



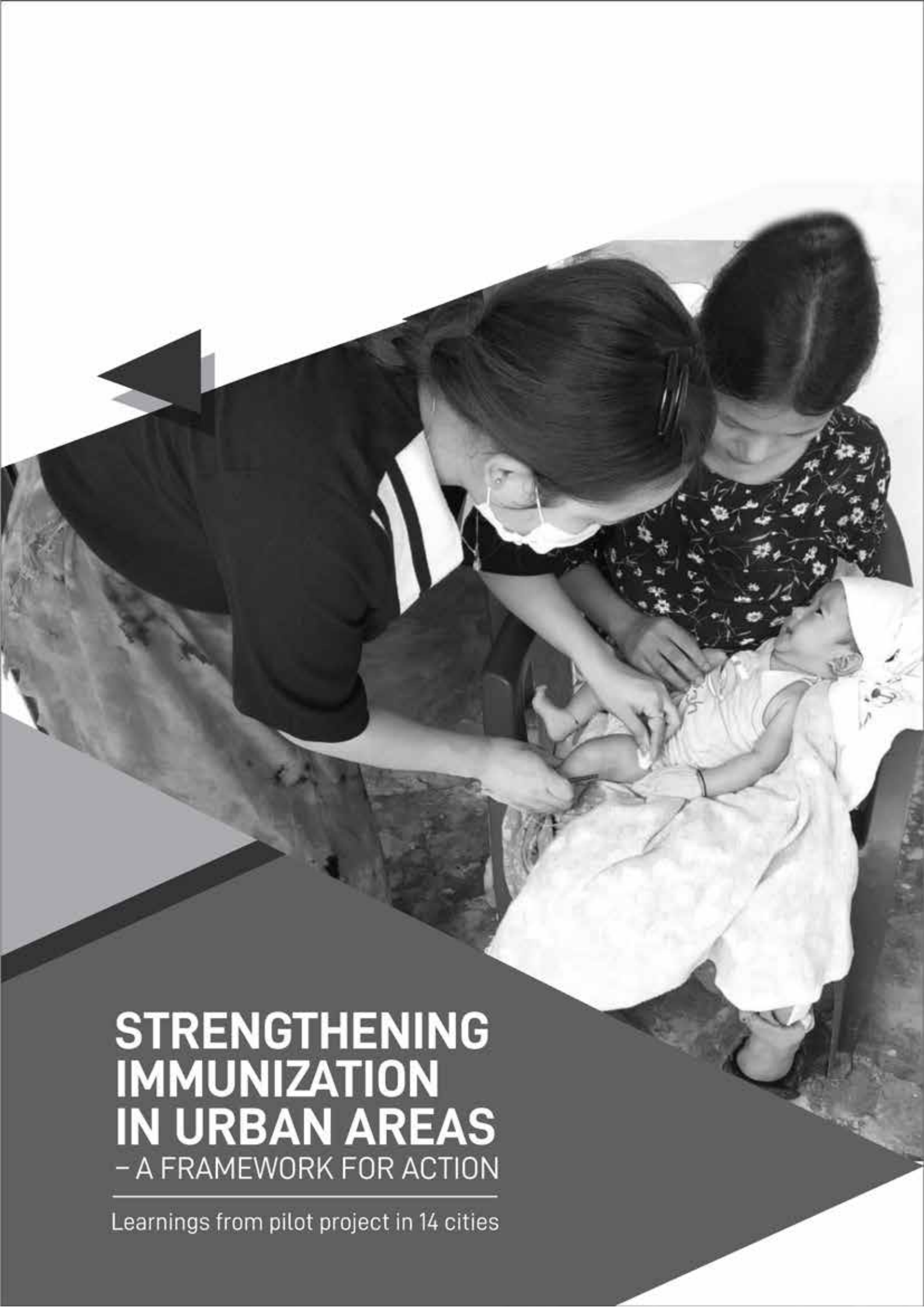
Ministry of Health
& Family Welfare
Government of India



STRENGTHENING IMMUNIZATION IN URBAN AREAS

– A FRAMEWORK FOR ACTION

Learnings from pilot project in 14 cities



STRENGTHENING IMMUNIZATION IN URBAN AREAS

– A FRAMEWORK FOR ACTION

Learnings from pilot project in 14 cities

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Minister for Health & Family Welfare
and Chemicals & Fertilizers
Government of India



MESSAGE

Universal Immunization Programme is one of the largest public health programmes in the world with the focus on ensuring vaccination of each child and pregnant woman beyond the urban rural boundaries. For the past two years, unprecedented COVID-19 pandemic and its resurgence has impacted the routine immunization services. However, I am sure that country will achieve more than 90% immunization coverage despite all these challenges as envisioned by Hon'ble Prime Minister of India.

The world is rapidly urbanizing wherein small and medium size cities of Asia and Africa are driving this trend. It is estimated that, India will be almost 40% urbanized by 2030. Rapid urbanization makes urban poor more vulnerable in accessing the services.

I am sure this framework for strengthening of immunization in urban areas, would guide the programme managers in urban areas to achieve the objective of reaching the unreached. With this framework, I am confident that a collaborative mechanism would be ensured in all cities, corporations and municipalities along with health departments and helpful in strengthening immunization in urban areas.

I congratulate the officials from Immunization and Urban Health Divisions for this collaborative effort along with the Development Partners for designing this framework and bringing all the major stakeholders at one platform.

(Dr. Mansukh Mandaviya)



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MINISTER OF STATE FOR
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MESSAGE

“आरोग्यं परमं भाग्यं स्वास्थ्यं सर्वार्थसाधनम्”
(भावार्थ : निरोगी होना परम भाग्य है और स्वास्थ्य से अन्य सभी कार्य सिद्ध होते हैं)

World is urbanizing rapidly and it is estimated that India will be almost 52% urbanized by 2050. The general perception that urban populations have more resources and greater access to health services masks the essential fact of under-served or vulnerable populations in urban areas. With rapid urbanization, policies and strategies need to cover the needs of migrant, highly dense and diverse urban population including the ones in slums environments.

Country is committed to achieve full immunization coverage under the visionary leadership of Prime Minister Shri Narendra Modi ji. Unprecedented COVID-19 has posed impediments to service delivery under Routine Immunization. However, timely measures to restore outreach sessions and deter the implications of delayed immunization on children and pregnant women have been taken by Ministry of Health and Family Welfare following the guidance of Hon'ble Prime Minister of India,

I am immensely proud to reiterate that Universal Immunization Programme (UIP) remains the largest immunization programmes in the world ensuring vaccination of the pregnant women and children from all the alcoves of country. To strengthen the UIP further, I am pleased to present this framework of action that provides tailored strategies to a programme manager to strengthen immunization services in urban areas.

I appreciate the efforts of the officials from Immunization and Urban Health Divisions and partners who have supported Ministry of Health and Family Welfare (MoHFW) in development of this framework. I am sure that this framework would assist states to improve their immunization coverage and strengthen routine immunization mechanisms in the country beyond urban- rural boundaries.


(Dr Bharati Pravin Pawar)

“दो गज की दूरी, मास्क है जरूरी”

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सत्यमेव जयते



Foreword

India is committed to provide Universal Health Coverage (UHC) to achieve Sustainable Development Goals. This affords an opportunity to promote a comprehensive and coherent approach to health that is focused on Health Systems Strengthening (HSS).

Following the directions of Hon'ble Prime Minister for achieving Full Immunization Coverage (FIC) of more than 90%, India had achieved 91% DTP-3 by 2019 as per WHO/UNICEF estimates of national immunization coverage (WUNEIC). In 2020, there was drop in routine immunization services due to the COVID-19 pandemic. Concerted efforts were initiated to address this drop.

To discern low immunization coverage in urban areas and strengthen immunization, a pilot was conducted in 14 selected urban areas to identify gaps and prepare a road map to address these gaps. Based on learnings from pilot, a framework has been prepared that will provide guidance to the programme managers of the cities which would act as a reference source for strengthening immunization services in urban areas. It is urged that Immunization and Urban Health counterparts in States/UTs may work in close collaboration to address the challenges. I congratulate Urban Health & Immunization Divisions and Development Partners for their efforts and contribution in bringing out this document.

Date : 03.02.2022
Place : New Delhi

(Rajesh Bhushan)



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MESSAGE

The Government of India is committed to strengthening the Universal Immunization Programme (UIP) and achieving 90% Full Immunization Coverage (FIC) across the country. Routine immunization (RI) is being regularly strengthened in all States including cities.

With increasing urbanization, Ministry of Health & Family Welfare is committed to put focused approach on strengthening immunization services in urban areas. Therefore, I am pleased to present the first framework for action on strengthening immunization in urban areas. This document presents step wise approach to program managers at the city level to critically look at their immunization plan and develop a roadmap through robust micro-plans. The document also highlights best practices in different cities which can be adapted and replicated by other cities.

Strengthening immunization in urban areas cannot work in isolation, therefore, collaboration and partnerships with other ministries has been emphasized. I am sure that programme managers will further build on the learnings of our battle against COVID 19 for strengthening immunization services in urban areas. To reach everyone everywhere, it is necessary to engage communities for identification and focus on underserved populations including urban slums, pockets of migratory populations, the poor and vulnerable.

I congratulate Immunization and Urban Health Division for this initiative on streamlining RI in urban areas through this document. I also applaud WHO that led development of this framework along with UNICEF and other Development Partners.

(Vikas Sheel)

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MESSAGE

Universal Immunization Programme targets vaccinating 27 million newborn and 29 million pregnant women every year.

Inequity in vaccination in urban and rural population has been highlighted by different surveys. Immunization rate is relatively lower for the urban population (FIC-75.5%) than for the rural population (FIC-77%) (NFHS-5). Various immunization intensification activities such as Mission Indradhanush and Intensified Mission Indradhanush have brought attention to the need of developing quality micro-plan in immunization. This Framework for action has been customized for urban areas along with the BRIDGE training.

With low vaccination coverage in urban and peri-urban areas, particularly slums and squatter settlements, urban poor children are susceptible to vaccine preventable diseases. These areas are at risk of outbreaks/ epidemics, the management of which is challenging and resource intensive. It is challenging to achieve 90% full immunization coverage (FIC) until and unless specific strategies are adopted for reaching the urban and peri-urban areas. Recognizing this critical fact, NUHM, Immunization Division and WHO have prepared this document in consultation with leading Development Partners.

I hope States and Cities would use this framework as an opportunity to bring much needed focus on urban immunization and scaling up some of the best practices highlighted in this document.

(Dr. P. Ashok Babu)

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February 03, 2022

MESSAGE

National Urban Health Mission (NUHM) was launched in 2013 as a sub mission of National Health Mission with the objective of providing the primary healthcare services to the urban population, particularly vulnerable and marginalized urban poor. Under the mission, Immunization is being provided through public health facilities and Urban Health and Nutrition days in all the cities. Funds to strengthen immunization for planning, mapping, capacity building, Human Resources, conducting outreach sessions, mobility support to ANM etc. are being provided under NUHM annually. States are also expected to utilize the funds provided for strengthening immunization in urban areas.

2. This framework has been an effort to put together work done under Urban Immunization for 14 cities to help programme managers of other cities to analyze the critical gaps and prepare a road map to strengthen immunization while utilizing these learnings. It is envisaged to provide guidance on strengthening immunization in urban areas through health systems strengthening to achieve more than 90% full immunization coverage in all the cities.

3. I appreciate the efforts of department of urban development, immunization division, urban health division, development partners such as WHO and UNICEF for jointly developing this framework. I hope the States/UTs will benefit from the document by adapting it to the local requirements. I look forward for the proposals from cities and states in this regard in their NUHM annual programme implementation plans.


(Dr. Harmeet Singh)

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32. NPSP field units

Abbreviations



AEFI	Adverse event following immunization
AFP	Acute flaccid paralysis
ANM	Auxiliary nurse midwife
ANC	Antenatal care
ANMOL	ANM online
ASHA	Accredited Social Health Activist
AWWs	Anganwadi worker
CBO	Community Based Organization
CCP	Cold chain point
CCTV	Closed-circuit television
cMYP	Comprehensive multi-year planning
CRCs	Community resource centre
CSO	Civil society organization
CSR	Corporate Social Responsibility
CTFI	City Task Force for Urban Immunization
DC	District commissioner
DIO	District immunization officer
FIC	Full immunization coverage
FLW	Frontline worker
FMs	Field monitor
GVAP	Global Vaccine Action Plan
HSS-2	Health Systems Strengthening-2
HMIS	Health Management Information System
HP	High priority
HRAs	High-risk areas
CDS	Integrated Child Development Services
IEC	Information, Education and Communication
IT	Information technology
KFAs	Key focus areas
KMC	Kolkata Municipal Corporation
MAS	Mahila Arogya Samiti
MCTS	Mother and Child Tracking System
MEPMA	Mission for Elimination of Poverty in Municipal Areas

MHA	Ministry of Home Affairs
MO	Medical officer
MoHFW	Ministry of Health and Family Welfare
MoIC	Medical officer-in-charge
MSBs	Mahila Swasakthi Bhavans
NCC	National Cadet Corps
NFHS	National Family Health Survey
NGO	Non-Government Organization
NGRH	New Gardiner Road Hospital
NHM	National Health Mission
NNT	Neonatal tetanus
NRHM	National Rural Health Mission
NSS	National Service Scheme
NUHM	National Urban Health Mission
NYKS	Nehru Yuva Kendra Sangathan
ODK	Open data kit
OPD	Outpatient department
PCMC	Pimpri Chinchwad Municipal Corporation
PIP	Programme Implementation Plan
RBSK	Rashtriya Bal Swasthya Karyakaram
RCH	Reproductive child health
RI	Routine immunization
RIST	Routine immunization supervisory tool
RVAP	Regional vaccination action plan
SEAR ITAG	South-East Asia Regional Immunization Technical Advisory Group
SHG	Self-help group
SLAs	Service level agreements
SLFs	Slum Level Federation
SMOs	Surveillance medical officer
U-CHC	Urban-community health centre
ULBs	Urban local bodies
U-PHC	Urban-primary health centre
UT	Union territory
UTFI	Urban Task Force for Immunization
VHP	Very high priority
VPD	V accine- p reventable d isease
WCD	Women and Child Development
WHO	World Health Organization



Executive summary



India has shown an increase in full immunization coverage (FIC) from 43.5 (NFHS-3) to 62 (NFHS-4). As per NFHS-4 data, FIC in urban areas is 63.9 whereas the same is 61.3 in rural areas. This implies that there has been an increase in the FIC by 37% in rural areas, whereas by only 10% in urban areas. The urban areas face issues of unavailability of accurate population level data; migrant and poor who have migrated to big cities or towns because of economic or security related concerns, are more likely to be under-vaccinated, reflecting gross inequities.

To understand the reasons for low immunization coverage in urban areas and strengthen immunization eventually, the World Health Organization (WHO), together with the Ministry of Health and Family Welfare (MoHFW) piloted immunization strengthening intervention in 14 selected cities (Agra, Allahabad, BBMP, Bengaluru Urban, Bhopal, Gaya, Ghaziabad, Guwahati, Indore, Kanpur, Lucknow, Muzaffarpur, Patna and Varanasi). The objective of the pilot is to identify gaps and strengthen immunization through robust microplanning, capacity building, monitoring through enhanced accountability mechanisms and capture the best practices which are replicable. Learnings from the pilot are captured for replicating best practices in other urban areas. Key activities undertaken in the cities are:

- Risk prioritization by identifying areas with an underserved population, migrants, slum dwellers with coverage and equity issues;
- Supporting micro-planning and field validation for routine immunization (RI);
- Capacity building of health personnel (Medical officers, supervisors, auxiliary nurse midwives (ANM), and mobilizers including accredited social health activists (ASHA), Anganwadi workers (AWW) and Mahila Arogya Samiti (MAS) members, etc at city and ward/equivalent levels for decision making;
- Strengthening monitoring and feedback mechanisms for immunization activities and enabling better programme delivery;
- Developing collaborative mechanisms for all stakeholders for health; and
- Establishing accountability mechanisms through district and city task forces to review preparedness and implementation of immunization activities.

The pilot in 14 cities provided insights on challenges faced in urban areas including microplanning, infrastructure, human resources, capacity building, and monitoring. Most UPHCs have one medical officer who is more involved in clinical services than public health services. ANMs also cater to a high population while conducting the outreach sessions. In places like Bhopal and Indore, ANMs are conducting sessions 16 days a month. Urban areas in the state of Uttar Pradesh face a shortage of mobilisers to conduct headcount surveys thus affecting quality and comprehensive micro-plans. Some facilities cater to a bigger population because of the shortage of facilities or non-availability of land to create a facility. Facilities in cities like Muzaffarpur and



Bangalore cater to more than the population norm of 100,000.

Urban facilities lack quality micro-plans including ward wise boundaries, UPHC catchment area, ANM area, updated due lists, updated headcount surveys, calculation of injection load and communication plans, etc. The training of frontline workers on developing quality micro-plans and lack of supervisory cadre has been the missing link. Accountability frameworks need major streamlining and adequate representation of all stakeholders including ward members, councilors, development partners, Ministry of Urban Development, Ministry of Water and Sanitation, education, urban local bodies, etc.

Based on the learnings of 14 cities, an action framework has been designed that would empower a programme manager to strengthen immunization in urban areas by identifying gaps in microplans and training human resources in plugging those gaps through detailed training material that can be customised as per city needs. Best practices on each thematic area of mapping, monitoring, accountability, identifying additional sessions etc would enable programme managers to think out of the box.

This document throws insight how, a Programme Manager needs to conduct a thorough situation analysis for the planning of resources vis-à-vis robust infrastructure, human resources, strengthened microplans and innovative measures through information technology (IT) and non-IT platforms. A detailed gap analysis will allow programme managers to identify critical gaps and prepare a roadmap to strengthen immunization in respective cities.

The earlier 18 step process of microplanning is simplified into 5 steps which are given below. Each step has been explained in detail in latter chapters with relevant case studies from across the country along with required and training material.

- Step I. Fixing responsibility for immunization through area demarcation and mapping;
- Step II. Completing the headcount survey to identify missed children and plan immunization session;

- Step III. Devise a communication plan to reach the unreached;
- Step IV. Complete all major components of planning; and
- Step V. Outline next steps when all major components are in place.

The Ministry of Health and Family Welfare (MoHFW) is the nodal agency for immunization; however convergence with ministries and line departments such as Women and Child Development (WCD), Education, Ministry of Urban Affairs, Rural Development and Ministry of Drinking Water and Sanitation is necessary to ensure optimum immunization coverage and to reach the unreached. Advocacy with each of these departments/ministries for emphasis on immunization, allocation of resources and skilled manpower will bring in more united forces to work for immunization in urban areas. Coordination with various other departments such as youth, labour, social welfare and minorities is required for leveraging the strength of youth networks such as the Nehru Yuvak Kendra Sangathan (NYKS), National Service Scheme (NSS) and National Cadet Corps (NCC) to mobilize urban communities.

This document also mentions different innovative measures to strengthen immunization coverage and health systems. For example, the Mahila Arogya Samitis (MAS) is a unique concept introduced by the National Urban Health Mission (NUHM). The Mission for Elimination of Poverty in Municipal Areas (MEPMA) is an initiative of the Government of Telangana's Department of Municipal Administration and Urban Development. Its main objective is to form urban women's self-help groups (SHGs) to encourage internal savings and lending. Under NUHM, 10-15 members of existing slum-level federations (SLFs) under MEPMA were grouped to form MAS in an area. This is an excellent example of intersectoral convergence to utilize existing community linkages. Other example such as in Kanpur city has geotagged its RI session sites, making it easier to identify low coverage areas. Bengaluru has created an android application for the community to locate the nearest vaccination

centre. Child-friendly air-conditioned model immunization centres in urban Patna have been equipped with audio-visual information, education and communication (IEC) materials, proper sanitization, closed-circuit television (CCTV) surveillance and dedicated cold chain equipment. To strengthen accountability, Indore has assigned one Zonal Medical Officer for each of the four zones, one nodal person for Adverse Event Following Immunization (AEFI) and one Integrated Child Development Services (ICDS)/CPD officer. Zones are further

divided into clusters; each cluster is assigned to a cluster doctor, ICDS supervisor and health supervisor and the allocation of wards to each dispensary. This has enabled the ward-wise Health Management Information System (HMIS) data reporting in Indore.

This document envisages the cities to achieve full immunization coverage of more than 90% through a strengthened health system by training HR on developing quality microplans and documenting best practices adapted by various cities that are replicable.

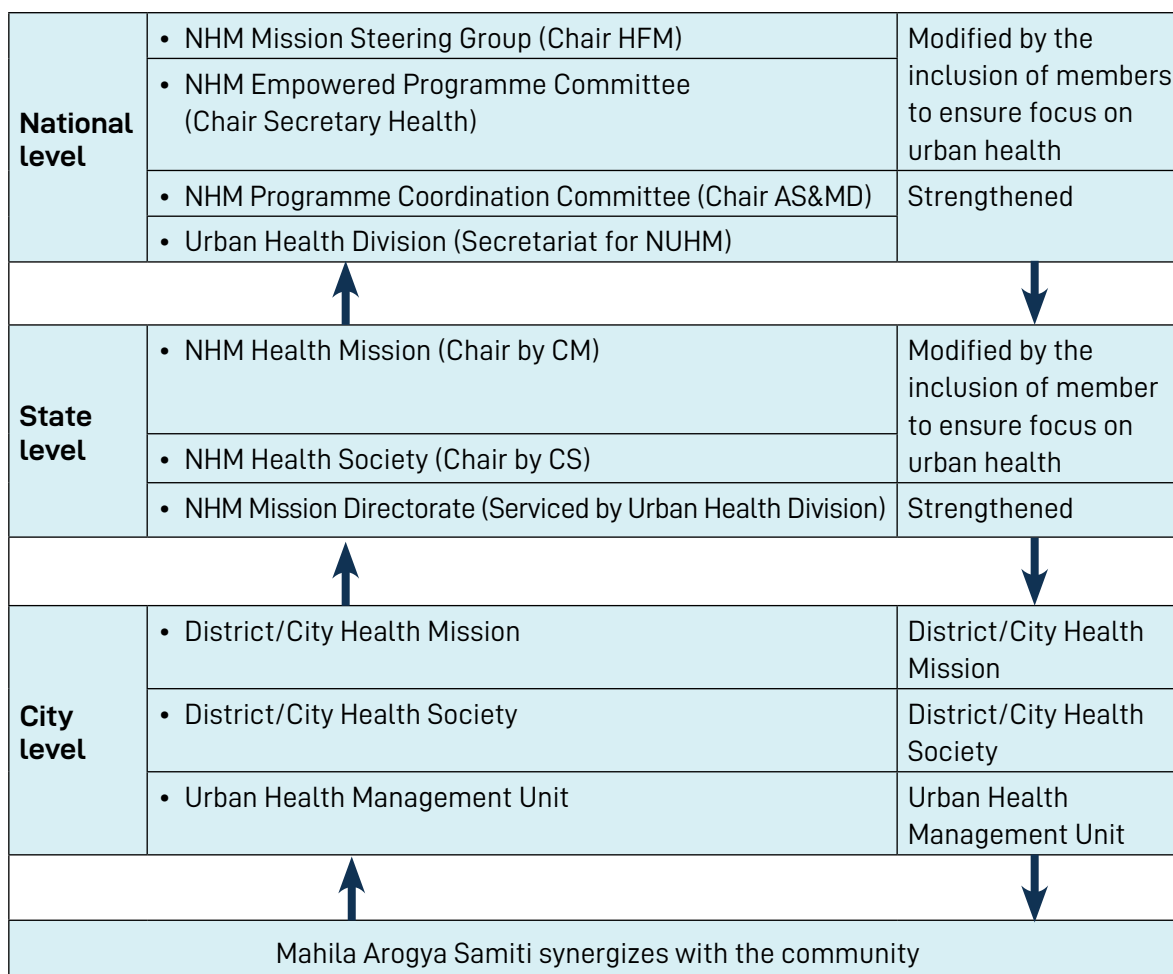


Background

1.1: Brief on National Urban Health Mission (NUHM)

The unplanned and rapid urbanization has led to massive growth in the number of urban poor population, especially those living in slums. Despite the supposed proximity of the urban poor to urban health facilities, their access to such facilities is severely restricted. Various factors such as Inadequate & sub optimal Public Health network, multiplicity of service providers and dysfunctional referral system & lack of comprehensive strategy in the cities & towns to ensure equitable access to the most vulnerable sections and weak community capacity to demand and access health care have led to over dependence of the urban poor on the unorganized private sector and very high level of out of pocket expenditure on their part.

Keeping in view the above factors and need of the situation, National Urban Health Mission, NUHM was launched on 01 May 2013, as a sub-mission under an overarching National Health Mission (NHM) for providing equitable and quality services to the urban population with a special focus on the slum and vulnerable population. Flexibility has been given to the states for implementation of NUHM either through the Health Department or the Urban Local Bodies (ULBs). In seven Metro cities, viz., Delhi, Ahmedabad, Bengaluru, Kolkata, Mumbai, Chennai and Hyderabad implementation will be through the ULBs. The NUHM covers all cities and towns with over 50,000 population and district & state headquarters with more than 30,000 population. The rest of the cities/ towns were covered under the National Rural Health Mission (NRHM). The



Centre-State funding pattern is 60:40, for all states except North-Eastern states, including Sikkim and other special category states of Jammu & Kashmir, Himachal Pradesh and Uttarakhand, for whom the centre-state funding pattern is 90:10. All the UTs are 100% funded by the central government. The institutional arrangement for the implementation of the Urban Health Mission aligns with the structure of NHM at the national, state and district level. However, to undertake a focused approach to urban issues, the institutional mechanisms will need to be strengthened at various levels of implementation. At the community level, the mechanism of MAS has been envisaged under NUHM and is expected to create a demand for quality health. This is an opportunity for synergized actions through various SHGs of urban development schemes at the grassroots level.

1.2 Components of Service Delivery Under NUHM

NUHM envisages setting up of service delivery infrastructure which is largely absent in cities/towns to specially address the healthcare needs of urban poor and provides: All the services delivered under the urban health delivery system through the Urban-PHCs and Urban-CHCs will be universal in nature, whereas the outreach services will be targeted to the target groups (slum dwellers and other vulnerable groups). Unlike rural areas, Sub-centres will not be set up in the urban areas as distances and mode of transportation are much better here. Outreach services will be provided through the Female Health Workers (FHWs), who will be headquartered at the Urban PHCs. These ANMs will report at the U-PHC and then move to their respective areas for outreach services (including school health) on designated days. They will be provided mobility support for providing outreach services. On other days, they will conduct Immunization and ANC clinics etc. at the U-PHC itself.

The Urban Health Delivery Model would basically comprise of an Urban Primary Health Centre for provision of primary health care with outreach and referral linkages as elucidated below:

Community Level

I. Accredited Social Health Activist (ASHA)

Each slum/community would have one frontline community worker called ASHA similar to ASHA under NRHM, covering about 1000 - 2,500 beneficiaries, between 200-500 households based on spatial consideration, preferably co-located at the Anganwadi Centre functional at the slum level, for delivery of services at the door steps. She would remain in charge of each area and serve as an effective demand-generating link between the health facility (Urban Primary Health Centre) and the urban slum populations. She would maintain interpersonal communication with the beneficiary families and individuals to promote the desired health seeking behaviour. They will be responsible to the Mahila Arogya Samitis (community groups) for which they are designated.

II. Mahila Arogya Samiti (MAS)

MAS acts as community group, involved in community awareness, interpersonal communication, community based monitoring and linkages with the services and referral. The suggested norm for one group is 10-12 members over 50-100 families. The numbers will vary depending on the size of the slum (e.g. in case of a small slum with 50 families, the Committee will be promoted over 50 families) and also the factors within the slum (e.g. different communities within a small area). The MAS may cover around 50-100 households (HHs) with an elected Chairperson and a Treasurer, supported by an ASHA. This group would focus on preventive and promotive health care, facilitating access to identified facilities and management of Untied fund.

III. Outreach session

NUHM also supports engagement of ANMs for conducting outreach services for targeted groups particularly slum dwellers and the vulnerable population for providing preventive and promotive healthcare services at the household and community level.(i) Each ANM will organize a minimum of one routine outreach session in her area every month.

ii) special outreach sessions (for slum and vulnerable population) – Once in a week the ANMs covering slum/vulnerable populations would organize one special outreach session in partnership with other health professionals (doctors/pharmacist/technicians/nurses – government or private). It will include screening and follow-up, basic lab investigations (using portable /disposable kits), drug dispensing, and counseling.

For improving the routine outreach services in the field ANMs would be provided with mobility support of Rs. 500 per month. 4-5 ANMs will be posted in each U-PHC depending upon the population. The outreach sessions (both routine and special outreach) could be organized at designated locations mentioned in the aforesaid paras in coordination with ASHA and MAS members.

IV. Urban Primary Health Centre (UPHC)

U-PHCs to be established as per norm of one U-PHC for approximately 30,000 to 50,000 urban population. The U-PHCs preferably be located nearby slum or such habitations for providing preventive, promotive and OPD (consultation), basic lab diagnosis, drug/contraceptive dispensing services, apart from distribution of health education material and counseling for all communicable and non-communicable diseases. In order to ensure access to the urban slum population at convenient timings, the U-PHC may provide services from 12 noon to 8 pm in the evening. It will not include in-patient care.

It will be staffed by two doctors, one regular and one on a part time basis. Apart from that there will be 3 staff nurses, 1 pharmacist, 1 lab technician, 1 LHV and 4-5 ANMs (depending upon the population covered), apart from clerical and support staff and one Programme Manager for supporting community mobilization, behavior change communication, capacity building efforts and strengthening referrals.

Proposed Human Resource at Urban PHC

- Medical Officer- 2 (1 regular and 1 part-time)
- Staff Nurse - 3
- Pharmacist-1
- Lab Technician-1

- Public Health Manager/Community Mobilisor -1
- LHV-1
- ANMs 4-5* Depending upon the population
- Secretarial Staff including for account keeping and MIS- 2
- Support staff -1

I. Urban-Community Health Centre (U-CHC)

One U-CHC to be established for every 2.5 lakh population (in non-metro cities above 5 lakh population) and for every 5 lakh population in metro cities. It would provide in patient services with 30-50 bedded facility. For the metro cities, the U-CHCs may be established for every 5 lakh population with 100 beds.

In towns/cities, where some sort of public health institutions like State run health facilities providing RCH services such as Maternity Homes Bal Chikitsalaya etc. exists could also be strengthened as UPHC/UCHCs.

The U-CHC would provide medical care, minor surgical facilities and facilities for institutional delivery.

II. Referral Linkages:

Existing hospitals, including ULB maternity homes, state government hospitals and medical colleges, apart from private hospitals will be empanelled/accredited to act as referral points for different types of healthcare services like maternal health, child health, diabetes, trauma care, orthopedic complications, dental surgeries, mental health, critical illness, deafness control, cancer management, tobacco counseling/cessation, critical illness, surgical cases etc. Collaboration with District Hospitals/Area Hospitals/Sub District hospitals and local Medical Colleges may be promoted for strengthening the training support and supplement human resource at the U-PHC level.

Political and administrative commitment towards improving FIC has led to multiple rounds of Mission Indradhanush. Despite these interventions, urban immunization remains a challenge in India due to a greater likelihood of urban poor who remain largely under-

vaccinated and the lack of accurate population data poses a challenge in planning immunization drives. Thus the urban poor remain vulnerable to VPD and the probability of disease spread remains an ongoing threat.

1.3: Urbanization and immunization context

According to the 2011 census, nearly 32% of India's population, amounting to 37.7 crores, reside in urban areas. Urbanization has increased from 27.81% in 2001 to 31.16% in 2011. Sikkim, Kerala, and Tripura have experienced maximum growth in urban areas which is 153%, 93% and 76% respectively. As per United Nations projections, if urbanization continues at the present rate, 46% of India's population will be residing in urban areas by the year 2030.¹

Rapid urbanization and the low pace of urban infrastructure development are resulting in the slow progress of immunization coverage in urban areas as compared to rural areas. Inequity issues in urban areas are also being raised at various platforms of international repute such as the South-East Asia Regional Immunization Technical Advisory Group (SEAR ITAG), Global Vaccine Action Plan (GVAP 2011–20). Political and administrative commitment towards improving FIC has led to multiple rounds of Mission Indradhanush. Despite these interventions, urban immunization remains a challenge in India due to a greater likelihood of urban poor who, remain largely under-vaccinated and the lack of accurate population data poses a challenge in planning immunization drives. Keeping this in view the Regional Vaccination Action Plan 2016–2020 (RVAP) emphasizes developing new strategies to address inequities for migrant populations and building the capacity of managers and frontline health workers (FLW). The MoHFW's roadmap for achieving more than 90% full immunization coverage (FIC) and comprehensive Multi-Year Planning (cMYP) for 2018–22 also focus on strengthening immunization in urban areas.

¹ NUHM framework for implementation

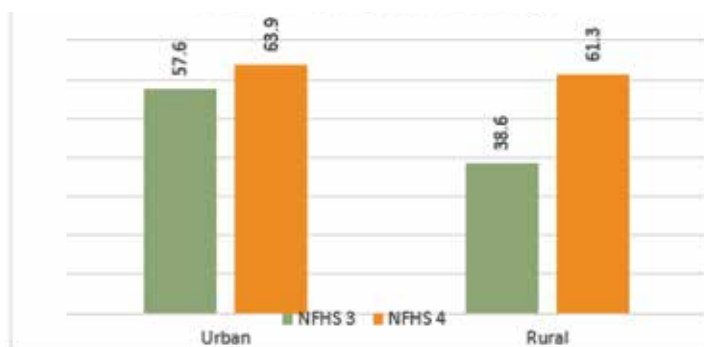


Fig. 2 FULL Immunization coverage

As per the National Family Health Survey-4 (NFHS 4) trends, increase in full immunization in urban areas has been 10% (57.6 to 63.9) as compared to NFHS-3, whereas the same is 37% (38.6 to 61.3) in rural areas. The same has been illustrated in Figure-2.

1.4: Objectives of the document

The document aims to outline the learnings from the pilot conducted in 14 cities by WHO-NPSP and document best practices, which will be used to assist the identified 1067 urban cities to achieve more than 90% FIC by reaching the vulnerable urban poor and slum populations. The objectives of this document:

- Formulate an action framework to strengthen immunization in urban areas;
- Document activities under each of the areas of action such as:
 - challenges and vacancy under human resources (HR);
 - the bottom-up approach of planning to strengthen infrastructure;
 - developing microplanning based on conducting exercise;
 - training needs assessment; and
 - communication for urban areas.
- Guide budgeting and planning for funds to strengthen urban immunization; and
- Best practices and lessons learned from the piloted 14 cities to be replicated to other cities under the National Urban Health Mission (NUHM).

To achieve FIC of 90% and to address inequities in vulnerable population groups, a pilot has



been taken up with the support of WHO-NPSP for strengthening of immunization in urban areas. Areas of work included in the pilot are risk prioritization, microplanning and mapping, capacity building (includes medical officers or MOs, health workers and community mobilizers), monitoring and supportive supervision, feedback mechanism, supporting task forces, improved coordination mechanisms with other development partners and stakeholders. Any need-based proposal with proper justification may also be proposed under Programme Implementation Plans (PIP) for NUHM. Learnings from these 14 cities

would guide the strengthening of immunization activities in the remaining NUHM cities. The identification of 14 cities is based on:

- Missed children (calculated from urban data of live births using Crude Birth Rate, Infant Mortality Rate and Full Immunization-NFHS-4);
- Full immunization coverage (NFHS-4, AHS 2012-13 and concurrent monitoring);
- DPT-3 coverage (NFHS-4, AHS 2012-13);
- Identified under Mission Indradhanush/ Intensified Mission Indradhanush; and
- Polio high risk areas/VPDs.

S. No	State	City
1.	Assam	Guwahati
2.	Bihar	Gaya
3.		Muzaffarpur
4.		Patna
5.	Karnataka	Bengaluru Urban
6.		BBMP (Bruhat Bengaluru Mahanagara Palike)
7.	Madhya Pradesh	Bhopal
8.		Indore
9.	Uttar Pradesh	Agra
10.		Allahabad
11.		Ghaziabad
12.		Lucknow
13.		Kanpur (Nagar)
14.		Varanasi



A Framework for action

2.1: Situational analysis and planning

To strengthen immunization in an urban city, the foremost step is to conduct a situational analysis. This will provide an overview of all essential elements including service delivery (HR & Infrastructure), microplanning & mapping, partnerships, monitoring and budgeting. This will enable programme managers to plan better through identifying bottlenecks, suggestive measures and further course of correction. To supplement the initiative, several innovative measures have been noted in conducting the gap analysis and planning. IT enabled tools may also be explored to streamline these areas for action.

Situational analysis empowers planning in a way that is beneficiary-centered rather than traditional service-centered. A thorough situational analysis followed by bottleneck analysis based on collected information facilitates the planning of health services to reach the disadvantaged sections.

This section provides an overview of the steps to be taken by programme managers to carry out situational analysis. For each urban area, details on administration, roles and responsibilities, demography, infrastructure and human resources, including FLWs must be captured as a first step towards strengthening immunization services. City programme managers can collate information against the following parameters:

Administrative structures

- Name, contact number and email ID of the District Immunization Officer (DIO);
- Status of CTFI/UTFI formed under the Chairmanship of Corporation Commissioner/ Mayor and number of CTFI/UTFI meetings for example held during 2018–19;



Fig. 3 Strengthening immunization in urban areas

- Health/ Immunization programme under the administrative control of the corporation or health department/ corporation/state health department; and
- To check whether the city was part of any phase of IMI/MI/GSA/eGSA.

Demography

- Total population of the city;
- Notified slums (number), slum population;
- Number of polio HRAs (slums with migration, construction sites, brick kilns, nomads, others) and;
- Target beneficiaries: pregnant women, infants (0-1 year), and estimated children (0-2 years) (target population will need to be constantly revised as it is dependent on multiple factors including migration).

Infrastructure

- Total number of planning units for immunization (number of medical colleges, district hospitals, U-CHCs, U-PHCs, kiosks, any other urban facility

(specify) and population catered by one facility.

Human resources

- Number of MOs in place. Regular (sanctioned against in position), NUHM (approved against in position);
- Number of staff nurses in place. Regular (sanctioned against in position), NUHM (approved against in position);
- Number of ANMs in place. Regular (sanctioned against in position), NUHM (approved against in position);
- Number of LHVs/supervisors in place. Regular (sanctioned against in position), NUHM (approved against in position);
- Number of ASHAs in place: (approved against in position);
- Number of MAS in place. (approved against in position);
- Number of Link workers supporting RI mobilization (other than ASHA/AWW); and
- Number of hired vaccinators identified in the corporation/cities.

Facility-wise information on clarity of boundary demarcation for UPHC and planning units, availability of ward-wise information

such as updated ward mapping; details on ANM-wise area demarcation and map availability, AWCs conducting outreach or not; and HR status for each facility should be subsequently captured.

- Resource mapping of the existing medical colleges; cantonment areas; railway hospitals; Central Government Health Scheme (CGHS); and other organizations including NGOs, private practitioners etc. must be done to capture certain basic information and their role in conducting routine immunization; providing outreach services; and sharing coverage reports with the government.
- Private practitioners may be co-opted for providing immunization services. Indore and Pune model for involvement of private partners is discussed in detail in the chapter on "Partnerships and Collaborations".

Roles and responsibilities of all partners, NGOs and private practitioners must be defined clearly, including their roles in planning and implementation of the immunization delivery.





Service delivery strategies

To strengthen service delivery, it is critical to focus on strengthening infrastructure and human resources for any city/urban area. The following section details the key actions

required to be taken by programme managers for ensuring availability of infrastructure and human resources in urban areas.

3.1: Infrastructure:

Infrastructure	
Challenges	Recommendations
New settlements at the boundary of urban areas diminish urban-rural boundaries. These areas are known as peri-urban areas	<ul style="list-style-type: none"> • Identification and inclusion of such areas in planning • Undertake field validation by health staff • Updation of maps (discussed in detail in the next chapter) • Engagement of private practitioners for partnerships • Advocate with district and city officials on the allocation of infrastructure and personnel to meet the additional needs
Shortage of infrastructure for conducting sessions	<ul style="list-style-type: none"> • Explore other government/rented buildings for outreach sessions • Review the setting up of mobile clinics to reach the unreached, such as under "Taare zameen par" initiative, mobile teams have been created to vaccinate children of daily wagers including ragpickers, beggars at night hours • Partnering with RWAs • Replicate innovative models in states such as Punjab, where kiosks or prefabricated structures are created in slums, and staffed by an ANM conducting regular outreach services and fixed services • Inclusion of specific proposals in city health action plans with proper justification in PIP
Limited availability of daily wageer populations who are out of the home during the day	<ul style="list-style-type: none"> • Map such households for planning the sessions • Provision of immunization services at different hours as required, (during evenings or Sundays) • Information dissemination about fixed days of immunization • Identify session sites inside factory premises, maybe once in three months
Limited availability of AWCs to conduct sessions	<ul style="list-style-type: none"> • Explore outreach in public facilities, educational centres, daycare centres, night shelters, homeless shelters, etc. or rented premises as per convergence document of NUHM

3.2: Human Resources:

Human resources have been a major constraint in the provision of quality service delivery in urban areas:

- Recruitment of HR under NUHM to be prioritized. Innovative strategies for planning available human resources may be adopted

- Need-based hiring of vaccinators may be undertaken especially in areas with chronic ANM vacancies. These hired vaccinators can be retired ANMs/ LHVs, retired staff nurses, pharmacists, lab technicians or third year or final year nursing students from nursing schools, or retired nursing assistants of defense or paramilitary forces. These vaccinators should be trained for immunization of children and they must work with the ANMs at PHC/CHCs for at least one week to ensure they are well oriented with the immunization schedule and other details related to UIP under the supervision of the medical officer.
- “Under NHM norms, there is a provision to hire vaccinators for urban slums/ marginalized areas/other high-risk areas in the district. Vaccinators can be hired @ Rs 450 per session for 4 sessions/ month/slum of 10,000 population and Rs 300 per month as contingency per slum, i.e., the total expense of Rs 2100 per month per slum of 10,000 population”.

Human resources	
Challenges	Recommendations
<p>A significant number of vacancies of skilled human resources.</p> <p>A high work load for ANMs</p>	<ul style="list-style-type: none"> HR strengthening to cater to a larger population Highlight vacancies at an appropriate forum such as DTFI/CTFI Include city specific requirements in City Health Action Plans under the state PIP Engage regular staff for urban areas Explore nursing colleges/training institutes and private companies for appropriate recruitments Hire and engage health personnel from within the community to ensure retention Supplement state funding in case of low remuneration Explore initiatives at the local level (engaging staff nurses to conduct outreach sessions in Bihar) and train staff nurses on RI microplanning
UPHCs have one medical officer who is more involved in clinical services instead of public health services	<ul style="list-style-type: none"> Such cadres can be proposed for 4-5 facilities or one for each city to start with and later expand, based on the need. so far, for 14 cities, public health managers have not been engaged in any UPHC for any city Include proposals for recruitment/strengthening of HR in City Health Action Plans with appropriate justification in the PIP
Shortage of MAS	<ul style="list-style-type: none"> Leverage functionaries working under other national programmes, such as Swachgrahis under Swach Bharat Mission and members of Self Help Groups (SHG), area-level federations and city-level federations under the National Urban Livelihood Mission (NULM) Forge partnerships with NGOs and other organizations to identify MAS Explore non-monetary incentives at the local level to motivate MAS such as felicitation by the District Magistrate (DM) or Municipal Commissioner
Challenges	Recommendations



Weak capacity of HR	<ul style="list-style-type: none"> • Focus on the training component for personnel (refer to chapters in this document to see how training was conducted in 14 cities) • Fast-track immunization training of medical officers and health workers on all steps as per immunization handbook • Train urban local bodies for their inclusion and participation in the planning of urban infrastructure and HR
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3.2.1: Capacity building

In 14 cities, 7062 personnel have been trained including 452 medical officers, 292 staff Nurses, 2189 ANMs, 64 LHV, 457 AWWs, 2592 ASHA, 88 MAS and 928 others (cold chain handlers, data entry operator, pharmacists, mobilizers and link workers, etc). In the next chapters, standard training material for each step is discussed, the programme manager needs to ensure its customization as per the microplans' needs. For example: when a microplanning exercise was conducted in Guwahati, a background assessment on the status of RI microplan was deliberated and it was observed that microplans are not updated, there is an incomplete master list of areas/HRAs and ANM wise area demarcation was missing. A one-day workshop was conducted wherein 44 participants including MOs, LHV, and programme managers were trained on the material that was customised for the city. The major components of training material

were ANM/ASHA area master list and survey planning, conducting the head-count, review of UPHC by the medical officer, and a hands-on review of the actual microplan from different urban planning units.

Similarly, a one day workshop was conducted for BBMP and Bengaluru Urban for MOs. Since most components of microplanning were in place except the communication plan, the training material was customized which included a communication plan. Sustaining the gains made under eGSA (Immunization intensification) were also included. Participants were provided with the RI plan and eGSA microplan of the same UPHCs and were asked to review the sessions that have been conducted during MI and whether those sessions can be tagged with existing RI sessions or new sessions would be created. Training materials can also be customized as indicated in the Immunization Handbook for Medical Officers and Immunization Handbook For Healthcare Workers.



Fig. 5 The strategy adopted to identify training needs and HR training

RI microplan training should be followed by cascade training of other cadres of human resources including healthcare workers and

frontline workers as it was done in all these 14 cities.



Microplanning and mapping

RI microplanning is the basis for the delivery of RI services to a community. Quality RI microplanning ensures health service delivery

to one and all in the community. The RI microplanning needs to be built in a bottom-up approach.*

Key components of the RI microplan are:

Routine Immunization- Formats for microplanning		
RI form	Utility	Facility
1	Map of catchment area	ANM Area/ UHP/ UPHC
2	ANM area line listing	ANM Area/ UHP/ UPHC
3	Headcount survey. Enlisting all houses and occupants focusing on pregnant women and 0-2-year-old children	ANM Area/ UHP/ UPHC
4	Headcount survey. Enlisting all pregnant women	ANM area/ UHP/ UPHC
5	Headcount survey. Enlisting all 0-2-year-old children	ANM area/ UHP/ UPHC
6	Due list preparation	ANM area/ UHP/ UPHC
7	RI session plan	ANM area/ UHP/ UPHC
8	Session injection load and vaccine distribution plan	ANM area/ UHP/ UPHC
9	Session-wise estimation of vaccines and logistics	ANM area/ UHP/ UPHC
10	ANM work plan/ roster	ANM area
11	Communication plan	ANM area/ UHP/ UPHC
12	ANM area workload and session plan	UPHC
13	Vaccine delivery plan	UPHC
14	UPHC vaccine and logistics per ANM area	UPHC
15	PHC-RI session supervision plan	UPHC
16	Emergency plan for vaccine storage	UPHC
17	Biomedical waste management plan	UPHC
18	Communication plan for UPHC	UPHC

For the simplification of microplanning, these components are compressed in 5 broad components to be undertaken in urban areas which are discussed in detail later:

Steps	
1.	Incomplete or missing area demarcation and mapping
2.	Incomplete or missing headcount survey-based planning, session plans missing
3.	The communication plan is missing
4.	Other major components are missing
5.	All major components in place

Developing a comprehensive microplan in an urban setting would begin with the mapping of wards/ ANM areas/ urban health facilities. All the listed components of the micro-plan would

be prepared at this level for the respective area. This would further be collected at the UPHC at the civil dispensary level.

* Immunization handbook for Medical Officers

The medical officer of UPHC would ensure reviewing plans for all the areas under his jurisdiction and finalization of the plan at the PHC level. All UPHCs develop their plans and submit them to the district. In states like Uttar Pradesh, where there is a planning unit above the UPHCs, it shall review the microplans for completeness and submit them to the district. The District Immunization Officer (DIO) ensures the finalization of microplans for all the UPHCs and other urban facilities for their completeness. RI micro-plans shall be prepared and generated annually in urban areas, with an updated house-to-house survey every six months. The DIO shall review the quality of microplans every quarter for urban areas or prior as required.

The medical officer in-charge shall review the microplans quarterly for UPHC and any health post in the catchment area. ANM would review the due list prepared for her area along with a coverage monitoring chart to quantify left-outs and dropouts and submit it to the medical officer-in-charge who in turn is responsible for reviewing and providing feedback to the ANMs. After conducting the session, the ANMs along with ASHAs, AWWs and MAS members shall review the due list for dropout and left-out children and prepare the next due list. This is a weekly activity and the medical officer shall review the due list for each ANM every month and ensure the quality and comprehensiveness of the microplan. As a programme manager, assess which step the city is on:

18 components of microplans have been compressed in these 5 steps. The programme manager needs to evaluate what step the city's microplan is on and refer to the corresponding step of the framework. Each step in the next section has the following sections:

- Objectives;
- Strategy;
- Training material, and
- Case studies-Best practices in that field taken up in different cities.

4.1. Incomplete or missing mapping and area demarcation

4.1.1 Objectives:

- Ensuring facility and ANM maps are in place
- Clear well-defined areas within ANMs
- No left out areas amongst facilities
- No left out area amongst health workers

4.1.2 Strategy:

Ever-expanding urban areas or overlapping administrative areas usually result in unclear demarcation amongst facilities and health workers. Mapping of urban and peri-urban (rapidly growing and non-notified areas) areas needs to be put in place with support from the municipality/ corporation/ department of urban development. For example, in Varanasi (Uttar Pradesh), and Ghaziabad, maps were collected from the municipality (Nagar Nigam) outlining ward distribution, with boundaries and population. Hand-drawn or other available maps used by health workers need to be updated that highlight demarcated areas among health workers.

State governments should advocate for the mapping of areas through IT platforms such as GIS mapping etc.

Updated district maps shall be prepared that enlist all health facilities including medical colleges, urban communities and settlements, temporary settlements, under-bridge population, geographical features such as

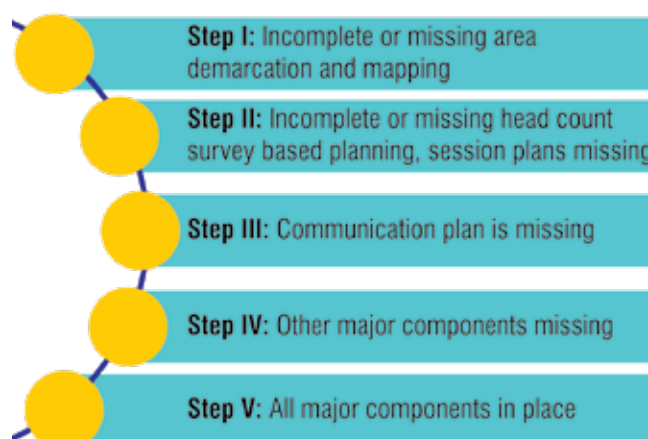


Fig. 6 A step-wise approach to microplanning



mountains, rivers roads and tracks, etc.

Each health centre should display the updated map of the catchment area. Maps shall demonstrate administrative boundaries, ward-wise demarcation, urban settlements, temporary migrants, fixed, outreach, mobile session sites and high-risk areas. Geotagging of HRAs and outreach may also be explored as this gives a better understanding of areas that are under-covered or left-out.

The catchment area of UPHC or other urban health facilities needs to be divided among ANMs, so that they are aware of their catchment areas. ANMs must have the maps of their catchment area with session sites and HRAs mapped. Clear demarcation of ANM areas and mapping would not only indicate the area demarcation as much as it would show any overlapping or missed area. Area demarcation map among ASHAs and AWWs need to be ensured in the microplanning activity as there may be slums that are large and have two or more ASHAs. The medical officer-in-charge (MoIC) of these urban facilities shall ensure there is no such area that is either missed or overlapped amongst vaccinators. At the district level, the DIO shall do the same exercise to ensure there is no missed area in the city.

Field validation needs to be ensured by DIO's so that there is a clear demarcation of

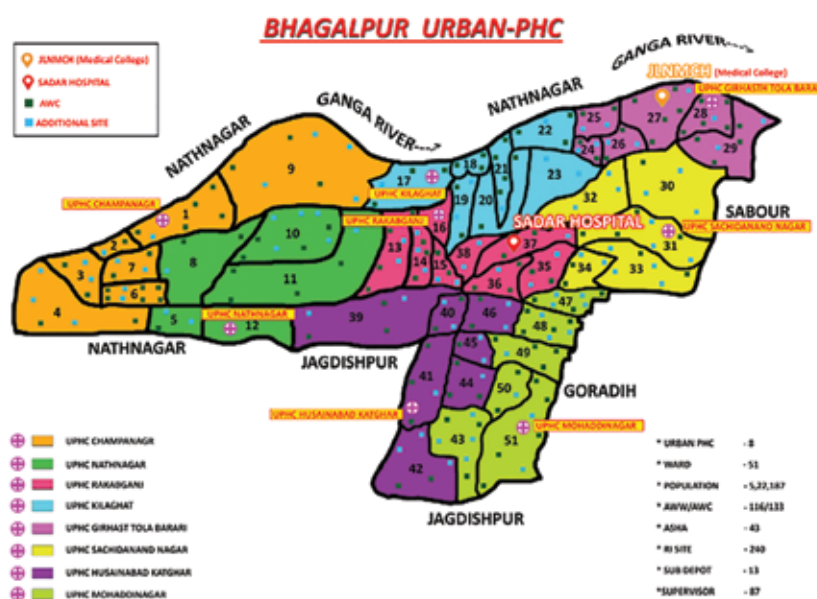


Fig. 7 Example of mapping done in Bhagalpur Urban PHC



Fig. 8 Nagar Nigam Maps

rural-urban areas and demarcation of areas amongst the planning units. The MoIC would be responsible for the demarcation of areas amongst ANMs



Fig. 9 Example of field validation, Agra

4.1.3: Training material for a city in Step 1

When a programme manager realizes that the city is at Step 1 and all the components are missing, including mapping and area demarcation, the following steps are suggested:

- involvement and sensitization of health workers on areas of concern; and

- workshop on microplanning and capacity building focusing on the training of HR on bridging these gaps.

This should include exercises on how to strengthen mapping and area demarcation. A sample exercise is enumerated below:

Exercise 1: Identify issues effecting RI coverage in your urban area

Background: RI coverage is an indicator that reflects the ability of the RI delivery system to reach all eligible beneficiaries. Quite often it is used to reflect both qualitative as well as quantitative aspects of the immunization delivery system. Coverage is directly influenced by factors that may be related to service delivery, infrastructure, human resources, health financing, medical products including vaccines and technology, data, programme leadership and governance etc.

Question: With your experience in the field and regular review of the RI system in your city, what in your opinion are factors that positively or negatively affect RI coverage?

While carrying out the activity of Exercise 1, the participants must give details on the status of RI and the challenges they face with RI microplanning. The facilitator should let the discussion flow and probe only when needed.

During this discussion, many issues related to health systems strengthening and RI would be highlighted, which need to be explicitly documented for further corrective actions.

Exercise-2: Mapping of UPHC and peri urban area and inclusion of all population

Background: There is a sudden influx of refugees in your area, that have settled in the different parts of cities. There has also been a settled population at the boundary of city and there are not enough health facilities at the boundary as per population facility norm.

Population of catchment area of UPHC: 60000

Staff of UPHC: 1 Medical officer, 3 staff nurses, 5 ANMs, 10 ASHA, 10 MAS

Question: As a Medical officer in charge of the facility, how do you ensure inclusion of all population falling in your catchment area for both refugees and urban-rural boundary?

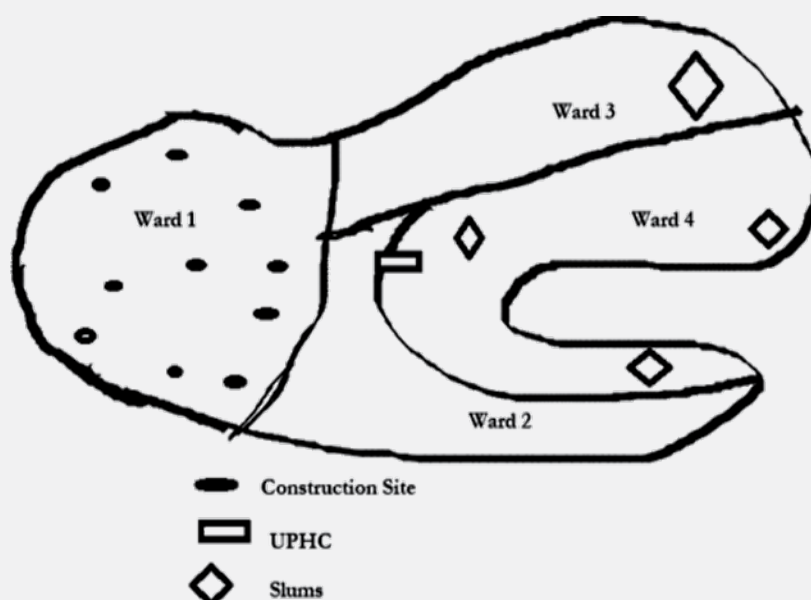
During the roll-out of Exercise-2, the discussions are carried out in such a way that the following areas are discussed:

- a descriptive plan that reflects mapping of area and mapping of boundaries of rural and urban areas;
- plan for field validation of the area; and
- utilization of all existing staff to ensure the conduct of fixed and outreach sessions for existing and new populations.

Exercise: 3: Review of UPHC by Medical officer

Background: You have joined a new UPHC as a Medical officer one month ago and today you have called all your ANMs for a monthly meeting at the UPHC which has a total population of 90 000. There are four wards in your UPHC catering area, one railway track on the boundary of ward 1 and ward 3, construction sites in ward 1, ward 2 and slums in ward 4. There are two staff nurses and four ANMs posted in your UPHC, however, one ANM Padma is on six months maternity leave. Below are the details and map of your UPHC area.

Name	Designation	Wards distributed	Population	HRA as per polio micro-plan & no of houses
Padma	ANM on leave	Ward 1	25000	Construction site-10 (population-10000) scattered in the ward, rest all in highly posh area (100% FIC catered by private sector)
Sumitra	ANM	Ward 2	10000	Posh area
Narmada	ANM	Ward 3	30000	Slum of 25000 and MIG/LIG of 5000
Sumitha	ANM	Ward 4	25000	3 slum areas 1 near water tank (25 houses) 2nd near westward bazaar (30 houses) 3rd slum Miya colony (15)



Micro-plan of ANMs:

ANM	Ward	Outreach session on every Thursday	Tuesday
Padma	Ward 1	Week 1	Fixed site at UPHC, all ANMs conduct sessions
Sumitra	Ward 2	Week 2	
Narmada	Ward 3	Week 3	
Sumitha	Ward 4	Week 4	

Exercise 3. Review of RI @ UPHC by an MO

Q 3A: As an MO, how are you going to review your RI micro-plan for your UPHC?

Q 3B: What are the gaps that you can identify?

Q 3C: How are you going to address those gaps?

Indore with a population of 27 lakh, has 90 ANMs in 85 wards which are further classified into 32 clusters. Each cluster has 2-3 wards depending on the population, proximity, and high-risk areas (HRA). These 32 clusters are further classified into four zones. As many as 3-10 clusters make one zone.



Fig. 10 Colour coded maps of one of the ward

The entire process of mapping and area demarcation was started in 2012 when RI sessions were conducted haphazardly. To streamline this process, the first step was the demarcation of urban and peri-urban areas which was followed by the identification of HRAs.

Handmade maps of the boundaries were drawn. Since most sessions were conducted by AWW, as a second step, catchment areas of AWCs were defined.

As a pilot, maps from the Nagar Nigam were obtained and exercise on area demarcation and HRA mapping was initiated for one ward. Colonies, Anganwari areas and other HRAs were mapped out. Eventually, this exercise was completed for all the wards. To define ward boundaries, information on all the colonies, mohallas, households and population groups was taken from the municipality/ Nagar Nigam. Ward boundaries were defined and the entire staff including medical officers, ANMs, ASHAs and MAS were made aware of the ward boundaries. The city map was generated with clear ward demarcation along with facilities' catchment areas. Colour-coded maps were generated to distinguish HRAs, uncovered areas and posh areas. Demarcation was prepared in four colours that highlighted Anganwari areas, HRAs not covered by AWWs, middle-income colonies and high-income groups.

Impact:

- There is a clear demarcation of ward boundaries and ANMs and frontline workers are aware of the boundaries.



- More session sites are identified and each AWC cebte is conducting a session

4.1.4 Case study2: Mapping in Patna to strengthen urban microplanning

Background: There was a large segment of the urban poor population and limited resources in the city with in-migration and floating population. There was an inequitable distribution of health facilities. Administratively, boundaries were unclear, with limited human resources, irrational distribution of AWCs as per population and UPHC manpower scarcity. A detailed map with demographic data was unavailable and involvement of the corporation in delivering health services was minimal. An extensive exercise on the mapping of the area was taken up by the city.



Steps taken:

Step I: Collection of ward list along with population and administrative boundaries from city Commissioner.

Step II: Validation of boundaries of wards in urban and peri-urban areas of Patna.

Step III: Validation of ward-wise demographic data and available resources.

Step IV: Measuring the immunization coverage of urban wards and identification of wards with low immunization coverage.

Step V: Advocacy meetings for urban validation to share concerns and address the gaps identified.

Process and steps followed: To find out the urban ward details such as the boundary, important landmarks, inroads along with the collection of demographic and epidemiological data of the ward, an available map was collected from the concerned departments and key stakeholders. The standard RI house-based tool was used to collect immunization coverage indicators like full immunization, complete immunization, age-specific vaccinations, drop out and left out, etc. for each ward. Interviews with caregivers were conducted to understand the reason for drop outs and left outs as well as community mobilization efforts. A semi-structured questionnaire was used to understand the functioning of the urban PHC and its involvement in the RI programme.

A step-wise approach was followed to ensure urban area validation and ward-wise estimation of immunization coverage. The issues of urban immunization were shared with the concerned state and district officials. All 72 wards were targeted for this exercise as per the urban immunization planning needs. The steps followed are explained in the table above. Urban areas were mapped in 72 wards for

- high risk areas identified;
- resource mapping;
- % FIC status mapped in all the wards and ward-wise coverage determined;
- AWCs mapped; and
- health facility location mapped.

Outcome:

- The disparity in allocation of ICDS centres was identified.
- UPHCs' catchment and corresponding wards were identified.
- Rearrangement and repositioning of urban PHCs as per monitoring findings (4 UPHCs



Fig. 11 Hand-made maps of UPHC

repositioned suggested namely UPHC Kankarbagh, UPHC Jayprabha, UPHC Marufganj, and UPHC Gulzarbagh).

- Mobilization compromised areas were identified in addition to 41 session sites for due process of validation. All these sessions were incorporated in the MI microplan for the special immunization drive.

- About >100 slums were validated where immunization coverage was found to be low. A special RI drive was conducted by allocating additional human resources/ HWs was mobilized from nearby rural units. Few ANMs were hired to fill up the HR shortage and a rescheduling of session site timing was done as per community need.

Major findings of the exercise:

- Variable immunization coverage amongst wards;
- Unclear urban-rural boundaries;
- Limited resource allocation against the quantum of the vulnerable population;
- Few areas were catered by the rural PHC, though the area comes under the administrative boundary of an urban ward;
- ICDS centres not equally distributed as per the population;
- No definite catchment area allocated to urban PHCs & UPHC not involved in outreach sessions;
- New session sites were identified where there was a need for a special immunization drive, which were later incorporated in MI micro-plan for special immunization drive; and

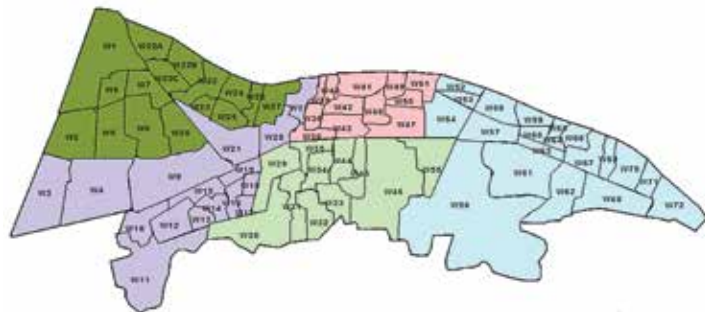


Fig. 11 Ward wise map of Urban Patna

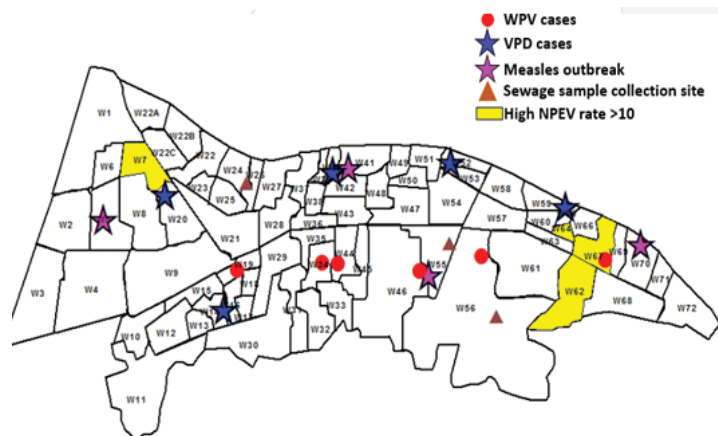


Fig. 12 VPD wise mapping of Urban Patna

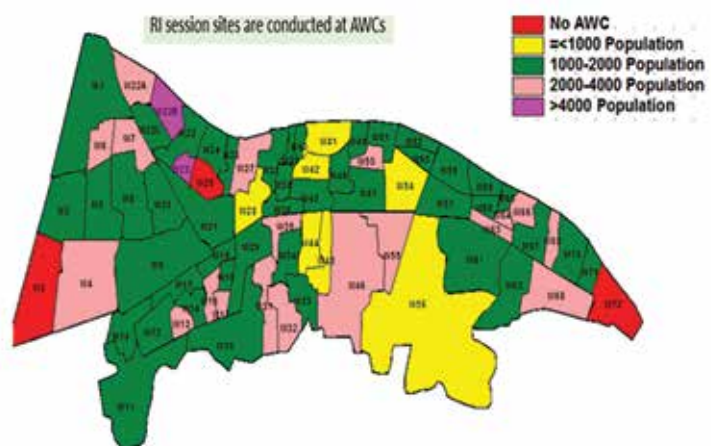


Fig. 13 Resource mapping of Patna urban

- Few innovations were introduced such as mobilization of rural ANMs, special immunization drive for slums and fixing immunization sessions in urban PHCs helped achieve good coverage in Patna.



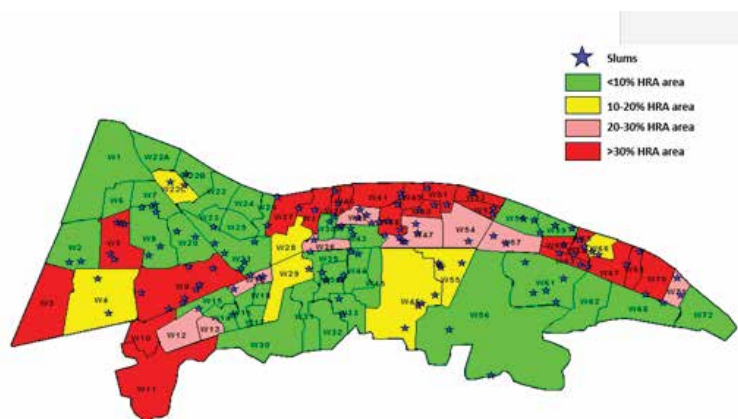


Fig. 14 High risk area mapping of Patna urban

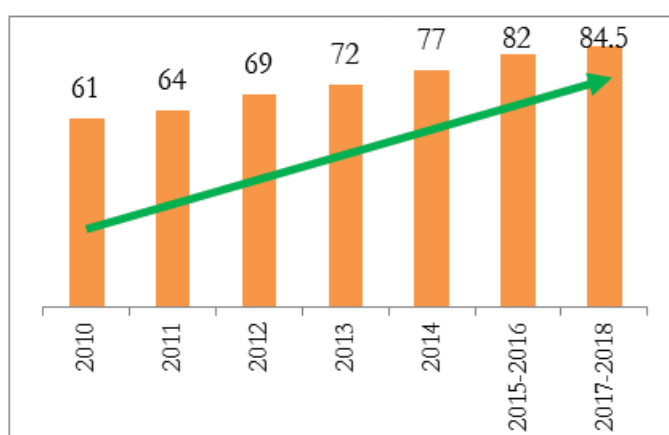


Fig. 15 FIC of urban Patna

Impact of the exercise:

- Increase in FIC from 61% to 84.5% between 2010 and 2018;
- Increased ward-wise monitoring;
- missed areas identification;
- mobilization of ANMs; and
- identification of paid mobilizers aided the entire process of increased FIC

4.1.4 Case study 3: Strengthening mapping and area demarcation in Guwahati city

Major findings of a gap analysis by Guwahati revealed that all the components of the microplan were missing and only a one-page session site plan was available as the RI microplan. To plug the gap, the city

conducted a workshop on urban immunization for all medical officers. A different set of meetings was conducted including a review meeting with SIO. To follow up with the development of comprehensive microplans, midterm reviews were conducted with the officials. The first UTFI was conducted after the workshop. Repetitive meetings were conducted to create ward-wise maps and ANM area demarcation was done along with revising the RI- micro plan for the new areas.

Major activities were undertaken:

A. Mapping & area listing

- Administrative maps of all 31 wards were collected from Guwahati Municipal Corporation.
- GIS maps that had a demarcation of wards on Google Earth were also collected.
- Ward-wise area listing completed.

B. Health infrastructure

- Guwahati urban area is divided into four administrative zones. It has UPHC-31, FRU-2, HSC-13.

C. Catchment area demarcation

- Ward-wise demarcation of catchment area was done for all four zones as under:
 - ♦ East zone. Ward no. 11, 12, 13, 14, 18, (B&C), 20, 21, 22, 23, 24;
 - ♦ West zone. Ward no. 1, 2, 3, 4, 5, 6 (A), 7 (A), 10;
 - ♦ Capital zone. Ward no. 18 (A), 19, 25, 26, 27, (A&C), 28, 29, 30, 31; and
 - ♦ Dhirenpara zone. Ward no. 6 (B&C), 7 (C&B), 8, 9, 15, 16, 17, and 27 (B),
- All 231 ANMs (Regular ANM - 40 & NUHM ANM - 191) are operationally divided in 31 wards after detailed discussion & deliberations.

- Zone-wise, ward-wise and area-wise demarcation of ANMs are finalized and ANM-wise area mapping started as per the newly demarcated area.
- ASHA & MAS' area demarcation and mapping have been completed and are aware of their area of work.
- AWW area demarcation and mapping revealed that AWWs are aware of their area.



Fig. 16 GIS mapping of Guwahati

D. HR mapping and institutional vaccination completed.

E. HRA mapping and validation was done earlier.

F. Peri-urban and border area identification, mapping and validation have been completed through

- Interstate peri-urban areas are listed, and joint visits planned with DIO for validation and
- Inter-district peri-urban areas are identified and listed.

4.2 Step II: Incomplete or missing ANM line listing, head-count survey-based planning and session planning

4.2.1: Objectives:

- To undertake a complete survey of the area and headcount
- Prepare updated due list preparation
- Complete the list of session load and injection load

4.2.2: Strategy:

This is Step 2 for developing comprehensive microplans. Many cities do not have an updated list of all areas including HRAs for each of the ANMs. A headcount survey which must be done biannually is also not updated in the areas,

because of the huge population that urban facilities cater to and have inadequate human resources to conduct the survey. Volunteers, nursing college students and NGOs may be trained to carry out the survey.

Mostly the sessions in urban cities are conducted in AWCs and planning ensures no area is left out, particularly those from the low-income groups and HRAs. This chapter looks at the comprehensive plan that has been outlined concerning sessions that have been planned, where they are being conducted and which areas need to be prioritized.

4.2.3 Training material a programme manager realizes the city is at Step-2:

For programme managers at Step-2, the suggested exercises are as under:

ANM area master list and survey planning:

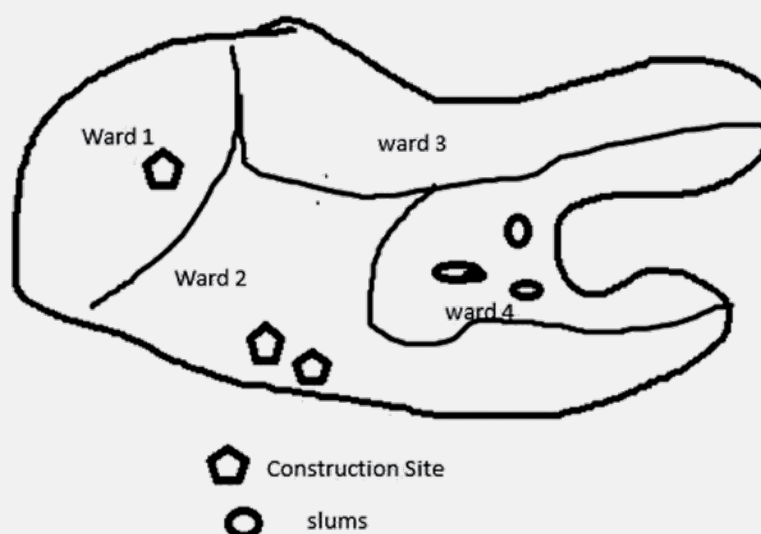
During the roll-out of this exercise, the facilitator should ensure that participants finalize the following:

- ANM line listing through the filling of formats (Medical officers' handbook on immunization) as per protocols; and
- How to plan and supervise the house-to-house survey.



Exercise 4. ANM area master list and survey planning

Background: Using the information of your UPHC, fill the format in this exercise and plan the survey taking into consideration the following:



Refer format 1 for the exercise UPHC name

Question: Total population of Sanjay Nagar area is 83000 and there are four ASHA workers in the area., ANM is Kirti with phone number 9999009999. One ASHA worker recently resigned and her position is vacant. In the absence of the ASHA, the AWW is conducting the survey.

	ASHA name	AWW name	Population	Number	HRAs as per Polio microplan (number of houses)
Ward 1	Rani	Chitra	30000	485	Slums with migration (25) Railway track (55)
Ward 2	Ketki	Vaishnavi	25000	366	GK construction site (150), Sonu construction site (400)
Ward No 3	Aradhna	Arushi	13000	210	-
Ward 4	Vacant	Devki	15000	211	Nomadic site (opposite UPHC – (85)/near water tank – (30) / Westyard area – (20)

Exercise: Conducting the headcount survey: During the roll-out of Exercise-5, the facilitator should ensure that participants are familiar with:

- relevant formats (Medical officers' and Health workers handbook on immunization) and fill them as per protocols; and
- conducting the house-to-house survey.

Exercise 5. Conducting the head count survey

In ward no 1, Lalita (ANM) had Rani (ASHA) visited on 20th December 2018 (from Format 1) for head-counting –

Scenario 1: The 21st house to be visited today is of Mr. Ramesh, near the railway track at the start of ward 1. In this house, there are four members – one child of 5 years, one child of 1.8 years and their parents. The mother is not pregnant and the 5 year old child is not immunized. Niyati, the 1.8-year-old child received BCG & OPV – “0” dose at the institution.

Scenario 2: The next house is of Jayesh. Here there are three members, namely the father, mother and infant. Sumita, who is 23 years of age is pregnant and has received a TT booster. She has an 11-month-old son called Vivan, who was delivered at home. He has received all vaccines withies per schedule although the family lost the MCP cards in a recent landslide.

Scenario 3: In the 23rd house, ASHA found that Rani, the 20 year old daughter-in-law, who was the w/o Rajender is pregnant for the first time and came to know of it just a day before.

Scenario 4: In the 24th house of Mr.Tapan Deb, no beneficiary was found to be due for vaccination

Scenario 5: In one of the households (41st house), Reema, the six month old daughter of Ratan (family of husband, wife & one child) born in June 2018 received vaccines of BCG, OPV & Hep-B birth dose. In August 2018, Penta 1 and OPV1 was given.

Scenario 6: In the 42nd house in ward 1 near the house of VC chairman, Mary, daughter of Jacob is a 14-month-old child. The family has no RI card and Mary did not receive her OPV-0 and birth dose of Hep-B while ASHA's record shows that she received all vaccines from BCG to Measles-1, JE-1, and Vitamin A. Mr. Joseph takes his meals from the kitchen of younger son Jacob.

For training of staff on conducting a headcount survey, it is expected that the facilitator makes participants aware of formats 3,4 and 5 which are explained in the MO handbook for immunization. The data on house-to-house visits and information collection is to be filled in Format 3. The information on 0-2-year beneficiaries and pregnant women is to be filled in Format 4. Both formats need to be customized for urban settings.

Exercise: Identification of session sites: For the session site planning, resource mapping for each ward/ planning unit must be done to identify the need, potential venue for outreach session, potential mobilizer, HRAs and community involvement in outreach session

sites. This ward-wise massive exercise should include colony-based resource mapping which in turn shifts the whole focus from the existing urban ward level to the colony/ 'Mohalla' level. Programme managers can roll-out this exercise for the identification of sessions. This exercise would enable participants to highlight strengths and weaknesses of each urban ward area and various parameters to formulate microplans that would be mapped, such as locating the high focus areas in an urban ward, calculating injection load and rationalizing session sites to cover all areas including marginalized populations, HRA tagging or holding separate RI session sites.



Exercise 6. Identification of session sites

Background: You have joined a new UPHC as an MO a month ago and today there is a monthly meeting at the UPHC which has a population of 90000. There are four wards in your UPHC catering area, one railway track on the boundary of ward 1 and ward 3, construction sites in ward 1, ward 2 and slums in ward 4. There are two staff nurses and four ANMs posted in your UPHC, however, one ANM Padma is on 6 months maternity leave.

Ask each ANM the following question and prepare detailed information.

1. What are the colonies/ 'mohallas' included in your ward as per Municipal Corporation/ municipality?
2. Whether the colony is covered by an ICDS/AW centre?
3. Is this colony a posh area (higher economic section/elite) or a low priority area (LP)/middle economic section area or a high priority area (HP)/marginalized area or a very high priority area(VHP).
4. Are there any HRAs included under this colony?
5. Is there any ASHA worker/MAS constituted in this colony?
6. Were there any independent outreach sessions conducted here?

4.2.4: Case study 1: Immunization service provision to migratory populations

Immunization activity in Char areas of Assam as an HRA:

Risk prioritization for focused interventions and targeting of resources is a key learning from the Polio eradication programme. This was done through the identification of various categories of HRAs. The lessons learned were

used for intensification of immunization activities during RI strengthening, Mission Indradhanush rounds, and recently urban immunization strengthening.

The riverine areas (island) of the river Brahmaputra, locally known as "Char/ Chapori" cover about 3.60 lakh hectares of land which is approximately 4.6% of the total area of the state. The Chars follow a peculiar pattern of migration and are subjected to erosion on their

upstream and deposition on the downstream. These remote areas have limited accessibility and consequent administrative and other constraints. 80% of the Char population lives below the poverty line (as per the Directorate of Char Area Development, Government of Assam).

The population of these islands thus has been constantly on the move. Annual floods cut them off from the mainland. Under such difficult conditions of



Fig. 17 Beneficiaries boarding the boat for vaccination

floods, erosion, lack of road and transport, this population has remained marginalized. Provision of health services has been a challenge in the Chars.

To bridge the gap, the first boat clinic was started in Dibrugarh in 2006. After that, all Char area districts were provided with boat clinics. These boats have a provision of doctors, nurses, pharmacists, helpers to the Chars along with medicines and vaccines. A basket of services including outpatient department (OPD) services, RI and antenatal care (ANC), on-board laboratory services etc. is provided.

For RI services, these boat clinics are instrumental in providing access and quality health care services to the Char population. Few riverine places that are connected to a nearby health facility and linked to the health sub-centre, avail their immunization and other relevant services. For the rest, the boat clinics carry vaccines and vaccinators to them. Some boat clinics have a solar powered ILR-cum-DF. They acquire the vaccine as per a microplan from the District Vaccine Store or the nearest cold chain point and store them aboard their boats. Those without the onboard cold chain equipment arrange the same more frequently, mostly every week and store the same in cold boxes. These boats leave the shore once a week, stay afloat on the river for 3-4 days during which they cover 1-2 Chars per day and then return to the shore to replenish their supplies of medicine, vaccines, food and fuel.

For example, Majuli boat clinic covers 34 islands but provides RI in only 12 islands, while in Dibrugarh it is 12 out of 24 and in Tinsukia each of the boat clinic teams conducts 18 to 20 camps every month.



Fig. 18 Mothers waiting for Vaccination by maintaining COVID protocol



Fig. 19 Solar ILR cum DF at the Boat Clinic

To provide quality healthcare services to the marginalized people of the Char areas, regular health camps are organized. As per the work

plan, the team visits the Char areas with the help of the local ASHAs. In accordance with the annual target/headcount exercise, a monthly action plan is prepared before the start of every month. Before the camp, communities are informed through ASHAs and community workers who ensure that pregnant women and children are brought to the camp for ANC, RI and other services. The reports of each camp are compiled, and reviews are done at the monthly meetings at the districts and in the District Task Force meetings.

4.2.4: Case study 2: Inclusion of the migratory population near railway tracks

The Kolkata Municipal Corporation (KMC) area is one of the most important urban areas in terms of its large population, varied and widespread geographical area, autonomous administrative body and multiplicity of stakeholders and service providers. It is divided into 16 boroughs (planning units) and 144 wards (7-12 wards in each borough), catering to a population of 4.5 million with a population density of 24252/sqkm. There are 1264 slums (migratory and non-migratory) with 40% of children living in the slum area (Census 2011). Slum areas besides the railway tracks are present in 11/16 boroughs (not present in Br13,14,15& 16). The maximum number of slums near the railway track is in borough1(20) and borough 10(15)

- Major stakeholders: RI activity in Kolkata slum areas is conducted with the involvement of multiple stakeholders headed by the Kolkata Municipal Corporation. District Family Welfare Bureau and the Kolkata Municipal Urban Health Organization are the other stakeholders. All RI sessions in the slums near the railway tracks are conducted by the Kolkata Municipal Corporation.
- Conducting RI sessions: Sessions are conducted in around 70% of slum areas and other slums are tagged with nearest RI session sites. RI sessions were regularly held in 18% slum areas and 72% slums beside railway tracks which are tagged with the nearest RI session sites. A total of

33 monthly RI sessions were planned in 16 slum areas.

- Manpower: There are 678 honorary health workers (HHW), 27 first-tier supervisors (FTS) and 104 ANM staff working in Kolkata for RI under the Kolkata Municipal Corporation. ANM staff and trained HHWs work as vaccinators in slum areas and other HHWs and FTS work as mobilizers in their assigned slums. Though there is a presence of ICDS workers in the slum areas, their role in the active mobilization of beneficiaries is not very encouraging in most places.
- Vaccine and logistics supply: Vaccines and logistics are supplied from the cold chain point of the nearest borough through the alternate vaccine delivery system.
- Reporting: The report prepared at session sites is uploaded in the HMIS portal from the ward level under the overall supervision of DFWB.
- Supervision: There is no supervisor structure at the borough level and UPHC level. Sessions conducted at UPHC are supervised by medical officers.

Major challenges in slum areas besides railway tracks

Reaching the children residing in unauthorized and temporary settlements is always a huge challenge for service delivery of routine immunization along with other health services. The major challenges found in the area particularly in slums beside railway tracks are:

Unauthorized slums: The slums beside the railway tracks are mostly unauthorized and lack civic amenities. Hence, identifying a proper place for vaccination of children is difficult to locate.

Poor environmental condition: Open-air defecation is rampant and there is also a lack of potable water supply.

High level of migration: High level of migration from neighboring districts and states poses challenges in the tracking of beneficiaries.

Working parents: In these slums, mostly both husband and wife work as daily laborers or domestic helps. They leave their babies with older siblings and there is no one to bring them to session sites.

Accident prone areas: The area is accident prone and there is a risk for both community and service providers.

Poor mobilization of beneficiaries: Since slums, besides railway tracks are mostly unauthorized, there is no HHW or ICDS worker who is appointed to these areas. Though a mobilizer is assigned from HHW/ FTS for other areas, active mobilization and tracking of beneficiaries is sub-optimal. NGOs were working in only 4 slums which were inadequate compared to the requirement. As per RI monitoring data of 2019, the due list was available in only 45% of session sites and updated in about 20% of slums which includes slums near railway tracks too.

Poor supervision: Supervision is very poor. Ward medical officers supervise the session site in their UPHCs, but session sites near railway tracks are usually unsupervised by government counterparts.

Current pandemic situation: Due to the prolonged lockdown and the increasing number of COVID-19 cases, immunization services were temporarily stopped from the 3rd week of March. This was resumed gradually from the last week of May. However, RI activity could be resumed only in 31% of slums beside the railway tracks.

Recommendations

- Need for situation analysis and redistribution of existing manpower on regular basis with extra days for outreach sessions in those areas.
- Strengthen the involvement of NGOs in such areas to supplement the Government's immunization effort and ensure better mobilization and IEC in vulnerable areas.
- Put in place a strong supportive supervisory plan.

- Use the monthly RI review meetings that involve ICDS and other stakeholders at the boroughs to address bottlenecks and improve coverage with quality.
- Utilize health workers involved in community surveillance activities for due list updating and mobilization.
- Plan special initiatives with coordinated efforts of all stakeholders; organize special RI drives in slums near railway tracks to reduce the immunity gap after improvement of the current COVID-19 situation.

4.2.4: Case study 3: Identification of additional sessions through a microplanning workshop at Indore

A one-day meeting with the DIO, Zonal Medical Officer, UPHC doctors and key planners of every zone was conducted in the first and second week of July 2019 in Indore with the following objectives:

- evaluation of existing workload of vaccinators (ANMs and other hired vaccinators);
- current manpower and distribution of population to each ANM/ vaccinator;
- area demarcation issues if any, between vaccinators' areas, urban and peri-urban areas, UPHC areas and zone areas;
- identifying critical components missing from existing RI microplanning for each city;
- ANMs conducting multiple RI sessions at the same site in a month;
- fixed site sessions planning;
- high-risk area under the Polio programme listing, tagging to RI sessions and conducting separate RI sessions in these HRA; and
- inclusion of Intensified Mission Indradhanush sessions to RI planning.

On completion of the exercise, issues were listed with current microplanning. They were further divided into general issues (applicable

to whole zone/ urban) and ward-wise issues. Few are enumerated below:

1. Generalized microplanning gaps;

- ♦ only format 4 (ANM roster) is filled and available for every ward;
- ♦ injection load has not been considered while planning for RI outreach sessions; and
- ♦ logistics related calculation for the cold chain point is missing, hence every ANM tends to get provided with the same number of vaccines and logistic quantities.

2. Ward-specific gaps:

A detailed listing of ward-specific issues/ gaps was identified and completed for every ward. One-on-one discussions were facilitated with the ANM to understand the problems and challenges faced by them and a detailed review of current microplanning was completed. The exercise was done at the zone level, with the help of zone level supervisors, and medical officers. A sample of the same is depicted below:

Zone	Ward no	Issues identified in current microplan
Zone 1	62	<ol style="list-style-type: none"> 1. Repeated outreach session at the same location/month. ANM conducting eight sessions per month (name of session site: GaddiAdda) at the same location, which even has an injection load of not more than 100 per month 2. The same ward also has four slum areas (settled HRA) with no outreach sessions. The population range of these slums is between 510 to 1100
Zone 2	78	<ol style="list-style-type: none"> 1. Area demarcation issue between two colonies (Goya colony and Sarnathcolony) 2. IMI areas are not included under RI plan until now
Zone 3	79	<ol style="list-style-type: none"> 1. Area(population) rationalization between two ANMs. One ANM was overloaded with work whereas the other has a comparatively lesser population to cover

3. Ward-wise resource mapping

The above-mentioned exercise was conducted with ANMs of all wards. The findings for one ward are given below.

Ward population	Colony under this ward	Population of this area	Covered by AWC (Y/N)	Is an independent session happening in this area (Y/N)	Whether this colony is listed under "Smart city slums list". (Y/N)	Colony status (VHP, HP, LP)	ASHA selected (Y/N/NA)	MAS formed (Y/N/NA)	HRA area (Y/N)	HRA category (1to 6)	Is there any migratory population
28,989	Abhilasha apartment	1230	N	N	N	LP	NA	NA	N	NA	
	Agravihar colony	984	Y	Y	N	LP	NO	NO	N	NA	
	Ahilya Mata colony	1329	Y	NO	Y	HP	Y	Y	N	NA	
	Harijan colony Janjirwala	1650	Y	Y	Y	VHP	Y	Y	Y	6	
	Builders colony	460	N	N	N	LP	NA	NA	N	NA	Construction site (20 families)
	Chensinghka bagicha	1056	Y	Y	Y	VHP	Y	Y	Y	6	

This can be generated for all the wards to get holistic information.

4. Microplanning workshop

A microplanning workshop was conducted in two separate batches (each day for two zones). A total of 17 medical officers, 91 ANMs, 10 LHV, 32 other staff were trained on both days. The training package was designed to meet the urban requirements, address key challenges and fulfill identified gaps in the existing plan. The one-day workshop was divided into four main parts as shared below:

A. Setting priority. Colour demarcation in ward maps

The mapping exercise divided the entire ward area into four colours. Blue for AWC areas, red for high-risk areas that are not covered by AWC, yellow for middle economic section areas and green for higher economic section areas.

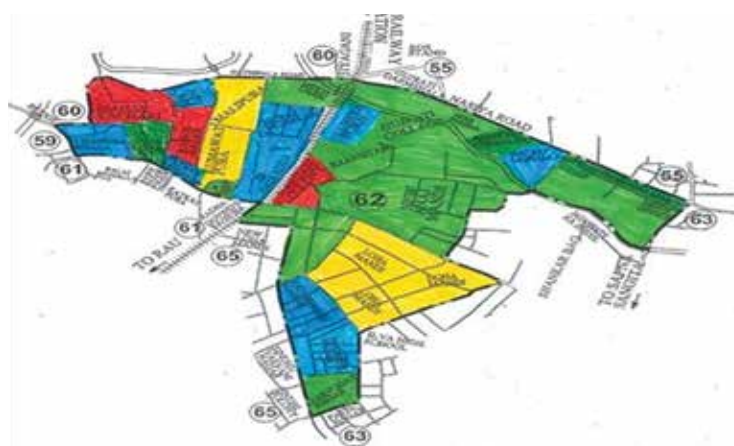


Fig. 20 Colour demarcation of ward maps

B. Fixing the gaps. A gap analysis exercise, ward-wise was done and the same was shared with individual ANMs. Planning flaws, irrational planning, not doing sessions based on injection load, boundary disputes, missing HRA, irrational workload division between two ANMs of the ward (80 wards of urban have one ANM per ward, whereas five wards are with two ANMs for outreach



session), fixed site session planning issues, etc were considered. Resource mapping of the individual ward was also shared with the ANM. By taking examples of one ward from each zone, gaps were explained to the ANM. Individual planning issues sheets/ resource sheets were distributed to all ANMs. Each ANM along with the supervisor and medical officer were given 15 minutes to discuss and go through the provided sheets. Thereafter randomly selected one ward from every zone to elaborate types of issues with a possible solution, the use of resources available within the ward and the setting of priority. Selected wards were 47, 79, 36 and 53 (one from each zone) taken to elaborate real examples.

- C. Back-to-basics. Using standard planning formats to complete microplanning formats were explained. Currently, the only available format is the ANM roster, whereas other formats like injection load calculation and fixing of all HRAs are missing from all urban wards' RI plan. Hence Format no. 1 – 6 were slightly modified for urban needs with urban nomenclature like wards instead of sub-health centre and colonies/ 'mohallas' instead of villages. Use of microplanning formats and exercise on the same with one ward data. Detailed discussions on high priority outreach sessions, followed by a discussion on middle economic and high economic areas. After doing the exercise, the main emphasis was given to Format no. 2, where actual session sites had been decided with an injection load calculation. Medical officers as well as supervisors were given a role to help the ANM decide the session site location. Data handlers were involved to calculate injection load instantly and help ANMs. After saturating all high priority areas, ANMs were asked to plan outreach sessions in middle and low priority areas, in the same session. Special emphasis was given to having discussions in this area.

The following relevant points came up during the discussion and the main issues identified with middle and high economic sections were:

- Lack of proper mobilization (no ASHA/ no AWC), hence mobilizer kept changing

in these areas. As mobilizers received incentives only for mobilization, per child benefits are not as per guidelines.

- Lack of community involvement led to greater dependence on private vaccination.
- Lack of proper space for RI outreach session site.
- There were small pockets of HRAs/ few families who worked as household helps in these areas.

Strategies adopted to overcome the above issues:

- Nearby ASHA assigned as a mobilizer in this area;
- Session site could be any private hospital/ clinic/ community hall/ society office/ Lion or Rotary office etc;
- Tapping Whatsapp groups of societies to inform all members of the colony about the vaccination site and help in the mobilization of children;
- Selection of site to easily cover small HRAs in between these colonies;
- Information about daily fixed sites/model RI sites of nearby areas, to parents, who are not willing to get their child vaccinated at outreach sessions (last resort to turn such parents to the government vaccination system). List of such families to be prepared while doing annual household surveys.

4.3: Step III: When a communication plan is missing

4.3.1: Objectives

- Create support and demand for immunization in urban areas.
- Develop a mechanism for strategic communication for urban areas.
- Use mutually supportive comprehensive communication approaches like social behaviour change communication.
- Develop the capacity and capability of health workers for improving demand for immunization.

4.3.2: Strategy

The success of urban immunization rests on the ability to create an enabling environment within the complex urban landscape that supports and generates demand for immunization. The building of systems that support immunization through specific communication pillars and strategic approaches that are interlinked and mutually supportive is necessary. Urban population faces multiple challenges on the lack of social cohesion, community linkages, diversity of languages, culture and ethnicity, inequity issues based on economic status, religion, etc. On the other hand, there is higher access to media and social media, NGOs and civil society. This necessitates the need, not only for addressing coverage but also equity to ensure that those most vulnerable and at-risk are adequately covered by immunization services. Building a supportive environment increased awareness and building of vaccine confidence to strengthen demand generation for immunization is the key to achieving the goal of 90% full immunization coverage in urban areas. Hence the mechanism for strengthening public support and demand for immunization through focused community mobilization, engagement and empowerment interventions catering to parents, caregivers and communities will be essential. Promoting positive norms for immunization focuses on the benefits and value of vaccines to strengthen demand generation and build vaccine confidence. It is important that key stakeholders understand the importance of immunization in protecting children from life-threatening diseases, counter myths, address perceived misconceptions and build vaccine trust to facilitate greater immunization service seeking behaviour.

The strategic approaches for social and behaviour change rest on the following pillars and are guided towards strengthening demand side interventions in urban areas:

- Advocacy;
- Social mobilization;
- Institutional capacity and capability building;

- Community engagement and media engagement; and
- Convergence and collaboration with line departments and ministries.

The above approaches need to be well-coordinated and systemically implemented through the support of all stakeholders to achieve the national immunization goal. Mobilization efforts that motivate and inspire trust in the system and services are necessary.

Since the urban landscape is complex with a diverse set of communities and a multitude of audiences, it requires partnerships and collaborations with key stakeholders within the government, partner and civil society. Expansion and institutionalization of the partner support for greater accountability and effectiveness are important in such a scenario

Community engagement brings together partners and supports the creation/activation of networks, coalitions and influencers at multiple levels (community, district, state and/or national) to focus upon, promote awareness and build support for RI). It helps to facilitate change by exploring and addressing existing social norms or other challenges or barriers which may hinder either individual level or wider collective change. Engagement with community networks such as CBOs and CSOs (SHGS, MAS, women's groups etc) and empowering them to construct strong bridges between service delivery and communities. Enhanced engagement of critical stakeholders on these platforms with their strong presence and role in the community facilitate in addressing rumors, misinformation and counter incorrect information on immunization.

Institutionalization of capacity and capability development of frontline workers in urban areas to continuously improve their knowledge and skills and delivery of immunization messaging to increase the demand for immunization needs to be focused. The Bridge IPC module is an enabling tool for sharpening the FLWs tool and needs to be utilized to enhance the IPC skills of the field-level workers (FLWs in the urban areas).

Challenges	Recommendations
Lack of communication strategic framework and plans for urban areas	<ul style="list-style-type: none"> • Develop a contextual, evidence-based urban framework for demand generation and plans for urban areas using the RI standard communication planning templates of MoHFW • Base the communication plans on specific needs of urban areas and behavioural barriers for immunization in urban areas • Monitor implementation of the communication plan and its activities
Low awareness and knowledge of immunization of caregivers	<ul style="list-style-type: none"> • Share information to caregivers on benefits of immunization, schedule of immunization during UHNDs, Mothers' meetings and through various mobilization activities • Counsel caregivers on ensuring full immunization through interpersonal counselling sessions • MAS/SHGs and influencers to communicate to caregivers and families on immunization • Disseminate information on immunization through the use of various forms of media • Develop strong and consistent messaging on the use of the Mother and Child Protection card (MCP) and let ASHAs emphasize the availability of immunization services across states and districts for the migratory/mobile population
Beneficiaries are unaware of the location and timing of health facilities	<ul style="list-style-type: none"> • Plan strong communication tools; also since vaccines in the private sector are expensive, beneficiaries would be interested in the government sector • Display information in local language regarding the nearest site for immunization services and those at prominent places • Communicate through print media • Include all the sites for vaccination in the citizen charter • Train Link workers/ASHAs to inform the community on the location of vaccination centres • Make facilities and vaccination timings available on social media • Provide information about daily fixed sites/model RI sites of the nearby area, to parents, who are unwilling to get their child vaccinated at the outreach sessions (last resort to turn such parents towards the government vaccination system). List of such families to be prepared while doing annual household surveys.
Lack of trust in public facilities	<ul style="list-style-type: none"> • Encourage better behaviour of health personnel and see more footfalls in the facilities. It will also facilitate a better understanding of the community by health staff. • Since ANMs, ASHAs and AWWs communicate respectfully with caregivers, share the four key messages during the vaccination, explain and reassure caregivers about the efficacy of vaccines and fear of side effects from vaccines. • Explain and counsel caregivers in urban areas who may be illiterate and have low literacy levels; also have ANMs/ASHAs/AWWs explain contents of the Immunization/Mother and Child Protection (MCP) card. • Choose health staff from the local community so that community representation is ensured.

Challenges	Recommendations
The more rapid spread of rumours	<ul style="list-style-type: none"> • Develop risk communication plans for every city and town so that each city and district is well prepared to deal with any adverse event following immunization (AEFI) and any other public emergency. • Media sensitization before the roll-out of any new vaccine launch. • Monitor media for negative messages during vaccination sessions • Use social media (Whatsapp groups of housing societies, colonies, RWAs) and mobile phones to disseminate messages related to immunization
MAS lack knowledge of immunization and skills for mobilization	<ul style="list-style-type: none"> • Orient MAS members on immunization, the schedule, benefits and accessibility of immunization services through regular orientation, training. • Build capacities of ASHAs, ANMs and AWWs for interpersonal communication through Bridge training and orient MAS on IPC skills
Low community engagement and platforms	<ul style="list-style-type: none"> • Engage with the local community especially those who are hesitant and resistant towards vaccines and who tend to stay away from immunization services • Improve mobilization of urban communities by engaging and empowering communities through CBOs and CSOs such as SHGs, adolescent groups, women's cooperatives, youth clubs, Ward members, Resident Welfare Associations (RWA) and societies. • Make announcements on the mic and through e-rickshaws and auto vans in urban slums concerning location and timing of immunization sessions. • Message urban slum dwellers on positive immunization messages, debunking myths, rumours and fears on AEFI through mobile based platforms (SMS, WhatsApp, YouTube) since most slum inhabitants have wide access to mobile phones
Fear of side effects and myths and taboos on ill effects of immunization	<ul style="list-style-type: none"> • Create consistent messaging through MAS and other community-based groups on myths and sharing of facts of immunization during UHNDs • Provide accurate information on side effects of certain vaccines to FLWs and encourage them to share this with caregivers
Competing priorities	<ul style="list-style-type: none"> • Reach communities at the right time when they are free, at home and receptive rather than during their busy hours • Make sure that services that are offered are flexible like suggesting evening immunization sessions

4.4: Step IV: Other major components missing

4.4.1: Objectives

- Identify the missing component based on the comprehensive list of 18 microplans.
- Develop comprehensive microplans.

4.4.2: Strategy

If the programme manager realizes the city is at Step IV, where other major components

are missing, training can be customized for specific issues by conducting deliberations with the health department and other major stakeholders. Reference documents for planning training modules are MO training Handbook on immunization and the health workers training module on immunization.

4.4.3: Training material for Step-4:

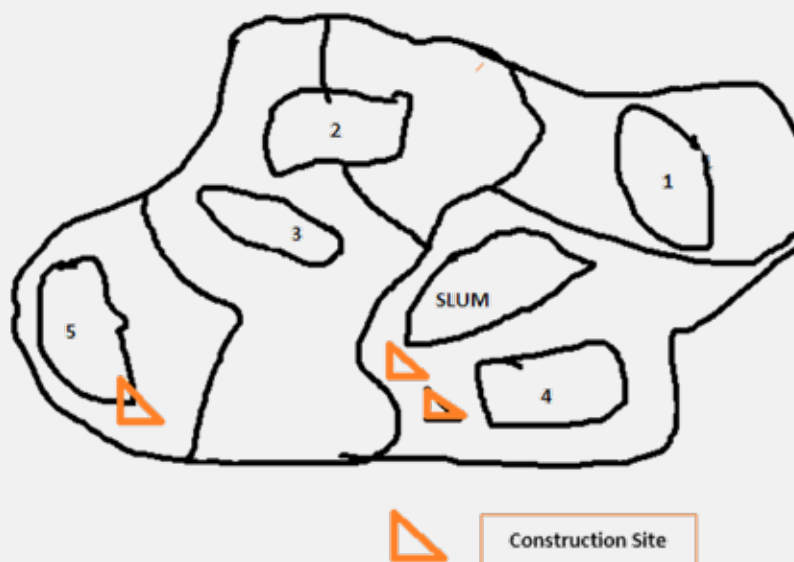
Exercise for training on workload and planning for RI sessions is enumerated below:

Exercise 7. Workload and planning for RI sessions

Participants to use RI form 7 in this exercise.

Ask each group to present their planning for the number of sessions. Ask the other groups if they agree to the plan and if there is any alternate suggestion, allow the group to quickly justify the same.

Question: Using the information provided calculate the injection load for each of the areas and help the ANM of the area to decide the number of sessions and sites for conducting the RI sessions



The map above shows the area of UPHC Pahal. There are five wards and one slum adjoining ward No 4.

There are three construction sites in this area. Two construction sites (next to each other) near Ward no 4 are on the outskirts of the ward. The workers in these construction sites live in a common jhuggi cluster near the construction site. Construction site near Ward no 5 is located within the ward itself and the workers stay on site.

Ward	Population	Number of pregnant women	Children 0-1 years
Ward No 1	760	17	30
Ward No 2	45	1	4
Ward No 3	875	20	35
Ward No 4	2250	48	90
Slum	275	6	11
Ward No 5	70	3	5

Construction Site	Population	Number of pregnant women	Children 0-1 years
4 A	150	6	10
4 B	75	5	9
5 A	240	5	9

The next exercise pertains to urban areas that are significant to understand the microplans better. This exercise should be conducted with all the participants (MO, ANM, SN) at the UPHC

level or district level. This would enable them to identify gaps in RI microplans of different planning units and identify recommendations

Exercise 8: Review of microplans from different urban planning units

Facilitator tips. Facilitators to provide microplans of different planning units at every table. Participants at one table would be considered as one group. Ask the groups to critically review the microplans and identify strengths, gaps and make recommendations. For the above task, give participants 30 minutes. After 30 minutes, ask each of the groups to present their findings under three heads:

- Strengths
- Gaps
- Recommendations

The facilitator can ask other groups to comment on the group's presentations. After the presentations are made, the facilitator can sum up the responses or ask anyone to volunteer for summing up the session.

Task. You are handed out a microplan of the UPHCs of your city or microplans of ANM areas of different wards. As a group, present the findings of the microplan under three heads:

- Strengths of the microplan
- Gaps
- Recommendations

It is also crucial that UPHC analyze the coverage data to understand the same. This exercise would help the facilities to calculate the drop-out rates

for specific antigens. The data can then be used to identify issues of access and utilization and thereby provide solutions to UPHCs.

Exercise 9. Analyzing UPHC data to calculate coverage indicators

Facilitator tips.

After handing out the exercises, ask all participants to discuss the formulae for the calculations and familiarize themselves. Give the instruction that each participant is to perform the calculations for this exercise. Give 10 minutes for the calculations to be completed. Once they are done the participants are to fill up the values in the blank form in the exercise. Discuss the values derived by asking table-wise values generated.

Calculating coverage for any antigen= Total Antigen Administered/Yearly target*100

To calculate the total number of dropouts and dropout rate (%) e.g.: (Penta 1 – Penta 3) X 100/ Penta 1

Guide participants to fill the second part of the exercise using the key provided in the box. Once this has been done, begin discussions on each of the observations.

During the visit to DH Paarur, Medical officer shared UPHC-wise report of last financial year. He seeks your inputs on key issues to focus. Analyze the data and calculate the following from the table given below:

UPHC	0-1 year population (annual target)	Penta 1 doses	Penta 3 doses	DPT booster coverage	Measles dose coverage	Measles 2 dose coverage	Penta 1 Coverage (%)	Penta 3 Coverage (%)
Maroofganj	360	316	306	301	203	301	87.8	85.0
Jay Prabha	294	173	76	166	171	67	58.8	25.9
Kankarbagh	317	274	86	189	199	191	86.4	27.1
Kaushal Nagar	347	323	325	133	323	336	93.1	93.7
ShastriNagar	237	131	226	113	121	111	53.2	95.4

Name of ANM area	Penta 1 – Penta	Measles 1 – Measles 2	DPT booster to Measles 2
Maroofganj	3.2	-48.3	0.0
Jay Prabha	56.1	60.8	59.6
Kankarbagh	68.6	4.0	-1.1
Kaushal Nagar	-0.6	-4.0	-152.6
Shastri Nagar	-72.5	8.3	1.8

4.5: Step V: All major components in place

4.5.1: Objectives

- Sustaining the gains achieved; and
- Regularly updated microplans.

4.5.2: Strategy

In case the programme manager realizes that the city is at the level where all the components

are taken care of, then the city should strive to sustain the gains it has achieved by having most of the components of the microplans in place.

4.5.3: Training material for step 5:

One of the exercises suggested was to conduct an immunization intensification activity after the exercise. This exercise would enable programme managers to identify additional high-risk areas for immunization intensification and inclusion of those HRAs in the RI plan.

Exercise 10. Sustainability of immunization sessions conducted during extended gram swaraj abhiyaan (eGSA)

Requirement. eGSA MI microplan for facility.

Facilitators to provide eGSA MI microplan of different planning units at every table. Participants at one table would be considered as one group. Ask the groups to critically review the microplans. For the above task, give participants 30 minutes. After 30 minutes, ask each of the group to present the finding in table below:

Task. You are handed out microplans of the eGSA MI of UPHCs of your city. As a group, present the findings in the template below:

No of eGSA sessions conducted (specify the name)	Can those identified session be tagged in routine sessions (Y/N)	If Yes, actions required to include them in RI	If No, is it going to be an additional session in your Routine Immunization micro-plan

4.5.4: Case study 1. Sustainability of Immunization sessions conducted during eGSA for Bengaluru and BBMP

For Bengaluru urban, most of the components of microplans were in place. However, ward-wise area demarcation and ANM area demarcation along with mapping needed to be fixed. To address this issue, a workshop was conducted for BBMP and Bangalore and 130 medical officers of UPHCs were trained. The main components of training included familiarisation of MOs with microplanning components at the ward and UPHC level, review UPHC microplan by MO and conduct a hands-on review of the actual microplan

from different UPHC. The most important component that was covered in this workshop was to sustain immunization sessions conducted during eGSA. An intensive exercise was done to either tag or create new sessions for all the new sessions conducted during eGSA or immunization intensification rounds.

During the exercise on Sustainability of Immunization sessions conducted during eGSA, participants were provided with the RI plan and eGSA microplan of the same UPHCs. They were asked to review the sessions that were conducted during MI and if those plans could be included in RI as per the template below:

Name of UPHC	Total number of sessions conducted in RI before MI eGSA rounds	Number of sessions conducted during MI eGSA rounds	Total number of sessions conducted in RI (including MI sessions)	Remarks

The teams participated and went through the microplans and reviewed with critical feedback e.g. UPHC Panthrapalya had conducted eight sessions, out of which two were neither part of RI microplan nor could be tagged with existing RI sessions, therefore two additional sessions were planned.

Medical officers are expected to revisit their microplans based on exercises done and ensure

the inclusion of all HRAs identified during eGSA rounds. MOs were also requested to provide information in the template mentioned above.

Outcome: Bengaluru city was conducting a total of 2138 RI sessions. Post MI eGSA rounds, 155 new sessions were identified for which additional sessions were planned and 206 sessions were tagged to existing RI sessions. The overview of sessions for Bengaluru city is as under:

Total RI sessions conducted during November 2018	Number of MI-eGSA sessions conducted (July 2018)	Number of MI-eGSA sessions already part of RI	Number of MI-eGSA sessions conducted in newer areas (not previously in RI microplan)	Number of newly identified MI sessions which can be tagged to existing RI sessions	Number of newly identified MI sessions for which additional RI sessions have to be planned
2138	1490	1129	361	206	155

BBMP was conducting a total of 859 RI sessions. Post MI eGSA rounds, 155 new sessions were identified for which additional sessions were

planned and 98 sessions tagged to existing RI sessions. The overview of sessions for BBMP is as under:

Total RI sessions conducted during November 2018	Number of MI-eGSA sessions conducted (July 2018)	Number of MI-eGSA sessions already part of RI	Number of MI-eGSA sessions conducted in newer areas (not previously in RI microplan)	Number of newly identified MI sessions which can be tagged to existing RI sessions	Number of newly identified MI sessions for which additional RI sessions have to be planned
859	537	284	253	98	155

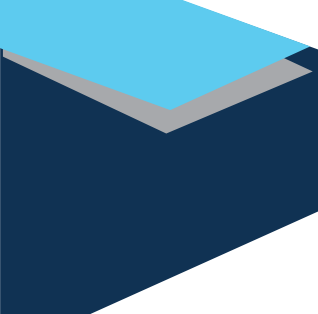
Bangalore urban was conducting a total of 1279 RI session. Post MI eGSA rounds, all 108 sessions were tagged to existing RI sessions.

The overview of sessions for Bangalore urban is as under:

Total RI sessions conducted during November 2018	Number of MI-eGSA sessions conducted (July 2018)	Number of MI-eGSA sessions already part of RI	Number of MI-eGSA sessions conducted in newer areas (not previously in RI microplan)	Number of newly identified MI sessions which can be tagged to existing RI sessions	Number of newly identified MI sessions for which additional RI sessions have to be planned
1279	953	845	108	108	0



Monitoring and accountability frameworks



5.1: Monitoring and accountability framework:

The broad objective of supportive supervision and monitoring is to strengthen health systems by focusing on the identification and resolution of programmatic gaps, capacity building and appropriate planning in the available resource settings. The key is to do this while promoting high standards, teamwork and encouraging two-way communication for cross learning.

The supportive supervision and monitoring aspects look at the broad thematic areas of immunization planning and monitoring of implementation. The planning component includes adequacy and correctness in session planning including frequency based on injection load vis-s-vis operation issues, delivery and availability of vaccine and other logistics, and monitoring. The performance of ANMs is based on the knowledge and skills related to schedule, safe injection practices and communication of key messages with the caregivers.

Recording of vaccinations at each session site ensures what and how in terms of quality of vaccination services are being provided to beneficiaries. This must help in the identification of drop outs or left outs that facilitates active follow-up in the case of missed beneficiaries. Tools for recording the immunization information is as under:

- MCP card with counterfoil;
- Tracking bag;
- Mother and child register;
- Name based due list and tally sheet;
- Coverage monitoring chart; and
- Monthly progress report.

The use of a tickler bag, if implemented systematically, will ensure effective mobilization of drop out and left out children. The tools backed by information technology being used at district levels are:

- Mother and Child Tracking System (MCTS)
- Reproductive Child Health Portal (RCH Portal)
- Health Management and Information System (HMIS)
- ANM online (ANMOL)

WHO-NPSP conducts monitoring of the RI and campaigns at the session site and in the community. Monitoring is done through sessions and house-to-house monitoring formats by the Surveillance Medical Officer (SMOs) and Field Monitors (FMs). Few states such as Karnataka and Himachal Pradesh hired FMs through the NHM's budget. States such as Uttar Pradesh and Bihar engaged FMs by the state government under WHO-NPSP supervision. This model can be adopted by states by proposing them through the annual State PIP of NHM. Government medical officers can also be engaged in monitoring. States have institutionalized Field Volunteers through their PIP as in Bengaluru for supporting and monitoring urban immunization.

Monitoring of RI was initially conducted through paper-based formats, both for the session and house-to-house monitoring. The immunization programme monitoring was strengthened with fast-track generation of monitoring data with the use of electronic data management using an open data kit (ODK) application on a mobile handset. The programme has not completely switched to only mobile-based monitoring due to local governments' reliance on paper-based formats for ensuring quality assurance.

The monitoring tool is active, both in the paper and ODK application with the option for rural and urban areas to monitor respectively. However, within the urban setting, the tool now has an option for NUHM city, which allows to zoom in on the immunization progress and performance in urban cities. The monitoring tool allows us to assess the programme in high-risk areas, corporations, etc.

Super-8 model by Indore.

There were not enough dedicated supervisors in Indore city. For quality supportive supervision, the Indore administration identified eight supervisors who were working as Multipurpose Health workers (MPW) and were given additional work of supervising their areas. They were selected to take up monitoring and supervision in the urban area of Indore and trained in carrying out session site and house-to-house monitoring. Four zones were divided into eight supervisors' areas. This ensured that two supervisors were responsible for monitoring in one zone with 2-3 clusters in each zone.

- **Monitoring days:** The supervisor is expected to monitor four days a week. On each monitoring day, two session sites and two house-to-house areas should be monitored using the ODK app.

- **Feedback mechanism:** These supervisors are responsible for handholding ANMs, facilitating the planning of RI in the ward and meeting with the councilor and influencers in the monitored area. There is also a set mechanism for providing feedback, which is provided to ANMs, ward doctors, zonal medical officers and DIOs as per the locally agreed plan (Saturday).

A letter from the Joint Secretary, NUHM was communicated to states and corporations for the constitution of District/City Task forces for urban immunization along with detailed ToR. While Corporations have constituted CTFI, many districts have decided to include the urban component in already existing District Task Forces for immunization. Programme managers need to track the task forces for regular meetings and the quality of meetings.

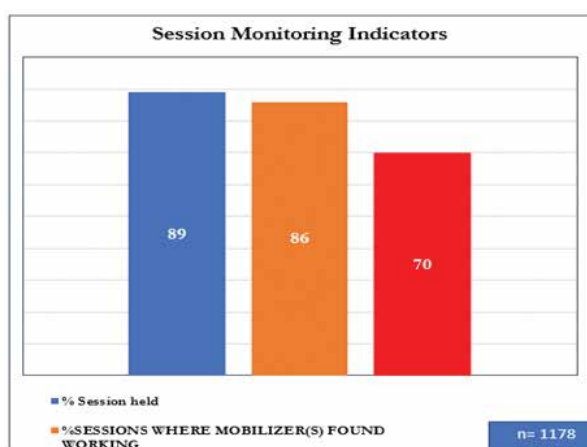


Fig. 21 Session monitoring indicators

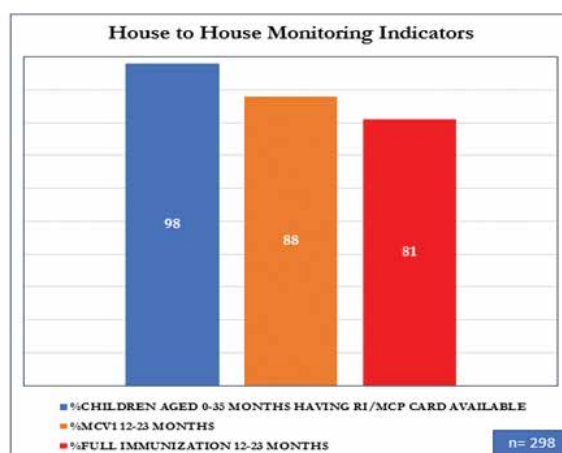


Fig. 22 House to house monitoring indicators

5.2: Supportive supervision:

Supportive supervision is one of the weakest links in urban immunization. Enhanced supportive supervision will be required to undertake headcount-based microplanning along with regular due list updates and estimation of injection load by ANMs followed by training of FLWs.

To ensure quality microplans in urban areas, there is an urgent requirement of creating a pool of trained supervisors such as Medical

Officers, Staff Nurses, LHV, ANMs, MAS and ASHA at state and city levels. Other resources such as training institutes, SIHFW, SHSRC, NGOs, development partners and the private sector may also be explored.

A selected pool of supervisors must be trained on current immunization practices, injection techniques, techno-managerial and communication skills. They must be involved in the training process, right from assessing the need for training to conducting training to building skills of training of trainers (ToT)

and conducting workshops. Prepare the supervision calendar for all cadres for the year and have them monitored by CMHO/DIO at the city level every quarter. Supportive supervision must be the next step that needs adherence.



Fig. 23 Supportive supervision

At the level of UPHC or urban facility, regular visits need to be planned by the supervisors. This would enable them to address their concerns on time. The pool of supervisors may constitute ANM, LHVs, PHN, and MO. A sample for visiting sessions and house-to-house may be selected so that it is representative of the communities. All HRAs listed above should be prioritized to conduct supervision. Poor performing sites may be identified for prioritized visits by supervisors. Medical officers shall monitor all components of microplanning which must be in place for the facilities including lower facilities/wards/ANMs.

Priority should be given to components such as whether ward mapping has been done or not. States that do not have wards as an administrative unit must select other administrative units. E.g. planning unit can be adhered to for defining boundaries etc. The catchment area of UPHC, ANM demarcation, communication plan and other components of the microplan shall also be reviewed. Besides this, the training status of all cadres for developing comprehensive microplans has to be considered.

Clear expectations from the concerned staff need to be defined. Accordingly, attainable and realistic goals along with measurable indicators must be developed and agreed upon at all levels. All health facilities need to develop a supervisory team to conduct supervision visits and provide day-to-day support and supervision. It would be important to monitor and assess the facilities and session sites based on house-to-house and session site formats. Other suggested components are 18 components of microplans and the training status of all cadres of staff.

The next step will be to identify gaps after acknowledging all the work done by the health workers. The supervisor needs to discuss the gaps identified and recommendations made with the staff involved. Consensus must be made on the further corrective action and the supervisor who sets the time with the staff involved for the next evaluation. This opportunity shall also be used to provide health workers with any updates on policies and practices.

Suggested work plans are as under:

At facility level (by medical officer) and city level by DIO	
Components of supervision	
Ward-wise mapping in place	
UPHC catchment area defined or not	
ANM area demarcation done	
Communication plan in place	
Headcount survey registers	
Due list preparation	
Correct injection load calculations	

Training of RIMP <ul style="list-style-type: none"> • MO • ANMs • MAS ASHA • Other cadres 	
Training of vaccinators on injection administration	
Monitoring <ul style="list-style-type: none"> • Session site (using standardized tools) • House-to-House (using standardized tools) 	

Once the supervisor has visited a health centre or session site, the following work plan can help in making an evaluation:

Activity	Person responsible	Proposed action	Next evaluation

The suggested format for follow-up action is as under:

Activity	Person responsible	% Complete	Solutions	Remarks

Session sites and House-to-house formats are annexed.





Collaboration and partnerships

Systematic convergence with several stakeholders is key to the success of the immunization programme. The 74th amendment of 1993 enables municipalities to have their control over functioning, funding and governance. Per the 74th amendment, urban local bodies (ULB) are involved in urban planning, regulation of land use, economic and social developments, construction of roads and bridges, public health, sanitation, fire services, urban forestry, slum improvements and upgradation, urban poverty alleviation, promotion on cultural and educational aspects etc. The stakeholders for ULBs are the mayor, slum up-gradation officer, ward councillor, ward official, sanitary inspector, and representatives of urban development, amongst others.

The following framework for convergence has been developed based on learnings from different programmes. Key stakeholders for convergence include parliamentarians, private sector, media, corporate sector, NGOs/CBOs and officials from different ministries and departments within the health ministry.

Framework for convergence



Fig. 24 Convergence framework

The urban landscape where the population is not only concentrated in the slums but is also scattered across peri-urban areas and other spots, pose many challenges in reaching the unreached. While the MoHFW is the nodal agency, to achieve the widest coverage for children's immunization, there is a need for cross-sector collaborations with line departments. This will help play an important role as stakeholders for engaging urban slum communities. Convergence with ministries and line departments, such as Women and Child Development, Education, Ministry of Urban Affairs, Rural Development, and Ministry of Jal Shakti are necessary to ensure optimum immunization coverage and reaching the unreached. Advocacy with each of these departments and ministries for emphasis on immunization, allocation of resources and skilled manpower will bring in more united forces to work for immunization in urban areas.

Coordination with various departments such as youth, tribal welfare, labour, social welfare, minorities is as important as it is to leverage the strengths of youth networks and clubs such as NYK, NSS and NCC to mobilize the urban communities in slums. Each of the allied departments with their areas of jurisdiction, skills and expertise and resources can play a complementary role in creating a supportive environment for immunization in urban areas. The indicative role that some of the most allied and key stakeholder departments can play in immunization is outlined below:

Key stakeholder department	Roles and responsibilities
Department of Women & Child Development	<ul style="list-style-type: none"> • Mobilization of caregivers and families through home visits and information sharing on the location of immunization sessions • Sharing of data on beneficiaries with ANM and MAS • AWW to support conducting headcount surveys and assist in microplan development • Supporting gap filling in urban areas where ASHAs or MAS do not exist • Supportive supervision of immunization by CDPOs by ASHAs
Department of Youth Affairs	<ul style="list-style-type: none"> • Generating awareness of immunization and mobilizing youth through NYKS, NYC, NSS, Youth clubs and other groups
Department of Drinking Water and Sanitation (Jal Shakti Mission)	<ul style="list-style-type: none"> • Engaging Swachhagrahis for informing, communicating and mobilizing the community for availing vaccination services.
Ministry of Home Affairs	<ul style="list-style-type: none"> • Supporting and facilitating immunization sessions in residential areas of the Central Police Organizations and Central Armed Police Forces
Department of Human Resources	<ul style="list-style-type: none"> • Supporting in leveraging schools as a platform for immunization • Ensuring active involvement of school children in mobilizing the community during various immunization campaigns
Ministry of Housing & Urban Poverty Alleviation	<ul style="list-style-type: none"> • Utilizing active involvement of SHGs under NULM to increase awareness on the importance of immunization in urban areas
Ministry of Urban Development	<ul style="list-style-type: none"> • Supporting in enlisting participation and coordination of ULBs to support immunization. • Overseeing and reviewing immunization by Municipal Commissioners, Councilors and Ward Committees in their respective areas • Taking specific directions to big municipal corporations for their involvement in immunization and campaign activities • Identifying nodal persons from ULBs for convergence with the health department for immunization
Department of Tribal Affairs, Minority Affairs	<ul style="list-style-type: none"> • Involving Tribal Welfare offices for improving immunization reach, especially to vaccine hesitant communities in urban areas
Ministry of Defense, Air Force, Railways	<ul style="list-style-type: none"> • Utilizing departments' health facilities for providing immunization services in their designated and periphery areas where slums abound • Mobilizing communities during campaigns and deploying NCC and welfare organizations of these departments for promoting urban immunization



Potential for partnerships and convergence

Some key examples and methods of partnerships have been outlined below to underline the fact that convergence has been achieved by collaborating with different partners:

6.1: Mission for the Elimination of Poverty in Municipal Areas (MEPMA), Telangana¹

The Mission for Elimination of Poverty in Municipal Areas (MEPMA) is an initiative of the Department of Municipal Administration & Urban Development, Government of Telangana. It was launched in September 2007. The Hon'ble Chief Minister of Telangana is the Chairman of the Governing body and the Hon'ble Minister for Municipal Administration & Urban Development Department is the Vice-Chairman. The Principal Secretary, Municipal Administration, is the chairman of MEPMA's Executive Committee. Entire team is responsible for implementing the urban poverty alleviation schemes. Its district units are headed by Project Directors.

Primary objectives of MEPMA

- Forming urban women into SHGs and encouraging internal savings/lending
- Capacity building of CBOs
- Creating access to credit by providing bank linkages
- Arranging loans with subsidies for self-employment units
- Promoting StreeNidhi, a state-level woman credit cooperative society
- Creating access to social security measures that include insurance-linked old age pension schemes, scholarship linked insurance scheme, placement linked skill training and market linkage to SHGs entrepreneurs and their products,
- Better health and nutrition awareness,
- So far 0.33 lakh street vendors have been profiled by MEPMA to organize them into groups on the lines of SHGs,

- Community Resources Centers (CRCs) & Mahila Swasakthi Bhavans (MSBs)

Under NUHM, 10-15 members of existing slum level federations (SLFs) under MEPMA were grouped to form MAS in an area. The SLF president and MAS were made joint signatories of the account.² The MEPMA programme focused on the following approaches to strengthen MAS:

- MAS training;
- strengthening of MAS monthly meeting records;
- strengthening of 14 records of MAS;
- awards and recognition;
- continuous monitoring by NUHM and other departments involved and
- supervision and social audit.

Based on third party evaluation, the programme has identified health services impacts, achieved through the strengthening of MAS in terms of increase in regularity of MAS meetings, better mobilization for UHND, improvement in the delivery of complete ANC services, increased % of UPHCs achieving complete immunization and increase in toilet coverage from 15% to 36%.

- NGOs, CBOs: The HIV programme has converged widely with the NGO sector (convergence with SAATHI and PLAN India) to reach vulnerable populations and raise awareness and service delivery under the programme. Several learnings can be adopted from this programme. The impact of convergence with the Rotary and Lions Clubs has already been demonstrated under the Polio programme
- Convergence with parliamentarians: Raising awareness of local MLAs and MPs on immunization eg: cricket matches of MPs have been held to raise awareness on the TB programme.
- Convergence with media: Media sensitization is always a part of immunization programmes such as the collaboration with media for the

¹ MEPMA website and NUHM capacity building brochure

² <https://nhm.gov.in/images/pdf/NUHM/Brochure.pdf>

MR campaign. Leveraging media for raising awareness and recognizing champions is the key to the programme's success.

- Involvement of SwacchaGrahis under the Swachh Bharat Mission: This was done for the formulation of MAS wherever they are not formed and mobilized.
- Outreach: Utilize the shelters for homeless people under NULM for outreach activities.
- Convergence with the Ministry of Railways and Defense for IEC through railway tickets: This method has been used by several line ministries. Railways and defense also cater to the conducting of outreach and fixed sessions in their respective areas.
- Engagement with the corporate sector:

The Call to Action project under the RNTCP programme formulated a mechanism for convergence with the corporate sector to raise awareness among mine workers, construction workers etc on tuberculosis. A similar model can be followed for raising awareness on immunization, and Corporate Social Responsibility (CSR) funds can be leveraged for immunization activities in urban slums
- Involvement of health functionaries: Their involvement was critical in city health planning for adequate healthcare facilities in urban areas, epidemic planning and management.
- Engagement with the private healthcare sector: The Pradhan Mantri Surakshit Matritiva Abhiyan of the MoHFW provides a good example of convergence with the private sector. More than 6000 private sector volunteers have come forward to provide services to pregnant women under the programme. Similarly, under the National Tuberculosis Elimination Programme (NTEP), partnerships have been established with the private sector to provide better care and free medicines to TB patients in the private sector. The private health facilities cater to 16.7% of vaccination amongst the

age group of 12-23 months, as per NFHS-4 data, which makes it crucial to involve the private sector for better support and tracking of data. Such efforts have been made by different cities at the local level. The status of private sector involvement in the cities of Indore and Pimpri Chinchwad Municipal Corporation (PCMC) is enumerated below.

6.2: Private partnerships

6.2.1: Case study for Indore

There are more than 250 registered members of IAP, who are actively involved in immunization practices. Apart from IAP members, there are approximately 20 large corporate/trust hospitals and 2 private medical college hospitals actively working as private immunization centres. Additionally, a few general practitioners are also involved in private immunization activities. While private immunization helps in achieving higher immunity against vaccine-preventable diseases of the population, at the same time, there are higher chances of losing coverage data.

Looking at various aspects and complexities of private immunization systems, schedules, recording/reporting and ownership issues, Indore is currently working on two major aspects of involving the private sector, namely supply of UIP vaccine to private immunization facilities and their data compilation and data collection of commercially available vaccine, used by private immunization facilities. These are explained in detail below.

1. Supply of UIP vaccine to private immunization facilities and their data compilation:

Currently, this is only done in private medical colleges, the provided vaccine is provided free of cost and provision of vaccination coverage report. They are tagged with nearby cold chain points (CCP) from where the vaccine is supplied and brought back in vaccine carriers. As of now, the system is in place at two private medical colleges. There are few variations in both models and these are listed as follows:

S. No	Key components of vaccination	Sri Aurobindo Medical college (SAIMS) Indore	Index medical college
1	Cold chain system	The vaccine is supplied by near CCP, in vaccine carriers, daily. AVD person is of SAIMS.	The vaccine is supplied by near CCP, in vaccine carriers, daily. AVD is from the district health team.
2	Reporting system	Reports are submitted every month	Reports are submitted every week
3	Follow UIP Schedule (Yes/no)	Yes	Yes
5	Dedicated staff selected (Vaccinator)	Selected, with one more as back-up Vaccinator	Yes, but no second back-up Vaccinator.
6	Training done	Yes	Yes
7	Supportive supervision by HOD	Yes	Yes
8	Residents are posted	Yes	No
9	Vaccination card used: Govt/Private	A vaccination card is printed by SAIMS	Govt Vaccination card used
10	AEFI reporting mechanism if any	In case of any AEFI, the beneficiary is asked to report to SAIMS	In case of any AEFI, the beneficiary is asked to report to Index
11	Started since	Last 24 month	Last 18 months

Compiled data of vaccine consumption at both medical colleges is as follows (compiled here for HMIS year 2019–20)

Month	BCG	HEP – B	OPV	Penta	IPV	MR	DPT	Td	RVV	PCV
April 19	240	40	600	220	100	360	80	20	340	176
May 19	100	80	840	300	150	480	160	100	420	216
June 19	280	40	680	260	150	280	80	220	420	176
July 19	320	40	640	200	200	380	80	60	440	184
Aug 19	300	20	200	220	150	340	20	40	360	200
Sep 19	340	60	400	140	150	260	120	80	240	72
Oct 19	200	80	400	160	50	140	60	80	120	48
Nov 19	300	60	840	300	100	170	140	60	440	240
Dec 19	260	140	440	160	200	320	120	80	280	216
Jan 20	280	120	440	300	150	300	40	60	240	264
Feb 20	200	80	560	200	150	270	80	160	140	192
Mar 20	200	80	480	100	50	120	100	80	180	152

*Source: EVIN stock register of respective CCP

As far as the reporting system is concerned, HMIS has a private reporting column, under which these reports are entered by respective urban zones/blocks.

2. Private vaccine (commercial) reporting by the private system

a. Reporting by private paediatricians/ general practitioners: Efforts done/ system in place for strengthening reporting mechanism are:

- IAP members sensitized well in various meetings by CMHO/ DIO/ SMO-WHO for vaccination reporting and its importance for the UIP programme;
- letters from CMHOs to report vaccine coverages ;
- register provided to all private immunization facility by the DIO office, which is a format for reporting vaccines covered under UIP schedule of state only;
- report collection on WhatsApp groups (members are almost all IAP members/ government health body/ WHO SMO) for ease of collection of reporting; and
- compilation of reports and reporting under HMIS by RI data manager on monthly basis.

Reporting by private hospitals: Reports are collected by respective ANM/ health

supervisors on monthly basis and updated on the HMIS portal. The ANMs/ data collection person is tagged with each private health facility. Finally, all data is entered in HMIS.

6.2.2: Case study for Pimpri Chinchwad Municipal Corporation (PCMC)

PCMC is a civic body with a population of 2.4 million. It governs Pimpri Chinchwad, the proudly extended city limits of Pune, India. The city is divided into eight administrative zones (named A to H). Each zone consists of four electoral wards and has an office by an Assistant Municipal Commissioner. PCMC has 36 UPHCs and one super specialty tertiary care hospital. For RI services, 336 sessions are planned per month of which 225 are outreach and 111 are at fixed sites.

A letter was sent from Corporation HQ to all private practitioners for reporting the immunization coverage in December 2019 and again in August 2020. A sensitization meeting of private practitioners was conducted for reporting coverage in HMIS reporting forms. A reporting tool was generated for the entry of coverage data in an excel sheet.

276 private medical practitioners (92 paediatricians and 184 private maternity facilities) were given registers for reporting vaccination coverage to corporate headquarters. This data gets entered into the HMIS. These medical practitioners are provided with UIP vaccines as and when demanded. There has been an increase in the number of reporting over the years.

Year	2017–2018	2018–2019	2019–2020
Paediatrician (reporting out of sensitized)	70/92	76/92	89/92
Maternity homes (reporting out of sensitized)	50/184	71/184	70/184
Total	120/276	147/276	159/276



Support from development partners has been provided for data analysis of RI coverage during task force meetings which are chaired by Municipal Commissioner. Continuous support is provided through capacity building of private practitioners and paediatricians by participating in local CMEs and surveillance workshops along with RCHO.

A nodal person is appointed in each UHP for verification of uploaded data in HMIS. Additional sessions are planned where the coverage is low.

6.3: Other areas of convergence:

6.3.1: COVID 19

Managing COVID-19 in urban areas is the biggest example of convergence at all levels where all ministries and departments are coming together to fight the global pandemic. All the line ministries such as MHA, MoUD, WCD, development partners, NGOs, CBOs were closely working with MoHFW for coordination and monitoring, preparing communities for COVID-19 response and containment, cluster containment, clinical management, infection prevention and control, and provision of essential services. The departments of AYUSH, NYKS and NSS were involved in deploying volunteers in slums and informal settlements. The lockdowns during the COVID-19 pandemic impacted the RI in urban areas.

In pre COVID-19 times, birth dose vaccinations were available at delivery points in all health facilities. Immunization sessions were being conducted in all fixed health facilities and outreach sessions were being conducted as part of UHND days. During COVID-19, all containment and buffer zones were active; birth dose and immunization at health facilities and outreach sessions were discontinued. For areas beyond the buffer zone and green zone, birth dose, health facility-based sessions and outreach sessions are conducted. Social distancing is a must and should be adhered to at all sites.

6.3.2: School health programme

The RBSK was launched by the MoHFW envisaging health screening and early intervention services that aim at early

identification and intervention of children from birth to 18 years to cover 4 'Ds' i.e. defects at birth, deficiencies, diseases, development delays including disabilities. For the School Health Programme under Ayushman Bharat, teachers are designated as health and wellness ambassadors and are trained to transact health promotion and disease prevention information for one hour every week. This opportunity must be taken to discuss vaccine preventable diseases and the importance of vaccines. School health programmes should also be leveraged for the implementation of adult vaccines viz. MR, HPV, Td10 and Td16. The school health programme strategy of covering all school-going children in government, government aided and private schools in detailed microplans, providing doses through ANM/Staff Nurses in mobile health teams must be leveraged for all the vaccination given to the children during school age. The measles-rubella campaign in schools has established the system in bringing about schools as the major stakeholder for immunization. Programme managers are to maintain the momentum gained through such campaigns and include one day to provide these doses at the school level through trained ANM/Staff Nurse.

6.3.3: VPD surveillance

The progress of immunization is usually measured by various indicators viz. coverage reports (as in HMIS), evaluations (such as Coverage Evaluation Surveys, NFHS etc.) and concurrent monitoring of immunization. However, these data sets have limitations of availability and reliability. VPD surveillance has an evident role in guiding the immunization programme and is one of the most reliable indicators to identify vulnerable pockets with low immunization coverage. Acute flaccid paralysis (AFP) surveillance guided key programmatic actions and contributed significantly to stop the transmission of wild poliovirus in India. The success of AFP surveillance has been used to initiate measles rubella surveillance in 2005 and diphtheria, pertussis and neonatal tetanus (DPT) surveillance in 2015. Data from surveillance has strong potential to serve as a key indicator for immunization progress and guide

programmatic decision making. The current VPD surveillance system in India is based on a strong robust AFP surveillance system and aims to achieve the following objectives:

- monitoring disease elimination or eradication efforts;
- evidence for new vaccine introduction or optimizing vaccine schedules VPD epidemiology;
- evaluation of immunization programme performance and defining the need for supplementary immunization;
- vaccine effectiveness; and
- changes in disease strains or types.

Operational tools

Reporting network. This is a dynamic and data driven entity and if properly nurtured can pick up all VPD cases in the community. VPD surveillance, at the local level, is institution based through a comprehensive network of reporting sites which includes reporting units and informers. Approximately 11, 841 reporting units and approximately 33, 366 informer units have been enrolled under the surveillance network throughout the country. By ensuring reporting of all VPD cases from the above sources, the DIO/SMO aims to capture all VPD cases occurring in his/her area.

Sensitization of the network. The reporting network is regularly sensitized through active case searches and workshops conducted by the DIO/SMO of the area. In the current COVID-19 crisis the system has adapted to the telephonic and virtual mode of sensitization.

Response to the reported case.

Once reported the following must be done:

- all cases should be verified and investigated by a trained medical officer or epidemiologist within 48 hours of notification;
- collection samples from the case as per guidelines to be initiated within 24 hrs of reporting. Every effort must be made to collect specimens within a stipulated timeline;
- active case search must be done for more cases in the community. Search for additional cases in the community if present

could signal the possibility of an outbreak. If follow-up immunization is planned, active case search can be performed when conducting house-to-house immunization;

- samples are sent to WHO accredited laboratories for testing and virus isolation. There are eight national laboratories for poliovirus isolation and eight laboratories carrying out tests for diphtheria, pertussis and neonatal tetanus. While the prime objective of the network is to ensure that it maintains its capacity and quality to process surveillance specimens and accommodate the evolving needs of the programme.

Data management and feedback are characterized by specialized management and analysis software (SIMS) which is uniformly and easily accessible and usable. The data has a real-time flow and is instrumental in the evaluation of the surveillance as well as immunization programme. Analysis of surveillance data is required for measuring the sensitivity and consistency of the surveillance system to ensure it is functioning at the desired level. The surveillance data is useful in the decision-making process in the following ways:

- monitor performance of surveillance using standard indicators and focus efforts in low performing areas;
- monitor seasonality to determine the low season of transmission for planning immunizations campaigns;
- monitor routine coverage in all geographical areas and focus efforts in low performing geographical areas;
- identify HRAs for focusing greater attention to such areas during campaigns;
- track circulation; and
- provide evidence for certification.

The COVID-19 pandemic is challenging health systems across the world. Rapidly increasing demand for care of people with COVID-19 is compounded by fear, misinformation and restrictions on movement of people and supplies that may disrupt healthcare delivery. When health systems are overwhelmed, and people fail to access needed services, both

direct and indirect mortality from vaccine preventable diseases is likely to increase. Hence, VPD surveillance should be reinforced to enable early detection, outbreak response and management of VPD cases. In addition to this, during the lockdown, VPD surveillance has taken a hit due to the divergence of resources and manpower. However, following the orders of the Ministry of Home Affairs (MHA), VPD surveillance is reinforced in all areas including urban to enable early detection, outbreak response and management of VPD cases. Recommendations on conducting surveillance during COVID-19 times is to conduct a desk review of surveillance data through an increase in telephonic active case search, feedback and directives to MoC, sharing surveillance indicators and feedback with city officials on monthly basis.

- Active case searches to be carried out as per guidelines beyond the buffer zone and telephonically in containment and buffer zones;
- Workshops should be done using online video conferencing applications through personal computers/smartphones in areas beyond the buffer zone;
- While carrying out case investigations, sample collection and transportation, and conducting house to house searches standard IPC measures should be followed;
- Involvement of private sector and faith healers and other such practitioners in urban slums need to be taken into account in urban areas;
- Desk review of surveillance data is an important tool to monitor the ongoing activities and should be regularly carried out to provide feedback to the authorities during district weekly review meetings;
- A directive from district administration to blocks from relevant district authorities should be sent as written communication (letter/email/WhatsApp) to blocks/ health facilities to maintain surveillance and response to AFP, measles, rubella, diphtheria, pertussis and neonatal tetanus (NNT) cases while ensuring appropriate infection prevention and control measures as per MoHFW guidelines.

Establishing partnerships and collaboration with a range of stakeholders is a key responsibility of the state and city level programme managers under the NUHM. This includes engagement with a range of stakeholders such as Urban municipal bodies for administrative area line list; urban development department for a list of notified, recognized slums; Information & Broadcasting department for IEC by radio; transport department for IEC by local cab aggregators (such as Ola and Uber); housing & urban affair department for NULM; medical & nursing colleges for adopting areas and supporting by deputing HR etc. The key action plans for convergence have been outlined below.

- Develop a roadmap for convergence with each department based on their strengths and how can they be utilized for strengthening immunization in urban areas. This includes a roadmap for supporting the partner department in their agenda so that a long term and robust mechanism can be developed.
- Sign a MoU with the department to ensure a framework for convergence.
- Form a core convergence committee for the inclusion of members in a common coordination committee for immunization at the national level and facilitate the formation of such committees at state/ city and ward levels.
- Ensure quarterly meetings of the coordination committees.
- Form a common monitoring and evaluation framework.
- Assess training needs of partner organizations and their front-level functionaries as well as NUHM frontline functionaries such as urban ASHAs, ANMs etc; prepare training modules and facilitate training.
- Develop IT mechanisms for convergence if required.
- Develop a virtual hall of fame as developed under other programmes for recognition of work done by line ministries as well as a system for awards/ non – monetary incentives.



 Innovations

Many cities have implemented some innovative strategies including IT platforms. Some of the best practices are as under:

1. Model immunization centres: There are three modern immunization centers in urban Patna functioning at New Gardiner Road Hospital (NGRH), red cross building and sub-divisional hospital at Danapur.

A. NGRH: Highlights of modern immunization centre site

- Separate ILR with regular monitoring of VVM and expiry;
- Fully air-conditioned vaccination room with child-friendly wallpapers;
- IEC regarding vaccination on TV;
- Immunization schedule on board posters;
- Proper sanitization;
- Toys for children;
- Online surveillance through CCTV in the vaccination room; and
- During the current COVID-19 scenario, this vaccination centre has been administering vaccinations with all precautions.

B. Red Cross Model Immunization Centre, Gandhi Maidan in Patna

- Approx 40 children are immunized regularly in each model immunization centre;

C. Model immunization corners

- The concept of model immunization corners aim to attract and encourage immunization among urban populations;



Fig. 26 Model immunization centre



Fig. 27 Sanitised Model immunization centre



Fig. 28 Model immunization centre UPHC Gulzarbagh

- There are currently four such centres in Patna urban area.
 - ♦ Gulzarbagh dispensary,
 - ♦ Jaiprabha Hospital,
 - ♦ Shastrinagar UPHC and
 - ♦ Sachivalaya UPHC
- Part of the room is developed as an immunization corner with a dedicated immunization area with proper sitting arrangements.

The government has planned such immunization corners at all PHCs in Patna, especially at urban and peri-urban locations and in all UPHCs.

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- 2 Taare zameen par- a night vigil activity (an innovation to vaccinate the last beneficiary) Chandigarh

For National Immunization Day (NIDs) and Sub-National Immunization Day (SNIDs), booth and house-to-house activities are being undertaken during the day. Microplans made by the area supervisors enumerates the eligible children residing in the area. The children of the nomads/rag pickers/beggars who are not static cannot be included in the microplans.

Taare Zameen Par', the name was conceived as these little uncovered children surface like stars at night hours which are lost in the day time due to mobility of their parents. Since this is a field activity apart from the routine and is to be conducted at night hours, adequate planning is required. The microplans were revised and vulnerable areas were incorporated based



Fig. 29



Fig. 30



on mapping to locate the presence of these beneficiaries during night hours. Additionally, bus stands, railway stations, sabzi-mandis, mela grounds and raine-baseras are also covered.

The activity comprised of a team called the Crusaders.

- Approximately six teams are constituted comprising of a male medical officer, male health worker and police personnel. MBBS MO heads the mobile night teams.
- The team is sensitized, trained and provided with vaccine carriers, markers and torches. Security is arranged.
- The nomads/rag pickers/beggars etc. are made aware of the importance of vaccinating their children.
- The teams have a list of areas to be visited and the time table of trains arriving at the railway station to ensure the provision of services to unimmunized children arriving in the city. The back alleys of showrooms/corridors/traffic signals etc where nomads/rag-pickers settle in the night hours are the main target areas with actual beneficiaries being picked up from these points.

No additional finance/stock was acquired for this activity. The same stock of vaccine and teams were utilized for the activity. Round-the-clock supportive supervision and monitoring of the entire activity was carried out by the Mission Director, NHM cum-DHS and DIO.

Since it is an extensive field activity carried out at night hours, intersectoral convergence is ensured by involving departments of police, social welfare and cooperation of the office of the District Commissioner.

Rounds	Coverage
Jan-18(NID round)	151
Mar-18(NID round)	363
Aug-18(SNID round)	375
Nov-18(SNID round)	225
Mar-19(NID round)	375

Jun-19(SNID round)	300
Sept - 19(SNID round)	231
Jan - 20(NID round)	390

Coverage

- During NID, a night vigil is conducted for two days; and
- During SNID-night vigil is conducted for one day.

'Ekbhibachhachootatohsurkshachakartoota' is the motto of this national Initiative which when translated in English means 'Even if one child is missed the circle of protection is broken'. The table below gives the number of eligible beneficiaries that could have been missed and yet have been covered.

3. Improving ANM skills by special station-based practical ANM training in small batch sizes, Indore:

ANM practical training is planned in small batches, with a batch size of 20 ANMs. The strategy adopted is to conduct one batch in one day. These 20 ANM batches are further divided into four groups and each group is given hands-on training on the following topics:



Fig. 31 ANM training in Indore

- Injection techniques/dose/ schedule/ route/ practical training on dummy child, where every ANM administers an injection on a dummy and learns all routes of administering doses;
- Ideal immunization session/cold chain/ waste management;

- Headcount survey/due listing/ responsibilities of mobilizers; and
- Record keeping, HMIS, data from private practitioners.

4. Ward-wise HMIS entry including private practitioners, Indore:

Indore is the first city to start ward-wise tracking of HMIS data; ANM performance is being tracked ward wise. NM completes the HMIS forms and submits reports to respective zonal facilities where the data is uploaded.

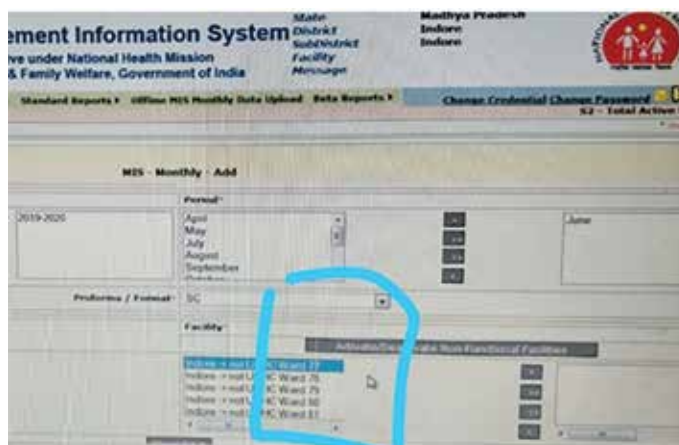


Fig. 32 Ward wise HMIS in Indore

Immunization data from private facilities is captured under the "Private" head which has been incorporated for each zone in the HMIS system.

5. Geotagging of RI sessions in Kanpur (urban):

To track the left-out areas for conducting systematic outreach sessions, App (Cobalt)-

based geo-tagging of sessions was undertaken. It was found that the irrational distribution of RI session is leading to a clustering of RI sessions and large vacant areas with no planned RI sessions. A re-alignment of the sessions is being done. A similar exercise has been done in Unnao city as well.



Fig. 33 Geotagging of RI sessions in Kanpur urban



6. Android App on "Nearby Vaccination Centre Application-Bangalore": An application has been developed by Bengaluru urban that shows the nearest vaccination site to

beneficiaries. Further, vaccination days and timings are visible. This has been done for fixed RI session site while outreach session sites are being mapped.

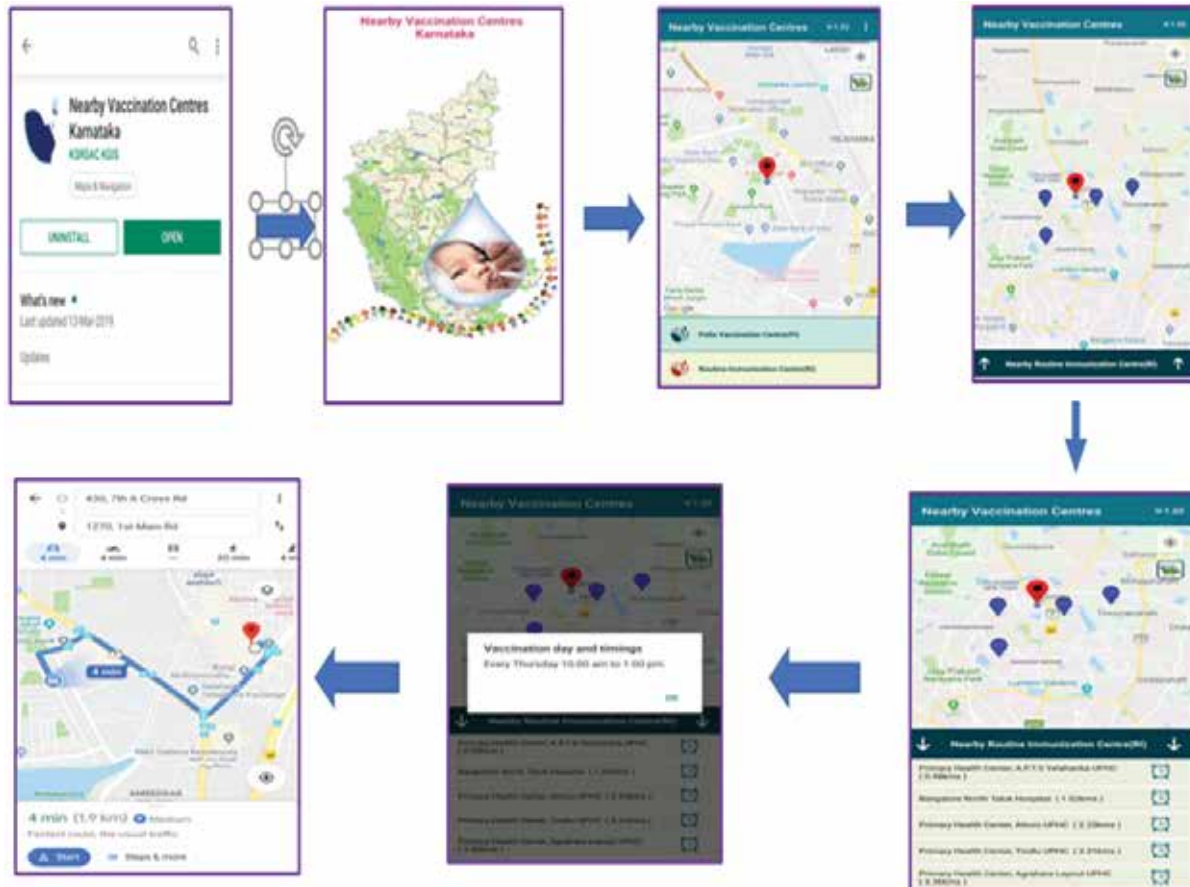


Fig. 34 Android app on Nearby Vaccination Centre Application-Bangalore

7. Umbrellas. These are provided to frontline workers with names of antigens written on them. This is not only for urban areas but rolled out in most districts of Madhya Pradesh

8. Routine Immunization Supervisory Tool (RIST) in Meerut. An app has been developed by the NPSP Unit in Meerut with inputs from the DIO office for the submission of RI supervision data by government supervisors. Kobo Toolbox is a web-based browser and can work both offline and online and works both on Android and IOS handsets.



Fig. 35 Umbrellas for frontline workers

It takes only 20-30 seconds to upload data. The app shows the GPS location and time of supervisory visits made by supervisors. Once submitted, the data can be

Fig. 36 Routine Immunization Supervisory Tool (RIST) in Meerut

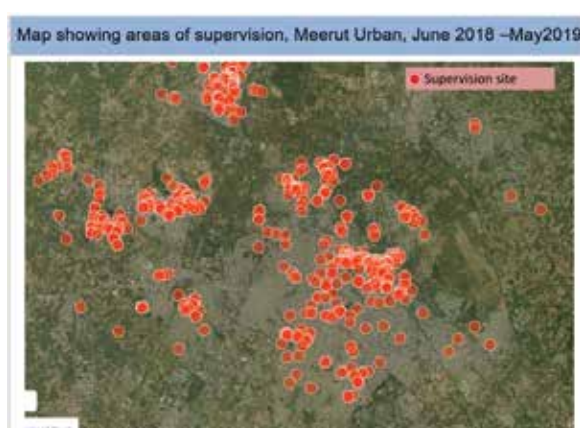


Fig. 37 Maps showing areas of supervision, Meerut

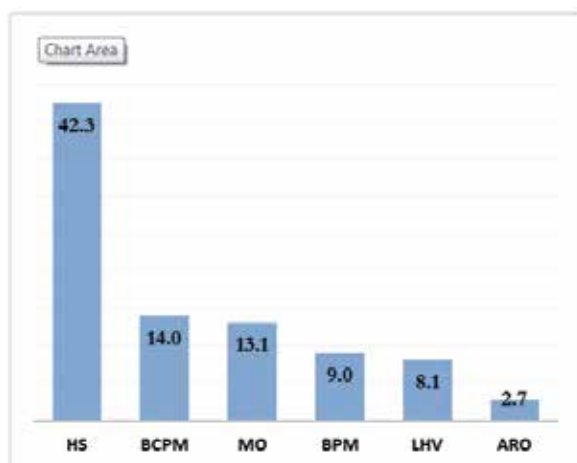


Fig. 38 Designation-wise entry in RIST-RI

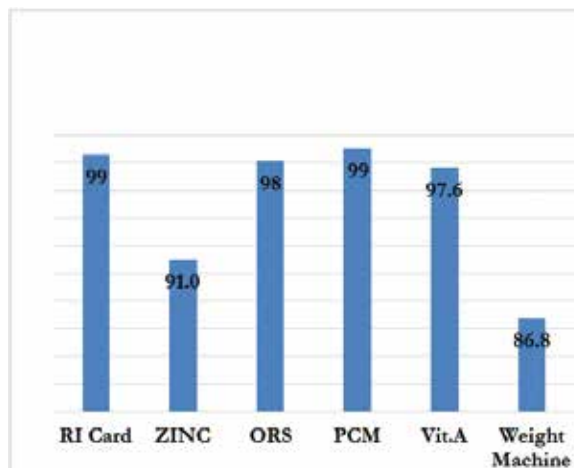


Fig. 39 Availability of logistics as entered in RIST-RI

immediately assessed at the district-level for further analysis.

The data is visible for day-wise sessions supervised, designation-wise entry, session held, updated duelist found, availability of logistics etc.

9. Inclusion of population on the construction site:

RI micro-plan is made to cover the sites once a month. ANMs have maps for the area

and are given vehicle support. The activity was carried out in three months from April to June 2015. The Labour commissioner was invited to garner support from construction companies. The builder association provided a place to conduct the session, aid in due listing preparation, mobilize beneficiaries to session sites with their parents and advocate for one-day leave with full daily wages for the mother who was getting her child vaccinated at these construction sites.







Budgeting

8.1: Norms under immunization:

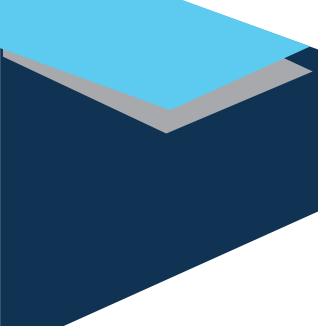
FMR	Activity	Unit	Norms
1.3.2.4	Consumables for a computer including provision for internet access for strengthening RI	No. of districts	Rs. 1000/month/district
2.2.6	Teeka exp		
2.2.7	JE campaign op cost		
2.2.8	Pulse polio op cost		
2.2.9	MR SIA op cost		
2.3.1.9	Focus on slum and underserved areas in urban areas/ Alternate vaccinator for slums		Hiring of ANM @450/session for four session/month/ slum of 10000 population and Rs. 300 per month as contingency per slum i.e. Rs. 2100 per month per slum of 10000 population
3.1.1.1.11	ASHA incentive under immunization	No. of FIC No. of CIC No. of 5-6 yrs DPT booster	1. Rs. 100 per child for FIC in first year 2. Rs. 75 per child for ensuring complete immunization upto 2nd year of age 3. Rs. 50 per child for DPT booster at the age of 5-6 years
3.1.3.4	Mobilization of children through ASHA or other mobilizers	No. of sessions	Rs. 150 per session
5.3.9	Safety pits		Rs. 6000/pit/ as per actual
6.2.8.1	Red bag	No. of sessions	Rs. 3/bag/session
6.2.8.2	Hub cutter/ Bleach/ Hypochlorite solution/ Twin bucket	No. of PHC No. of CHC	Rs. 1500 per PHC/CHC per year
12.10	Printing activities under immunization	No. of beneficiaries	Rs. 20 per beneficiaries
14.2.4	AVD in hard to reach	No. of sessions in hard to reach areas	Rs. 200 per session
14.2.5	AVD in other areas	No. of sessions	Rs. 90 per session
14.2.6	POL for vaccine delivery	No. of districts	Rs. 200000/district/year
	AVD in very hard to reach areas esp notified by the state/ districts	No. of sessions in very hard to reach areas	450 per session

FMR	Activity	Unit	Norms
14.2.7	Cold chain maintenance	No. of CCPs No. of districts No. of SVS/RVS	1. Rs. 1000/cold chain point per year District Rs.20000/year 2. Cold chain maintenance- SVS or RVS having WICs/ WIFs for maintenance- Rs. 50000 per SVS or RVS/ year
14.2.8	Op cost of eVIN		
16.1.1.6	To develop microplan at sub-centre level	No. of sub centre	Rs 100 per sub centre
16.1.1.7	For consolidation of micro plans at block level		Rs. 1000 per block/PHC and Rs. 2000 per district
16.2.1.3	Support for Quarterly State level review meetings of district officer		Rs. 1500/participant/day for maximum of 3 persons of the level of CMO/DIO/District cold chain officer
16.2.1.4	Quarterly review meetings exclusive for RI at district level with Block MOs, CDPO, and other stake holders		Rs. 150/ participants for meetings expenses for 5 person (lunch, organization expense)
16.2.1.5	Quarterly review meetings exclusive for RI at block level		Rs. 75 per person as honorarium for ASHA and Rs. 25 per person at the disposal of MO I/c for meeting expenses
16.3.1.5	Mobility support for supervision at State level		Rs.180000 per year for small states/Uts
Rs.360000 for medium states			
Rs.540000 for larger and NE states			
16.3.1.6	Mobility support for staff for eVIN (VCCM)		
16.3.3.7	Mobility Support for supervision for district level officers.		300000/year/district level officers





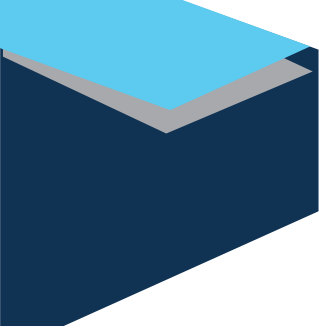
Defining roles and responsibilities



Activity	Key responsible person
Overall implementation in the city	DIO
Identification of high-risk areas with underserved populations, migrants etc.	Programme manager (city programme manager) or district programme manager in his absence with the support of development partner
Urban microplanning and field validations for RI	Programme manager (city programme manager) or district programme Manager in his absence with the support of development partner
Mapping of areas, UPHCs and area demarcation amongst ANMs	Programme manager (city programme manager) or district programme manager in his absence with the support of development partner
Capacity development and training of health personnel (Medical officers, Supervisors, ANMs, and mobilizers including ASHA, AWW and MAS) at city and ward/equivalent levels covering need assessment, planning and training	Programme manager (city programme manager) or district programme manager in his absence with the support of development partner. Bridge training may be supported by UNICEF
Strengthening monitoring and feedback mechanism on immunization activities in urban areas for better delivery of programme	Programme manager (city programme manager) or district programme manager in his absence with the support of development partner
Ensuring constitution of CTFI or inclusion of urban component in DTFI	Programme manager (city programme manager) or district programme manager in his absence with the support of development partner
Ensuring regular meetings and quality of meetings so that all urban components are included and discussed	DIO and programme manager
Creating a pool of supervisors for supportive Supervision of the urban functionaries	DIO



Conclusion and next steps



To strengthen immunization in urban areas, it is of utmost significance to ensure area demarcation with clarity of boundaries and mapping, preparing quality microplans through training of health workers, establishing frameworks and expediting monitoring through house-to-house and session site monitoring. This document gives details on each component with a list of innovative approaches undertaken by different cities. Strengthening immunization in urban areas cannot be achieved in isolation but needs a holistic approach on strengthening health systems strengthening by engaging adequate human resources, particularly vaccinators, ASHAs and MAS.

A strong bottom-up approach right from the ward level or equivalent needs to be adhered to in preparing City Health Action Plans which should have all stakeholders involved. Any gaps in health systems strengthening should be addressed at appropriate levels. Strong CTFI plays a vital role here. Therefore, it is important to track the quality and frequency of meetings of task forces. Any gaps in urban cities should be reflected in state programme implementation plans with proper justification.

Strong political and administrative ownership by state governments to strengthen National Urban Health Systems is required at the state and city level with all stakeholders, directly and indirectly, impacting urban immunization and bringing it in one centralized place. Strong intersectoral bonds need to be established with parallel ministries/departments, other national health programmes and corporations.

This document gives elaborative details on different stages of microplans and how a programme manager can identify the stage of microplanning for his/her respective city. This also gives insights into how microplan exercises can be implemented for health workers and frontline workers. Supervisory cadre within existing systems needs to be identified to strengthen monitoring and supportive supervision for cities. Funds provision under NUHM has also been recorded.

With this document, it is envisaged that immunization coverage is improved in the cities through health systems strengthening and policy revision at city and state level, wherever required.

Annexure 1: The platform used for immunization data for 14 cities

Name of city	Immunization data is updated	What are the platforms where immunization data is being utilized?
		What is the usage of immunization data at the city level
Guwahati	Block data manager in four zones compiles the data and shares with a district data manager to compile final data	The immunization data utilized at the District Task Force meetings & various review meetings.
Gaya	HMIS	1. Weekly DWR 2. Monthly DTFI/UTFI dedicated 3. Platform not yet utilized though its formed
Patna	Each UPHC is uploaded in HMIS data monthly	1. District Task Force for Immunization 2. DCR for Immunization 3. BCR at UPHC 4. Poor UPHCs reminded for corrective action on HMIS as per WHO monitored data
Muzaffarpur	HIMS portal	Review Weekly (DWR) and Monthly Meeting with DM, CS, DIO.
BBMP	UPHCs send immunization reports to the district through HMIS and RCH portal platforms	DTF for immunization by Commissioner, MO and ANM review meetings by CHO and RCHO
	30 private hospitals including some medical colleges in BBMP have received HMIS user ID and password for online updation.	Data will be more useful if it can be analyzed at Ward level and ANM-wise
	Data entry done by ANMs/pharmacists/lab technicians need support for entering data	
	No M & E person for a population of 55 lakh	
Bangalore urban	UPHCs/PHC catering to urban wards are sending immunization reports to districts through HMIS and RCH portal platforms.	DTF for immunization by DC, MO and ANM review meetings by DHO and RCHO
	Some private hospitals give immunization coverage data to UPHC and update at block level into HMIS	Data will be more useful if it can be analyzed at Ward level and ANM-wise
	Data entry is done by ANMs/pharmacists/lab technicians who need support for entering data	
	Only 01 M and E person for a population of 65 lakh, needed 01 per every block	



Name of city	Immunization data is updated	What are the platforms where immunization data is being utilized?
		What is the usage of immunization data at the city level
Bhopal	Immunization data of ward wise monthly HMIS prepared by ANM and given to Cold chain point and from there to Zonal level for entry into HMIS portal, Private Immunization and other services updated from CMHO office.	Immunization data used at DTFI, DHS meeting, quarterly RI review meeting and if budget permits monthly RI review at the zonal level.
Indore	The Entire urban city is divided into 4 zones HMIS data entry is done at the zonal level	Urban Immunization Task Force (For administrative/Coordination with other departments like WCD/ problem solving purposes).
	HMIS data is collected WARD WISE by creating ward wise tabs in HMIS for data entry	Monthly meeting at Zone level (Data shared/ shown back to Vaccinators and with respective medical officers/ Supervisors of Health facilities), here main purpose is handholding, session sites changes if required, supervision/ AEFI and other surveillance purposes too
Allahabad	Data from field compiled at UPHC level which works as Planning unit, UHND data of city compiled by Urban nodal.	Analysis of coverage and monitoring data done at UPHC level which reviewed first at the level of urban nodal (equivalent to block-level), Weekly at BWR (Patchy) and district weekly review meetings (Not held during COVID-19 lockdown period), weekly, then reviewed at UTFI and DTFI (UTFI has done with DTFI)
Agra	Through the NUHM office, Data collated at a weekly basis for every HP from ANMs, MOIC submits it to the NUHM office for uploading.	District weekly review meeting & DTFI
Ghaziabad	Data flow Session - compilation at UPHC - CMO office - HMIS	DWRs/ BWRs/Monthly meetings
Kanpur	From 50 UPHCs data compiled at 11 UPHC (Which acts as mother UPHC) and send to the district.	Data sharing in District Weekly review meeting with CMO Office & DTFI for resolving the problem to immunization activities
Lucknow	In rotation, ANM use to update immunization data at mother Urban CHC which sends the data to NUHM cell	Immunization data utilized in DWR & DTF Immunization data is mainly used in VPD Surveillance and identification of area where immunization is poor based on reason analysis
Varanasi	ANM submit the report at UPHC, then UPHCs submit their report to NUHM Cell through ARO-CMO	Block Weekly Review Meeting
		District Weekly Review Meetings
		District Task Force Meetings

Annexure 2: Training and stakeholders

Training and Stakeholders	
Training	Stakeholders
Routine immunization training for medical officers	MOs, DIOs
Routine immunization training for health worker	ANMs
Cold Chain Handlers Training- Vaccine and Cold Chain Handlers Handbook	Cold Chain Handlers
Cold Chain Technician training on ILR and DF	Cold Chain Technicians/Refrigerator Mechanics
Cold Chain Technician training on WIC/ WIF	Cold Chain Technicians/ Refrigerator Mechanics
Adverse Event Following Immunization Surveillance Training	National, State and District AEFI committee, members, SIOs, DIOs and MO
NCCMIS Training	Technicians and cold chain officers
Training on New Vaccine	All stakeholders involved in UIP
Training on Vaccine and Cold Chain	Program Managers
Intensified Mission Indradhanush/ Mission Indradhanush Training	All stakeholders involved in UIP
Training on AFP Surveillance	MOs, DIOs, SIO, Private practitioners, Traditional healers, quacks, reporting units and informers
Training on VPD surveillance	MOs, DIOs, SIO, Private practitioners, Traditional healers and informers
Training on Measles Surveillance	MOs, DIOs, SIO, Private practitioners, Traditional healers, quacks, reporting units and informers
BRIDGE IPC, Training for Field Level Worker	ANM, ASHA, AWW
Field Level Worker Training for Immunization	ANM, ASHA, AWW
eVIN Training	Cold Chain handlers, DIOs
Training for AEFI spokesperson	Media/ AEFI spokesperson
Training for Measles Rubella Campaign	All stakeholders involved in MR campaign
Training for Media (In service)	Media persons
Training for Media (Induction)	Media persons



Annexure 3: Data on 14 cities-high risk areas

State	District	Type of HRA	Cities
			(No of HRAs based on
			re-prioritization)
Bihar	Patna	1-Slum with migration	2
		2- Nomads	100
		3- Brick kiln	596
		4- Construction sites	1
		6A- Hard-to-reach area	2098
		6B- VPD OB areas	36
		6D- Underserved/Vaccine hesitancy/Refusal area	225
		6- Urban slums	137
		Grand total	3195
	Gaya	1-Slum with migration	
		2- Nomads	110
		3- Brick kiln	523
		6A- Hard-to-reach area	87
		6B- VPD OB areas	17
		6C- Unserved/Vacant sub-centre	15
		6D- Underserved/Vaccine hesitancy/Refusal area	2423
		6- Urban slums	19
		Grand total	3194
	Muzaffarpur	1-Slum with migration	68
		2- Nomads	98
		3- Brick kiln	441
		6A- Hard-to-reach area	6
		6B- VPD OB areas	14
		6D- Underserved/Vaccine hesitancy/Refusal area	1908
		6E- Others	4
		Grand total	2539
Uttar Pradesh	Lucknow	1-Slum with migration	775
		2- Nomads	173
		3- Brick kiln	333
		4- Construction sites	208
		6B- VPD OB areas	3
		6C- Unserved/Vacant sub-centre	10
		6D- Underserved/Vaccine hesitancy/Refusal area	3
		6- Urban alums	67
		Grand Total	1572

State	District	Type of HRA	Cities
			(No of HRAs based on
			re-prioritization)
Uttar Pradesh	Kanpur (Nagar)	1-Slum with migration	43
		2- Nomads	147
		3- Brick kiln	285
		4- Construction sites	36
		6C- Unserved/Vacant sub-centre	28
		6D- Underserved/Vaccine Hesitancy/Refusal area	25
		6- Urban slums	224
		Grand total	788
	Ghaziabad	1-Slum with migration	509
		2- Nomads	36
		3- Brick kiln	294
		4- Construction sites	292
		6B- VPD OB areas	41
		6D- Underserved/Vaccine hesitancy/Refusal area	82
		6E- Others	1
		6- Urban slums	3
		Grand total	1258
	Varanasi	1-Slum with migration	112
		2- Nomads	7
		3- Brick kiln	372
		4- Construction sites	3
		6B- VPD OB areas	14
		6C- Unserved/Vacant sub-centre	13
		6D- Underserved/Vaccine hesitancy/Refusal area	47
		6-Urban slums	86
		Grand total	654
	Allahabad	1-Slum with migration	12
		2- Nomads	99
		3- Brick kiln	573
		4- Construction sites	7
		6A- Hard-to-reach area	34
		6B- VPD OB areas	53
		6C- Unserved/Vacant sub-centre	49
		6D- Underserved/Vaccine hesitancy/Refusal area	203
		6- Urban slums	88
		Grand total	1118



State	District	Type of HRA	Cities
			(No of HRAs based on
			re-prioritization)
Uttar Pradesh	Agra	1-Slum with migration	3
		2- Nomads	286
		3- Brick kiln	114
		4- Construction sites	231
		6A – Hard-to-reach area	233
		6B- VPD OB areas	71
		6C- Unserved/Vacant sub-centre	35
		6D- Underserved/Vaccine hesitancy/Refusal area	371
		6- Urban slums	78
		Grand total	1422
Madhya Pradesh	Indore	1-Slum with migration	18
		2- Nomads	2
		3- Brick kiln	21
		4- Construction sites	22
		5- Others	61
		6A Hard-to-reach area	3
		6C- Unserved/Vacant sub-centre	2
		6D- Underserved/Vaccine hesitancy/Refusal area	1
		6E- Others	6
		6-Urban slums	378
		Grand total	514
	Bhopal	1-Slum with migration	407
		2- Nomads	15
		3- Brick kiln	87
		4- Construction sites	82
		5- Others	43
		6B- VPD OB areas	1
		6- Urban slums	11
		Grand total	646
Assam	Guwahati/ Kamrup Metropolitan	1-Slum with migration	55
		3- Brick kiln	45
		6E- Others	2
		6-Urban slums	38
		Grand total	140

State	District	Type of HRA	Cities
			(No of HRAs based on
			re-prioritization)
Karnataka	Bengaluru urban	1-Slum with migration	690
		2- Nomads	106
		3- Brick kiln	403
		4- Construction sites	520
		5- Others/Settled HRA	85
		6- Urban slums	13
		Grand total	1817
	BBMP	1-Slum with migration	288
		2- Nomads	37
		3- Brick kiln	2
		4- Construction sites	429
		5- Others/Settled HRA	
		6- Urban slums	
		Other	3
		Grand total	759

(Format to be filled up the same day Task Force meeting is conducted. Data should be uploaded in the tool within 3 days of the meeting/completed month even if DTFI is not held. *Marked questions may have multiple responses)

Government Stakeholders

Supporting partners	6	WHO: Yes/No/NA <i>*If yes, please select the participants: a) SMO b) SRTL c) OSA/OSD d) RTL e) Others:</i>			
	7	Others Immunization Partners: a) UNICEF : Yes/No/NA b) UNDP : Yes/No/NA c) JSI: Yes/No/NA d) CORE : Yes/No/NA			
	8	Professional body/ NGO's: a) IMA : Yes/No/NA b) IAP : Yes/No/NA c) Rotary : Yes/No/NA d) NCC: Yes/No/NA NSS: Yes/No/NA f) NYK: Yes/No/NA g) Other local NGOs : Yes/No /NA h) Religious leader/Influencer : Yes/No/NA i) Others:			
Discussion on key activities :					
Action taken report		a) Minutes of previous DTFI meeting (hard copy/email) shared with concerned stakeholders?	Rural Yes / No / NA	Urban Yes/No/NA	Remarks
		b) Action taken report of previous DTFI discussed	Yes / No / NA	Yes/No/NA	
Planning	10	a) Vacancy status of ANM/Vacant sub centre (SC) including irrational workload	Yes/No/NA	Yes/No/NA	
		b) Enlisting households/Headcount Survey (activity expected every six months/before Immunization Campaign)	Yes/No/NA	Yes/No/NA	



Coverage status and conduct of session Annexure -5	11	a) HMIS coverage report : (Birth dose, Dropout & Left-out, and Booster doses)	Yes/No	Yes/No	
		b) Implementation and coverage report of new vaccines (fIPV/RVV/PCV/Td etc.)	Yes/No/NA	Yes/No/NA	
		c) Sessions "held" Vs "not held" and planning for missed sessions	Yes/No/NA	Yes/No/NA	
Monitoring	12	a) Concurrent monitoring data and/or latest evaluated survey data	Yes/No/NA	Yes/No/NA	
		b) Status of RI micro plan including inclusion of MI/ IMI sessions /new area or settlement including HRA	Yes/No/NA	Yes/No/NA	
		c) Tracking of availability of updated due lists	Yes/No/NA	Yes/No/NA	
		d) Reasons for left out/drop outs (RI/IMI/MI monitoring/Newer Vaccine introduction- IPV, RVV, PCV, Td etc.)	Yes/No/NA	Yes/No/NA	
Social Mobilization	13	Social Mobilization issues/efforts	Yes/No/NA	Yes/No/NA	

Vaccine and cold chain	14	a) Vaccine stocks, Wastage rates and implementation of revised Open Vial Policy guidelines	Yes/No/NA	Yes/No/NA	
		b) e-VIN alerts or updates	Yes/No/NA	Yes/No/NA	
		c) Alternate Vaccine Delivery (AVD) issues	Yes/No/NA	Yes/No/NA	
		d) Preventive Cold Chain Maintenance plan/visits	Yes/No/NA	Yes/No/NA	
		e) Safe Injection practices and Injection Waste Management	Yes/No/NA	Yes/No/NA	
Supervision	15	Supervision by district/urban/block level officers	Yes/No/NA	Yes/No/NA	
Fund	16	NHM PIP immunization fund utilization, ASHA incentive and SOE status/ other issues	Yes/No/NA	Yes/No/NA	
Training	17	Trainings of Medical Officers /ANM, ASHA, AWW/Cold Chain Handlers/ Data Handlers	Yes/No/NA	Yes/No/NA	
SIA	18	a) Polio SIA – NID/SNID	Yes/No/NA	Yes/No/NA	
		b) Immunization Campaign – MI/IMI/MI – GSA/MI – eGSA etc	Yes/No/NA	Yes/No/NA	
		c) MR vaccination campaign	Yes/No/NA	Yes/No/NA	



Surveillance	19	a) AFP surveillance	Yes/No/NA	Yes/No/NA	
		b) Measles -Rubella Surveillance	Yes/No/NA	Yes/No/NA	
		c) Other VPD Surveillance	Yes/No/NA	Yes/No/NA	
AEFI Surveillance	20	a) AEFI reporting	Yes/No/NA	Yes/No/NA	
		b) AEFI Committee Meeting	Yes/No/NA	Yes/No/NA	
		c) Pending documentation on Severe & Serious AEFI cases	Yes/No/NA	Yes/No/NA	
Mention other issues discussed if any	21	a)			
		a)			
		a)			
Key DTFI decisions	Implementation status of decisions should be tracked in Action taken report in next DTFI		Responsibility		Timeline
Reason if STFI not held					

(Format to be filled up the same day Task Force meeting is conducted. Data should be uploaded in the tool within 3 days of the meeting/completed month even if UTFI/CTFI is not held. *Marked questions may have multiple responses)

State:		Name of District:		Encircle: UTFI/CTFI	
Meeting date (If held): /..... /		Not held		Date of reporting: /..... / Report prepared by:	
Designation: SMO/SRTL/UNICEF Rep/DIO/Nodal for corporation or Urban/ Others					
Document observations for rural and urban separately. Select "NA" if position is vacant/topic is not relevant in this UTFI or CTFI meeting/no issues for 3 or more months.					
Government Stakeholders	1	Administrative Officials: a) Corporation/Municipal Commissioner : Yes/No/NA b) ADM/ADC/SDM: Yes/No/NA c) Others:;;			
	2	Health Officials: a) Chief Medical Officer: Yes/No /NA b) DIO/RCHO: Yes/No/NA c) Corporation/Municipal Health officer : Yes/No/NA d) Nodal Officer for Urban/Corporation: Yes/No/NA f) Others:;;			
	3	Officials /Representative from other line departments: a) Women and Child Development/ICDS : Yes/No /NA b) Education: Yes/No/NA c) Municipal/Urban Development: Yes /No/NA d) Social/Minority Welfare: Yes/No/NA e) Public Relation (IEC)/Information: Yes/No/ NA f) Others:;;			
	4	NHM Staff: a) Programme Manager: Yes/No b) Accounts Manager: Yes/No c) ASHA Coordinator: Yes/No d) Monitoring & Evaluation: Yes/No e) Others:;;			

Supporting partners	6	WHO: Yes/No/NA <i>*If yes, please select the participants: a) SMO b) SRTL c) OSA/OSD d) RTL e) Others:</i>			
	7	Others Immunization Partners: a) UNICEF : Yes/No/NA b) UNDP : Yes/No/NA c) JSI: Yes/No/NA d) CORE : Yes/No/NA			
	8	Professional body/ NGO's: a) IMA : Yes/No/NA b) IAP : Yes/No/NA c) Rotary : Yes/No/NA d) NCC: Yes/No/NA e) NSS: Yes/No/NA f) NYK: Yes/No/NA g) Religious leader(s) or Influencer (s) : Yes/No/NA i) Others:			
Discussion on key activities :					
Action taken report	9	a) Minutes of previous UTF/CTF meeting (hard copy/email) shared with concerned stakeholders?	Urban	Remarks	
		b) Action taken report of previous UTFI/CTFI discussed			
	Planning	10	a) Vacancy status of ANM/Vacant sub centre (SC) including irrational workload	Urban	Remarks
b) Enlisting households/Headcount Survey (activity expected every six months/before Immunization Campaign)					
Coverage status and conduct of session	11	a) HMIS coverage report : (Birth dose Coverages, Dropout & Left-out, and Booster doses)	Urban	Remarks	
		b) Implementation and coverage report of new vaccines (fIPV/RVV/PCV/Td etc.)			
		c) Sessions "held" Vs "not held" and planning for missed sessions			

Monitoring	12	a) Concurrent monitoring data and/or latest evaluated survey data	Yes/No/NA	
		b) Status of RI micro plan including inclusion of MI/ IMI sessions /new area or settlement including HRA	Yes/No/NA	
		c) Tracking of availability of updated due lists	Yes/No/NA	
		d) Reasons for left out/drop outs (<i>RI/IMI/MI monitoring/Newer Vaccine introduction- IPV, RVV, PCV, Td etc.)</i>	Yes/No/NA	
Social Mobilization	13	Social Mobilization issues/efforts	Yes/No/NA	
Vaccine and cold chain	14	a) Vaccine stocks, Wastage rates and implementation of revised Open Vial Policy guidelines	Yes/No/NA	
		b) e-VIN alerts or updates	Yes/No/NA	
		c) Alternate Vaccine Delivery (AVD) issues	Yes/No/NA	
		d) Preventive Cold Chain Maintenance plan/ visits	Yes/No/NA	
		e) Safe Injection Practices and Injection Waste Management	Yes/No/NA	



Supervision	15	Supervision by district/urban/block level officers	Yes/No/NA	
Fund	16	NHM PIP immunization fund utilization, ASHA incentive and SOE status/other issues	Yes/No/NA	
Training	17	Trainings of Medical Officers /ANM, ASHA, AWW/ Cold Chain Handlers/Data Handlers	Yes/No/NA	
SIA	18	a) Polio SIA – NID/SNID	Yes/No/NA	
		b) Immunization Campaign – MI/IMI/MI –GSA/ MI – eGSA etc	Yes/No/NA	
		c) MR vaccination campaign	Yes/No/NA	
Surveillance	19	a) AFP surveillance	Yes/No/NA	
		b) Measles -Rubella Surveillance	Yes/No/NA	
		c) Other VPD Surveillance	Yes/No/NA	

AEFI Surveillance	20	a) AEFI reporting	Yes/No/NA	
		b) AEFI Committee Meeting	Yes/No/NA	
		c) Pending documentation on Severe & Serious AEFI cases		
Mention other issues discussed if any	21			
Key UTFI/CTFI decisions	Implementation status of decisions should be tracked in Action taken report in next UTFI/CTFI		Responsibility	Timeline
Reason if STFI not held				



Annexure 6: Immunization: house-to-house monitoring format

State/UT: _____ District: _____ Date: ____/____/____ Monitoring time: ____ : ____ to ____ : ____	
Block/Urban: _____ Setting: Rural/Urban If NUHM City: _____ Planning Unit: _____	
Sub center/Urban Health Post: _____ Village/Mohalla/Ward: _____ Name of ANM: _____	
Name of Supervisor: _____ Designation: _____ CMC area: Yes/No/NA Type of Monitoring: RI/IMI/Others _____	
Type of monitor: Govt Monitor/Mentor;/Monitor – Partner;/Both; Mentor/Govt Monitor: _____ Department: _____	
Designation: _____	
Name of Monitor (Partner): _____ Organization: ITSU/WHO/UNICEF/UNDP/CORE/FM/SMNet/IFV/Others: _____ Designation: _____	
If joint monitoring is undertaken, whether both monitors were present through-out monitoring of this village/area: Yes / No	
If polio HRA, type of HRA/HRG (Both in RI or IMI)	a) Slum with migration b) Nomads c) Brick kilns d) Construction site e) Other migratory high-risk area f) Nonmigratory (settled HRA) g) Hard to reach area (tribal, forest, hilly area, riverine, etc) h) Not a polio HRA
*Reason for IMI monitoring ##: a) Vacant sub Centre/health post b) Areas with last 3 or more consecutive missed RI sessions c) Polio High-Risk Areas d) Areas with low RI coverage (measles outbreaks, cases of diphtheria & neonatal tetanus in last 2 years) e) Small villages, hamlets, basas (field huts) clubbed with another village for not having independent RI sessions f) Others :	

Particulars of the Child including age-specific vaccination status. (10 houses in RI/5 houses in IMI)		House-1	House-2	House-3	House-4	House-5	House-6	House-7	House-8	House-9	House-10
Details of the selected child	1	Name of the selected child (0-35 months in RI / 0 – 23 months in IMI)									
	2	Name of the mother/father of the selected child									
	3	Religion (H =Hindu/ M =Muslim / O =Others)	H /M/O	H /M/O	H /M/O	H /M/O	H /M/O	H /M/O	H /M/O	H /M/O	H /M/O
	4	Is RI/Mother & Child Protection (MCP) card available with family?	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
	5	Sex of the selected child: M =Male/ F =Female	M / F	M / F	M / F	M / F	M / F	M / F	M / F	M / F	M / F
	6	Place of delivery: G) Govt - Hospital P) Private Hospital H) Home	G/P/H	G/P/H	G/P/H	G/P/H	G/P/H	G/P/H	G/P/H	G/P/H	G/P/H
	7	Date of Birth (In dd/mm/yy format. if not known, write NA)									
	8	Age in completed months (Even if Date of Birth is known)									



Use a ready-reckoner to ascertain vaccination status. If RI/MCP card is available, the monitor must write the date (dd/mm/yy) for vaccines received and "No" for missed vaccines. If a card/date not available, the monitor must write **"Yes"** for received & **"No"** for missed vaccines. **RI Monitoring:** Vaccine not received for age is considered "No or missed dose" Eg: 6-month child has received only BCG is considered as missed for all primary doses of OPV, Penta, fIPV, RVV and PCV. However, during **post IMI house to house monitoring, a child found to have received only BCG is considered due for the first primary dose of the same vaccines but is not eligible for 2nd and 3rd primary doses of same vaccines. Monitor must write "NA" against vaccines not due for age in RI, against vaccines not eligible in IMI, and for vaccines not introduced in the district/state (RI or IMI).**

Birth	9A	Hep B Birth dose																		
		OPV-0 dose																		
At 6 weeks/OPV1 contact	9B	BCG																		
		OPV-1																		
		Rotavirus-1																		
		IPV (fIPV1 intradermal wherever applicable)																		
		PCV 1 (at OPV1/Penta 1-6 weeks/within 1 year of age where applicable)																		
		Pentavalent-1																		
		Hepatitis B-1																		
	DPT-1																			

Particulars of the Child including age specific vaccination status (During RI monitoring – skip q-10 and 11)		House-1	House-2	House-3	House-4	House-5	House-6	House-7	House-8	House-9	House-10
At 10 weeks / OPV2	9C	OPV-2									
		Rotavirus- 2									
		Pentavalent-2									
		Hepatitis B-2									
		DPT-2									
At 14 weeks/OPV3	9D	OPV-3									
		Rotavirus-3									
		IPV (IPV as IM/fIPV 2 intradermal - as applicable)									
		PCV 2 (at OPV3/Penta3 - 14 weeks/within 1 year of age where applicable)									
		Pentavalent-3									
		Hepatitis B-3									
		DPT-3									
Nine Months	9E	Measles/MR-1									
		JE-1 (where applicable)									
		PCV 3 (with MCV1 at 9 months /within 1 year of age where applicable)									
Booster dose	9F	OPV Booster									
		DPT Booster-1									
		Measles/MR 2 nd dose									
		JE-2 (where applicable)									



In IMI monitoring – Answer Q10, 11, 12, 13 and 14 In RI monitoring – Answer only Q11 and 13 (when it is “some doses” OR “none” in Q11) and DO NOT answer Q10, 12 and 14.											
Coverage status with reasons for partial or No vaccination	10	Was this child due for any dose in Mission Indradhanush? (Ready reckoner)	Y/N /NA	Y/N /NA	Y/N /NA	Y/N /NA	Y/N /NA	Y/N /NA	Y/N /NA	Y/N /NA	Y/N /NA
	11	Encircle if the child has received all doses/some doses/no dose (none) or if the child is not due for any vaccine (NA)? Please refer ready reckoner. (Don't consider Hepatitis-B birth dose & OPV-0) (If the answer to Q-11 is none, encircle NA in answer to Q-12)	All doses/Some doses/None/NA	All doses/Some doses/None/NA	All doses/Some doses/None/NA	All doses/Some doses/None/NA	All doses/Some doses/None/NA	All doses/Some doses/None/NA	All doses/Some doses/None/NA	All doses/Some doses/None/NA	All doses/Some doses/None/NA
	12	Did the child receive the vaccine for the first time in life? (IMI)	Y/N /NA	Y/N /NA	Y/N /NA	Y/N /NA	Y/N /NA	Y/N /NA	Y/N /NA	Y/N /NA	Y/N /NA

	13*	If the child has received partial/none of the age eligible vaccines in RI monitoring or from due vaccinations during MI monitoring ascertain reason(s) and mention codes for reasons elicited from caregiver (max of 4):																		
	14	If answer to Q-11 is ALL doses, monitor to assess if the child has completed vaccination specific for age as per UIP schedule? (Don't consider Hepatitis-B birth dose & OPV-0) [ONLY in IMI]	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No

Codes for Q-13*

1) Not aware of the need for immunization; 2) No one contacted 3) Did not know where/when to go for immunization 4) Has no time/no one to take child 5) Concern for loss of work or wages 6) Session inconvenient for time/location/long waiting time; 7) unaware of missed dose 8) Unfriendly vaccinator 9) Session not held 10) Vaccine was not available 11) Child was away from home 12) Sick child-caregiver did not opt vaccination 13) Sick child – HW did not vaccinate; 14) Caregiver did not opt for multiple injections 15) HW did not give multiple injections 16) Experienced minor illness: fever, pain, swelling 17) Experienced severe illness: hospitalization, death, disability 18) Fear of AEFI on hearsay; 19) Adverse media reports, 20) Family is resistant 21) Family has no definite reason 99) Others



Ready reckoner to ascertain vaccination status of the selected child during RI/MI monitoring

Age (Completed months)	Ideally a child should have received age specific vaccines as per National Immunization Schedule										
	Monitor has to assess RI vaccination status of the selected child considering purely the age eligibility ignoring time interval between doses and reasons for delayed or no vaccination.										
	Monitor has to assess vaccination status of the selected child during Mission Indradhanush monitoring considering child's eligibility for vaccine based on previous vaccination/time interval between doses for the age.										
	BCG	OPV	Hep-B	*Rotavirus (RVV)	**IPV	***PCV	DPT + Hepatitis-B /**** Pentavalent	Measles/MR	*****JE	DPT Booster-1	OPV Booster
	0	BCG	OPV-0 (up to 15 days)	Birth dose (Within 24 hours)	NA	NA	NA	NA	NA	NA	NA
1	BCG	OPV-0 (up to 15 days)	Birth dose (Within 24 hours)	NA	NA	NA	NA	NA	NA	NA	
2	BCG	OPV-0,1	Birth dose (Within 24 hours)	RVV-1	NA- In states with IM schedule fIPV-1 in select states/UT	PCV -1	(DPT- 1+Hepatitis-B-1)/ Pentavalent-1	NA	NA	NA	

3	BCG	OPV-0,1,2	Birth dose (Within 24 hours)	RVV -1,2	NA- In states with IM schedule IPV-1 Intradermal dose in select states/UT	PCV - 1	(DPT-1,2 + Hepatitis-B-1,2)/ Pentavalent-1,2	NA	NA	NA	NA
4 to 8	BCG	OPV-0,1,2,3	Birth dose (Within 24 hours)	RVV -1,2,3	NA- In states with IM schedule fIPV-1,2 in select states/UT	PV -1, 2	(DPT-1,2,3 + Hepatitis-B-1,2,3)/ Pentavalent-1,2,3	NA	NA	NA	NA
9 to 15	BCG	OPV-0,1,2,3	Birth dose (Within 24 hours)	RVV -1,2,3	IM dose in select states/UT fIPV-1,2 in select states/UT	PCV-1, 2, 3	(DPT-1,2,3 + Hepatitis-B-1,2,3)/ Pentavalent-1,2,3	Measles/ MR -1	JE - 1	NA	NA
16 - 23 OR 16 - 35	BCG	OPV-0,1,2,3	Birth dose (Within 24 hours)	RVV -1,2,3	IM dose in select states/UT fIPV-1,2 in select states/UT	PCV-1, 2, 3	(DPT-1,2,3 + Hepatitis-B-1,2,3)/ Pentavalent-1,2,3	Measles/ MR- 1,2	JE - 1, 2	DPT Booster -1	OPV Booster



*Rotavirus vaccine will be given along with OPV at 6, 10 & 14 weeks and will not be given if child has already started with OPV before or is older than 1 year of age.

** IPV: IPV should not be administered in a child over one year of age.

IPV given IM along with OPV-3 at 14 weeks/later but within 1 year of age. Now few states have switched from IM single dose schedule to 2 fractional IPV doses (fIPV doses) in 2017. Assessment of the IPV/fIPV vaccination status of the child being monitored has to be based on eligibility of the child for IPV Or fIPV.

*** PCV: Introduction of PCV is planned in 2017 in phase manner. It may be introduced during Mission Indradhanush phase –IV in states of Bihar, Himachal Pradesh and Uttar Pradesh.

PCV given IM in right thigh along with OPV-1 at 6 weeks/later but within 1 year of age (PCV1), PCV2 at 14 weeks/later along with OPV3 and PCV3 (booster) dose at 9 months.

****Pentavalent vaccine has replaced the primary doses of DPT & Hepatitis-B at 6, 10 and 14 weeks of age while DPT booster dose would be administered at 16-24 months of age.

*****JE vaccine is given at 9 –12 months (1st dose) and at 16-24 months of age (2nd dose) in selected endemic districts (list of endemic districts is reviewed and updated regularly by GoI).

Assess vaccination status of the selected child during Mission Indradhanush as per age and time interval between vaccines as below:

- There has to be at least 4 weeks interval between subsequent doses of pentavalent vaccine after 1st dose.
- There has to be at least 4 weeks interval between two different live vaccines if not being given simultaneously (BCG/Measles/JE vaccines)
- There has to be an interval of at least 1 month between 2 doses of Measles, and 3 months between two doses of JE vaccines.

There has to be at least six months gap between 3rd dose of DPT/Pentavalent and 1st DPT

Annexure 7: Immunization session site monitoring format

State/UT: _____ District: _____ Date: __/__/__ Monitoring time: __: __ to __: __ Block/Urban _____ Setting: Rural/ Urban, If NUHM City: _____ Planning Unit: _____ Sub center/Urban Health _____ Post: _____ Village/Mohalla/Ward: _____ Session site: _____ Session type: Fixed/Outreach/Mobile Session site category for COVID19: Containment Zone/Buffer Zone/Area beyond buffer zone Name of ANM: _____ Name of Supervisor: _____ Designation: _____ CMC area: Yes/No/NA Type of Monitoring: RI/IMI/Others _____ Type of monitor: a). Govt Monitor/Mentor b). Monitor – Partner c). Both Name of Monitor (Partner): _____ Organization: ITSU/WHO/UNICEF/UNDP/CORE/FM/SMNet/IFV/Others: _____ Designation: _____ Name of Mentor/Govt Monitor: _____ Department: _____	
Designation: _____ If joint monitoring is undertaken, whether both monitors were present through-out monitoring of this session. Yes/No	
1	Is the session being held? Yes/No
2*	If session is not being held - select reason(s): a) Early closure as per district timings b) ANM not available at session site c) Vaccine/logistics not available d) Others
If session not being held (Q1 – “No”) note reasons in Q2; proceed with house-to-house monitoring in this session area and then proceed for planned monitoring under RI monitoring. If it is IMI monitoring – inform Medical Officer and proceed to a new IMI session/new area for house to house monitoring as per plan. Finally visit health facility to assess Q-61 – 62.	
3	Is the session being held at same location as per micro-plan? Yes / No/Don't know
4*	a) Slum with migration b) Nomads c) Brick kilns d) Construction site e) Other migratory high risk area f) Non migratory settled slum g) Hard to reach area (tribal, forest, hilly area, riverine etc) h) VPD areas i) Refusals j) other settled HRA j) Not a polio HRA
5	Location of the session as per micro-plan: a) District Hospital b) CHC c) PHC d) UPHC e) Sub Centre f) Urban Health Post g) ICDS Centre h) HRG site (fixed) i) HRG site (by mobile team) j) Others
6	Vaccines/logistics delivered by? a) Alternate Vaccine Delivery b) ANM c) ASHA d) AWW e) Others: _____
7*	Mobilizers found working today: a) ASHA b) AWW c) Link workers d) CMC e) NCC f) NYK g) NSS h) PRI i) Education Dept j) Religious leaders k) Others l) none m) Not met
8	Which mobilizers are same as per micro plan? a) ASHA b) AWW c) Link workers d) CMC e) NCC f) NYK g) NSS h) PRI i) Education Dept j) Religious leaders k) Others l) none m) NA



Birth Vacc	9	Whether Mahila Arogya Samiti (MAS) formed? Yes/ No/NA (Check with ANM/ASHA/mobilizer)	
	10	MAS member found mobilizing beneficiaries today? Yes / No / NA (NA for rural and urban areas not under NUHM city)	
HCS/Due-list	11	Birth dose vaccination being provided to all newborns delivered in the facility during the past 7 days (only for fixed session sites at health facility with delivery services): Hep B – Yes/No/Not observed/Not applicable OPV – Yes/No/Not observed/Not applicable BCG – Yes/No/Not observed/Not applicable	
	12	Is record of headcount count survey (HCS in register/format/paper) available at the session site? (Look for physical record)	Yes / No /Headcount survey not conducted
Vaccine and Open Vial Policy	13	Has ANM updated vaccination status of beneficiaries in RCH register/records following previous session? (NA when it is No/Headcount survey is not done)	Yes / No /NA
	14	Is updated due list available [New born may have been included, children (<2yrs)/Pregnant women rolling over for missed or next antigen after last session]?	Yes/No/Due list not available
Logistics other than Vaccine	15	Encircle vaccine/diluent available at this session : BCG/BCG Diluent/bOPV/RW/Rotasiil/Diluent for Rotasiil/PCV/IPV/Pentavalent/DPT/MR/MR diluent/IE/JE diluent /Td	
	16	Partially used vaccine vials from previous session received at the session today? e) Td f) PCV g) None	a) bOPV b) Pentavalent c) DPT d) IPV
	17	Which of these open vials present at the session today had no date & time marked on them? a) BCG b) bOPV c) RW d) IPV e) Penta f) DPT g) MR h) JE i) Td j) PCV k) Rotasiil l) None m) NA	a) bOPV b) Pentavalent c)
	18	Any partially used vials received today supplied beyond 28 days of opening as per date/time marked on the vial? DPT d) IPV e) Td f) PCV g) None h) NA	a) bOPV b) Pentavalent c)
	19	Encircle if any partially used vial of vaccines not applicable under open vial policy has been supplied to this session: e) Rotasiil f) No vial supplied	a) BCG b) MR c) JE d) RW
	20	A) Encircle syringes not available a) AD (0.1 ml) Syringes b) AD (0.5 ml) syringes Adapter – Yes/No/NA; 20 B) Rotasiil logistic available? 20 C) 6 ml oral syringe – Yes/No/NA	
	21	Which of the following is available at the session site: a) Paracetamol b) Vitamin A c) Spoon for Vitamin-A d) Red & Black bag e) ORS f) Zinc	
	22	Is the number of 5ml reconstitution syringes equal to or greater than the total number of BCG + MR + JE vials supplied?	Yes/No/Don't know
	23	Blank MCP/RI card available at the session? Yes/No (If "No" encircle "not applicable" in Q-23)	
	24	If MCP/ RI card available, does it have counterfoil for ANM for tracking missed doses?	Yes/No/Not applicable
	25	Working status of available hub-cutter	a) Working b) Not working c) Hub cutter not available

26	Is ANM using any of these vaccines after 4 hours of reconstitution/opening the vial?	a) BCG b) MR c) JE d) RW e) None f) NA
27	Observe ANMs injection practices & encircle: a) not cutting syringe hub immediately b) touching the needle c) post injection-applying thumb/finger/cotton d) no unsafe practices e) not observed	
28	a) Is anaphylaxis kit available? b) If available, status of Adrenaline in anaphylaxis kit	a). Yes b). No a). Adrenaline available and within expiry date b). Adrenaline available but beyond expiry date c). Adrenaline not available
29	Has any supervisor visited the session today: a) Health Supervisor b) Medical Officer c) Others (specify):	d) None
30	Vaccinator and all mobilizers present at the session site wearing face mask/ face cover - Vaccinator wearing/Mobilizers wearing/Both wearing/None wearing	
31	Staggered approach being followed to avoid overcrowding at the session site with time slots allotted to beneficiaries? Yes, with time slot in due list/Yes, but with no time slot in due list/No due list was in use	
32	All beneficiaries sitting at least 1-meter distance from each other in waiting area and vaccination area - Yes/No/Not Observed	
33	Are observed beneficiaries accompanied by more than one caregiver at the session site - Yes/No/Not Observed	
34	Hand washing facility with soap and water/alcohol-based hand sanitizer available at session site for beneficiaries and caregivers - Yes/No	
35	Is ANM/Vaccinator sanitizing hands with an alcohol-based sanitizer/soap and water before and after vaccinating every beneficiary - For all beneficiaries/For some of the beneficiaries/For none of the beneficiaries/ Not Observed	
36	Care givers wearing face mask/ clothed face cover during their visit to the session site - All caregivers wearing/Only some caregivers wearing/None of the caregivers were wearing/Not Observed	
37	Disinfection of the seating space done after completion of the immunization session by the vaccinator/mobilizer/alternate staff- Yes/No/Not Observed	
38	Is this IMI session site located at the same place where RI session is held? (From RI micro-plan/interview ANM):	Yes / No/Don't know
39	Reason why IMI session is planned?	a) Vacant sub Centre/health post b) Areas with last 3 or more consecutive missed RI sessions c) Polio High Risk Areas d) Areas with low RI coverage (measles outbreaks, cases of diphtheria & neonatal tetanus in last 2 years e) Small villages, hamlets, basas (field huts) clubbed with another village for not having independent RI sessions f) Others



	40	No. of days this ANM has been assigned to work in IMI as per micro-plan/ANM duty roster? (Find out from ANMs session wise micro-plan)	a) 1 b) 2 c) 3 d) 4 e) 5 f) 6 g) 7 h) more than 7 days i) session wise micro-plan not available with ANM/not aware
	41	Place of posting of this ANM? a) same sub center/urban health post b) different sub center/urban health post in the same block/planning unit c) different block/urban planning unit	
	42	If mobilizer (other than ASHA/AWW) is assigned to this session, ask if he/she is aware of incentive for mobilization of children @ Rs 150/= per session: Yes / No/NA	
Communication Questionnaire			
BRIDGE Training and IEC visibility	43	Status of frontline worker on BRIDGE IPC skill training: ANM – Y/N/Not available; ASHA – Y/N/Not available; AWW – Y/N/Not available	
	44	Did you see any of the following IEC material related to Immunization displayed at session site (multiple responses possible): a) Poster –RI: Yes/No b) Poster – IMI: Yes /No c) Banner –RI: Yes/No d) Banner – IMI: Yes / No e) Wall painting – RI: Yes / No f) Wall painting – IMI: Yes / No g) Any other: Yes / No, If Yes- Specify: h) No IEC material displayed	
	45	Does any of the displayed IEC material has tagline ("Paanch Saat Saat Baar"): Yes / No (Skip Q33 if No IEC material displayed as per Q32)	
ANM providing key messages		Observe immunization of two children and record if ANM is giving key messages	On child – 1
	46	Explain what vaccine(s) will be given and the disease(s) prevented	Done/Not done/Not observed
	47	Explain potential side effects following immunization (fever/pain/swelling, etc.) and how to deal with them	Done/Not done/Not observed
	48	Explain when to come for the next visit	Done/Not done/Not observed
	49	Explain to keep the immunization card safe and to bring it along for the next visit	Done/Not done/Not observed
	50	Ask the caregivers to wait with child for 30 min after vaccination	Done/Not done/Not observed

Interview with caregiver	Conduct exit interview with 2 caregivers		Caregiver 1	Caregiver 2		
	51	Who brought the child to the session site/ Who is caregiver?	1) Mother, 2) Grandmother, 3) Father, 4) Grandfather, 5) Uncle or Aunt, 6) elder siblings, 7) neighbor, 8) mobilizer, 9) others	ANM- Y/N	Religious leader- Y/N	Wall painting- Y/N
	52	Who visited you to invite for vaccination to the session site?	ASHA / AWW / ANM / CMC / link worker Influencer as per micro-plan / Others / None / NA	ASHA- Y/N	Poster/ banner- Y/N	Mobile SMS- Y/N
Caregiver Interview	53	What is your source of information for immunization services? Allow caregiver to respond spontaneously for multiple responses; and then probe for remaining options and select responses accordingly.	Caregiver-1			Caregiver-2
			ANM- Y/N	Religious leader- Y/N	Wall painting- Y/N	Wall painting- Y/N
			ASHA- Y/N	Poster/ banner- Y/N	Mobile SMS- Y/N	Mobile SMS- Y/N
			AWW- Y/N	Radio- Y/N	Social Media- Y/N	Social Media- Y/N
			CMC- Y/N	Miking- Y/N	Mothers' meeting - Y/N	Mothers' meeting- Y/N
			Neighbors- Y/N	Rallies- Y/N	Community meeting- Y/N	Community meeting- Y/N
			PRI- Y/N	AV show / Street play - Y/N	Others- Y/N	Others- Y/N
			Influencers- Y/N	TV- Y/N	None	None
					TV- Y/N	None



		Whether you are aware of all vaccine/s which are given to your child in this visit (match responses with MCP card?)	Caregiver-1	Caregiver-2	
			Yes / No / NA		Yes / No / NA
54		Whether you know when the next visit is due for your child (Please confirm answer through MCP card)?	Yes / No / NA		Yes / No / NA
55		Did ANM ask you to carry MCP card during next visit?	Yes / No / NA		Yes / No / NA
56		Did your child develop any discomfort following previous / today's vaccination? (pain, fever, rash, swelling etc)	Yes / No / NA		Yes / No / NA
57		What all actions were taken by you in case of discomfort (Multiple response possible)	a) Gave PCM or cold sponge as instructed by ANM b) Consulted ANM/ Informed ASHA/Visited Govt health facility c) Visited Private Health facility d) Visited Quack e) did not take any action f)/Others		
58		How many visits are required to get your child completely immunized till 5 years age? Please tick Yes if caregiver response is seven.		Yes / No	Yes / No
59					

ASHA Incentive	60	Is ASHA aware of incentives in RI programme? (Select "NA" when ASHA could not be interviewed)	a) Line listing of households (survey for enlisting of beneficiaries) @ Rs.100/session	Yes / No/NA
			b) Preparation of due list of children/pregnant women for immunization to be updated on monthly basis @Rs.100 /session	Yes / No/NA
			c) Mobilization of children @ Rs 150/= per session	Yes / No/NA
			d) Full Immunization @ Rs 100 per child who has received all due doses within first year	Yes / No/NA
			e) For Complete Immunization, @ Rs 75/= per child who has received all doses due up to the second year	Yes / No/NA
At Planning unit	Meet Medical Officer in charge to ascertain reasons for monitored session not held. Respond Q-61and/or 62 as applicable.			
	61	Why ANM was not available at session site?	a) On leave b) Vacant post c) Assigned other work d) Started late e) Others (specify)	
	62	Reason for non-availability of vaccines/logistics?	a) Not issued b) Not picked up c) Picked up but not delivered d) Others (specify)	



Annexure 8: State-wise infrastructure details

S. No	State	Name of city	Infrastructure details													
			Total population of city	Total number of wards	Total number of planning units for immunization in the city	Medical colleges (Number)	District hospital	Number of U-CHC		Number of U-PHC		Total facilities (urban) (UCHC, CDs, others)	Number of kiosk		Any other urban facility (specify)	
								Sanc-tioned	Func-tional	Sanc-tioned	Func-tional		Sanc-tioned	Func-tional	Sanc-tioned	Func-tional
1	Bihar	Gaya	564,867	53	1	1	1	0	0	8	8	8	0	0	0	0
2	Bihar	Patna	2,043,738	75	13	3	1	0	0	22	20	27	0	0	7	7
3	Bihar	Muzaffarpur	488,825	49	1	0	1	0	0	4	4	4	0	0	0	0
4	Uttar Pradesh	Agra	1,824,917	105	33	1	2	0	0	33	33	33	5	5	0	0
5	Uttar Pradesh	Allahabad	1,726,368	80	23	3	2	0	0	23	23	23	6	4	0	0
6	Uttar Pradesh	Ghaziabad	2,846,149	100	50	1	2	0	0	50	50	50	4	3	0	0
7	Uttar Pradesh	Kanpur (Nagar)	3,236,070	110	11	1	3	0	0	50	50	50	9	9	0	0
8	Uttar Pradesh	Lucknow	3,252,647	118	16	7	2	8	8	52	52	60	9	8	0	0
9	Uttar Pradesh	Varanasi	1,439,840	90	24	2	5	4	2	24	24	28	8	4	2	2
10	Madhya Pradesh	Bhopal	#####	85	8	6	1	0	0	8	8	34	0	0	26	26
11	Madhya Pradesh	Indore	#####	85	4	2	1	2	2	14	14	16	0	0	0	0
12	Assam	Guwahati	#####	31	4	2	0	2	2	20	20	22	NA	NA	0	0
13	Karnataka	Bangalore-Urban	#####	63	48	6	2	2	2	48	48	50	0	0	0	0

STRENGTHENING IMMUNIZATION IN URBAN AREAS – A FRAMEWORK FOR ACTION

Data as on February 2020



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