



# Evaluation of Social Mobilization Network (SMNet)

- FINAL REPORT

MAIN SECTION

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# Evaluation of Social Mobilization Network

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## LIST OF ABBREVIATIONS

AFP	Acute Flaccid Paralysis
AHS	Annual Health Survey
ANM	Auxiliary Nurse Midwife
ASHA	Accredited Social Health Activist
AWW	Anganwadi Worker
BCC	Behavior Change Communication
BCG	Bacillus Calmette Guerin
BMC	Block Mobilization Coordinator
CBO	Community Based Organization
CDMO	Chief District Medical Officer
CDPO	Chief District Program Officer
CES	Coverage Evaluation Survey
CGPP	CORE Group polio Programme
CHMO	Chief Health and Medical Officer
CMC	Community Mobilization Coordinator
DEA	Descriptive Envelopment Analysis
DIO	District Immunization Officer
DLHS	District Level Health Survey
DMC	District Mobilization Coordinator
DPM	District Program Manager
DPT	Diphtheria, Pertussis and Tetanus
DUC	District Underserved Coordinator
FGD	Focus Group Discussion
FLW	Front Line Workers
GOI	Government of India
GPEI	Global Polio Eradication Initiative
HR	Human Resource
HRA	High Risk Areas
HRG	High Risk Groups
ICDS	Intergrated Child Development Scheme
IDI	Indepth Interviews
IEAG	International Expert Advisory Group
IEC	Information, Education, Communication
IPC	Interpersonal Communication
IRI	Intesified Routine Immunization
KABP	Knowledge, Attitude, Behaviour, Practice
KAP	Knowledge, Attitude, Practice
LS	Lady Supervisor
MIS	Management Information System

MO	Medical Officer
MoHFW	Ministry of Health and Family Welfare
MOIC	Medical Officer In-Charge
NFHS	National Family Health Survey
NGO	Non-Governmental Organization
NID	National Immunization Day
NPAFP	Non-Polio Acute Flaccid Paralysis
NPPI	National Pulse Polio Initiative
NPSP	National Polio Surveillance Project
NPV	Net Present Value
NRHM	National Rural Health Mission
OPV	Oral Polio Vaccine
PRI	Panchayati Raj Institutions
PV	Present Value
RfP	Request for Proposal
RI	Routine Immunization
RMP	Registered Medical Practitioner
SD	Standard Deviation
SIA	Supplementary Immunization Activities
SMNet	Social Mobilization Network
SRC	State Regional Coordinator
SRS	Sample Registration Survey
TOR	Terms of Reference
UNICEF	United Nations Children's Fund
UP	Uttar Pradesh
USAID	United States Agency for International Development
USS	Underserved Strategy
VfM	Value for Money
VHND	Village Health and Nutrition Day
WHO	World Health Organization
WPV	Wild Polio Virus

## EXECUTIVE SUMMARY

### Background

1. The **Social Mobilization Network (SMNet)** was established by UNICEF in Uttar Pradesh (UP) in 2002 and expanded to Bihar in 2005 – the two Indian states with the highest incidence of polio cases – to generate community support for polio immunization activities. The SMNet deployed community mobilizers in areas identified as high risk with the main task to work with resistant communities and to encourage uptake of the oral polio vaccine (OPV) during Supplementary Immunization Activities (SIA). Over the years the programme has built a strong decentralized base of trained human resources – 6500 **Community Mobilization Coordinators (CMCs)** (1 per 500 households) across UP and Bihar; **Block Mobilization Coordinators (BMCs)** for mentorship and supportive supervision of CMCs (1 per 8-12 CMCs); **District Mobilization Coordinators (DMCs)** and **District Underserved Coordinators (DUCs)** for every district; 3 **Sub-Regional Coordinators (SRCs)** in UP and 2 in Bihar for the delineated regions; and the state level polio units for leadership.

2. The programme has evolved over the years in response to changing national and local priorities. High Risk Groups and Areas (HRGs and HRAs) were identified and prioritized. The Underserved Strategy was developed to reach high risk communities and was expanded from including Muslim sub-sects to also including groups which have been missed during immunization rounds due to their occupations and lifestyles. These included groups like nomads, brick kiln and construction workers, slum dwellers etc. The field level interventions were strengthened over time in Bihar in response to repeated outbreaks of polio. The ‘X’ code, used to mark missed households, was expanded to allow CMCs to identify the causes for not immunizing a child. This allowed a targeted strategy for converting ‘X’ households to ‘P’- households where all children have received OPV in the current immunization round. By involving community leaders and building local ownership, the intervention was able to develop locally relevant strategies to strengthen polio eradication efforts.

3. The *objectives* of the SMNet strategy were to:

- Maximize the impact of communication efforts at the national, state, district and block level through strengthened coordination amongst partners and effective advocacy
- Ensure children most at risk – particularly those under the age of two, Muslim and boys – are adequately protected from polio by intensifying efforts in blocks where wild polio virus transmission is sustained
- Increase the total number of children immunized and turnout at the booth by achieving a critical mass of communication activities in all high-risk areas of priority blocks in states with on-going wild poliovirus transmission
- Ensure polio eradication by strengthening communication for routine immunization especially in polio endemic states

4. *UNICEF engaged Deloitte Touché Tohmatsu India Private Limited (Deloitte) to undertake a detailed evaluation of the SMNet in UP and Bihar.*

## Rationale and Objectives of the Evaluation

5. WHO declared India as no longer polio endemic in February 2012. However, risk of importation remains and it remains important to sustain OPV coverage for all children under five. The two main purposes of this evaluation were:

- To assess if SMNet can be utilized to support other child health interventions like Routine Immunization
- To document innovations, best practices and lessons learnt from India's polio programme to inform polio eradication programmes in endemic countries.

6. The *specific objectives* of the evaluation include assessment of the following parameters, as detailed in the Request for Proposal issued by UNICEF:

<i>Evaluation Parameter</i>	<i>Objective</i>
<i>Relevance</i>	<b>Whether the design and interventions of SMNet were in line with community needs and whether the intervention was appropriate for the time it was introduced</b>
<i>Effectiveness</i>	<b>Extent to which objectives of network have been achieved</b>
<i>Efficiency</i>	<b>Evaluation of whether the resources have been used economically and within the specified time frame and cost of the programme for comparison</b>
<i>Impact</i>	<b>The extent to which the SMNet contributed to the success and results of the polio eradication programme in India</b>
<i>Sustainability</i>	<b>What systems are in place or are required to sustain the approaches and tools of SMNet</b>

## Approach and Methodology

7. Keeping in mind the complexity and scale of the SMNet, this evaluation used a *mixed-method design* in order to comprehensively and judiciously cover each aspect of the intervention. The research methods used for the evaluation were:

- The *literature review and desk research* helped the team understand the objectives, rationale, operationalization and outputs/outcomes of the programme and provided the basis for conceptualization of the study design and tools. Additionally, review of published peer reviewed papers and reports provided an understanding of the macro-systemic context of SMNet. Existing evidence was used for comparison of findings from the current evaluation.
- The *secondary analysis* used data from UNICEF state offices, SIA rounds, National Polio Surveillance Programme (NPSP) that was made available to the evaluation team. Besides this, data in the public domain from Annual Health Survey 2010-11 (AHS), District Level Household Survey 2007-08 (DLHS), data from the Ministry of Health and Family Welfare (MoHFW) on budgets, polio/routine immunization were used. The secondary data analysis helped understand the equity focus of the interventions including targeting of High Risk Groups (HRGs) and High Risk Areas (HRAs). The data analysis also helped in understanding the evolution of the SMNet strategy. A trend and comparative analysis was undertaken to analyse the impact and effectiveness of the intervention.
- The *primary qualitative research* involved in-depth interviews with stakeholders from across the government system at state, district, block and sub-block levels, representatives from partner

organizations, and frontline workers at the community level (ASHA, ANM, AWW, CMC); and focus group discussions with community members (mothers of children in the 0-5 year age group, other caregivers and influencers like grandmothers, fathers, local leaders, etc.). Stakeholders at each level were selected on the basis of a sampling design. This was used to understand stakeholder perceptions about the SMNet and the processes of change catalysed by it.

8. Given the scale and coverage of the SMNet interventions, the sampling plan for qualitative data collection, is based on representation of all divergent and unique areas from the two states (following the **principle of maximizing divergence**). The finalization of the sampling plan and selection of districts/blocks was done in consultation with UNICEF. A total of **8 districts (4 in each state)** were selected from within each of the 5 regions as mentioned in the Table below. Each district was represented by a SMNet intervention block, i.e. **8 intervention blocks**; and within each of these blocks, **1 intervention area** was sampled. In addition, **1 non-intervention area** was selected from each of the 5 regions for primary data collection. The sampling plan therefore included **13 catchment areas** at the sub-block level. A **total of 317 stakeholders** were met for qualitative data collection through indepth interviews and FGDs.

#### Sampled Geographies

Region	District	Block
<b>Uttar Pradesh</b>		
Western	Meerut	Janikhurd (Intervention area)
	Aligarh	Aligarh Urban (Intervention and Control area)
Central	Lucknow	Lucknow Urban (Intervention and Control area)
Eastern	Varanasi	Kashi Vidyapeeth (Intervention and Control area)
<b>Bihar</b>		
Kosi	Darbangha	Kusheshwar (Intervention and Control area)
	Saharsa	Mahishi (Intervention area)
Non-Kosi	Patna	Patna Urban (Intervention and Control area)
	East Champaran	Dhaka(Intervention area)

#### *Data collection and analysis*

9. Interview guides and FGD guides were developed based on the lines of inquiry informed by the desk research and document review. A **Value for Money (VfM) Analysis** was undertaken to measure the ratio of SMNet coverage for eradication of polio to the expenditure in the programme incurred by UNICEF, and to evaluate related cost-efficiencies. A **cross-temporal meta-analysis** was conducted with relevant KAP studies (provided by UNICEF) measuring community level SMNet intervention, and knowledge, attitudes, behaviours and practices about polio undertaken in the project areas. The secondary data, meta-analysis, value-for-money analysis, field visits and primary data collected were analysed and triangulated to answer the evaluation questions against the five parameters of Relevance, Effectiveness, Efficiency, Impact and Sustainability.

## Findings and Analysis

### *Relevance*

10. The evaluation aimed to analyse whether the design and interventions of SMNet were in line with community needs. It aimed to analyze the relevance of the approach, concept and design of SMNet as a programme to address community based determinants of polio. The key evaluation findings are provided below.

- The design and interventions of SMNet are aligned with community needs
- The SMNet approach has been relevant to achieve the results of the polio eradication programme by reducing resistance to vaccination and reaching the unreached in polio endemic states of UP and Bihar
- SMNet has accounted for contextual realities in the programming environment and responded to evolving priorities over the years through relevant strategies

### *Effectiveness*

11. The study involved an evaluation of the extent to which the SMNet achieved its stated objectives through its activities; whether and how SMNet intervention has contributed to reaching the worst-off groups, and to the results of polio eradication programme. Additionally, the major factors influencing the achievement or non-achievement of the SMNet objectives in terms of facilitators and challenges; and integration of equity and gender concerns in the programme interventions were also evaluated. The main findings and inferences are as follows:

- Knowledge, Awareness, Behaviour and Practices related to OPV have improved in SMNet areas
- Reduction in refusal rates can be attributed to SMNet awareness raising and mobilization measures
- There has been a net increase in number of children accessing the OPV at vaccination booths in UP
- The community has a high level of faith and trust in the CMCs
- SMNet has worked in close collaboration with the public health system
- The SMNet interventions original objective have been achieved to a large extent
- The SMNet focus has expanded over time from only polio immunization to other child health issues through the Polio Plus initiative and increased focus on Routine Immunization
- The intervention has responded to numerous challenges and constraints with innovative solutions
- By focusing on high risk areas and high risk groups/ underserved community- Muslim community, Brick kiln and construction workers, Nomadic groups and Slum dwellers, the intervention was designed to address issues of equity. This approach ensured that those who were worst affected were prioritized.
- The intervention engaged women at decentralized levels as change agents. Preference was given to employing and training female CMCs in order to reach mothers/caregivers meetings. As a secondary result of the intervention, women have been empowered and are active decision makers in household decision making. Through the SMNet, CMCs have access to a platform for growth and learning, there is a large degree of social recognition and an increase in mobility.

SMNet Innovative Strategies	
<b>Underserved Strategy for Muslims, Brick Kiln and Construction Workers, Nomads, slum dwellers</b>	<ul style="list-style-type: none"> <li>Partnerships with local leaders, religious leaders, other influencers</li> <li>Targeted IEC- mosque announcements, advocacy through Hajjis, messages painted on brick kiln chimneys, IPC through house to house visits</li> <li>Special vaccination drives held at transit sites during festivals like Chhat and Holi</li> <li>Nomad informer for tracking nomadic groups</li> </ul>
<b>Involvement of children</b>	<ul style="list-style-type: none"> <li>Bulawa Tollies or children’s brigades to encourage participation of children and parents at the polio booth</li> </ul>
<b>Hard to reach areas</b>	<ul style="list-style-type: none"> <li>Satellite offices and overnight stay points</li> </ul>
<b>Strengthened tracking and planning</b>	<ul style="list-style-type: none"> <li>Microplans and child maps to identify all eligible and missed children</li> </ul>
<b>Expansion of X code and related strategies</b>	<ul style="list-style-type: none"> <li>XR (Reluctance to immunize child)- IPC through CMC, use of local leaders and influencers like imams, teachers, PRI members to visit the household</li> <li>XS (Child is sick and cannot take the vaccination dose)- Taking the RMP along with the vaccination team to attend to the child as well as vaccinate him/her</li> <li>XV/XH/XL (if child is not in the village/home/house is locked)- Could indicate a migrant family. CMCs track these households and children and immunize them.</li> </ul>

*Impact*

12. An important focus area of the evaluation was to assess the impact of the SMNet interveniton i.e. the extent to which the SMNet contributed to the success and results of the polio eradication programme in India. This area of evaluation analyses the extent to which SMNet has driven behaviour change by addressing refusal to OPV in HRAs; the positive changes that it has brought about in knowledge, attitude and practice related to polio and OPV; and the extent to which SMNet has contributed to reaching high risk and chronically missed population such as the Kosi River operational plan to reach access-compromised communities. The main findings and inferences are:

- The SMNet intervention has led to a decline in refusal to OPV. Resistant households (XR) reduced by approximately 61% in UP and by 42% in Bihar between 2007 and 2012.
- The intervention has led to consistent and significant increase in Knowledge Attitude Behavior Practices with the access of communities to FLW s and CMC visits. (Meta-Analysis of KABP studies showed a strong linear relationship (Correlation coefficient (r) =0.51 for KA and r=0.90 for BP).
- The intervention’s Underserved Strategy was developed to cover those in hard to reach areas and chronically missed communities due to issues in access, reach and health seeking behaviours of these communities. Through locally relevant IEC and outreach activities, the intervention sought to reach the unreached.

*Efficiency*

13. The evaluation covered an assessment of the efficiency of the SMNet i.e. in achieving its objectives whether resources have been used economically and within the specified timeframe. This section aims to evaluate the efficiency in resource management, reporting, monitoring and review mechanisms of SMNet, primarily with the help of a comprehensive Value for Money Analysis (VfM). The findings of the VfM Analysis have been used for evaluating financial efficiencies. The main findings are as follows:

- SMNet has utilized funds in an economical manner and has indicated allocative efficiencies
- SMNet’s financial monitoring systems and processes need strengthening

- The lean staffing of SMNet for national and state offices indicates efficiency of HR management
- While reporting and monitoring mechanisms are in place, there is scope for strengthening
- The outputs of SMNet in terms of coverage and unit costs indicate a cost-efficient and fairly economical programme
- Forecasted costs of SMNet for the next decade support a strong case for continuing eradication interventions as the most cost-effective option

### Sustainability

14. An important focus area of the evaluation was to assess the sustainability of the SMNet i.e. what systems are in place or are required to sustain the approaches and tools of SMNet. The key aspects that were analysed within this parameter include an assessment of the acceptance and ownership by the community of the role of CMCs as a front-line worker for IPC on polio and RI; assessment of the acceptability of service providers and other stakeholders to CMCs as a first contact for polio and RI in the community and as a change agent; understand the links between government functionaries ANMs, ASHAs and AWWs with CMCs and whether CMCs’ role is complementary to these functionaries; the possibility of adoption of the tools and supportive supervision aspects of the SMNet by front-line Government workers (ANMs and ASHAs); and the extent to which the SMNet can be replicated in other contexts/countries/for other child health interventions. The key findings and inferences are:

- CMCs are accepted by the community and by other stakeholders as FLWs and change agent
- SMNet is convergent with the public system and its frontline workers
- Keeping sustainability concerns in mind, SMNet has started building a strategy on “Polio Plus” interventions. SMNet needs to develop sustainable plans for quality assurance, stringent monitoring/surveillance and capacity strengthening of its personnel in the context of a broadened scope and ensure clear role definition to complement role of other frontline health workers (ASHA and AWW)
- Effective strategies of SMNet like utilizing local health workers, involving religious and local leaders to address resistance, area specific and population specific approaches etc. can be considered for replication in other contexts.

### Learnings from the SMNet model

15. The evaluation helped in identifying important lessons from the SMNet programme that can be incorporated while replicating the model or elements of the model in the endemic countries or when designing any future model elsewhere

<b>Conclusions and Learnings from the SMNet Programme</b>
<ul style="list-style-type: none"> <li>• The SMNet was <b>evidence-based</b> in its strategic planning and programmatic focus, which ensured that its objectives, spatial targeting and interventions were efficacious and effective towards the main goal of eradicating polio.</li> <li>• The <b>strategic positioning</b> of the programme along with <b>convergence with the public system</b> has been crucial in determining its impactful functioning and sustainability.</li> <li>• The SMNet programme structure provided for <b>effective linkages</b> with the public health system at all levels – national, state, district and blocks with participatory relationships with PRIs. These need to be <b>institutionalized</b>. Besides this, the SMNet needs to maintain links with civil society. This can help in bringing about convergence of activities and efforts towards better programme implementation, especially given the Polio-Plus focus going forward.</li> <li>• The SMNet has remained relevant to the needs of the community and to the changing national context. Many factors may independently, or in interaction with each other, contribute to a need for shifting the</li> </ul>

### Conclusions and Learnings from the SMNet Programme

focus areas of a complex and large scale programme like the SMNet such as, national policies, policy context in the state, development priorities, donor priorities, emergencies, etc. However the programme has to be **flexible and dynamic** to respond to such changes. In doing so, the programme needs to ensure that it **remains relevant** – this is possible by being cognizant of the objectives and goals and ensuring that it serves the need of the most vulnerable. The SMNet responded to the large outbreak of polio in Bihar in 2009 by introducing CMCs and strengthening field level interventions. Additionally, since 2012, the intervention has also placed CMCs at border areas to control importation of the virus.

- **Clear statement of goals and objectives and process/outcome/impact indicators** of the SMNet have been lacking and it is important to have these in place, along with rigorous systems and mechanisms to review these regularly against activities and changing policy needs.
- Given the importance of eradicating polio, not just as a country priority but also as a global concern, and the intensive resources that have been invested in these efforts, it is imperative that a programme like SMNet plans for a **results monitoring/evaluation framework** right at the outset. This is crucial to create evidence on efficacy and impact of the interventions.
- **The SMNet has maintained lean but optimal staffing human resource aligned with the objectives of the intervention. Lean staffing at administrative/managerial levels** with right expertise is important to ensure quality of services and technical inputs. This contributes to efficiency in human resource management, while focusing on **building an optimal operational cadre** – which is important for a decentralized community-based programme like SMNet.
- A **rationalization of human resources** is important in the context of existing personnel at the ground level in the public system. The SMNet in Bihar undertook this in involving existing AWWs instead of introducing CMCs in most areas. This is important to avoid duplication of roles and responsibilities of personnel and maintain high resource efficiencies.
- **Balancing expanding scope while maintaining quality** and focus of the programme on polio eradication is essential to ensure effectiveness and sustainability. This assumes importance in the context of the Polio-Plus focus and SMNet's increasing involvement in RI and other child health interventions.
- **Stringent systems and processes for financial management** with rigorous records of budgets, allocations and expenditures are crucial for a programme the size and scale of SMNet. This is especially true with several stakeholders and lines of funding involved in the programme and needs to be strengthened further.
- **Knowledge management** is critical along the life cycle of the programme. SMNet had several innovations that were undertaken at decentralized levels as responses to local contextual realities. In order to learn, make course corrections, and create knowledge about these innovative strategies and operational mechanisms of SMNet, it is important to have official documentation of the evolution and rationale of change along the project life cycle.

### Recommendations and Action Points

The broad recommendations based on the evaluation are put forth in four broad areas –

- Institutional and Policy Level
- Structural Level and
- Operational Level
- Replication Level

## Broad Recommendations and Action Points for SMNet

### A. Institutional and Policy Level

A. Institutional and Policy Level	
The recommendations in this section relate to institutional and policy level interventions. These recommendations are focused towards strengthening the fundamental design, rationale, role definition, activities, positioning and funding of the SMNet as programme in India, and going forward in other countries and with a broadened scope.	
1.	<b>Continue and replicate the effective interventions of SMNet</b> – Given the relevance of the SMNet and its contribution to meeting the goals of the polio eradication effort in UP and Bihar, it is recommended that the effective interventions of SMNet continue. The activities should be contextualized to the community so that it is effective and impactful in strategically responding to local needs. The effective interventions of the SMNet can be replicated in similar contexts.
2.	<b>Government and donors should extend support to continue eradication efforts, compared to available alternatives</b> –Despite India no longer classified as a polio-endemic country, the risk of importation of the polio virus remains. Efforts towards increasing routine immunization and OPV coverage in India need to continue to remain focussed and cover all children below 5. Eradication efforts are most cost effective in the long term and eliminate the risk of outbreaks for good. In this context, government and donors should continue to support eradication efforts.
3.	<b>The objectives of the SMNet should be fine-tuned based on contextual needs and should reflect the current health policy/programmatic context</b> – Given that SMNet has been in existence for 11 years, there is a need to revisit the objectives of the SMNet. The objectives should reflect the current health policies and programmes at the national level as well as respond to local needs. This will also contribute to its continued relevance and in impacting the current indicators of focus.
4.	<b>Continue to maintain a balance between flexibility and focus on goals</b> – It is important for the intervention to maintain flexibility to respond to contextual needs but at the same time ensure that there is no deviation from the larger objectives and goals. A concurrent annual review of the past year’s performance and how it fared against the objectives while at the same taking cognizance of the changing priorities for the year ahead is important. Any shift in focus of the objectives / activities need to be documented with the reason for the shift.

### B. Structural Level

B. Structural Level	
The recommendations in this section relate to action points at the structural level of the SMNet – towards its human resource organization, deciding objectives and activities and strengthening linkages with stakeholders.	
1.	<b>Staffing of SMNet should remain lean but optimal to match the increase in scope/work load and human resources should be rationalized in alignment with existing resources</b> – The number and roles of staff members, especially at the decentralized field level should be in line with the revised scope and workload of the SMNet – while a lean manpower augurs well for efficiency, the staffing should be optimal enough to handle the work load without compromising on the quality of work. The alignment of human resource organization to the core objectives of

## B. Structural Level

	the SMNet is crucial. This needs to be done periodically and also in the context of any reprioritization / re-focus in the stated objectives, like in the recent years with a focus on Polio Plus and broader child health interventions beyond polio and routine immunization. Further, additional skill sets that may be required should be identified in congruence with these newer roles and responsibilities of staff. Staff profiles, capacity building/orientation plans and supportive supervision structures need to be revisited in order to be relevant to stated objectives of the programme.
2.	<b>Imperative to strengthen financial management systems and processes</b> – The gaps in financial management systems and processes of the programme need to be addressed on a priority basis. The lack of data on budgets, allocations under different heads, disaggregated figures for specific activities of the programme, and expenditures not only reflect negatively about the current management of the programme, but also raise concerns about its sustainability and future financial planning for both donors and implementers.
3.	<b>Need to design a results monitoring framework for tracking achievements and indicators</b> – While SMNet used data from SIA rounds and surveillance data on AFP in an in-depth and innovative way, a clear statement of programme-specific primary and secondary indicators of interest linked to each of its interventions was missing. For example, regular tracking of behaviour change indicators (the main goal of the SMNet) in terms of knowledge levels in the community, their attitudes towards OPV and Polio, their health seeking behaviours and their acceptance of the OPV in practice need to be incorporated in a rigorously designed results monitoring framework. This would help in corrective action, as well as in measuring change on an on-going basis to inform programme resource allocation.
4.	<b>Need to strengthen linkage with civil society</b> – The SMNet has strong linkages with the public health system at all levels. This was facilitated to a large extent by UNICEF’s strategic positioning vis-à-vis the Government of India. Such linkages need to be built with civil society groups, mainly at decentralized levels. This will help facilitate more comprehensive interventions in participatory planning for programme activities, closer interactions with the communities, convergence and rationalization for undertaking broader child health initiatives. This can be initiated through formation of technical advisory committees at local levels where periodic meetings with civil society representatives can be organized. Such efforts will also increase ownership of the programme. Additionally, the involvement in a large scale programme like the SMNet can go a long way in building capacity of local NGOs and gaining from the interactions and technical exchange with UNICEF.

## C. Operational Level

### C. Operational Level

The recommendations in this section pertain to the operational modalities and functioning of the SMNet to make these more effective and efficient. The areas for action include undertaking strategic reviews to ensure alignment of objectives and activities, and strengthening internal documentation and process reviews.	
1.	<b>Need to review human resource and training plans in the context of the expanded scope of SMNet</b> – There is a need to review the current HR and training plans of the SMNet to ensure

C. Operational Level	
	congruence with the programme objectives and strategies. The key result areas of the SMNet staff need to be more specific and measurable. Defining measurable processes and output indicators will help in providing clarity of expectations and targets to be achieved. Regular strategic reviews will help check fidelity and alignment of activities with core goals and objectives of the programme. This can be done annually to ensure that the activities planned for the year ahead, factor in the changing demands and needs as well as any re organization or re prioritization of objectives thereby ensuring that the role of the programme and each cadre of personnel within it remain relevant.
2.	<b>Undertake formal financial reviews</b> –Comprehensive financial reviews can be undertaken factoring in the various program related expenditure for activities undertaken by the SMNet. Given that there were data gaps related to budgets and expenditures of the programme, such reviews will provide the scope for analysing expenditure trends, utilization patterns and plan for activities going forward – keeping in mind concerns of sustainability. This will also help in prioritization (through fund allocation) of activities and utilization under different core areas, especially in a context of decreasing grants.
3.	<b>Continue to ensure an appropriate mix of activities</b> - The activities of the SMNet should be an ideal mix of polio eradication efforts and activities based on broader child health priorities such as routine immunization, diarrhoea management, child feeding etc. While for the sustainability of the programme it is crucial that it ventures into this expanded scope, it is also important that the network maintains its core focus on polio. This will require a very careful designing of the roles and profiles, activities and interventions of the programme going forward, ideally in a phased manner (keeping emerging priorities in mind).
4.	<b>Strengthen knowledge management</b> – SMNet has been a programme with a number of innovations. These innovative approaches and strategies may have wider application in the area of public health (beyond polio) especially in resource poor settings with vulnerable groups. This knowledge to a large extent rests with individuals (as was evident in primary research for this evaluation). Along with success stories, documenting the innovations, localized strategies and processes adopted will be extremely useful for the programme in the future as well as in planning/designing replication models. Regular forums for discussion of these field-level innovations and experiences, and systematic documentation of these will facilitate better knowledge management and consolidation.
5.	<b>Organize regular capacity building of staff for knowledge updation, motivation and supportive supervision</b> – SMNet has rightly focused on trainings in the area of inter-personal counselling, behaviour change methods, and community mobilization – areas which have been traditionally neglected by the public system. These skills need to be reiterated on a regular basis. Supportive supervision is required for field-level staff (especially the CMC and BMC) to discuss and seek solutions to practical challenges and resistance that they face in their work. The field level cadres need to develop a sense of network amongst them – and not feel isolated in their extremely challenging work environment. Regular capacity building sessions planned with needs assessment (through a participatory approach), strengthened supportive supervision and mentoring will go a long way in maintaining staff motivation. This may also reduce the high level of attrition faced by the programme.
6.	<b>SMNet needs to develop strategic role rationalizations for its operational staff vis-à-vis the</b>

C. Operational Level	
	<p><b>public system FLWs</b> – The public system, in the context of the NRHM, now has 3 FLWs at the grassroots level – the ANM (approximately at a 3000 population level), the AWW and the ASHA (approximately at a 1000 population level). The CMCs and the BMCs of the SMNet are important cadres that have been trained and developed as human resources for health in extremely resource-poor settings with limited capacities. The context and the investment requires that the roles of these cadres are reviewed and rationalized vis-à-vis the existing FLWs, so as to add value and avoid duplication. This is especially relevant as SMNet implements its expanded scope including broader areas of child health and routine immunization.</p>
7.	<p><b>SMNet can develop its CMCs as mentors of the ASHAs in a child health and nutrition role</b> - Since ASHAs are at a more decentralized level than CMCs, the possibility of training the latter for supportive supervision and on-field guidance of the ASHAs can be explored. Since the ASHA programme in most states does not have a cadre of personnel to provide continuous support and mentoring to the community health workers, the CMCs can be developed to play this role – especially for improving health seeking behaviours and child caring practices. Some of the most resistant indicators in the area of child health have been exclusive breastfeeding and appropriate complementary feeding. Since SMNet has been successful in changing community resistance for polio, its experience and strategies may be applied to these indicators. CMCs can act as mentors for ASHAs in social mobilization and BCC in these specific areas. This can be a smooth continuum as SMNet staff such as the CMCs, BMCs and SMCs are already undertaking training sessions for ASHAs and other public system frontline workers like the ANM and AWW. Additionally, while the ASHA is incentivized on a range of outcomes, breastfeeding and complementary feeding are not in that list. Consequently, these are areas that often get ignored, despite being proven as some of the most cost-effective ways to reduce child mortality and morbidity. Incentives for ASHAs for changing these indicators can be explored by donors, and can be eventually advocated with the government for scaling/mainstreaming.</p>

#### D. Replication Level

D. Replication Level	
1.	<p><b>Replication models need to adapt specific relevant interventions/strategies of the SMNet rather than the model as a whole</b> – SMNet in India adopted different strategies in the two states of UP and Bihar keeping in mind their contextual realities. Also, specific strategies of the programme were developed in response to specific challenges faced in the field or changing needs/priorities. It is a complex and constantly evolving programme. Hence the effectiveness can be established only for specific interventions rather than the model as a whole. This needs to be considered carefully in replication. It is advisable to replicate elements of the programme, with careful and appropriate contextualization.</p>
2.	<p><b>Strategic positioning and partnerships is crucial in determining the model’s impactful functioning and sustainability</b> – Replication of SMNet in other contexts/countries need to position it as a multi-stakeholder programme. While the importance of linkages with the public health system cannot be over-emphasized, partnerships with local civil society and other stakeholders working in areas of polio eradication/child health are also equally important. Most polio endemic/high risk countries have weak civil-societies. A common large-scale programme like the SMNet can contribute immensely in building and strengthening this. Especially</p>

	through the capacities that UNICEF brings, local NGOs in such countries can gain in technical and managerial areas. Polio eradication is a complex goal that can be realized only with efforts from all stakeholders.
3.	<b>The model must be flexible and dynamic capable of emergency response</b> – The socio-political and economic contexts of the endemic/high-risk countries are ever-changing. Political emergencies, conflicts and civil-strife are common. It is evident that the spread of polio is intricately linked to these situations, especially with refugee camps, migration, etc. In replicating SMNet interventions, it is important that the design elements allow sufficient flexibility for the programme to evolve and respond to such situations.
4.	<b>Objectives and role of the model/programme must factor in specific needs and context of the local geography</b> - The rationale of the SMNet is embedded in the need for social and behavioural change. While this is the core goal of the programme, it is important that its objectives are informed and activities are determined by unique needs of the specific population groups/communities and geographies that it is present in. It is only through in-depth understanding of the local context that such social/behavioural change can be brought about. In keeping with the true spirit of ‘social mobilization’, the interventions of the SMNet should take into account contextual socio-economic, geographical and demographic realities into consideration for planning its roles and activities.
5.	<b>The model must have convergence with the public health system and be designed to suit local realities</b> - to ensure sustainability of the programme, it is imperative that the programme is designed keeping in mind the health system realities of the specific context. Strengths and structures of health systems vary widely between countries. Although there are commonalities in systems of low-income countries, it is important that SMNet is contextualized to suit the specific systemic realities. It is important that such a programme does not overburden, verticalize or redirect already scarce resources from the public system, but strengthens and complements it.
6.	<b>The model/programme should be staffed with lean but optimal human resource, with expertise in alignment with core objectives and balancing with existing resources</b> – The alignment of human resource organization to the core objectives of the SMNet is crucial. The number of staff members should be in line with the workload of the programme and complement the existing resources in the specific context. Most of the high-risk or endemic countries where SMNet (or similar interventions) would be replicated are resource poor and conflict affected, with very limited availability of trained human resources. It is therefore, important that the investments in staff selection, training etc. are not duplicating efforts. Role rationalizations, keeping in mind field-level health workers in different health systems, their training pedagogy and skill sets need to be complemented by SMNet staff.
7.	<b>The model should design a rigorous and robust evaluation framework with defined primary indicators for processes/outcomes/impact</b> – to ensure the continuity of the evidence-based approach that SMNet had used in its inception, it is imperative that it has a list of clearly stated indicators linked to its interventions (specific to community/social mobilization) and tracks these indicators regularly. Besides a robust MIS for corrective action and achievement tracking, conceptualizing the programme with a clearly designed evaluation methodology is very important. This needs to be done right in the beginning (versus retrospectively) of the programme in a country – by collecting baseline information, planning

	data collection from control/non-intervention areas, etc. The SMNet programme in India could not contribute to rigorous evidence on efficacy of social mobilization interventions in reduction/eradication of polio incidence due to the lack of an experimental design in evaluation. Such evidence is extremely important –especially considering the intensive resource investments. This can be rectified when the programme is replicated in other contexts.
8.	<b>Develop systematic and needs-based capacity-building plans</b> – to ensure knowledge updatation, maintaining high levels of staff motivation, and to create a supportive network of the field-level personnel in difficult geographies that SMNet is likely to be replicated in.

## The Way Forward

The SMNet has made positive contributions to the larger goal of polio eradication. This evaluation offers a sound case for continuation and replication of select interventions that emerge as effective and efficacious. In doing so, it is important to consolidate the current gains and inherent strengths of the programme and act upon the limitations identified in order to ensure that the drawbacks and gaps faced in India are avoided in other countries, and to ensure that going forward, SMNet continues to remain relevant, effective, efficient and impactful.

## SECTION 1

# OBJECT OF EVALUATION

### INTRODUCTION

1. Deloitte Touché Tohmatsu India Private Ltd. (Deloitte) has been appointed by UNICEF to carry out an evaluation of the Social Mobilization Network (SMNet). This forms the final report prepared by Deloitte under this engagement.

### SETTING THE EVALUATION CONTEXT

#### *CONTEXT FOR INTRODUCTION OF SMNet*

2. India was long regarded as the world's epicenter for polio with an estimated 200,000 children infected with the polio virus every year till 1988. A large population, poor hygiene and sanitation conditions, issues of access and reluctance to immunization, large proportion of migrant population, combined with the difficulty in simultaneously combatting all three strains of the virus posed as key challenges to eliminating polio transmission in India.

3. The National Pulse Polio Initiative (PPI) launched in 1995-96 aimed to target every child under the age of five with the Oral Polio Vaccine to be given on two National Immunization Days as well as through focused state level immunization campaigns through the year. The National Polio Surveillance Project (NPSP), a collaboration between the WHO and the Government of India was set up in 1997 and led to a well-planned and managed vaccination campaign which was also rigorously monitored. It also sought to involve frontline workers- vaccinators, community workers, health workers etc. in the polio campaign with a focused house to house strategy. By 1999, India had succeeded in eliminating Type 2 of the polio virus.

4. Type 1 and 3 of the polio virus were still prevalent and transmission was largely occurring in Uttar Pradesh (UP) and Bihar. Several factors made it difficult to control transmission in these two endemic regions of India. The high population density, poor hygiene and sanitation, poor nutrition, low incidence of breastfeeding and high rates of diarrhoea have been major constraints for the immunization campaigns in the two states. While usually three doses of oral polio vaccine are considered adequate to protect a child against polio, in UP and Bihar multiple vaccination rounds have been required to build immunity. Further, issues of access and a large migratory population in high risk areas around the Kosi basin in Bihar and a high incidence of refusal of the vaccination in large parts of UP have been responsible for the limited success of the immunization drives in these areas.

5. In order to reach the children in these high risk areas, an intervention strategy focusing on increasing demand as well as extending supply to otherwise ignored areas was required.

6. To meet these requirements, Social Mobilization Networks (SMNet) were established by UNICEF in Uttar Pradesh (UP) in 2002 and expanded to Bihar in 2005 to generate community support for polio immunization activities. The SMNet deployed community mobilizers in areas identified as high risk with the main task to ensure that all children were vaccinated against polio in every round.

### **OBJECTIVES AND STRATEGIES OF SMNET**

7. The Social Mobilization Network (SMNet) [supported by UNICEF] was established in UP in 2002 to work with resistant communities and to encourage uptake of the oral polio vaccine (OPV) every time Supplementary Immunization Activities (SIA) were carried out.

8. The objectives of the SMNet strategy were<sup>1</sup> to:

- Maximize the impact of communication efforts at the national, state, district and block level through strengthened coordination amongst partners and effective advocacy
- Ensure children most at risk – particularly those under the age of two, Muslim and boys – are adequately protected from polio by intensifying efforts in blocks where wild polio virus transmission is sustained
- Increase the total number of children immunized and turnout at the booth by achieving a critical mass of communication activities in all high-risk areas of priority blocks in states with ongoing wild poliovirus transmission
- Ensure polio eradication by strengthening communication for routine immunization especially in polio endemic states

9. The intervention aimed to use strategic data- driven communication as a key input to accelerate immunization activities and prioritized reaching children most frequently missed during the SIAs- children under the age of two and those belonging to high risk population groups like the Muslim community, migrant workers etc.

10. The SMNet strategy envisaged the use of effective advocacy, behavior change communication (BCC) and social mobilization to ensure continued political, administrative and social support for immunization; to generate demand for immunization; and a broad-based, community-driven movement to increase awareness of the people, fieldworkers and partners in service delivery.

11. While the government polio eradication programmes evolved through the years and were using data from the National Polio Surveillance Project (NPSP) for programme planning to identify gaps in coverage and to direct resources strategically, gaps still existed at the household level. The SMNet implemented several innovative data collection tools and used strategies to inform planning, implementation, resource allocation, and message design. These tools and strategies included community maps, household registers, a 2-phased vaccination outreach approach, and ongoing community monitoring.

12. The SMNet approach also focused on interpersonal communication to build trust and reduced resistance to vaccination amongst the community. An innovative strategy of the SMNet intervention was

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<sup>1</sup> Strategic Communication for Immunization – The Final Push to Eradicate Polio in India, UNICEF, 2004

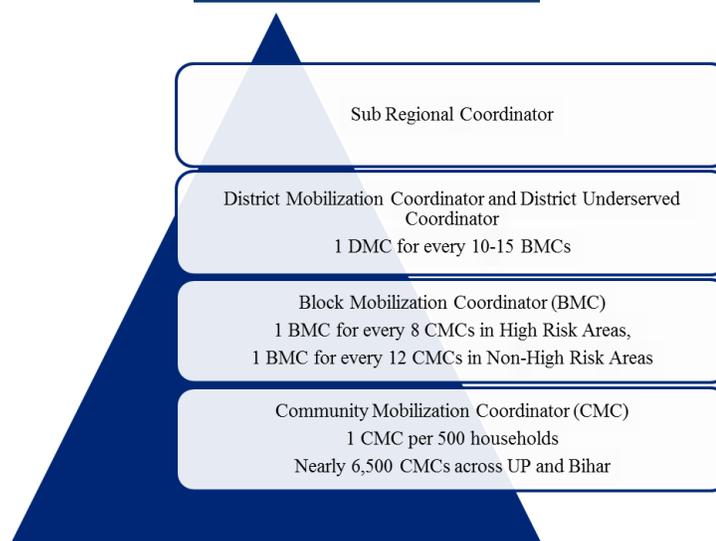
to build and maintain supportive local networks and linkages with community, religious and cultural leaders. These networks of influential opinion leaders helped to respond to local fears and misconceptions effectively.

13. The SMNet intervention has used data to understand the types and causes of resistance to immunization and has responded to contextual changes. As a result the strategies of the intervention have evolved over time in order to strengthen the polio eradication effort, build capacity, enhance quality and promote local ownership.

## **STRUCTURE AND STAFFING**

14. The SMNet follows a tiered personnel structure with mobilizers at community, block, district and sub-regional level. SMNet comprises around 5400 members across 46 districts in UP and around 1350 members across 19 districts in Bihar, and supports the 107 Block Plan, in areas designated as polio high risk areas in these two states.

**Exhibit 1: SMNet Structure**



15. The table below describes the roles and responsibilities of the SMNet personnel.

**Table 1: Roles and Responsibilities of SMNet personnel**

Personnel	Role and Responsibilities
Community Mobilization Coordinator	<ul style="list-style-type: none"> <li>Mobilizes households through IPC, house-to-house counselling, organizes and provides accurate information at mother’s meetings, conducts ‘polio classes’ in schools</li> <li>Accompanies vaccinator teams to convince families to vaccinate their children</li> <li>Develop networks and partnerships with local influencers and opinion leaders</li> <li>Assist vaccinators in setting up booths, organizing bulawa tollies, arranging mosque and temple announcements, etc.</li> <li>Track and reach underserved population groups like migrant workers and nomadic communities</li> </ul>
Block Mobilization	<ul style="list-style-type: none"> <li>Oversees the social mobilization activities during and between SIA rounds</li> </ul>

Coordinator	<ul style="list-style-type: none"> <li>• Capacity building and supervision of CMCs. Monitoring of CMCs activities including house to house vaccination visits</li> <li>• Collation of CMC data</li> <li>• Builds partnerships with block level officials including MOIC of the Block PHC</li> <li>• Works along with the Block Task Force to organize health camps</li> </ul>
District Mobilization Coordinator	<ul style="list-style-type: none"> <li>• Overall in-charge of social mobilization activities in the district</li> <li>• Responsible for developing joint SMNet District Communication Plan</li> <li>• Training of all SMNet resources in the district</li> <li>• Participation in District Task Force</li> <li>• Building strong partnerships with district government</li> <li>• Monitoring quality of vaccination activities at CMC booths and house to house vaccination activities</li> <li>• Updating records of SIAs and keeping CMHO and MOICs informed</li> </ul>
District Underserved Coordinator	<ul style="list-style-type: none"> <li>• In charge of planning and implementing of activities in underserved areas-developing partnerships and liaising with religious leaders and institutions, educational institutions, other local influencers.</li> <li>• Responsible for ensuring tracking of high risk groups</li> </ul>
Sub Regional Coordinator	<ul style="list-style-type: none"> <li>• Oversees activities of the SMNet in multiple districts</li> <li>• Collaborates with local government departments, NGOs, religious and educational institutions and other partners</li> </ul>

16. The backbone of the SMNet intervention is the Community Mobilization Coordinator (CMCs) placed at the village level. They often work along with government frontline workers like Anganwadi Workers (AWWs) and Accredited Social Health Activists (ASHAs). The CMC is involved in a wide range of activities with the aim of ensuring 100% immunization through interacting and influencing families and community members. The main functions of the CMCs are increasing awareness through interpersonal communication, building networks and partnerships at the local level, assisting government workers in SIA rounds and ensuring migrant and other under-served population groups are reached. Trainings are organized and provided to the CMCs by the BMCs. At the block level, the BMC is in charge of monitoring of the CMCs activities. The DMC is responsible for the monitoring at the district level.

17. A third party organization has been contracted for the operationalization and implementation of SMNet in UP and Bihar. From 2001-2005, CERPA managed the SMNet intervention in UP. IPE Global was contracted as the implementing agency in Central and Eastern UP in 2005 and CERPA continued in Western UP. Currently, IPE Global is the sole implementing partner in UP. In Bihar, IMAX was the implementing partner from 2005 till 2012. Currently, IPE Global is the implementing partner in Bihar.

18. The SMNet intervention started in 2002 and is now in its twelfth year of implementation. With the eradication of polio in India in 2011 and the global shift in focus towards an end game strategy, the programme is currently planning for its sustainability and replication.

## SECTION 2

# EVALUATION PURPOSE, OBJECTIVES AND SCOPE

### EVALUATION PURPOSE

1. Due to the concerted efforts to reach each child especially in high risk population groups and areas, India achieved a major milestone in February 2012. A full year without a single polio case being reported meant that the WHO declared that India was no longer a polio-endemic country. This has been hailed as India's "greatest public health achievement."
2. Despite India's success in being polio-free since 2011, health experts have warned that the likelihood of transmission cannot be ruled out. There have been numerous cases of transmission of the polio virus across borders even after a country has been declared polio-free. For instance, China, recently reported 7 cases of polio for the first time since 1999. It is believed that the virus has spread from Pakistan where polio remains endemic.
3. In order to guard against the importation of the polio virus, India has placed states bordering China and Pakistan on high alert. Immunization booths have been set up along India's borders with Nepal and Pakistan. However, the risk of importation to India remains.
4. In this context, it becomes important to ensure that all children under the age of 5 continue to be immunized against the polio virus to guard against any potential re-importation. Hence, there remains a need to maintain community level demand for OPV.
5. Further, it is believed that the SMNet can be utilized to support Routine Immunization activities and can deliver on other child survival and development interventions as well.

### NEED FOR THE EVALUATION

6. The Indian polio programme has achieved significant outcomes. Documentation of the innovations, best practices and lessons learnt from the Indian context will help other polio endemic nations work towards polio eradication.
7. The evaluation of SMNet will be carried out in this context and will consider the SMNet's potential transition in both the Indian situation and to help serve as a model for other polio programmes and for other public health initiatives. The specific objectives of this evaluation are to assess the relevance, effectiveness, efficiency, sustainability and impact of the SMNet.

## OBJECTIVES AND SCOPE OF THE EVALUATION

8. The evaluation will seek to examine the impact of the SMNet on various outputs, including intended and unintended outcomes. It will determine the impact of the SMNet on the reduction of refusal households and increase in coverage in access-affected areas.

9. The specific objectives of this evaluation (based on the Terms of Reference) are provided below. Detailed ToRs are provided in Annexure I of the report.

**Table 2: Objectives and Scope of Evaluation**

<b>Evaluation Parameter</b>	<b>Objective</b>	<b>Scope and Key Questions</b>
Relevance	Whether the design and interventions of SMNet were in line with community needs and whether the intervention was appropriate for the time in which it was introduced	<ul style="list-style-type: none"> <li>• Whether the design and interventions of SMNet were in line with community needs?</li> <li>• Whether the SMNet approach has been relevant to achieve the results of the polio eradication programme?</li> <li>• Were the contextual realities in the programming environment taken into account in the design and implementation of strategies/interventions? With what success?</li> <li>• Whether and how the SMNet interventions/ approach have responded to priorities or programme strategies that may have changed over the years?</li> <li>• The extent to which the expected results of SMNet are consistent with the results in the context of the polio eradication programme in India.</li> </ul>
Effectiveness	The extent to which the objectives of the network have been achieved—knowledge and awareness of OPV, routine services and other interventions as appropriate for the context, community trust in health services, demand for OPV and routine and adoption of key behaviors such as taking children to immunization services when offered	<ul style="list-style-type: none"> <li>• The extent to which the objectives of the network have been achieved—knowledge and awareness of OPV, routine services etc., community trust in health services, demand for OPV and adoption of key behaviours such as taking children to immunization services when offered</li> <li>• Whether and how SMNet intervention have contributed to reaching the worst-off groups</li> <li>• The extent to which the SMNet intervention has contributed to the results of polio eradication programme</li> <li>• What were the major factors influencing the achievement or non-achievement of the objectives?</li> <li>• What difficulties/constraints did the SMNet encounter? Are there any gaps in the operational model?</li> <li>• To what extent were the objectives of SMNet achieved / are likely to be achieved for polio?</li> <li>• To what extent has SMNet been able to mobilize the community for polio in UP and Bihar</li> </ul>
Efficiency	Evaluation of whether the resources have been used	<ul style="list-style-type: none"> <li>• Did the polio programme use resources in the most economical manner to achieve polio eradication</li> </ul>

	economically and within the specified timeframe and cost of the programme	<p>results?</p> <ul style="list-style-type: none"> <li>• Were the outputs of SMNet in line with inputs/costs provided?</li> </ul>
Impact	The extent to which the SMNet contributed to the success and results of the polio eradication programme in India	<ul style="list-style-type: none"> <li>• The extent to which the SMNet has contributed to the results of the polio eradication programme in India.</li> <li>• To what extent has the SMNet driven behaviour change by addressing refusal to OPV in HRAs</li> <li>• Positive changes in knowledge, attitude and practice related to polio</li> <li>• To what extent have the knowledge level of communities on polio vaccination/OPV increased?</li> <li>• To what extent SMNet contributed in reaching high risk and chronically missed population such as the Kosi River operational plan to reach access-compromised communities?</li> </ul>
Sustainability	What systems are in place or are required to sustain the approaches and tools of SMNet	<ul style="list-style-type: none"> <li>• To assess the acceptance and ownership by community of the role of CMCs as a front-line worker for IPC on polio and RI</li> <li>• To assess the acceptability by service providers and other stakeholders of the CMC as a first contact for polio and RI in the community and as a change agent</li> <li>• To understand the links between government functionaries ANMs, ASHAs and AWWs with CMCs and whether CMCs' role is complementary to these functionaries</li> <li>• Can front-line Government workers (ANMs and ASHAs) adopt the tools and supportive supervision aspects of the SMNet?</li> <li>• To what extent can the SMNet be replicated in other contexts/countries/for other child health interventions?</li> </ul>

10. The findings of the assessment and recommendations are aimed towards generating evidence to determine the impact of the SMNet on activities including coverage of polio immunization and support for Routine Immunization, the capacity to deliver on other child survival and development interventions and efficiency and effectiveness of its management and structure. It will also help in determining key lessons learned. The evaluation will be considered for determining the future of the SMNet in both UNICEF's new 2013-2017 Country Programme and for replication of similar networks for polio eradication or other public health initiatives.

## SECTION 3

# EVALUATION METHODOLOGY

### EVALUATION METHODOLOGY

1. Public health interventions are complex and multi-dimensional, and need to account for micro and macro level factors in the internal and external environments, proximate and distal determinants of health. The assignment proposes to use mixed methodology to comprehensively capture these complexities while evaluating SMNet.
2. Keeping in mind the complexity and scale of the SMNet, the evaluation used a mixed-method design in order to comprehensively and judiciously cover each aspect of the intervention.
3. The evaluation matrix provided below in Exhibit 2 captures the key questions, sub-questions, data sources, process and outcome and methods for analysis across the five parameters - Relevance, Efficiency, Effectiveness, Impact and Sustainability based on the terms of reference issued by UNICEF. The evaluation matrix was developed based on in-depth discussions with relevant stakeholders (including UNICEF officials, representatives from state offices and donor partners) and desk research about SMNet.
4. Further details on the qualitative and quantitative methods of analysis, sampling plan and stakeholders met are provided in the sections subsequent to the evaluation matrix.

**Exhibit 2: Evaluation Matrix<sup>2</sup>**

Evaluation Criteria	Key Questions	Specific Sub- Questions	Data Sources	Process and Outcome Indicators	Methods for assessment/analysis
<p><b>Relevance</b></p>	<ul style="list-style-type: none"> <li>• Whether the design and interventions of SMNet were in line with community needs?</li> <li>• Whether the SMNet approach has been relevant to achieve the results of the polio eradication programme?</li> <li>• Were the contextual realities in the programming environment taken into account in the design and implementation of strategies/interventions? With what success?</li> <li>• Whether and how the SMNet intervention/ approach have responded to priorities or programme strategies that may have changed over the years?</li> </ul>	<ul style="list-style-type: none"> <li>• Programme design of SMNet</li> <li>• Planned interventions</li> <li>• The changing contextual realities of the environment vis-à-vis changes in the social, and demographic context of UP and Bihar since the time of programme design and changes/evolution of interventions/program design over time</li> <li>• Programmatic changes reflecting changes in context/ findings from concurrent data</li> <li>• Analysis of programme design and comparison with contextual data</li> </ul>	<ul style="list-style-type: none"> <li>• Published literature available about SMNet and related polio interventions</li> <li>• SMNet strategy documents</li> <li>• Communication strategy documents</li> <li>• Underserved strategy document</li> <li>• IEAG documents</li> <li>• WPV data to map incidence with selection of intervention areas</li> <li>• Demographic, socio-economic data from NFHS, WHO, UNICEF, CES, SRS, Census (2000) to map vulnerability profiles with SMNet focus areas/groups</li> <li>• In-depth interviews and FGDs with relevant stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>• SMNet presence (human resource deployment in terms of geographic presence and nature of intervention)</li> <li>• Design of interventions and type of mobilization activities, catering to community needs</li> <li>• Changes in intervention design (communication channels, target groups etc.) over time keeping with changing needs</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Desk research and literature review</b> for understanding the strategy of SMNet in concept and its evolution over time</li> <li>• <b>Desk research and secondary analysis</b> to understand the context of initiating SMNet from a <b>Realist Evaluation Framework</b></li> <li>• <b>Secondary analysis</b> of data on WPV</li> <li>• <b>Secondary analysis</b> of data from NFHS, CES, SRS, CES, Census (2000), WHO and UNICEF for demographic and socio-economic profiles</li> <li>• <b>Thematic analysis</b> of data from in-depth interviews and FGDs with sampled stakeholders</li> <li>• <b>Document reviews</b> for SMNet strategy and its evolution, its objectives, approach and interventions</li> </ul>

<sup>2</sup> The Evaluation Matrix has been revised with inputs from UNICEF post the inception phase to reflect a more rationalized set of key questions. The addendums to the ToRs are provided in Annexure II.

Evaluation Criteria	Key Questions	Specific Sub- Questions	Data Sources	Process and Outcome Indicators	Methods for assessment/analysis
	<ul style="list-style-type: none"> <li>The extent to which the expected results of SMNet are consistent with the results in the context of the polio eradication programme in India.</li> </ul>	<ul style="list-style-type: none"> <li>Comparison of SMNet planned indicators and project data with national and state averages</li> </ul>	<ul style="list-style-type: none"> <li>SIA monitoring data</li> <li>NPSP data from WHO</li> <li>GoI polio data</li> </ul>	<ul style="list-style-type: none"> <li>Incidence and trend of polio cases captured in SMNet areas</li> </ul>	<ul style="list-style-type: none"> <li><b>Secondary analysis</b> of SMNet project data and NPSP data</li> <li><b>Trend analysis</b> and comparison with GoI data sources</li> </ul>
<p><b>Effectiveness</b></p>	<ul style="list-style-type: none"> <li>The extent to which the objectives of the network have been achieved—knowledge and awareness of OPV, routine services etc., community trust in health services, demand for OPV and adoption of key behaviours such as taking children to immunization services when offered.</li> </ul>	<ul style="list-style-type: none"> <li>Comparison of stated objectives of SMNet with actual achievements</li> </ul>	<ul style="list-style-type: none"> <li>KAP studies commissioned by UNICEF in 2010, 2011 and 2012</li> <li>Published literature available about SMNet and related polio interventions</li> <li>In-depth interviews and FGDs with relevant stakeholders</li> <li>SIA monitoring data</li> <li>NPSP data from WHO</li> <li>Internal project monitoring data of SMNet</li> <li>Non-Participant observation of SIA rounds</li> </ul>	<ul style="list-style-type: none"> <li>Knowledge &amp; awareness indicators</li> <li>Behaviour &amp; practice indicators</li> <li>Stakeholder perceptions about the effectiveness of SMNet</li> <li>Observed roles/ involvement of personnel of SMNet in polio rounds</li> <li>Observed participation/acceptance of communities &amp; influencers</li> </ul>	<ul style="list-style-type: none"> <li><b>Literature review</b> to support the KAP studies and build a body of evidence on SMNet effectiveness</li> <li><b>Document reviews</b> of relevant reports prepared by SMNet to consolidate case-studies, innovations, success stories at the field level</li> <li><b>Non-Participant observation</b> to assess/analyse the operationalization of polio rounds</li> <li><b>Meta-Analysis</b> of KAP studies to consolidate evidence on effectiveness of SMNet</li> <li><b>Trend analysis and Comparative analysis</b> of incidence of polio cases</li> <li><b>Thematic analysis</b> of qualitative data from stakeholder interviews and FGDs</li> </ul>
	<ul style="list-style-type: none"> <li>Whether and how SMNet intervention have contributed to reaching the worst-off groups</li> </ul>	<ul style="list-style-type: none"> <li>Comparison of achieved vs. stated objectives for reaching the worst off groups using SIA data and internal project monitoring</li> </ul>	<ul style="list-style-type: none"> <li>Human resource deployment data</li> <li>SIA monitoring data</li> <li>SMNet project</li> </ul>	<ul style="list-style-type: none"> <li>SMNet’s method of target group identification</li> <li>Presence/reach of SMNet through field</li> </ul>	<ul style="list-style-type: none"> <li><b>Trend analysis</b> of polio incidences and acceptance of OPV amongst HRGs</li> <li><b>Trend analysis</b> of OPV coverage</li> </ul>

Evaluation Criteria	Key Questions	Specific Sub- Questions	Data Sources	Process and Outcome Indicators	Methods for assessment/analysis
		<p>data of SMNet on reaching worst off groups (disaggregated data according to number of religious minorities, disaggregated age groups of children, nomadic and migrant populations covered in SMNet)</p>	<p>monitoring data</p> <ul style="list-style-type: none"> <li>• KAP studies commissioned by UNICEF in 2010, 2011 and 2012 (focusing on findings for HRGs)</li> <li>• In-depth interviews and FGDs with relevant stakeholders</li> </ul>	<p>level functionaries in HRAs (resource deployment)</p> <ul style="list-style-type: none"> <li>• Coverage of OPV in HRAs in SMNet areas</li> <li>• X to P conversions in HRAs</li> <li>• Stakeholder perceptions especially communities and influencers from HRGs</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Document reviews</b> for HR personnel deployment in HRAs</li> <li>• <b>Thematic analysis</b> of stakeholder perceptions about inclusion and services to HRGs, changes in their behaviours, attitudes, practices</li> <li>• <b>Meta-Analysis</b> to specifically analyse the overall effectiveness and the effectiveness in the HRG sub-set</li> </ul>
	<ul style="list-style-type: none"> <li>• The extent to which the SMNet intervention has contributed to the results of polio eradication programme</li> <li>• What is the community perception of CMCs as a Polio front-line worker?</li> <li>• What is the role of SMNet (notably CMCs) as the major source of Polio information?</li> <li>• How much can the reduction in refusal rates of OPV be ascribed to the role played by SMNet notably the CMC?</li> </ul>	<ul style="list-style-type: none"> <li>• Stakeholder perceptions about: <ul style="list-style-type: none"> <li>▪ Different interventions of SMNet and its field-level staff</li> <li>▪ Accessibility and value addition of SMNet interventions in communities</li> <li>▪ Value addition of community level SMNet interventions in contributing to improvements in OPV coverage</li> </ul> </li> <li>• Comparison of SMNet and non-SMNet areas in UP and Bihar</li> </ul>	<ul style="list-style-type: none"> <li>• In-depth interviews and FGDs with relevant stakeholders</li> <li>• KAP studies commissioned by UNICEF in 2010, 2011 and 2012</li> <li>• SIA monitoring data</li> <li>• SMNet internal monitoring data</li> </ul>	<ul style="list-style-type: none"> <li>• Stakeholder perceptions about CMCs and other SMNet personnel</li> <li>• CMC as the source of information for polio as shown through cross-temporal meta-analysis and through qualitative data</li> <li>• Decrease in resistance to OPV in CMC areas as indicated by changes in SMNet/NPSP data</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Thematic analysis</b> of stakeholder perceptions about SMNet personnel</li> <li>• <b>Meta-analysis</b> especially focusing on changes in knowledge, attitudes, behaviours and practices</li> <li>• <b>Comparative analysis</b> of trends and prevalence of polio over time in SMNet and non-SMNet areas</li> </ul>
	<ul style="list-style-type: none"> <li>• What were the major factors influencing the achievement or non-achievement of the</li> </ul>	<ul style="list-style-type: none"> <li>• Key facilitating factors contributing to success, e.g. motivated/skilled staff,</li> </ul>	<ul style="list-style-type: none"> <li>• SMNet strategy documents</li> <li>• Communication</li> </ul>	<ul style="list-style-type: none"> <li>• Programme design and structure</li> <li>• Operational plan and</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Thematic analysis</b> of stakeholder perceptions about operation model,</li> </ul>

Evaluation Criteria	Key Questions	Specific Sub- Questions	Data Sources	Process and Outcome Indicators	Methods for assessment/analysis
	<p>objectives?</p> <ul style="list-style-type: none"> <li>• What difficulties/constraints did the SMNet encounter? Are there any gaps in the operational model?</li> </ul>	<p>support from communities/leaders, support of the public health system, etc.</p> <ul style="list-style-type: none"> <li>• Key areas of challenge e.g. lack of adequate staff/skill sets, lack of resources (funding/IT etc.), lack of support from the public health system, resistance from communities/administration, etc.</li> <li>• Strategies/activities adopted to overcome these challenges, e.g. training for staff to build capacities, liaising with district/block level administration and the public health system, convergence with the frontline workers of health and ICDS, etc.</li> </ul>	<p>strategy (IEC strategy, media strategy) documents</p> <ul style="list-style-type: none"> <li>• Underserved strategy document</li> <li>• IEAG documents</li> <li>• Human resource deployment data</li> <li>• SMNet activities/interventions data</li> <li>• In-depth interviews and FGDs with stakeholders</li> </ul>	<p>strategy mapped with changes in context and needs</p> <ul style="list-style-type: none"> <li>• Support/role of partners in SMNet</li> <li>• SMNet presence (human resource deployment in terms of geographic presence and nature of intervention)</li> <li>• Design of interventions and type of mobilization activities, catering to community needs</li> <li>• Changes in intervention design (communication channels, target groups etc.) over time keeping with changing needs</li> <li>• Stakeholder perspectives about gaps, challenges and facilitators in SMNet operations</li> </ul>	<p>strategy, operational facilitators/challenges and course-corrections</p> <ul style="list-style-type: none"> <li>• <b>Thematic analysis</b> of stakeholder (especially SMNet staff) about trainings, skill-sets, supportive supervision and convergence with other FLWs (ANMs/AWWs/ASHAs)</li> <li>• <b>Document reviews</b> for HR personnel deployment in HRAs</li> <li>• <b>Document reviews</b> for SMNet strategy and its evolution, its objectives, approach and interventions</li> <li>• <b>Document reviews and thematic analysis</b> for roles of partners in SMNet</li> </ul>
	<ul style="list-style-type: none"> <li>• To what extent were the objectives of SMNet achieved / are likely to be achieved (support social mobilization for polio and routine immunization) for polio?</li> <li>• To what extent SMNet has been able to mobilize the</li> </ul>	<ul style="list-style-type: none"> <li>• Stated objectives in programme documents <ul style="list-style-type: none"> <li>▪ Key objectives of SMNet</li> <li>▪ Are they quantitative to the extent possible?</li> <li>▪ Are they linked to specific outputs?</li> <li>▪ Are they realistic and developed based on</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• SIA monitoring data</li> <li>• X to P conversion in SMNet areas of UP and Bihar</li> <li>• Mobilization activities in SMNet</li> <li>• KAP studies</li> <li>• In-depth interviews</li> </ul>	<ul style="list-style-type: none"> <li>• Coverage of OPV in SMNet areas</li> <li>• Changes in knowledge, attitudes, behaviours and practices in SMNet areas</li> <li>• Mobilization activities of SMNet (selection and training of CMCs,</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Desk Research and literature review</b></li> <li>• <b>Non-participant observation</b></li> <li>• <b>Thematic analysis</b> of qualitative data</li> <li>• <b>Meta-analysis</b></li> <li>• <b>Trend analysis</b> of incidence of polio over time</li> </ul>

Evaluation Criteria	Key Questions	Specific Sub- Questions	Data Sources	Process and Outcome Indicators	Methods for assessment/analysis
	<p>community for polio in UP and Bihar</p>	<p>understanding of current status?</p> <ul style="list-style-type: none"> <li>▪ Are they aligned with the overall mandate of the SMNet?</li> <li>▪ Are they established well in time?</li> </ul> <ul style="list-style-type: none"> <li>• Method for setting objectives of SMNet</li> <li>• Analysis of KAP data in Bihar and UP</li> <li>• Collaborative and Convergent activities with other interventions/programs in the HRAs</li> <li>• Profile/ selection and training of CMCs; processes of awareness generation in communities and key stakeholders, etc.</li> </ul>	<p>and FGDs with relevant stakeholders</p> <ul style="list-style-type: none"> <li>• Documents on SMNet related to success stories, innovations, course-corrections, etc. at the field level</li> <li>• Non-participant observation data from polio rounds</li> </ul>	<p>processes of awareness generation in communities and key stakeholders, training of influencers, etc.)</p> <ul style="list-style-type: none"> <li>• Increase in involvement of local influencers</li> <li>• Knowledge and awareness on convergence activities (diarrhoea management, exclusive breastfeeding etc.)</li> <li>• Stakeholder perceptions about SMNet’s role in the community</li> </ul>	
<p><b>Efficiency</b></p>	<ul style="list-style-type: none"> <li>• Did the polio programme use resources in the most economical manner to achieve polio eradication results?</li> </ul>	<ul style="list-style-type: none"> <li>• Assessment of actual versus the planned costs, timelines achieved versus planned</li> <li>• Resources required (human, financial and others)</li> <li>• Systems in place for management of resources etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Budgets and expenditures of SMNet over time from UNICEF</li> <li>• In-depth interviews with UNICEF staff</li> <li>• Documents about project management structures and review processes/mechanisms</li> </ul>	<ul style="list-style-type: none"> <li>• Comparison of actual vs. budgeted expenditure (to whatever extent possible with data from UNICEF)</li> <li>• Change in capital and operational costs during a defined period (to whatever extent possible with data from UNICEF)</li> <li>• Comparison of stated HR requirements and filled vacancies</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Thematic analysis</b> of qualitative data</li> <li>• <b>Document reviews</b> for project management processes/ mechanisms</li> <li>• <b>Value for Money analysis</b> to understand the differentiation and trends in allocation to different budget heads as well as forecasting estimates to address data gaps and discontinuous data</li> </ul>

Evaluation Criteria	Key Questions	Specific Sub- Questions	Data Sources	Process and Outcome Indicators	Methods for assessment/analysis
				throughout the project period • Regularity of meetings for review/fidelity of processes/mechanisms for project management and HR management/supervision/ training	
	<ul style="list-style-type: none"> <li>• Were the outputs (benefits) of SMNet in line with inputs (costs) provided? What are the benefits and cost?</li> </ul>	<ul style="list-style-type: none"> <li>• Comparison of number of contacts with caregiver/child against SMNet expenditure per state</li> <li>• Forecasting costs to predict scenarios and understand benefits in terms of “reaching the last mile” and eradication of polio</li> </ul>	<ul style="list-style-type: none"> <li>• Budgets and expenditures of SMNet</li> <li>• SIA monitoring data</li> <li>• SMNet project monitoring data</li> </ul>	<ul style="list-style-type: none"> <li>• Benefit estimation in terms of “reaching the last mile” and eradication of polio</li> <li>• Comparison of costs incurred in current year and forecasting for the future decade with adjustments for inflation (as scenarios using the Net Present Value method)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Value for Money analysis</b> based on data provided by UNICEF</li> </ul>

Evaluation Criteria	Key Questions	Specific Sub- Questions	Data Sources	Process and Outcome Indicators	Methods for assessment/analysis
Impact	<ul style="list-style-type: none"> <li>• The extent to which the SMNet has contributed to the results of the polio eradication programme in India.</li> <li>• To what extent has the SMNet driven behaviour change by addressing refusal to OPV in HRAs</li> <li>• Positive changes in knowledge, attitude and practice related to polio</li> <li>• To what extent have the knowledge level of communities on polio vaccination/OPV increased?</li> </ul>	<ul style="list-style-type: none"> <li>• Comparison of SMNet project data with national and state averages</li> <li>• Comparison of output level data from SIA monitoring from intervention districts/blocks with that from non-intervention districts/blocks</li> <li>• Temporal analysis of data to understand changes in programme indicators over time</li> <li>• Comparison of primary qualitative data about community level knowledge in intervention and non-intervention blocks/villages</li> <li>• Comparative analysis of the KAP studies conducted across time periods</li> </ul>	<ul style="list-style-type: none"> <li>• KAP studies in UP and Bihar during the project duration measuring the intervention</li> <li>• SIA monitoring data</li> <li>• In-depth/group interviews</li> <li>• FGDs with influencers and beneficiaries</li> <li>• X to P conversion data</li> </ul>	<ul style="list-style-type: none"> <li>• Decrease in resistance in HRAs, where SMNet is present</li> <li>• Changes in knowledge, attitude, behaviour and practice indicators</li> <li>• Changes in X to P conversions</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Meta-Analysis</b></li> <li>• <b>Thematic analysis</b> of qualitative data</li> <li>• <b>Document review</b></li> <li>• <b>Trend analysis</b> of polio incidence</li> <li>• <b>Comparative analysis</b> of data in SMNet and non-SMNet areas</li> <li>• <b>Trend analysis</b> of X to P conversion</li> </ul>
	<ul style="list-style-type: none"> <li>• To what extent SMNet contributed in reaching high risk and chronically missed population such as the Kosi River operational plan to reach access-compromised communities?</li> </ul>	<ul style="list-style-type: none"> <li>• SIA data and internal project monitoring data of SMNet on reaching worst off groups (disaggregated data according to number of Kosi river area households/children covered in SMNet)</li> </ul>	<ul style="list-style-type: none"> <li>• SIA monitoring data</li> <li>• SMNet project monitoring data</li> <li>• Human resource deployment data</li> <li>• Stakeholder in-depth interviews and FGDs</li> </ul>	<ul style="list-style-type: none"> <li>• SMNet presence (resource deployment in Kosi region)</li> <li>• Coverage of polio in Kosi region</li> <li>• Changes in incidence of polio in the Kosi region</li> <li>• Stakeholder perceptions about SMNet reach in Kosi</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Document Review</b></li> <li>• <b>Trend analysis</b> of data on incidence, coverage of OPV</li> <li>• <b>Thematic analysis</b> of qualitative data</li> </ul>

Evaluation Criteria	Key Questions	Specific Sub- Questions	Data Sources	Process and Outcome Indicators	Methods for assessment/analysis
	<p>*Secondary data analysis is suggested for district where SMNet is present for some key indicators where data is comparable (in intervention and non-intervention areas) to see impact, i.e.</p> <ul style="list-style-type: none"> <li>• Decrease in resistance (XR) for OPV in HRAs.</li> <li>• Increase in booth coverage and house to house coverage.</li> <li>• Improvement in full immunization rate.</li> <li>• Coverage of HRGs and underserved populations</li> </ul>	<ul style="list-style-type: none"> <li>• Comparison of relevant secondary quantitative data from intervention areas with that from non-intervention areas (at the block level)</li> </ul>	<ul style="list-style-type: none"> <li>• SIA monitoring data</li> <li>• SMNet project monitoring data</li> <li>• X to P conversion data</li> <li>• Data related to HRGs</li> <li>• Data about influencers</li> <li>• Stakeholder interviews and FGDs</li> <li>• SMNet documents related to intervention coverage</li> </ul>	<ul style="list-style-type: none"> <li>• Decrease in resistance (XR) for OPV in HRAs.</li> <li>• Increase in booth coverage and house to house coverage.</li> <li>• Improvement in full immunization rate.</li> <li>• Coverage of HRGs and underserved populations</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Document Review</b></li> <li>• <b>Trend analysis</b> of incidence and coverage data</li> <li>• <b>Trend analysis</b> of HRG related data</li> <li>• <b>Comparative analysis</b> of SMNet and non-SMNet areas</li> <li>• <b>Thematic analysis</b> of qualitative data</li> </ul>
<p><b>Sustainability</b></p>	<ul style="list-style-type: none"> <li>• To assess the acceptance and ownership by community of the role of CMCs as a front-line worker for IPC on polio and RI</li> <li>• To assess the acceptability of service providers and other stakeholders on CMCs as a first contact for polio and RI in the community and as a change agent</li> <li>• To understand the links between government functionaries ANMs, ASHAs and AWWs with CMCs and whether CMCs' role is</li> </ul>	<ul style="list-style-type: none"> <li>• Systems to facilitate sustainability and convergence/integration with the public health system, the ICDS and with community based structures</li> <li>• Points of convergence of CMCs with frontline workers, e.g. joint meetings, participation in Village Health and Nutrition Days (VHNDs), referrals by ASHAs for SIA rounds, etc.</li> <li>• Comparison of training/supervision material and structures in SMNet with those in</li> </ul>	<ul style="list-style-type: none"> <li>• SIA monitoring data</li> <li>• In-depth/group interviews/FGDs with relevant stakeholders</li> <li>• Project data on training and supervision programmes/ systems/ material of CMC in SMNet, and of ANMs/ASHAs in NRHM</li> </ul>	<ul style="list-style-type: none"> <li>• Awareness and acceptance of CMCs in the community</li> <li>• CMC as the source of information for polio</li> <li>• Joint activities of public health functionaries and CMCs</li> <li>• Tools used by ANMs/ASHAs vis-à-vis CMCs for training and supervision</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Document Review</b></li> <li>• <b>Qualitative research with thematic analysis</b></li> </ul>

Evaluation Criteria	Key Questions	Specific Sub- Questions	Data Sources	Process and Outcome Indicators	Methods for assessment/analysis
	<p>complementary to these functionaries.</p> <ul style="list-style-type: none"> <li>Can front-line Government workers (ANMs and ASHAs) adopt the tools and supportive supervision aspects of the SMNet?</li> </ul>	<p>NRHM to identify overlaps, additions, changes/streamlining</p>			
	<ul style="list-style-type: none"> <li>To what extent can the SMNet be replicated in other contexts/countries/for other child health interventions? (Materials, tools, strategies, approaches and interventions to the context)</li> </ul>	<ul style="list-style-type: none"> <li>Identifying contexts in which SMNet can be a relevant and effective strategy</li> <li>Identifying elements of the SMNet model which are particularly effective for specific contexts</li> </ul>	<ul style="list-style-type: none"> <li>Findings from the current evaluation</li> <li>Data on costs and budgets from SMNet</li> <li>Stakeholder interviews and FGDs</li> </ul>	<ul style="list-style-type: none"> <li>Sustainability of systems and processes</li> <li>Possible relevance of SMNet strategies/structure and broad focal areas of influencing KABPs for other interventions in child health</li> </ul>	<ul style="list-style-type: none"> <li><b>Meta-Analysis</b></li> <li><b>Value for money analysis</b></li> <li>Qualitative research with <b>thematic analysis</b></li> <li><b>Desk research</b></li> <li><b>Literature review</b></li> </ul>

5. The section below provides details on the methods of analysis that were used for the evaluation.

### ***Literature review and desk research***

6. The team reviewed various relevant documents obtained from UNICEF including strategy documents, programme review documents, progress reports, meeting minutes etc. These documents helped understand the objectives, rationale, operationalization and outputs/outcomes of the programme and provided the basis for conceptualization of the study design and tools. Additionally, a detailed literature review was undertaken for published peer reviewed papers and reports in the public domain to understand the macro-systemic context of SMNet and the Global Polio Eradication Programme (GPEI), relevant and related papers/reports on SMNet by researchers and other stakeholders like CGPP, Rotary International, BMGF were included in this literature review. Evidence from published literature was used for comparison of findings from the current evaluation.

### ***Secondary Analysis***

7. Detailed secondary research was conducted to understand the context of the sampled districts, blocks and CMC intervention areas in the two states – UP and Bihar – over time (in the duration of SMNet interventions, from the time that relevant continuous data is available to Deloitte). Data from UNICEF state offices, SIA rounds, National Polio Surveillance Programme (NPSP) that was made available to the evaluation team was used for this analysis. Besides this, data in the public domain from Annual Health Survey 2010-11 (AHS), District Level Household Survey 2007-08 (DLHS), data from the Ministry of Health and Family Welfare (MoHFW) on budgets, polio/routine immunization were used.

8. The secondary data analysis helped understand the equity focus of the interventions including targeting of High Risk Groups (HRGs) and High Risk Areas (HRAs). The data analysis also helped in understanding the evolution of the SMNet strategy through the years (2002-2012, i.e. the duration of the intervention) as a response to contextual changes. A trend and comparative analysis was undertaken to analyse the impact and effectiveness of the intervention.

### ***Primary Qualitative Research***

9. The qualitative assessment entailed participatory qualitative research with different groups of stakeholders. Detailed primary research, with qualitative tools, was undertaken including key stakeholder interviews across health providers, government representatives at the state level in UP and Bihar, district and block levels, FLWs, and group discussions with community members. Stakeholders at each level were selected on the basis of a sampling design (provided in Exhibit 3).

10. The inclusion of non-intervention areas in the sampling plan allowed the team to make a comparison of relevant indicators in intervention and non-intervention areas to indicate the incremental effectiveness and impact of the SMNet Programme.

11. Primary qualitative data was collected from sampled geographies in both states of UP and Bihar. The three main data collection methods were:

- Visits to states- State visits were made to meet with key stakeholders and UNICEF/SMNet state level staff to understand the contextual realities and collect relevant data. These visits helped in understanding how the intervention strategy has changed based on contextual realities in the states. The sampling design (including the selection of intervention and comparison districts, blocks and CMC intervention area) was finalized based on this. The Deloitte team also undertook non-participant observation during SIA rounds.
- In-depth interviews with identified stakeholders from across the government system at state, district, block and sub-block levels, and representatives from donor partners and other civil society groups.
- Focused group discussions with members of the community. This included two categories of participants - mothers of children in the 0-5 year age group, other caregivers and influencers (like grandmothers, fathers, local leaders, etc.), and frontline workers at the community level (ASHA, ANM, AWW, CMC) who potentially impact decision-making about accessing the polio vaccine.

## SAMPLING DESIGN

12. A detailed sampling design was planned in consultation with UNICEF to undertake the primary and secondary data collection.

13. Given the scale and coverage of the SMNet interventions, the proposed sampling plan for qualitative data collection, is based on representation of all divergent and unique areas from the two states. The finalization of the sampling plan and selection of districts/blocks was done in consultation with UNICEF.

14. From the state level, three categories of stakeholders were interviewed:

- Representatives from the SMNet Programme
- UNICEF staff
- Representatives from the public health system

15. A stratified sampling was followed for selection of districts. The criteria for stratification were based on maximizing divergence. Hence, 3 unique areas – western, central and eastern – were identified in UP; and 2 unique areas – Kosi River banks (affected by floods and migration) and non-Kosi areas (affected by migration) – were identified in Bihar. A total of 8 districts (4 in each state) were selected across these 5 unique areas.

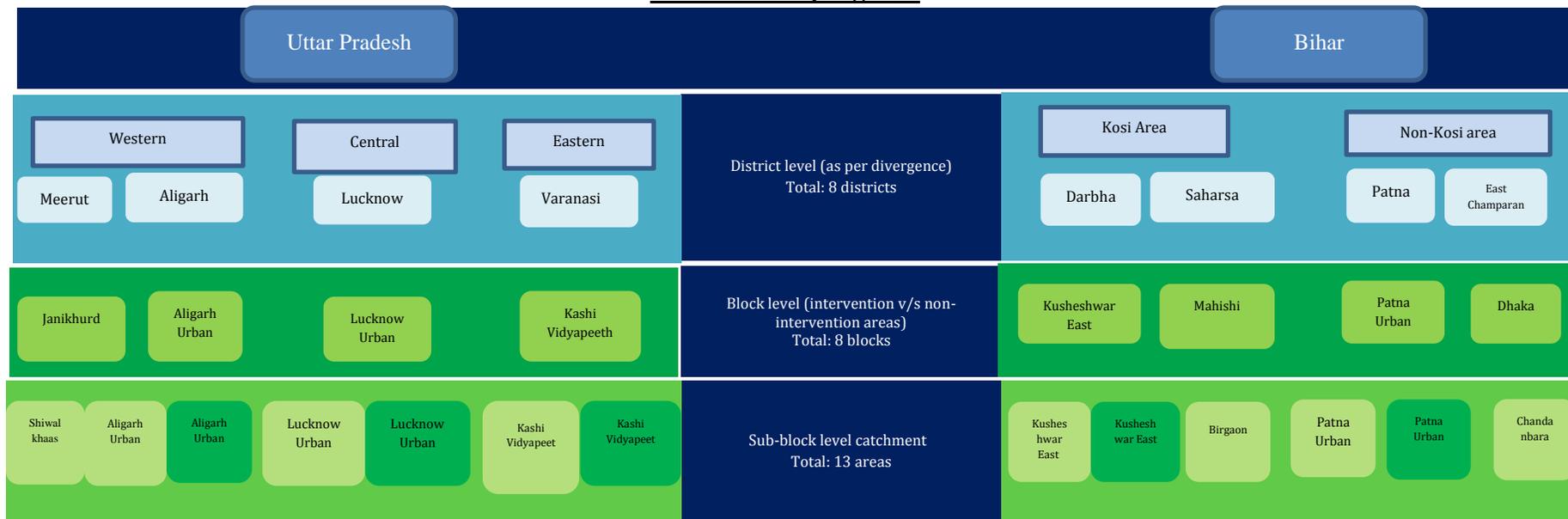
16. Each district was represented by a SMNet intervention block, i.e. 8 intervention blocks; and within each of these blocks, one intervention area was sampled. In addition, one non-intervention area was selected from each of the above 5 unique regions for primary data collection.

17. The sampling plan therefore included 13 catchment areas at the sub-block level. Data was collected from different stakeholders:

- Community members (focused group discussions with mothers of children in the 0-5 years age group; and with key informants/community leaders/influencers)

- Frontline Workers from the public health and ICDS systems (Auxiliary Nurse Midwife, Anganwadi Worker, Accredited Social Health Activist)
  - CMC of the SMNet Programme
18. A detailed stakeholder list for each level is provided in Table 3 below.
19. The sampling plan as finalized in discussion with UNICEF is shown below:

**Exhibit 3: Sampling Plan**



20. The districts and blocks chosen, in consultation with UNICEF are:

**Table 3: Sampled Geographies**

Region	District	Block
<b>Uttar Pradesh</b>		
Western	Meerut	Janikhurd (Intervention area)
	Aligarh	Aligarh Urban (Intervention and Control area)
Central	Lucknow	Lucknow Urban (Intervention and Control area)
Eastern	Varanasi	Kashi Vidyapeeth (Intervention and Control area)
<b>Bihar</b>		
Kosi	Darbangha	Kusheshwar (Intervention and Control area)
	Saharsa	Mahishi (Intervention area)
Non-Kosi	Patna	Patna Urban (Intervention and Control area)
	East Champaran	Dhaka(Intervention area)

### Study tools

21. Draft tools (interview and FGD guides for different categories of stakeholders) for qualitative research were formulated and are enclosed as Annexure 3 to the report.

### Stakeholder list

22. The final number of stakeholders interviewed as a part of primary data collection is provided in Table 4.

**Table 4: Sampling Plan**

Stakeholders	Numbers
<b>In-depth Interviews</b>	
<b>State Level Stakeholders</b>	
<i>Representatives from SMNet Programme</i>	
Sub Regional Coordinator	8
Sub- Regional Training Coordinator	5
Administrative Assistant	1
<i>UNICEF- Relevant Programme Officers</i>	
Programme Head	1
Others (Capacity Development, Independent Consultant)	2
<i>Representatives from Public Health System</i>	
Mission Director- NRHM	-
RCH Officer/Head	-
State Routine Immunization Officer	1
<b>Total</b>	<b>18</b>
<b>District Level Stakeholders</b>	
<i>Representatives from SMNet Programme</i>	
Social/ District Mobilization Coordinator	12

Stakeholders	Numbers
District Underserved Coordinator	3
<i>Representative from NRHM</i>	
District Immunization Officer	7
Chief District Medical Officer	5
<i>Other stakeholders</i>	
WHO team, DPM, etc.	14
<b>Total</b>	<b>41</b>
<b>Block Level Stakeholders</b>	
<i>Representatives from SMNet Programme</i>	
Block Mobilization/ Convergence Coordinator	14
<i>Representative from NRHM</i>	
Medical Officers	10
CDPO/ LS under CDPO	6
<b>Total</b>	<b>30</b>
<b>Community Level Stakeholders</b>	
CMC of SMNet Programme	13
Frontline Workers from NRHM and ICDS (1 ANM, ASHA and AWW each at each sub-block level)	39
<b>Total for sub-block level</b>	<b>52</b>
<b>Total In-depth Interviews</b>	<b>141</b>
<b>Focused Group Discussions</b>	
<b>Community Level Stakeholders</b>	
Community Members (2 group discussions at each sub-block level)	176
<b>Total</b>	<b>176</b>
<b>Total Focused Group Discussions</b>	<b>176</b>
<b>Grand Total (Total In-depth Interviews + Total Focused Group Discussions)</b>	<b>317</b>

### *Data Quality Assurance*

23. Adequate measures were taken to ensure data quality. The team undertaking primary data collection was chosen on the basis of prior field research experience and was trained by the Engagement Manager on in-depth interviews and focused group discussions. For quality assurance, the Engagement Manager made visits to select geographies and guided the data collection process. The reliability and validity of data collection tools were ensured through detailed evidence review of similar tools used in comparable contexts. Deloitte has used such standardized tools extensively in evaluation of community-based interventions. These tools were contextualized to the current evaluation with inputs from UNICEF national and state offices. Additionally, the team undertook field visits prior to designing the tools to reflect the contextual realities. Pilot testing of the tools were done in Meerut and Saharsa to check their reliability and validity. Based on the experiences of this pilot phase, the tools were finalized.

### *Ethical Considerations*

24. The evaluation design included ethical safeguards where appropriate, including protection of confidentiality, dignity, rights and welfare of the stakeholders, and respect of the values of the beneficiary community. The primary data collectors sought verbal informed consent from each stakeholder for in-depth interviews and FGDs.

### *Value-for-Money Analysis*

25. Cost Benefit Analysis was proposed to be undertaken as per the ToRs. However, a VfM Analysis was undertaken to measure the ratio of SMNet coverage for eradication of polio (in terms of reaching the last mile), to the expenditure in the programme incurred by UNICEF. The scope of the VfM Analysis has been determined by the extent of disaggregated data made available by UNICEF to the evaluation team. The lack of cost data for the entire duration of the programme is one of the main limitations of the analysis.

26. A detailed description of the VfM is given in Annexure 4 of this report.

### *Meta-Analysis*

27. A cross-temporal meta-analysis was conducted of relevant KAP studies measuring community level SMNet intervention, and knowledge, attitudes, behaviours and practices about polio undertaken in the project areas. The KAP sample studies shared with Deloitte for meta-analysis were 4 surveys (2009, 2010, 2011 and 2012). The survey in 2009 had used indicators different from the following 3 years; hence the scope of the meta-analysis in this evaluation will be limited to the 3 surveys – 2010, 2011 and 2012. These studies are not impact assessment, comparing the effect of SMNet versus non-SMNet, but are project data collected for 3 years in SMNet areas of both states.

28. A detailed description of the Meta Analysis is given in Annexure 5 of this report.

29. The secondary data, meta-analysis, value-for-money analysis, field visits and primary data collected were analysed and triangulated to answer the evaluation questions against the five parameters of Relevance, Effectiveness, Efficiency, Impact and Sustainability.

## SECTION 4

# FINDINGS AND ANALYSIS

### A. RELEVANCE

1. One of the focus areas of the evaluation was to assess the relevance of the analytical cell i.e. *whether the design and interventions of SMNet were in line with community needs*. The key aspects that were analyzed within this parameter includes-

#### Key questions

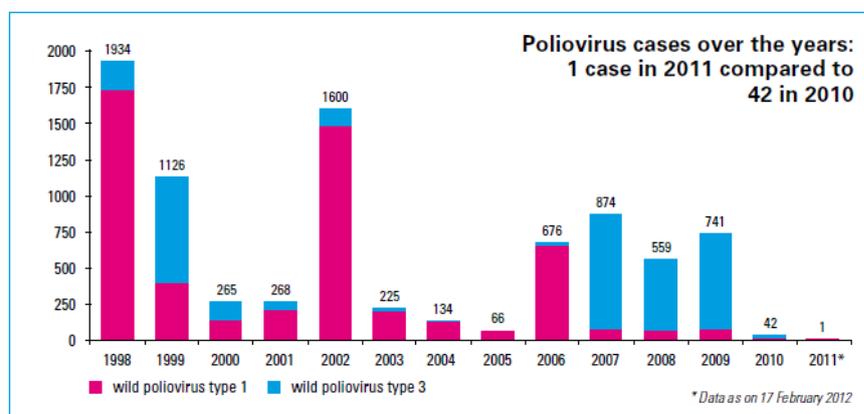
- Whether the design and interventions of SMNet were in line with community needs?
- Whether the SMNet approach has been relevant to achieve the results of the polio eradication programme?
- Were the contextual realities in the programming environment taken into account in the design and implementation of strategies/interventions? With what success?
- Whether and how the SMNet intervention/ approach have responded to priorities or programme strategies that may have changed over the years?
- The extent to which the expected results of SMNet are consistent with the results in the context of the polio eradication programme in India.

2. The evaluation under relevance aimed to analyze the approach, concept and design of SMNet as a programme to address community based determinants of polio. The key evaluation findings are provided below.

#### C.1. *The design and interventions of SMNet are aligned with community needs*

3. India has struggled with polio eradication efforts. Exhibit 4 below shows polio cases in India over the years.

**Exhibit 4: Polio Cases in India**



(Source: From 200,000 to 0: The journey to a polio-free India; UNICEF)

4. The majority of polio cases were found to be occurring in UP and Bihar with 86% of the 1,556 cases of WPV1 cases in 2002 identified in UP and Bihar.

5. The SMNet intervention was implemented in the key polio reservoir states of Uttar Pradesh and Bihar where a large ‘immunity gap’ existed with low routine immunization and OPV coverage amongst children below 5 years of age.

6. Several factors including the high population density, poor hygiene and sanitation, poor nutrition, low incidence of breastfeeding and high rates of diarrhea made it difficult to control transmission in these two endemic regions of India- UP and Bihar. Research conducted by the government, WHO, and other scientific organizations proved that the OPV was less effective among children in UP and even 4 doses of the OPV was at times not sufficient in providing immunity against the polio virus<sup>3</sup>.

7. The Government’s Pulse Polio Programme with twice yearly National Immunization Days (NIDs) and Supplementary Immunization Activity (SIA) campaigns sought to reach and immunize all children below the age of 5. However, there were issues of access and a large migratory population in Bihar and UP which made it difficult to immunize every eligible child. Combined with a high refusal rate to the vaccine due to issues of mistrust, lack of knowledge and awareness, and a belief that the vaccine was *haraam* or against the religious teachings of Islam, the number of children receiving a minimum of 3 doses of OPV was extremely low.

The polio vaccine is cultivated in monkey liver cells. Ingestion of certain animal products is considered unholy or haram in Islam and hence there has been reluctance to the OPV in Muslim communities.

8. High Risk Areas (HRAs) were identified by NPSP and SMNet partners. The criteria for choosing these areas included the number of WPV cases during low transmission seasons since 2003, presence of high risk groups (nomads, brick kiln and construction workers, slum dwellers), 40% or more of the population being Muslim and the percentage of households which have unvaccinated children. There were 107 such blocks identified in UP and Bihar.

9. The community’s lack of faith on the public health system was a major issue which contributed to the resistance to immunization. There was a widespread belief that the polio immunization programme was a continuation of the sterilization programme from the 1970s due to the house to house mobilization nature of both. This led to parents refusing to vaccinate male children and hiding them when the OPV was being administered. In case of the polio eradication programme in India, uptake of OPV rates for female children is better than for male children.

10. The SMNet intervention was designed with the view of building trust in the community towards OPV and the public health system. The intervention addressed various issues including parental concerns; understanding reasons for refusing vaccination; creating trust between polio eradication personnel and local residents; tracking missed children and identifying missed sub-populations.

<sup>3</sup> Grassly NC, Wenger J, Durrani S, Bahl S, Deshpande JM, Sutter RW, et al. Protective efficacy of a monovalent oral type 1 poliovirus vaccine: a case-control study. *Lancet*. 2007;369(9570):1356–1362. CrossRef. Medline

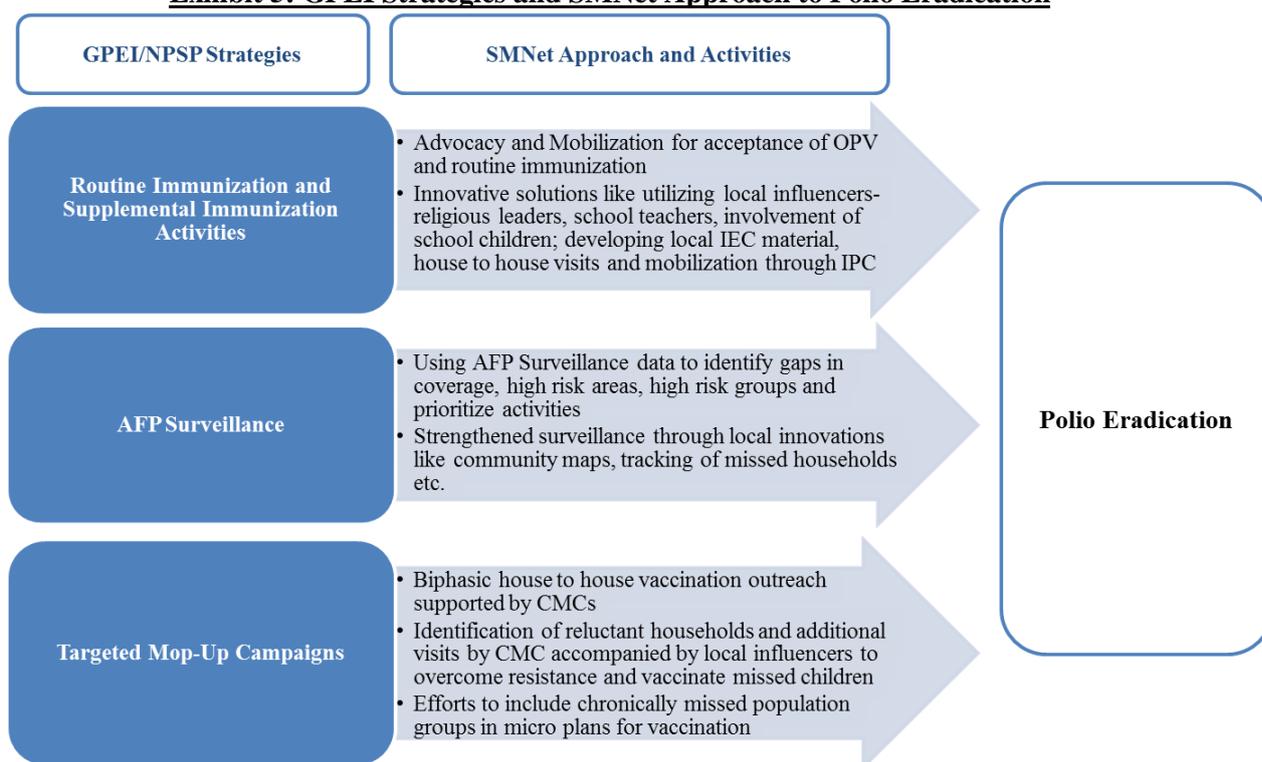
**C.2. The SMNet approach has been relevant to achieve the results of the polio eradication programme**

11. The SMNet approach to reducing resistance to vaccination and reaching the unreached in polio endemic states of UP and Bihar helped achieve the results of the polio eradication programme in India.

12. The Global Polio Eradication Initiative (GPEI) launched in 1988 developed a strategy for polio eradication which included Routine Immunization, Supplemental Immunization Activities, AFP Surveillance and Targeted Mop-Up Campaigns. The National Polio Surveillance Project (NPSP), collaboration between Government of India and the WHO has been leading the polio vaccination campaign with the aim of complete eradication of polio from India.

13. The SMNet intervention has worked to strengthen the activities of the GPEI. Through its strategy of raising awareness about polio and OPV, house to house mobilization activities, advocacy through local influencers and mother’s meetings and through using data to help prioritize districts, blocks and communities, the intervention has furthered the aims of the GPEI and NPSP. Exhibit 5 below shows how the approach and activities of the SMNet were in line with the approach of the GPEI and NPSP to achieve the aim of polio eradication in India.

**Exhibit 5: GPEI Strategies and SMNet Approach to Polio Eradication**



14. The SMNet intervention identified High Risk Areas (HRAs) and High Risk Groups (HRGs) based on the incidence of WPV cases in the regions and demographic analysis of the children affected. 107 high risk blocks were identified in Western UP and Bihar. In order to further the goals of the Polio Programme and its primary focus on reaching the unreached, SMNet designed an Underserved Strategy which included the following:

- Kosi river cut-off area: strengthening house to house vaccination, setting up satellite offices and overnight stay points to reach access compromised areas in the region
- Muslim community- building partnerships with religious and educational institutions, public announcements through mosques, developing locally contextualized IEC material
- Nomadic groups, migrant workers, brick kiln and construction workers, slum dwellers etc.; vaccinations at transit sites like railway stations; developing locally contextualized IEC material

15. Further details on the SMNet's strategy to reach the unreached and underserved populations to achieve the goals of the polio eradication programme are provided in the sections on Effectiveness and Impact.

### ***C.3. SMNet has accounted for contextual realities in the programming environment and responded to evolving priorities over the years through relevant strategies***

16. The SMNet intervention has responded to changes in the local needs of the community.

#### ***Introduction of CMC and their profiles***

17. The field level mobilization was carried out in UP through CMCs and in Bihar through trained AWWs initially. However, due to the repeated occurrence of polio cases and the large scale polio outbreak in 2009, it was felt that there was a need for more sustained field level interventions in Bihar. CMCs were introduced in Bihar to strengthen the house to house mobilization especially in the high risk areas of the Kosi river basin. The concerted efforts of the CMCs helped in reducing resistance to OPV in the community.

18. While initially the intervention had employed mainly male CMCs, it was found that their reach was limited. Realizing the importance of working along with mother's groups and to propagate messages of not just immunization but also about breastfeeding, hand washing etc. the intervention prioritized selecting women from the local community as CMCs. This has ensured acceptance in the community as well as ease in house to house mobilization.

#### ***Expansion of the 'X' code***

19. One of the success factors of the SMNet intervention has been its robust monitoring of missed households and children. The CMCs would mark all houses with children below the age of 5 with either a 'P' denoting all children in the household were vaccinated or with an 'X' to denote that the household had at least one child who was not vaccinated. Over time, it was realized that more detailed data was required. The 'X' code was expanded to allow CMCs to develop an appropriate strategy to convert 'X' households to 'P' by understanding the subtle types and causes of resistance.

#### **Evolution of the intervention**

The SMNet intervention was launched in UP in 2002 and in Bihar in 2005. The intervention has evolved over the years in response to changing national and local priorities.

High Risk Groups and Areas were identified and prioritized. The Underserved Strategy was developed to reach high risk communities and was expanded from including Muslim sub-sects to also including groups which have been missed during immunization rounds due to their occupations and lifestyles. These included groups like nomads, brick kiln and construction workers, slum dwellers etc.

The field level interventions were strengthened over time in Bihar in response to repeated outbreaks of polio.

The 'X' code, used to mark missed households, was expanded to allow CMCs to identify the causes for not immunizing a child. This allowed a targeted strategy for converting 'X' households to 'P'.

By involving community leaders and building local ownership, the intervention was able to develop locally relevant strategies to strengthen polio eradication efforts.

20. The expanded 'X' code allowed for identification of households which were resistant, when the child is not at home or in the village, if a child is sick and if the house is locked. This additional information facilitated more targeted responses, strengthened the polio eradication effort and promoted local ownership by the CMCs.

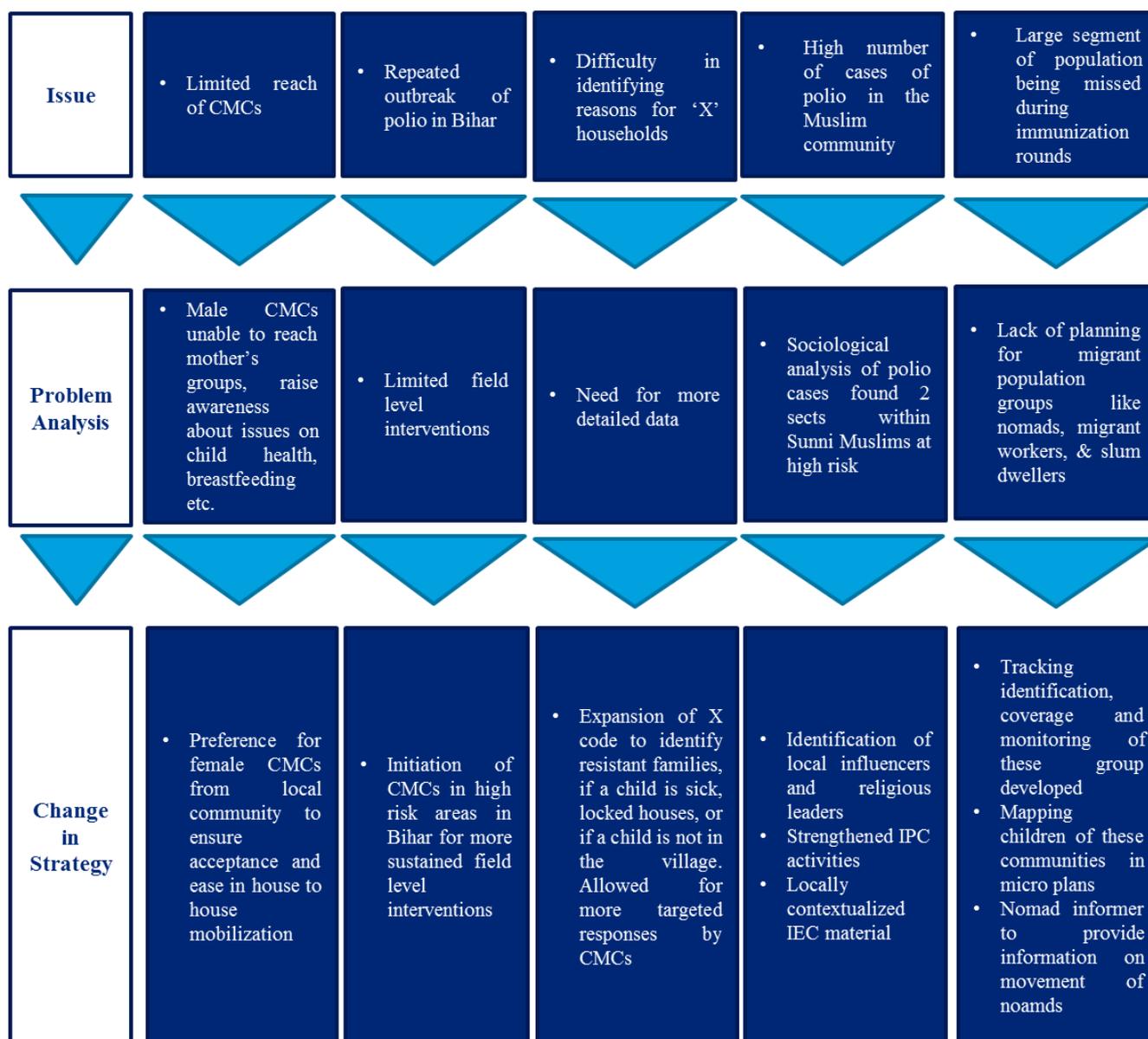
#### *Expansion of the Underserved Strategy*

21. The SMNet intervention used data to inform its approach and to identify high risk groups. The Muslim community has been historically understood as an underserved section in polio eradication interventions. Sociological analysis of polio cases found that a very large percentage of those affected were from the Muslim community and belonged to two sects- Bareilly and Deobandi within the Sunni stream of Islam. The SMNet intervention launched its Underserved Strategy and worked to strengthen communication and outreach activities focusing on these two sects.

22. Further analysis of polio cases found that increasingly there was a large segment of population being missed during immunization rounds due to the nature of their occupations and lifestyles. The intervention identified migrant population groups like nomads, brick kiln and construction workers, temporary and permanent slum dwellers as vulnerable groups often missed during polio immunization rounds health services are planned and catered to permanent residents of an area. The intervention started by tracking and mapping polio cases in these migrant groups and communities. As data emerged about WPV incidence and polio cases in these communities, the intervention expanded its operational definition of underserved. Common definitions and contextualized strategies for tracking, identification, coverage and monitoring of these groups were developed. Further details on the Underserved Strategy and activities undertaken by SMNet to reach chronically missed population groups are provided in the sections on Effectiveness and Impact.

23. Exhibit 6 below provides a snapshot of how the strategy has evolved over time:

**Exhibit 6: Strategic responses to contextual changes**



24. There have been changes in the policy and programmatic environment since the inception of the SMNet.

### *Convergence with and overlap of roles of CMCs with frontline workers under NRHM and the restructured ICDS Programme*

25. The NRHM introduced the concept of ASHAs as frontline workers in 2005. The role of the ASHAs included raising awareness on health issues and ensuring complete immunization of children. Further, under the ICDS, AWWs have been responsible for advocacy for immunization.

26. However, despite the presence of ASHAs and AWWs whose job responsibilities are similar to those of the CMC, the SMNet intervention did not work towards role rationalization to prevent duplication of effort.

27. In the current context, the ASHAs role is ever expanding and the Restructured ICDS has increased the number of responsibilities of the AWW. There have been concerns amongst stakeholders that ASHAs and AWWs will not be able to take up the responsibilities of the CMCs in whole. However, there is scope for exploring the option of utilizing CMCs in a complementary rather than overlapping role with the ASHA's and also leveraging them for supportive supervision and training of ASHAs/AWWs. This would be useful considering the in-depth training provided to CMCs for IEC/BCC and social mobilization. The intervention has already been organizing meetings with ASHAs and AWWs on a regular basis to further the convergence agenda. These meetings involve the discussion of issues on monitoring OPV coverage and reaching resistant/hard-to-reach groups, orientation on polio awareness and immunization benefits.

### *Strengthening of Routine Immunization and the Polio Plus initiative*

28. One of the strategies of the GPEI/NPSP towards polio eradication has been to strengthen routine immunization. The SMNet has also prioritized raising awareness about routine immunization to maximize outcome and enhance immunity levels of children. The 'Polio Plus' initiative uses the mothers' meetings and house to house mobilization strategies to raise awareness about Routine Immunization, diarrhea management, sanitation, breastfeeding and nutrition. The SMNet functionaries work in congruence with government frontline workers- AWWs and ASHAs especially in the context of the Intensified Routine Immunization (IRI) Programme launched by the government of India in 2012, with the objective of universal coverage especially in hard to reach areas and for those that have historically been left out. Primary qualitative research also shows that government officials now look up to SMNet functionaries for monitoring the activities of the frontline workers especially during RI sessions. However, there still remains a large gap in the uptake of RI and there is a need to leverage the CMCs capabilities more formally and to garner their support in improving RI coverage.

### *Donor Fatigue and Reduced Funding*

29. WHO, the Gates Foundation and USAID have been funding the polio eradication programme in India for over two decades. There has been growing campaign and donor fatigue and constraints in resources and funding for the polio programme. Now, with the eradication of polio in India, the risk of further reduced funding and

The work of GPEI will not end once polio has been eradicated. Activities will be needed to minimize the risks of poliovirus re-introduction.  
[Source: GPEI End Game Strategy]

campaign fatigue is higher. However, the GPEI's end game strategy which aims at complete eradication and containment of the poliovirus, cautions about the risks of import of the polio virus from other endemic countries. India will have to maintain an aggressive agenda to strengthen routine immunization and maintain supplementary activities in order to maintain high immunity. In this context, the relevance of SMNet gains significance.

### *Key findings for Relevance*

- **The design and interventions of SMNet are aligned with community needs**
  - The majority of polio cases were found to be occurring in UP and Bihar with 86% of the 1,556 cases of WPV1 cases in 2002 identified in UP and Bihar – indicating that the spatial targeting of the SMNet Programme was aligned to community needs
  - Specific determinants of high polio incidence in UP and Bihar and high risk areas within these states, such as resistance due to cultural/religious beliefs; a mobile migrant population; poor sanitary conditions etc. were addressed by different strategies of SMNet. These factors determined the selection of the 107 blocks for SMNet interventions.
- **The SMNet approach has been relevant to achieve the results of the polio eradication programme**
  - The SMNet approach to reducing resistance to vaccination and reaching the unreached in polio endemic states of UP and Bihar helped achieve the results of the polio eradication programme in India
  - The SMNet intervention has worked to strengthen the activities of the GPEI through its strategy of raising awareness about polio and OPV, house to house mobilization activities, advocacy through local influencers and mother's meetings and through using data to help prioritize districts, blocks and communities
- **SMNet has accounted for contextual realities in the programming environment and responded to evolving priorities over the years through relevant strategies**
  - Changes in CMC profiles from male to female and introduction of CMCs in Bihar after the polio outbreak
  - Expansion and disaggregation of code X to better monitor refusal and resistance
  - Expansion of the Underserved Strategy to include high risk groups like nomads, brick kiln workers, migrants, construction workers, and populations residing in urban slums
  - Contributing to Routine Immunization, although this requires more focus to achieve improved immunization rates
  - Expansion of the scope of SMNet through Polio Plus to plan for sustainability and addressing larger determinants of polio like nutrition, hygiene and sanitation, etc.
  - In the current context, there is a need to revisit and align SMNet vis-à-vis the NRHM (especially with the ASHA) and the restructured ICDS

## B. EFFECTIVENESS

1. An important focus area of the evaluation was to assess the *effectiveness* of the SMNet intervention *i.e. the extent to which the objectives of the intervention have been achieved*. The key aspects that were analysed within this parameter include –

### Key questions

- The extent to which the objectives of the network have been achieved—knowledge and awareness of OPV, routine services etc., community trust in health services, demand for OPV and adoption of key behaviours such as taking children to immunization services when offered.
- Whether and how SMNet intervention have contributed to reaching the worst-off groups
- The extent to which the SMNet intervention has contributed to the results of polio eradication programme
- What were the major factors influencing the achievement or non-achievement of the objectives?
- What difficulties/constraints did the SMNet encounter? Are there any gaps in the operational model?
- To what extent were the objectives of SMNet achieved / are likely to be achieved for polio and routine immunization?
- To what extent SMNet has been able to mobilize the community for polio in UP and Bihar

### *D.1. Knowledge and awareness of OPV has improved in SMNet intervention areas*

2. One of the core objectives of the SMNet intervention was to raise knowledge and awareness of OPV among the community. This objective has been achieved to a large extent. The qualitative research analyses of the focused group discussions in intervention areas shows that while initially there were many misconceptions about polio and the vaccinations, now the large majority is aware about polio, its symptoms and effects and about the need to give their children OPV drops. The primary source of information on polio and the OPV was the CMC and the AWW of the areas. They were responsible for resolving the community's misconceptions about the polio vaccinations and for providing information about the benefits of the OPV. The community's mistrust stemmed from the house to house sterilization campaigns from the past and many believed the OPV was also a method for sterilization. Often female children would be immunized but parents would not allow male children to receive the OPV. In addition, many believed that the vaccination contained elements which are considered *haram* in Islam and would not allow children to be exposed to these elements.

3. The SMNet strategy for improving knowledge and awareness about polio and OPV was to reach out to the community through CMCs and by engaging in interpersonal communication. The main forums where the information about polio and OPV was provided to the community was through the house to house mobilization and regular mothers meetings conducted by the CMCs. Often, community influencers- PRI members, religious leaders etc. would attend the monthly meetings and would provide legitimacy to the information being provided by the CMCs.

4. Through the primary qualitative assessment it was found that despite increased awareness about the polio virus and the benefits of OPV, awareness about the need for multiple dosages remained low in

Darbhanga district in Bihar in both intervention and non-intervention areas. Through the FGDs conducted with parents groups in the district, it was also found that the majority of respondents were not aware of the number of times their children had been administered the OPV.

5. A meta- analysis was undertaken for an objective appraisal of KABP evidence available. Details of the meta-analysis methodology and findings are provided in Annexure 5. The meta-analysis findings corroborate the findings from the primary qualitative data to a certain extent. The meta-analysis found a positive correlation of medium strength ( $r = 0.38$ ) between the Knowledge Attitude (KA) scores over the years. It also found a strong positive correlation ( $r = 0.97$ ) of the community's access to and interaction with frontline workers (AWWs and CMCs) over the years. The regression analysis undertaken for the KA indicators shows a very large effect size (using Cohen's conventions) of 2.3 SDs over three years. This increase in in knowledge and awareness about polio and OPV in the communities over time can be linked to the strengthening of SMNet interventions which focused on these aspects over these years.

6. The meta-analysis investigated the linkages of the changes in KA and the SMNet intervention by considering the frontline workers as a proxy for the intervention. The analysis indicated that the community's awareness about polio, prevention through OPV, need for repeated dosages etc. increased over the years and corresponds to an increase in interaction with the SMNet intervention through CMCs and other frontline workers. There is a strong, linear relationship ( $r = 0.51$ ) between KA and access of communities to frontline workers and CMC visits. Combined with the strengthened SMNet inputs (as evidenced by the increasing interaction of the community with the CMCs over the years), the community's increase in knowledge and awareness can be attributed to the SMNet intervention.

#### ***D.2. Behaviours and practices related to accessing OPV for targeted children have increased in SMNet intervention areas***

7. The findings from the KABP studies and the meta-analysis indicate a strong correlation in the behaviours and practices related to polio immunization in the intervention areas over the years. This shows that there has been a positive change in the behaviours and practices of the community for immunization of children in 0-5 years age group during the last pulse polio round, and the practice of administering OPV from AWW/health facility or Routine Immunization in case the dose was missed during the last pulse polio round.

8. The regression analysis undertaken for the BP indicators shows a large effect size (using Cohen's conventions) of 0.93 SDs over three years indicating linkages with the strengthening of the SMNet intervention.

9. The meta-analysis investigated the linkages of the changes in BP and the SMNet intervention by considering the frontline workers as a proxy for the intervention. The analysis indicated that the increase in behaviors and practices of actually seeking immunization and OPV among communities correlates to the increase in interaction with the SMNet intervention through CMCs and other frontline workers. There is a very strong, linear relationship ( $r = 0.90$ ) between BP and access of communities to frontline workers and CMC visits. Combined with the strengthened SMNet inputs (as evidenced by the increasing

interaction of the community with the CMCs over the years), the community’s increase in behaviours and practices in accessing OPV can be attributed to the SMNet intervention.

10. It is to be noted that the behaviours and practices for seeking immunization and OPV has increased more than the increase in knowledge and attitude of the community about polio and OPV. This could be due to the reiteration of messages about immunization from multiple sources, reinforcement through observed actions of others in the same community and the high frequency of the pulse polio rounds rather than due to an understanding of polio and the medical necessity of OPV.

**D.3. Reduction in refusal rates can be attributed to the SMNet intervention to some extent**

11. Analysis of primary qualitative data shows that local influencers and community members believe that the SMNet intervention has been critical for increasing demand for OPV. The SMNet strategy of household mobilization, marking houses of missed children and micro planning undertaken for the government has been instrumental for improving polio surveillance and coverage.

12. The CMCs were involved in providing additional data for micro plans to monitor children in the age group 0-5 years. The microplans would include a 5 day plan for household visits and immunizations. The CMCs would also prepare ‘child maps’ to identify all eligible and missed children. These maps would mark out priority areas including households with newborn and children under 3, areas which have had repeated refusals and any missed children. In addition, a mobilization plan would be drawn up which would identify areas for placing posters, influencers to accompany the CMCs and vaccination teams to households where there were repeated refusals etc.



(Source: JSM – UP Polio Oct 2011 presentation)

13. Two vaccination teams were set up – A and B. The ‘A Team’ vaccinators and CMCs would visit houses to vaccinate children during the SIA rounds in Bihar and those children who missed getting vaccinated at the booths in UP and documented any remaining missed children and households as ‘X’. After visits by Team A, Team B would visit all remaining ‘X’ households with the CMCs to convince families to immunize their children. While originally, ‘X’ was used to denote all houses where there was at least one child who was not immunized, the ‘X’ code was later expanded to allow the CMCs to develop an appropriate strategy to immunize all missed children. The table below describes the expanded codes and the strategy used to vaccinate children:

**Vaccination Process during SIA rounds**

- Day 1: Vaccination booths are set up to immunize children.
- Day 2-5: Team A visit households to document vaccination status of all eligible children and identify ‘X’ households
- Day 2-5: CMCs accompany Team A’s revisits to all ‘X’ households to convince families to immunize their children
- Day 3-6: Team B visits all remaining ‘X’ households accompanied by the CMC to communicate to families the importance of OPV

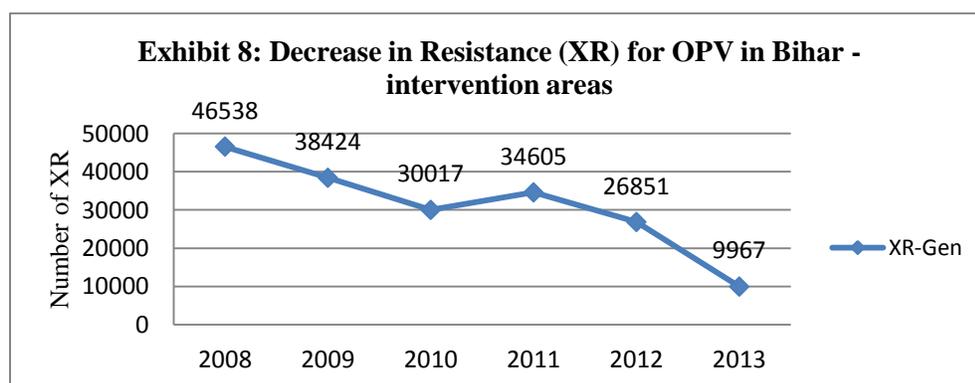
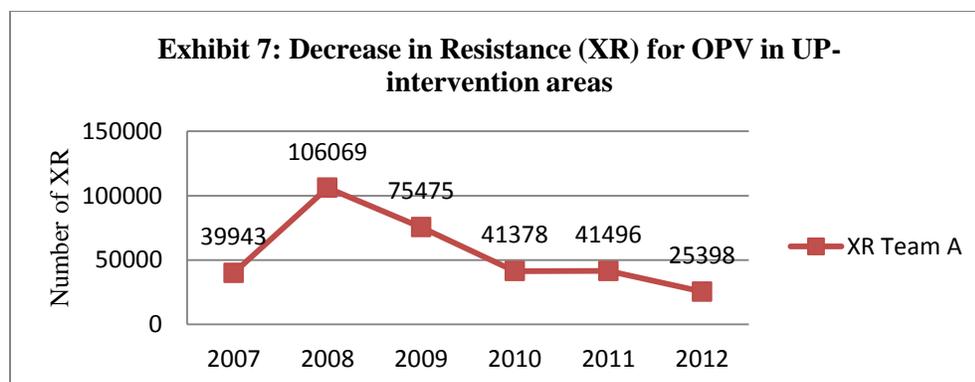
**Table 5: Expanded ‘X’ Codes**

Code	Description	Strategy
XR	Reluctant to immunize child	<ul style="list-style-type: none"> <li>• Understand reasons for reluctance which would</li> </ul>

		<p>range from mistrust of the vaccine and/or of the government health workers, low awareness of need for multiple dosages, beliefs such as OPV being <i>haraam</i> etc.</p> <ul style="list-style-type: none"> <li>• Interpersonal Communication through a female member of the same community</li> <li>• Use local leaders and influencers like imams, teachers, PRI members to visit the household along with the team</li> <li>• Mosque announcements</li> </ul>
XS	Child is sick and cannot take the vaccination dose	<ul style="list-style-type: none"> <li>• Taking the RMP along with the vaccination team to attend to the child as well as vaccinate him/her</li> </ul>
XV	Child is not in the village	<ul style="list-style-type: none"> <li>• Could indicate a migrant family. CMCs track these households and children and immunize them.</li> </ul>
XH	Child is not at home	
XL	House is locked	

14. Secondary data analysis, combined with data from primary field visits indicate that refusal to OPV has reduced over time. For instance, discussions with SMNet functionaries in Varanasi district in UP indicated that XR households in the district have reduced from around 2500 in 2008 to 124 in 2013. Similarly, Motihari district in Bihar has reported 0 XR houses indicating community awareness and acceptance for the OPV.

15. The graphs below show the decrease in resistance to OPV (houses marked as XR by the A Team) in UP and Bihar. Data has been made available only from 2007 for UP and from 2008 for Bihar.



16. As seen in the graphs, there has been a sharp decline in resistance to OPV in the SMNet intervention areas since 2008 in both UP and Bihar. The high resistance to OPV in 2008 led to the large polio outbreak in 2009 in UP and Bihar. The SMNet intervention increased its mobilization activities and introduced CMCs in HRAs in Bihar in 2009 as a response to the polio outbreak. This helped in reducing the resistance to OPV in the subsequent years.

17. As discussed above, the KABP studies and meta-analysis show the increased interaction of the CMCs with the community and the decrease in resistance to OPV can be attributed to a large extent to the awareness raising and mobilization measures adopted by the intervention.

#### ***D.4. There has been a net increase in number of children accessing the OPV at vaccination booths in UP***

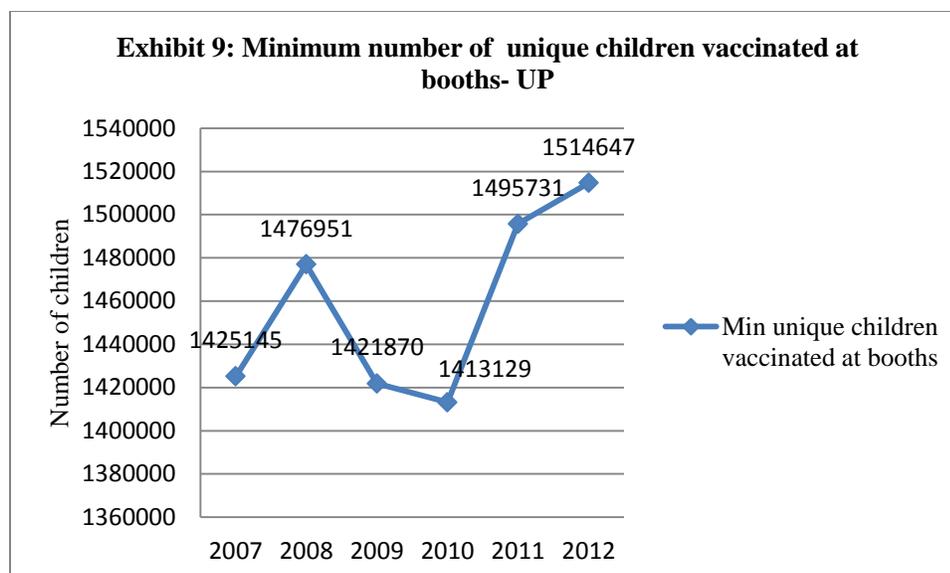
18. The effectiveness of the awareness raising and mobilization efforts of the CMCs can be linked to the increase in number of children immunized at booths in UP. Vaccination booths during polio immunization days are only set up in UP and not in Bihar. Government health officials, and WHO personnel are involved in setting up the vaccination booths. They take inputs from the CMCs to decide an appropriate site for setting up the booth. Often based on recommendations from the CMCs, vaccination booth sites would be changed or more than one booth would be set up in a village.

“The CMCs would draw attention to social issues and recommend changing the site of the vaccination booth. If a booth was set up next to a mosque or a temple, people from the other community may not have come for the vaccinations. Sometimes two booths would also be set up in a village to resolve this problem.” [Monitoring and Evaluation Officer, Polio Eradication, India Country Office UNICEF]

19. The vaccination booths would be decorated with banners, posters and other IEC material. A festive atmosphere would be created. As part of the SMNet strategy, booths would be inaugurated by local leaders and influencers to give legitimacy to the vaccination round.

20. The graph below shows the minimum number of unique children vaccinated at booths in UP<sup>4</sup> over the years. The analysis has been carried out by organizing data according to years. The number of vaccination days/ rounds per year varies and the same child attends and is vaccinated at more than one round per year. Hence, to avoid any double counting/duplication, the analysis has taken the maximum number of children vaccinated in one round in a given year. This figure shows the least number of unique children who have been immunized at vaccination booths in a given year. This also allows for a fair comparison between years with different numbers of immunization rounds.

<sup>4</sup> Vaccination booths are not set up in Bihar



21. The intervention realized that dependence on traditional methods of IEC like using pamphlets and posters before and during NIDs and SIAs offered limited success. The CMCs were instrumental in raising awareness about the NIDs and SIAs through interpersonal communication, mothers group meetings, using local networks of community, religious and cultural leaders, organizing school children and teachers to mobilize parents etc.

**Involvement of Children**

**Bulawa tollies or children’s brigades were organized by the CMCs with support from school teachers. These tollies would move from locality to locality, wearing caps and badges with polio immunization message. Through shouting slogans and blowing whistles, these bulawa tollies would encourage participation of children and parents at the polio booth.**

***D.5. The SMNet intervention has focused on reaching the worst-off groups through its Underserved Strategy***

22. The NPSP and SMNet intervention identified 107 high risk blocks in Western UP and Bihar based on polio cases reported in the region. The high risk areas identified include villages in the Kosi basin in Bihar which are prone to flooding every year, witness frequent migration and compromised access to services and hence are at much greater risk for virus transmission. The area is also extremely difficult to reach and vaccinators/ health workers would have less access to these villages.

**Gender and Equity**

- By focusing on high risk areas and high risk groups/ underserved community- Muslim community, Brick kiln and construction workers, Nomadic groups and Slum dwellers, the intervention was designed to address issues of equity. This approach ensured that those who were worst affected were prioritized.
- The intervention engaged women at decentralized levels as change agents. Preference was given to employing and training female CMCs in order to reach mothers/caregivers meetings. As a secondary result of the intervention, women have been empowered and are active decision makers in household decision making. Through the SMNet, CMCs have access to a platform for growth and learning, there is a large degree of social recognition and an increase in mobility.

23. The SMNet intervention has been successful in reaching the worst off groups through its Underserved Strategy (USS) which sought to strengthen communication strategies to reach the unreached.

24. A District Underserved Coordinator (DUC) is responsible for formulating the USS for the district and developing an operational plan to reach those who are worst off. The DUC is also responsible for building partnerships with local leaders and

“SMNet has also been successful in reaching the high-risk groups such as Muslims, migrants/ nomads, SC/ST. The CMCs are on the field every day and visit the areas to identify such groups. These are then noted down and based on which the micro plan is updated. The RI sites are then identified by WHO and SMNet.” [Darbangha Block Kusheshwar Ladiv Supervisor]

and influencers, and in providing support to the BMCs and CMCs towards utilizing the local social structures and dynamics to undertake strategic interventions. The USS emphasized identification of local customs and events and designing advocacy and mobilization around these.

25. An assessment of polio prevalence was taken as a starting point to identify the worst-off groups or underserved community. It was found that a very large percentage of those affected by the polio virus were from the Muslim community.

While Muslims make up only 17% of the population in UP, 59% of the polio cases in UP in 2002 belonged to Muslim community

26. Further sociological analysis of the polio cases within the Muslim community found that only Sunni Muslims and within Sunni Muslims, only those from two sects- Bareilly and Deobandi sects were being infected by the virus. The main reasons for the high level of WPV prevalence in these communities were their poor social and economic status, ghettoized living conditions and exclusion from the health system which allowed the WPV to flourish and infect children in the community. It was also found that often the vaccination teams were not from the community and would not make the required effort to reach the children in these communities due to the difficulties in reaching them and poor living conditions. There were also instances of local mosques issuing a fatwa against the OPV by categorizing the vaccine as *haraam*.

The focused approach to IEC material development has been critical for successful mobilization. For an instance, the “green booklet” designed for a community with followers of Islam, contains an appeal from the local imam along with quotations from Hadith, which enumerates the role of health and responsibility of parents for the same

27. In order to ensure the underserved sects are reached, the SMNet intervention worked to strengthen communication and outreach strategies. The intervention sought to build partnerships with opinion makers and influencers including educational and religious institutions, workers groups, women’s

In UP 84% of the mosques with public announcement systems in CMC areas have mosque announcements for Polio Immunisation on Booth day or on the Friday before the Booth day.

groups and with individual leaders/ representatives to ensure planned and systematic support to reach out to every child through grassroots social mobilization and advocacy. The main objective was increasing

confidence and trust of the underserved community on the vaccination team and the public health system.

**Some mosques make additional announcements during the team's house to house visits as well. To supplement these efforts over half of these mosques conduct a special Taqrir or sermon which include messages on the benefits of polio vaccination**

28. CMCs would organize meetings with local leaders and influencers- religious leaders, practitioners of alternate medicine, shopkeepers, owners of businesses etc. to obtain their cooperation and support for polio vaccination efforts. These influencers would help gain community support and legitimacy for the CMCs and also act as credible sources of information. During these 'Influencer Meetings', CMCs would also convince the influencers to visit homes with them during SIA rounds to allay fears of families reluctant to immunize their child. The CMCs also convince religious leaders to make mosque and temple announcements about the SIA prior to the campaign.

**Melas and congregations- Special communication interventions such as focused IEC, mike announcements, street theatres, puppet shows, film shows, etc., are organized during large events such as Shravani Mela, Ardh Kumbh and Urs all along the route of the population movement, creating awareness on the need for polio**

29. The intervention developed a partnership building strategy in 2003 and reached out to eminent Muslim educational institutions to leverage their influence over Muslim masses. Formal agreements were made with Aligarh Muslim University, Jamia Millia Islamia and Jamia Hamdard to provide support for grassroots social mobilization and advocacy to mitigate misconceptions and reach out to the unreached Muslim underserved children. The intervention undertook joint planning, designing of customized IEC material and implementation of strategies through the partnerships formed with the religious and educational institutions.

**With the support of the district health department and Dargah Committee it was ensured that every child coming to the yearly Dargah Sharif Mela in Bahraich district of UP was immunized and large scale awareness about polio is raised.**

**The PA system at the Dargah urges pilgrims to immunise their children. The ailaan (appeal) is made about 20 times a day emphasizing that OPV is supported by ulemas or religious heads.**

30. Partnerships were also developed with local leaders and religious to ensure support at the grassroots level as well. The intervention would enlist the help of the imams of the local mosques to further the teachings of Islam focusing on child healthcare and prevention of diseases. The Tableegh movement which conveys the message of God regarding prayer and life to reach the Sunni population was also utilized for reaching more people. As part of the underserved strategy, the SMNet intervention prioritized participating in congregations at Dargahs' Urs, Melas, Dastarbandi, Shabe Barat, Ramazan & Idul Fitre, Id Milad e Nabi, Qul, Haj. Vaccination

**Utilizing elevated status of Hajjis to advocate for polio immunization- pilgrims applying for Haj in 2008 were asked to submit polio immunisation certificates with their application forms. The SMNet intervention continued advocacy for OPV through the Haj application process and also enlisted support of senior and respected members of the Muslim community as partners and influencers.**

booths would be set up during these congregations and festivals and SMNet workers would be involved in raising awareness and vaccination efforts.

31. In addition to the partnerships formed with religious and educational institutions, the SMNet intervention also identified local women of the same community and trained them as CMCs who would raise awareness about polio and OPV through interpersonal communication. The CMCs would move with the vaccination teams from house to house to vaccinate the children. When faced with resistance, the CMC would return to the household accompanied by a local influencer to convince the family to get their children vaccinated.

32. Traditionally, underserved communities has meant the Muslim community. However, analysis of WPV cases 2003 onwards showed increasingly that there was a large segment of population being missed during immunization rounds due to the nature of their occupations and lifestyles. The intervention identified Brick Kiln and Construction Workers, Nomads, Temporary and permanent slum dwellers as vulnerable groups meeting the operational definition of underserved communities. These groups usually do not stay in one place and hence are often missed as health services are planned and catered to permanent residents of an area.

The only P3 case of Moradabad sub-region in 2003 (after ~200 cases in 2002) was a nomad child near an urban railway station line

33. The SMNet intervention started tracking migrant groups and communities in 2005 and presented their findings to the IEAG. The SMNet USS was expanded to include these underserved groups in 2008-09. Common definitions and contextualized strategies for tracking, identification, coverage and monitoring different underserved group were developed under the SMNet USS.

Special vaccination drive during festivals – To protect migrants returning home to endemic states, special vaccination drives are held at major transit sites – railway stations and bus stands – in Uttar Pradesh and Bihar during popular festivals like Holi and Chhat.

- **Brick Kiln and Construction Workers:** CMCs are responsible for listing and tracking brick kiln and construction sites on an ongoing basis. Children living in the area are identified and included in the and child maps of the CMCs. Partnerships are developed with owners of construction sites and employers of brick kiln workers to motivate parents to get their children immunized.
- **Nomads:** Nomadic groups including Kanjars, Gadia Lohars, Nat, Gandhiley and Banjara groups are identified and sites where these groups normally set up camps are identified. A nomad informer is appointed through the SMNet to provide information to the BMC about nomad groups in the areas. The intervention also undertakes ‘cross notification’ i.e. when a nomadic group moves from one district to another, the DUC informs his/her counterpart about the incoming nomads.
- **Temporary and Permanent slum dwellers:** the CMCs ensure that permanent slums are mapped on micro plans and also identify and cover temporary slum dwellers. A Migrant Study in 2010 found that awareness levels among slum dwellers was very low. The CMCs cover all temporary and permanent slums and raise awareness in the community through IPC.

Polio immunization messages are painted on brick kiln chimneys to raise awareness amongst migrant workers about getting their children immunized.

34. Since these population groups have traditionally been underserved, the contextual strategies developed and adopted through the SMNet intervention has helped reach the worst off.

#### ***D.6. The community has a high level of faith and trust in the CMCs***

35. The primary FGDs conducted with the community and with local influencers highlighted the community's acceptance of the CMC and the faith placed in her. The CMC is chosen from the community itself and acceptance of the CMC by the targeted households is a key selection parameter. While initially the intervention used both male and female CMCs, due to the nature of work which includes house to house mobilization and interacting with mother's groups, the majority of CMCs are now women. The CMCs are trained by BMCs and the focus of the trainings is on IPC.

36. The SMNet intervention strategy of the CMC being accompanied by a local influencer during the house to

The sustained manner in which activities have been carried out by CMCs, has been one of the success factors of the pulse polio initiative”  
[Influencer Motihari]

house mobilization led to a high level of faith and trust in the CMC and the messages being conveyed by her. Acting as a single point of contact for the community on all issues related to polio, combined with the house to house counseling and regular monthly meetings has also helped the CMC build trust and faith amongst the people. Initially, CMCs were mistreated and people were reluctant to engage with them, over time the CMCs have built a relationship with community members and are respected. As the CMCs credibility grew in the area, people started reaching out to them seeking information on polio vaccination, schedules for the next round of vaccinations etc.

37. The CMCs have worked along with the government frontline workers like the AWW and the ASHAs and support them

“If CMCs are not in HRAs, the immunization coverage would not remain the same” [MOIC, Janikhurd]

in their role of raising awareness and motivating people for OPV. Community members and influencers have noticed that the collaborative work of the ASHAs/ANMs and the CMC have led to positive changes in the awareness and behaviour of the people towards polio and OPV. The RMPs trust the data maintained by the CMCs and often reach out to them to get information about polio/RI status of children in the community.

#### ***D.7. The SMNet intervention has worked in close collaboration with the public health system and this has worked in reinforcing the community's faith in the CMCs as well as in public health systems and services.***

38. The SMNet intervention has worked very closely with the public health system. The SMNet intervention strategy is shared with the District Administration and inputs from the District Collector, CMO etc. are taken by the DMC and DUC. The District Task Force is formed under District Collector and has participation from Health Department, Administrative Department, UNICEF, WHO, Rotary and other Government officials. The SMNet members act as facilitators and help plan activities for raising awareness about polio.

39. Frontline workers are provided support by the SMNet intervention through trainings provided by the BMC on polio awareness and immunization benefits. The frontline workers interviewed during the primary qualitative research were appreciative of the support provided by the CMCs. The monitoring and surveillance data collected and maintained by the CMCs is more robust than that collected by the AWW and they are dependent on this data to a large extent. Combined with supportive supervision by BMCs and even CMCs in some instances has led to a huge difference in the work done by the AWW. The AWW met in the intervention area in Aligarh credited the success of polio eradication to the support provided by the CMCs.

40. The CMCs close collaboration with the public health system and government frontline workers helped establish their credibility in the community. At the same time, as demand for the OPV grew among the community and the public health system could respond to the demand effectively, the community's faith in the system was also reinforced.

***D.8. The SMNet interventions original objective (social mobilization for polio immunization) has been achieved to a large extent.***

41. The objectives of the SMNet strategy were<sup>5</sup> to:

- Maximize the impact of communication efforts at the national, state, district and block level through strengthened coordination amongst partners and effective advocacy
- Ensure children most at risk – particularly those under the age of two, Muslim and boys – are adequately protected from polio by intensifying efforts in blocks where wild polio virus transmission is sustained
- Increase the total number of children immunized and turnout at the booth by achieving a critical mass of communication activities in all high-risk areas of priority blocks in states with ongoing wild poliovirus transmission
- Ensure polio eradication by strengthening communication for routine immunization especially in polio endemic states

42. However, these objectives were not quantitative or linked to specific outputs. The intervention monitored only SIA data and changes in this cannot be solely attributable to SMNet since the intervention is a BCC intervention. Knowledge Attitude Behaviour Practices data was not regularly measured and monitored through the intervention period.

43. The SMNet intervention's success has been in the increase of awareness about polio and OPV, the increase in immunization coverage and the eradication of polio in India. The goal of increasing routine immunization has been met to a certain extent. The major success factors of the intervention include the following:



<sup>5</sup> Strategic Communication for Immunization – The Final Push to Eradicate Polio in India, UNICEF, 2004

- **House to house mobilization strategy and Contextualized IEC material:** The SMNet house to house mobilization strategy through CMC visits and contextualized IEC material has been a major factor influencing the achievement of objectives. The intervention has encouraged and supported local IEC material with pictures, messages and signatures of influential local figures. Apart from the IEC material developed with the support of the district level SMNet officials, madrasa teachers and students in UP were also involved in making their own IEC material.
- **Strong linkages:** The strong linkages created with local influencers (PRI members, religious leaders, teachers etc.), local NGOs/CBOs, the government system (District Magistrates, Civil Surgeons, AWWs, ASHAs etc.) and with WHO/NPSP has helped the intervention achieve its objectives
- **Robust monitoring:** Strong monitoring activities (at the community level to track missed children and of the CMCs and BMCs) has been effective in improving the accountability of the system, ensuring timely redressal of issues and hence in achieving objectives of the intervention.

#### ***D.9. The SMNet focus has expanded over time from only polio immunization to other child health issues including Routine Immunization***

44. Based on the outcomes of the polio eradication initiatives, it was observed that in order to maximize the outcome, apart from mobilization for OPV, other areas need to be explored in order to enhance immunity levels of the children. The focus of the SMNet intervention has now expanded in scope to include Routine Immunization, hand washing, diarrhea management, sanitation, breast feeding and nutrition as well. The ‘Polio Plus’ initiative uses the mothers meetings and house to house mobilization strategies to raise awareness about these issues.

45. The Polio Plus initiative is indirectly helping the SMNet intervention build further credibility. Primary interviews with the SRC and DMC showed that engaging with the community on issues other than polio and OPV has helped the community to have more faith in the CMCs and their messages.

46. The major focus of the intervention is now on Routine Immunization along with OPV. Primary qualitative research also shows that government officials now look up to SMNet functionaries for monitoring the activities of the frontline workers especially during RI sessions. For example, BMCs and BCCs now accompany the Lady Supervisors of ICDS in monitoring the activities of AWWs.

47. The graphs below show the percentage of children (12-23 months) who have received full immunization (BCG, 3 doses each of DPT and Polio) in UP and Bihar in 2007-08 and in 2010-11. The data source for the 2007-08 is DLHS-3 and that of 2010-11 is the Annual Health Survey 2010. While the data is discontinuous and not comparable directly due to differences in sampling and methodology, it is representative of the immunization rates in the districts. Districts which have a strong SMNet presence (districts with number of blocks having CMCs greater than the mean for the state) were identified. The average number of blocks with CMCs = 6.5 and above in UP and 3.44 and above in Bihar were considered as high SMNet coverage districts. There are 18 such districts in UP and 14 districts in Bihar. Average routine immunization rates for UP and Bihar in 2007-08 and 2010-11 were taken as cut-offs for identifying high performing/low performing districts.

48. Exhibit 10 and 11 below, show the routine immunization rates in UP and Bihar and have marked areas which have a strong SMNet presence. The areas in which there is a strong SMNet presence corresponds to high risk areas where typically there have been high levels of resistance and low

immunization coverage. The table below shows the percentage of districts with high SMNet presence which have routine immunization rates higher than the state average.

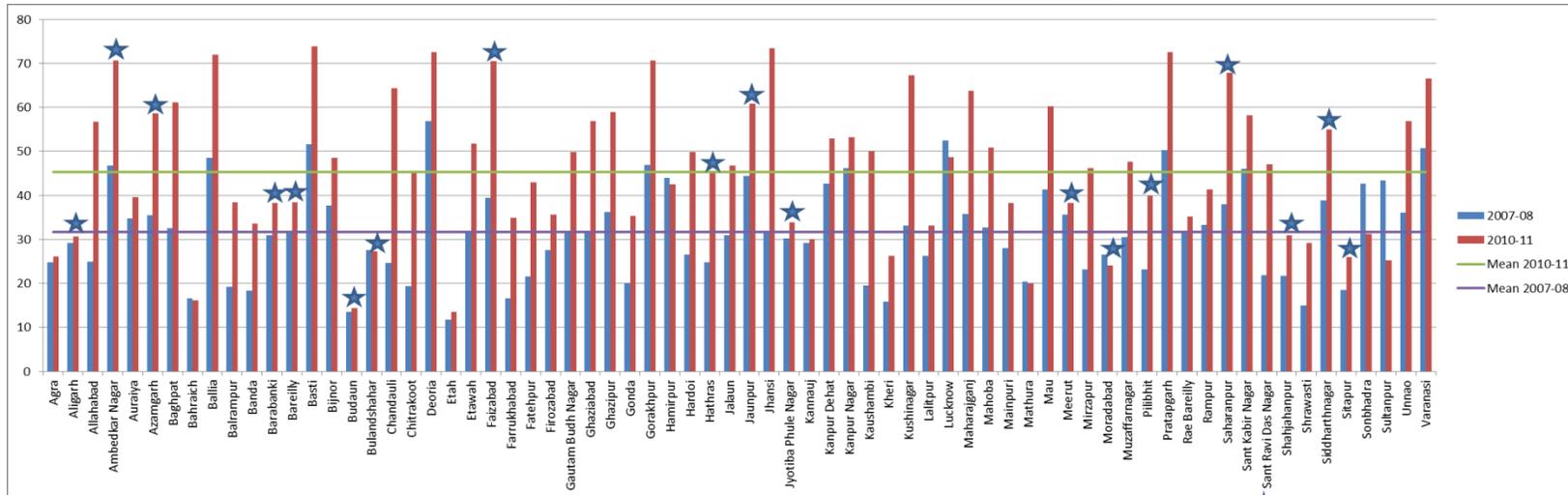
**Table 6: Analysis of Routine Immunization Rates\***

Year and Source	State	Districts with high SMNet presence	% Districts with high SMNet presence and routine immunization rates higher than state average
2007-08, DLHS	UP	18	38.8%
	Bihar	14	44.4%
2010-11, AHS	UP	18	71.4%
	Bihar	14	57.1%

\*Since the data for the two years is discontinuous and not comparable due to differences in sampling and methodology, comparison is not possible across years.

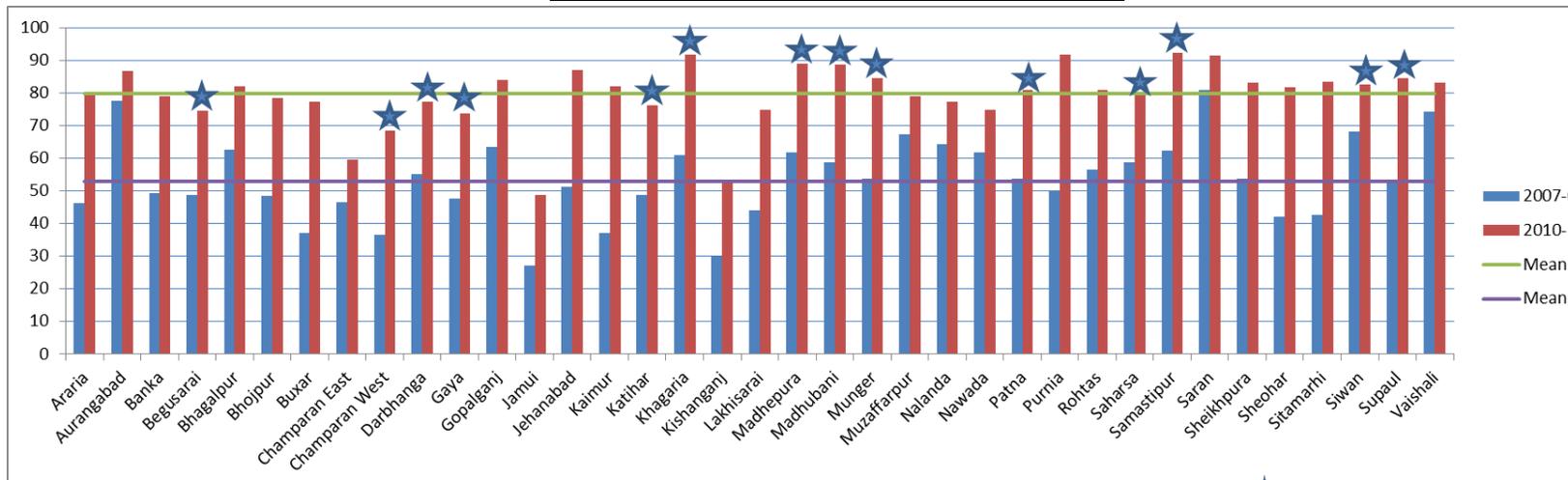
49. However, there still remains a large gap in the uptake of RI. In addition to the use of community mobilisers, there is a need to develop locally contextual IEC material for RI at a scale and at levels (even up to village level) similar to that of OPV.

**Exhibit 10: Routine Immunization Rates- UP**



★ High SMNet intervention district

**Exhibit 11: Routine Immunization Rates- Bihar**



★ High SMNet intervention district

***D.10. The SMNet intervention has encountered numerous challenges and constraints and has had to respond with innovative solutions***

50. The intervention faced numerous challenges as detailed below:

- **Large mobile population:** as discussed above, there was a large population of migrant workers, nomads and slum dwellers who were historically not included in plans for providing health services. Nomadic groups which would move frequently not just between districts or states, but also across the Nepal border, migrant labourers etc. went unrecognized, unreachable and unimmunized during provision of health services including polio immunization.
- **Children in UP and Bihar often required more than 4 doses of OPV to develop immunity:** Due to the large ‘immunity gap’ with low routine immunization in UP and Bihar, it was found that children were getting infected by polio despite having received 4 doses of OPV. This raised suspicion and resistance to the OPV in the community.
- **Intensive focus of government on polio vaccination to the exclusion of other services created mistrust:** The governments focus on providing polio vaccination to the community and seemingly apathetic response to demands for other public goods and services like health and sanitation services created suspicion and mistrust amongst the community. Some communities believed that the polio campaign was in reality a means of sterilization and population control measures. This prompted reluctance to immunize children with families sending their child away during polio days. At times, families refused to immunize their children until other services like clean water, sanitation facilities etc. were made available to them as well.
- **High rate of attrition among vaccination team members:** Vaccinator turnover rates have been high and the new vaccinators were often not adequately trained to successfully address concerns and fears of the family

51. The SMNet intervention had to address these issues through its programmatic and operational design. The intervention was designed to address various goals, including: addressing parental concerns; understanding reasons for refusing vaccination; creating trust between polio eradication personnel and local residents; tracking missed children including newborns; and identifying missed subpopulations.

52. The intervention depended on the use of data to inform its approaches to meet these goals. As discussed above, through analysis of surveillance data, the intervention prioritized High Risk Areas and High Risk Groups and developed its Under Served Strategy for reaching the unreached. Further, innovative methods such as developing community maps and household tracking of all children under the age of 5 helped the intervention in achieving its goals. The marking of households as ‘X’ to denote a house where a child has not been immunized and the subsequent expansion of the ‘X’ code helped develop targeted responses towards immunizing the child.

53. The SMNet intervention implemented innovative social mobilization methods to achieve their goals. It was recognized that relying on traditional IEC and outreach activities just before and during campaigns offered limited success particularly among “resistant” communities. CMCs and interpersonal communication along with linkages with religious and other local leaders became the most important strategy used by the intervention at the ground level. They worked to build trust within the community towards polio immunization and the public health system in general. In addition to religious leaders, school teachers and children’s participation through bulawa tollies played a critical role in mobilizing the community.

54. The SMNet intervention recognized that vaccination team members need to allay family member's fears and instill faith in the OPV and public health system. Since the vaccinators were generally trained only on the provision of the OPV, the SMNet intervention introduced interpersonal communication training sessions during the government vaccinator training programmes.

55. The interventions dependence on data to inform an evidence-based approach and flexibility in implementation based on contextual realities helped it to overcome numerous challenges and achieve its goals.

### *Key findings for Effectiveness*

- **Knowledge and awareness of OPV has improved in SMNet intervention areas**
  - The meta-analysis findings show a positive trend in knowledge and awareness about OPV in the communities in SMNet interventions areas over the years.
  - The strong positive relationship seen between community's interaction with CMCs and their increase in awareness levels suggest the role of SMNet interventions in this improvement
  - One area of concern was that despite increased awareness about the polio virus and the benefits of OPV, awareness about the need for multiple dosages, and the number of times their children had been administered the OPV remained low in Darbangha district in Bihar in both intervention and non-intervention areas.
- **Behaviours and practices related to accessing OPV for targeted children have increased in SMNet intervention areas**
  - The meta-analysis findings show a positive trend in behaviours and practices related to accessing OPV in the communities in SMNet interventions areas over the years.
- **Reduction in refusal rates can be attributed to the SMNet intervention**
  - Local influencers and community members believe that the SMNet intervention has been critical for increasing demand for OPV were observed and reported by stakeholders.
  - Refusal to OPV has reduced over time in the SMNet intervention areas
  - Evidence from published literature, the KAP studies and the meta-analysis show that the increased interaction of the CMCs with the community and the decrease in resistance to OPV can be attributed to a large extent to the awareness raising and mobilization measures adopted by the intervention
- **There has been a net increase in number of children accessing the OPV at vaccination booths in UP**
  - The CMCs were instrumental in raising awareness about the NIDs and SIDs through interpersonal communication, mothers group meetings, using local networks of community, religious and cultural leaders, organizing school children and teachers
- **The SMNet intervention has focused on reaching the worst-off groups through its Underserved Strategy and include some effective strategies like:**
  - SMNet intervention identified 107 high risk blocks in Western UP and Bihar based on polio cases reported in the region
  - The high risk areas identified include villages in the
  - Kosi basin in Bihar are prone to flooding every year, witness frequent migration and compromised access to services and hence are at much greater risk for virus transmission
  - The SMNet intervention has been successful in reaching the worst off groups through its Underserved Strategy (USS) which sought to strengthen communication strategies to reach the unreached
- **The community has a high level of faith and trust in the CMCs, especially due to the profile of the CMC being a local resource, and strategy of the CMC being accompanied by a local influencer during the house to house mobilization**
- **SMNet has worked in close collaboration with the public health system and this has worked in reinforcing the community's faith in the CMCs as well as in public health systems and services.**

- **The SMNet interventions original objective (social mobilization for polio immunization) has been achieved to a large extent.** The major success factors of the intervention include the following:
  - House to house mobilization strategy and Contextualized IEC material
  - Strong linkages created with local influencers, local NGOs/CBOs, the government system and with WHO/NPSP has helped the intervention achieve its objectives
  - Strong monitoring activities (at the community level to track missed children and of the CMCs and BMCs) has been effective in improving the accountability of the system, ensuring timely redressal of issues and hence in achieving objectives of the intervention
- **The SMNet focus has expanded over time from only polio immunization to other child health issues** such as Routine Immunization, hand washing, diarrhea management, sanitation, breast feeding and nutrition through the Polio Plus programme
  - There still remains a large gap in the uptake of RI, indicating the need to develop locally contextual IEC material for RI at a scale similar to that of OPV
- **The SMNet intervention has encountered numerous challenges and constraints and has had to respond with innovative solutions**
  - The intervention faced numerous challenges such as a large mobile population, requirement of more than 4 doses of OPV for children in UP and Bihar to build immunity, mistrust about OPV in the communities, and high levels of attrition among staff.
  - The SMNet intervention had to address these issues through its programmatic and operational design such as prioritizing HRAs and HRGs; developing a Underserved Strategy with the DUC focusing on its implementation; social mobilization to address resistance, etc.

## C. EFFICIENCY

1. The evaluation covered an assessment of the *efficiency* of the SMNet i.e. *in achieving its objectives whether resources have been used economically and within the specified timeframe*.<sup>6</sup>

### Key questions

- Did the polio programme use resources in the most economical manner to achieve polio eradication results?
- Were the outputs of SMNet in line with inputs provided? What are the associated costs?

1. This section aims to evaluate the efficiency in resource management, reporting, monitoring and review mechanisms of SMNet, primarily with the help of a comprehensive **Value for Money Analysis** (VfM). For the current evaluation the VfM adopted the descriptive approach - *data envelopment analysis (DEA)* as the most appropriate methodology.

2. This analysis focuses on retrospective VfM measurement, emphasizing technical efficiency as well as different aspects of management and allocative efficiency. The aim of the VfM was to measure the ratio of SMNet coverage for eradication of polio (in terms of reaching the last mile), to the expenditure incurred by UNICEF on the programme. In most health interventions, especially in case of complex programmes like SMNet, there is a need to adopt a longer time perspective. Some of today's outcomes arise from interventions in previous periods. And some of today's endeavours affect outcomes only at some time in the future. This is particularly relevant for disease eradication – which involves an unspecified future time horizon, and the potential cost (economic and social) of missing out even one case is effectively a failure of the entire programme. Therefore, when analyzing the VfM of SMNet, this evaluation has adopted a longer time horizon – 10 years post the evaluation period i.e. 2022. This is done by adopting the financial modeling or scenario analysis technique of calculating Present Value (PV) for the future 10 years.

3. VfM can be examined in a number of ways, including:

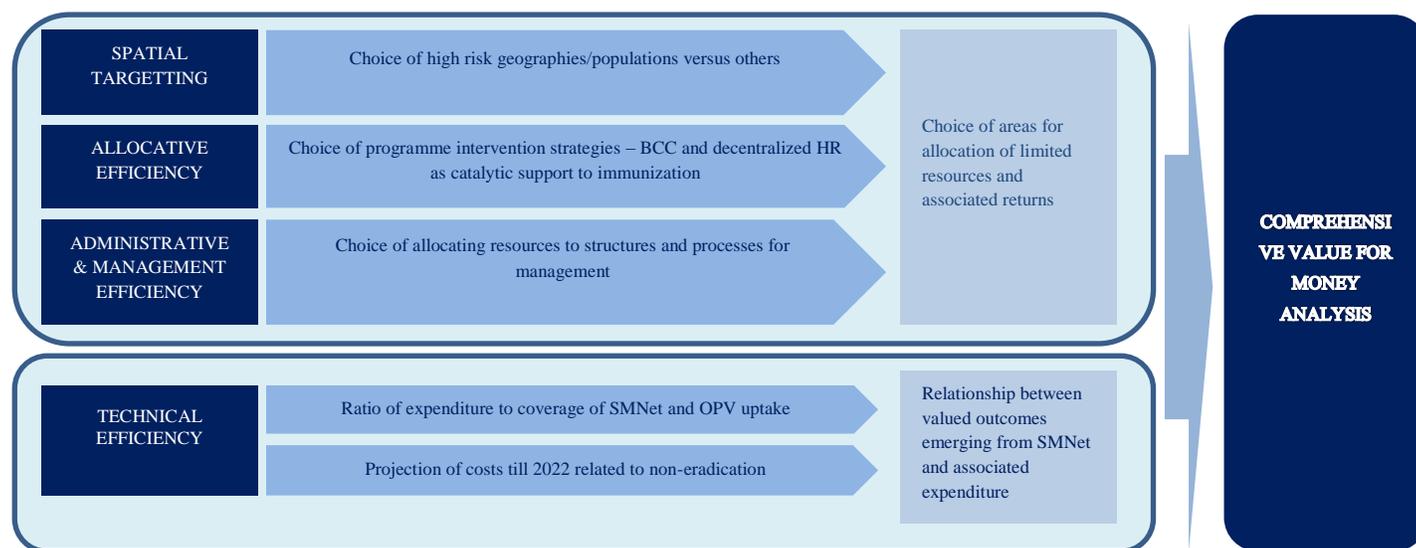
- the economy with which physical inputs are targeted
- the extent to which the chosen inputs are combined in an optimal mix
- the allocative efficiency of the programme's chosen inputs
- the administrative efficiency with which the programmes is managed to produce desired outputs
- the technical efficiency with which physical inputs are converted into physical outputs

4. Each of these concepts scrutinizes a particular aspect of the transformation process. All these measures give important diagnostic information because they allow us to pinpoint where inefficiencies are arising.

<sup>6</sup>The sub-question in this section – “Assessment of actual versus the planned costs, timelines achieved versus planned” – could not be answered as data for planned costs were not made available to the Evaluation Team.

5. On the basis of document review and interviews with stakeholders from UNICEF about the evolution of SMNet, it is evident that the programme reflects a series of choices made by UNICEF in terms of budget allocation during planning and implementation. These choices can be organized into a simple hierarchy, which in turn, serve as a useful framework for analyzing value for money.

**Exhibit12: Framework for Value for Money (VfM) Analysis**



7. Annexure 4 provides a detailed description and report on the VfM Analysis undertaken for this evaluation. The findings of the VfM Analysis have been used for evaluating financial efficiencies in this chapter.

***E.1. SMNet has utilized funds in an economical manner and has indicated allocative efficiencies***

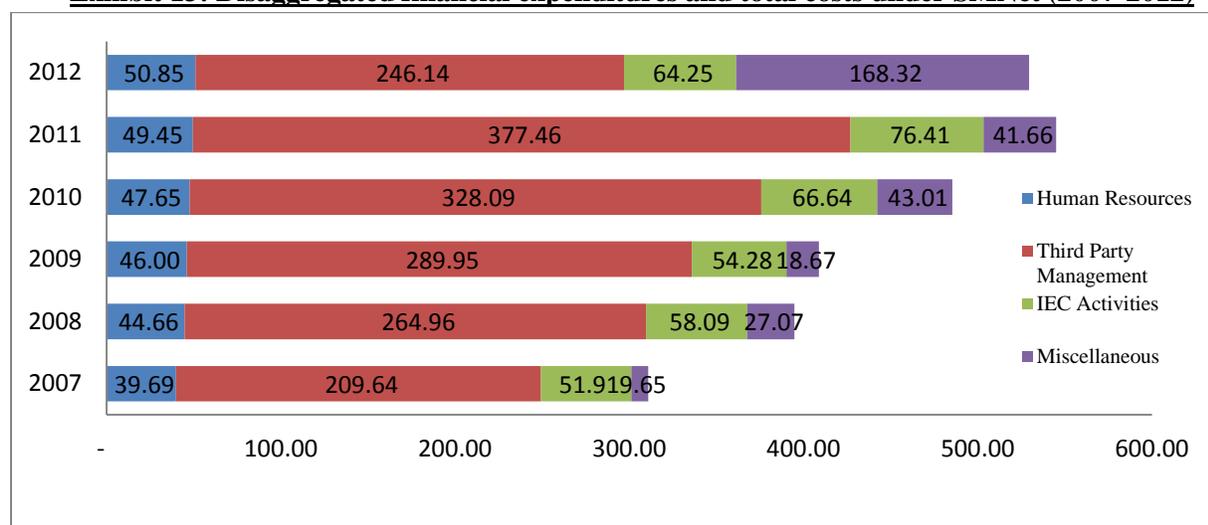
8. SMNet was set up in India as a partnership. The main stakeholders include UNICEF, the CORE Group - a global network of international health and development organizations that strengthen local capacity to improve the health and well-being of children and women in developing countries, and Rotary International. In UP and Bihar, UNICEF, CGPP Rotary International and NPSP joined forces to establish and maintain the Social Mobilization Network (SMNet).

9. The funds available to UNICEF have been allocated and utilized for the following:
- One-time start up support and capital costs<sup>7</sup>
  - For remuneration, training and capacity building of SMNet staff at various levels – national office in Delhi, staff at the state offices in Patna and Lucknow
  - For operationalization and implementation of the programme – which was contracted to a third party organization for management of operational and frontline staff and associated trainings, monitoring and management
  - For administrative costs incurred by the national and state offices

<sup>7</sup> The budgets and expenditures for this category were not made available to the evaluation team for analysis.

Based on data available to the Evaluation Team, the cumulative cost of functioning of the SMNet has been INR 2.67 billion for 6 years (2007-2012), an average amount of INR 0.44 billion per year.

**Exhibit 13: Disaggregated financial expenditures and total costs under SMNet (2007-2012)**



10. From Exhibit 13, it is seen that while expenditure on human resources and IEC activities have remained almost constant through the years, majority of SMNet expenses has been on third party management (which has increased over the years), followed by on IEC activities.

11. From a value-for-money perspective, choices about the allocation of resources among interventions and across regions and populations contribute to allocative efficiency. Allocative efficiency indicates the extent to which limited funds are directed towards purchasing the correct mix of services/interventions in line with the preferences of users or to achieve the stated objectives of the programme.

12. A conclusion that can be drawn from the expenditure trends in SMNet is that the focus of SMNet has been primarily on operationalization and implementation (approximately 69% of funds have been spent on “third party management” which mainly includes costs of frontline workers of the programme - the CMCs, BMCs, DPCs and DUCs who are the primary functionaries). This is a positive indicator for financial efficiency. This is supported by a Computed Annual Growth Rate (CAGR) calculation for the 5 years (2007-11), which shows that the CAGR for third party management grew the maximum, followed by the allocations towards IEC activities. This indicates a positive VfM for SMNet since both these allocations are primarily towards operational and implementation activities, rather than administration. For a public health intervention in a resource-poor context, a higher growth in investment towards actual services – such as the deployment of CMCs and costs of BCC interventions – is the most cost-efficient. This has been detailed in the report on value-for-money analysis in Annexure 4.

13. While miscellaneous expenses have remained constant till 2011, there has been a sharp increase in 2012. The allocation under this head in Uttar Pradesh was 57% in 2012. This was a significant increase compared to the previous years’ average of 7% in the state. Disaggregated data related to this was not made available for this analysis. In Bihar, the increase in miscellaneous expenses was not as

high as in UP. An analysis of disaggregated data under miscellaneous expenses for Bihar for the year 2011-12 shows that the increase is related to mobilizers/CMCs for transit teams, which is a new strategy for Bihar introduced in 2013 to avert importations of the virus from Nepal. Hence, these expenses were spent towards implementation/operational aspects of the programme even though they have been clubbed under the Miscellaneous head. On the basis of the value-for-money analysis, this indicates that SMNet has been able to tailor its allocations as per the current needs, and revise the allocations when not required in order to increase cost-efficiencies. The increase in miscellaneous expenses in UP, however, remain unexplained due to the unavailability of disaggregated data under this head.

14. While financial efficiency is evident in SMNet, the increasing costs are an issue of concern. This is especially true in the current context where the programme is drawing to a close, and India has been declared polio-free for 2 years. For sustainability, replication and integration with public systems (such as routine immunization) in the future, it is important that the expenditure trends of the programme show a declining trend.

15. However, this needs to be analyzed in the context of the Polio Endgame Strategy of GPEI, UNICEF's country strategy on polio eradication for 2013-18, and the expanding scope of SMNet to include Polio Plus.

### ***E.2. SMNet's financial monitoring systems and processes need strengthening***

16. One of the most significant barriers to undertaking the current evaluation was the unavailability of data related to costs/expenditures of SMNet. This indicates the absence of robust systems for maintaining records at the national office for budgets and expenditures. For a programme with the size and importance of SMNet, it is imperative that systems and processes for monitoring budgeting and financial flows are well established and effective. The complex structure of SMNet with the involvement of multiple donors and multiple implementers add to the importance of maintaining comprehensive financial systems and records. The lack of these systems and records impede a rigorous cost-benefit/cost-effective analysis for SMNet, as well as its replication and scale-up plans in other countries.

### ***E.3. The lean staffing of SMNet for national and state offices indicates efficiency in utilization of human resources***

17. At the UNICEF state offices, multiple positions supporting the program are available – program coordinator, training coordinator, C4D (communication) officer, M&E officer – they are involved in strategy & planning of the program activities. In addition, there are state consultants like data manager, communications manager, partner coordinators (for ICDS, Rotary, PRI, etc.) who are responsible for administrative work. At the national office there are three main positions in the polio unit that are responsible for SMNet – Senior Program Manager, M&E officer and communication and development specialist.

18. From the VfM Analysis in Annexure 4, it is seen that the allocation of costs to management expenditures (comprising of HR costs for UNICEF national and state offices along with management fees for third party management and excluding salaries of the community mobilizers at operational levels

i.e. district and sub-district) have been similar across the 6 years (2007-12) – at an average allocation of 15% of the total budget to management heads. A similar trend is seen in the analysis of management allocation as a percentage of administrative costs (which comprise of HR costs at national, state and operational levels i.e. district and sub-district). The allocations have remained almost constant (an average of 19%) without significant variations from 2007 to 2011. Even with changes in the scope of SMNet (in the recent years with a Polio Plus focus), and with a resurgent emphasis after the 2009 outbreak, SMNet did not increase the human resources base at the national and state offices. The programme operationalized these changes through an increase in implementation costs (as seen in increased third party management costs) and an increase in the number of frontline workers at decentralized levels. This is a positive implication for VfM, indicating that as the programme is drawing to a close, it is substantially reducing its administrative costs – thus making it more sustainable and feasible for continuation in the current system or replication in other contexts. Finally, as SMNet and polio eradication programmes rely heavily on donor funding, the way these resources are provided has important implications for value for money. The way SMNet has managed its administrative costs can provide lessons for improved allocation of donor money to allow more of the resources to reach the field and to reduce the administrative burdens that they impose on national polio programmes. A point to be noted here is that the capital costs incurred in SMNet have not been included due to the unavailability of data, potentially leading to an overestimation of cost efficiencies.

#### ***E.4. While program reporting and monitoring mechanisms are in place, there is scope for strengthening***

19. SMNet is a complex programme, with the involvement of multiple stakeholders. UNICEF is in partnership with Rotary International, WHO, CGPP and the Government of India, as well as third party implementation organizations (IPE Global) at the state levels for operationalizing the programme in decentralized units. The programme has a total strength of around 6000 personnel working at different levels. Human resource cadres working for the programme are often similar for many of these organizations. Role clarity, role rationalization and regular monitoring systems and processes for efficient management of human resources are essential in such a context.

20. Working in the same districts, UNICEF and CGPP became convinced that they could not effectively overcome growing resistance to immunization and ensure universal coverage in high-risk areas by operating independently. Realizing that working separately caused duplication of effort, confusion about roles and responsibilities, and difficulties with linking achievements to either organization's activities, UNICEF, CGPP, and Rotary united within a collaborative framework that allowed them to capitalize on their unique capacities, minimize overlap, reduce friction, share lessons learned, and benefit from a common data collection and monitoring and evaluation approach.

21. Thousands of social mobilization field workers, trained by CGPP and UNICEF, conducted SMNet activities at different levels (Exhibit 1 on SMNet structure). Each cadre of field worker performed different yet interrelated functions in support of polio eradication, routine immunization, and health capacity building. Within the largest cadre, UNICEF managed more than 6000 CMCs. The involvement of a third party organization in managing the decentralized HR cadres added to the efficiency of SMNet. This allowed UNICEF to focus on its core strengths of technical inputs and overall

monitoring, while implementation and direct on-going management/supervision of the largest cadres were undertaken by the outsourced organization. Monitoring processes for CMCs and BMCs, managed by the third party organization, have been effective in improving overall accountability in the system as well as timely redressal of issues. The rigor of the HR monitoring system has been acknowledged as one of the key success factors of the programme by many stakeholders.

22. Capacity strengthening and training initiatives have been an integral aspect of the programme. It has emphasized on updating and refreshing skills of its field-level functionaries in a regular and systematic basis, with pre-designed training calendars and plans. Training plans are need-based, without duplicating topics that are covered by other programmes and initiatives (discussed in Sustainability). The

*“The mobilizers, who have been in the system for long, find the refresher training to be a monotonous exercise. They have gone over it too many times. Also, at times, too many topics and issues are covered in a given session. This adversely affects the retention of training content.” [BMC, Patna urban Block, Patna District]*

emphasis of SMNet training is therefore, on inter-personal counselling which is underemphasized in other programmes. In addition, technical training on various subjects, are undertaken by the representatives of WHO. Trainings are based on a practice-based cascade model that encourages interactions between

immediate cadres like the CMCs and BMCs and thus increases coordination and supervision. This is positive for HR efficiency. Some of the stakeholders expressed concerns related to training content and retention. With the new broadened scope of the programme, SMNet would need to revisit the training pedagogy and practice.

23. From some stakeholder perceptions it is understood that the technical assistance role of UNICEF was decreasing over the years, and that state/district level stakeholders desired more involvement.

*“SMNet requires more support from senior officials during booth days or house to house activities.” [SMC, Varanasi]*

*“The stakeholders believe that, in recent times, the support from UNICEF has reduced, in IEC activities as well as in funds for mobilization activities.” [SMC Patna]*

24. While the structure of the SMNet contributed to its success, it also posed challenges. Each partner had to follow its internal organizational requirements, which occasionally caused delays. Waiting to get approval from upper-level offices hindered rapid responses to unexpected needs for the partner directly involved, and it also, in some cases, had ramifications throughout the SMNet. This was especially true when decisions related to time-sensitive issues of community coverage or campaign support.

*“Communication issues between UNICEF and IPE; At times, UNICEF releases funds but these are not available to us for payments. This affects the ground-level activities and functioning of community workers.” [SRC, Varanasi]*

25. HR policies related to compensation and entitlements were in place for each level. The HR at

*“Attrition is a very big challenge. The position of SRC is currently vacant and I am handling both roles. There is no job stability as short term contracts are drawn; ideally contracts should be drawn for 2 years rather than for 3-6 months. SMNet employees are underpaid...compared to WHO or public health employees...other comparable jobs pay more which acts as a deterrent in attracting and retaining people. Work has increased but payment has not! Mobility allowances etc. are very less and not updated over years; hence, motivation is an issue. Limited opportunities to grow within the organization and relatively short-term contracts have been among the major reasons for attrition.” [SRTC, Patna]*

state and national offices was managed as per standard UNICEF policies. The staff at district and sub-district levels that were managed by the third party organization was governed by specific policies formed by IPE Global. Despite systematic processes of HR management and role clarity, stakeholders expressed dissatisfaction with certain aspects of the policies. These were pertaining to lack of job stability and short-term contracts at the decentralized levels; lower pay scales for SMNet field staff as compared to similar cadres of some of the other organizations and commensurate with the expansion of the scope of the programme; irregular payments of salaries and allowances; high levels of attrition; and concerns with capacity strengthening/training efforts.

26. Although human resources at the decentralized and frontline levels have been increased over the years to respond to emerging needs (such as, the increase in the number of CMCs after the polio outbreak in 2009 in Bihar), the programme is at times under-resourced. This is especially true given the workload, increased geographical coverage and expansion in scope of the programme (where BMCs and CMCs are involved in other public health programmes).

*“Lucknow urban has only 1 DMC who is also responsible for Barabanki. The population density here is very high. Given the workload, BMC deployment is on the lower side...11 Planning Units are covered by only 2 BMCs. This results in relatively lower engagement levels in non-CMC areas. They play a key role in monitoring Polio and RI activities...and with shortfalls, the activities sometimes suffer. [SRC, Lucknow]*

*“Due to lack of manpower, covering the migratory population has been a major gap” [DMC, Lucknow]*

27. As the programme expands, there would be a need to revisit the human resource planning and rationalization. SMNet has attempted this through small initiatives like updating the field book used by CMCs for more efficient data capturing that would enable them to focus on mobilization and BMCs to be more efficient in supervision. This indicates efficiency in HR management processes, as SMNet has been able to respond to emerging needs and design solutions.

28. The SMNet implemented a number of management approaches to resolve these challenges—ranging from transparent communication between all staff levels and stakeholders and defining clear roles of each partner to promoting a unified identity and creating a supportive work environment.

### ***E.5. The outputs of SMNet in terms of spatial targeting, coverage and unit costs indicate a cost-efficient and fairly economic programme***

29. One of the first decisions that donors have to make is *where* to intervene. These choices - *spatial targeting* – have significant implications for VfM, since resources are limited and their investment in one area versus another will determine the relative outputs or “value” that emerges, as a dollar of donor money could have very different impact in different countries, depending on the burden of the disease, the tools available, and the commitment and capacity of the recipient governments.

30. In theory, at least, this heterogeneity in socio-cultural contexts, prevalence and transmission of polio represents an opportunity to get better value for money by improving the targeting of interventions and by better tailoring the mix of interventions to local conditions. It is seen SMNet has successfully capitalized on this variation in transmission risk to reduce expenditure, and therefore, increase value for money by targeting high-risk-areas (HRAs) and high-risk-groups (HRGs).

31. Being a resource intensive programme in terms of intervention strategies, SMNet has focused its efforts on certain regions – UP and Bihar which are the two most endemic areas with the highest WPV prevalence in India at the time of initiation in 2001-02, and the most affected 107 districts within these two states. In terms of population groups, SMNet has adopted a HRG strategy and focused on high risk groups like migrant workers, construction workers, brick-kiln workers, nomads and residents of urban slums. Details of this Underserved Strategy are presented in the section on Effectiveness. These careful targeting strategies have led to important gains to the regions or populations where the programme can do the greatest good, with the fixed amount of investment.

1.

32. The outputs of SMNet can be measured in terms of coverage, i.e. the presence of CMCs in interventions areas. The unit costs incurred by SMNet in reaching the total number of households and in achieving the uptake of the polio vaccine would indicate the cost-efficiency of the programme. This analysis has been presented in detail in the report on Value for Money Analysis in Annexure 4.

33. The coverage of SMNet was calculated by the total number of CMCs in SMNet areas in both states for each of the 6 years under consideration – 2007 to 2012. Since the number of CMCs varied across years, especially in case of Bihar, the median number of CMCs was considered. The median coverage of households and of children in SMNet areas for both the states was used in order to take a representation ad account for variations across years. Adjusting for the median number of missed children in each of the 6 years for both the states, the total estimated coverage of children in the 0-5 years age group was calculated. As per the VfM presented earlier, the cost of covering each household for both states was at INR 132.00 per household per year in UP and INR 774.00 per household per year in Bihar. The average cost to coverage ratio for each child for UP was 167.50 and 726.76 for Bihar.

34. The significantly higher costs incurred in Bihar may be explained by the limited number of CMCs deployed in Bihar (since the strategy was primarily to involve AWWs). Since data for the number of AWWs in SMNet areas with inputs from the programme (in terms of disaggregation for trainings, IEC/BCC material etc.) were not available, the proxy of SMNet coverage of median number of CMCs and of households/children covered were an underestimation of output. In addition, for a mean coverage estimation, while in case of UP, the costs incurred by the programme have shown a higher coverage due to the availability of data for 6 years (2007-12), in Bihar the outputs appear limited due to the concentration of coverage data for only 2 years, for comparable amounts of costs incurred by the programme.

35. Given the limitations with the Bihar data, the costs to coverage ratio for UP is considered for a more realistic indication of cost-efficiency of the programme.

36. In the absence of comparable data available for programmes similar to SMNet, the average cost of providing OPV in high prevalence countries (like India) estimated by the Global Polio Eradication Initiative (GPEI) – of \$3.26 per child per year<sup>8</sup> – was considered. Although this is the cost of immunizing a child with OPV, the catalytic nature of the SMNet strategy renders a positive value for money. Coverage in case of a programme like SMNet, is not restricted to OPV alone, but to a range of

<sup>8</sup> GPEI.2012. Economic Case for Eradicating Polio.

other behaviours and practices that can be improved in the community through regular contact of a trained resource person at a sub-block/village level. These may include routine immunization, breast-feeding and child nutrition, maternal health, sanitation and hygiene to name a few. In view of the potential scope of the CMC and supportive structures of SMNet, the closest comparison can be the ASHA of the NRHM. Although there has been no conclusive costing of the ASHA Programme (including all of its associated costs), from a broad budget allocation, the cost per ASHA per year is approximately INR 82,000.00 (INR 10,000.00 for each state towards training, drug kit, other resource material and uniforms, etc. and INR 72,000.00 that may be earned as incentives by a ASHA in a year, considering an amount of INR 6000.00 per month). With a normative coverage of 1000 people i.e. 250 households, the cost per ASHA per year is INR 328.00.<sup>9</sup>

37. Compared to these, SMNet appears to be a fairly economical programme with relatively high cost-efficiencies.

### ***E.6. Forecasted costs of SMNet for the next decade support a strong case for continuing eradication interventions as the more cost-effective option***

38. Calculation of projected costs is particularly relevant for disease eradication – which involves an unspecified future time horizon, and the potential cost (economic and social) of missing out even one case is effectively a failure of the entire programme.

39. As mentioned in the VfM analysis in detail (Annexure 4), a projection of costs was undertaken to derive an estimation of the cost of implementing SMNet with the intervention strategies and inputs deployed in the current year (2012) over the next 10 years – till 2022. This was done by adopting the financial modelling or scenario analysis technique of calculating Present Value (PV).

40. The real growth is the percentage change in the total cost of SMNet. Inflation data has been taken at the actual rate of inflation for the historical cost data (from 2007-12). The forecasted value of sustaining SMNet at the current level of intervention for the next 10 years till 2022 is INR 8.11 billion. The total amount of money spent by SMNet from 2007 to 2012 is INR 2.67 billion. Based on this figure, the projected costs of continuing SMNet at the current resource level may be comparable in nominal terms to the money that has already been spent by the programme for a similar time period. Positioning this with the cost of non-eradication of polio, or polio resurgence as has been seen in Kenya and Somalia, or in Nigeria after the ban on the OPV - in which case an entirely new programme with initial capital costs and other associated investments would have to be made – indicates good value for money.

41. This report offers a forward-looking perspective on the benefits of eradication using updated cost inputs. A detailed review of published literature and document review was undertaken to estimate the extrapolated costs and consequent benefits of polio eradication. The findings of the projected costs in the VfM analysis (presented in Annexure 4) are also consistent with available literature on polio eradication, establishing core economic arguments for continuing to invest in this area.

<sup>9</sup> All calculations of ASHA incentives (the maximum amount that an ASHA can earn through incentives), household coverage norms, and disaggregated values under components of the ASHA Programme have been sourced from State Programme Implementation Plans (PIPs), national guidelines and budgets from the Ministry of Health and Family Welfare.

42. The alternative often suggested for eradication is relying solely on the existing routine immunization (RI) infrastructure, and a control policy aimed at keeping the number of polio cases below a certain annual level. Consistent with past research,<sup>10,11</sup> relying on current levels of routine immunization would lead to a rapid resurgence of polio cases and result in hundreds of thousands of paralyzed children annually within a number of years. Pursuing a strategy of control may be less expensive than eradication in the next few years, but the cumulative costs of this approach over time (operational costs, but also productivity losses and treatment costs) would quickly overtake the costs of eradication. Relying on routine immunization is the least expensive option in terms of operational costs. However, the current immunization infrastructure is insufficient to create enough population immunity against the poliovirus in high-risk geographies. In such contexts, to keep polio incidence low, supplemental immunization activities (SIAs) would still be required – involving significant financial resources.

43. Evidence suggests that compared to the alternatives available, eradicating polio is the most cost-effective choice based on the benefits from eradicating polio alone.<sup>12</sup> Also, these benefits would apply to all the countries where UNICEF supports SMNet or other contextualized BCC programmes for polio and do not take into account the additional benefits possible over a longer time period globally.

44. According to GPEI estimates, looking at eradication more broadly—over time and geography—leads to even greater returns. Extrapolating just 10 additional years, for 30 years in total, eradication benefits would reach up to \$45 billion.<sup>13</sup> This analysis does not include the potential cost savings of avoiding outbreaks in high and middle income countries, like the 2010 outbreak in Tajikistan that led to over 400 cases and spread to the Russian Federation as well. If the intensity of the fight against polio decreases, the world is at a much higher risk of outbreaks. As GPEI's experience shows, preventing outbreaks not only avoids the tragic health outcomes of polio, but is also a more cost-effective approach. In late 2003-2004, five Nigerian states stopped delivering the polio vaccine amid rumors about its safety. Although these states started using OPV again by the end of 2004, GPEI spent over \$220 million on outbreak response alone in 2005. The virus also spread to 19 countries that were previously polio-free, forcing GPEI to spend another \$150 million controlling outbreaks in 2006.<sup>14</sup> Only eradication can eliminate the risk of outbreaks for good.

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<sup>10</sup> Duintjer Tebbens RJ, Pallansch MA, Cochi SL, Wassilak SGF, Linkins J, Sutter RW, Aylward RB, Thompson KM. Economic analysis of the Global Polio Eradication Initiative. *Vaccine* 2011;29(2):334-343. This study estimated total net benefits of \$40-50 billion for the 104 countries that benefit from the GPEI over the period of 1988-2035, with an additional \$17 billion or more arising from delivering Vitamin A as part of polio vaccine campaigns.

<sup>11</sup> Thompson KM, Duintjer Tebbens RJ. Eradication versus control for poliomyelitis: An economic analysis. *The Lancet* 2007;369 (9570):1363-71. This prospective economic analysis of eradication versus control demonstrated that pursuing a policy of control in perpetuity implied greater health and financial costs than eradication.

<sup>12</sup> Thompson KM, Duintjer Tebbens RJ. Eradication versus control for poliomyelitis: An economic analysis. *The Lancet* 2007;369 (9570):1363-71. This prospective economic analysis of eradication versus control demonstrated that pursuing a policy of control in perpetuity implied greater health and financial costs than eradication.

<sup>13</sup> GPEI.2012. Economic Case for Eradicating Polio.

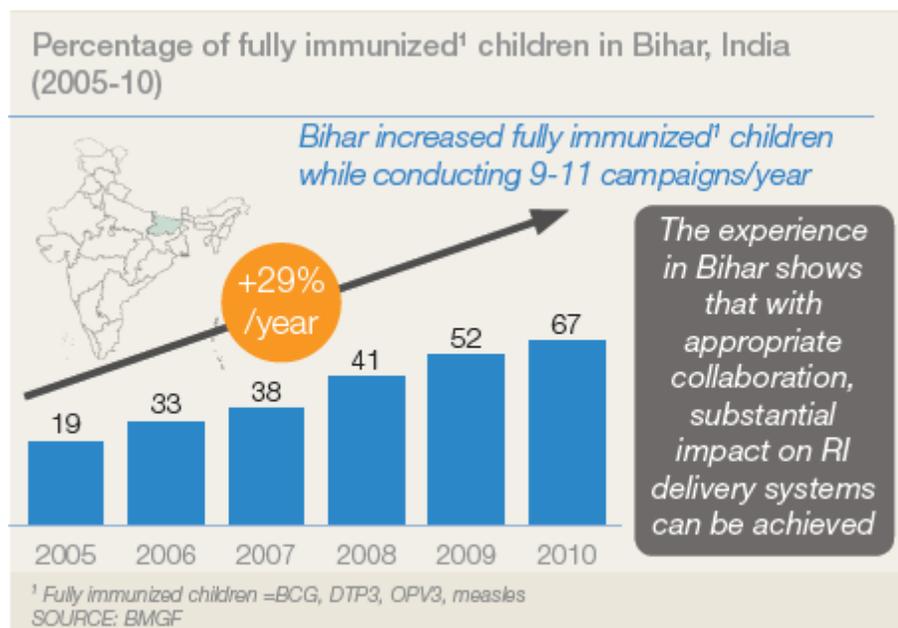
<sup>14</sup> GPEI Annual Report 2005



45. Besides this, there are additional potential benefits that SMNet will bring to other health programmes. The focus of SMNet has already been directed towards RI, IPPI and an expanded child health agenda (detailed in the chapter on Sustainability). With the use of CMCs and other SMNet functionaries in public health programmes, or as an addition to the ASHA under NRHM, the cost-efficiencies are significant. According to evidence, the Bihar polio program not only achieved eradication but simultaneously contributed to increasing RI coverage from 19% in 2005 to 67% in 2010.<sup>15</sup> These increases have contributed to significant economic benefits, cost efficiencies and sustainability.

<sup>15</sup> GPEI.2012. Economic Case for Eradicating Polio.

**Exhibit 14: Polio eradication initiatives catalyzing increase in routine immunization coverage in Bihar<sup>16</sup>**



46. While the economic benefits of investing in eradication are clear, experience has shown that gains in the battle against polio are precarious. Until eradication is completed, the world remains at risk of the disease reemerging, resulting in tragic, avoidable health outcomes as well as the potential for increased costs. Eradication will require a concerted, focused effort, along with full investment. Relying on routine immunization is the least expensive option in terms of operational costs. However, the current immunization infrastructure is insufficient to create enough population immunity against the poliovirus in high-risk geographies. This would lead to resurgence in the disease to 200,000 cases of paralysis a year within five years (as per an estimate of GPEI). When fully accounting for treatment expenses and the economic losses associated with these cases, the cumulative costs of relying on RI over the next 20 years exceed \$35 billion. The net benefit of eradication would thus be \$19-25 billion over the same period.<sup>17</sup>

47. It has been suggested that funds spent on polio eradication could instead be directed at strengthening the routine immunization infrastructure in countries where it is weak. However, it would take years to strengthen systems in India and in most other endemic countries sufficiently. According to government estimates, immunization coverage in India is only 61%.<sup>18</sup> – which is not sufficient to stop the spread and to maintain the zero incidence levels of a disease like polio.

48. Therefore, eradication efforts through universal coverage of OPV reinforced with BCC/social mobilization interventions to sustain the community based acceptance and access of the vaccine appears

<sup>16</sup> ibid

<sup>17</sup> GPEI.2012. Economic Case for Eradicating Polio.

<sup>18</sup> Ministry of Health and Family Welfare, 2012. Accessed from <http://pib.nic.in>

to be the most appropriate way forward till such time that the routine immunization infrastructure gets sufficiently strengthened.

### *Key findings for Efficiency*

- **SMNet has utilized funds in an economical manner and has indicated allocative efficiencies**
  - The cumulative cost of functioning of the SMNet has been INR 2.67 billion for 6 years (2007-2012), an average amount of INR 0.44 billion per year.
  - Majority of SMNet expenses has been on third party management and this has increased over the years. Expenditure on human resources and IEC activities has remained constant through the years. The expenditure trends show that the focus of SMNet spending has been primarily on operationalization and implementation, rather than on management and administration – a positive indicator for financial efficiency.
  - While miscellaneous expenses have remained constant in percentage terms till 2011, there has been a sharp increase in 2012.
  - While financial efficiency is evident in SMNet, the increasing costs are an issue of concern. This is especially true in the current context where the programme is drawing to a close, and India has been declared polio-free for 2 years. For sustainability, replication and integration with public systems, it is important that the expenditure trends of the programme show a declining trend.
- **SMNet's financial monitoring systems and processes need strengthening**
  - One of the most significant barriers to undertaking the current evaluation was the unavailability of data related to costs/expenditures of SMNet. This indicates the absence of robust systems for maintaining records at the national office for budgets and expenditures.
- **The lean staffing of SMNet for national and state offices indicates efficiency of human resource management**
  - SMNet has been maintaining human resource costs for management and administration (i.e. human resources at national and state offices) at an almost stagnant level. Even with changes in the scope of SMNet and with a resurgent emphasis after the 2009 outbreak, SMNet did not increase the human resources base at the national and state offices.
  - The programme coped with these changes through an increase in the number of frontline workers at decentralized levels.
- **While reporting and monitoring mechanisms are in place, there is scope for strengthening**
  - While SMNet has managed the complex HR structures well through decentralization and outsourcing, regular reporting and monitoring mechanisms can be strengthened to address attrition of staff, and plan deployment and training better.

- **The outputs of SMNet in terms of coverage and unit costs indicate a cost-efficient and fairly economical programme**
  - The average cost to coverage ratio for SMNet was estimated at INR167.50 per child per year (in UP)
  - Comparison of SMNet with GPEI estimates of cost of coverage per child with OPV, and with the ASHA Programme of NRHM in India indicates that it is fairly economical.
- **Forecasted costs of SMNet for the next decade support a strong case for continuing eradication interventions as the most cost-effective option:**
  - Based on VfM estimates, the projected costs of continuing SMNet at the current resource level is comparable to the money that has already been spent by the programme for a similar time period.
  - Positioning this with the cost of non-eradication of polio, or polio resurgence in which case an entirely new programme with initial capital costs and other associated investments would have to be made, maintaining eradication activities is more cost-efficient
  - Relying on routine immunization is the least expensive option in terms of operational costs, but the current immunization infrastructure is insufficient to create enough population immunity against the poliovirus in high-risk geographies.
  - A strategy of control may be less expensive than eradication in the next few years, but the cumulative costs of this approach over time would quickly overtake the costs of eradication.
  - Additional potential benefits of SMNet towards public health programmes and an expanded child health agenda, add significantly to cost-efficiencies.
  - SMNet promises to yield compounded additional net benefits over the next 10 years, and beyond, which would apply to all the countries where UNICEF supports child health interventions.

## D. IMPACT

1. An important focus area of the evaluation was to assess the *impact* of the SMNet intervention *i.e. the extent to which the SMNet contributed to the success and results of the polio eradication programme in India*. The key aspects that were analysed within this parameter include –

### Key questions

- The extent to which the SMNet has contributed to the results of the polio eradication programme in India.
- To what extent has the SMNet driven behaviour change by addressing refusal to OPV in HRAs
- Positive changes in knowledge, attitude and practice related to polio
- To what extent have the knowledge level of communities on polio vaccination/OPV increased?
- To what extent SMNet contributed in reaching high risk and chronically missed population such as the Kosi River operational plan to reach access-compromised communities?

***F.1. The SMNet has contributed to the results of the polio eradication programme in India. The intervention, launched in UP and Bihar- two of the worst off states with high incidence of polio prevalence, has contributed to interrupting transmission of the virus in April 2010 and September 2010 respectively.***

2. India's struggle against polio has been long and challenging. The World Health Assembly launched the Global Polio Eradication Initiative (GPEI) in 1988 and it was widely accepted that India would be one of the most challenging countries for polio eradication. The GPEI's strategy for polio eradication includes Routine Immunization, Supplemental Immunization Activities, AFP Surveillance and Targeted Mop-Up Campaigns. The National Polio Surveillance Project, collaboration between Government of India and the WHO has been leading the polio vaccination campaign with the aim of complete eradication of polio from India.

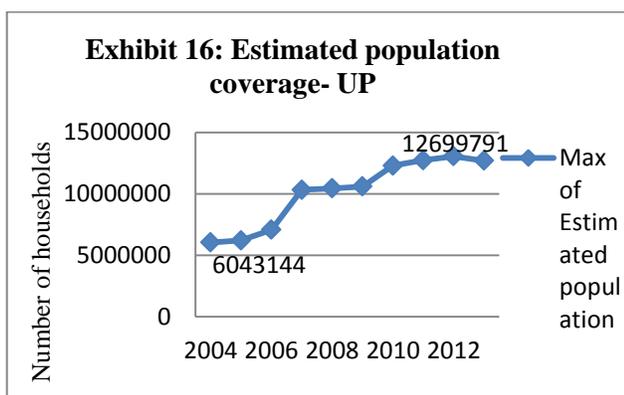
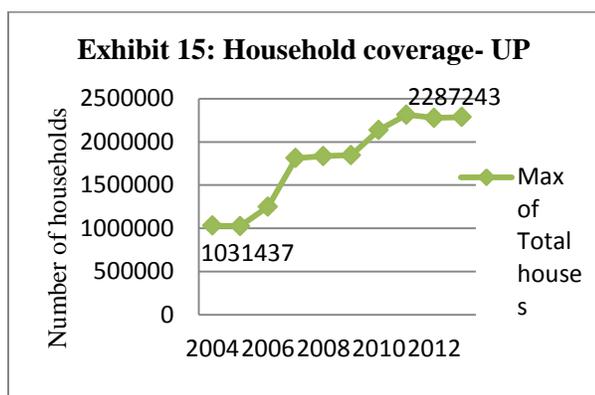
3. The SMNet intervention was launched in the key polio reservoir states of Uttar Pradesh and Bihar where existed a large 'immunity gap' with low routine immunization and OPV coverage amongst children below 5 years of age. In 2001, 216 of India's 268 polio cases occurred in Uttar Pradesh. There was a large resurgence in 2002 with 1,556 cases detected nationwide, of which 1,337 (86%) were in UP and Bihar. Of the 741 cases of polio in 2009, 602 were in UP and 117 in Bihar.

4. Several factors had made it difficult to control transmission in these two endemic regions of India. The high population density, poor hygiene and sanitation, poor nutrition, low incidence of breastfeeding and high rates of diarrhea have been major constraints for the immunization campaigns in the two states. While usually three doses of oral polio vaccine are enough to protect a child against polio, in UP and Bihar multiple vaccination rounds have been required to build immunity. Further, issues of access and a large migratory population in high risk areas around the Kosi basin in Bihar and a high incidence of refusal of the vaccination in large parts of UP due to religious beliefs and mistrust linked to

past experiences of the sterilization campaign have been responsible for the limited success of the immunization drives in these areas.

5. The SMNet intervention envisaged the use of strategic communication and advocacy towards reducing resistance to vaccination, ensuring children most at risk (particularly those under the age of 2, from the Muslim community and boys) are adequately immunized against polio and to strengthen communication for routine immunization in these states. The intervention, through strategic communication, house to house visits, developing partnerships with local influencers and religious leaders, rigorous tracking of missed children and robust monitoring was instrumental in eradication of polio in UP and Bihar.

6. Graphs 15 and 16 below show the increase in house to house coverage (i.e. houses visited by the CMCs to increase awareness about polio and OPV) in UP and Bihar and the maximum estimated population covered through these visits. Limited data has been shared for Bihar and hence only comparison of 2011 and 2012 has been possible.



7. The primary data from stakeholders combined with the secondary data analysis clearly shows the level of trust the community has on the CMCs. The partnerships built with local influencers like PRI members, religious leaders, educational institutions etc. gave acceptability and credibility to the messages of the CMCs.

*“The sustained manner in which activities have been carried out by CMCs, has been one of the success factors of the pulse polio initiative.” [Influencer, Motihari District, Bihar]*

8. The intervention led to an increase in polio immunization rates across the years. Exhibits 17 and 18 below show the percentage of children below the age of 5 who have received a minimum of 3 dosages of polio immunization in UP and Bihar in 2007-08 and in 2010-11. The data source for the 2007-08 is DLHS-3 and that of 2010-11 is the Annual Health Survey 2010. While the data is discontinuous and not comparable directly due to differences in sampling and methodology, it is representative of the immunization rates in the districts. Districts which have a strong SMNet presence (districts with number of blocks having CMCs greater than the mean for the state) were identified. The average number of blocks with CMCs = 6.5 and above in UP and 3.44 and above in Bihar were considered as high SMNet coverage districts. There are 18 such districts in UP and 14 districts in Bihar. Average polio immunization

rates for UP and Bihar in 2007-08 and 2010-11 were taken as cut-offs for identifying high performing/low performing districts.

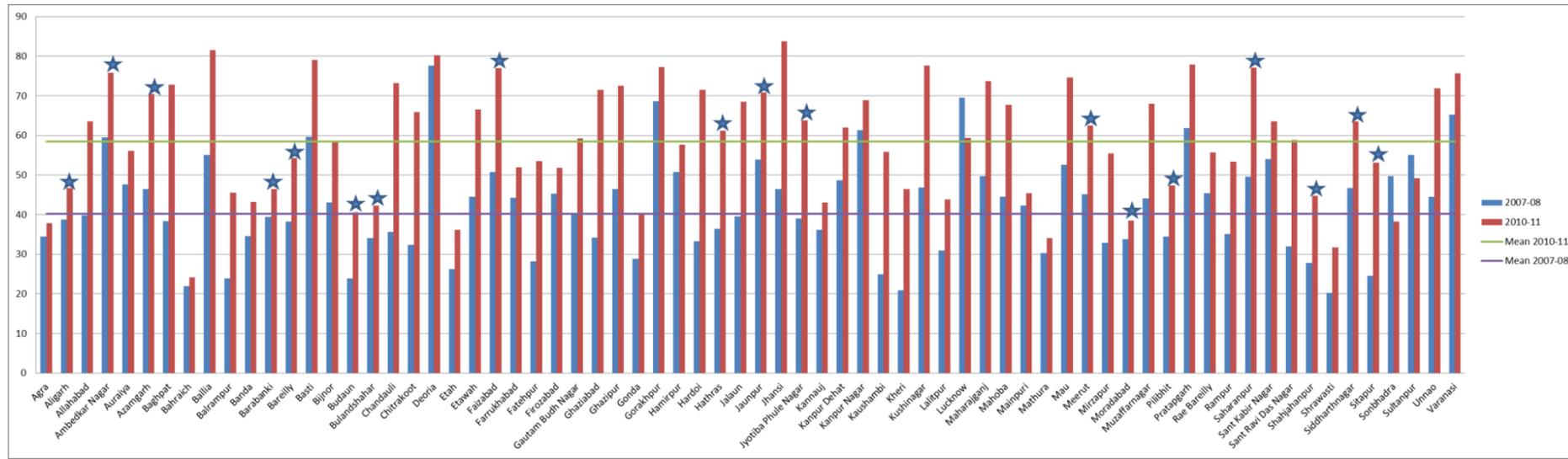
9. Exhibits 17 and 18 below, show the polio immunization rates in UP and Bihar and have marked areas which have a strong SMNet presence. The areas in which there is a strong SMNet presence corresponds to high risk areas where typically there have been high levels of resistance and low immunization coverage. The table below shows the percentage of districts with high SMNet presence which have polio immunization rates higher than the state average.

**Table 7: Analysis of Polio Immunization Rates\***

Year and Source	State	Districts with high SMNet presence	% Districts with high SMNet presence and polio immunization rates higher than state average
2007-08, DLHS	UP	18	38.8%
	Bihar	14	71.4%
2010-11, AHS	UP	18	44.4%
	Bihar	14	64.3%

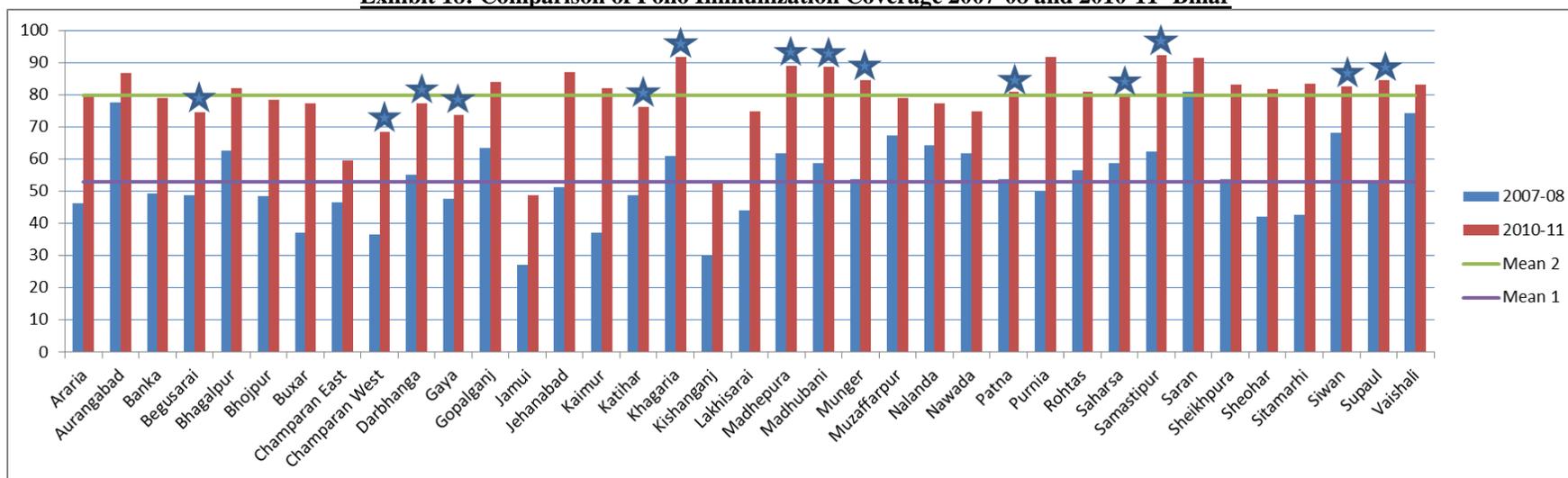
\*Since the data for the two years is discontinuous and not comparable due to differences in sampling and methodology, comparison is not possible across years.

**Exhibit 17: Comparison of Polio Immunization Coverage 2007-08 and 2010-11- Uttar Pradesh**



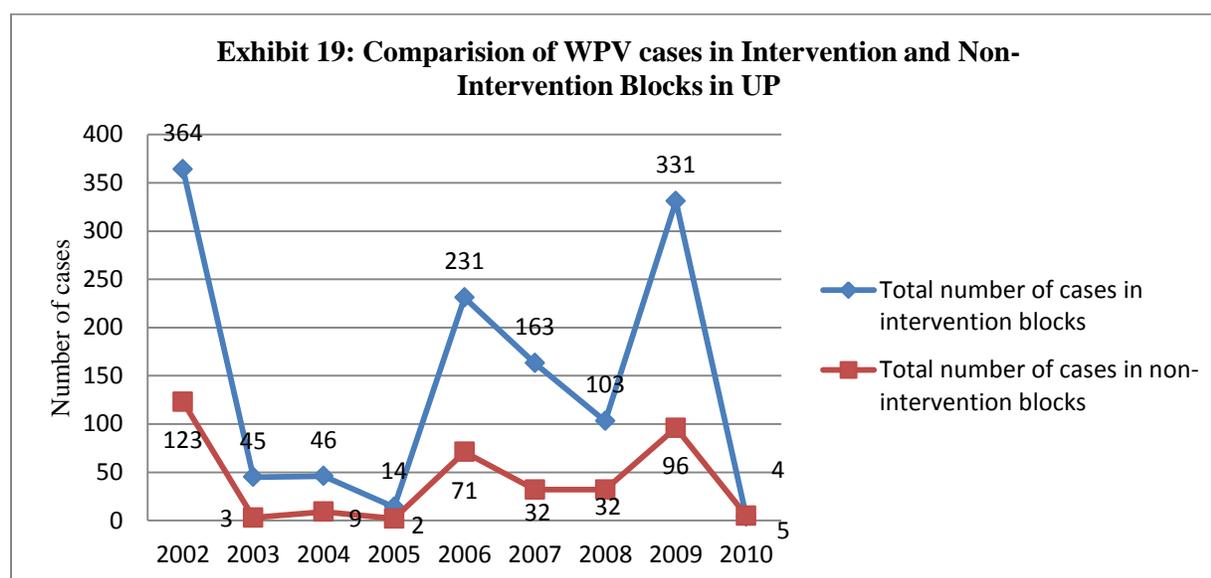
★ High SMNet intervention district

**Exhibit 18: Comparison of Polio Immunization Coverage 2007-08 and 2010-11- Bihar**

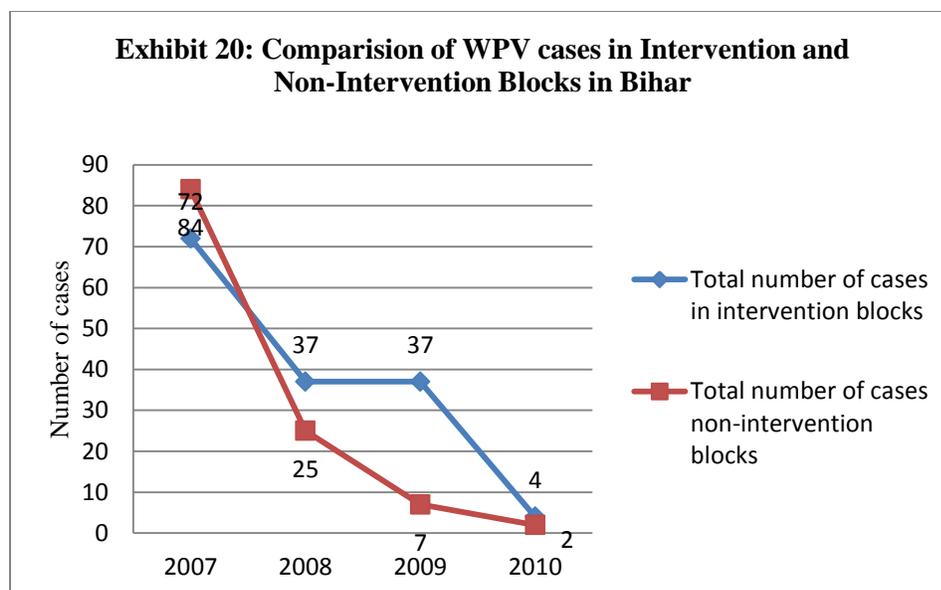


★ High SMNet intervention district

10. Polio spreads through the wild polio virus (WPV). To eliminate polio, the WPV circulation rate has to be stopped. By looking at the incidence rate of WPV in a community, it is possible to examine the extent of the circulation of the virus. This can be used as a proxy to understand the impact of the OPV rounds. Exhibit 19 and 20 below show the decline in WPV cases in intervention and non-intervention areas in UP and Bihar where WPV cases have been more than 10 in a year. As shown below, the decline in WPV cases in intervention areas in UP has been far steeper than in non-intervention areas. The large outbreak of polio in 2009 led to intensified activities by the CMCs to raise awareness and to immunize all children below the age of 5. The intensified activities under the intervention combined with the response of the Indian government in treating the outbreak as a public health emergency resulted in total number of cases in intervention blocks reducing from 331 in 2009 to 4 in 2010.



11. The decline in WPV cases in non-intervention areas in Bihar has been sharper than in intervention blocks in 2007-2009. This could be attributed to the lack of concerted social mobilization efforts in Bihar during that period. As discussed in the section on Relevance, CMCs were introduced for household coverage in Bihar in response to the polio outbreak only in 2009. The impact of this SMNet strategy and introducing CMCs is evident with the number of WPV cases falling from 37 in 2009 to 4 in 2010 in areas with CMC presence.



12. While the last recorded case of polio in India was in January 2011, UP and Bihar witnessed the last polio cases in April and September 2010 respectively.

### ***F.2. The SMNet intervention has led to a decline in refusal to OPV***

13. One of the main objectives of the SMNet intervention was to encourage behaviour change towards increasing demand for immunization and mitigating vaccine avoidance behaviour. Analysis of primary qualitative data shows that local influencers and community members believe that the SMNet intervention has been critical for increasing demand for OPV.

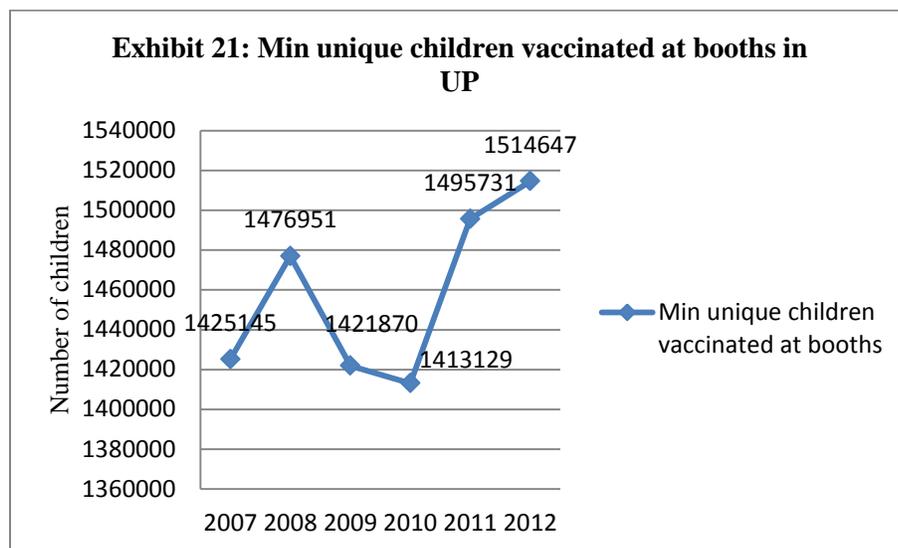
*“There is no doubt that SMNet has been very effective. I believe that through mobilization, SMNet generated faith in the local community.” [DIO, Meerut]*

14. Exhibit 21 below shows the minimum number of unique children vaccinated at booths in UP<sup>19</sup> over the years to show the vaccination coverage. The analysis has been carried out by organizing data according to years. The number of vaccination days/ rounds per year varies and the same child attends and is vaccinated at more than one round per year. Hence, to avoid any double counting/duplication, the analysis has taken the maximum number of children vaccinated in one round in a given year. This figure shows the least number of unique children who have been immunized at vaccination booths in a given year. This also allows for a fair comparison between years with different numbers of immunization rounds. This method of analyzing and comparing the minimum unique coverage of the intervention has been utilized through the chapter.

*“Demand generation is essential to help reach health facilities. Since we don’t have CMCs in our area, we find it difficult to generate the demand.” [DS, Gardanibagh, Non-CMC area]*

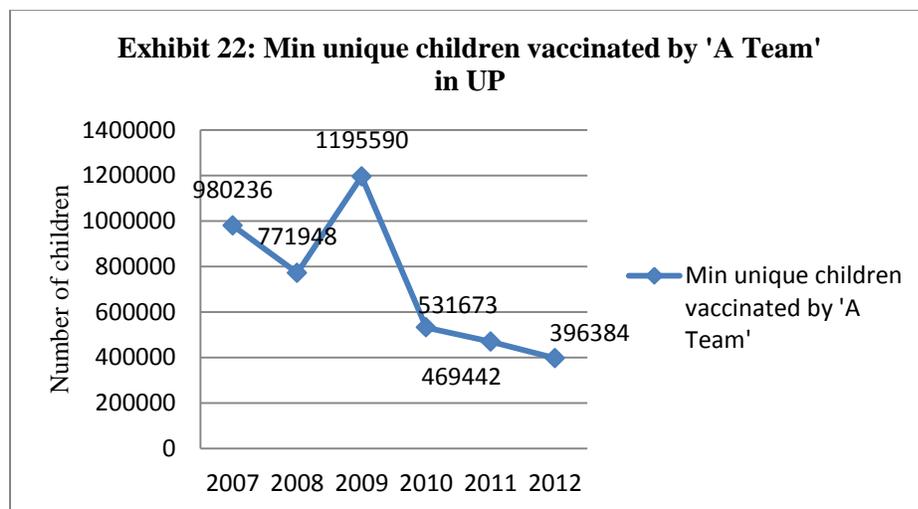
<sup>19</sup> Vaccination booths are not set up in Bihar

15. The number of children vaccinated at booths can be linked to the advocacy efforts and mobilization activities of the CMCs. The SMNet strategy of household mobilization, marking houses of missed children and micro planning undertaken for the government have been instrumental for improving polio coverage. As shown in the graph, the number of children immunized at vaccination booths fell in 2009 and 2010, before rising in 2011 and 2012.



16. The SMNet approach to polio immunization includes organizing an ‘A Team’ for house to house visits to track and administer the OPV to children who have not been immunized at the immunization days at the National Immunization Days or Supplementary Immunization Days. Exhibit 22 below show the minimum number of unique children vaccinated by the A Team in UP and Bihar over the years to show coverage.

*“Acceptance levels of SIA has gone up through SMNet interventions.” [MOIC Sewa Sadan, Lucknow]*



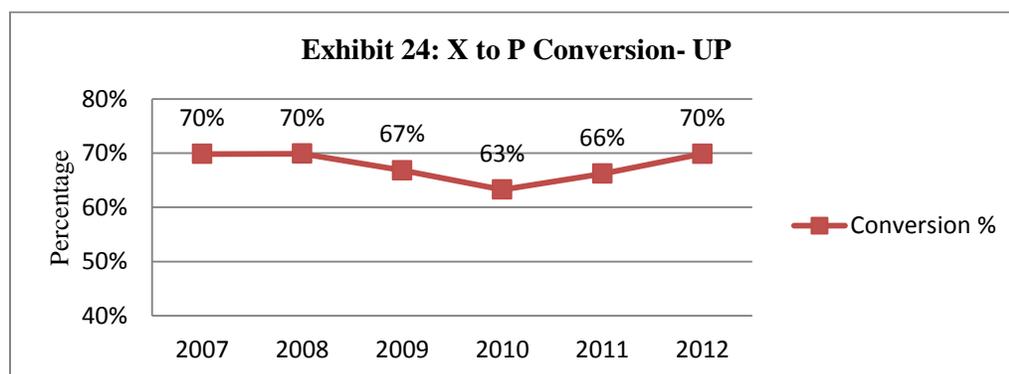
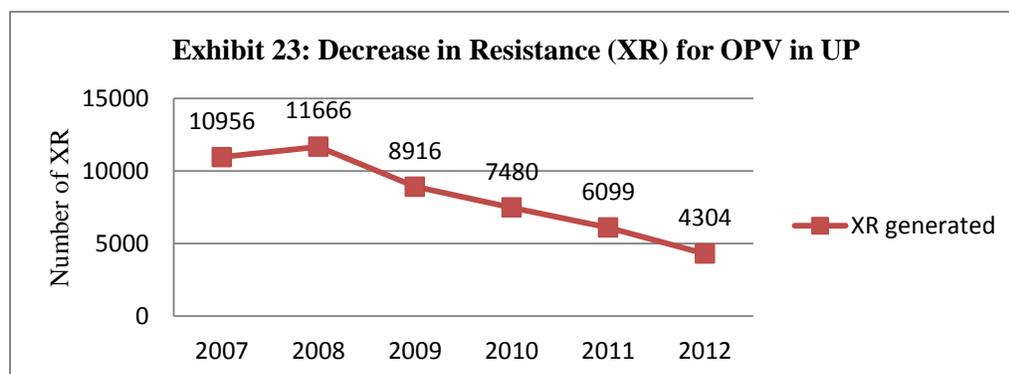
17. The ‘A Team’ would be followed by the ‘B Team’ two days later and would track children missed during the ‘A Team’s’ visit and work with the families to overcome resistance to the OPV.

18. Houses of children below the age of 5 were marked by CMCs either as ‘P’ indicating all the children in the household were immunized against polio or as ‘X’ to indicate that at least one of the children of the household was not immunized. Over time the X code was expanded to indicate if the child was away from the village, if the child was sick or if the family was reluctant to immunize the child (‘XR’). This helped the CMCs formulate a targeted response to each ‘X’ household.

*“Mass refusals used be a huge problem in 2-3 villages, however with help of mobilization, it has been tackled” [Medical Officer, Mahesi Block, Saharsa district, Bihar]*

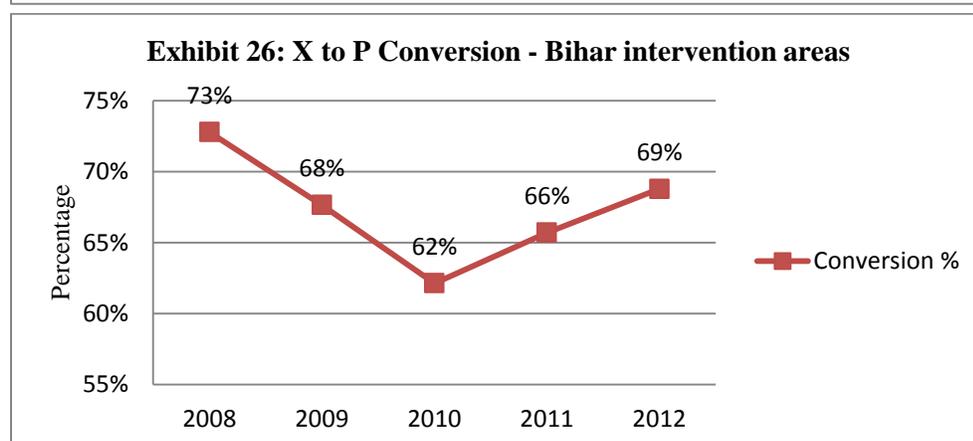
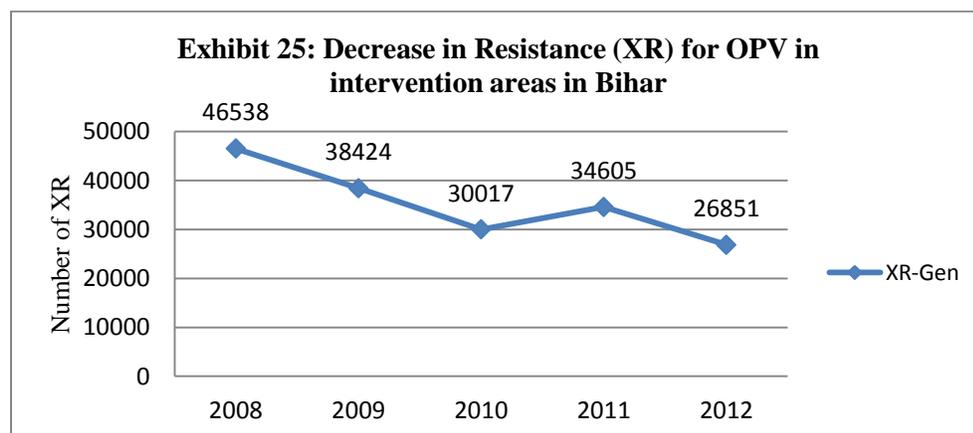
19. Exhibit 23 and 24 below show the minimum decline in resistance (houses marked as XR by Team A) and conversion of households from ‘X’ to ‘P’ in UP and Bihar. As seen in the graphs, there has been a continuous decline in resistance to OPV in intervention areas in UP. This can be attributed to some extent to the efforts of the CMCs and the increase in awareness about polio and OPV through the activities of the intervention.

20. The decrease in resistance towards OPV is also accompanied by a high rate of conversion of households from X to P (between 63% to 70% between 2007-2012)



21. The data for Bihar has been organized according to intervention blocks, i.e. blocks which have a BMC in place since the intervention in Bihar was organized around blocks. The field level mobilization was initially carried out by AWWs and CMCs were introduced in high risk areas at a later stage. As seen in Exhibit 25, there has been an overall decline in resistance to OPV in the intervention blocks in Bihar.

While there was an increase in resistance between 2010 and 2011, the introduction of CMCs and activities undertaken under the intervention have led to a decline in resistance to a large extent. The conversion of households from X to P in Bihar has fluctuated. While it declined from 73% to 62% between 2008 and 2010, the introduction of CMCs in intervention areas in Bihar in 2009 led to an increase in conversion rates between 2010 and 2012.



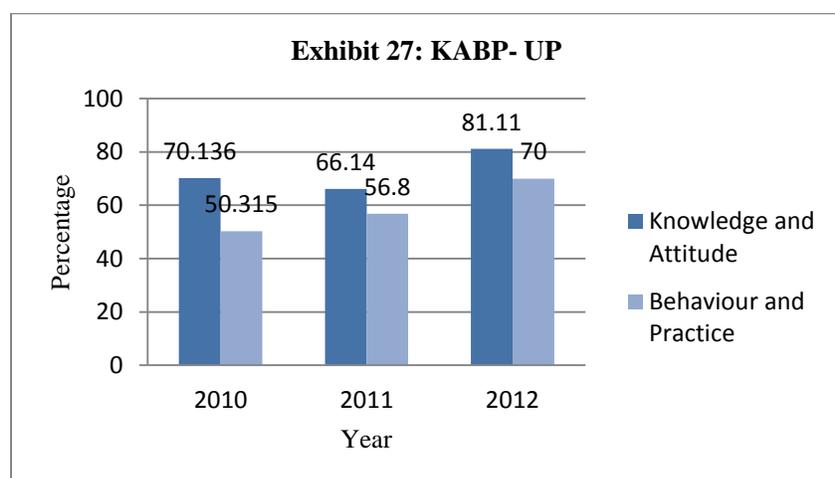
***F.3. The SMNet intervention has led to positive changes in knowledge, attitude and practice related to polio and to OPV over the years***

22. Qualitative research with community members in intervention areas point to an increased understanding of how polio spreads, symptoms and prevention through OPV. While initially there were many misconceptions about polio and the vaccinations, now the large majority is aware about polio, its symptoms and effects and OPV drops. The primary source of information on polio and the OPV was the CMC and the AWW of the areas. They were responsible for resolving the community’s misconceptions about the polio vaccinations and for providing information about the benefits of the OPV.

23. Studies conducted in intervention areas in UP and Bihar also show a net increase in Knowledge, Awareness (KA) and Behaviours and Practices (BP) related to polio and OPV.

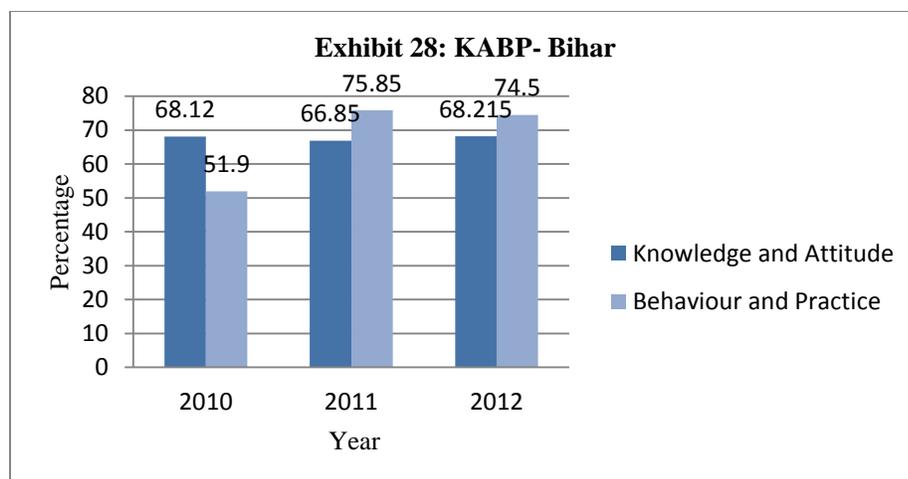
24. The meta analysis conducted on the KABP studies corroborates the findings and analysis of the primary qualitative research. The meta analysis looked at relevant indicators for KA including awareness about children below 5 being at high risk, awareness that polio can be prevented through OPV and awareness about the need for repeated dosages of OPV. These indicators were used to come to a composite score for knowledge and awareness. Similarly, relevant indicators for BP including the practice of administering OPV from AWW/health facility or Routine Immunization in case the dose was missed during the last pulse polio round and incidence of immunization of child during the last pulse polio round were used to develop a composite score for behaviour and practice. Further details on the meta analysis are provided in Annexure 5.

25. Exhibit 27 below shows the change in Knowledge and Attitude and in Behaviours and Practices in high risk areas in UP from 2010-2012.



26. The graph shows that knowledge and awareness decreased from 70% to 66% between 2010 and 2011 and then increased to 81% in 2012. The behaviour and practice steadily increased from 50% to 56% from 2010 to 2011 and then to 70% in 2012.

27. Exhibit 28 below shows the change in Knowledge and Attitude and in Behaviours and Practices in high risk areas in Bihar from 2010-2012.



28. The knowledge and awareness in Bihar decreased from 68% to 66% from 2010 to 2011 and then increased to 68% again. The behaviour and practice increased from around 52% to stabilize around 75% in 2012.

29. The meta-analysis investigated the linkages of the changes in KA and the SMNet intervention by considering the frontline workers as a proxy for the intervention. As discussed in the section on Effectiveness above, there is a strong positive correlation ( $r = 0.97$ ) of the community's access to and interaction with frontline workers (AWWs and CMCs) over the years. There is a strong, linear relationship ( $r = 0.51$ ) between KA and access of communities to frontline workers and CMC visits. Combined with the strengthened SMNet inputs (as evidenced by the increasing interaction of the community with the CMCs over the years), the community's increase in knowledge and awareness can be attributed to the SMNet intervention. Supporting this, qualitative data shows that stakeholders perceived SMNet as key in changing KABP related to polio.

30. Similarly, the analysis for BP indicators indicated that the increase in behaviors and practices of actually seeking immunization and OPV among communities correlates to the increase in interaction with the SMNet intervention through CMCs and other frontline workers. There is a very strong, linear relationship ( $r = 0.90$ ) between BP and access of communities to frontline workers and CMC visits. Combined with the strengthened SMNet inputs (as evidenced by the increasing interaction of the community with the CMCs over the years), the community's increase in behaviours and practices in accessing OPV can be attributed partially to the SMNet intervention.

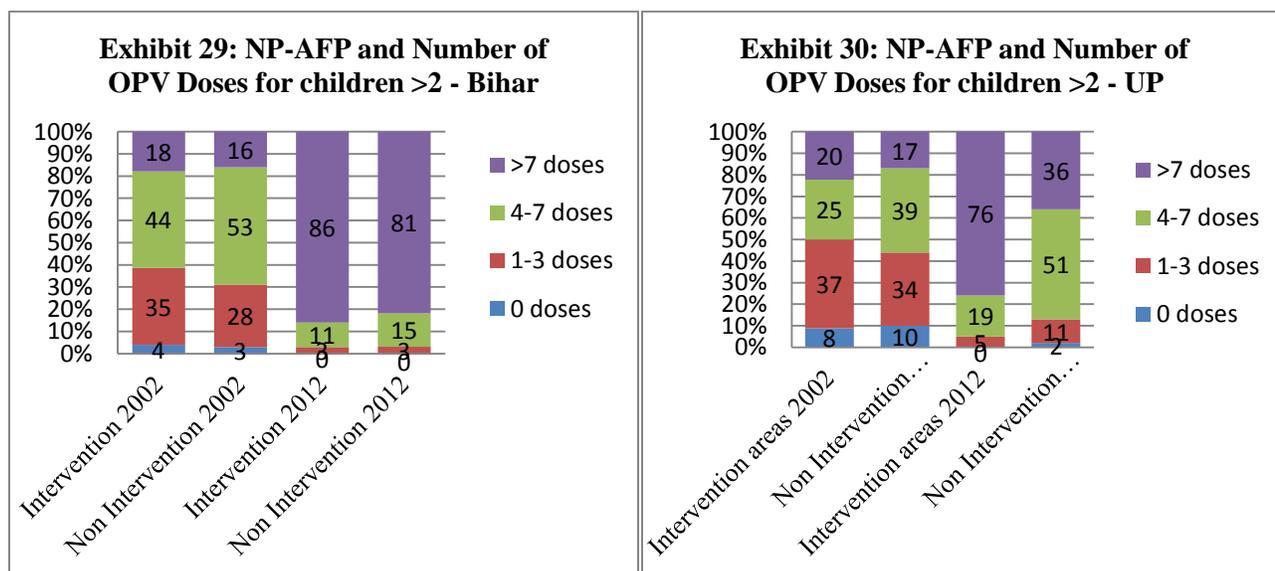
31. Comparison of NP-AFP incidence rates in intervention and non-intervention blocks in UP and Bihar also shows that the uptake of OPV (for children between the ages of 0-5 years) has increased significantly over the years. Surveillance of AFP has improved significantly, which has contributed to the increase in number of cases being recorded.<sup>20</sup>

<sup>20</sup> The number of NP-AFP cases recorded increased by 2147% in Bihar and 1102% in UP between 2002 and 2012

32. While the 34% of cases of NP-AFP in intervention areas in Bihar received more than 7 doses of OPV in 2002, this rose to 94% of cases in 2012. It was also found that the increase in uptake of OPV was better in intervention areas compared to non-intervention areas where 40% of cases of NP-AFP received more than 7 doses of OPV in 2002, which increased to 93% in 2012. In the same period, those receiving 0 doses of OPV decreased from 6% to 1% in intervention areas.

33. Similarly, in UP 38% of cases of NP-AFP in intervention areas received more than 7 doses of OPV in 2002 which increased to 93% in 2012. The increase in uptake was better in intervention areas compared to non-intervention areas where those cases of NP-AFP receiving more than 7 doses of OPV increased from 36% in 2002 to 91% in 2012.

34. The focus of the SMNet intervention was on children below 2 years and on the Muslim community. The graphs below show the increase in percent of NP-AFP children receiving higher number of doses of OPV in intervention and non-intervention blocks in UP and Bihar between 2002 and 2012.



35. As is visible in the graphs above, in Bihar, 86% of cases NP-AFP amongst children 0-2 years of age in intervention areas received more than 7 doses of OPV compared to 18% in 2002. The number of cases of 0-2 year olds with NP-AFP who received 0 doses of OPV declined from 4% to 0% in intervention areas between 2002 and 2012.

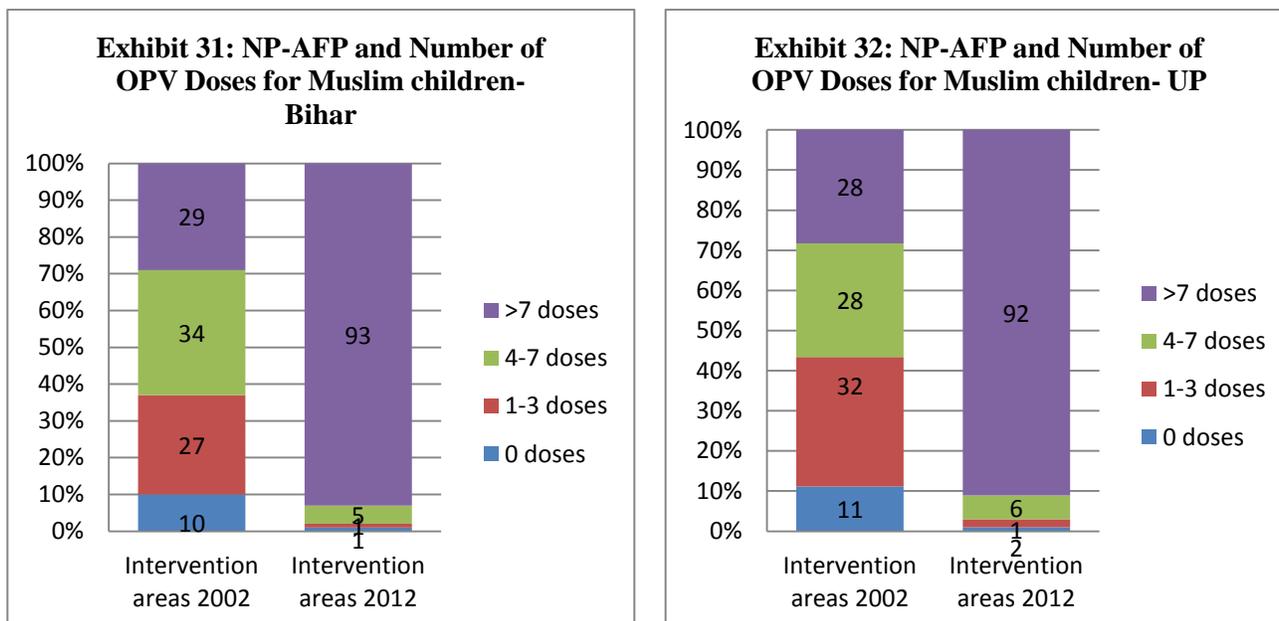
36. Similarly, in UP, 76% of cases of NP-AFP amongst children 0-2 years of age in intervention areas received more than 7 doses of OPV compared to 20% in 2002. The number of cases of 0-2 year olds with NP-AFP who received 0 doses of OPV declined from 8% to 2% in intervention areas between 2002 and 2012.

37. Intervention areas have in general shown higher uptake of OPV compared to non-intervention areas. In Bihar, 86% of cases in intervention areas have received more than 7 doses of OPV in 2012 compared to 81% in non-intervention areas. The difference is starker in UP where 76% of cases in

intervention areas have received more than 7 doses of OPV in 2012 compared to 36% in non-intervention areas.

38. Since the intervention areas are generally high risk, poorly served and vulnerable areas, the increase in uptake of OPV in these areas would be more difficult than in better off areas. The increase of uptake in OPV can be attributed to the SMNet intervention and field level activities of the CMCs to a certain extent.

39. The graphs below show the increase in percentage of Muslim NP-AFP children receiving higher number of doses of OPV in intervention areas in UP and Bihar between 2002 and 2012.



40. As is visible, the uptake of OPV amongst children from the Muslim community has seen a dramatic increase. In Bihar, 93% of cases of NP-AFP amongst Muslim children in intervention areas had received more than 7 doses of OPV in 2012 compared to 29% in 2002. Similarly, in UP, 92% of cases of NP-AFP amongst Muslim children in intervention areas had received more than 7 doses of OPV in 2012 compared to 28% in 2002.

***F.4. The intervention’s Underserved Strategy was developed to cover those in hard to reach areas and chronically missed communities due to issues in access, reach and health seeking behaviours.***

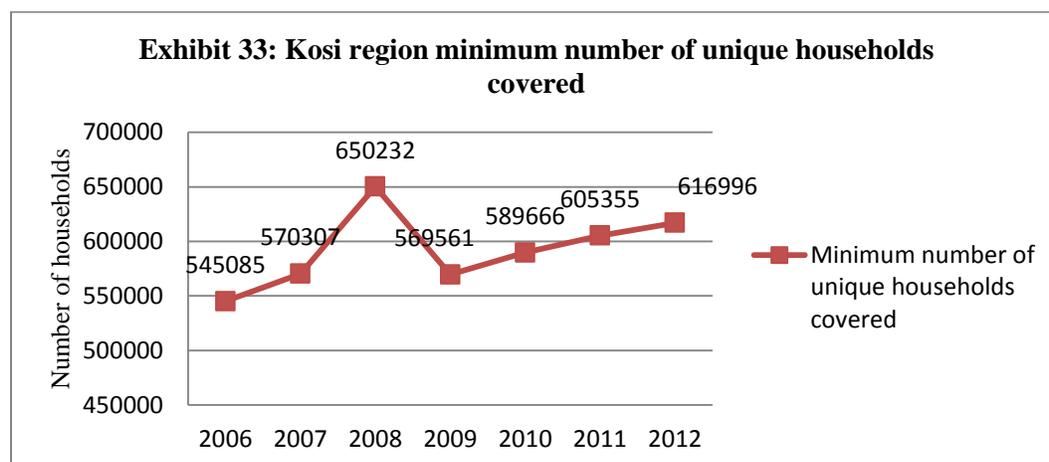
41. The SMNet intervention identified High Risk Areas (HRAs) and High Risk Groups (HRGs) based on the incidence of WPV cases in the regions and demographic analysis of the children affected. 107 high risk blocks were identified in Western UP and Bihar.

*“The role played by SMNet in intervening at the micro (community) level and that too in interiors has been critical to the polio programme” [Civil Surgeon, Motihari]*

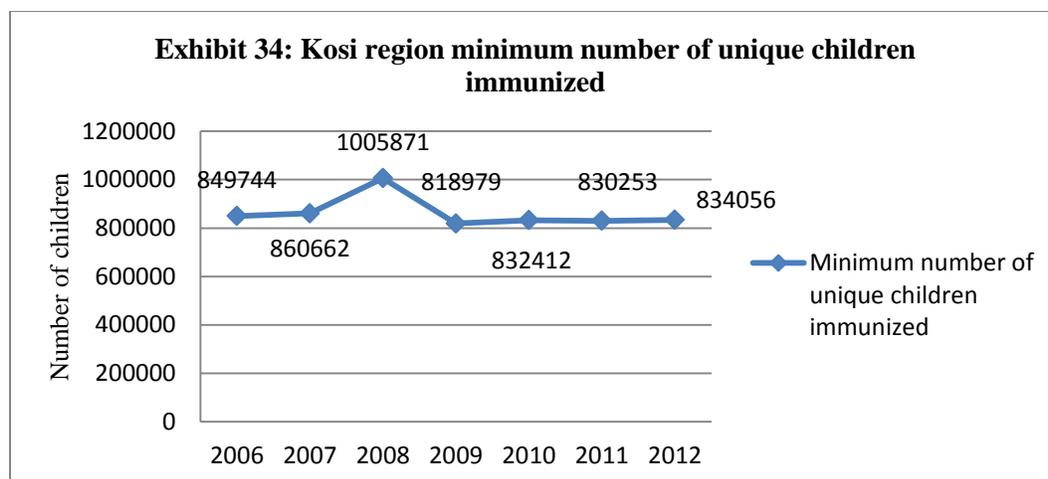
42. The high risk areas identified include villages in 19 blocks in 6 districts in Bihar falling in the Kosi basin in Bihar which are prone to flooding every year, witness frequent migration and compromised access to services and hence are at much greater risk for virus transmission. Annexure 6 provides details of the high risk blocks and districts in the Kosi basin. The area is also extremely difficult to reach and vaccinators/ health workers would have less access to these villages. A Kosi River Intensified Plan was drawn up and implemented in 2008 to reach the difficult-to-access areas along the Kosi River basin in Bihar. Satellite offices and overnight stay points were set up in these hard-to-reach areas to enable human resources to be scaled up and based in the area to facilitate better planning, supervision and monitoring of the campaigns.

43. Exhibit 33 below show the minimum coverage of households and children immunized in 19 blocks of Bihar which constitute the Kosi region. The data was analysed in order to get a total number of households covered and children immunized in each vaccination round in the 19 blocks of the Kosi region<sup>21</sup>. The maximum value of children vaccinated in one round in a given year was then taken to show the minimum coverage of different and unique households and children vaccinated in the area. This allowed for a comparison of data across years.

44. As seen in the graphs, there is a peak in the minimum number of unique households covered and minimum number of unique children immunized in the region in 2008. This can be attributed to a certain extent to the setting up of satellite offices and overnight stay points to enable better reach in these areas.



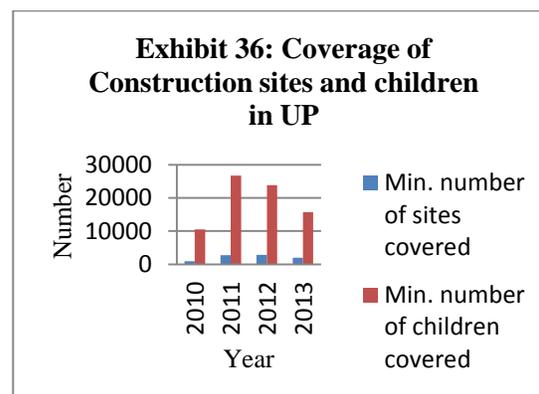
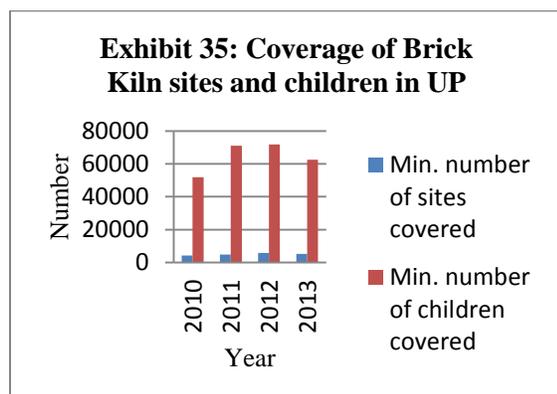
<sup>21</sup>Only 16 of the 19 blocks of the Kosi region had vaccination rounds between 2007 and 2009. Some rounds in 2007 and 2008 were not conducted in all 16 blocks.

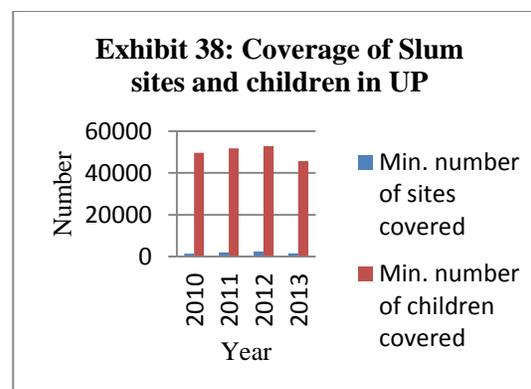
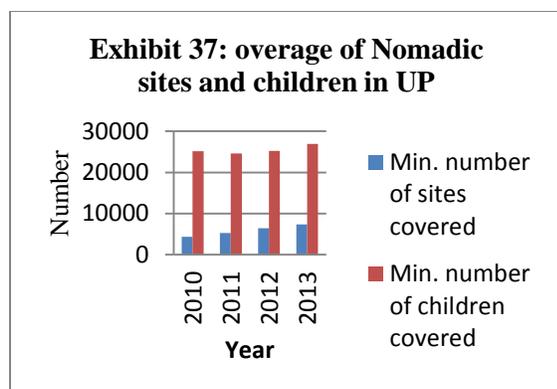


45. This region has historically been underserved due to the difficulty in access. Efforts to reach these areas and the increase in vaccination rates in this region can be attributed to the SMNet intervention.

46. High Risk Groups or Underserved Communities were identified based on an assessment of polio prevalence. The characteristics associated with the underserved communities included - poor, living in ghettoized conditions, mobile communities and those excluded from health systems. It was found that a very large percentage of those affected by the polio virus were from the Muslim underserved community. Traditionally, underserved communities have meant the Muslim community. However, the intervention also identified Brick Kiln and Construction Workers, Nomads, Temporary and permanent slum dwellers as vulnerable groups meeting the operational definition of underserved communities.

47. The CMCs would undertake regular surveys of their areas to identify sites and number of children at these sites. Exhibit 35-38 below show the minimum number of unique sites and children surveyed and tracked at these sites in UP each year. The tracking of these children by the CMCs has ensured that these high risk and chronically missed populations are made aware about polio and OPV and are immunized.





48. Since these population groups (brick kiln workers, construction site workers, nomads and those living in slums) have historically not been tracked and included in any vaccination plans, activities undertaken by the SMNet intervention have helped track, reach and immunize these groups.

#### ***F.5. SMNet has led to some unintended benefits which aren't being measured***

##### ***Improved quality of public health functionaries in SMNet areas***

49. In the resource poor settings of UP and Bihar, trained personnel are limited. The SMNet intervention was involved in training and building capacity of public health functionaries like ASHAs/ANMs/AWWs. The training provided to these FLWs has helped in strengthening and improving the quality of immunization and other health services. These trained cadres working in areas with poor services, can be utilized to further other maternal and child health goals.

##### ***Trained cadre available in resource poor setting of UP and Bihar***

50. The SMNet intervention has successfully trained entire cadres of health workers – CMCs, BMCs, DMCs in UP and Bihar where trained resources on health are extremely scarce especially at decentralized levels.

##### ***Innovative social mobilization channels created***

51. The SMNet has been successful in creating and sustaining innovative channels- like local religious leaders, school children etc. for social mobilization. Utilizing educational institutions at the national level to assist in planning and developing contextual IEC material has also been one of SMNet's innovative approaches. These partnerships and channels can be used for social mobilization on other related issues as well.

### *Key findings for Impact*

- **The SMNet has contributed to the results of the polio eradication programme in India.** The intervention, launched in UP and Bihar- two of the worst off states with high incidence of polio prevalence, has contributed to interrupting transmission of the virus in April 2010 and September 2010 respectively.
  - The household coverage and estimated population coverage (i.e houses visited by the CMCs to increase awareness about polio and OPV) have increased consistently over the years
  - Polio immunization rates have increased over the years
  - Districts which have a strong SMNet presence in UP and Bihar were seen to have higher than state average rates in polio immunization, even though these are high risk areas where typically there have been high levels of resistance and low immunization coverage
  - The decline in WPV cases in SMNet intervention areas in UP has been far steeper than in non-intervention areas.
  - After the appointment of CMCs in Bihar in 2009, there has been a steep decline of WPV cases in intervention areas
- **The SMNet intervention has led to a decline in refusal to OPV** indicated by a decline in resistance (houses marked as XR by Team A) and conversion of households from ‘X’ to ‘P’ in UP and Bihar
- **The SMNet intervention has led to positive changes in knowledge, attitude and practice related to polio and to OPV over the years** shown by meta-analysis findings on sub-indicators of these outcomes
- **The intervention’s Underserved Strategy was developed to cover those in hard to reach areas and chronically missed communities due to issues in access, reach and health seeking behaviours of these communities.**
- **The intervention has led to some unintended benefits which aren’t necessarily being measured-** creating trained cadres of health resources at decentralized levels in UP and Bihar, in training public health system resources and in utilizing innovative channels for social mobilization.

## E. SUSTAINABILITY

1. An important focus area of the evaluation was to assess the *sustainability* of SMNet *i.e. what systems are in place or are required to sustain the approaches and tools of SMNet*. The key aspects that were analysed within this parameter include -

### Key questions

- To assess the acceptance and ownership by community of the role of CMCs as a front-line worker for IPC on polio and RI
- To assess the acceptability of service providers and other stakeholders on CMCs as a first contact for polio and RI in the community and as a change agent
- To understand the links between government functionaries ANMs, ASHAs and AWWs with CMCs and whether CMCs' role is complementary to these functionaries.
- Can front-line Government workers (ANMs and ASHAs) adopt the tools and supportive supervision aspects of the SMNet?
- To what extent can the SMNet be replicated in other contexts/countries/for other child health interventions? (Materials, tools, strategies, approaches and interventions to the context)

### *G.1. CMCs are accepted by the community and by other stakeholders as a frontline worker and change agent*

2. As the core operational functionary of SMNet, the CMC is the point of contact for intervention communities in both states. As a significant resource at decentralized vulnerable contexts, the CMC presents the potential of being a change agent for not only polio eradication, but also for a range of health and nutrition related behaviours and practices – including child health, adolescent health and maternal health. Being present at approximately a 500 household level, the CMC can be potentially trained in one or more of these areas, besides continuing BCC on polio and RI. Besides input level considerations such as training and costs, the acceptance of the CMC by the concerned community as a change agent is crucial for the success of any behaviour change intervention.

*“CMC has counselled us on Polio as well as other issues like routine immunization, breast feeding, hand washing, sanitation and diarrhoea management...We have begun to accept the CMC and we trust her because her behavior towards us is very good and because we have seen her constant perseverance. We have all seen the results of the CMC's efforts.” [FGD with mothers' groups in Kusheshwar Block, Darbhanga District]*

3. From the KAP studies used in the meta-analysis of this evaluation, it was found that 81% in UP of the surveyed population in intervention areas of SMNet reported the CMC as the source of information for all polio related knowledge. In Bihar, since the strategy of the SMNet was to focus on AWWs, with limited deployment of CMCs, the comparable figure was 83%. This suggests that the communities acknowledge the CMC as a trusted source of knowledge. This is also reinforced by qualitative data from FGDs and in-depth interviews, where community members, especially mothers of children in the 0-5 year age group and other stakeholders like local influencers, expressed that the CMC is a change agent for

health. Besides this, 91% and 98% of the surveyed populations in Bihar and UP reported visits of CMCs in the last month – indicating effective implementation and coverage of this cadre in the selected geographies. The regularity of visits and near universal coverage of identified households, in addition to positive perceptions about the CMC in the community makes a strong case for sustaining this cadre as change agents for health interventions.

## *G.2. SMNet is convergent with the public system and its frontline workers*

4. As a catalytic and supportive intervention to promote uptake of OPV through the Pulse Polio Campaign of the Government of India, it is crucial that the SMNet is convergent with the public system - primarily the RI, NRHM and ICDS machinery. Since SMNet is completely focused on working with communities at the lowest level of decentralization to improve polio related outcomes, the programme and its cadres, mainly the roles of CMC, need to be convergent and complimentary to the existing frontline workers of the public programmes – AWW, ANM and ASHA.

5. The evaluation shows very high levels of convergence between the SMNet and the public system. This is evident in the role of the CMCs in RI counselling. According to evidence, in 2012 SMNet staff conducted about 95% of the 42,000 routine immunization monitoring sessions in Bihar and more than 60% of the 205,000 sessions in Uttar Pradesh<sup>22</sup>. Data related to RI rates in districts that have near saturation of CMCs are seen to be higher than those which did not have SMNet interventions.

6. One of the principal areas of convergence between SMNet and the public health system is in the area of Routine Immunization, especially in the context of Intensified Routine Immunization (IRI) Programme launched by the government of India in 2012, with the objective of universal coverage of vaccines by heightening efforts in bottlenecks of programme management especially in reaching the intended beneficiaries that are left out and hard-to-reach.<sup>23</sup> A review of the Operational Guidelines for Immunization Weeks of the IRI Programme as a part of this evaluation clearly shows the points of convergence and learnings that the programme has incorporated from SMNet. Notably, the identification of hard-to-reach areas and hard-to-reach populations in the Guidelines is the same as the HRA and HRG under SMNet. The unreached and underserved populations include difficult terrains like river basins, islands and marshy areas – similar to the SMNet’s focus on the Kosi region in Bihar; population groups such as migrants, displaced and transient groups, minorities and

### *Exhibit 39: Activities for Intensified Routine Immunization (IRI) Programme 2012<sup>1</sup>*

#### **Key IR2012 Activities**

1. Conducting Immunization Weeks in priority areas with low coverage
2. National and state level advocacy
3. Strengthening communication and social mobilization
4. Regular programme review
5. Development of coverage improvement plans
6. Institutional capacity building
7. Vaccine and logistics management and cold chain strengthening and maintenance
8. Alternate vaccine delivery (Teeka Express) for low coverage areas

<sup>22</sup> WHO Country Office for India, UNICEF, National Polio Surveillance Project

<sup>23</sup> Immunization Division, Ministry of Health and Family Welfare. Immunization Weeks: Reaching the Unreached – Operational Guidelines. Delhi: Government of India, 2012.

marginalized groups that oppose vaccination – similar to Muslims focused by SMNet; and areas with poor sanitation and hygiene practices – similar to focused areas of SMNet in urban UP and Bihar.

7. Keeping with the SMNet experience, the IRI identifies strengthening communication and social mobilization as one of the key activities to improve immunization coverage.

8. A good indication of sustainability of the learnings and experiences of SMNet is the fact that IRI 2012 has incorporated its core strategies, especially in emphasizing BCC in specifically defined HRGs and HRAs. IRI 2012 has also involved UNICEF as a key partner. This is evident in the media event that was organized in collaboration with UNICEF, as a part of the first Special Immunization Week (April 24-30, 2012) awareness initiative. The following excerpt from document reviews further reiterates the convergence and sustainability of the SMNet strategies in the context of RI – “The Special Immunization Week lays sufficient importance on generating awareness about immunization and to reach marginalized populations in brick kilns, urban slums and other hard-to-reach areas.” [Operational Guideline, Immunization Week]

9. This evaluation found three other areas related to routine immunization and IRI 2012 which shows convergence of SMNet with the public health system, as well as ways forward for sustainable convergent efforts.

10. One, the efforts to strengthen micro-planning and behaviour change communication in the RI programme. Micro-planning helps to capture the local realities of each state, district and block, which in turn has the immense potential to inform evidence-based programming tailored to the needs of the region. UNICEF and SMNet’s in-depth and extensive experience in micro-planning is convergent with this emphasis, and provides opportunities for SMNet to sustainably contribute its learnings.

*“Micro-planning will have to be strengthened. Every state has its individual socio-economic dynamics. Immunization managers have the responsibility to understand these dynamics and develop state-specific micro-plans and strategies... Our health workers must have the capacity to not only deliver effective services but also enhanced interpersonal skills to assure parents and caregivers that vaccines protect.”*  
[Additional Secretary & Mission Director, NRHM]

11. Besides this, the CMCs and their experience of working with local communities in lowering resistance to OPV is completely in congruence with the BCC skills envisaged for health workers by IRI 2012. Not only can CMCs be used as potential frontline workers for RI focusing on BCC, they can also be involved in training public health functionaries such as ASHAs in delivering interpersonal counselling and mobilizing communities for immunization.

*“There is a lot of help from the BMC/CMC in mobilization and the main work is done by them. They help in the preparation of the micro plan to improve polio coverage. They give the details of which area to be covered, when to conduct the RI in the area, the name of the influencer(s) are also mentioned in the microplan so that people can reach out to them in case of any difficulties.”*  
[ANM in Kusheshwar Block, Darbhanga District]

12. Stakeholder perceptions from the primary qualitative research support this high level of convergence between SMNet and the public system. CMCs were perceived to be core to the functioning of RI and of SIA rounds for the uptake of OPV in communities. Workers from the public system reported

that having CMCs was complimentary to their service provision role and made it easier for them to approach communities for accepting the polio vaccine – especially given strong reservations and cultural beliefs against it. A number of linkages between the SMNet structure and public health system exist. While the major focus of SMNet still remains creating awareness increasingly it is playing an active role in other areas as well (discussed in detail later in this section). According to primary research data of this evaluation, government officials now look up to SMNet functionaries for monitoring the activities of the frontline workers especially during RI sessions. For example, BMCs and BCCs now accompany the Lady Supervisors of ICDS in monitoring the activities of AWWs. Given the quality of coverage data and complaints related to absence of ANMs/AWWs or unavailability of vaccines during RI sessions, involvement of SMNet has helped strengthen the implementation of the public immunization programme.

*“SMNet is integrally connected to the public health system. We consider SMNet employees as a strong force for polio eradication. Initially there were certain challenges in dealing with ASHAs and AWW as they thought CMCs were introduced to audit their work. But over time, SMNet staff has gained our trust and built very good rapport. They have helped us in our efforts and we try and collaborate and cooperate with them for their activities.” [Block Medical Officer in Kusheshear Block, Darbhanga District]*

13. SMNet personnel interact frequently with the government officials at all levels. Direct and close linkages were observed and reported by stakeholders - CMCs with frontline workers (ASHA, ANM, AWWs), BMCs with BMO/MOIC, SMCs with DIO, CS and program manager of DHS (DPM). SMNet staff has successfully gained the trust of public system personnel (at all levels). This maintains convergence not just at a broader macro level with the public system, but also at decentralized and micro levels of the respective program structures, facilitating smooth operationalization of the programme objectives and activities.

*“Additional support by CMC on record keeping and monitoring is critical to our maintenance of health system records on immunization.” [AWW, Janikhurd Block, Meerut District]*

*“People were earlier very resistant to immunization. However, with the introduction of SMNet staff - the BMCs and CMCs, awareness has increased among the villagers since the CMCs go house to house and provide information on RI and monitors the status by checking the RI card, checks when RI and Polio drops were given.” [FGD with mixed group in Kusheshear Block, Darbhanga District]*

14. The CMC’s role is also complimentary to that of the ASHA’s in the context of RI. The Mission Steering Group of the NRHM has newly introduced incentives of INR 100.00 per child completely immunized upto 1 year of age and of INR 50.00 per child completely immunized upto 2 years of age for ASHAs. This is in addition to INR 150.00 per session for mobilizing children to session sites for RI. These incentives have added significant thrust to the RI programme and community mobilization within it through local change agents like the ASHA – a strategy which has roots in SMNet’s CMCs. Planning for convergence and sustainability, SMNet has already been

*“Since most of the villages in the block are hard to reach it was difficult for AWW/ASHA to visit every household...the services were not reaching everywhere. SMNet provided support to cover all the hard to reach areas of the block by arranging for boats at the time of floods to reach those areas. The CMCs and BMCs were very helpful in providing information about left-out beneficiaries.” [Lady Supervisor, ICDS in Kusheshear Block, Darbhanga District]*

organizing meetings with ASHAs and AWWs on a regular basis. These involve the discussion of issues on monitoring OPV coverage and reaching resistant/hard-to-reach groups, orientation on polio awareness and immunization benefits. The CMCs' experience of mobilizing communities for OPV can provide valuable learnings for the newly emerging role in RI for themselves and for the ASHAs.

15. Keeping sustainability and cost efficiencies under consideration, a rationalized role of the ASHA and the CMC is required in case of RI, to prevent duplication of efforts. Since ASHAs are at a more decentralized level than CMCs, and CMCs have years of experience in this area, the possibility of training the latter for supportive supervision and on-field guidance of the ASHAs can be explored. Since the ASHA programme in most states does not have a cadre of personnel to provide continuous support and mentoring to the community health workers, the CMCs can be developed to play this role – especially for immunization and specific child health programmes. This can be a smooth continuum as SMNet staff such as the CMCs, BMCs and SMCs are already undertaking training sessions for ASHAs and other public system frontline workers like the ANM and AWW. Besides this, SMNet staff – BMC and CMC- undergo regular trainings on RI and convergent issues. Trainings facilitated by SMNet are primarily focused on interpersonal skills – an area that is often underemphasized in technical trainings organized by the health system. In the newly envisaged focus on BCC and social mobilization for RI, this training experience, curriculum and structure can be very valuable.

*“The monitoring done by the CMCs is very effective since they stay with the community all the time and they actively communicate with the villagers and informs them on various issues. The villagers are more comfortable with the CMCs... the LSs only rarely visit the villages that are in the AWW areas. [Block Medical Officer in Kusheshear Block, Darbhanga District]*

*“SMNet is needed to sustain RI”. [District Immunization Officer, Motihari District]*

*“For timely achievement of objectives, all four frontline workers i.e. AWWs, ANMs, ASHAs and CMCs will have to come together.” – CDPO - ICDS, Dhaka Block, Motihari District]*

16. One of the main concerns for sustainability of SMNet innovations is the integration of its tools, techniques and curriculum into the government system and their use by government functionaries (primarily frontline workers). This evaluation found that SMNet has well planned for its sustainability and has already been facilitating integrated trainings on interpersonal skills, polio awareness, benefits of immunization and convergent issues. Trainings undertaken by BMCs and regular meetings facilitated by CMCs for ASHAs and AWWs show that this integration process is already underway. Going forward, with the expansion in scope of the programme to include wider child health concerns and the evolving focus on Polio Plus requires that training curriculum be designed to suit the emerging needs. As SMNet prepares itself to take on additional responsibilities on RI and other convergent activities, it would need to scale up the skillset of its human resource across levels, in order to meet the needs of the other programs. Additionally, to reach sustainability in terms of high monitoring of polio cases and resistant households, the government frontline workers will need to be trained well to

*“The Government frontline workers will not be able to adopt the tools and mobilize the community the way SMNet does, if SMNet is not present. The supervision levels of frontline workers are not enough. Moreover, they have now become used to SMNet workers doing all the work of mobilization – this acts as both a positive as well as a negative factor”. [Lady Supervisor in Kusheshear Block, Darbhanga District]*

adopt SMNet tools and techniques. Despite the support provided by SMNet, stakeholders expressed apprehension about the frontline workers like AWWs being able to effectively use the monitoring tools in the absence of CMCs/BMCs. In order to address this, SMNet needs to design training and capacity strengthening initiatives for the frontline workers and facilitate continuous support and monitoring, at least in the initial phases of operationalization.

17. Immunization Weeks is one of the important strategies under IRI 2012. These weeks are aimed to improve coverage in priority areas with low immunization rates and of hard-to-reach populations. 4 Immunization Weeks have been planned in all states of the country. An analysis of the strategy and operational guidelines of these Immunization Weeks through document review in this evaluation shows a number of synergies with

*“In India, inequity persists within and between states. There are geographical, rural-urban, poor-rich, gender and other related differences in vaccination coverage. Disparities need to be addressed to reach every last child. The Special Immunization Week is an opportunity for all of us to renew focus on ensuring equity in immunization coverage.”* [UNICEF India Representative]

SMNet and its involvement in SIA rounds and organization of polio booths. Before each SIA round, SMNet develops an IEC microplan to outline the number of banner/posters to be put up as well as their respective locations for maximum impact. CMCs, responsible for ~400 households are aligned to a polio vaccination team to prepare due-lists before each RI session

*“Acceptance levels of SIA has gone up through SMNet interventions. This is very valuable for the entire immunization programme of the country.”* [Medical Officer In-Charge, Sewa Sadan, Lucknow District]

thereby helping in accurate estimation of the vaccine required. Due-list preparation has been one of the major focus areas, with emphasis being laid upon preparation as well as updation of these lists. The experience of organizing these initiatives and mobilizing communities to participate in them and access the services can provide useful lessons for the new Immunization Weeks.

The Intensified Pulse Polio Immunization (IPPI) programme of the government is another area where convergence and inter-linkages between SMNet and the public system emerge clearly. Being one of four remaining countries with ongoing wild poliovirus transmission, India’s IPPI programme is urgent, focused, and experienced. The role of social mobilization is critical to universal reach. In putting strategies in place to maximize polio immunization coverage the Government of India works with UNICEF closely. One of the initiatives that SMNet has contributed to the IPPI towards generating community awareness and behavioural outcomes is UNICEF’s Kyunki...Jeena Issi Ka Naam Hai (Because... That Is What Life Is)—a primetime soap opera which airs on Doordarshan to impart the immunization and other life-saving messages found in the UN publication Facts for Life. Kyunki... speaks directly to the young mothers, families, and other caregivers with whom CMCs engage on a daily basis. Tackling personal as well as socio-cultural issues in a sensitive yet persuasive manner, the serial provides credibility and reinforcement to the SMNet’s communication efforts—and it does so in a medium conducive to low literacy contexts and in the most popular entertainment format in the country. By mirroring and dramatizing the reality, hopes and aspirations of its audience, Kyunki... tries to create an enabling environment for interpersonal communication by CMCs and other frontline works engaged in IPPI and other critical health services that fall under India’s NRHM.

18. Keeping with the focus on the importance of communication, the Immunization Division at MoHFW has developed a Communication Strategy Development and Operational Guideline in partnership with UNICEF. The lessons from the SMNet experience have been well integrated in this

guideline, which in turn has ensured the convergence and sustainability of the programme innovations into the public system.

19. In Bihar, the involvement of SMNet and UNICEF in IEC/BCC activities of the government is evident in the analysis of fund allocations by the MoHFW. This evaluation found that the Ministry has a standard allocation head for UNICEF to develop its IEC material for the Pulse Polio Campaign. This indicates that SMNet has been successful in mainstreaming its innovative communication material directed towards social mobilization and community awareness, and gaining the state government's acknowledgement of its expertise in this area. This is an extremely significant positive step towards sustainability of the learnings from SMNet.

### *G.3. Considerations for replication of SMNet for child health interventions*

20. The goal of polio eradication cannot be fulfilled unless the overall immunity of the child improves, enabling sufficient resistance to the virus. As part of the eradication initiative, so far, the focus has really been on dosage of OPV, for increasing immunity against the disease. However, there is an increasing need for supplementing vaccine derived immunity with other relevant factors enhancing immunity of the children such as nutrition, hygiene and sanitation etc.

21. As mentioned in the chapters on Relevance and Effectiveness, SMNet started with a focus on polio eradication, keeping sustainability concerns, but in the recent years it has started building a strategy on "Polio Plus" interventions that includes routine immunization, sanitation, diarrhoea management, hand washing, etc. In order to operationalize this strategy, the cadre of Block Convergence Coordinator (BCC) has also been introduced, whose primary role is to undertake and facilitate activities integrated with the public system, such as RI and convergent communication of different maternal and child health programmes of the government. The field books of CMCs now outline activities specific to convergence (C1 – C9) to record and monitor progress. Additions like these can contribute to addressing the challenges of meeting increased quality assurance and monitoring needs of Polio Plus.

22. From non-participant observation of a diarrhoea management session carried out by BCCs/CMCs at one of the AWCs as a part of this evaluation, it was found that IEC materials focused on activities apart from polio were limited. Development of specially designed communication material for the specific child health interventions that SMNet chooses would be required.

23. These are, however, very recent initiatives and are at a nascent stage of development. From primary research data, it is evident that stakeholders from the public system perceived value in SMNet's contribution to community mobilization and feels its potential to improve other child health programme. A strategic plan needs to be formulated for taking the Polio Plus programme forward. Besides this, as the scope of the programme broadens, quality maintenance has

*"UNICEF and SMNet has been very systematic and scientific in their approach towards mobilization; I hope there is further cooperation in the future on other health programmes". [Civil Surgeon, Saharsa]*

*"SMNet has greatly enhanced the planning process of SIA. We would want them to increase their area of operations by intervening in schemes like RSBY." [Chief Medical Officer, Lunknow District]*

become increasingly challenging because of multitude of responsibilities and the need for convergence with additional child health programmes. In order to be replicable and successful in other child health interventions, as it has been in case of polio, SMNet needs to develop sustainable plans for quality assurance, stringent monitoring/surveillance and capacity strengthening of its personnel at different levels to fulfill the new roles.

24. To assume a larger role in future, SMNet, though well-placed, would need to align its strategy, which is currently based upon the requirement of polio initiatives. As it plans to be mainstream in carrying out mobilization activities in RI and convergence, there may be a need to realign its strategy, resources, expected outcomes and operational plan, to be in line with the evolving need.

#### ***G.4. Considerations for replication of SMNet in other contexts***

25. The India polio programme is considered to be a global gold standard, and UNICEF has been charged by the Independent Monitoring Board (IMB) of the Global Polio Eradication Initiative (GPEI) to document its innovations, lessons learned and best practices to be replicated in other contexts. One of the objectives of this evaluation is to provide lessons to the remaining endemic countries - Nigeria, Afghanistan and Pakistan - where structures similar to the SMNet have been put in place to guide strategies, management and subsequent evaluations of these investments. With Pakistan, Afghanistan and Nigeria having recently replicated the principles of the SMNet in their own contexts to meet similar needs for community engagement, a thorough evaluation of the SMNet in a post-polio India and an evaluation of its potential transition is timely for both the Indian situation and to help serve as a model for other polio programmes and for other public health initiatives that could benefit from such an investment.

26. In order to develop considerations for replication of SMNet to other countries, we need to first understand the unique socio-political contexts, and the epidemiological trend of polio in these countries. In the last three to four years, we have seen that these endemic pockets have different problems to be addressed.

27. Out of the three endemic countries, Afghanistan and Pakistan form one epidemiological unit, defined by the political conflicts across their shared border, weak governments and poor health infrastructure. Significant cross-border activity including movement of refugees facilitates transmission of the polio virus. Although the polio incidence had gone down, the progress has reversed in the past few years. Between 2010 and 2011, the number of cases in Pakistan increased from 144 to 198 and from 30 to 76 in Afghanistan. In October 2011, Pakistan reported as many as 132 new cases of polio. A polio vaccination campaign has been kicked off in response targeting 33 million children across the country. The resurgence in Afghanistan is linked to the increase in Pakistan and is mostly seen in the Helmand and Kandahar region that borders the country. The main reason identified behind this resurgence is population in conflict areas/hard-to-reach that are left out and the refusal of the OPV by communities due to misconceptions about the vaccine. The lessons from SMNet in UP and Bihar can be directly applicable for designing a HRG/HRA strategy and for conversion of X to P.

28. Nigeria is the only polio endemic country in Sub-Saharan Africa, having its main endemic areas in the north. It is one of the most entrenched reservoirs of wild poliovirus in the world. It is the only

country with ongoing transmission of all three serotypes: wild poliovirus type 1, wild poliovirus type 3, and circulating vaccine-derived poliovirus type 2. In 2009, operational improvements in these northern states led to a 90% decline in cases of wild poliovirus type 1 and a 50% decline in overall cases compared with 2008. Here the problem has been lack of vaccine delivery. The epidemic curve has shown a continuous upward trend from 28 cases in 2000 to 1122 cases in 2006 due to widespread refusal of the vaccine by communities. The political and religious climate has changed considerably, with lower transmission in 2007. The country had witnessed a 95% decline in the number of polio cases in 2010 and was so close to the finish line with regard to polio eradication. However, as at July 10, 2012, Nigeria has recorded 49 new cases of wild poliovirus in 10 states compared to 25 cases during the same period in 2011. In 2012, the country declared polio eradication a national emergency. In 2012, Kano State, northern Nigeria, is one of the highest risk states in the country, where more than one-third of all children still remain under-immunized. Along with other high-risk states, Kano embarked on a massive door-to-door polio immunization campaign between 7-10 July. Government, traditional and religious leaders, media, community health workers, and a wide range of stakeholders, collaborated to make this exercise a success. UNICEF and its partners have deployed hundreds of Volunteer Community Mobilizers like Binta all over Kano State. Selected from their villages, about 557 volunteers have been trained as “change agents” in their respective communities and saddled with the task of house-to-house mobilization for polio and routine immunization. This network of community mobilizers is now fully operational in Kano, Kebbi and Sokoto States, and recently, has been extended to the states of Katsina, Jigawa, Zamfara, Yobe and Borno, all in northern Nigeria.

29. Multiple advocacy and social mobilization efforts are underway to ensure that not a single child is missed during polio immunization campaigns in Nigeria. Earlier, in July, the government urged traditional leaders in the Northern Traditional Leaders’ Committee to mobilize and encourage their respective communities to get children immunized against polio. The recent UNICEF social data analysis indicates that a third of all refusal cases are readily resolved by traditional leaders in the high risk states of Nigeria.

30. ***The strategy of using local community workers:*** In Afghanistan and Pakistan, geographically difficult territories can be negotiated by health workers. In two states in India, myths persist in a community that has become non-receptive to vaccination in recent years, such that successive birth cohorts are not being immunized. Some of the politically unstable areas in these two countries have a non-existent public system. In the absence of any government health service, the concept of a change agent or community health worker becomes even more important. The experience of CMCs with a planned support structure – BMCs and SMCs – can be considered for such areas. Since CMCs are recruited from the local community, the resistance expected against them in conflict-areas is lower than a public health worker from “outside” the community. Additionally, CMCs, with support from BMCs, are well positioned to raise awareness about broader child health issues – that meet with higher acceptance from communities than a religiously and politically controversial subject like vaccination. The strategy in conflict areas can therefore, start with local health workers for mobilization and awareness on child health, sanitation, hygiene, etc. and then moving to polio. In other parts of Afghanistan and Pakistan, where the health system is present and broader child health issues are being addressed, CMCs and BMCs can be introduced like in India, with a focus on polio and increasing acceptance of OPV. UNICEF is already working closely with provincial governments to deploy up to 800 additional staff in 33 high-risk

districts. A similar strategy has recently been started in Nigeria. Based on the SMNet CMC model, these volunteers have been trained to work as “change agents” in the community and are responsible for house-to-house mobilization for polio and routine immunization and introduce some key household practices. They have started to identify and characterize the chronically missed children and non-compliant parents through community friendly approach, including interpersonal counselling on immunization and promotion of key household practices such as treatment of diarrhoea, prevention of malaria, breastfeeding.

31. ***The strategy of involving religious and community leaders:*** Where community involvement in the eradication programme has been low, OPV coverage has remained low, leading to failure to eradicate polio. For example, in India, people could not be mobilized to bring their children to the polio vaccination booths on national immunization days, while the Nigerian government succumbed to pressure from religious groups to cease supplementary immunization activities (misbeliefs, held by certain religious groups in some parts of India and Nigeria, hold that vaccination with OPV can lead to sterility and death, and that vaccination with OPV is being used as the means to reduce the number of believers in a specific religion). Like in India, in Nigeria either coverage or turnout on national immunization days was low, allowing circulation of the wild polio virus. Poor community participation and insufficient community ownership are factors that have contributed to the endemicity of wild polio virus in these two countries. Social mobilization can be considered as important as political mobilization, and both need immediate reinforcement.

32. In Nigeria, the actions of the government and religious organizations had an unfavourable effect on the eradication programme, undoing gains that had been acquired over years. The strategy adopted by SMNet in India of involving religious leaders can be replicated in the context of Nigeria, as well as in Afghanistan and Pakistan that have similar religious beliefs and sanctions against the OPV. One of the major highlights of the initiative has been the higher level of engagement of religious institutions in the polio program. In order to overcome resistance by some specific religious groups, key institutions of the identified religious sects were included as a major proponent of the program, leading to the ease in acceptability of the program at the community level. Specific activities like key messages delivered by Imams in mosques after Friday prayers, on-boarding them to endorse the OPV and publicly acknowledge its benefits (and the lack of side-effects), involving popular Muslim media personalities and actors for IEC campaigns about polio and OPV can be used in all three endemic countries to counter religious beliefs and resistances.

33. ***The strategy of sustained advocacy and convergence with the government:*** The role of sustained advocacy to the local and national governments is more important now than ever, as new approaches require approval from governments and communities. This may be achieved by high-level advocacy among the target groups and communities by experts and international leaders. The importance of advocacy was highlighted when state authorities in Kano, Nigeria, suspended supplementary immunization activities between April 2003 and July 2004, resulting in a decrease in OPV acceptance in all northern Nigerian states. The subsequent importation and re-emergence of polio is still haunting the world. The resumption of supplementary immunization activities there could only be achieved by high-level advocacy by federal authorities, external partners and public health officials from affected states. This example illustrates the fact that the final stage of eradication needs sustained advocacy at the highest

political level to maintain the tempo of the programme; any deficit in this area may delay achieving the target.

34. The collaboration with existing government programmes and the public health system is crucial, not just for the smooth implementation of a complex programme like SMNet, but also for cost efficiencies and sustainability. Such convergence needs to be planned right from the inception of the programme. All stakeholders from the government at all levels of functioning need to be involved in a social mobilization programme. Like in SMNet, systems and processes like joint committees and meetings, convergent trainings, partnerships for IEC interventions, etc. need to be in place for successful convergence. Hence, one of the considerations for replication of SMNet in other countries is to collaborate with national/state authorities and other relevant stakeholders (like CORE, WHO, GAVI) in developing annual plans for strengthening immunization systems in the respective countries. The experience of SMNet in India shows the power of this approach. According to evidence, the Bihar polio program not only achieved eradication but simultaneously contributed to increasing RI coverage from 19% in 2005 to 67% in 2010.<sup>24</sup> As mentioned in the chapter on Value-for-Money Analysis, these increases have contributed to significant economic benefits, cost efficiencies and sustainability.

35. ***The strategy of multi-sectoral convergence:*** The persistence of myths about polio, particularly in endemic areas, can result in low participation and poor cooperation. After almost 10 years of running the eradication programme in India, myths about the polio continue to circulate among the general public. The solution may lie in including information on polio and vaccination in textbooks and curricula of school and colleges to generate awareness and increase people's participation in and ownership of the programme. Recently, research has pointed towards the role of poor sanitation and hygiene in the spread of polio virus. Although the finding is noteworthy, it remains to be explained why polio can be eradicated in some countries but not others in which sanitary conditions are similar or worse. In these areas in which polio still occurs, the hurdles to be faced are all different, and eradication may not be achieved by the same strategies.

36. ***The strategy of area-specific and population-specific approach:*** Local and national experts need to identify and act on the problems in each specific area. Instead of a national-level plan, we should prefer district specific or even sub-district-specific plans. Each pocket needs to be dealt with individually to stop the transmission of wild polio virus from that area. The area-specific approach plus community dialogue now seems to be appropriate. Community dialogue has a proven track record in Nigeria and can also be applied in other settings. The conventional eradication strategy needs to be supplemented according to local needs to make a multipronged, area-specific strategy that may vary in different regions.

The strategy of tracking nomadic populations have been recently started in Nigeria for the Fulani tribe by involving their community leaders – the Hardos. This resulted in the mapping of common routes of travel for the nomadic people and many of the Hardos agreed to help spread the polio eradication message within their communities. Since the meetings were held, a substantial increase in the number of children vaccinated is already being seen. In the Safana local government area, for example, nearly 10,000 more children were immunized in May compared to January 2012.

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<sup>24</sup> GPEI.2012. Economic Case for Eradicating Polio.

37. **Considerations for programme design and operationalization:** Firstly, eradication should always be targeted to a shorter and stipulated time frame, as a long duration leads to fatigue and decreases the performance of the people involved.

38. Secondly, eradication should be an internationally coordinated effort and most of the groundwork (including funding support, workforce training, sufficient availability of vaccine, infrastructure planning, facilities for vaccine delivery, political commitment, community mobilization and surveillance networks) should be finished before embarking on any such activity. This was not the case with polio eradication, as many countries started programmes in their territory a long time after a large part of the world was polio-free. Had efforts been internationally coordinated and synchronous, the situation could have been different.

39. Thirdly, a baseline understanding of the country context before intervention is crucial to measure the impact of a programme like the SMNet. This baseline is not limited to polio incidence and epidemiological surveillance (that is available through national government data and WHO's NPSP), but has to include indicators related to social determinants, knowledge, attitudes, behaviours and practices related to polio and other child health areas. An assessment of the country's public health system to undertake eradication efforts and identify points of convergence for a programme like SMNet is also essential. Such baseline or comparison data was not available in India, as rigorous impact assessments were not undertaken as a part of SMNet. This has been highlighted as a limitation in different sections of this report. In order to avoid such a situation, the other contexts must incorporate plans for rigorous impact evaluation right from the beginning of the programme. The comparison of data through robust statistical methods will yield invaluable evidence for the efficacy and impact of SMNet, and help guide corrective action and investments in "most effective" interventions.

### *Key findings for Sustainability*

- **CMCs are accepted by the community and by other stakeholders as a frontline worker and change agent**
  - An average of 82% households surveyed in the KAP studies reported the CMC as the source of information for all polio related knowledge, suggesting that the communities acknowledge the CMC as a trusted source of knowledge
  - An average of 94.5% of the surveyed populations in the KAP studies reported visits by CMCs in the last month, indicating the potential for effective implementation and coverage of this cadre for other child health interventions
- **SMNet is convergent with the public system and its frontline workers.** Convergence with the public system and sustainability of SMNet interventions/strategies is clearly evident in the following areas:
  - ***Routine Immunization and the Intensified Routine Immunization (IRI) Programme***
    - In 2012 SMNet staff conducted about 95% of the 42,000 routine immunization monitoring sessions in Bihar and more than 60% of the 205,000 sessions in Uttar Pradesh.<sup>1</sup>
    - IRI 2012 has incorporated core SMNet strategies, by emphasizing BCC in specifically defined HRGs and HRAs; strengthening communication and social mobilization as one of the key activities to improve immunization coverage
    - IRI 2012 has involved UNICEF as a key partner, providing an opportunity for incorporation of SMNet lessons into the programme. The first Special Immunization Week (April 24-30, 2012) awareness initiative was organized in collaboration with UNICEF.
    - Stakeholder perceptions from the primary qualitative research support this high level of convergence between SMNet and the public system.
  - An analysis of the strategy and operational guidelines of these Immunization Weeks shows a number of synergies with SMNet - its involvement in SIA rounds and organization of polio booths, preparation of IEC micro-plans, due-list preparation and updation thereby helping in accurate estimation of the vaccine required.

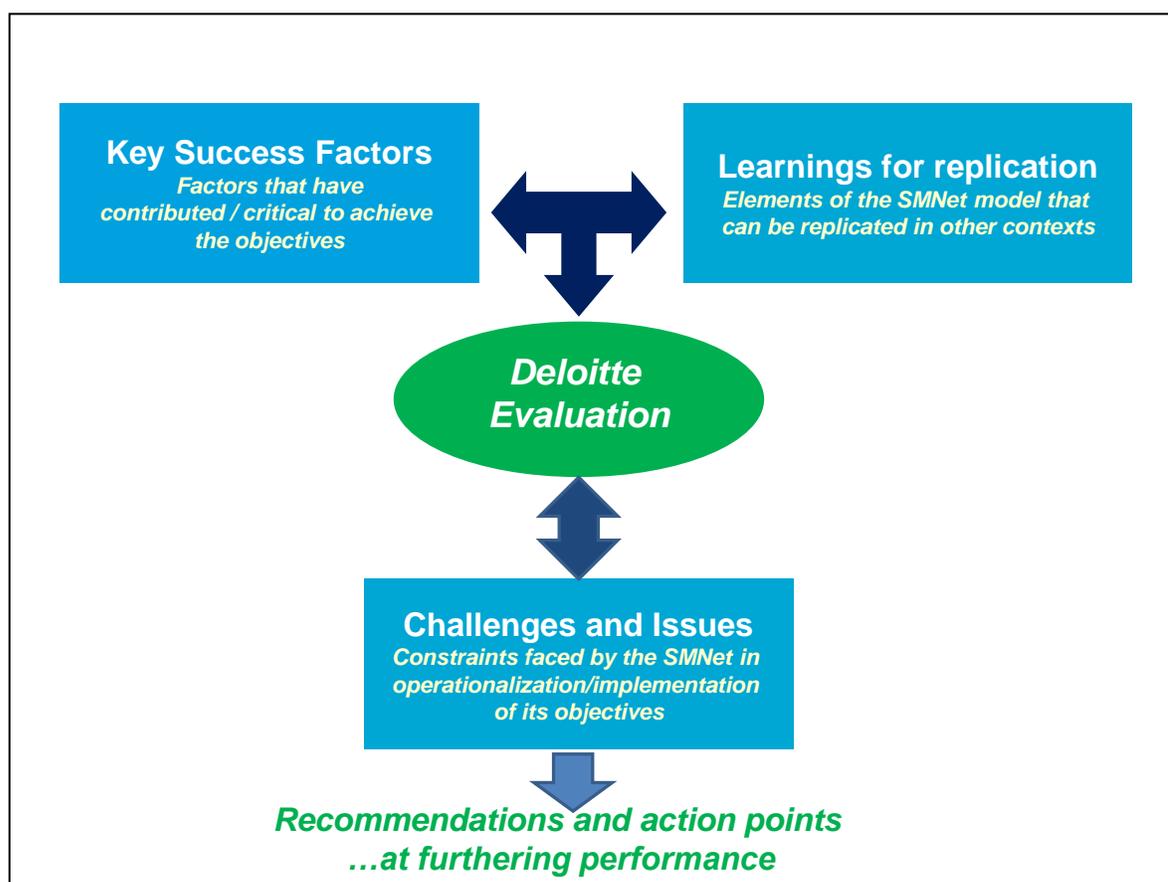
- *Direct and close linkages between SMNet personnel with government officials* at all levels were observed and reported by stakeholders. This maintains convergence not just at a broader macro level with the public system, but also at decentralized and micro levels of the respective program structures, facilitating smooth operationalization of the programme objectives and activities.
- *The CMC's role is complimentary to that of the ASHA's* in the context of RI. Keeping sustainability and cost efficiencies under consideration, a rationalized role of the ASHA and the CMC is required to prevent duplication of efforts. The possibility of training CMCs for supportive supervision and on-field guidance of the ASHAs can be explored.
- The *Intensified Pulse Polio Immunization (IPPI) programme* of the government is another area where convergence and inter-linkages between SMNet and the public system. SMNet has contributed to the IPPI towards generating community awareness and behavioural outcomes through the primetime soap opera Kyunki...Jeena Issi Ka Naam Hai to impart the immunization and other life-saving messages found in the UN publication Facts for Life. This creates an enabling environment for interpersonal communication by CMCs and other frontline works engaged in IPPI and other critical health services that fall under India's NRHM.
- *Trainings under SMNet are convergent with and complimentary to those in the public programmes.* SMNet organizes trainings for ASHAs and other public system frontline workers like the ANM and AWW that emphasize the often neglected area of interpersonal counselling and BCC. CMCs, BMCs and SMCs undertake training sessions for frontline workers. Besides this, SMNet staff – BMC and CMC- undergo regular trainings on RI and convergent issues.
- **Considerations for replication of SMNet for child health interventions**
  - Keeping sustainability concerns, SMNet has started building a strategy on “Polio Plus” interventions that includes routine immunization, sanitation, diarrhoea management, hand washing, etc. Some additional operational changes have been introduced for this new focus, such as recruitment of BCCs, organization of diarrhoea management sessions in villages, new monitoring indicators for CMCs, etc.
  - SMNet needs to develop sustainable plans for quality assurance, stringent monitoring/surveillance and capacity strengthening of its personnel at different levels to fulfill the new roles in the context of a broadened scope.
- **Considerations for replication of SMNet in other contexts** include some of the effective strategies like:
  - Local community health workers for mobilization in resource-poor and conflict settings
  - Involving religious and community leaders to address resistance to the OPV based religious beliefs and taboos
  - Sustained advocacy and convergence with the government for the smooth implementation of a complex programme and for cost efficiencies and sustainability
  - Multi-sectoral convergence with departments like education and water-sanitation
  - Area-specific and population-specific approaches to address specific issues

## SECTION 5

# CONCLUSIONS AND RECOMMENDATIONS

1. The detailed evaluation, analyses and conclusions presented in the earlier section formed the basis for assessing the key achievements and factors that are critical to the success of the SMNet as well as the various challenges/limitations and possible areas of improvement while replicating it in different contexts. This section will draw upon these learnings as the basis to arrive at possible recommendations/ action points for future programming, replication and scale-up of the SMNet. The overall framework for the recommendations is presented in Exhibit 39 below.

**Exhibit 39: Overall Framework for Recommendations**



## Basis for Recommendations: Success Factors, Challenges and Learnings for replication

### *Learning from the SMNet model*

2. The evaluation helped in identifying important lessons from the SMNet programme that can be incorporated while replicating the model or elements of the model in the endemic countries or when designing any future model elsewhere –

#### Conclusions and Learnings from the SMNet Programme

- The SMNet was **evidence-based** in its strategic planning and programmatic focus, which ensured that its objectives, spatial targeting and interventions were efficacious and effective towards the main goal of eradicating polio.
- The **strategic positioning** of the programme along with **convergence with the public system** has been crucial in determining its impactful functioning and sustainability.
- The SMNet programme structure provided for **effective linkages** with the public health system at all levels – national, state, district and blocks with participatory relationships with PRIs. These need to be **institutionalized**. Besides this, the SMNet needs to maintain links with civil society. This can help in bringing about convergence of activities and efforts towards better programme implementation, especially given the Polio-Plus focus going forward.
- The SMNet has remained relevant to the needs of the community and to the changing national context. Many factors may independently, or in interaction with each other, contribute to a need for shifting the focus areas of a complex and large scale programme like the SMNet such as, national policies, policy context in the state, development priorities, donor priorities, emergencies, etc. However the programme has to be **flexible and dynamic** to respond to such changes. In doing so, the programme needs to ensure that it **remains relevant** – this is possible by being cognizant of the objectives and goals and ensuring that it serves the need of the most vulnerable.
- **Clear statement of goals and objectives and process/outcome/impact indicators** of the SMNet have been lacking and it is important to have these in place, along with rigorous systems and mechanisms to review these regularly against activities and changing policy needs.
- Given the importance of eradicating polio, not just as a country priority but also as a global concern, and the intensive resources that have been invested in these efforts, it is imperative that a programme like SMNet plans for a **results monitoring/evaluation framework** right at the outset. This is crucial to create evidence on efficacy and impact of the interventions.
- **The SMNet has maintained lean but optimal staffing aligned with the objectives of the intervention. Lean staffing at administrative/managerial levels** with right expertise is important to ensure quality of services and technical inputs. This contributes to efficiency in human resource management, while focusing on **building an optimal operational cadre** – which is important for a decentralized community-based programme like SMNet.
- A **rationalization of human resources** is important in the context of existing personnel at the ground level in the public system. The SMNet in Bihar undertook this in involving existing AWWs instead of introducing CMCs in most areas. This is important to avoid duplication of roles and responsibilities of personnel and maintain high resource efficiencies.
- **Balancing expanding scope while maintaining quality** and focus of the programme on polio eradication is essential to ensure effectiveness and sustainability. This assumes importance in the context of the Polio-Plus focus and SMNet’s increasing involvement in RI and other child health interventions.
- **Stringent systems and processes for financial management** with rigorous records of budgets,

### Conclusions and Learnings from the SMNet Programme

allocations and expenditures are crucial for a programme the size and scale of SMNet. This is especially true with several stakeholders and lines of funding involved in the programme and needs to be strengthened further.

- **Knowledge management** is critical along the life cycle of the programme. SMNet had several innovations that were undertaken at decentralized levels as responses to local contextual realities. In order to learn, make course corrections, and create knowledge about these innovative strategies and operational mechanisms of SMNet, it is important to have official documentation of the evolution and rationale of change along the project life cycle.

### Recommendations and Action Points

3. The broad recommendations based on the evaluation are put forth in four broad areas –
  - Institutional and Policy Level
  - Structural Level and
  - Operational Level
  - Replication Level

**Table 8: Broad Recommendations and Action Points for SMNet**

#### A. Institutional and Policy Level

Institutional and Policy Level	
The recommendations in this section relate to institutional and policy level interventions. These recommendations are focused towards strengthening the fundamental design, rationale, role definition, activities, positioning and funding of the SMNet as programme in India, and going forward in other countries and with a broadened scope.	
1.	<b>Continue and replicate the effective interventions of SMNet</b> – Given the relevance of the SMNet and its contribution to meeting the goals of the polio eradication effort in UP and Bihar, it is recommended that the effective interventions of SMNet continue. The activities should be contextualized to the community so that it is effective and impactful in strategically responding to local needs. The effective interventions of the SMNet can be replicated in similar contexts.
2.	<b>Government and Donors should extend support to continue eradication efforts, compared to available alternatives</b> –Despite India no longer classified as a polio-endemic country, the risk of importation of the polio virus remains. Efforts towards increasing routine immunization and OPV coverage in India need to continue to remain focussed and cover all children below 5. Eradication efforts are most cost effective in the long term and eliminate the risk of outbreaks for good. In this context, government and donors should continue to support eradication efforts.
3.	<b>The objectives of the SMNet should be fine-tuned based on contextual needs and should reflect the current health policy/programmatic context</b> – Given that SMNet has been in existence for 11 years, there is a need to revisit the objectives of the SMNet. The objectives should reflect the current health policies and programmes at the national level as well as respond to local needs. This will also contribute to its relevance and in impacting the current indicators of focus.
4.	<b>Continue to maintain a balance between flexibility and focus on goals</b> – It is important for the intervention to maintain flexibility to respond to contextual needs but at the same time

### Institutional and Policy Level

	ensure that there is no deviation from the larger objectives and goals. A concurrent annual review of the past year's performance and how it fared against the objectives while at the same taking cognizance of the changing priorities for the year ahead is important. Any shift in focus of the objectives / activities need to be documented with the reason for the shift.
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## B. Structural Level

### Structural Level

The recommendations in this section relate to action points at the structural level of the SMNet – towards its human resource organization, deciding objectives and activities and strengthening linkages with stakeholders.

1.	<p><b>Staffing of SMNet should remain lean but optimal to match the increase in scope/work load and human resources should be rationalized in alignment with existing resources</b> – The number and roles of staff members, especially at the decentralized field level should be in line with the revised scope and workload of the SMNet – while a lean manpower augurs well for efficiency, the staffing should be optimal enough to handle the work load without compromising on the quality of work. The alignment of human resource organization to the core objectives of the SMNet is crucial. This needs to be done periodically and also in the context of any reprioritization / re-focus in the stated objectives, like in the recent years with a focus on Polio Plus and broader child health interventions beyond polio and routine immunization. Further, additional skill sets that may be required should be identified in congruence with these newer roles and responsibilities of staff. Staff profiles, capacity building/orientation plans and supportive supervision structures need to be revisited in order to be relevant to stated objectives of the programme.</p>
2.	<p><b>Imperative to strengthen financial management systems and processes</b> – The gaps in financial management systems and processes of the programme need to be addressed on a priority basis. The lack of data on budgets, allocations under different heads, disaggregated figures for specific activities of the programme, and expenditures not only reflect negatively about the current management of the programme, but also raise concerns about its sustainability and future financial planning for both donors and implementers.</p>
3.	<p><b>Need to design a results monitoring framework for tracking achievements and indicators</b> – While SMNet used data from SIA rounds and surveillance data on AFP in an in-depth and innovative way, a clear statement of programme-specific primary and secondary indicators of interest linked to each of its interventions was missing. For example, regular tracking of behaviour change indicators (the main goal of the SMNet) in terms of knowledge levels in the community, their attitudes towards OPV and Polio, their health seeking behaviours and their acceptance of the OPV in practice need to be incorporated in a rigorously designed results monitoring framework. This would help in corrective action, as well as in measuring change on an on-going basis to inform programme resource allocation.</p>
4.	<p><b>Need to strengthen linkage with civil society</b> – The SMNet has strong linkages with the public health system at all levels. This was facilitated to a large extent by UNICEF's strategic positioning vis-à-vis the Government of India. Such linkages need to be built with civil society groups, mainly at decentralized levels. This will help facilitate more comprehensive</p>

### Structural Level

	<p>interventions in participatory planning for programme activities, closer interactions with the communities, convergence and rationalization for undertaking broader child health initiatives. This can be initiated through formation of technical advisory committees at local levels where periodic meetings with civil society representatives can be organized. Such efforts will also increase ownership of the programme. Additionally, the involvement in a large scale programme like the SMNet can go a long way in building capacity of local NGOs and gaining from the interactions and technical exchange with UNICEF.</p>
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### C. Operational Level

#### Operational Level

<p>The recommendations in this section pertain to the operational modalities and functioning of the SMNet to make these more effective and efficient. The areas for action include undertaking strategic reviews to ensure alignment of objectives and activities, and strengthening internal documentation and process reviews.</p>	
1.	<p><b>Need to review human resource and training plans in the context of the expanded scope of SMNet</b> – There is a need to review the current HR and training plans of the SMNet to ensure congruence with the programme objectives and strategies. The key result areas of the SMNet staff need to be more specific and measurable. Defining measurable processes and output indicators will help in providing clarity of expectations and targets to be achieved. Regular strategic reviews will help check fidelity and alignment of activities with core goals and objectives of the programme. This can be done annually to ensure that the activities planned for the year ahead, factor in the changing demands and needs as well as any re organization or re prioritization of objectives thereby ensuring that the role of the programme and each cadre of personnel within it remain relevant.</p>
2.	<p><b>Need to undertake formal financial reviews</b> –Comprehensive financial reviews can be undertaken factoring in the various program related expenditure for activities undertaken by the SMNet. Given that there were data gaps related to budgets and expenditures of the programme, such reviews will provide the scope for analysing expenditure trends, utilization patterns and plan for activities going forward – keeping in mind concerns of sustainability. This will also help in prioritization (through fund allocation) of activities and utilization under different core areas, especially in a context of decreasing grants.</p>
3.	<p><b>Continue to ensure an appropriate mix of activities</b> - The activities of the SMNet should be an ideal mix of polio eradication efforts and activities based on broader child health priorities such as routine immunization, diarrhoea management, child feeding etc. While for the sustainability of the programme it is crucial that it ventures into this expanded scope, it is also important that the network maintains its core focus on polio. This will require a very careful designing of the roles and profiles, activities and interventions of the programme going forward, ideally in a phased manner (keeping emerging priorities in mind).</p>
4.	<p><b>Strengthen knowledge management</b> – SMNet has been a programme with a number of innovations. These innovative approaches and strategies may have wider application in the area of public health (beyond polio) especially in resource poor settings with vulnerable groups. This knowledge to a large extent rests with individuals (as was evident in primary research for this</p>

Operational Level	
	evaluation). Along with success stories, documenting the innovations, localized strategies and processes adopted will be extremely useful for the programme in the future as well as in planning/designing replication models. Regular forums for discussion of these field-level innovations and experiences, and systematic documentation of these will facilitate better knowledge management and consolidation.
5.	<b>Organize regular capacity building of staff for knowledge updation, motivation and supportive supervision</b> – SMNet has rightly focused on trainings in the area of inter-personal counselling, behaviour change methods, and community mobilization – areas which have been traditionally neglected by the public system. These skills need to be reiterated on a regular basis. Supportive supervision is required for field-level staff (especially the CMC and BMC) to discuss and seek solutions to practical challenges and resistance that they face in their work. The field level cadres need to develop a sense of network amongst them – and not feel isolated in their extremely challenging work environment. Regular capacity building sessions planned with needs assessment (through a participatory approach), strengthened supportive supervision and mentoring will go a long way in maintaining staff motivation. This may also reduce the high level of attrition faced by the programme.
6.	<b>SMNet needs to develop strategic role rationalizations for its operational staff vis-à-vis the public system FLWs</b> – The public system, in the context of the NRHM, now has 3 FLWs at the grassroots level – the ANM (approximately at a 3000 population level), the AWW and the ASHA (approximately at a 1000 population level). The CMCs and the BMCs of the SMNet are important cadres that have been trained and developed as human resources for health in extremely resource-poor settings with limited capacities. The context and the investment requires that the roles of these cadres are reviewed and rationalized vis-à-vis the existing FLWs, so as to add value and avoid duplication. This is especially relevant as SMNet implements its expanded scope including broader areas of child health and routine immunization.
7.	<b>SMNet can develop its CMCs as mentors of the ASHAs in a child health and nutrition role</b> - Since ASHAs are at a more decentralized level than CMCs, the possibility of training the latter for supportive supervision and on-field guidance of the ASHAs can be explored. Since the ASHA programme in most states does not have a cadre of personnel to provide continuous support and mentoring to the community health workers, the CMCs can be developed to play this role – especially for improving health seeking behaviours and child caring practices. Some of the most resistant indicators in the area of child health have been exclusive breastfeeding and appropriate complementary feeding. Since SMNet has been successful in changing community resistance for polio, its experience and strategies may be applied to these indicators. CMCs can act as mentors for ASHAs in social mobilization and BCC in these specific areas. This can be a smooth continuum as SMNet staff such as the CMCs, BMCs and SMCs are already undertaking training sessions for ASHAs and other public system frontline workers like the ANM and AWW. Additionally, while the ASHA is incentivized on a range of outcomes, breastfeeding and complementary feeding are not in that list. Consequently, these are areas that often get ignored, despite being proven as some of the most cost-effective ways to reduce child mortality and morbidity. Incentives for ASHAs for changing these indicators can be explored by donors, and can be eventually advocated with the government for scaling/mainstreaming.

## D. Replication Level

Replication Level	
1.	<b>Replication models need to adapt specific relevant interventions/strategies of the SMNet rather than the model as a whole</b> – SMNet in India adopted different strategies in the two states of UP and Bihar keeping in mind their contextual realities. Also, specific strategies of the programme were developed in response to specific challenges faced in the field or changing needs/priorities. It is a complex and constantly evolving programme. Hence the effectiveness can be established only for specific interventions rather than the model as a whole. This needs to be considered carefully in replication. It is advisable to replicate elements of the programme, with careful and appropriate contextualization.
2.	<b>Strategic positioning and partnerships is crucial in determining the model's impactful functioning and sustainability</b> – Replication of SMNet in other contexts/countries need to position it as a multi-stakeholder programme. While the importance of linkages with the public health system cannot be over-emphasized, partnerships with local civil society and other stakeholders working in areas of polio eradication/child health are also equally important. Most polio endemic/high risk countries have weak civil-societies. A common large-scale programme like the SMNet can contribute immensely in building and strengthening this. Especially through the capacities that UNICEF brings, local NGOs in such countries can gain in technical and managerial areas. Polio eradication is a complex goal that can be realized only with efforts from all stakeholders.
3.	<b>The model must be flexible and dynamic capable of emergency response</b> – The socio-political and economic contexts of the endemic/high-risk countries are ever-changing. Political emergencies, conflicts and civil-strife are common. It is evident that the spread of polio is intricately linked to these situations, especially with refugee camps, migration, etc. In replicating SMNet interventions, it is important that the design elements allow sufficient flexibility for the programme to evolve and respond to such situations.
4.	<b>Objectives and role of the model/programme must factor in specific needs and context of the local geography</b> - The rationale of the SMNet is embedded in the need for social and behavioural change. While this is the core goal of the programme, it is important that its objectives are informed and activities are determined by unique needs of the specific population groups/communities and geographies that it is present in. It is only through in-depth understanding of the local context that such social/behavioural change can be brought about. In keeping with the true spirit of 'social mobilization', the interventions of the SMNet should take into account contextual socio-economic, geographical and demographic realities into consideration for planning its roles and activities.
5.	<b>The model must have convergence with the public health system and be designed to suit local realities</b> - to ensure sustainability of the programme, it is imperative that the programme is designed keeping in mind the health system realities of the specific context. Strengths and structures of health systems vary widely between countries. Although there are commonalities in systems of low-income countries, it is important that SMNet is contextualized to suit the specific systemic realities. It is important that such a programme does not overburden, verticalize or redirect already scarce resources from the public system, but strengthens and complements it.
6.	<b>The model/programme should be staffed with lean but optimal human resource, with</b>

	<p><b>expertise in alignment with core objectives and balancing with existing resources</b> – The alignment of human resource organization to the core objectives of the SMNet is crucial. The number of staff members should be in line with the workload of the programme and complement the existing resources in the specific context. Most of the high-risk or endemic countries where SMNet (or similar interventions) would be replicated are resource poor and conflict affected, with very limited availability of trained human resources. It is therefore, important that the investments in staff selection, training etc. are not duplicating efforts. Role rationalizations, keeping in mind field-level health workers in different health systems, their training pedagogy and skill sets need to be complemented by SMNet staff.</p>
7.	<p><b>The model should design a rigorous and robust evaluation framework with defined primary indicators for processes/outcomes/impact</b> – to ensure the continuity of the evidence-based approach that SMNet had used in its inception, it is imperative that it has a list of clearly stated indicators linked to its interventions (specific to community/social mobilization) and tracks these indicators regularly. Besides a robust MIS for corrective action and achievement tracking, conceptualizing the programme with a clearly designed evaluation methodology is very important. This needs to be done right in the beginning (versus retrospectively) of the programme in a country – by collecting baseline information, planning data collection from control/non-intervention areas, etc. The SMNet programme in India could not contribute to rigorous evidence on efficacy of social mobilization interventions in reduction/eradication of polio incidence due to the lack of an experimental design in evaluation. Such evidence is extremely important –especially considering the intensive resource investments. This can be rectified when the programme is replicated in other contexts.</p>
8.	<p><b>Develop systematic and needs-based capacity-building plans</b> – to ensure knowledge updation, maintaining high levels of staff motivation, and to create a supportive network of the field-level personnel in difficult geographies that SMNet is likely to be replicated in.</p>

## The Way Forward

4. The SMNet has made positive contributions to the larger goal of polio eradication. This evaluation offers a sound case for continuation and replication of selected interventions that emerge as effective and efficacious. In doing so, it is important to consolidate the current gains and inherent strengths of the programme and act upon the limitations identified in order to ensure that the drawbacks and gaps faced in India are avoided in other countries, and to ensure that going forward, SMNet continues to remain relevant, effective, efficient and impactful. The way forward in this context is illustrated in Exhibit 40.

**Exhibit 40: Way forward for the SMNet**

