

Practice Insight

STRENGTHENING MICRONUTRIENTS SUPPLY CHAIN MANAGEMENT IN JHARKHAND



Context

National Family Health Survey (NFHS)- 4 placed Jharkhand among the top five states with the highest prevalence of undernutrition. To add to it, the state also struggles with a high burden of anemia among women, children and adolescent girls. While micronutrient (MN) supplementation programs have been instituted by the government to countervail the prevailing conditions, the coverage of these programs remains far from satisfactory.

COVERAGE OF MN SUPPLEMENTATION FOR PREGNANT WOMEN & LACTATING MOTHERS

68.5%

received 180 IFA tablets

21%

received Albendazole

24%

percentage of mothers provided 360 Calcium tablets after delivery

35%

percent of mothers were provided full course of 180 IFA tablets after delivery

33%

were provided 360 Calcium tablets

Source: HMIS (2017-18)

15%

consumed IFA tablets for the recommended 100 days

Source: NFHS-4

Prevalence of anemia in women and children under 5 years of age



68.5%

OF PREGNANT WOMEN



69%

OF WOMEN BETWEEN 15-49 YEARS (NON-PREGNANT)



70%

OF CHILDREN BETWEEN 6-59 MONTHS

Source: NFHS 4

Prevalence of anemia in children and adolescents

29.8%

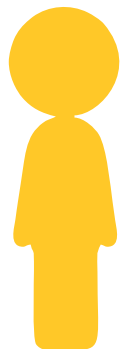
ADOLESCENTS AGED 10-19 YEARS

42.3%

CHILDREN AGED 5-9 YEARS

42.7%

CHILDREN AGED 1-4 YEARS



Source: CNNS- Jharkhand, 2017

COVERAGE OF MN SUPPLEMENTATION FOR CHILDREN

52.9%

of children between 9-59 months received a Vitamin A dose 6 months prior to survey

44.8%

of children under 5 years with diarrhoea were given ORS in the two weeks preceding the survey

19.1%

of children under 5 years with diarrhoea were given Zinc in the two weeks preceding the survey

Source: NFHS-4

6.3%

of children between 9-59 months received IFA supplement 6 months prior to survey

Source: RSOC (2013-14)

The National Health Mission, Jharkhand (NHMJ) identified bottlenecks in supply chain management as one of the major challenges in effective implementation of MN supplementation programs. In response, NHMJ used a multidimensional strategy to strengthen the supply chain management of micronutrients (MNs), namely, IFA Red, IFA Pink, IFA Blue, IFA Syrup, Calcium, Vitamin A and Albendazole in the state. WeCan¹, supported NHMJ as a facilitating partner in implementing interventions across the state.

The strategy adopted by NHMJ is anchored in recommendations specified in the State Action Plan (SAP) for MN Supplementation, developed by the Government of Jharkhand (GoJ) and NHMJ with the support of WeCan, JHPIEGO, UNICEF and USAID supported Vriddhi Project.

Approach

WeCan under the guidance of NHMJ conducted the following studies to assess the supply chain management and MN supplementation programs:

- » A rapid assessment of micronutrients conducted in 2018 (Hazaribagh and Lohardaga district)
- » Data analysis of HMIS coverage for 2017-18 and 2018-19
- » Study conducted under the guidance of Ministry of Health and Family Welfare (MoHFW) on diagnostic of supply chain management of IFA in Jharkhand, 2019 (Dumka and West Singhbhum)
- » Study conducted under the guidance of NHMJ to assess the gaps in supply chain management and, to evaluate the knowledge and practice of ANMs pertaining to the MN supplementation in the pilot districts of WeCan, 2019

WeCan adopted a three-fold plan of action to facilitate the implementation of interventions to strengthen supply chain.

APPROACH



Supporting NHMJ in implementing the intervention at the state level



Implementing key interventions in two pilot districts, Dumka and Lohardaga



Amplifying learnings to other districts of Jharkhand with support from development partners

¹ WeCan is a national level platform to foster cross-learning within the nutrition community, to collaborate and leverage each other's experiences.

The major gaps identified from these studies are presented below:

PROCUREMENT, SUPPLY AND DISTRIBUTION OF MNs¹

- Districts, CHCs & HSCs were not using scientific methods prescribed by Govt. of India for demand forecasting
- Public health facilities were indenting through paper-based systems
- 3-4 months of lead time was being taken to complete the procurement process
- Budgetary allocation of IFA was not aligned with the forecasting done at the state level

Gaps in Supply Chain Management



SHORTCOMINGS IN DVDMS/e-AUSHADHI²

- All the facilities were not networked
- The platform lacked features as per programmatic requirements
- The platform was not being used optimally for different processes involved in the supply chain of MNs

KNOWLEDGE AND PRACTICE OF ANMs

- Lack of knowledge on consequences of anemia during pregnancy
- Lack of knowledge of prescribed Hb levels in under 5 children & pregnant women
- Gaps in knowledge of benefits of Calcium and Albendazole among ANMs
- Most of the ANMs were not providing counselling on MNs to women and lactating mothers
- Training programmes for ANMs were few

PROFICIENCY OF PERSONNEL INVOLVED

- Absence of regular training programs on MNs
- Lack of computer efficiency and knowledge among personnel at different levels of supply chain management
- Absence of supportive supervision to enable transformation of the system from paper-based to portal-based online system

MANAGEMENT OF MN STOCKS

- Data on stock availability lacked veracity and was not updated regularly
- CDAC-supported (DVDMD)/e-Aushadhi) was not being updated in District Warehouses and CHCs

Objective of the Intervention

The overall objective of the intervention was to strengthen the supply chain management by

Increasing adequacy of MNs

Increasing coverage of MN supplements

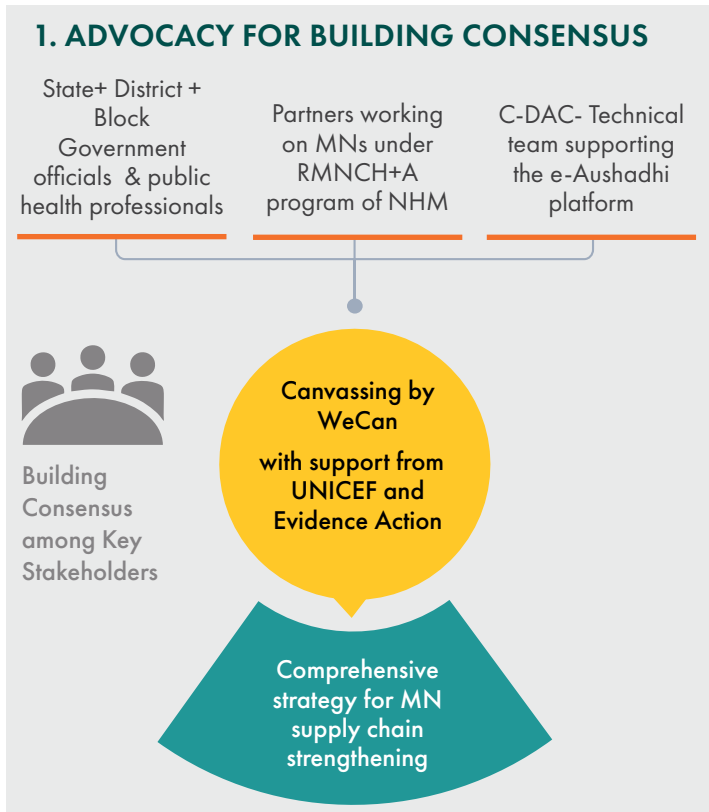
Building capacity of personnel managing supply chain of MNs

Real-time monitoring of data

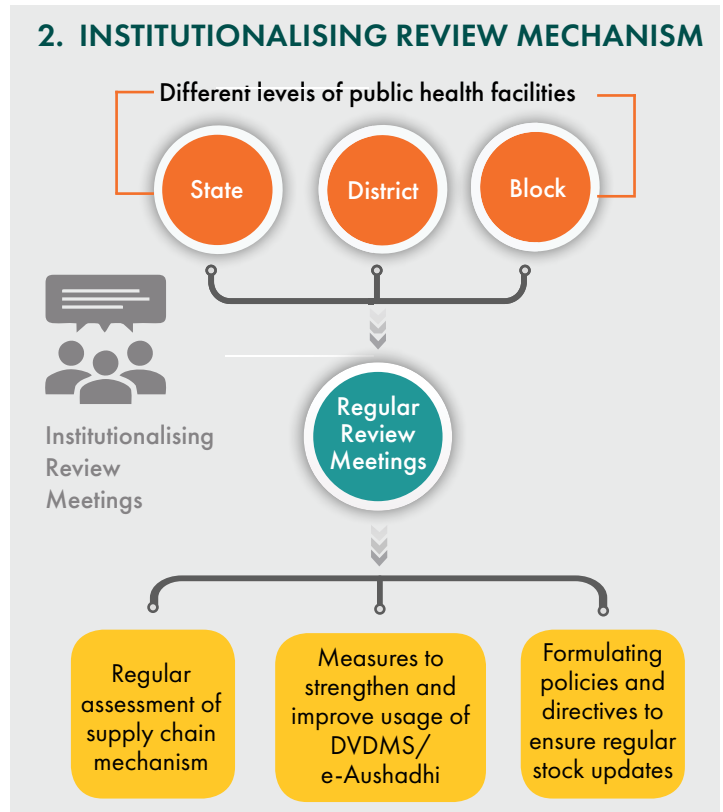
¹ Scientific methods refer to guidelines for demand and forecasting of MNs prescribed by the Govt. of India.

² Drugs and Vaccine Distribution and Management System (DVDMS)/e-Aushadhi is a software platform to manage drugs and medical equipment.

Key Interventions

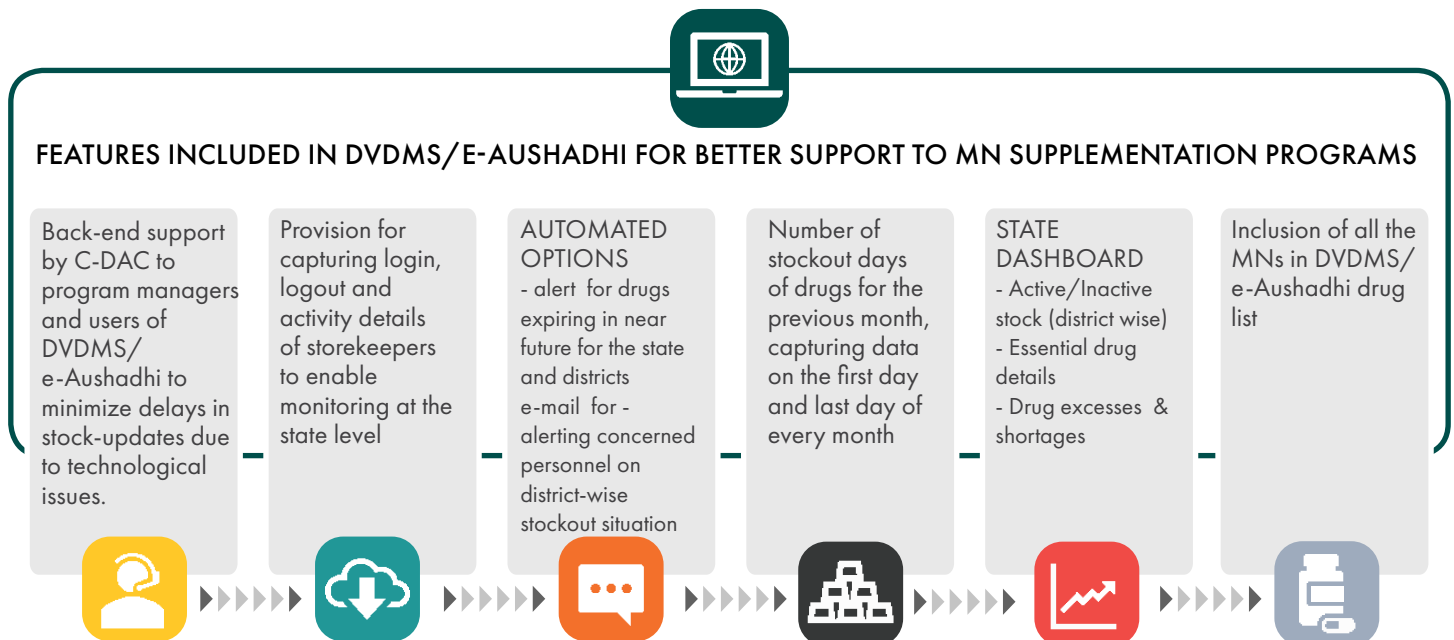


WeCan along with key development partners like UNICEF and Evidence Action advocated to build a consensus at the state level under the ownership of NHMJ on the use of Drugs and Vaccine Distribution System (DVDMS/e-Aushadhi) to monitor and manage MN supply chain mechanism in the state.



WeCan provided support to establish mechanism for regular meetings with the officials from all levels of public health facilities, C-DAC* and development partners under the ownership of NMHJ which led to regular review of supply chain mechanism.

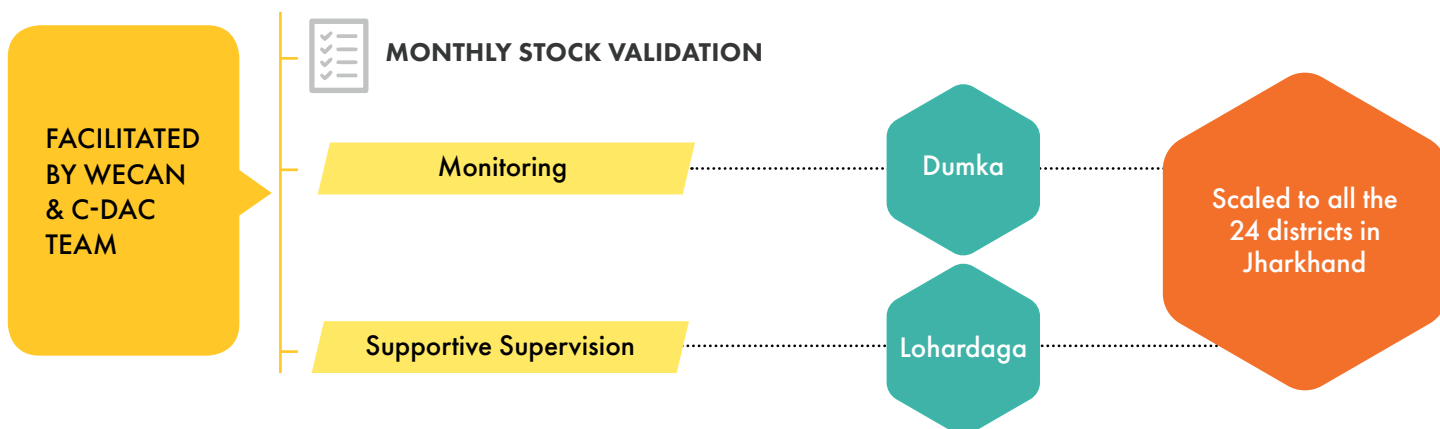
3. CUSTOMIZATION OF DVDMS / e-AUSHADHI PLATFORM:



*C-DAC: Centre for Development of Advanced Computing (C-DAC) is the premier R&D organization of the Ministry of Electronics and Information Technology (MeitY) for carrying out R&D in IT, Electronics and associated areas. The organization is providing technical support for DVDMS/e-Aushadhi in Jharkhand

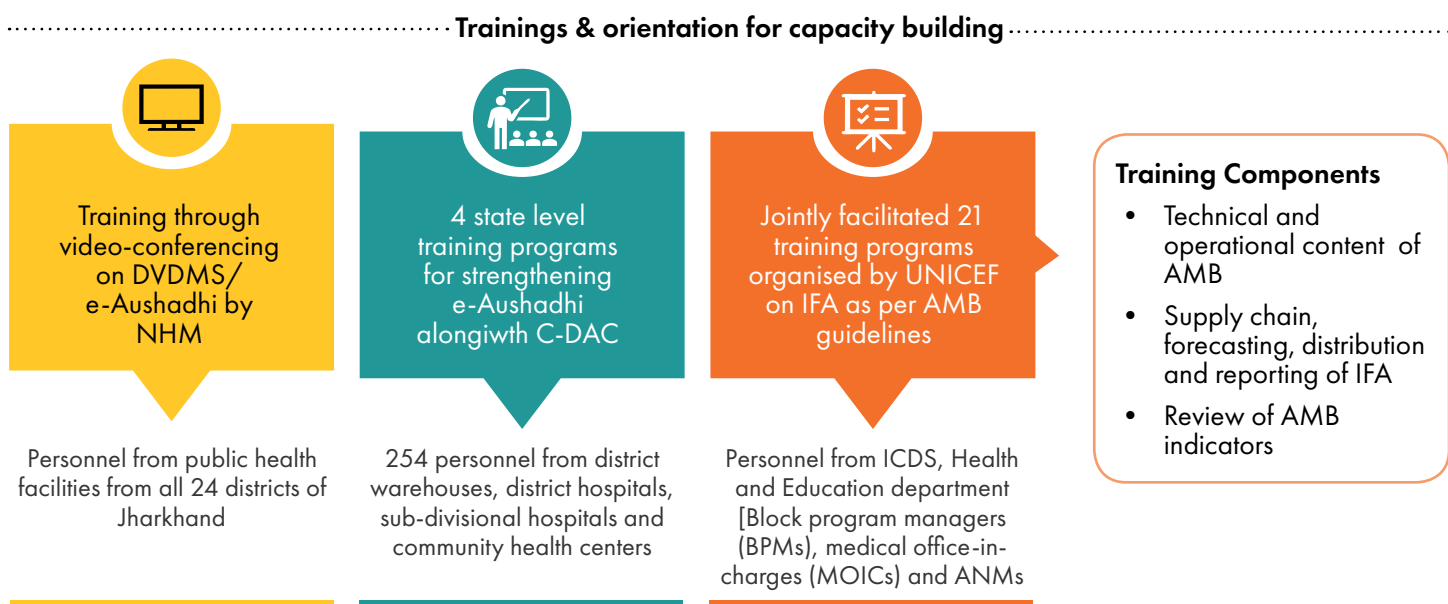
WeCan along with C-DAC, actively supported and facilitated the customization of DVDMS/e-Aushadhi platform to enable informed decision-making on forecasting, procurement, supply, and distribution of data by the program officers.

4. DATA VALIDATION:



WeCan along with C-DAC team undertook data verification through spot checks at facilities and telephonic survey for validating data being updated in DVDMS/e-Aushadhi.

5. TRAINING AND CAPACITY BUILDING:



WeCan, and UNICEF along with C-DAC came together to conduct training and orientation programs for capacity building of personnel managing supply chain at the state and district levels under the guidance of NHMJ.

Key Achievements

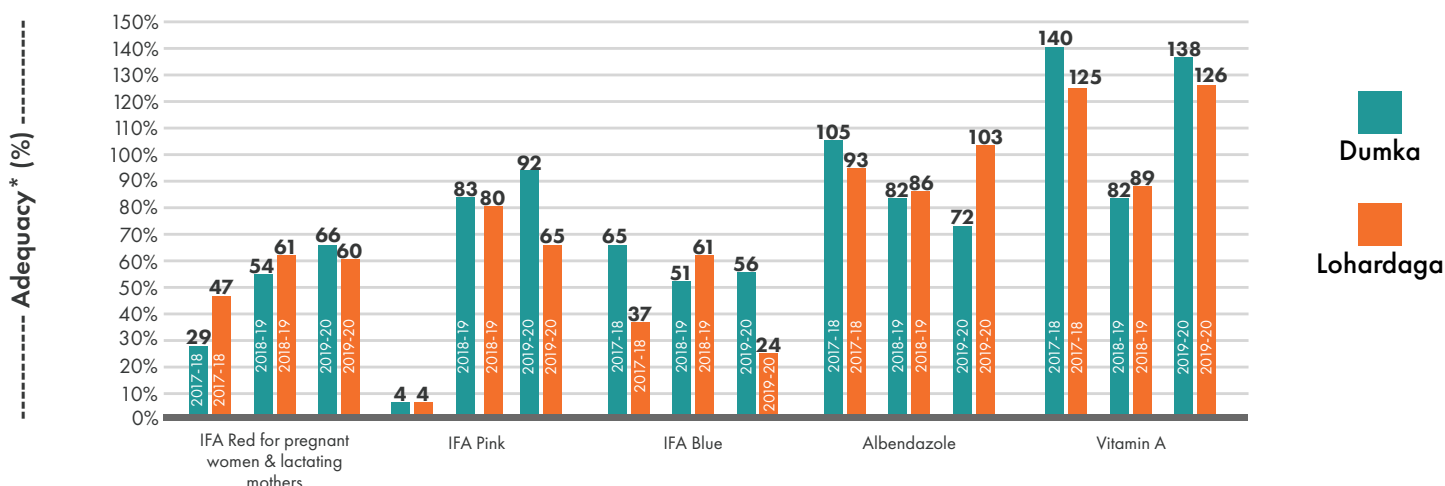
1. Improved availability and usage of DVDMS/e-Aushadhi

After the intervention by NHMJ, supported by development partners, Jharkhand ranked 9th among the 16 states in India using DVDMS/e-Aushadhi in 2019, as compared to rank 14 in 2018.

- » 253 public health facilities till the CHC level have been equipped with the hardware and software to connect to DVDMS/e-Aushadhi. The facilities include headquarters, district warehouses, district hospitals, sub-divisional hospitals, community health centers and medical colleges.

2. Improvement in Adequacy of MNs

Adequacy of MNs has seen improvement, with better availability of stocks.



* Adequacy is calculated based on the stock available at DDWH and CHC's. Some stocks may be present at Sub-divisional hospitals, Additional PHCs and Health Sub-centres, on which information was not available.

3. Improved Coverage of MNs in pilot districts

HMIS Indicators	MNs	Dumka		Lohardaga	
		2017-18	2019-20	2017-18	2019-20
Percentage of pregnant women (PW) given 180 Iron Folic Acid (IFA) tablets	IFA Red	55	75	77	97
Percentage of mothers provided full course of 180 IFA tablets after delivery	IFA Red	12	42	63	88
Percentage of pregnant women (PW) given 360 Calcium tablets	Calcium	27	56	45	86
Percentage of mothers provided 360 Calcium tablets after delivery	Calcium	7	38	49	80
Percentage of PW given one Albendazole tablet after 1st trimester	Albendazole	43	42	48	68
Child immunisation - Vitamin A Dose - 1	Vitamin A	77	67	80	84
Percentage of children (6-59 months) provided 8-10 doses (1 ml) of IFA syrup (Bi-weekly)	IFA Syrup *	0	9	0	11
Percentage of Girls (6th - 12th class) provided 4 IFA tablets in schools	IFA Blue	0	20	100	93
Percentage of out of school adolescent girls (10-19 years) provided 4 IFA tablets at Anganwadi Centres	IFA Blue	0	14	15	73
Percentage of out of school adolescent girls (10-19 years) provided albendazole at Anganwadi Centres	Albendazole	0	0	0	42
Percentage of children covered under WIFS JUNIOR (6-10 years) provided 4-5 IFA tablets in schools	IFA Pink **	0	29	0	60

Source: HMIS

*IFA SYRUP:

Till 2016-17, IFA Syrup was not included in the HMIS, making it difficult to track its coverage. However, its inclusion in HMIS in the following year revealed that the IFA Syrup was not reaching the beneficiary groups, while it remained 2% in 2018-19 in both Dumka and Lohardaga. After the intervention, both the districts showed improved coverage from no coverage in 2017-18.

**IFA Pink (WIFS JUNIOR): Interventions under IFA Pink in the state started in 2019-20. While the coverage of IFA Pink in Jharkhand in 2019-20 was 11%, Lohardaga and Dumka were the only districts with coverage more than the state's average at 60% and 29% respectively. The difference between the coverage of IFA Pink in Lohardaga and Dumka can be attributed to:

1. Geographical location: Lohardaga is close to the state capital, situated at a distance of about 74 Kms, while Dumka is located at a distance of 277 Kms from the capital
2. Size: Lohardaga is a small district with 5 blocks while Dumka is a larger district with 11 blocks
3. Performance based on nutrition indicators: Lohardaga has shown a better performance than Dumka

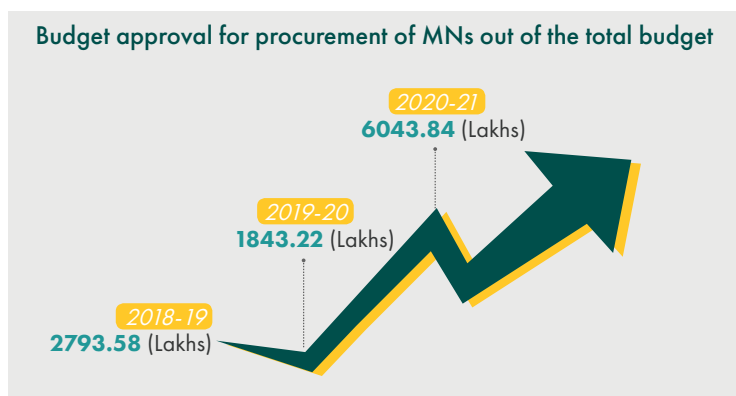
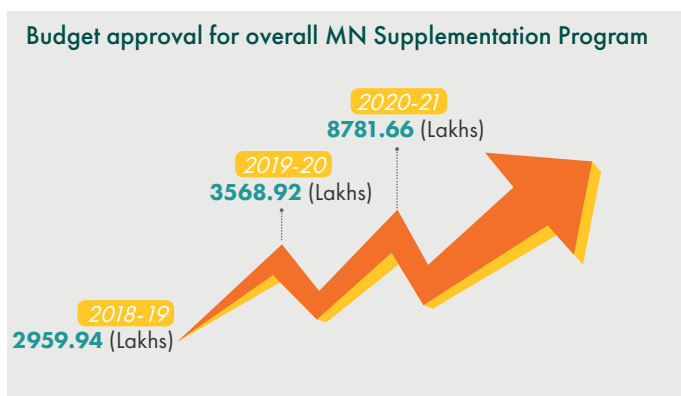
4. Improved Data Availability for Informed Decision Making

The customization of e-Aushadhi for managing supply chain generates real-time data of stock-in-hand and stock-out, and expiry dates of stock that has enabled the program officers and concerned personnel to:

- » Take informed decisions for procurement, supply, and distribution
- » Monitor and supervise stock updates and keep a track of the expiry dates of the supplements

5. Improved Budgetary Allocations

- » WeCan along with UNICEF and Evidence Action provided technical support to NHMJ for ensuring budgetary allocations for AMB which was instrumental in ensuring that Jharkhand had no planning gap in the PIP for AMB for the financial year 2020-21.
- » Sustained advocacy and sharing of best practices with NHMJ by WeCan has helped in turning the spotlight on MNs in PIP. There has been an overall increase of 66% in budgetary allocation for MNs related activities under RMNCH+A programs since 2018-19. Within the overall budget, the procurement budget for MNs in PIP witnessed an increase by 54% since 2018-19.



Key Learnings

- » Supply chain interventions should be supported by engagement of development partners working in the nutrition domain with the government and key decision makers in public health
- » Transition of processes involved in the supply chain management from paper-based systems to online, portal-based systems should be supported by adequate capacity building
- » The deployment of online platforms such as DVDMS/e-Aushadhi should be customized based on feedbacks from users across different levels for optimization as per programmatic requirements
- » Monitoring and supportive supervision through physical visits to public health facilities and telephonic monitoring for validation of stock-updates support strengthening of supply chain mechanism
- » Involvement of District Collectors in review meetings helps to strengthen inter-departmental coordination between Health, Education and ICDS to positively impact the procurement and coverage of IFA supplements among school going and out-of-school children.
- » Zinc could have been included along with other MNs
- » The number of districts for piloting the intervention could have been increased in collaboration with other partners to gain learnings from varied regions

Scalability

- » The learnings from the pilot districts of WeCan are being used to strengthen the supply chain mechanism in all the 24 districts of Jharkhand.
- » The learnings from these initiatives have been shared with policy makers at the national level. One such example is the joint participation of WeCan and UNICEF at the technical expert group consultation on experiences, bottlenecks, and way forward in streamlining of IFA Supply Chain Assessment in different Indian states. The platform was used to share experiences from Jharkhand.

Sustainability

Sustainability of the program would depend on the following factors:

- » Removal of barriers such as unavailability of Internet at different health facilities
- » Extensive capacity building of current personnel involved at each stage of supply chain management
- » In order to ensure sustainability, support needs to be provided at all process levels i.e, PIP development, system strengthening, setting up monitoring mechanism and review channels to ensure sustainability

Key Challenges

- » IFA Syrup procurement was affected in 2018-19 and 2019-20 because of the change in the bottle size from 100 ml to 50 ml as per AMB guideline. State has shortlisted vendors who can supply 50 ml bottles, so NHMJ is expecting supplies from 2020-21 onwards
- » Training of personnel at districts and lower facilities that can use DVDMS/e-Aushadhi needs to be intensified
- » Data validation techniques, monitoring and supervision must become more robust
- » Interdepartmental coordination between NHMJ, Education and Social Welfare (ICDS) needs to be strengthened
- » The supply and reporting mechanism for IFA Blue and IFA Pink between the health and education department should be streamlined for strengthening IFA School program

About WeCan

WeCan (We Collaborate for Nutrition) is a national level platform to foster crosslearning within the nutrition community, to collaborate and to leverage each other's experiences. WeCan facilitates scaling up of proven interventions for optimal utilization of resources and time to improve nutrition outcomes in India. Our goal is aligned with the overarching mandate of POSHAN Abhiyaan, a multisectoral nutrition flagship program of the Government of India. We work with a special focus on Maternal, Infant and Young Child Nutrition (MIYCN) and its key thematic areas. WeCan was conceptualized and established as a forum to enable cross-pollination of insights and sharing of learnings amongst different stakeholders, including governments, donors and development partners. To fulfil this mandate, we generate, collate, assimilate and disseminate knowledge from nutrition models through Practice Insights (PIs) and other products. A photo story based on this PI can be accessed at www.wecollaborate4nutrition.org.

FOR MORE INFO:

Noveena Swapnabh

Email: wecollaboratefornutrition@ipeglobal.com

AUTHORS

Anumeha Verma-Research, Content & Documentation Officer, WeCan-IPE Global

Priyanka Bajaj, Nutrition Expert, WeCan-IPE Global

CO-AUTHORS

Sumitro Roy- State Head-Jharkhand, WeCan-IPE Global

Binu Anand-National Head, WeCan-IPE Global

ACKNOWLEDGEMENTS

Mr Narsingh Kumar Khalkho, IRS, Director Finance, NHM Jharkhand, Dr Deepawali, Nodal Officer, Maternal Health
Dr Ajit Kr Prasad, Nodal Officer Child Health, Mr Priyanandan Prasad, Implementation Engineer, C-DAC
Mr Aman kumar Choudhary, IT Cell Executive, C-DAC, Mr Vikash Seth, AMB Consultant, UNICEF
Mr Sraban Kumar Bandanayak- State M&E Manager, WeCan-IPE Global
Mr Prafull Singh Kushwah- State Programme Manager, WeCan-IPE Global



WE COLLABORATE
FOR NUTRITION

Address: B-84, Defence Colony, New Delhi - 110024

Email: wecollaboratefornutrition@ipeglobal.com

FOLLOW US ON



@WeCan4Poshan



WeCan4Poshan



[Wecollaboratefornutrition](https://www.facebook.com/wecollaboratefornutrition)