

Ministry of Health & Family Welfare Government of India



Roadmap for achieving





90%

FIC



Objective of this roadmap

This document aims to provide a roadmap to attain 90% Full Immunization Coverage (FIC) in India's Universal Immunization Programme (UIP).

The document is intended to be used by the state and district programme managers to improve and sustain high immunization coverage in their respective states and districts.

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Dated : 23rd January, 2019

Message

Ministry of Health and Family Welfare is committed to accelerate the progress of immunization coverage with constant oversight of programme at the highest level of governance. Hon'ble Prime Minister, Government of India, Shri Narendra Modi has called for '90% full immunization coverage' which can only be achieved if we ensure bridging the gap in immunization in each and every district.

With Mission Indradhanush in place, there has been a spiralling growth in immunization coverage in significant number of districts as per the recent survey. However, accessibility to vaccines still remains a challenge in many pockets of the country.

As we aspire to achieve the country's goal, there is an immediate need to furnish solutions to address identified bottlenecks and strive to achieve equity in immunization coverage.

The launch of the document 'Roadmap for achieving 90% full immunization coverage in India - A guidance document for the states' marks a significant step towards the Ministry of Health and Family Welfare's commitment to save lives of children and protect them against vaccine preventable diseases.

This crucial document will provide impetus of reinforcement to the states and districts in improving routine immunization planning, delivery mechanisms and build up processes which are sustainable.

I congratulate the Immunization division and partners on this endeavour and urge the state governments to be earnest in adopting this roadmap and build on progress to reach the goal of 90% full immunization coverage.



मनोज झालानी

Manoj Jhalani

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PREFACE

Government of India launched the Universal Immunization Programme (UIP) in 1985, one of the largest health programmes of its kind in the world, to cater to a birth cohort of 2.67 crore infants and around 2.9 crore pregnant women every year.

With the aim to augment the pace of achieving full immunization coverage and provide greater focus on urban areas and other pockets of low immunization coverage, Hon'ble Union Minister, Health and Family Welfare, Government of India, Shri Jagat Prakash Nadda, emphasized the need of an aggressive action plan to cover all children who were left out or dropped out in selected and low performing districts and urban areas through intensified immunization activities.

IMI strategy has demonstrated a remarkable increase of 18.5 percent points in full immunization coverage as compared to NFHS-4, evident through recent coverage evaluation survey conducted by UNDP and WHO in 190 IMI districts. This strategic road map is an attempt to guide states and districts for further increasing and sustaining full immunization coverage. Considering the fact that there is no 'one size fits all' strategy, the document categorizes 190 IMI districts based on their full immunization coverage (FIC) status i.e. districts with FIC less than 50%; between 50% and 90% and; FIC \geq 90% and recommends suitable action to further improve the immunization coverage and achieve the target of more than 90% immunization coverage.

I commend the efforts of immunization division and partners for developing this strategic document which will certainly help the states in achieving the aim of reaching every child in the country with lifesaving vaccines.

I am hopeful that this document will help states to improve their immunization coverage and strengthen the routine immunization mechanism in the country.

(Manoj Jhalani)

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Foreword

Immunization is undeniably one of the "best buys" for child health – accounting for broader economic and social benefits of vaccination, including the value that people place in living longer and healthier lives. Importantly, it saves lives.

There is now compelling data that underlines why our government is diligently committed towards improving child survival and acknowledges immunization as an effective developmental strategy aimed at reducing morbidity and mortality due to vaccine preventable diseases. The country has witnessed the contribution of the Universal Immunization Programme (under the National Health Mission (NHM)) in improving immunization coverage in the country.

Accelerating actions on several fronts, Government of India has bolstered efforts to reach all children and pregnant women left unimmunized and partially immunized through a country wide rollout of Mission Indradhanush (MI) and its intensified drive (Intensified Mission Indradhanush) in selected low performing areas.

I firmly believe, Mission Indradhanush strategy is a testimony of national and state government's uncompromised commitment, complemented with the dedicated efforts of a competent and diligent community health workforce.

A recent UNDP and WHO led survey findings across 190 low performing districts and urban areas, affirms the MI strategy's potential, showcasing an increase in full immunization coverage by 18.5 percentage points. Despite these gains, the country has a challenging path to tread, before we cover all children and pregnant women in need of life saving vaccines.

With the release of this strategic roadmap document, states and districts receive the opportunity to access guidance in improving and sustaining immunization coverage. I hope our combined efforts towards increasing immunization uptake and continuum, provide further impetus for improving child survival.

(Vandana Gurnani)



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Guidance Note

Government of India is continuously striving towards reducing morbidity and mortality due to vaccine preventable diseases. The Universal Immunization Programme is one of the largest programmes of its kind in the world and has contributed significantly in increasing immunization coverage in the country.

To reach each and every child and pregnant woman of the country, intensive efforts were undertaken. Launch of Mission Indradhanush and Intensified Mission Indradhanush has helped in bringing our focus on unvaccinated and partially vaccinated population in hard-to-reach areas.

With the introduction of these initiatives, the pace of the immunization coverage has shown significant improvement. A recent survey conducted by UNDP and WHO in 190 districts and urban areas has shown an increase in Full immunization coverage (FIC) by 18.5 percent points. All the progress is a result of diligent efforts of our sincere and dedicated workforce right from the state and district managers to the front-line health workers. We really appreciate states for their concerted efforts to achieve this whopping increase in coverage.

Considering these intensive efforts of our government, it is now important that we follow a strategic direction, make use of available resources and endeavour towards our goal of 90% FIC in every district and achieve equity in immunization coverage across the country.

I hope that this roadmap document will support all states and districts in fast-pacing their efforts towards achieving 90% coverage and sustaining it. The document has clearly identified the districts of the country which have FIC more than or equal to 90%, FIC from 50% to 90% and FIC less than 50% coverage. Categorizing the districts will now help us in deciding and adopting distinct strategies with a sharpened focus on high priority districts of the country. This document will serve 'as a guide for all state and district programme managers and help them in improving and sustaining high immunization coverage in their respective states. I hope that 'A Roadmap to achieve 90% Full Immunization Coverage in India- A guidance document for the states' will take India closer to achieving its national health goals of reducing inequities in coverage and ensuring immunization reaches every child in the country in coming years.

I assure you all that through combined efforts of states, districts and immunization partners, we can fast-pace the achievement of the desired goal of 90% FIC in the country.

(Dr Pradeep Haldar)

Acronyms

AAA	ANM, ASHA and Anganwadi worker
AEFI	Adverse Event Following Immunization
ANM	Auxiliary Nurse Midwife
ANMOL	ANM Online
ASHA	Accredited Social Health Activist
AYUSH	Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy
BRIDGE	Boosting Routine Immunization and Demand Generation
CES	Coverage Evaluation Survey
CRS	Congenital Rubella Syndrome
DIO	District Immunization Officer
DTFI	District Task Force for Immunization
eGSA	extended Gram Swaraj Abhiyan
eVIN	electronic Vaccine Intelligence Network
FIC	Full Immunization Coverage
Gol	Government of India
GSA	Gram Swaraj Abhiyan
HMIS	Health Management Information System
INCHIS	Integrated Child Health & Immunization Survey
iCIP	Immunization Coverage Improvement Plan
IFV	Immunization Field Volunteer
IMI	Intensified Mission Indradhanush
MCTS	Mother and Child Tracking System
MR	Measles Rubella
MI	Mission Indradhanush
MoHFW	Ministry of Health & Family Welfare
NCC	National Cadet Corps
NCCMIS	National Cold Chain Management Information System
NFHS	National Family Health Survey
NSS	National Service Scheme
NUHM	National Urban Health Mission
NYK	Nehru Yuva Kendra
ORS	Oral Rehydration Solution
PCV	Pneumococcal Conjugate Vaccine
PHC	Primary Health Centre
PIP	Programme Implementation Plan
PRAGATI	Pro-Active Governance and Timely Implementation
RBSK	Rashtriya Bal Swasthya Karyakram
RCH	Reproductive and Child Health
RI	Routine Immunization
RVV	Rotavirus Vaccine
SMNet	Social Mobilization Network
STFI	State Task Force for Immunization
UIP	Universal Immunization Programme
UNDP	United Nations Development Programme
VAEIMS	Vaccine Adverse Event Information Management System
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization

Together, MI and IMI resulted in 3.14 crore children being vaccinated in 537 districts across the country, of which, 80.58 lakh children achieved full immunization status. In addition, 80.64 lakh pregnant women received tetanus toxoid vaccine through this initiative.

ROAD MAP FOR ACHIEVING 90% FULL IMMUNIZATION COVERAGE IN INDIA

Background

ndia's Universal Immunization Programme (UIP) is the largest in the world. Every year the programme targets around 26.7 million infants and 29 million pregnant women. Around nine million sessions are held every year to deliver vaccines to the target population. However, over the past many years, immunization coverage among children aged 12-23 months in the country has increased at a very slow pace of around 1% each year (from 35% in 1992-93 to 62% in 2015-16).¹

To address this slow progress in immunization coverage, Ministry of Health & Family Welfare (MoHFW) demonstrated highest political commitment to this cause and launched a massive routine immunization (RI) intensification campaign called Mission Indradhanush (MI) in December 2014, which was targeted to reach 90% full immunization coverage (FIC) by 2020. MI was further intensified when the Honorable Prime Minister advanced the timeline for reaching the goal of 90% FIC to December 2018.

Mission Indradhanush intended to reach out to unvaccinated and partially vaccinated children, with a focus on hard-to-reach and high-risk populations. The first two phases of MI contributed to an increase of 6.7 percentage points in FIC according to the Integrated Child Health and Immunization Survey (INCHIS). Analysing the coverage trend and progress, it was clearly understood that MI alone will be inadequate to reach the target of 90% FIC by December 2018. An Intensified Mission Indradhanush (IMI) was launched by the Honorable Prime Minister in October 2017 to accelerate vaccination coverage and meet current gaps.

A critical component of IMI is participation and coordination of multiple ministries and government bodies towards a common goal of 90% FIC by 2018. Regular review of this programme is conducted under Pro-Active Governance and Timely Implementation (PRAGATI).

Following the launch of IMI in 2017, four rounds have been conducted between October 2017 and January 2018 in the identified geographic areas.

An independent survey conducted by UNDP and WHO has shown an average improvement of 18.5 percentage points in the full immunization coverage in 190 IMI districts.

Mission Indradhanush is also a part of seven leading Central Government schemes under *Gram Swaraj Abhiyan* (GSA) and extended GSA. An additional 9.59 lakh children and 2.49 lakh pregnant women have been vaccinated under GSA and EGSA.

¹International Institute for Population Sciences (IIPS) and ICF. 2017. National Family Health Survey (NFHS-4), 2015-16: India. Mumbai: IIPS.

^{*}A fully immunized child is one who at 12-23 months of age has received one dose of BCG, 3 doses of Penta or DPT, 3 doses of OPV and one dose of measles containing vaccine.



Actions taken so far

n the last four years, many steps have been taken to strengthen UIP. A strong political commitment in the country exists today to achieve high coverage and equity in UIP in addition to adding critical vaccines in the programme to protect lives of children from vaccine preventable diseases like rotavirus caused diarrhoea, childhood pneumonia and rubella/CRS.

1. Improving immunization coverage

Despite being implemented for more than 30 years, immunization coverage among children aged 12-23 months in the country has increased at a slow pace of almost 1% each year (from 35% in 1992-93 to 62% in 2015-16). With focus on strengthening RI services and recent initiatives (MI and IMI) to meet existing gaps rapidly, the coverage trend has now increased to more than 6% FIC in one year.

A recent survey (2018) that was conducted in 190 IMI districts has shown an average increase of 18.5 percentage

points in FIC, in comparison with the National Family Health Survey-4 (NFHS-4) (2015-16). High momentum has been reached by conducting MI and IMI across states.



Figure 1: Trend in full immunization coverage among children aged 12-23 months

2. Introduction of new vaccines

Since 2014, five new vaccines have been introduced in UIP, which includes Rotavirus vaccine, Japanese encephalitis vaccine for adults, Inactivated Poliovirus Vaccine (IPV); Measles Rubella vaccine (MR) and, Pneumococcal Conjugate Vaccine (PCV) in a phased manner. The health ministry will soon replace the existing Tetanus Toxoid (TT) vaccine for pregnant women and 10 & 16 year children, with Td (tetanus, diphtheria) vaccine.

Many of these vaccines were already available through private practitioners and could be bought by those who were able to afford them. Introduction of these new lifesaving vaccines in UIP provides an opportunity to children everywhere in the country to lead a healthy and more productive life.

Figure 2: New vaccine introduction in the Universal Immunization Programme



3. Increased funding of UIP

To ensure availability of these lifesaving vaccines for all sections of society, the Government of India (Gol) has increased the immunization budget significantly in 2017-18 as compared to the earlier budgetary allocations.

4. Health system strengthening using innovative technological interventions

a) electronic Vaccine Intelligence Network (eVIN)

In 2015, the Ministry introduced an indigenously developed IT system/ application called eVIN for real time tracking of vaccine stocks and tracking of storage temperature. It is planned that eVIN will be scaled-up across all states by 2020. After introduction of eVIN, vaccine stock-out events have reduced by 80% as compared to past years.

b) ANM Online (ANMOL)

A tablet-based ANM Online (ANMOL) system has been piloted by the Gol in two states. It aims to improve the

health data recording and reporting system, in addition to generating real time beneficiaries' records. The tablet allows them to enter and update the service records of beneficiaries on real time basis, which ensures prompt entry and updating of data. Since it is a completely digitalized process, high quality of data and accountability is maintained. Paperless recording of health data is also more convenient for ANMs.

c) Vaccine Adverse Event Information Management System (VAEIMS)

The Vaccine Adverse Event Information Management System (VAEIMS) was conceptualized to speed-up the processes of recording, reporting and investigation of cases of Adverse Event Following Immunization (AEFI) from the districts. The software will fast track the response time following AEFIs, will reduce data and time loss while transmitting AEFI data and will strengthen causality assessment. Data related to reporting and investigation of AEFI cases will be entered at the district level while the causality assessment results of each case will be entered at the state level. The system has provision for generation of line lists, alerts on reporting of new cases and reminders of deadlines for investigations and causality assessments. The system will provide analyses of current AEFI surveillance status in the form of dashboards and graphs.

d) Kilkari

'Kilkari', is an audio-based mobile service that delivers weekly audio messages to pregnant women and infant's mothers registered on MCTS, about pregnancy, child birth and child care. Seventy-two different messages reach the targeted beneficiaries from the 4th month of pregnancy until the child is one year old. It intends to adopt healthier behaviours through increasing their knowledge, shifting attitudes and empower women. The objective is to improve family health – including family planning, reproductive, maternal, neonatal and child health, nutrition, sanitation and hygiene, by generating demand for healthy practices.

e) Augmenting cold chain space

To address existing gaps and meet the additional requirement due to new vaccines being added to the UIP, Gol purchased significant numbers of cold chain equipment after 2014.

In the last four years (2014-2017), 28,340 cold chain equipment were purchased and distributed to various states/districts.



Approach to 90% full immunization coverage

The following key steps in planning, managing and monitoring immunization services, if carried out appropriately, will improve immunization coverage.

Underlying principles of action: Data-Decision-Delivery

States need to conduct comprehensive UIP reviews for each district to diagnose gaps in the immunization programme around human resources, fund utilization, training, governance, review process etc. These gaps are to be discussed with all stakeholders and decisions must be undertaken to bridge them accordingly in the programme. States and districts need to develop an Immunization Coverage Improvement Plan (iCIP) for all districts wih <90% FIC based on these decisions. States and districts must also ensure effective implementation/service delivery and regular monitoring of plans to ensure midcourse corrections.

This document categorizes all districts in the country based on their FIC status. The categorization is based on latest IMI survey (2018) for 120 IMI districts conducted by UNDP and 70 districts by WHO and NFHS-4 data for remaining districts.

UNICEF is conducting a state-wise coverage evaluation survey (CES 2019) across the country, reports from which will be available by January 2019. Henceforth a recategorization will be undertaken after this report is available.

This document categorizes districts in three categories based on their FIC status:

Table 1: Categorization of districts in three categories based on their FIC status

Category	Criteria
	$FIC \ge 90\%$
	FIC between 50% and 90%
	FIC less than 50%

To achieve 90 percent FIC nationally, these districts will need to adopt different approaches. Four common underlying actions across all districts to accomplish and sustain 90% FIC will be:

1. Highest political commitment at all levels

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- 2. A robust review mechanism at multiple levels with clear accountability for action
- 3. Prompt action to meet any gaps identified in the review
- 4. Building community participation by effective social mobilization

Full Immunization Coverage of 90% or higher

Action: Sustain current coverage levels

Full Immunization Coverage less

than 50% Action: Conduct repeated MI campaigns to meet gaps in coverage across the districts

Full Immunization Coverage between 50% and 90%

Action: Intensify monitoring and take rapid coverage improvement actions in identified pockets of low coverage

Figure 4: Strategies at different levels of full immunization coverage



Activity	Districts with < 50% FIC	Districts with 50-70% FIC	Districts with 70-90% FIC	Districts with >90% FIC
National level review	Monthly	Monthly	Quarterly	Quarterly
State level review	Monthly by Principal Secretary and MD NHM	Monthly by Principal Secretary and MD NHM	Quarterly by Principal Secretary	Quarterly by Principal Secretary
District self-gap assessment	Yes	Yes	Yes	No
DTFI meetings	Fortnightly	Monthly	Monthly	Monthly
Lead partner	Assign	Assign	State to manage	State to manage
Demand generation	National support	Prototypes and PIP support	Prototypes and PIP support	Prototypes and PIP support
Crisis communication support to states	From National level	From National level	From National level	State to manage
Data quality assessments	No		Yes	Yes
Monitoring support	National, state and district, hiring of immunization field volunteers (IFV)	State to monitor	State to monitor	State to monitor

Table 2: Activities proposed for districts in different categories:

Steps to improve coverage in districts with less than 50% FIC (Category III)

These districts have a high proportion of unimmunized and partially immunized children and need intensified efforts by all stakeholders to improve both immunization services and demand. There are total 91 districts (annexed) in the country with less than 50% FIC based on NFHS 4 and IMI survey data. The recommended activities are:





1. Mission Indradhanush

Pockets with unreached or under-reached populations need to be identified and innovative strategies formulated to reach them and children covered under MI need to be tracked for routine immunization. Also, additional needbased funds may be proposed in the supplementary Programme Implementation Plan (PIP) for approval by Gol as per PIP norms.

Of the 91 districts with <50% FIC, 16 districts have already implemented MI under extended GSA (eGSA) during July-September 2018.

Three rounds of MI during the period October to December 2018 will be critical for coverage improvement in the remaining 75 districts.





Key Performance Indicators

Total number of children immunized during MI campaign Percent children found fully immunized during MI survey

2. Gap assessment & immunization coverage improvement plans (iCIPs)

These districts need to conduct gap assessment to identify the issues in key processes like microplanning, headcount survey, due-list preparation, recruitment against vacancies, fund utilization, comprehensive monitoring and regular feedback mechanism. District level self-assessment checklist must be utilized for these UIP reviews and gap analysis.

The Secretary, MoHFW, Gol has sent directives to states to undertake district level gap analysis in all the districts and to formulate iCIP to achieve 90% FIC, which must be further sustained thereafter. Few activities in the action plan formulated by the states may require projection of additional activities in the PIP, which will be reviewed by Gol for need-based approvals. Utilization of funds for these activities will be tracked at all levels.



Key Performance Indicators

Total number of districts reviewed by the state team

Percent districts with immunization coverage improvement plan (iCIP) prepared

3. Building vaccine confidence and community engagement

To reach all eligible women and children, community leaders and different community-based groups must be engaged in planning, organizing and generating demand for immunization services. It is important to generate high level of vaccine awareness and build vaccine confidence among communities to achieve 90% FIC.

Health staff ought to partner with communities in managing and implementing immunization and other health services through regular Village Health and Sanitation Committee meetings and village health days. District health teams and health facility staff should engage with communities to make sure immunization and other health services meet their needs.

Regular communication activities like media workshops and informal media briefings are required to help in building vaccine confidence. Availability of detailed communication plan needs to be ensured at the sub-center, planning unit and district level for better implementation of various communication activities.

Proposed actions



- school children as ambassadors for immunization;
- interpersonal communication skills training for frontline workers to address community queries related to vaccines and immunization programme;
- formal media briefings to encourage positive messaging for the community to access the vaccine;
- orientation of the state and district level spokesperson to answer queries raised by media on immunization and to handle crisis in case of AEFI;
- communication plans to clearly identify the key spokesperson during the crisis. As part of the plan, prepare few editorials for mainstream (English) and vernacular media, addressing specific fears created by the anti-vaccine lobby; and
- ensure regular media monitoring (including social media) and tracking before, during and after the expansion/ introduction.
- districts like Mewat and Palwal which have social mobilization challenges will need to formulate need based communication strategies



Key Performance Indicators

Percent districts & planning units with communication plan prepared

Percent districts conducted media briefing on routine immunization in last six months

Percent monitored sessions with IEC visibility

Percent districts with social media plan

Percent sessions where ANM giving all four key messages

4. Health system strengthening

A comprehensive health system strengthening approach will help to successfully move towards achieving the goal of 90% FIC. The districts must conduct following activities to strengthen the immunization system in their districts.

Proposed actions

Health workforce

- improve vacancy situation of ANMs and ASHAs, timebound recruitment drives;
- track status of training of various health staff cadres;
- enhance convergence with Women and Child Development department; ANM, ASHA and Anganwadi worker; through AAA convergence by using AAA incentives and triangulation of beneficiary data of health and WCD departments; and
- rationalise infrastructure and manpower required as many ANMs/Sub centres cater to population much more than set norms.

Infrastructure

 opportunity of recent promotion of health and wellness centres (HWCs)

Vaccines & technology

coordinate use of eVIN and NCCMIS for monitoring of supply chain processes.

Immunization financing: need based inclusion of activities in PIP

- ₹ plan mobile teams for RI;
- ₹ hire alternate vaccinators;
- plan and conduct appropriate social mobilization activities;
- document successful innovations and build mechanisms for cross learning;
- provide mobility allowance to ANMs for covering vacant sub-centres;
- ₹ depute and position immunization field volunteers; and
- ₹ finalize proposals for urban areas under the National Urban Health Mission's (NUHM) PIP with justifications.

Strengthening governance

facilitate coordination of different Government departments, National Cadet Corps (NCC), Nehru Yuva Kendra (NYK), National Service Scheme (NSS) and partners at State Level Steering Committee and Task Force for Immunization (STFI) meetings;

articulate iCIPs with timelines; and empower Panchayati Raj Institutions to improve immunization coverage.

Strengthening supervision and concurrent monitoring

- improve methodology of concurrent monitoring to generate quality data
- ensure significant quantum of data to guide policy decisions
- enhance government participation for monitoring and supervision
- using mobile based technology for real time monitoring data

Data systems

- strengthen name-based tracking of beneficiaries mother and child tracking system (MCTS) or RCH portal, link with incentives;
- update and utilize mobile numbers in MCTS portal to send message alerts or reminder calls through *Kilkari* initiative; and
- share regular feedback on reported, concurrent monitoring and survey data with districts in the form of immunization dashboards.

Additional interventions for urban areas

- ensure deployment of an Urban Nodal RI Officer and institutionalize an urban task force for immunization;
- conduct need-based hiring/recruitment of vaccinators using NUHM funds;
- ♂ convert all urban PHCs as fixed vaccination sites;
- involve private sector providers and NGOs for giving immunization services and submit coverage reports, with clear segregation of such areas;
- reach and immunize migrant populations like slum population and construction workers on their monthly holiday (eg. Amavasya in parts of northern India);
- strengthen RCH/MCTS portal data entry; and
- involve urban local bodies and municipal corporations. Also, coordinate between all stakeholders at all levels like the National Urban Livelihood Mission for mobilisation of beneficiaries.



Key Performance Indicators

Percent vacant sub centres in the district

Percent health workers trained on health worker module (new) in last three years

Percent immunization funds utilized by the district

Percent sessions with support from NYK, NCC & NSS

Percent urban areas with urban nodal officer assigned

5. Monitoring for action

District health teams and health facility staff need continuous flow of information that keeps them updated on whether health services are of high quality and accessible to target population. It also lets them know as to who is and is not being reached, whether resources are being used efficiently and if strategies are meeting objectives.

"Monitoring for Action" is needed to analyse and utilize data at all levels. This will help direct the programme in measuring progress, identifying areas needing specific interventions and making practical revisions to plans.

The review of roadmap at district level should be done regularly under the chairmanship of District Magistrate. Each district should ensure the conduct of fortnightly District Task Force for Immunization (DTFI) meeting to review progress based on identified indicators. District Immunization Officers (DIOs) and partners should ensure that data on all these identified indicators (given in this roadmap) are collected, compiled and shared during the DTFI meetings. The State and National task force must review progress on a monthly basis.

Proposed actions

- strengthen the State and District Task Force review mechanism to conduct structured comprehensive RI programme reviews, including human resource status, fund allocation and utilization and to take timely corrective measures;
- Chief Secretary/Principal Secretary will undertake regular review of districts through video conferencing with the District Magistrates;
- ensure regular monitoring and review of progress using monthly reports, monitoring charts, monthly & quarterly reviews and supportive supervisory visits;
- assign lead partner for each district for coordination of partner efforts in strengthening RI. Prepare standard operating protocols, roles and responsibilities of lead

partners and create a systematic feedback mechanism;

- invove medical colleges in supervision/monitoring;
- work with partners for joint concurrent monitoring, and ensure corrective actions based on monitoring feedback; and
- establish reward and recognition mechanism for good performing districts.



Key Performance Indicators

Percent districts with atleast 1 DTFI meeting held per month

Percent DTFI meetings chaired by District Magistrate

Number of review meetings held at state level with all DIOs

Number of review meetings held at National level with SEPIOs

Steps to improve coverage in districts with 50 to 90% FIC (Category II)

A total of 555 districts (annexed) in India are between 50-90% FIC. Of these, 288 districts have an FIC of 50-70% while 267 districts have an FIC of 70-90%. Activities to be implemented in these two sub-groups are slightly different, and are outlined in Table 2 (page 7). It is important to understand trends of FIC among these districts, as they

may be stable in immunization coverage for many years or might have increasing or decreasing trends for the same. It is important to diagnose the reason behind these trends to develop their iCIPs and although some of the districts may be close to reaching 90%, a thorough analysis and review is required to move forward to achieve this target.

Figure 7: Actions to improve coverage in districts with 50-90% FIC



1. Prioritizing & focusing

Prioritization will be the key to success in these districts. The districts with FIC levels of 50-90% need to identify pockets of poor performance. A focused strategy to improve coverage in these areas will help to achieve 90% FIC. States and districts need to identify high priority blocks and low coverage areas based on various immunization indicators. Partners are expected to support in the identification of such areas based on indicators that include low FIC, low Penta 3 coverage, high levels of dropouts, left-out pockets, hardto-reach population, vacant sub centres; resistance pockets, tribal areas, urban slums, nomadic groups, construction sites, brick kilns, factory areas and other migratory settlements.

After prioritization, these areas should be focused by state and district authorities. Appointment of nodal officers for these blocks and ensuring intensive monitoring by state and district level monitors in these identified high-risk areas would be required, as also progress to be reviewed by DTFI on a monthly basis.

State may consider Mission Indradhanush activities in selected pockets, especially in districts with 50-70% FIC, based on need.



Key Performance Indicators

Number of districts completed prioritization of blocks and villages

Number of these areas monitored by state and district level monitors $% \left({{{\mathbf{r}}_{\mathbf{r}}}_{\mathbf{r}}} \right)$

2. Improving RI plans

Bi-annual revision of RI microplans is required. All additional sessions planned during the MI campaigns must

get included in RI microplans. States and districts need to monitor this activity stringently. For non-MI districts, programme managers should identify areas with no RI sessions planned (missed areas). Vacant subcentres must be identified/targeted and appropriate plans developed to cover them. Additionally, districts shall identify areas currently tagged with existing sessions but needing separate immunization sessions. To ensure no missed areas, an extensive mapping exercise needs to be undertaken at all levels. NIC maps should be used to prepare microplans for urban cities.



Key Performance Indicators

MI districts-Percent MI sessions incorporated in RI micro plans

Non-MI districts- Number of new sessions planned in districts to cover missed or low coverage pockets

3. Gap assessment & iCIP

States should conduct a gap assessment in these districts to identify bottlenecks in key processes like microplanning, headcount survey, duelist preparation, filling of human resource vacancies, fund utilization, comprehensive monitoring and regular feedback mechanisms. It is important to analyse trends among these districts to identify reasons behind these declining and/or increasing trends, if any. This data will be utilized to formulate and implement iCIP as per 3D approach (Data-Decision-Delivery).

Secretary, MoHFW has sent directives to the states for undertaking district level gap analysis in all districts and formulating immunization coverage improvement action plans for achieving 90% FIC and sustaining it thereafter. Few activities in the action plan formulated by states may require projection of additional activities in the PIP, which will be reviewed by Gol for need-based approvals. Utilization of funds for these activities will be tracked at all levels.



Key Performance Indicators

Total number of districts reviewed by the state team

Percent districts with immunization coverage improvement plan (iCIP) prepared

4. Demand generation - addressing vaccine hesitancy and mitigating fear of AEFI

Generating demand and building vaccine confidence will be an important strategy in these areas. There might be pockets of vaccine hesitancy, where identification and proper strategy to address these issues will be key to reach 90% FIC in these areas.

Addressing vaccine hesitancy requires an understanding

of the magnitude and setting of the problem. It also calls for diagnosis of root causes, tailoring evidence-based strategies to address causes and undertaking monitoring and evaluation to determine the impact of the intervention. Ongoing monitoring for possible recurrence of the problem must be ensured. The interventions should address specific determinants underlying vaccine hesitancy.

Proposed actions

- provide other health services along with immunization like oral rehydration solution (ORS) & Zinc, water, sanitation and hygiene (WASH), etc for better acceptance of immunization services;
- engage religious and/or other influential leaders to promote vaccination in the community;
- school children as ambassadors
- undertake advocacy and social mobilization;
- improve access to vaccination;
- employ reminder and follow-up;
- use 104 call center for mobilization of reluctant families by outbound calling;
- conduct communications training for healthcare workers;
- provide non-financial incentives to beneficiaries; and
- horrease knowledge and awareness on vaccination.

Mitigating fear of Adverse Event Following Immunization (AEFI): Health workers and mobilizers should communicate four key messages to all beneficiaries including whom to contact in case of any problems/concerns following vaccinations. The caregiver must be reassured that giving multiple vaccines during the same session is safe. The following day the beneficiary should be visited by community mobilizers for ensuring well being.

On being informed of any problem, the frontline worker/ vaccinator should be able to manage minor AEFIs and refer all serious/severe AEFIs to nearest health facility for further treatment. ANMs should be trained for proper use of adrenaline kit which should be available during all vaccination sessions. All AEFI cases should be managed, reported, and investigated properly as per guidelines. The results of the investigations should be communicated appropriately within the community to maintain the confidence in the vaccination programme. AEFI committees at all levels should review AEFI surveillance, support to tackle vaccine hesitancy due to AEFIs and dispel any myths and misconceptions that exist regarding AEFIs.



Key Performance Indicators

Numbers of serious AEFI cases reported and investigated Percent sessions with influencers identified in micro plan

5. Health system strengthening

A comprehensive health systems approach will help these districts to successfully move towards achieving the goal of 90% FIC. These districts should conduct the following activities to strengthen immunization system.

Proposed actions

Health workforce

the second seco

track status of training of various health staff cadres;

- enhance convergence with Women and Child Development department; ANM, ASHA and Anganwadi worker; through AAA convergence by using AAA incentives and triangulation of beneficiary data of health and WCD departments; and
- rationalisation of infrastructure and manpower required as many ANMs/sub centres cater to population much more than set norms.

Infrastructure

opportunity of recent promotion of health and wellness centres (HWCs)

Vaccines & technology

coordinate use of eVIN and NCCMIS for monitoring of supply chain processes.

Data systems

- strengthen name-based tracking of beneficiaries mother and child tracking system (MCTS) or RCH portal, link with incentives;
- update and utilize mobile numbers in MCTS portal to send message alerts or reminder calls through *Kilkari* initiative; and
- share regular feedback on reported, concurrent monitoring and survey data with districts in the form of immunization dashboards.

Demand generation

- prepare a need-based underserved strategy to improve coverage;
- coordinate with relevant government departments for social mobilization;
- cascade Boosting Routine Immunization and Demand Generation (BRIDGE) training to enhance interpersonal communication skills of frontline workers; and
- support microplanning for communication activities using standard guidelines and formats.

Immunization financing: Need based inclusion of activities in PIP

- ₹ plan need based mobile teams for RI;
- tire alternate vaccinators;
- ₹ conduct social mobilization activities;

- document successful innovations and build mechanisms for cross learning;
- provide mobility allowance to ANMs for covering vacant sub centres;
- deploy immunization field volunteers; and
- prepare proposals for urban areas under NUHM PIP with justifications.

Strengthen governance

- facilitate coordination of different Government departments, NCC, NSS, NYK and partners at the state level and conduct Steering Committee and STFI meetings;
- 🔰 articulate iCIPs with timelines; and
- empower and incentivize PRIs to improve immunization coverage.

Strengthening supervision and concurrent monitoring

- improve methodology of concurrent monitoring to generate quality data
- ensure significant quantum of data to guide policy decisions
- enhance government participation for monitoring and supervision

using mobile based technology for real time monitoring data

Additional interventions for urban areas

- ensure deployment of an Urban Nodal RI Officer and institutionalize the Urban Task Force for Immunization
- complete the need-based hiring/ recruitment of vaccinators using NUHM funds;
- convert all urban PHCs as fixed vaccination sites;
- involve private sector providers and NGOs to provide immunization services and submit coverage reports, with clear segregation of such areas;
- reach and immunize migrant populations like slum population and construction workers on their monthly holiday (eg Amavasya in parts of northern India);
- strengthen RCH/ MCTS portal data entry; and
- involve urban local bodies and municipal corporations in seven metro/cities; and coordinate between all stakeholders at all levels like NUHM for mobilization of beneficiaries.



Key Performance Indicators

Percent vacant sub-centres in the district

Percent health workers trained on health worker module (new) in last three years

Percent immunization funds utilized by the district

Percent sessions with support from NYK, NCC & NSS

Percent urban areas with urban nodal officer assigned

6. Monitoring for action

The review of roadmap at district level should be done regularly under the chairmanship of District Magistrate. Each district should conduct monthly district task force meeting to review progress based on identified indicators. The District Immunization Officers (DIO) and partners should ensure that data on all these identified indicators (given in this roadmap) are collected and compiled and shared during DTFI meetings. The State and National task force should also review progress on quarterly basis with districts and states respectively.

Proposed actions

- strengthen the State and District Task Force review mechanism to conduct structured comprehensive RI programme reviews, including human resource status, fund allocation and utilization and take timely corrective measures;
- state should hold regular review with districts through video conferences with District Magistrates and conduct

regular monitoring and review of UIP progress in these districts;

- establish reward and recognition mechanism for good performing districts;
- ensure corrective actions on monthly feedback provided through immunization dashboards; and
- depute district and state monitors and task them with focusing on high priority blocks and villages/ urban areas during monitoring visits and reviews.



Key Performance Indicators

Percent districts with DTFI held every month Percent DTFI meetings chaired by District Magistrate Number of review meetings held at state level with all DIOs Number of SEPIO review meetings held at National level

Steps to improve or sustain coverage in districts with 90% or higher FIC (Category I)

Districts that have achieved 90% FIC will need to prepare plans for sustaining coverage by identifying key processes and geographies that need strengthening to sustain achieved immunization coverage. There are only 54 districts (annexed) having coverage more than or equal to 90% based on the National Family Health Survey 4 (NFHS) and IMI survey done by United Nations Development Programme (UNDP) and WHO. Districts must identify areas currently tagged with existing sessions but needing separate immunization sessions. Prepare maps at all levels to ensure there are no missed areas. NIC maps can be used to prepare microplans for urban cities.

Figure 8: Actions to improve or sustain coverage in districts with greater than equal to 90% FIC



1. Sustaining gains

These districts have achieved desired coverage and they should ensure that they sustain this coverage. They are highly prone to decline in coverage due to complacency. However, they must make sure that their health systems are robust and strong governance and leadership is maintained at all times. Gains achieved through MI should be maintained by RI system strengthening while continuously targeting low coverage and high priority areas.



Key Performance Indicators

Number of districts with more than 90% FIC

Number of districts with less than 1% unimmunized children

States and districts should ensure bi-annual revision of RI microplans. All additional sessions planned during MI campaigns should be included in the RI microplans. States and districts should also monitor this activity stringently.



Key Performance Indicators

MI districts- Percent MI sessions incorporated in RI micro plans

Non-MI districts- Number of new sessions planned in districts to cover missed or low immunization pockets

3. Monitoring and review

The DIOs and Chief Medical Officers would need to monitor progress in RI and ensure that the monthly district task force meetings diligently review progress based on identified indicators. The DIOs and partners should ensure that immunization data is collected, compiled and shared during DTFI meetings. State and National task force should also review progress on quarterly basis with districts and states respectively. Supportive supervision visits will be key component of these districts, focusing on promoting quality provision of services by periodically assessing and strengthening service providers' skills, attitudes and working conditions. It includes regular onsite training, feedback and follow-up with staff to ensure that routine and newly-introduced action points are being addressed correctly.



Key Performance Indicators

Percent districts with DTFI held every month Percent DTFI meetings chaired by District Magistrate Number of review meetings held at state level with all DIOs

4. Improving HMIS data quality

Since these districts have high coverage, there is an opportunity to improve their HMIS and RCH portal data quality. This will help in having a real time progress update on the performance of the immunization programme. Additionally, states and districts should conduct the following activities to improve data quality:

strengthen name-based tracking of beneficiaries (mother and child tracking system or RCH portal) and utilize mobile numbers in the portal to send SMS alerts and reminder calls;

- ensure training of data handlers at all levels;
- conduct data quality assessments in these districts and develop data quality improvement plans;
- ensure timely availability of reliable data on key processes, immunization coverage and vaccine preventable disease burden;
- states to share regular feedback on reported, concurrent monitoring and survey data with districts in form of immunization dashboards;
- enhance quantum of concurrent monitoring by deployment of "Immunization Field Volunteers" through PIP funding; and
- engage medical colleges, public health institutes, *Rashtriya Bal Swasthya Karyakram* (RBSK) and the Ministry of Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy (AYUSH) workforce in states.



Key Performance Indicators

Number of districts conducted data quality self-assessment

Percent data handlers trained in data management

Incentives for performance

Incentives should be provided at village, district and state levels for achieving 90% FIC the targets.

National-level support across all districts

1. System strengthening

- support for prioritization of poor performing districts;
- develop training modules for data handlers;
- availability of adequate cold chain space and need based expansion of cold chain network;
- phased nation-wide roll-out of eVIN, ANMOL and VAEIMS; and
- share innovations and best practices across the country through workshops and meetings.

2. Vaccine supply

- ↘ steady supply of all vaccines; and
- phased roll-out of Rotavirus (RVV), Measles Rubella (MR) and Pneumococcal Conjugate Vaccine (PCV).

3. Demand generation

- converge with all relevant line ministries for support to social mobilization (mobilization of beneficiaries, SMNet support, ownership to panchayats by incentivization of FIC); regular meetings of inter-ministerial committees at national level;
- train the trainers for BRIDGE training to enhance interpersonal communication skills of frontline workers;
- update microplanning guidelines and formats for planning communication activities;
- crisis communication in response to AEFIs; and
- engagement of celebrities from minority/underserved communities.

4. Monitoring and supervision

- 💉 regular review of UIP in priority states (Bihar, Madhya Pradesh, Maharashtra, Rajasthan, Uttar Pradesh);
- finalise checklist for state and district level UIP self-assessment & gap analysis;
- capacity building of state officials to conduct district self assessments;
- monthly feedback to states on immunization data through immunization dashboards;
- undertake regular reviews with states and priority districts through video conferences and review meetings;
- assign senior MoHFW officials as national mentors for states;
- 💉 implement technological interventions like real time, user defined dashboards; and
- establish reward and recognition mechanism for good performing states.

5. Financial support

- ▶ incentives under NHM subject to achieving 90% FIC
- adequate funding for nation wide roll-out of rotavirus (RVV), measles rubella (MR) and pneumococcal conjugate vaccines; and
- review innovations proposed in state PIPs for need-based approvals.

Figure 9: Mechanism for review of progress on Roadmap

National Level

Regular review at highest level with states-PRAGATI

Key performance indicators of this roadmap will be tracked through a web-based tool and will be updated monthly

Review visits by National mentors

ITSU and immunization partners will submit a report on progress made on roadmap to JS (RCH) on monthly basis

MoHFW will conduct regular review meetings with all states and UTs to review progress and decide future strategy. Actions to review progress on the roadmap

Sub-National Level

The UIP self assessment checklists must be filled for all districts with less than 90% FIC. WHO, UNICEF, UNDP and ITSU will assess key components of the checklists

States will put in place a mechanism for third party review of immunization coverage through medical colleges/ public health institutions

Review visits by state officials in poor performing districts



States with less than 70% coverage as per CES 2019 will be kept in category 3, and all districts of these states will undertake 3 rounds of Mission Indradhanush. For states with coverage of 70% or more in CES 2019, districts will be re-categorized based on IMI survey (2018) and concurrent monitoring data. Districts having FIC less than 70% will undertake three rounds of Mission Indradhanush, districts between 70-90% will undertake intensive monitoring along with prioritizing and focusing strategies while districts having FIC>90% will strive to sustain the gains.

Table 3: Performance matrix-roadmap for achieving 90% FIC					
No.	Indicator	Data source	Baseline/ criterion	Target	Frequency
	Performance r	matrix for review at na	itional, state and	d district level	
1	Percent districts with more than 85% FIC	Survey data / Concurrent monitoring	15.4%	100%	Quarterly
2	Percent children found fully immunized during MI survey	Monitoring data — NPSP	NA	90%	Monthly, after every round
3	Total number of districts reviewed (gap assessment) by state team	Gap analysis by the State teams, reported by NPSP	0	All districts below 90% coverage	Monthly
4	Percent districts with immunization coverage improvement plan (iCIP) prepared	iCIP after gap assessment by the state teams, reported by NPSP	0	All districts below 90% coverage	Monthly
5	Only for MI districts- Percent MI sessions incorporated in RI micro plans	Monitoring data - NPSP	NA	100%	Monthly after every round
	Performa	nce matrix for review	at state and dis	trict level	
1.	Percent districts & planning units with communication plans prepared	Monitoring data, reported by UNICEF & NPSP	Data not available	100%	Monthly
2.	Percent districts with social media plans prepared	Monitoring data, reported by UNICEF & NPSP	NA	80%	Monthly
3.	Percent vacant sub centres in the district	State Report	NA	<2%	Quarterly
4.	Percent health workers trained on health worker module (new) in last three years	Training report- state & NPSP	NA	80%	Monthly
5.	Percent immunization funds utilized by the district	State PIPs	NA	90%	Annually
6.	Percent urban areas with urban nodal officer assigned	State reports	NA	100%	Annually
7.	Percent districts with DTFI held every month	Monitoring data, reported by NPSP	NA	2 meetings per month for district with <50% FIC and 1 meeting per month for other districts	Monthly
8.	Percent DTFI meetings chaired by District Magistrate	Monitoring data, reported by NPSP	Every meeting to be chaired by District Magistrate	90%	Monthly
9.	Number of review meetings held at state level with all DIOs	Monitoring data, reported by NPSP	Quarterly	One monthly meeting for <50% FIC districts Quarterly for other districts	Monthly
10.	Number of districts completed prioritization of blocks and villages	Monitoring data - comprehensive review	Each district to complete prioritization in category II	90%	Monthly

No.	Indicator	Data source	Baseline/ criterion	Target	Frequency	
	Performance matrix for review at district level					
1.	Percent sessions where ANM giving all four key messages	Monitoring data, reported by UNICEF & NPSP	NA	90%	Monthly after every round	
2.	Percent data handlers trained in data management	District training reports	0	80% for category 1 districts	Monthly	

States and districts should ensure that these targets should be achieved as early as possible. They should prepare a timeline for these targets and share with MoHFW for tracking.

Annexure:

Table A: List of districts with < 50% FIC as per NFHS-4 /IMI Survey

State	District	Less than 50%
A&N ISLANDS	Nicobar	45.5
ANDHRA PRADESH	Vizianagaram	49.3
ARUNACHAL PR.	West Kameng	25.0
ARUNACHAL PR.	Tawang	27.8
ARUNACHAL PR.	Longding	32.0
ARUNACHAL PR.	West Siang	34.4
ARUNACHAL PR.	Upper Subansiri	35.1
ARUNACHAL PR.	Lower Dibang Valley	37.3
ARUNACHAL PR.	Siang**	40.0
ARUNACHAL PR.	Lower Subansiri	40.1
ARUNACHAL PR.	Dibang Valley	40.8
ASSAM	Barpeta	34.1
ASSAM	Kamrup R	35.7
ASSAM	Hailakandi	39.2
ASSAM	Bongaigaon	42.4
ASSAM	Marigaon	44.4
ASSAM	Sonitpur	45.3
ASSAM	Cachar	45.4
ASSAM	Dhemaji	47.0
ASSAM	Nalbari	48.8
D&N HAVELI	Dadra & Nagar Haveli	43.2
GUJARAT	Mahisagar*	30.2
GUJARAT	Panch Mahals	30.2
GUJARAT	Patan	30.7
GUJARAT	Dahod	33.0
GUJARAT	Surendranagar	37.5
GUJARAT	Kheda	39.5
GUJARAT	The Dangs	44.3
GUJARAT	Morbi**	44.5
GUJARAT	Surat	48.0
GUJARAT	Ahmedabad	49.0
GUJARAT	Botad*	49.0
GUJARAT	Aravalli*	49.1
GUJARAT	Sabar Kantha	49.1
HARYANA	Mewat	40.8
HARYANA	Rewari	41.2
HIMACHAL PRADESH	Hamirpur	45.9
JAMMU & KASHMIR	Doda	43.2
JAMMU & KASHMIR	Rajouri	44.5
JHARKHAND	Chatra	42.0
JHARKHAND	Pashchimi Singhbhum	49.7
KARNATAKA	Chikmagalur	41.2

State	District	Less than 50%
KARNATAKA	Shimoga	45.5
KARNATAKA	Gadag	46.7
KARNATAKA	Mysore	46.7
KARNATAKA	Chitradurga	48.7
MADHYA PRADESH	Ashok Nagar	37.2
MADHYA PRADESH	Barwani	41.8
MADHYA PRADESH	Rajgarh	42.7
MADHYA PRADESH	Burhanpur	43.3
MADHYA PRADESH	Mandsaur	43.5
MADHYA PRADESH	Ratlam	45.2
MADHYA PRADESH	Katni	46.7
MADHYA PRADESH	Neemuch	47.0
MADHYA PRADESH	Harda	48.6
MADHYA PRADESH	Dindori	49.4
MADHYA PRADESH	Hoshangabad	49.5
MAHARASHTRA	Dhule	40.0
MAHARASHTRA	Palghar*	40.9
MAHARASHTRA	Sangli	43.4
MAHARASHTRA	Kolhapur	46.9
MAHARASHTRA	Raigarh	47.6
MAHARASHTRA	Jalgaon	48.1
MEGHALAYA	East Garo Hills	41.2
MIZORAM	Champhai	48.3
ODISHA	Gajapati	46.4
RAJASTHAN	Jaisalmer	38.6
RAJASTHAN	Chittaurgarh	42.4
RAJASTHAN	Nagaur	44.4
RAJASTHAN	Barmer	45.2
RAJASTHAN	Banswara	46.1
RAJASTHAN	Sirohi	47.1
RAJASTHAN	Sawai Madhopur	49.8
TAMIL NADU	Nagapattinam	39.0
TAMIL NADU	Toothukudi	47.7
TAMIL NADU	Tirunelveli	49.8
TELANGANA	Jogulamba Gadwal*	45.0
TELANGANA	Mahbubnagar	45.0
TELANGANA	Nagarkurnool*	45.0
TELANGANA	Wanaparthy*	45.0
UTTAR PRADESH	Farrukhabad	40.3
UTTAR PRADESH	Bahraich	41.4
UTTAR PRADESH	Auraiya	43.7
UTTAR PRADESH	Sonbhadra	44.0
UTTAR PRADESH	Azamgarh	45.2
UTTAR PRADESH	Allahabad	45.4
UTTAR PRADESH	Kashi Ram Nagar	47.2
UTTAR PRADESH	Faizabad	48.5

State	District	Less than 50%
UTTAR PRADESH	Kannauj	48.9
UTTAR PRADESH	Balrampur	49.1
UTTARAKHAND	Udham Singh Nagar	47.4

Total Districts = 91

 $^{\ast}\text{FIC}$ for these districts is that of parent district from which they were carved out

 $\ensuremath{^{**}\text{FIC}}$ of these districts is mean of the parent districts from which they were carved out

Data is from IMI Survey

Table B: List of districts with 50-90% FIC as per NFHS-4 / IMI Survey

State	District	50-90%
A&N ISLANDS	South Andaman	69.1
A&N ISLANDS	North and Middle Andaman	89.1
ANDHRA PRADESH	Srikakulam	59.2
ANDHRA PRADESH	Guntuet	61.7
ANDHRA PRADESH	Prakasam	64.0
ANDHRA PRADESH	Cuddapah	65.3
ANDHRA PRADESH	Vishakapatnam	66.0
ANDHRA PRADESH	Kurnool	66.1
ANDHRA PRADESH	Chittoor	67.7
ANDHRA PRADESH	Krishna	74.1
ANDHRA PRADESH	Anantapur	76.3
ANDHRA PRADESH	West Godavari	77.7
ARUNACHAL PR.	Anjaw	55.3
ARUNACHAL PR.	Namsai	58.2
ARUNACHAL PR.	East Kameng	59.8
ARUNACHAL PR.	Tirap	64.6
ARUNACHAL PR.	Papum Pare	69.0
ARUNACHAL PR.	Kra Daadi	72.4
ARUNACHAL PR.	Lohit	77.9
ARUNACHAL PR.	Changlang	81.3
ARUNACHAL PR.	Kurung Kumey	84.6
ARUNACHAL PR.	East Siang	85.3
ARUNACHAL PR.	Upper Siang	85.4
ASSAM	Goalpara	51.1
ASSAM	Udalguri	52.8
ASSAM	Karimganj	53.9
ASSAM	Lakhimpur	54.0
ASSAM	Kokrajhar	55.4
ASSAM	Baksa	59.1
ASSAM	North Cachar Hills	59.8
ASSAM	Darrang	60.3
ASSAM	Tinsukia	64.0
ASSAM	Jorhat	64.8
ASSAM	Dhubri	65.2
ASSAM	Golaghat	67.9
ASSAM	Karbi Anglong	70.5
ASSAM	Dibrugarh	71.1
ASSAM	Kamrup M	72.8
ASSAM	Sibsagar	73.0
ASSAM	Nagaon	79.0
ASSAM	Chirang	85.4
BIHAR	Jamui	55.5
BIHAR	Samastipur	57.4
BIHAR	Sheohar	59.2
BIHAR	Muzaffarpur	62.0

State	District	50-90%
BIHAR	Madhepura	62.2
BIHAR	Siwan	63.3
BIHAR	Munger	63.7
BIHAR	Buxar	63.9
BIHAR	Gopalganj	64.3
BIHAR	Sitamarhi	64.6
BIHAR	Banka	64.9
BIHAR	Nalanda	65.2
BIHAR	Madhubani	65.4
BIHAR	Purnia	65.8
BIHAR	Khagaria	65.9
BIHAR	Supaul	65.9
BIHAR	Bhagalpur	66.7
BIHAR	Saran	67.0
BIHAR	Jehanabad	67.5
BIHAR	Gaya	68.9
BIHAR	Katihar	69.1
BIHAR	Lakhisarai	69.1
BIHAR	Vaishali	70.2
BIHAR	Kaimur (Bhabua)	70.5
BIHAR	Darbhanga	71.1
BIHAR	Bhojpur	71.9
BIHAR	Araria	72.6
BIHAR	East Champaran	73.2
BIHAR	Arwal	74.1
BIHAR	Rohtas	75.6
BIHAR	Patna	75.8
BIHAR	Begusarai	77.1
BIHAR	Aurangabad	77.6
BIHAR	Saharsa	78.0
BIHAR	Nawada	80.2
BIHAR	Kishanganj	80.5
BIHAR	West Champaran	83.7
BIHAR	Sheikhpura	88.3
CHANDIGARH	Chandigarh	79.5
CHHATTISGARH	Jashpur	50.4
CHHATTISGARH	Kawardha	61.5
CHHATTISGARH	Narayanpur	62.4
CHHATTISGARH	Balrampur*	64.3
CHHATTISGARH	Surajpur*	64.3
CHHATTISGARH	Surguja	64.3
CHHATTISGARH	Dantewada	66.1
CHHATTISGARH	Sukma*	66.1
CHHATTISGARH	Raigarh	68.5
CHHATTISGARH	Janjgir Champa	70.5
CHHATTISGARH	Bastar	71.6
CHHATTISGARH	Kondagaon*	71.6

State	District	50-90%
CHHATTISGARH	Koriya	74.6
CHHATTISGARH	Mahasamund	74.8
CHHATTISGARH	Baloda Bazar*	80.1
CHHATTISGARH	Gariyaband*	80.1
CHHATTISGARH	Raipur	80.1
CHHATTISGARH	Korba	80.8
CHHATTISGARH	Bilaspur	82.0
CHHATTISGARH	Kanker	82.0
CHHATTISGARH	Mungeli*	82.0
CHHATTISGARH	Bijapur	83.7
CHHATTISGARH	Rajnandgaon	87.1
CHHATTISGARH	Dhamtari	88.2
DAMAN & DIU	Daman	62.8
DAMAN & DIU	Diu	81.4
DELHI	South	51.1
DELHI	North East	55.2
DELHI	East	64.0
DELHI	Central	69.5
DELHI	North West	74.2
DELHI	New Delhi**	84.4
DELHI	South West	84.4
DELHI	North	85.7
GOA	North Goa	87.3
GOA	South Goa	89.5
GUJARAT	Rajkot	51.4
GUJARAT	Valsad	52.9
GUJARAT	Mahesana	55.1
GUJARAT	Gir Somnath*	56.5
GUJARAT	Junagadh	56.5
GUJARAT	Bharuch	56.9
GUJARAT	Amreli	59.9
GUJARAT	Anand	61.4
GUJARAT	Chhotaudepur*	63.3
GUJARAT	Vadodara	63.3
GUJARAT	Gandhinagar	66.1
GUJARAT	Porbandar	68.8
GUJARAT	Narmada	69.3
GUJARAT	Devbhumi Dwarka*	71.4
GUJARAT	Jamnagar	71.4
GUJARAT	Тарі	72.9
GUJARAT	Kachchh	77.7
GUJARAT	Navsari	78.5
GUJARAT	Banas Kantha	80.7
GUJARAT	Bhavnagar	87.6
HARYANA	Jhajjar	50.0
HARYANA	Rohtak	64.1
HARYANA	Sonipat	64.1

State	District	50-90%
HARYANA	Bhiwani	66.1
HARYANA	Panipat	68.4
HARYANA	Mahendragarh	73.0
HARYANA	Sirsa	75.2
HARYANA	Hisar	75.3
HARYANA	Palwal	77.2
HARYANA	Gurgaon	83.8
HARYANA	Faridabad	84.9
HARYANA	Fatehabad	87.6
HARYANA	Yamunanagar	87.9
HARYANA	Kurukshetra	88.2
HARYANA	Jind	89.0
HIMACHAL PRADESH	Bilaspur	58.3
HIMACHAL PRADESH	Lahul & Spiti	58.9
HIMACHAL PRADESH	Una	59.1
HIMACHAL PRADESH	Chamba	64.6
HIMACHAL PRADESH	Kullu	65.7
HIMACHAL PRADESH	Kangra	68.6
HIMACHAL PRADESH	Sirmaur	70.6
HIMACHAL PRADESH	Mandi	78.8
HIMACHAL PRADESH	Solan	79.8
HIMACHAL PRADESH	Kinnaur	82.0
HIMACHAL PRADESH	Shimla	87.3
JAMMU & KASHMIR	Ramban	57.5
JAMMU & KASHMIR	Bandipora	68.0
JAMMU & KASHMIR	Samba	68.7
JAMMU & KASHMIR	Shopian	69.9
JAMMU & KASHMIR	Anantnag	72.7
JAMMU & KASHMIR	Reasi	73.1
JAMMU & KASHMIR	Kishtwar	74.4
JAMMU & KASHMIR	Kupwara	77.8
JAMMU & KASHMIR	Baramula	78.6
JAMMU & KASHMIR	Kargil	81.9
JAMMU & KASHMIR	Leh (Ladakh)	82.0
JAMMU & KASHMIR	Kathua	82.5
JAMMU & KASHMIR	Udhampur	82.7
JAMMU & KASHMIR	Ganderbal	82.9
JAMMU & KASHMIR	Kulgam	83.0
JAMMU & KASHMIR	Poonch	84.2
JAMMU & KASHMIR	Srinagar	85.5
JAMMU & KASHMIR	Badgam	87.5
JAMMU & KASHMIR	Pulwama	89.9
JHARKHAND	Latehar	52.7
JHARKHAND	Garhwa	54.2
JHARKHAND	Simdega	56.9
JHARKHAND	Palamu	57.7
JHARKHAND	Gumla	58.8
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State	District	50-90%
JHARKHAND	Lohardaga	60.0
JHARKHAND	Godda	60.1
JHARKHAND	Sahibganj	62.2
JHARKHAND	Jamtara	62.4
JHARKHAND	Deoghar	64.2
JHARKHAND	Saraikela	65.1
JHARKHAND	Ramgarh	66.1
JHARKHAND	Bokaro	66.2
JHARKHAND	Giridih	66.6
JHARKHAND	Ranchi	67.7
JHARKHAND	Purbi Singhbhum	68.9
JHARKHAND	Kodarma	70.9
JHARKHAND	Hazaribagh	72.5
JHARKHAND	Khunti	72.7
JHARKHAND	Dhanbad	73.5
JHARKHAND	Dumka	76.0
JHARKHAND	Pakaur	77.1
KARNATAKA	Dharwad	54.9
KARNATAKA	Bijapur	58.1
KARNATAKA	Ramanagar	58.8
KARNATAKA	Chamrajnagar	59.5
KARNATAKA	Bidar	59.6
KARNATAKA	Mandya	61.0
KARNATAKA	Chikkaballapur	63.7
KARNATAKA	Bangalore Rural	64.1
KARNATAKA	Udupi	64.6
KARNATAKA	Tumkur	64.8
KARNATAKA	Raichur	65.4
KARNATAKA	Uttara Kannada	67.7
KARNATAKA	Hassan	68.1
KARNATAKA	Kodagu	68.2
KARNATAKA	Haveri	69.3
KARNATAKA	Bellary	71.1
KARNATAKA	Koppal	72.8
KARNATAKA	Davanagere	75.2
KARNATAKA	Kolar	76.4
KARNATAKA	Dakshina Kannada	77.3
KARNATAKA	Yadgir	80.2
KERALA	Kozhikkode	70.0
KERALA	Wayanad	72.8
KERALA	Ernakulam	75.9
KERALA	Pathanamthitta	78.0
KERALA	Malappuram	78.6
KERALA	Thiruvananthapuram	81.9
KERALA	Kannur	87.1
KERALA	Kollam	87.3
KERALA	Palakkad	88.1

State	District	50-90%
KERALA	Thrissur	88.3
LAKSHADWEEP	Lakshadweep	86.9
MADHYA PRADESH	Bhind	51.0
MADHYA PRADESH	Satna	52.4
MADHYA PRADESH	Gwalior	52.5
MADHYA PRADESH	Datia	53.2
MADHYA PRADESH	Narsinghpur	54.2
MADHYA PRADESH	Mandla	55.1
MADHYA PRADESH	Damoh	55.9
MADHYA PRADESH	Chhatarpur	56.3
MADHYA PRADESH	Jhabua	56.6
MADHYA PRADESH	Ujjain	56.8
MADHYA PRADESH	Seoni	57.1
MADHYA PRADESH	Anuppur	57.8
MADHYA PRADESH	Khandwa	58.7
MADHYA PRADESH	Sehore	60.0
MADHYA PRADESH	Dewas	60.3
MADHYA PRADESH	Morena	60.6
MADHYA PRADESH	Bhopal	62.3
MADHYA PRADESH	Shivpuri	63.1
MADHYA PRADESH	Khargone	64.2
MADHYA PRADESH	Chhindwada	64.3
MADHYA PRADESH	Balaghat	64.6
MADHYA PRADESH	Guna	65.1
MADHYA PRADESH	Dhar	65.6
MADHYA PRADESH	Alirajpur	66.0
MADHYA PRADESH	Singroli	66.7
MADHYA PRADESH	Umaria	67.1
MADHYA PRADESH	Jabalpur	67.5
MADHYA PRADESH	Sidhi	67.8
MADHYA PRADESH	Tikamgarh	68.7
MADHYA PRADESH	Betul	69.1
MADHYA PRADESH	Agar Malwa*	71.7
MADHYA PRADESH	Shajapur	71.7
MADHYA PRADESH	Panna	71.8
MADHYA PRADESH	Shahdol	73.4
MADHYA PRADESH	Sheopur	74.1
MADHYA PRADESH	Indore	76.1
MADHYA PRADESH	Vidisha	78.5
MADHYA PRADESH	Rewa	82.0
MADHYA PRADESH	Raisen	83.5
MADHYA PRADESH	Sagar	87.9
MAHARASHTRA	Akola	50.8
MAHARASHTRA	Parbhani	51.5
MAHARASHTRA	Thane	57.5
MAHARASHTRA	Satara	59.2
MAHARASHTRA	Aurangabad	59.3

State	District	50-90%
MAHARASHTRA	Latur	59.4
MAHARASHTRA	Chandrapur	60.5
MAHARASHTRA	Bid	61.3
MAHARASHTRA	Osmanabad	62.7
MAHARASHTRA	Buldana	64.2
MAHARASHTRA	Amravati	64.7
MAHARASHTRA	Mumbai	65.0
MAHARASHTRA	Hingoli	65.9
MAHARASHTRA	Washim	67.9
MAHARASHTRA	Nandurbar	69.4
MAHARASHTRA	Jalna	70.0
MAHARASHTRA	Ratnagiri	73.1
MAHARASHTRA	Gondiya	74.4
MAHARASHTRA	Nagpur	76.5
MAHARASHTRA	Wardha	76.5
MAHARASHTRA	Ahmednagar	77.4
MAHARASHTRA	Yavatmal	78.2
MAHARASHTRA	Solapur	78.6
MAHARASHTRA	Nashik	79.4
MAHARASHTRA	Sindhudurg	80.3
MAHARASHTRA	Pune	81.0
MAHARASHTRA	Bhandara	81.1
MAHARASHTRA	Gadchiroli	84.8
MAHARASHTRA	Nanded	86.2
MANIPUR	Senapati	58.7
MANIPUR	Tamenglong	61.0
MANIPUR	Ukhrul	61.6
MANIPUR	Thoubal	65.4
MANIPUR	Churachandpur	66.2
MANIPUR	Imphal East	72.7
MANIPUR	Chandel	74.4
MANIPUR	Bishnupur	77.2
MANIPUR	Imphal West	82.8
MEGHALAYA	Ri Bhoi	55.7
MEGHALAYA	North Garo Hills	70.9
MEGHALAYA	East Khasi Hills	73.9
MEGHALAYA	West Khasi Hills	74.2
MEGHALAYA	South West Khasi Hills	80.2
MEGHALAYA	West Garo Hills	80.9
MEGHALAYA	South Garo Hills	83.0
MEGHALAYA	South West Garo Hills	87.1
MEGHALAYA	West Jaintia Hills	89.8
MIZORAM	Kolasib	51.5
MIZORAM	Saiha	55.0
MIZORAM	Aizawl East	55.3
MIZORAM	Aizawl West	55.3
MIZORAM	Serchhip	60.9

State	District	50-90%
MIZORAM	Mamit	67.7
MIZORAM	Lawngtlai	68.5
MIZORAM	Lunglei	79.2
NAGALAND	Kiphrie	60.2
NAGALAND	Pheren	60.5
NAGALAND	Mon	61.9
NAGALAND	Wokha	61.9
NAGALAND	Longleng	62.3
NAGALAND	Tuensang	65.0
NAGALAND	Zunheboto	71.1
NAGALAND	Phek	71.6
NAGALAND	Dimapur	82.8
NAGALAND	Kohima	83.2
NAGALAND	Mokokchung	84.9
ODISHA	Koraput	67.1
ODISHA	Deogarh	68.4
ODISHA	Rayagada	71.2
ODISHA	Nabarangapur	71.5
ODISHA	Mayurbhanj	72.7
ODISHA	Kandhamal	73.5
ODISHA	Sambalpur	74.4
ODISHA	Kendrapara	76.8
ODISHA	Malkangiri	76.9
ODISHA	Keonjhar	77.6
ODISHA	Baleshwar	79.0
ODISHA	Jharsuguda	79.1
ODISHA	Cuttack	79.2
ODISHA	Bargarh	81.4
ODISHA	Nuapada	83.8
ODISHA	Sundargarh	85.4
ODISHA	Jagatsinghpur	85.7
ODISHA	Nayagarh	85.9
ODISHA	Dhenkanal	87.0
ODISHA	Kalahandi	88.2
ODISHA	Puri	88.2
ODISHA	Bhadrak	88.4
ODISHA	Anuaul	88.9
PONDICHERRY	Yanam	88.3
PONDICHERRY	Karaikal	89.6
PUNJAB	Ludhiana	72.3
PUNJAB	Sangrur	79.0
PUNJAB	Nawanshahr	86.1
PLINIAB	Fazilka*	87.0
PUNJAB	Firozour	87.0
PUNJAB	Fatehoarh Sahib	87.8
PUNJAB	Gurdaspur	89.2
PUNJAB	Pathankot*	89.2
	. activitie	50.L

State	District	50-90%
RAJASTHAN	Bharatpur	50.5
RAJASTHAN	Udaipur	52.8
RAJASTHAN	Sikar	56.8
RAJASTHAN	Dausa	57.0
RAJASTHAN	Churu	57.4
RAJASTHAN	Jodhpur	57.8
RAJASTHAN	Alwar	58.0
RAJASTHAN	Rajsamand	60.0
RAJASTHAN	Pali	60.2
RAJASTHAN	Jaipur	61.3
RAJASTHAN	Hanumangarh	62.1
RAJASTHAN	Bundi	63.0
RAJASTHAN	Bikaner	64.1
RAJASTHAN	Jhunjhunun	65.1
RAJASTHAN	Dungarpur	65.8
RAJASTHAN	Bhilwara	66.5
RAJASTHAN	Dhaulpur	66.7
RAJASTHAN	Ajmer	67.1
RAJASTHAN	Pratapgarh	67.7
RAJASTHAN	Baran	68.0
RAJASTHAN	Karauli	71.2
RAJASTHAN	Kota	71.2
RAJASTHAN	Jalor	73.5
RAJASTHAN	Jhalawar	75.4
RAJASTHAN	Tonk	75.9
RAJASTHAN	Ganganagar	79.9
SIKKIM	East	83.6
SIKKIM	North	89.9
TAMIL NADU	Dharmapuri	51.6
TAMIL NADU	Pudukkottai	54.3
TAMIL NADU	Virudhunagar	54.4
TAMIL NADU	Kanniyakumari	55.1
TAMIL NADU	Kancheepuram	56.8
TAMIL NADU	Theni	56.8
TAMIL NADU	Namakkal	57.3
TAMIL NADU	Ramanathapuram	59.0
TAMIL NADU	Ariyalur	60.6
TAMIL NADU	Madurai	61.0
TAMIL NADU	Tiruvanamalai	62.1
TAMIL NADU	Cuddalore	64.2
TAMIL NADU	Sivaganga	69.9
TAMIL NADU	Tiruchirappalli	70.0
TAMIL NADU	Perambalur	70.4
TAMIL NADU	Thiruvarur	72.0
TAMIL NADU	Viluppuram	72.1
TAMIL NADU	Salem	73.6
TAMIL NADU	Vellore	74.0

State	District	50-90%
TAMIL NADU	Thanjavur	74.6
TAMIL NADU	Nilgiris	78.7
TAMIL NADU	Thiruvallur	78.9
TAMIL NADU	Dindigul	80.0
TAMIL NADU	Coimbatore	80.7
TAMIL NADU	Krishnagiri	81.6
TAMIL NADU	Erode	81.9
TAMIL NADU	Chennai	86.1
TAMIL NADU	Karur	87.4
TELANGANA	Bhadradri Kothagudem*	62.4
TELANGANA	Khammam	62.4
TELANGANA	Kamareddy*	64.2
TELANGANA	Nizamabad	64.2
TELANGANA	Jayashankar Bhupalpally*	67.0
TELANGANA	Mahabubabad*	67.0
TELANGANA	Warangal Rural	67.0
TELANGANA	Warangal Urban	67.0
TELANGANA	Jangoan**	68.0
TELANGANA	Medchal Malkajgiri*	68.1
TELANGANA	Ranga Reddy	68.1
TELANGANA	Vikarabad*	68.1
TELANGANA	Nalgonda	69.0
TELANGANA	Suryapet*	69.0
TELANGANA	Yadadri Bhonagiri*	69.0
TELANGANA	Adilabad	70.0
TELANGANA	Komaram Bheem*	70.0
TELANGANA	Mancherial*	70.0
TELANGANA	Nirmal*	70.0
TELANGANA	Hyderabad	71.3
TELANGANA	Medak	81.4
TELANGANA	Sangareddy*	81.4
TELANGANA	Siddipet*	81.4
TELANGANA	Jagitial*	84.3
TELANGANA	Karim Nagar	84.3
TELANGANA	Peddapalli*	84.3
TELANGANA	Rajanna Sircilla*	84.3
TRIPURA	Gomati*	54.7
TRIPURA	Khowai*	56.7
TRIPURA	Sipahijala*	56.7
TRIPURA	Dhalai	73.8
TRIPURA	North Tripura	74.5
TRIPURA	Unakoti	74.5
UTTAR PRADESH	Etah	50.5
UTTAR PRADESH	Sitapur	51.3
UTTAR PRADESH	Fatehpur	52.5
UTTAR PRADESH	Hamirpur	52.5
UTTAR PRADESH	Sultanpur	53.7

State	District	50-90%
UTTAR PRADESH	Etawah	53.8
UTTAR PRADESH	Gonda	54.0
UTTAR PRADESH	Barabanki	54.3
UTTAR PRADESH	Mirzapur	54.3
UTTAR PRADESH	Jalaun	54.7
UTTAR PRADESH	C S M Nagar (Amethi)**	55.4
UTTAR PRADESH	Kanpur Nagar	55.9
UTTAR PRADESH	Kaushambi	56.5
UTTAR PRADESH	Chandauli	58.5
UTTAR PRADESH	Lucknow	58.5
UTTAR PRADESH	Unnav	59.9
UTTAR PRADESH	Sambhal	60.1
UTTAR PRADESH	Mainpuri	60.6
UTTAR PRADESH	Hathras	61.2
UTTAR PRADESH	Budaun	62.0
UTTAR PRADESH	Kanpur Dehat	62.1
UTTAR PRADESH	Kushinagar	62.3
UTTAR PRADESH	Jhansi	62.7
UTTAR PRADESH	Saharanpur	63.1
UTTAR PRADESH	Shamli*	63.7
UTTAR PRADESH	Mahoba	64.5
UTTAR PRADESH	Gautam Buddha Nagar	65.5
UTTAR PRADESH	Lakhimpur Kheri	65.7
UTTAR PRADESH	Maharajganj	65.7
UTTAR PRADESH	Hardoi	65.9
UTTAR PRADESH	Varanasi	66.4
UTTAR PRADESH	Ghazipur	66.8
UTTAR PRADESH	Ambedkar Nagar	67.5
UTTAR PRADESH	Banda	67.8
UTTAR PRADESH	Muzaffarnagar	67.8
UTTAR PRADESH	Maunathbhanjan	67.9
UTTAR PRADESH	Ghaziabad	68.7
UTTAR PRADESH	Pratapgarh	68.9
UTTAR PRADESH	Sant Kabir Nagar	69.7
UTTAR PRADESH	Bagpat	69.8
UTTAR PRADESH	Shrawasti	70.2
UTTAR PRADESH	Shahiahanpur	70.7
UTTAR PRADESH	Rae Bareli	70.9
UTTAR PRADESH	Pilibhit	71.0
UTTAR PRADESH	Bareilly	71.2
UTTAR PRADESH	Meerut	71.3
UTTAR PRADESH	Moradabad	71.6
UTTAR PRADESH	Firozabad	71.9
UTTAR PRADESH	Sant Ravidas Nagar	72.0
UTTAR PRADESH	Aligarh	72.4
UTTAR PRADESH	Basti	73.4
UTTAR PRADESH	Jyotiba Phule Nagar	74.2

State	District	50-90%
UTTAR PRADESH	Deoria	74.5
UTTAR PRADESH	Bijnor	76.7
UTTAR PRADESH	Bulandshahar	76.8
UTTAR PRADESH	Siddharth Nagar	78.6
UTTAR PRADESH	Lalitpur	78.7
UTTAR PRADESH	Agra	80.1
UTTAR PRADESH	Jaunpur	81.4
UTTAR PRADESH	Mathura	81.7
UTTAR PRADESH	Hapur	83.1
UTTAR PRADESH	Chitrakoot	83.2
UTTAR PRADESH	Ballia	85.4
UTTAR PRADESH	Rampur	86.7
UTTAR PRADESH	Gorakhpur	87.8
UTTARAKHAND	Tehri Garhwal	51.1
UTTARAKHAND	Nainital	59.0
UTTARAKHAND	Bageshwar	60.2
UTTARAKHAND	Almora	60.6
UTTARAKHAND	Dehradun	60.7
UTTARAKHAND	Garhwal	61.2
UTTARAKHAND	Chamoli	62.2
UTTARAKHAND	Champawat	68.4
UTTARAKHAND	Rudraprayag	70.3
UTTARAKHAND	Uttarkashi	72.0
UTTARAKHAND	Pithoragarh	74.2
UTTARAKHAND	Hardwar	84.4
WEST BENGAL	Uttar Dinajpur	66.0
WEST BENGAL	Kolkata	66.7
WEST BENGAL	Malda	69.5
WEST BENGAL	Haora	73.8
WEST BENGAL	Koch Bihar	76.6
WEST BENGAL	Murshidabad	78.9
WEST BENGAL	Alipurduar*	81.7
WEST BENGAL	Jalpaiguri	81.7
WEST BENGAL	Bardhaman	82.3
WEST BENGAL	Paschim Barddhaman*	82.3
WEST BENGAL	Dakshin Dinajpur	83.2
WEST BENGAL	Darjeeling	84.2
WEST BENGAL	Kalimpong*	84.2
WEST BENGAL	Puruliya	87.4
WEST BENGAL	Hooghly	88.4
Total Districts = 555		

 ${\rm *FIC}$ for these districts is that of parent district from which they were carved out

 $\ensuremath{^{**}\text{FIC}}$ of these districts is mean of the parent districts from which they were carved out

Data is from IMI Survey

Table C: List of districts with >90% FIC as per NFHS-4 / IMI Survey

State	District	More Than 90%
ANDHRA PRADESH	Nellore	93.0
ANDHRA PRADESH	East Godavari	94.1
CHHATTISGARH	Balod*	90.4
CHHATTISGARH	Bemetra*	90.4
CHHATTISGARH	Durg	90.4
DELHI	South East	91.1
DELHI	Shahadara	92.3
HARYANA	Kaithal	90.5
HARYANA	Karnal	91.0
HARYANA	Panchkula	96.9
HARYANA	Ambala	97.4
JAMMU & KASHMIR	Jammu	97.9
KARNATAKA	Gulbarga	90.1
KARNATAKA	Bangalore Urban	93.3
KARNATAKA	Bagalkote	94.5
KARNATAKA	Belgaum	94.9
KERALA	Kasaragod	91.8
KERALA	Kottayam	95.2
MEGHALAYA	East Jaintia Hills	92.6
ODISHA	Jajapur	90.0
ODISHA	Sonapur	91.9
ODISHA	Khordha	92.7
ODISHA	Balangir	93.0
ODISHA	Ganjam	93.5
ODISHA	Baudh	94.2
PONDICHERRY	Mahe	90.6
PONDICHERRY	Pondicherry	91.9
PUNJAB	Mohali (SAS Nagar)	90.1
PUNJAB	Barnala	90.9
PUNJAB	Jalandhar	91.0
PUNJAB	Amritsar	91.9
PUNJAB	Mansa	91.9
PUNJAB	Bathinda	92.6
PUNJAB	Hoshiarpur	92.7
PUNJAB	Rupnagar	93.1
PUNJAB	Moga	94.0
PUNJAB	Patiala	95.3
PUNJAB	Tarn Taran	96.5
PUNJAB	Muktsar	96.9
PUNJAB	Faridkot	97.8
PUNJAB	Kapurthala	100.0
SIKKIM	South	92.3
SIKKIM	West	96.3
TAMIL NADU	Tirupur	93.2
TRIPURA	South Tripura	90.1
TRIPURA	West Tripura	91.0

State	District	More Than 90%
WEST BENGAL	Birbhum	91.4
WEST BENGAL	Jhargram*	92.2
WEST BENGAL	Medinipur West	92.2
WEST BENGAL	Medinipur East	92.6
WEST BENGAL	Nadia	93.2
WEST BENGAL	South 24 Parganas	94.8
WEST BENGAL	Bankura	96.2
WEST BENGAL	North 24 Parganas	96.9

Total Districts = 54

*FIC for these districts is that of parent district from which they were carved out

Data is from IMI Survey

District
West
Alappuzha
ldukki

Total Districts = 3

Data not available due to less sample size of NFHS-4 survey

