is a major task and there are a number of studies which discuss loopholes that exist in targeting beneficiaries. More often the number of targeted beneficiaries is less than the number of actual beneficiaries. Selecting less than actual number of beneficiaries is also subject to budgetary priorities. In this section, we compare States' expenditure on nutrition as share of their total budget.

Rate of growth of WCD and Health budget is higher in Jharkhand as compared to States like Rajasthan, Karnataka, Chhattisgarh and Odisha (Figure 3.4). However, expenditure on DNIs is lower in Jharkhand as compared to UP, Bihar, Odisha and Chhattisgarh (Figure 3.5), which clearly indicates less priority given to DNI components in Jharkhand as compared to other States.

[51] Chakraborty, Gupta, Chakraborty and Kaur, 2017
[52] Tiwari and Surya, 2019

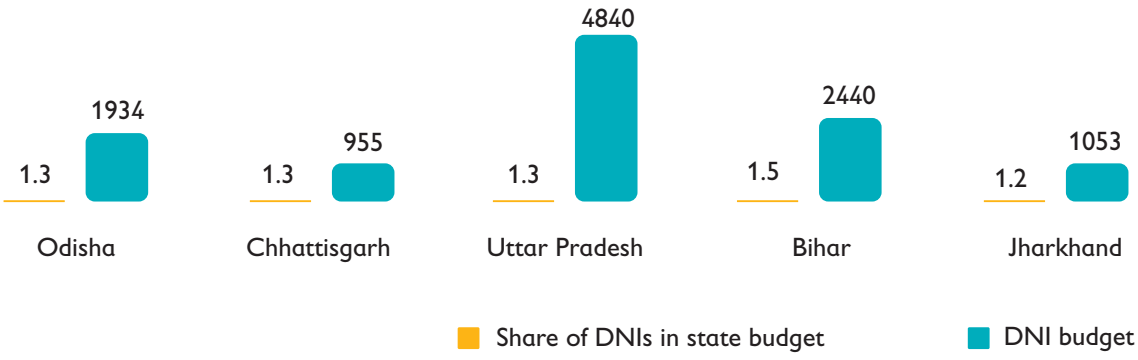
Figure 3.4: Extent of Growth in WCD and Health Budget Across States During 14th FC Period (in %)



Note: Growth has been computed using 2015-16 (A) and 2019-20 (BE)
Source: Budget documents of Jharkhand, various years

The State was performing worse than Bihar during 2016-17 and 2017-18 and lagged behind Chhattisgarh, Odisha, and Uttar Pradesh during 2017-18 in terms of share of DNIs in total state budget. Jharkhand's nutrition indicators are comparable with Bihar and Uttar Pradesh, but the State spent lower proportion of the state budget on nutrition (Figure 3.5).

Figure 3.5: Priority for Nutrition in 2017-18 (A) Across States (Share in %, Budget in Rs. Crore)



Source: Budget documents and RoPs, various years

3.3.3 Composition of DNI Budget

A large proportion of DNI budget (more than 80 per cent) is comprised of Supplementary Feeding programmes, followed by around 9 per cent for other DNIs and 6.8 per cent for treatment of SAM in 2019-20 (BE). Proportionate share of Supplementary Feeding had increased from around 79 per cent in 2015-16 to about 80 per cent in 2019-20. A reverse trend was observed for Micronutrient Supplementation and Deworming, from 3.6 per cent in 2015-16 to 2.9 per cent in 2019-20 (Table 3.1).

Major share of DNI budget goes for Supplementary Nutrition Programme. Procurement of material for SNP is partially decentralised. For Hot Cooked Meals (HCM), Rice and Pulses are supplied by the State to the Block and from there to Anganwadi Centers. Vegetable, Daliya, Milk and Masala etc. are purchased by Anganwadi Centers and bills are submitted to Child Development Project Officer (CDPO) who forwards it to District Social Welfare Office (DSWO) to release the amount. For Take Home Ration (THR), the packet is supplied by Village level organization/SHGs under JSLPS. SHGs sometimes take loan from Cluster Level Federation. The JSPLS gets it verified at block by CDPO and forward it to DSWO and the document is sent to the State. These SHGs raise their bills to State for payment.

This process of delivery of THR has started from November 2019. Till July 2019 THR was supplied by State department directly to ICDS, and only transportation cost was released by district. In 2004, the Supreme Court issued an order to decentralize the production and distribution of THR by eliminating the involvement of contractors. However, up until 2018, Jharkhand followed a centralised procurement model from private contractors.[53] In 2019, the State moved to procurement through SHGs called Sakhi Mandal under Jharkhand State Livelihood Promotion Society (JSLPS).[54] This also leads to women empowerment and improved livelihoods by diverting money from private companies to the SHGs. However, SHGs, quite often, don't receive funds timely. Irregular fund flow coupled with absence of standard guidelines hampers the quality of services. The State has stopped providing eggs under SNP programme. The 15th FC has allocated additional amount of Rs. 3 per day for all the children and pregnant women and lactating mothers registered in the Anganwadi Centres in all the States.

The State has declining rate of complementary feeding with breast milk from 60.2 per cent in 2006 to 47.2 per cent of the children in the age group of 6-8 months. However, no action is reflected in the State's budgetary priorities as the share of budget for Behaviour Change Communication for breastfeeding and complementary feeding consistently remains below 1 per cent of total DNI budget during the study period.

Outlays for treatment of SAM increased drastically with a growth rate of 685.5 per cent. Budget allocated for 'new construction' under SAM treatment attributed to this high growth significantly (Table 3.1).

As per as CNNS 2018 report, deficiency of Vitamin A in children aged 1 to 4 years is a severe health problem in Jharkhand. However, the State has lowered its budgetary priorities for Vitamin A syrup for children between 6 and 59 months from Rs. 1.79 crore in 2015-16 to 1.56 crore in 2019-20 despite high prevalence of Vitamin A deficiency.

[53] Flanagan et al., 2018
[54] The Pioneer, 2019

Table 3.1: Total DNI Budget for Jharkhand (in Rs. Crore)

Sl. No.	DNI Category	2015-16 (A)	2016-17 (A)	2017-18 (A)	2018-19 (RE)	2019-20 (BE)
	Behaviour Change Communication	**1.2**	**10.81**	**0.71**	**3.6488**	**14.7388**
	[Share in DNI budget](in %)	[0.18]	[1.63]	[0.11]	[0.42]	[1.40]
1	BCC for breastfeeding, complementary feeding and hand washing	0.31	0.66	0.71	1.38	1.4
2	Total IEC component of NNM				0.27	11.34
3	Social Mobilization under State Nutrition Mission	0.89	10.15	0	2	2
	Supplementary Feeding	**535**	**532**	**516**	**708**	**843**
	[Share in DNI budget] (in %)	[78.86]	[80.39]	[81.48]	[82.14]	[80.08]
4	Complementary food supplements for children 6-36 months of age	517	506	506	702	822
5	Supplementary food rations for pregnant and lactating women for 6 months after delivery					
6	Additional food rations for severely underweight children 6-59 months of age					
7	Supplementary Feeding: Adolescent Girls	18	26	10	6	21
	Micronutrient Supplementation and Deworming	**24.47**	**25.01**	**25.4**	**38.87**	**30.32**
	[Share in DNI budget] (in %)	[3.61]	[3.78]	[4.01]	[4.51]	[2.88]
8	Vitamin A supplementation for children 6-59 months	1.79	1.64	0.68	1.09	1.56
9	Child: Diarrhoea Control (ORS + Zinc)	4.48	3.06	2.87	6.38	9.33
10	Deworming for children 12-59 months	1.32	1.2	1.77	4.07	9.01
11	Deworming for adolescents 10-19 years	0	0.94	1.25	1.45	1.68
12	Iron Folic Acid (IFA) supplements for children 6-59 months	11.72	9.26	0.41	1.68	5.65
13	P&L Women: Calcium and IFA	4.38	4.59	12.05	21.29	0
14	IFA supplements for adolescents 10-19 years	0.78	4.32	6.37	2.86	3
15	Salt iodisation for general population	0	0	0	0.05	0.09
	SAM Treatment	**8.97**	**8.51**	**6.42**	**9.2**	**70.46**
	[Share in DNI budget] (in %)	[1.32]	[1.29]	[1.01]	[1.07]	[6.69]

Sl. No.	DNI Category	2015-16 (A)	2016-17 (A)	2017-18 (A)	2018-19 (RE)	2019-20 (BE)
16	SAM Treatment	8.97	8.51	6.42	9.2	70.46
	Others	**108.8**	**85.43**	**84.73**	**102.19**	**94.17**
	[Share in DNI budget] (in %)	[16.04]	[12.91]	[13.38]	[11.86]	[8.95]
17	Conditional Cash Transfers for P&L Women (JSY)	95	71.43	76.83	63.3	62.15
18	Conditional Cash Transfers for P & L Women (PMMVY)	3.8	4	5.5	37.89	27.12
19	Insecticide treated nets for pregnant women in malaria areas	10	10	0	0	0
20	Rajiv Gandhi National Creche Scheme	0	0	2.4	1	4.9
	Total DNI budget	**678.44**	**661.76**	**633.26**	**861.91**	**1052.69**
	Jharkhand Total State budget	**54437**	**59277**	**67704**	**80623**	**85429**
	Share of DNI in State budget (in %)	**1.246285**	**1.116386**	**0.935336**	**1.069061**	**1.232238**
	Per capita DNI budget *	**474**	**454**	**427**	**572**	**686**

Note: 1. * Population figure has been projected by compound annual growth rate taking last decade's growth rate to be constant. Per capita figures have been computed by taking the population of children in age group 0-6 years and number of females in age group 15 to 49 years, from Census of India 2011.

2. Creche scheme has also been incorporated in DNIs since children are provided food under this scheme. Thus, the scheme has nutrition implication.

Source: Computed by CBGA from RoPs of Jharkhand and budget documents, various years.

Box 3.1 National Nutrition Mission (Other than IEC component)

Other than IEC components, around Rs. 58.09 and Rs. 106 crores had been spent under NNM in 2018-19 (RE) and 2019-20 (BE) respectively. These have mostly been used for administrative and training purposes for ensuring better coordination among departments. Although, these components do not come under direct nutrition intervention categories, one cannot deny their importance in terms of achieving better nutrition outcomes.

More than 80 per cent of total DNI budget is spent on interventions through ICDS and less than 20 per cent is attributed to NHM components.

Figure 3.6: Share of NHM and ICDS Components in Total DNI Budget (in %)

Source: Budget documents and RoPs of Jharkhand, various years

3.3.4 Average Expenditure Under DNI Categories from 2015-16 to 2019-20

According to average spending across DNI categories over the 14th FC period, supplementary feeding secures highest position followed by cash transfer programmes. Allocation for cash transfer programmes has increased significantly since 2018-19 due to higher allocation of budget for PMMVY. It is worth noting here that the State has curtailed its expenditure on JSY, although only 41.6 per cent women received cash benefits for giving birth in an institution in Jharkhand, according to NFHS 4 data.

Table 3.2: Rank of DNI Categories on the Basis of Average Expenditure During 14th FC (2015-16 to 2019-20) (in Rs. Crore)

Supplementary Feeding	Rank	Average spending (14th FC period)
Supplementary Feeding	1	626.8
Cash Transfer Programmes (JSY and PMMVY)	2	89.4
Micronutrient Supplementation and Deworming	3	28.8
SAM Treatment	4	20.7
Behaviour Change Communication	5	6.2

Note: 2015-16 to 2019-18, actuals and 2018-19 (RE) and 2019-20 (BE) have been used for computing ICDS's DNI components. For NHM's DNI components, RoPs of various years have been used.

Source: Budget documents and RoPs of Jharkhand, various years

3.3.5 Tribal Nutrition Profile and Budget

A significant size of India's tribal population is concentrated in Jharkhand. Jharkhand is found to have a high rate of Chronic Energy Deficiency (CED) (58.5 per cent). Prevalence of CED among tribals in Jharkhand is higher than many of those in States like Maharashtra, Kerala, Madhya Pradesh, Assam etc.[55]

[55] Das and Bose, 2012

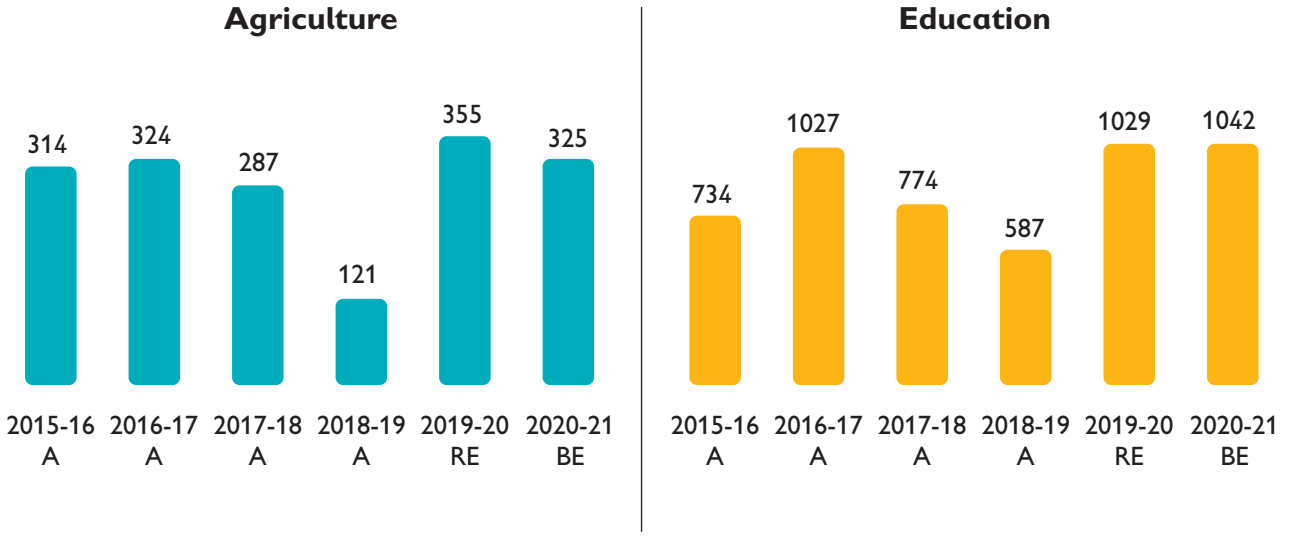
Vulnerability indices explain malnutrition more strongly in Jharkhand and burden of malnutrition is disproportionately higher on tribal population.[56] Nutritional status is almost uniform across different social groups in some of the districts in Jharkhand. However, nutritional status is poor for smaller tribal communities in the State and it requires 'soft targeting' of susceptible communities within the targeted beneficiaries of nutrition programmes for better outcome.[57] Micronutrient intake by tribal women can be increased by consuming nutrient-rich indigenous foods and awareness.[58] According to Care India-2012 report, there is a contrast between Jharkhand's mineral rich economy and its tribal populations' nutritional and health status. The report comments on inadequacy of budget provisions for nutrition programme. The study criticises Jharkhand for providing inconsistent data in successive budget documents, action lag in responding to inflationary pressure in terms of revising unit cost, absence of proper monitoring and feedback mechanism, poor coordination between departments etc.

Jharkhand Tribal Empowerment & Livelihoods Project has been implemented in 1790 villages (having more than 50 per cent ST population) across 14 TSP districts of Jharkhand with high prevalence of undernutrition. Around 48,000 Poshan Gardens developed in 400 villages under the project is a step towards providing the rural and tribal community with better access to food resources and adequate diet.

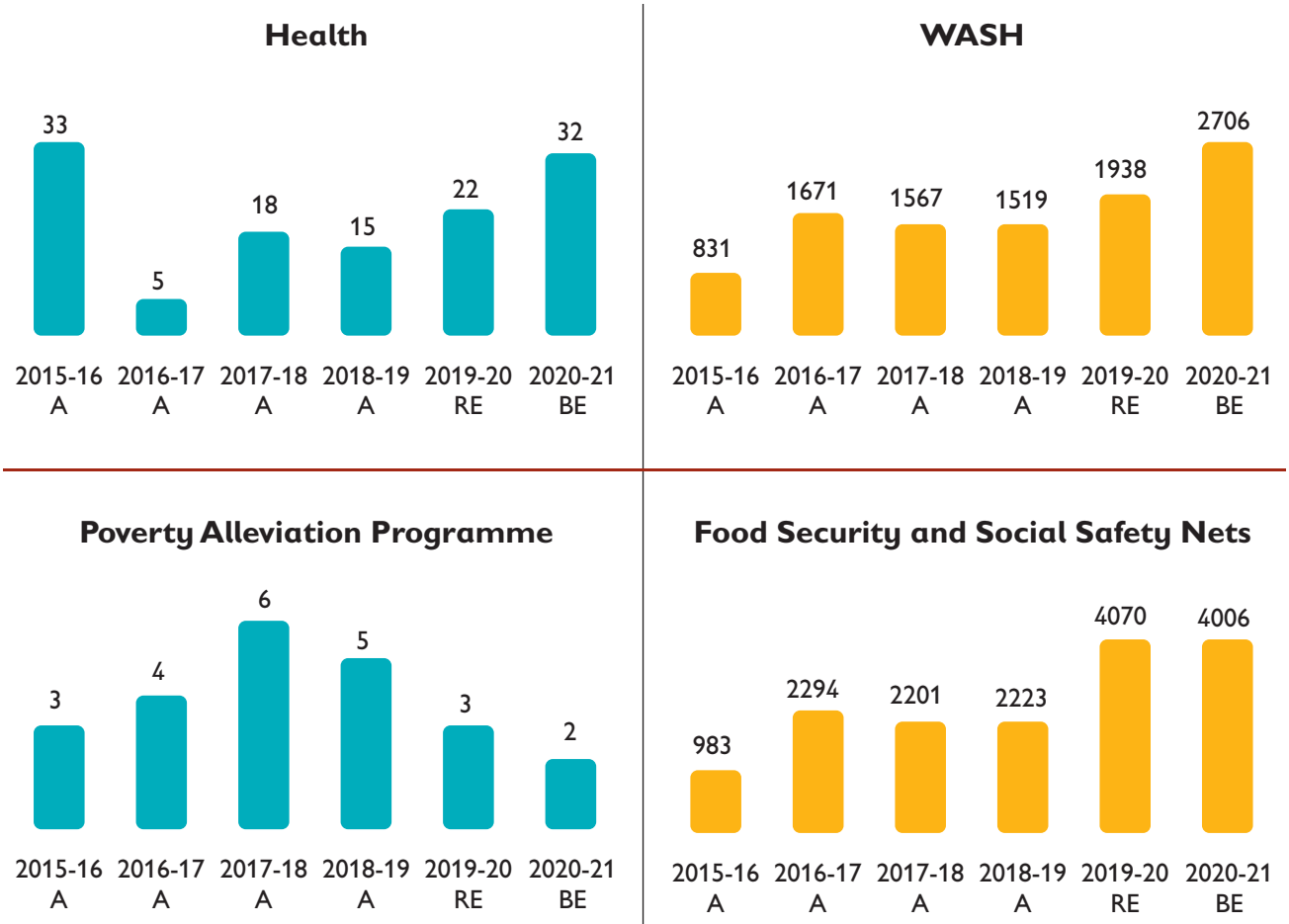
3.4 Budget for Nutrition Sensitive Interventions (NSI)

Several departments like Agriculture and Allied activities, Education, Health, Water and Sanitation, Rural Development, and Women and Child Development have contributed to nutrition sensitive programmes. A number of Centre and State-run Nutrition Sensitive Programmes and schemes were also identified. Figure 3.7 shows sector wise expenditure on different NSIs.

Figure 3.7: Expenditure on Different NSIs Across Sectors (in Rs. Crore)



[56] World Bank, 2014
[57] Chatterjee et al., 2016
[58] Ghosh-Jerath et al., 2015



Source: Computed by CBGA from budget documents of Jharkhand, various years.

Table 3.3 gives scheme wise break up of NSI budgets in Jharkhand. Apart from the National Social Assistance Programme, Jharkhand also provide social assistance and protection through State funded pension scheme, State Social Security Pension Scheme, which provides pension to old people, widows, people with AIDs/HIV and most importantly to primitive tribal. This is a much-needed initiative on the part of the State as food security and livelihood are major concerns due to widespread poverty among rural and tribal population. The budget for this state programme has increased consistently since the FY 2015-16. The funding for the social assistance scheme for the Tribal-Adim Jan Jati (primitive tribal) Pension Scheme has also increased consistently from Rs. 4 crores in FY 2015-16 to Rs. 72 crores in FY 2020-21 (BE). However, the share of the scheme in the total budget for social security is only 9.8 per cent, which is quite less considering the large tribal population is Jharkhand.

Table 3.3: NSI Budget for Jharkhand (in Rs. Crore)

Schemes	2015 -16 A	2016 -17 A	2017 -18 A	2018 -19 A	2019 -20 RE	2020 -21 BE
Agriculture and Allied Activities						
National Food Security Mission	45	28	28	25	60	50
National Mission on Oilseeds and Oil Palm (NMOOP)	0.6	1	1	2	0	0
National Mission for Sustainable Agriculture (NMSA)	52	14	14	6	8	0
National Horticulture Mission Programme	54	64	64	13	83	84
Rashtriya Krishi Vikas Yojana (RKVY)	136	112	112	33	116	117
New Scheme Blue Revolution Plan	0	9	9	3	16	3
Blue Revolution		0	0	5	12	13
Kamdhenu Dairy Farming	0	0	0.8			
Extension of National Horticulture Mission Programme in non-mission districts	7	17	18	9	20	14
Initiative-Horticulture Intervention on Micro Drip Irrigation (IHIMDI)	0	6	15	0	25	30
Exchange - Distribution of Crop Seed on Subsidy	19	73	25	25	16	15
Education						
Mid-day meal	429	636	523	531	833	851
Rashtriya Madhyamik Sikhsha Abhiyaan	217	209	168	12	0	0
Mukhyamantri Vidyalakshmi Yojana	16	17	15	0	0	0
Free cycle distribution among girl students of general category	3	3	3	4	10	10
Free education to girls up to intermediate level	4	4	5	0	0	0
Free distribution of dress textbook and copy to girl students	34	38	39	35	60	100
Jharkhand Balika Awasiya Yojana	31	120	21	0	111	66
Gift Milk to school children		0	0	5	15	15
WASH						
National Rural Drinking Water Programme	268	189	309	280	454	1429
Swachh Bharat Mission	393	1276	920	824	913	805
Rural Pipe Water supply	170	206	338	414	571	472
Health						
Sanitary Napkins for school	25	4	2	0	2	1
School Health Scheme	8	0.7	16	15	20	31

Schemes	2015 -16 A	2016 -17 A	2017 -18 A	2018 -19 A	2019 -20 RE	2020 -21 BE
Poverty Alleviation Programme						
Mahatma Gandhi National Rural Employment Guarantee scheme	1166	1729	448	706	663	621
National Rural Livelihood mission/Ajeevika	198	236	394	274	433	830
National Urban Livelihood Mission	7	42	68	19	75	67
Urban Poverty Alleviation and Social welfare	6	17	2	3	3	2
JOHAR scheme	0	0	40	140	167	120
Jharkhand Tribal Empowerment & Livelihoods Project (JTELP)	3	4	6	5	3	2
Food Security and Social Safety Nets						
Mukhya Mantri Dal-Bhat Yojana	11	13	15	15	24	70
National Social Assistance Programme	613	1151	1190	1236	2522	2413
Distribution of Sugar to AAY/PHH Family	0	203				
Distribution of Sugar to BPL Families	171					
Distribution of Free Flow Iodised Salt to AAY/PHH Family	9	41	35	13	65	55
Antyodaya Anna Yojana (AYY)	119	145	142	133	165	165
Annapurna Yojana	2	0	0.2	2	5	5
Priority Household Scheme (PHS)	0	486	498	474	553	553
Adim Jan Jati (primitive tribal) Pension Scheme	4	20	27	32	62	72
State Old Age Pension Scheme	54	189	201	204	444	442
State Pension Scheme for HIV/AIDS Affected Persons		0.3	1.3	2	4	5
Rajya Vidhwa Samman Pension Yojana		46	88	109	221	218
P.V.T.G Dakiya Scheme	0	0	3	4	7	7
Women's empowerment						
Mukhyamantri Kanyadan Yojana	33	35	37	38	50	30
Sanjivani Scheme	15	14	6			
Mukhyamantri Lakshmi Ladli Yojana	96	111	97	73	0	0
Tejaswani Yojana (Socio-Economic Empowerment of Adolescent Girls and Young Women)	0.5	5	35	0	83	191

Source: Computed by CBGA from budget documents of Jharkhand, various years

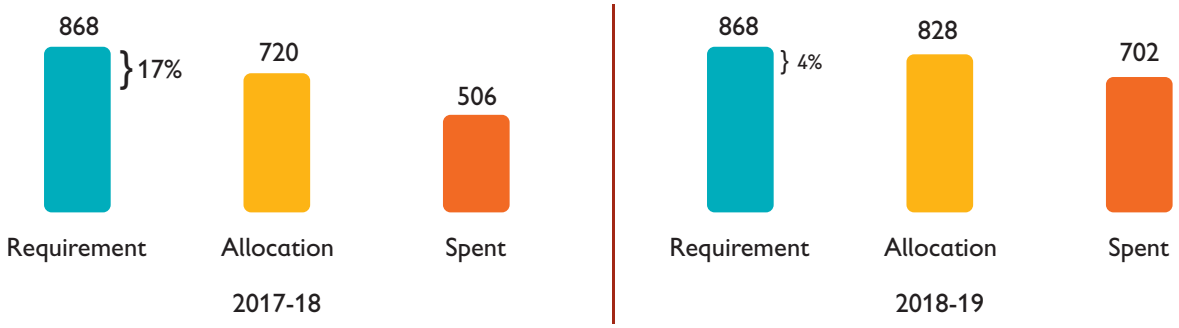
3.5 Adequacy for Budget Outlays

The notion of resource adequacy in reference to a nutrition intervention is: how much public resources will be required to deliver the selected nutrition intervention at scale (i.e. to cover the entire target population at the existing unit costs/financial norms of the prevailing programme/scheme).

3.5.1 Adequacy of Budget Outlays for ICDS-SNP[59]

According to the guidelines of ICDS-SNP, children below 72 months, pregnant and lactating women, and severely malnourished children are the beneficiaries of ICDS-SNP. The number of beneficiaries in the State, as mentioned in 15th Finance Commission Report and Directorate of ICDS, Jharkhand, is little more than 34.7 lakhs. Given the unit costs prescribed by Union ministry, the resource requirement of the State was Rs. 868 crore in both 2017-18 and 2018-19. However, the resource allocation for SNP for these years were Rs. 720 crore and Rs. 828 crore respectively. Resource gap of SNP in 2017-18 and 2018-19 was around 17 per cent and 4 per cent respectively.

Figure 3.8: Resource Gap in the Budget Allocation for ICDS-SNP (in Rs. Crore)



Source: Computed by CBGA using budget documents of Jharkhand, various years; Parliamentary questions; XV FC Report, Directorate of ICDS, Jharkhand

3.5.2 Universalisation of ICDS-SNP

In order to ensure universal coverage (i.e., around 90 per cent of the population in the specific categories) the State needs around 1300 crore under ICDS-SNP. Potential number of beneficiaries has been arrived at by taking 90 per cent of children below 6 years, pregnant and lactating mothers and severely underweight children. Population figure has been projected by compound annual growth rate assuming last decade's growth rate to be constant. Number of children in age group 6-12 months has been estimated by taking half of the projected number of children in age group 0-12 months.

Number of severely underweight children have been estimated using proportion of severely underweight children calculated by CNNS (2019) for both male and female children. Number of pregnant women has been taken from Jharkhand's HMIS (2017-18 and 2018-19) report. Women registered for ANC has been used as the proxy. Number of lactating women has been assumed to be equal to estimated number of women who gave birth during 2017-18 and 2018-19 as per HMIS, Jharkhand. Average of total number of pregnant and lactating women has been taken to avoid overlapping and estimate number of pregnant and lactating women.

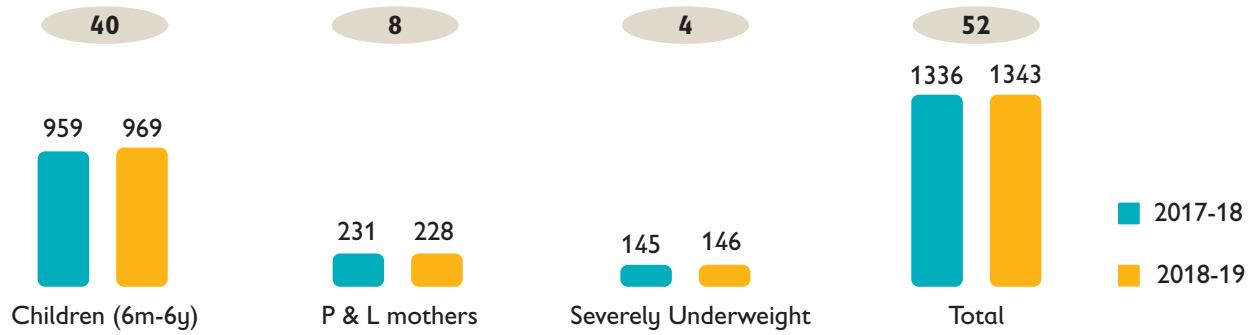
Total resource requirement has been calculated by multiplying potential number of beneficiaries with prescribed unit costs. Revised unit costs per person per day have been used for the analysis, which is as follows: INR 8/- for normal children (6m-72m); INR 12/- for severely underweight children (6m – 72m); INR 9.5/- for P and L women. It is to be noted here that the report does not comment on whether the revised

[59] The adequacy of the budget for SNP is assessed against the government's prevailing unitcost norms and the intended coverage.

unit cost is sufficient to cater to the population or not; whether it is lower than market price; whether it is adjusted to the rate of inflation or state specific price index or not. The report also does not comment on the calorie norm prescribed in the guidelines. Taking unit cost, calorie norm, number of days prescribed for the services as given, the report only analyse how the requirement changes according to changes in number of beneficiaries. Finally, the requirement has been compared with actual budget. The State did not spend even half of the resources required for universal coverage during 2017-18 and 2018-19.

Figures 3.9 shows the volume of resources required for universalising ICDS-SNP programme in Jharkhand on the basis of estimated beneficiaries.

Figure 3.9: Resource Requirement for Universalisation of ICDS-SNP in Jharkhand During 2017-18 and 2018-19 (in Rs. Crore)



Notes: (i) Figures in circles are number of beneficiaries in lakhs.

(ii) Revised Unit Costs: (per person per day): INR 8/- for normal children (6m-72m); INR 12/- for severely underweight children (6m – 72m); INR 9.5/- for P and L women.

(iii) Population figure has been projected by compound annual growth rate taking last decade's growth rate to be constant. We argue for covering 90 per cent of the total population under said categories for ensuring universalization.

(iv) Number of children in age group 6-12 months has been computed by taking half of the projected number of children in age group 0-12 months.

(v) Number of severely underweight children have been computed from total children in age group 6-72 months by taking proportion of severely underweight children from CNNS (2019), which is 10.9 per cent for male and 9.5 per cent for female.

(vi) Number of pregnant women have been taken from Jharkhand's HMIS (2017-18 and 2018-19) report. Women registered for ANC has been used as the proxy.

(vii) Number of lactating women have been assumed to be equal to estimated number of women who gave birth during 2017-18 and 2018-19 as per HMIS, Jharkhand.

(viii) Average of total number of pregnant and lactating women have been taken for the category pregnant and lactating women.

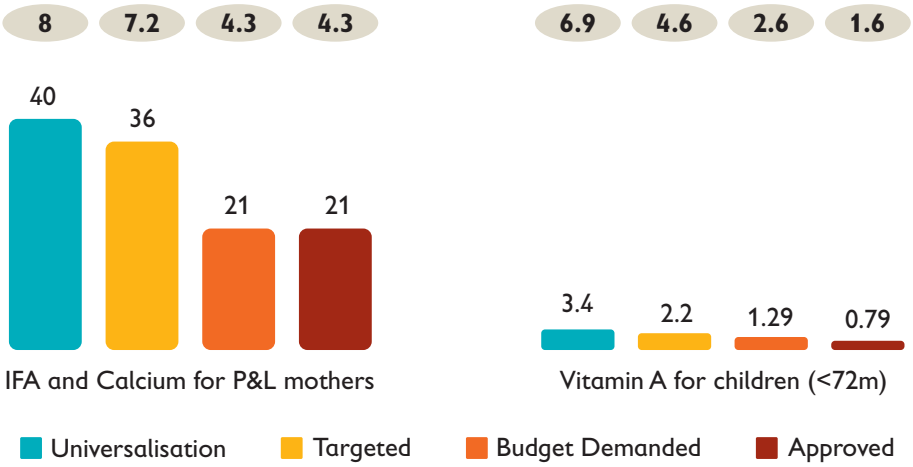
Source: Computed by CBGA using budget documents of Jharkhand, various years, Census 2001, 2011; CNNS 2019; HMIS, Jharkhand 2017-18, 2018-19

3.5.3 Resource Requirements for Select DNIs under NHM

Jharkhand government had demanded budget for 4.3 lakhs women, although according to 15th FC's report, number of P&L women targeted for nutrition benefit was 7.2 lakhs in the State. The State has been asked to procure IFA and calcium at the cost of Rs. 0.30 (for 390 days) and Rs. 0.50 (for 720 days) per tablet respectively for 4.3 lakhs women through bidding. On the other hand, only around Rs. 0.79 crore had been approved for Vitamin A syrup against a proposal of Rs. 1.29 crore. Around Rs. 3.4 crores would have been required if the State had to provide Vitamin A syrup to all new born children in the State. Resource requirement would be more for universalization of the service as depicted in Figure 3.10. Similar measures,

as have been taken in Section 3.5.2 to estimate number of beneficiaries, have been applied in this section. Figure 3.10 shows that the State required around Rs. 40 and 36 crores to provide IFA and calcium tablets at prescribed dosage to all pregnant and lactating mothers and targeted beneficiaries respectively. However, only 21 crores have been demanded by the State for only 4.3 lakhs beneficiaries. Similarly, around Rs. 3.4 crore was required to ensure universal coverage in Jharkhand and around Rs. 2.2 crore was required for covering targeted beneficiaries. However, the State covered only 2.6 lakh population and demanded around Rs. 1.29 crore. The approved amount was even lesser at around Rs. 0.79 crore.

Figure 3.10: Resource Requirement for Some of the DNIs Delivered Through NHM in 2018-19, Jharkhand (in Rs. Crore)



Notes: (i) Figures in circles are number of beneficiaries in lakhs.

(ii) Population figure for total number of children below one year has been projected by compound annual growth rate taking last decade's growth rate to be constant. We argue for covering 90 per cent of the total population under said categories for ensuring universalization.

(iii) For computing targeted population for children below one year, average of 15th FC's estimates across years have been used.

(iv) According to guidelines, children below 72 months are supposed to be given 1 ml Vitamin A syrup biweekly. This means that one child requires around 143 ml syrup. Thus, 1 bottle of 100 ml syrup will be more than sufficient for one child for a year and one child would require at most two 100 ml bottles of the syrup for the entire period. Here, it has been assumed that the government is buying medicine for children born in that particular year only.

(v) Number of pregnant women have been taken from Jharkhand's HMIS (2018-19) report. Women registered for ANC has been used as the proxy.

(vi) Number of lactating women have been assumed to be equal to estimated number of women who gave birth 2018-19 as per HMIS, Jharkhand.

(vii) Average of total number of pregnant and lactating women have been taken for the category pregnant and lactating women.

Source: Computed by CBGA using budget documents of Jharkhand, various years, Census 2001, 2011; CNNS 2019; HMIS, Jharkhand 2017-18, 2018-19, 15th FC estimates.

4

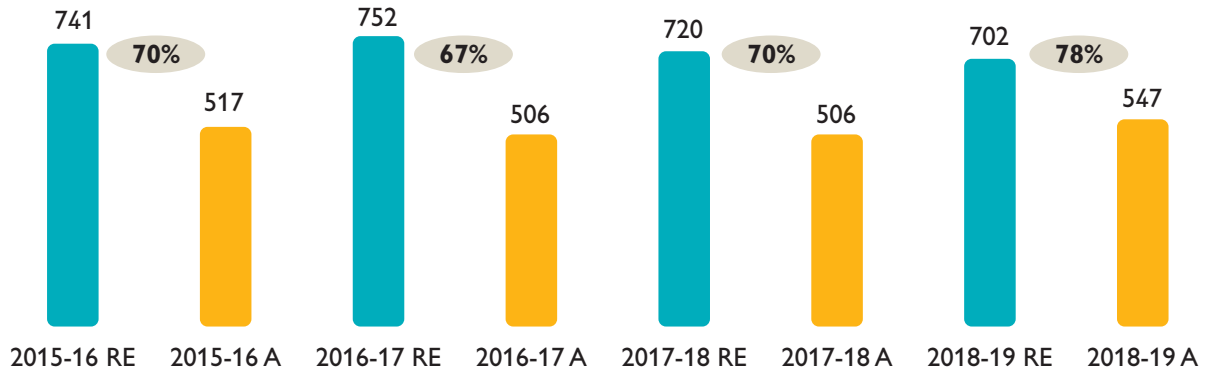
FUND UTILISATION UNDER DIRECT NUTRITION INTERVENTIONS

The state of fund utilisation varies significantly across schemes. In this section we have analysed fund utilisation of select DNI components funded by WCD and health ministry. Utilisation rate has been arrived at by calculating the share of actual spending in budget allocation (Revised Estimates).

4.1 Fund Utilisation under Specific DNI Components in Jharkhand

ICDS-SNP: Fund utilisation for specific DNI components has been analysed using allocation and expenditure of funds. Fund utilisation under ICDS-SNP has consistently been around 70 per cent or less during 2016-17 to 2018-19 and increased to 78 per cent during 2018-19. Allocation has declined during this period and this trend might be indicative of centre's response to poor absorption capacity of the state (Figure 4.1). Budgetary outlay and actual expenditure for the scheme have consistently been more than 700 crore and around 500 crore, respectively, during 2015-16 to 2018-19.

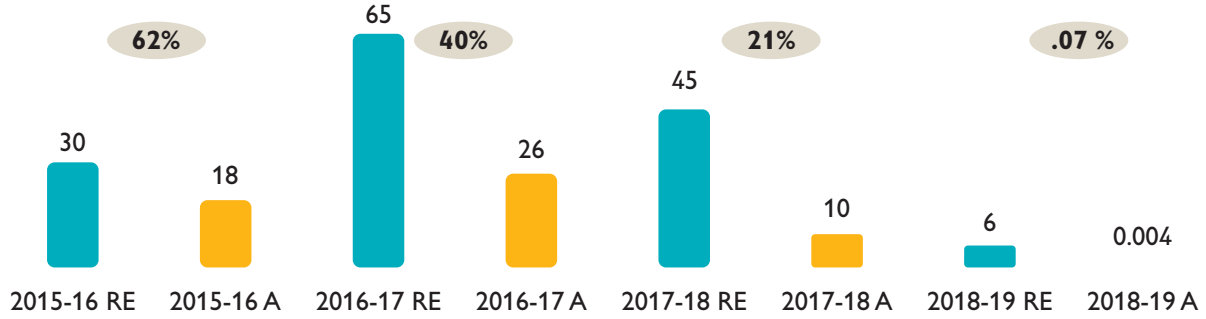
Figure 4.1: Utilisation of Funds Under ICDS-SNP in Jharkhand From 2015-16 to 2018-19 (in Rs. Crore)



Note: Figures in circles show utilisation of funds (in %)
Source: Compiled by CBGA from budget documents of Jharkhand, various years.

SAG: Utilisation of funds for SAG (Nutrition) has been consistently declining from 62 per cent in 2015-16 to .07 per cent in 2018-19. Allocation of funds for SAG doubled in 2016-17 as compared to 2015-16, but declined thereafter with even lower expenditure (Figure 4.2). Budget outlay for SAG declined from Rs. 65 crore in 2016-17 to Rs. 6 crore in 2018-19, along with a steady decline of actual outlay from Rs. 26 crore in 2016-17 to Rs. 0.004 crore in 2018-19.

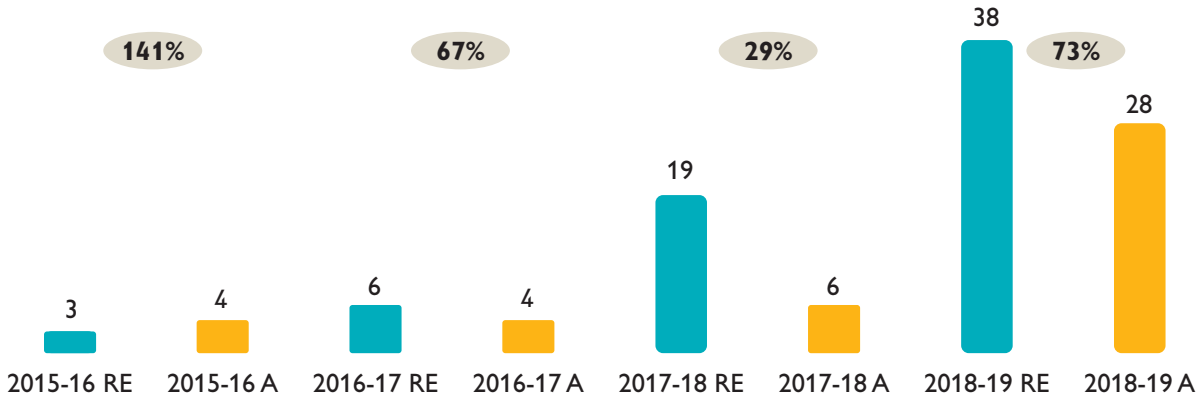
Figure 4.2: Utilisation of Funds Under SAG (Nutrition) in Jharkhand From 2015-16 to 2018-19 (in Rs. Crore)



Note: Figures in circles show utilisation of funds (in %)
Source: Compiled by CBGA from budget documents of Jharkhand, various years.

PMMVY: PMMVY, or Indira Gandhi Matritva Sahyog Yojana (IGMSY) before 2018-19, had excess demand for funds in 2015-16, with utilisation rate being 141 per cent. In other words, the State spent more than what was allocated for the scheme. Consequently allocation doubled in the next financial year in order to cater higher demand. Allocation, although, registered an increase in successive years, from 2.7 per cent in 2015-16 to 6 per cent in 2016-17, 19 per cent in 2017-18, and 38 per cent in 2018-19, expenditure on the scheme did not increase proportionately till 2017-18, if not more. A huge jump in actual outlays was observed in 2018-19 though. This is because the scheme then called IGMSY was initially started as a pilot programme in a few districts and later expanded to cover more districts. The outlay increased as the scheme became national. Utilisation rate had fallen from 141 per cent in 2015-16 to 67 per cent in 2016-17 and 29 per cent in 2017-18, and rose to 73 per cent in 2018-19 (Figure 4.3).

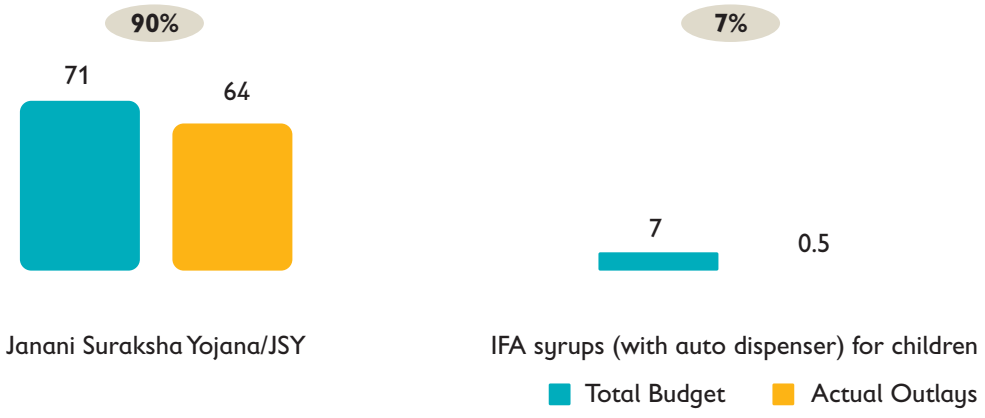
Figure 4.3: Utilisation of Funds Under PMMVY in Jharkhand From 2015-16 to 2018-19 (in Rs. Crore)



Note: Figures in circles show utilisation of funds (in %)
Source: Compiled by CBGA from budget documents of Jharkhand, various years.

JSY and IFA Syrup for Children: The State had allocated 71 crore for Janani Suraksha Yojana (JSY) in 2016-17, of which 64 crore had been spent, i.e., 90 per cent. On the other hand, utilisation of funds for procuring IFY syrup with auto dispenser for children was only 7 per cent as Jharkhand spent only Rs. 0.5 crore out of the allotment of Rs. 7 crore (Figure 4.4).

Figure 4.4: Utilisation of Funds Under JSY and IFA for Children in Jharkhand in 2016-17 (in Rs. Crore)



Note: Expenditure is inclusive of Central Release, State Release and Unspent balances of previous year and is provisional.
Source: Compiled by CBGA from Jharkhand RoP and FMR, 2016-17.

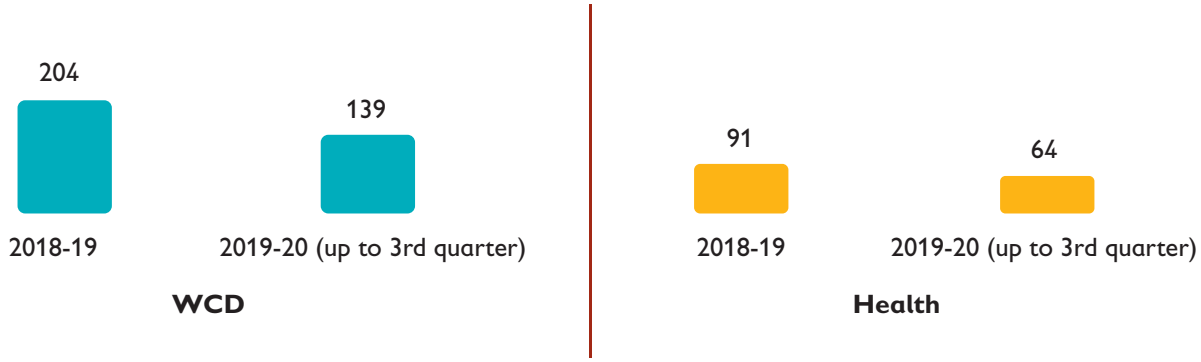
Discussion: The analysis shows that utilisation of funds under select DNI components (under WCD) have declined during the 14th FC period. The result reinforces the findings from Chapter 3 that budget for DNI components has declined in 14th FC period, even though the budget for WCD department demonstrated an upward trend. It has clearly come out from the analysis that poor absorption capacity of funds had led to decline in budgetary allocation in successive years. Poor absorption capacity can be indicative of lack of decentralised planning and budgeting, infrastructural bottleneck and human resource shortages.

Another glaring issue that has come up from the discussion is lack of transparency in budget data of NHM. State budget documents do not provide component wise allocation and outlays figures of NHM fund. The FMR report present data only for one financial year, i.e., 2016-17. The data have not been updated since then. As a result, analysis of fund utilisation under different DNI components of NHM is not possible for recent years.

4.2 Expenditure on WCD and Health through Treasury in West Singhbhum, Jharkhand

Two-third of the total fund that flows into a district is channelized through district treasury. Other than the society route, a significant volume of expenses on social sectors are incurred through treasury. West Singhbhum have spent around Rs. 204 and 139 crores on WCD in 2018-19 and 2019-20 (up to 3rd quarter) respectively. Expenditure on health has been lower than that of WCD. The district spent around Rs. 91 and 64 crores in 2018-19 and 2019-20 (up to 3rd quarter) respectively (Figure 4.5).

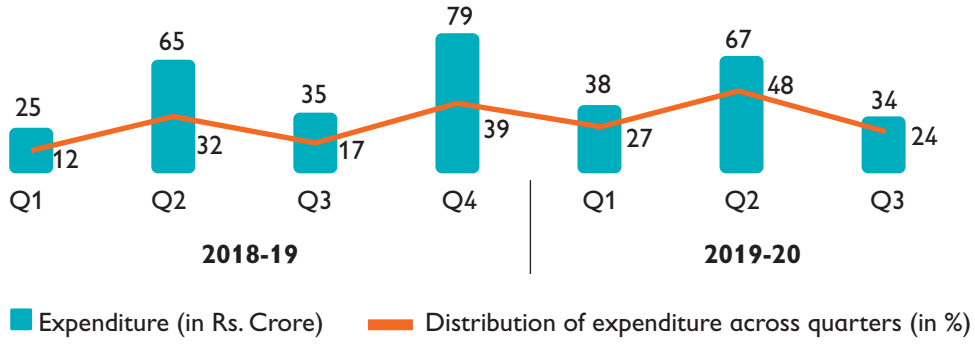
Figure 4.5: Expenditure on WCD and Health Through Treasury, West Singhbhum District, Jharkhand (in Rs. Crore)



Source: Compiled by CBGA from Jharkhand Online Treasury Management System.

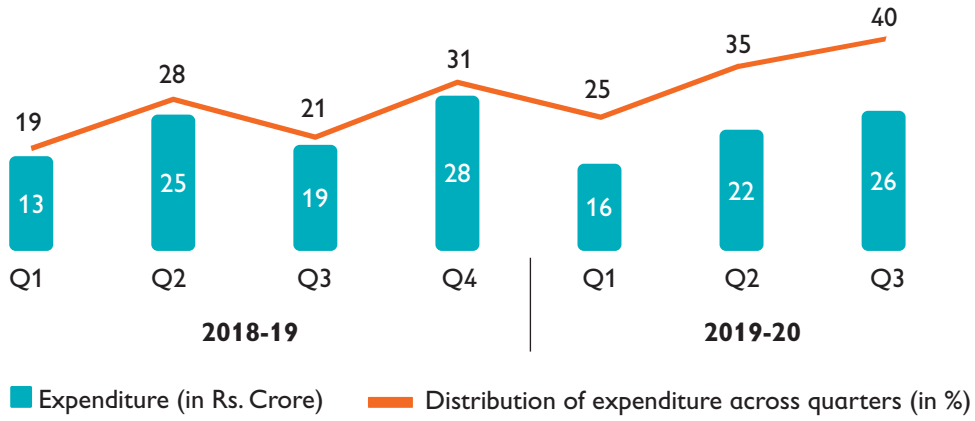
Both the departments of the district were found to spend more during second and fourth quarter of financial year 2018-19. Similar pattern was observed for WCD during 2019-20 (up to third quarter), whereas, expenditure on health has been increasing in successive quarters in 2019-20 (Figures 4.6 and 4.7).

Figure 4.6: Uneven Distribution of Expenditure on WCD Across Quarters in West Singhbhum, Jharkhand



Source: Compiled by CBGA from Jharkhand Online Treasury Management System.

Figure 4.7: Uneven Distribution of Expenditure on Health Across Quarters in West Singhbhum, Jharkhand



Source: Compiled by CBGA from Jharkhand Online Treasury Management System.

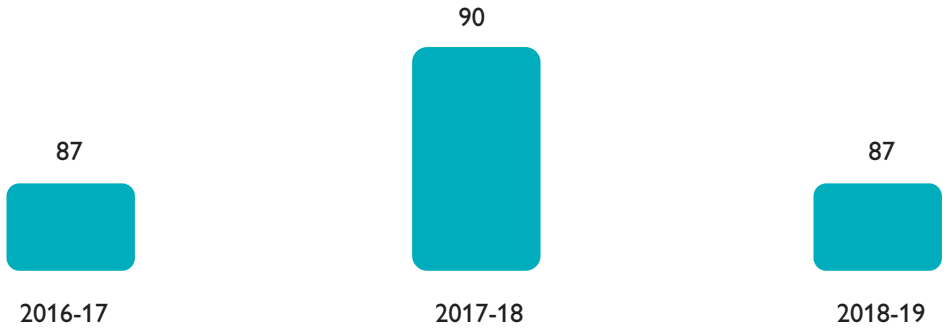
Discussion: Jharkhand Online Treasury Management System (OTMS) does not provide information on budget allocation for different department. Data pertaining to expenditure through treasury is available. Therefore, it is not possible to comment on extent of fund utilisation across financial years or quarters. However, quality of expenditure in terms of expenditure across different quarters of the financial year can be assessed. It can be seen from Figures 4.6 and 4.7 that volume of expenditure is very low in first quarter. This can be indicative of the delay in the flow of funds into the district through treasury. The district spent unevenly across quarters. In 2018-19, WCD department spent around 39 per cent in the last quarter, although, according to the guidelines by Department of Economic Affairs, Ministry of Finance, Government of India, governments, at every level, should adhere to incurring less than 33 per cent of the total expenses during last quarter of a financial year.[60]

[60] Department of Economic Affairs, Ministry of Finance, Government of India, 2017

4.3 Utilisation of Fund Under Select DNI Components in West Singhbhum District, Jharkhand

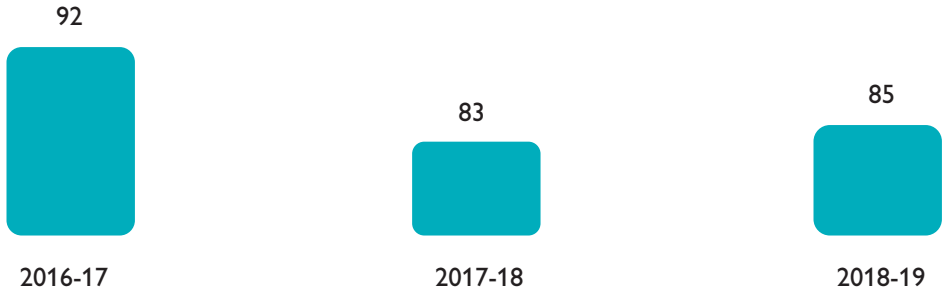
The district utilised around 87 to 90 per cent of funds allocated for ICDS. Utilisation had fallen from 90 per cent in 2017-18 to 87 per cent in 2018-19 (Figure 4.8). Utilisation rate of ICDS-SNP in West Singhbhum has been around 85 to 90 per cent during 2016-17 to 2018-19. Utilisation of funds under ICDS-SNP in the district was higher than that of state average (Table 4.9). However, there are still room for improvements as around 15 per cent of the funds remain unutilised in 2018-19. Utilisation of funds under SAG was as high as 88 per cent in 2017-18, however the district did not spend on SAG in financial year 2018-19. Similarly, outlay on PMMVY was zero in 2018-19 (Figure 4.10). It requires further clarification so as to understand district's demand for these services and what factors constrained spending on these programmes in 2018-19, if any.

Figure 4.8: Utilisation of Funds Under ICDS in West Singhbhum, Jharkhand From 2016-17 to 2018-19 (in %)



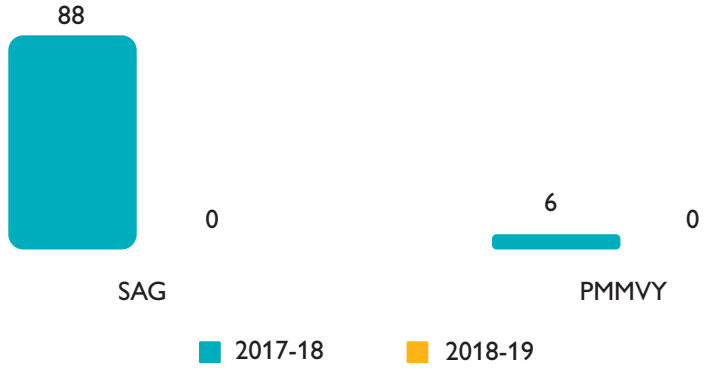
Note: Utilisation has been calculated on the basis of total allocation for the scheme.
Source: Compiled by CBGA using data shared by district officials.

Figure 4.9: Utilisation of Funds for ICDS-SNP in West Singhbhum, Jharkhand From 2017-18 to 2018-19 (in %)



Note: Utilisation has been calculated on the basis of total allocation for the scheme.
Source: Compiled by CBGA using data shared by district officials.

Figure 4.10: Utilisation of Funds for SAG & PMMVY in West Singhbhum, Jharkhand During 2017-18 and 2018-19 (in %)



Note: Utilisation has been calculated on the basis of total allocation for the scheme.
Source: Compiled by CBGA using data shared by district officials.

Discussion: The district had spent more than the state average on ICDS-SNP. The district spent more than 80 per cent on SNP. In 2017-18, the district utilised around 88 per cent under SAG and 6 per cent under PMMVY. However, the district didn't spend anything on SAG and PMMVY in 2018-19. West Singhbhum features among bottom three districts in terms of nutrition interventions in Jharkhand (Table A.1). Expenditure pattern of the district on important DNI components requires serious attention to overcome the present status.

4.4 Factor Constraining Utilisation of Funds in West Singhbhum, Jharkhand

a. ***Delay in flow of fund:*** According to district officials, fund is normally received in two installments under ICDS (in April and September). However, first instalment usually comes in May-June. The respondent further added that funding for salaries that should have come in March/April in 2018-19 came in September. Due to this salary disbursement to Sevikas/CDPO got delayed. Consequently, two to three months delay in the supply chain followed. In NHM, the district received Centre's share on time. However, there was delay in receiving State's share. As a result, district could not take up specific task on time.

b. ***Centralised procurement:*** Procurement of drugs under NHM and rice and pulses under ICDS is done at state level. Partial move towards decentralization was made by transferring the responsibility of supplying THR to SHGs under JSLPS. The JSLPS doesn't receive fund for the same, instead it gets reimbursement once the SHGs raise the bills. Perception collected from the district consultation shows that there is often delay in the reimbursement which delays the delivery for the following months.

c. ***Rigid scheme guidelines (unit cost and complex procedure):*** Market rate of procurement is much higher than the prescribed rate by Union ministry. In the absence of flexible guidelines related to unit cost of the commodities, the quality of food is compromised. Taking these into account, some scope of regional flexibility should be accommodated in the guidelines in order to ensure effective implementation of the programmes. According to district officials, complex fund flow process and tendering process of HCM also lead to underutilization of funds.

d. ***HR issues:*** Staff shortage is a major problem in the district. There are many posts lying vacant in the district. Social Welfare staff has to be filled by the State. Regular training programmes should be conducted in the district. Under ICDS, the challenge is to both fill the existing posts and sanction new posts. Delay in submission of UCs is one of the major reasons behind low allocation and loss of data under ICDS as there is no sanctioned post for computer operators.

Table 4.1 shows shortfall of staff in WCD department in West Singhbhum district, Jharkhand. Shortfall of human resources in WCD department has affected utilisation of funds and service delivery adversely.

Table 4.1: Shortfall in ICDS Workers Across Blocks in West Singhbhum in 2018-19

Blocks	AWW/AWH	Lady supervisor	Clerical Staff	Group D staff	Data Operator
Chaibasa	5	0	0	0	1
Tantnagar	1	2	1	0	1
Majhgaon	5	1	0	1	1
Kumardungi	0	1	0	1	1
Khuntpani	1	0	1	1	1
Jhinkpani	1	0	0	1	1
Tonto	2	1	1	1	1
Jagannathpur	8	4	0	0	1
Noamundi	3	4	0	0	1
Manjhari	3	2	0	0	1
Chakradharpur	19	7	0	0	1
Sonua	5	3	0	0	1
Goilkera	5	4	1	1	1
Manoharpur	12	4	1	0	1
Bandgaon	2	1	0	0	0
Hatgamharia	9	2	1	1	1
Total	81	36	6	8	16

Utilisation of funds under select DNI components is not very satisfactory in the State. While West Singhbhum district shows better utilisation under ICDS and DNIs such as SNP, it is worse for others such as PMMVY specially in 2018-19. There are a number of issues to be dealt with in order to ensure optimal utilisation of funds and effective implementation of the programmes on the ground.

5

CONCLUSION AND WAY FORWARD

The burden of diseases and malnutrition is quite high in India even after taking considerable measures to fight against malnutrition over the last two decades. Nutrition status is region specific, as it varies across Indian states as well as within states. Jharkhand, the State under consideration for the present study, primarily a rural state with dominance of tribal population and high incidence of poverty, performs below the national average across most of the indicators of nutrition, barring the breastfeeding status. In order to improve the nutrition status, the State needs to make substantive budgetary provision. However, the report finds that resource allocation for direct nutrition interventions is not adequate to deliver services at scale and deserves further attention.

Coupled with inadequate budgetary provision, poor fund utilisation under some of the direct nutrition intervention programme both at the State and District level aggravates the problem. Although, allocation for nutrition intervention programmes was inadequate, the State ended up with a significant proportion of funds unutilised by the end of the financial years. Due to stringent rules enforced by FRBM act, States were forced to reduce their revenue deficit to zero and they could only incur three per cent of fiscal deficit (as share of GSDP) at most. In order to maintain fiscal prudence and save themselves from getting penalised, States reduced their revenue expenditure to an extent that they ended up enjoying a surplus in their revenue account. On the other hand, GSDP of states like Jharkhand is far less than large State like Maharashtra. Therefore, 3 per cent of GSDP which the State could borrow for development purposes, for improving State's physical infrastructure, was actually much lesser than the required amount in absolute sense. Therefore, such states could not decide upon how to increase their capital expenditure. As a result, these states ended up with unutilised funds.

There are a number of factors, such as delay in fund flow, centralised procurement, rigid scheme guidelines, staff shortages and capacity issues, contributing to sub-optimal fund utilisation by the district. The following section presents some recommendations that can reverse the situation by improving fund utilisation capacity of the State, as well as the district under consideration, i.e., West Singhbhum.

Recommendations

The recommendations are based on analysis and perception consultations conducted at the district level which focused on how the interventions, and fund utilization can be optimized.

Need for focused Interventions

- The rural and tribal dominated areas in the State require more focus specially for interventions requiring public health infrastructure and medical staff such as ANC, institutional delivery etc.
- Being a tribal dominated State, wherein tribal face high prevalence of undernutrition, the fund for social security pension scheme for the primitive tribals can be increased, as it is currently one-tenth of the total social security budget.

Increase in Allocation

- The State should demand for higher budget allocation for nutrition intervention programmes. As the findings suggest, the budget approved and spent for various DNI interventions is not sufficient to deliver services at scale. Therefore, higher budget is required for these DNIs. Additionally, there are a number of sectors which although do not have direct impact on nutrition status of the State, but they create enabling environment for improving nutrition indicators. Those sectors should not be ignored and higher allocation of funds for those sectors is also important.

Decentralised Planning and Budgeting and Relying Upon Additional Sources to Address Delay in Fund Flow

- Decentralised planning and budgeting is required to accommodate regional diversities and local needs. At the same time, it addresses the issues of delays in fund flows. This will require capacity building of local government staff on budgeting, though. The whole process of preparation and submission of the plan (PIP), and getting approval, along with complicated fund flow process lead to delay in fund flow, and thus, under utilisation of funds. In absence of a decentralised system in practice, sharing plan and approval in the beginning of the financial year can improve the quality of fund utilisation. Districts can resort to other sources of funds like DMFT and RF to resolve problems related to delay in fund flow.

Flexible Guidelines to Improve Utilization

- There should be a provision for a certain flexibility in the budget under each head for accommodating regional or state specific diversities. For example, an AWC in rural area might have more children coming than the one in urban areas, but both receive the fund for same number of children, thereby adversely affecting efficiency. Flexibility in guidelines and fund flow will allow better participation from local level of governance, better implementation of schemes and efficient utilization of funds.

Revision of Unit Cost

- Low unit cost for various components that has not been revised in a long time is an issue that pertains to low budget. To ensure that allocation is enough to make a difference, unit costs for various components needs to be periodically reviewed and revised.

Decentralised Procurement

- Jharkhand has made a partial move towards decentralization by transferring the responsibility of supplying of THR to SHGs under JSLPS. However, as it is still fraught with many issues. For examples, the JSLPS receive funds only after raising the bills and faces the problem of delay in the reimbursement quite often. Besides, other components of HCM are procured at state level and the distribution process is also time consuming. The procurement process should be decentralized in order to achieve timely and regular intervention, by taking the following steps to make this shift to decentralization more efficient:
    - Accounts for AWCs and JSLPS can be opened where funding is provided on advanced basis. All fund transfers can be made to only through e-transfers to prevent pilferage.
    - Procurement rate for THR given to JSLPS can be revised to match the market rate.
    - Institutionalizing community-monitoring committees like that of Jaanch committee in Odisha can be done to assess the needs of AWCs and support procurement strategies and to ensure active participation of the community in monitoring the programme.

Comprehensive Database and Monitoring

- In Jharkhand, Sakhi Mandal under JSLPS are proving to be an efficient medium for convergence, but for convergence to be effective, the plans and process at the department level is not enough, but to ensure

that the multisectoral interventions reach the same mother-child duo for the first 1000 days. And to ensure this, it is important to develop and use data on co-coverage at household level, i.e. how many households receive all interventions from different departments in the same time frame to monitor convergence.

Human Resource:

- Under NHM, more medical colleges are a long-term solution, while local recruitment and incentive will help in the short term.
- Under ICDS, the challenge is to both filling the existing posts and creating new posts. For example, new post for computer operators can be created in social welfare department as presently there is no sanctioned post for computer operators in the department in West Singhbhum.

Capacity building:

- Jharkhand has been conducting training for members of VOs and Social Action Committee (SAC) through the flipbook titled "Samuh Varta". Incremental learning approach as advised under Poshan Abhiyaan as per as the guidelines can be adopted to ensure continuity in training.
- The data entry operators should be given training on scheme guidelines and components, apart from technical training.
- Departments apart from WCD or social welfare in case of Jharkhand, specially health department that covers micronutrients supplementation should be trained and made aware of their roles in combating undernutrition, for efficient convergence as these department generally perceive nutrition to be responsibility of WCD.

Better practices from other States :

Additionally, there are some good practices that Jharkhand can adopt from other states.

- Jharkhand is piloting CMAM. Along with it, it can also replicate Uttarakhand's, initiative of volunteering to adopt a Severe Acute Malnutrition (SAM) child. By adopting a child, one takes care of the child by aiding the child's family or organisation in providing for their health and education.
- Being a tribal dominated State where under age marriage is still common, Jharkhand can also replicate Odisha's Newlywed couples' Meeting whereby newly-wed couples are counselled on family planning measures to avoid early pregnancies.
- SRLM members can make regular home visits to households identified as being at nutritional risk to provide counselling and motivating them to participate in VHSNDs as is being done in Bihar, Chhattisgarh, and Odisha.

Way forward in the face of COVID-19 related developments: The unexpected global pandemic, COVID-19 and the resulting lockdown will have unprecedented effect on nutrition, escalating both the immediate and underlying causes of nutrition. Not only DNIs such as hot cooked meal and mid-day meal are suspended as the Anganwadi Centres are closed but the household food security will also weaken as the suspension of economic activities means loss of livelihood for informal workers such as MGNREGA and construction workers, migrant labour, as well as farmers, pushing many into deeper poverty.

Although the Central government is offering supplementary PDS to vulnerable people, about 8 lakhs people in Jharkhand without ration card are excluded. The State of Jharkhand has taken the initiative of providing 10 kg of rice to these 8-lakh people whose ration card applications are pending, however, only 35 per cent of those received the ration. Furthermore, this still leaves some who have no ration card application or identification. Moreover, the State government has also allocated Rs 3.19 crore to open 498 "daal-bhaat" centres across 24 districts. Apart from these "daal-bhaat" centres, Mukhyamantri Didi Kitchen has also been operational since April, run by self-help groups in all panchayats, providing cooked food twice a day. Despite these, in a rural and tribal dominated Jharkhand, where agriculture is one of major source of livelihood and has 25 lakh registered MGNREGA workers and 9 lakh registered construction workers, the loss of livelihood and poverty will require a long term support. Actions such as temporary ration cards, or identification system has to be created to include those who have no ration cards. Further, in the long term, a renewed and more concerted effort will be required to make up for the loss and check the growth of undernutrition resulting from the pandemic. For example, the meals provided at the school and Anganwadi Centres can be enhanced with eggs, milk, and food rich in other micronutrient supplements. Far more resources and long term action will be required to overcome the underlying factors such as disrupted livelihood and poverty behind undernutrition. The current three months pension support to social beneficiaries should be extended and more work has to be provided to informal workers.

Appendix

Table A.1: District Wise Variation in Nutrition Interventions

Nutrition Interventions	Top District	Bottom Three Districts
ANC in first trimester	Ranchi (69.8%)	West Singhbhum (19.6%); Chatra and Laterhar (28.3%)
At least 4 or more ANC visits	Koderma (57.4%)	Garhwa (11.6%); Chatra (11.8%); West Singhbhum (12.6%)
Consumed IFA for 100 or more days of pregnancy	Ranchi (33.9%)	Garhwa (3.3%); Chatra (6.9%); Simdega (7.2%)
Health and nutrition education during pregnancy	Khunti (62.3%)	Palamu (12.6%), Chatra (17.6%), West Singhbhum (21.2%)
Health and nutrition education during breastfeeding	Khunti (60.3%)	Palamu (12.0 %), Chatra (13.3%), West Singhbhum (18.1%)
Supplementary food-Pregnancy	Dumka and Jamtara (85.1%)	Palamu (47.6%), Chatra (54.3%), Dhanbad (59.5%)
Institutional delivery	East Singhbhum (82%)	West Singhbhum (37%); Sahibganj (48%); Simdega (49%)
Birth registered of children under five	East Singhbhum (85.4%)	Palamu (52.9%); Jamtar (53.3%); Dumka (54.3%)
Supplementary food-lactation	Jamtara (84.5%)	Palamu (41.9%), Chatra (50.5%), Dhanbad (56.2%)
Full immunization	Dumka (76%)	Chatra (42%); Girdih (48%), West Singhbhum (50%)
Paediatric IFA- (6-59 months)	Lohardaga (34.3%)	West Singhbhum (5.9%), Dhanbad (6.0%), Garhwa (6.8%)
Deworming-Children	Khunti (47.1%)	West Singhbhum (6.2%), Dhanbad (9.5%), Garhwa (10.1%)
Therapeutic zinc for diarrhoea	Girdih (48.5%)	Deogarh (0.0%), Sahibganj (2.4%), Chatra (4.1%)
Salt iodization	Simdega (99.6%)	Saraikela Kharwasan (92.2%); Garhwa (93.2%); Palamu (94.8%)

Source: NFHS 4 (2015-16)

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Save the Children

Save the Children

Bal Raksha Bharat, 1st & 2nd Floor,
Plot No. 91, Sector - 44
Gurgaon (Haryana) - 122003, India
Phone: +91 124 4752000, 4752100

CBGA

Centre for Budget and Governance Accountability

B-7 Extn/110A (Ground Floor) Harsukh Marg
Safdarjung Enclave, New Delhi – 110029, India.
Tel: +91 (11) 4920 0400, 4050 4846
Email: info@cbgaindia.org