



Health Systems Strengthening (HSS) Support

PROPOSAL FORM

This form is structured in two parts:

- Part A - Summary of Support Requested and Applicant Information
- Part B - Proposal Details

All applicants are required to read and follow the accompanying guidelines in order to correctly fill out this form.

Part A - Summary of Support Requested and Applicant Information

Applicant:	Ministry of Health and Family Welfare (MoHFW), Government of India (GoI)		
Country:	India		
WHO region:	SEARO		
Proposal title:	India HSS proposal 2012		
Proposed start date:	1st May 2013		
Duration of support requested:	3 years		
Funding request:	Amount requested from GAVI:	107 million USD	
Currency:	<input type="radio"/> USD		

Contact details of focal point within Ministry of Health	
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Executive Summary

This proposal from the Ministry of Health and Family Welfare (MoHFW) to the GAVI Alliance requests catalytic Health System Strengthening (HSS) support in order to increase immunization coverage in India. Though the MoHFW is actively working to improve immunization coverage rates with programs such as the Mother and Child Tracking System (MCTS), key constraints in the current system remain and need to be addressed. Under this proposal GAVI funding will be focused on five delivery areas that will work to improve institutional capacity, cold chain management, evidence-based policy-making and service delivery as well as increase demand for vaccination under the Universal Immunization Program (UIP). These measures will increase both the quality and quantity of the vaccines delivered, targeting 12 of the 18 National Rural Health Mission (NRHM) high priority states where full vaccination coverage is currently below 61%, and eventually help India build a vaccine delivery platform for the 21st century. The lead implementers for the activities outlined are UNICEF, WHO and UNDP, under the coordination of the Immunization Technical Support Unit (ITSU) of the MoHFW. The experience and expertise of these organizations provides a unique opportunity to both build on existing infrastructure and introduce innovations that will raise coverage rates in a sustainable manner. Following the three-year period of GAVI support, health system strengthening activities will be continued through funding from the MoHFW.

Table 1: Acronyms used in this Proposal

AEFI	Adverse Events Following Immunization
ASHA	Accredited Social Health Activist
AFP	Acute Flaccid Paralysis
BCC	Behaviour Change Communication
BMGF	Bill and Melinda Gates Foundation
CCL	Cold Chain Logistics
CCS	Country Cooperation Strategy
CHC	Community Health Centre
CSO	Civil Society Organization
cMYP	Comprehensive Multi-Year Plan
DFID	Department for International Development
EPI	Expanded Programme on Immunization
eVIN	Electronic Vaccine Intelligence Network
EVM	Effective Vaccine Management
FYP	Five Year Plan
GMSD	Government Medical Store Depot
GoI	Government of India
HERMES	Highly Extensible Resources for Modelling Supply Chains
HMIS	Health Management Information System
HR	Human Resources
HSCC	Health Sector Coordination Committee
HSS	Health System Strengthening
IAG	Immunization Action Group
IEC	Information, Education and Communication
IMR	Infant Mortality Rate
IPC	Interpersonal Communication
ITSU	Immunization Technical Support Unit
M&E	Monitoring & Evaluation
MCHIP	Maternal and Child Health Integrated Program

MCTS	Mother and Child Tracking System
MIS	Management Information System
MMR	Maternal Mortality Rate
MoHFW	Ministry of Health and Family Welfare
NCCA	National Cold Chain Assessment
NCCMIS	National Cold Chain Management Information System
NCCTC	National Cold Chain Training Centre
NCCVMRC	National Cold Chain and Vaccine Management Resource Centre
NIHFW	National Institute of Health and Family Welfare
NGO	Non-governmental Organization
NPSP	National Polio Surveillance Project
NTAGI	National Technical Advisory Group on Immunization
PATH	Program for Appropriate Technologies in Health
PHC	Primary Health Centre
PIP	Programme Implementation Plan
PSA	Public Service Announcement
RCH	Reproductive and Child Health
RMNCH+A	Reproductive, Maternal, Newborn, Child Health Plus Adolescents
RI	Routine Immunization
SDA	Service Delivery Area
SIO	State Immunization Officer
SMS	Short Message Service
TFR	Total Fertility Rate
UIP	Universal Immunization Program
UNICEF	United Nations Children's Fund
UNDP	United Nations Development Programme
USAID	US Agency for International Development
VLM	Vaccine Logistics Management
VMA	Vaccine Management Assessment
VMAT	Vaccine Management Assessment Tool
WHO	World Health Organization

Introduction and Objectives

The following is the MoHFW's proposal to the GAVI Alliance for HSS support. The funding request is for USD 107 million, for a period of three years commencing May 2013. The overarching goal of the proposal is to improve immunization coverage in India, in alignment with national targets set by the 12th Five Year Plan (FYP). A draft of the comprehensive multi-year strategic plan (cMYP) has been prepared but it has not yet been finalized. The final version will correspond with targets and fund allocations in the 12th FYP. The following objectives have been decided after consultation with the government and implementing partners and will be reflected in final cMYP. These objectives do not align with those described in the draft cMYP. These are as follows:

1. Strengthen vaccine logistics and cold chain management in poor performing states through public-private partnerships and through improved human resources capacity, institutional strengthening and supportive supervision
2. Design and implement an electronic vaccine intelligence network (eVIN) that will enable real-time information on cold chain temperatures and vaccine stocks and flows
3. Increase demand for routine immunization (RI) through a national behaviour change communication (BCC) strategy
4. Strengthen the evidence base for improved policy-making (at all levels) in programmatic areas like procurement and vaccine delivery and on sequencing and adoption of new antigens
5. Leverage the success of the National Polio Surveillance Project (NPSP) to strengthen RI service delivery in 8 priority states

The high focus states, which are the focus of this proposal, are 12 of the 18 NRHM priority states where immunization coverage is below 61%. These are Assam, Uttar Pradesh, Bihar, Madhya Pradesh, Rajasthan, Gujarat, Chhattisgarh, Jharkhand, Odisha, Nagaland, Manipur and Arunachal Pradesh.¹

Proposal development process

The GAVI Large Country Task Team (LCTT) recommended that HSS support to India help address current constraints of the universal immunization programme (UIP) including; limited technical and operational human resources (HR) capacity at various levels, lack of evidence based strategic approaches to BCC, weak data collection and analysis, inadequate cold chain and supply chain logistics, and lack of adequate vaccine storage capacity.² Following discussions with GAVI, the MoHFW has decided to adopt an incremental and phased approach to HSS, wherein GAVI funding would first support 12 high focus states with a focus on RI coverage, with the option to seek additional support from GAVI for other areas as required at a later stage. Following this, a concept note outlining potential areas of GAVI HSS support to India was approved by the Health Secretary, Government of India (GoI) and subsequently discussed at the GAVI Board meeting in June 2012.

A working group led by the MoHFW, working closely with UNICEF and WHO, with inputs from the Bill & Melinda Gates Foundation (BMGF), the Immunization Technical Support Unit (ITSU), and GAVI appointed consultants (Cambridge Economic Policy Associates) has helped to develop this HSS proposal. The proposal development has been informed by key meetings of the Immunization Action Group (IAG) as well as through consultations between various partners including WHO, UNICEF, UNDP, BMGF, the US Agency for International Development (USAID), the UK Government's Department for International Development (DFID), the National Review Meeting on Intensification of RI, and the National Technical Advisory Group on Immunization (NTAGI), as well as various assessments such as the National Cold Chain Assessment (NCCA), Effective Vaccine Management (EVM) assessments conducted in select states and Human Resources (HR) assessment amongst others.

Current HSS initiatives and proposal for GAVI funding

A number of initiatives have been undertaken by the MoHFW to improve health systems and immunization outcomes. These include the NRHM, the MCTS (to enable the entry of mother and child data into a central database), launching of the 'Teeka Express' for delivery of vaccines to outreach sessions, pilot launching of the National Cold Chain Management Information System (NCCMIS) for real-time monitoring and management of cold chain systems and setting up of the ITSU to provide technical and programme support for successful implementation of the UIP. 2012-13 has been declared by GoI as the year of Intensification of RI in India. In this context, the MoHFW has put in place a few strategic actions to improve immunization coverage, including health systems improvement.

Some of the proposed initiatives have been supported by external donor programmes including the World Bank National Vector Borne Disease Control Project, USAID Health Partnership Programme, KfW Pulse Polio Immunization Programme and DFID's Sector Wide Approach to Strengthening Health programme.

Despite these efforts, some key constraints remain in India's health and immunization systems. These issues need to be urgently addressed in order to meet India's immunization targets. The MoHFW proposes to structure GAVI HSS funding in a catalytic manner to specifically help address these unmet constraints, so that the provided support is additional to what the Ministry and external donors are funding. In particular, GAVI funds will contribute to the:

- (i) **Strengthening of vaccine logistics and cold chain management in poor performing states through public-private partnerships and through improved human resource capacity, institutional strengthening and supportive supervision. (US\$25m).** The goal of this activity is to improve the performance of the supply chain of vaccines and syringes, particularly in poor performing states. This will be accomplished in two ways. In districts where short term improvements of the current vaccine delivery mechanism and cold chains are possible, these activities will improve HR and institutional capacity, implement EVM improvement plans and strengthen institutions (national cold chain and vaccine management resource centre (NCCVMRC), health equipment repair and maintenance unit and national cold chain training centre (NCCTC)), expand cold chain points to bring them closer to the vaccination session using solar/hybrid technology and provide supportive supervision to ensure quality implementation. In districts where these improvements are less likely to yield results in the short term, public-private partnerships will be scaled up to leverage the ability of third-party logistics companies to deliver vaccines to the last links in the cold chain system.

¹Ministry of Health and Family Welfare (2009), Coverage Evaluation Survey

²Some of these constraints have been identified by the Joint Review Mission and Common Review Missions organized by GoI.

- (ii) **Design and implementation of an eVIN that will enable real-time information on cold chain temperatures and vaccine stocks and flows (US\$21m).** The goal of this activity is to use real-time data to hold those at every level accountable for maintaining cold chain temperatures, overstocking and stock outs. An eVIN will allow programme managers to perform corrections and ensure accountability at all levels of the supply chain. This activity will involve a scale up of a system for SMS-enabled real time management information system (MIS) for cold chain and vaccine logistics management (VLM).
- (iii) **Increasing demand for RI through a national BCC strategy (US\$27m).** The goal of this component is to ensure that the 12 focus states have the resources and capacity to develop and implement state-specific BCC programmes. Capacity development and strengthening of state institutions for communication will be a core area of support. This component also includes the implementation of a multi-pronged communication campaign and operational plan and the development and broadcasting of immunization messaging through mass media.
- (iv) **Strengthening of the evidence base for improved policy-making (at all levels) in programmatic areas like procurement and vaccine delivery and on sequencing and adoption of new antigens (US\$10m).** The goal of this activity is to strengthen the evidence base used by GoI on policies, practices and implementation of the national immunization program. The specific actions of this proposed activity include building the capacity of existing institutions at all levels for generating, interpreting and using data for action, strengthening laboratory capacity for Vaccine Preventable Diseases (VPD) surveillance and measles and rubella outbreak investigations, as well as expanding model based strategy development approaches such as the Highly Extensible Resources for Modelling Supply Chains (HERMES) modelling framework to support national policy-making. There will be additional focus upon developing mechanisms for use of evidence for decision-making including that for inclusion of new antigens in UIP.
- (v) **Leveraging the success of the NPSP to strengthen RI service delivery in 8 priority states (US\$24m).** The goal of this activity is to use the WHO's experience and the technical support structures established for polio eradication at both the national and sub-national levels for scale up to support the RI program. The experience and expertise of the WHO-NPSP will be used to identify high-risk areas and incorporate these areas into RI micro-plans (subsequently improving service delivery), conduct intensified RI monitoring and share this information at various levels, strengthen district and state level feedback mechanisms and build capacity of health staff at various levels.

Overall responsibility for the GAVI HSS grant will be vested with the Additional Secretary and Mission Director, NRHM, with support from the Joint Secretary, Reproductive and Child Health (RCH), technical officers within the immunization division, the MoHFW, and the GoI. Overall coordination of GAVI HSS activities will be carried out by the MoHFW as per the agreement between GAVI, the GoI and lead implementers.

The lead implementers for the activities will be UNICEF (for objectives 1 and 3 above), UNDP (for parts of objective 1, objective 2, and part of objective 4) and WHO (for activity 4.1 and objective 5). The Additional Secretary, Health and Mission Director, NRHM will determine the allocation of funds in consultation with the partners. GAVI funds will be transferred by GAVI directly to the three lead implementers, based on an agreement with the MoHFW.

The Partners Forum and the IAG (Health Sector Coordination Committee (HSCC) equivalent in India) will be responsible for reviewing the financial and physical progress of the HSS grant through half yearly meetings. These meetings will be financed by the budget allocated to the project management cell.

Efforts will be made by MoHFW and the lead implementers to ensure value for money as well as accountability in the governance and implementation of the HSS funds. This will be attained through a focus on coordination of key involved partners/stakeholders, robust financial management (including timely disbursement of funds), and efficient monitoring and evaluation arrangements to ensure that the funds reach the low-performing states and the poorest and hard to reach sections of the population. Progress will be reported through the GAVI annual progress report to be submitted by MoHFW; reporting will be based on the NRHM state reports and Common Review Mission reports. At state and district level the progress will be reviewed through task force meetings. Performance indicators have been developed to measure the output, outcome and impact of each objective of the HSS proposal.

The IAG, chaired by Additional Secretary & Mission Director/Joint Secretary Child Health, will meet every quarter to review the progress, discuss the challenges and to take the corrective actions. To coordinate and facilitate the review and monitoring process, a project management cell will be established at UNDP, which will collect, the reports from states and other stakeholders, compile and analyse the data and present to IAG for action. The GoI has already communicated with the states to setting up of State and District Task Forces on Immunization to

review the progress and to take corrective actions. These platforms will be utilized through participation of national team members, including review of the work done through the GAVI HSS grant. Progress will be reported through the GAVI annual progress report to be submitted by the MoHFW; reporting will be based on the NRHM state reports and Common Review Mission reports. In order to measure the output, outcome and impact of each objective, performance indicators have been created. Simultaneously the project management cell at UNDP will coordinate baseline, midterm and endline evaluations of the work done under the HSS grant.

In addition, efforts will be made to mitigate any major internal risks and unintended consequences that might impact the implementation and performance of the proposed activities. For example, meticulous planning and regular monitoring will ensure that the EVM assessments and implementation plans are conducted in a timely manner; clear milestones for infrastructure strengthening will be developed and adhered to; NCCAs will be undertaken after implementing NCCMIS to identify current and future cold chain requirements in states.

Sustainability of GAVI HSS funding in India

After GAVI's initial catalytic support, MoHFW funding will sustain all the supported activities across the five objectives. Efforts will be made from the start to mainstream the funded activities within the NRHM. Govt's planned increases in health expenditure under NRHM and the 12th Five Year Plan will seek to ensure long-term sustainability of the GAVI supported activities.

All implementers will ensure that GAVI HSS efforts are part of the overall strengthening plan in each respective state. The progress will be reviewed at State Task Force and District Task Force meetings. State plans are proposed through annual Project Implementation Plans (PIPs) under NRHM and funding is sought from MoHFW. Implementing partners will get these activities reflected in annual state PIPs to ensure sustainability.

Previous experience of GAVI support to India indicates that India has a good track record of sustaining funding beyond the support period. It is also essential to note that unlike most developing countries, India self-finances most of its health budget; and that the RI programme is 100% financed by the government from its domestic resources.

Applicant Eligibility

If this application includes a request to GAVI, please click [here](#) to verify the applicant's eligibility for GAVI support and fill in the below table.

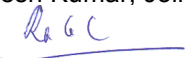
GAVI eligibility - Government endorsement and other requirements for requests to GAVI

Please note that this application will not be reviewed or approved by GAVI without the signatures of both the Minister of Health & Finance or their delegated authority.

Minister of Health: Secretary/delegated authority

Name: Dr Rakesh Kumar, Joint Secretary (RCH)

Signature:



Date: 11-01-2013

Minister of Finance /delegated authority

Name: Dr. Sheela Prasad, Economic advisor (MoHFW)

Signature:



Date: 13-03-2013

Part B - Proposal Details

1. Process of developing the proposal

1.1 Summary of the proposal development process

→ Please indicate the roles of the HSCC (or equivalent decision making body for the health sector) in the proposal development process. Also describe the supporting roles of other stakeholder groups, including State governments, civil society, community representatives. Describe the leadership, management, co-ordination, and oversight of the proposal development process.

- The HSCC equivalent decision-making bodies in India are the Partners Forum and the IAG.

- The Partners Forum, formed in 2007, meets quarterly and has representation from a wide range of experts in areas of immunization, programme management and health systems in India, and includes members from the MoHFW, ITSU, UNICEF, WHO and other partners. The main purpose of the Forum is to coordinate activities to strengthen RI. The Partners Forum met in August 2012 to discuss the draft GAVI HSS proposal, and Partners were provided an opportunity to provide feedback/comments on the draft. In October 2011, MoHFW constituted a national level IAG to help intensify RI program. The IAG meeting in March 2012 was led by the MoHFW and attended by members from WHO, UNICEF, INCLEN, Indian Council of Medical Research, Public Health Foundation of India, GAVI, BMGF, Programme for Appropriate Technologies in Health (PATH), USAID, Maternal and Child Health Integrated Programme (MCHIP) amongst others. UNDP will be a part of the Partners Forum and IAG.
- The proposal development process was undertaken by a working group, led and managed by the MoHFW, working closely with UNICEF, WHO and UNDP, supported by GAVI-appointed consultants from the Cambridge Economic Policy Associates, and included inputs from BMGF as required. The proposal is based on an HSS concept note that was prepared by the working group and approved by the Secretary Health, MoHFW, GoI, and subsequently discussed at the GAVI Board meeting in June 2012.
- After its establishment in June 2012, the ITSU joined the proposal development process and coordinated the efforts.
- During the proposal development process, there were a series of review meetings conducted by the MoHFW for review and discussions with State Immunization Officials (SIOs) (such as the National Cold Chain review meeting and UIP review meetings). In addition, there have been the National Review meeting on intensification of RI and the NTAGI meeting. The inputs and discussions from these meetings were used for modification and suitable adaptation in this proposal.
- In March 2013, a consultative meeting was conducted amongst MoHFW, all partners and team from GAVI head quarters

The proposal development working group discussed the operational constraints in the UIP and used available literature on topics such as inequity in immunization to develop strategies to address India's immunization challenges. The key constraints to be addressed in the proposal have been informed by issues identified in the NCCA (2008), the National UIP review of India and a number of assessments done on vaccine and cold chain management and HR conducted over the years.

ONE PAGE MAXIMUM

1.2 Summary of the decision-making process

→ *Please summarise how key decisions were reached for the proposal development.*

Following the recommendations of the GAVI LCTT, a number of opportunities for GAVI HSS support to India were identified - to help address the weak technical and managerial capacity of the UIP particularly around supply chain and cold chain management, the need for demand generation in order to improve vaccine coverage, and the lack of robust evidence generation for decision making. Following discussions with GAVI, the MoHFW decided to adopt an incremental/phased approach to HSS. Within this approach, GAVI funding would initially be used to support RI activities in the poor performing states and districts with an option of coming back to GAVI for support in the area of new vaccines as and when they are approved.

A working group led by the MoHFW which included members from UNICEF and the WHO (with inputs from BMGF, and supported by GAVI appointed consultants), was formed to develop a HSS concept note as a follow up to the LCTT recommendations. The concept note outlines the MoHFW's requirements for catalytic HSS support from GAVI and sets out the broad requirements of the MoHFW to strengthen the UIP and improve vaccination coverage. This concept note was approved by the Additional Secretary, Health, GoI after which it was discussed at the GAVI Board Meeting in June 2012.

A series of meetings of the working group were held at regular intervals to identify and discuss the most effective areas of GAVI support to India and the budget thereof. The HSS proposal development process was informed by key discussions at the IAG meeting, Partners Forum, national review meeting on intensification of RI, NTAGI meetings, and at meetings with SIOs. The key issues and constraints to be addressed by the proposed HSS activities are informed by documents including the national cold chain and HR assessments.

A first draft of the HSS proposal form was discussed at the Partners Forum meeting on immunization held in New Delhi in August 2012, and a copy of the draft proposal was shared with the key partners for their feedback and comment, which were incorporated as appropriate. Since its establishment in June 2012, the ITSU joined the proposal development team to coordinate the efforts of all implementers. A draft proposal was submitted to

the GAVI Internal Review Committee for pre-review in February 2013. In March 2013 the proposal development team and lead implementers met with a team from GAVI head quarters to discuss necessary changes and clarifications.

2. National Health System Context

2.1 a) National Health Sector

→ Please provide a concise overview of the national health sector, for example – roles and responsibilities at the national, state, district and sub-district levels.

The health sector in India is decentralized and its organization extends from the national to the village level. An outline of the organization and responsibilities of the national, state and district level in the health sector is described below.

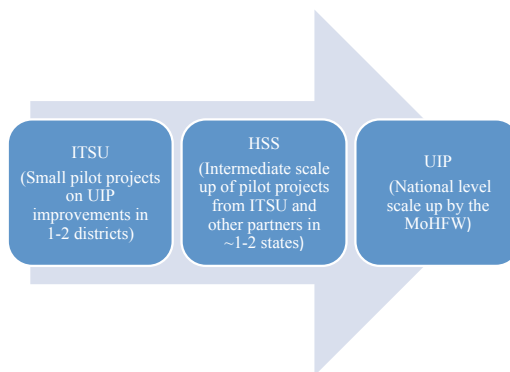
- **National.** The MoHFW is comprised of four departments, each of which is led by a Secretary to the GoI. These include: (i) Department of Health & Family Welfare; (ii) Department of Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy; (iii) Department of Health Research; and (iv) Department of AIDS Control. The MoHFW is responsible for implementing various national health programmes in all states of India. The Directorate General of Health Services renders technical advice on all medical and public health matters and is involved in the implementation of various health services.

The MoHFW is responsible for funding national immunization programmes, providing technical assistance and policy guidance to the states, and for monitoring and evaluation. Funding for staff and other health system resources at the state level is provided by the NRHM, a flexible mechanism that allows for integration of funds for all the national schemes while allowing for states to flexibly allocate funds for system improvement in a manner that is consistent with their needs and challenges. All states are required to submit in advance a programme implementation plan (PIP) for a financial year, along with complete projections of funds required to implement the PIP.

The Immunization Division at MoHFW is supported by the ITSU, operated by the Public Health Foundation of India. The role of the ITSU is to provide technical and managerial support to the UIP for strengthening, revitalization and successful implementation of RI. The ITSU is expected to augment HR capacity at the MoHFW through six different pillars: strategic planning and system design, monitoring and evaluation, vaccine logistics and cold chain management, adverse events following immunization (AEFI) management and vaccine quality and safety, translation of evidence to policy, and strategic communication. The ITSU serves to harmonize various initiatives being piloted/implemented in different states by all immunization partners and provide a single platform for discussions, development of strategies and coordination with partners for scaling up the successful models. The ITSU is being staffed with a range of expertise including research and evidence generation, programme management and creation of innovative technological solutions. In the context of this proposal to GAVI, the UNDP will facilitate the establishment of a project management cell that will coordinate the activities of implementing organizations to achieve the goals of health system strengthening.

Initial small pilots will be carried out by the ITSU. When successful, these will be scaled up under this HSS proposal. The outline of progress of scaling up at each stage is shown below in figure 1.

Figure 1: Progressive scale-up of innovations to improve RI coverage under the UIP



- **State.** Healthcare provision is a state subject in India. The State Department of Health and Family Welfare and is led by a Director of Health Services under which the State Directorate of Health Services serves as the technical wing. Additionally, some large states such as Bihar, Madhya Pradesh, Uttar Pradesh, Andhra Pradesh, and Karnataka have additional zonal or regional or divisions set-up between

the State Directorate of Health Services and the District Health Administration. The states are responsible for implementation and supervision of the various programmes and for provision of relevant infrastructure and curative services in the states.

- **District.** All health care programmes in a district are placed under a unified control. The district acts as a link between the state structures and the peripheral level structures such as Community Health Centres (CHCs), Primary Health Centres (PHCs) and Sub-Centres. The district officer with overall control of all the health programs within a district is designated as the Chief (or District) Medical and Health Officer. In addition, every district has a District Health Society, which is responsible for planning and managing all health and family welfare programmes in the district. The districts are responsible for working and coordinating with their states for implementation and supervision of various programmes, including immunization.

Role of non-state actors in the health sector

In addition to the role of the government, other key players in India's national health sector include the private sector, donor organizations, and civil society/non-governmental organizations. The private sector accounts for more than 80% of the total healthcare spending in India, it is estimated that more than 7000 voluntary agencies are involved in health-related activities, including immunization. Private firms are now estimated to provide about 60% of all outpatient care in India and as much as 40% of all in-patient care. Private hospitals and clinics account for 9%³ of the locations where children in India receive the most immunization.⁴

Civil Society

Civil Society Organizations (CSOs) offer a wide range of experience and knowledge essential to this initiative. They can provide insight into gaps in health service delivery and identify practical and political challenges that must be overcome to improve the health of citizens. CSOs therefore play a crucial role to advocate for policy changes, generate greater transparency and hold governments and other healthcare stakeholders to account.

At country level, Civil Society encompasses a diverse array of actors, including: patient groups, health workers, medical or health unions and associations, faith-based organizations, non-governmental organizations, community-based organizations, academic institutions, media, advocacy groups, migrants, women, youth and other neglected or vulnerable groups.

Civil society groups of particular importance to ensuring the project achieves its intended results are those with expertise in: maternal health, child health, immunizations, HIV and AIDS, tuberculosis, malaria, nutrition, health systems and services, monitoring and evaluation. The ITSU will engage more proactively with academia, professional societies, and other national agencies and committees and networks like the development partners forum to ensure a cohesive and coordinated approach to achieving national immunization priorities. The BCC objective will also focus on reaching out to new voices, including those of educators, religious leaders, traditional and social activists for cohesive response.

The CSO engagement strategy will focus on

- Increasing "upstream" focus on engaging civil society in policy and advocacy processes;
- Strengthening partnerships with CSOs and networks to channel civil society expertise and experience for development impact;
- Forging stronger partnerships with key national and subnational civil society actors, think tanks and coalitions for multiplier effect in amplifying voice and advocacy;
- Increasing efforts to strengthen civil society and civic engagement for strategic outcomes

This will lead to:

- Increased demand: Alternate demand generation strategy involvement of lesser skilled health workers/ women self help groups.
- Empowerment of communities to demand services and hold providers accountable - using social accountability as tool through working with *Panchayati Raj* institutions
- Platforms for increased civil society representation in NTAGI

Private Sector

Private sector health services range from those provided by large corporate hospitals/nursing homes to clinics/dispensaries run by qualified practitioners. Currently the Department of Family Welfare funds a large

³The other locations where children receive the most immunization are government/municipal hospitals (24%), PHCs/CHCs (13%), Sub-centres (outreach) (19%), AWC (outreach) (26%), Additional Villages (outreach) (9%).

⁴Ministry of Health and Family Welfare (2009), Coverage Evaluation Survey

number of mother NGOs (larger NGOs looking after smaller ones) covering 412 districts. Widespread debate on various public health issues has been initiated and sustained by NGOs and other members of the civil society⁵.

2.1 b) National Health Strategy or Plan

→ Please highlight the goals and objectives of the National Health Strategy or Plan.

India follows a model of Five Year Plans (FYPs) for its economy. These plans are developed, executed and monitored by the Planning Commission of India. These plans describe the approach to development for different sectors under the government, including health, and allocate the financial outlays accordingly. The 12th FYP has been approved recently. India also follows a cMYP for its UIP. A draft for 2012-2017 has been prepared and is under finalization to align with the approved 12th FYP. It will be finalized over the next four months and a copy will be shared as soon as it becomes available.

Below is a list of strategy documents that include relevant health goals.

1. **Five-Year Plans (FYP).** India's FYPs articulate its strategy for national progression in the health sector. Some goals of the 11th FYP (2007-12) include reducing the maternal mortality rate (MMR) to 1/1000 live births, the infant mortality rate (IMR) to 28/1000 live births, the total fertility rate (TFR) to 2.1 and malnutrition among children aged 0-3 years to half its present level. The 12th FYP (2012-17) has been approved recently and anticipates that Gol will triple the outlay for the health sector from approximately 1.4% of the GDP in 2009 to 2.5% by 2017 and 3% by 2022. Other objectives include streamlining NRHM expenditure, introduction of district wise pilots of Universal Health Coverage and the creation of four more institutions on the lines of All India Institute of Medical Sciences (in addition to the seven that are under construction).
2. **Draft Comprehensive Multi-Year strategic Plan (cMYP) for the Universal Immunization Programme in India.** India's cMYP provides an overall planning framework to achieve specific objectives in the UIP. The draft of the cMYP is not yet finalized and it will be revised to align with the 12th FYP.
3. **National Vaccine Policy (2011).** The goal of this document is to guide decision making in order to develop a long term plan to strengthen the UIP. This policy addresses issues of vaccine security, management, regulation guidelines, vaccine research and development and product development.
4. **National Rural Health Mission (NRHM).** In 1997 the MoHFW launched a Reproductive and Child Health (RCH) programme to reduce IMR, MMR, TFR and to increase immunization coverage, especially in rural areas. The second phase of the RCH programme (2005-06 to 2009-10) focused on minimizing regional variations through provision of assured, equitable, and responsive quality services. In 2005 the Gol launched the NRHM with the objective of reducing MMR from 407 to 100/100,000 live births, IMR from 60 to 30/1000 live births, and TFR from 3.0 to 2.1 within the seven year period of the mission. The NRHM was established as a single platform to bring together all of the national health efforts, including RCH.⁶ The goal of the NRHM is to address gaps in the provision of effective health care to rural population with a special focus on 18 states, which have weak public indicators/infrastructure.⁷ In order to achieve this goal the NRHM envisions a shift away from the vertical health and family welfare programmes to a new architecture in which societies under different programmes are merged and resources pooled at the district level. It also seeks to strengthen local public health provision with infrastructure and manpower and facilitate the participation of the not-for-profit and for-profit sectors in achieving desirable health outcomes. In the 12th FYP the Gol has proposed a National Health Mission for improving healthcare in rural as well as urban areas.
5. **National Health Policy (2002).** The National Health Policy is directed towards achieving an acceptable, affordable and sustainable standard of health through an appropriate health system. This policy aims to increase access to decentralized public health systems by establishing new infrastructure in deficit areas and by upgrading existing infrastructure. A major goal of this policy is to give priority to the universal immunization of children against vaccine preventable diseases.
6. **National Population Policy (2000).** The immediate goals of the National Population Policy are to address the unmet needs for contraception, health care infrastructure, and healthcare personnel, and to provide integrated service delivery for basic reproductive and child care. The national socio-demographic goals for

⁵National Health Policy (2002)

⁶Ministry of Health and Family Welfare (2005): "National Rural Health Mission, Framework for Implementation (2005-12)"

⁷The 18 states are Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand, Jammu & Kashmir, Manipur, Mizoram, Meghalaya, Madhya Pradesh, Nagaland, Odisha, Rajasthan, Sikkim, Tripura, Uttaranchal and Uttar Pradesh.

2010 in this policy include: (i) address unmet needs for basic reproductive and child health services, supplies and infrastructure; (ii) reduce IMR to below 30/1000 live births; (iii) reduce MMR to below 100/100,000 live births; (iv) achieve universal immunization of children against all VPDs; and (v) achieve 80% institutional deliveries and 100% deliveries by trained persons.

The Gol has set a target of reducing IMR to 25 per 1000 live births and reducing MMR to 100/100000 live births by the year 2017.⁸

2.1 c) Health Systems Strengthening Policies and Strategies

→ Please describe policies or strategies that focus on strengthening specific components of the health system that are relevant to this proposal (e.g. cold chain equipment, procurement and supply management systems, health management information systems, health financing, donor coordination, advocacy and communication, etc.)

A number of the above-described policies as well as a couple of additional documents focus on HSS as relevant to this proposal. The eight relevant policies and strategies are outlined below. The most recently updated documents are listed first.

1. **Comprehensive Multi-Year strategic Plan (cMYP) for Universal Immunization Programme in India.** The draft cMYP (2012-17) describes a plan to improve the UIP with seven goals, 24 objectives and many strategies to achieve these objectives. The objectives of the draft cMYP are listed below, however these objectives are to be revised in view of the 12th FYP. Therefore our objectives do not directly align with those of the draft cMYP listed below. Following are the draft cMYP objectives relevant to this proposal:

- Ensure that adequate (in terms of number) and well-trained staff are available at all levels to provide essential immunization services. Strategies proposed to achieve this include: (i) development of relevant immunization-related training material; (ii) strengthening training infrastructure; (iii) building training capacity at each level; (iv) training of field level staff, etc.
- Maintain an inventory of the cold chain at all levels of functioning (centre/state/regional/divisional/block). This should be updated on an annual basis and used to make decisions regarding new equipment purchase, substitution, spare parts, fuel etc. to ensure a smooth operation of the cold chain. Some proposed strategies for this include: (i) regular review meetings of cold chain officers and refrigerator mechanics; (ii) cold chain assessments; (iii) procurement and installation of cold chain equipment; (iv) use of innovations and technologies to monitor and improve the existing cold chain; and (v) better cold chain equipment handling and disposal.
- Ensure an efficient system for vaccine and injection equipment management and logistics to forecast and deliver adequate supplies of vaccines in a timely manner. Strategies proposed for this include: (i) regular and efficient coordination at all levels; (ii) reduction of vaccine wastage; (iii) open vial policy; (iv) capacity building for effective vaccine storage management; and (v) quality control of vaccines
- Establish an effective and reliable management information system to record, report, compile and analyze immunization data to provide feedback for appropriate actions. This would include: (i) strengthening RI monitoring; (ii) use of local data for action; (iii) regular surveys and district prioritization; (iv) using health management information system (HMIS) for timely reporting and transmission of immunization related data; and (v) strengthening data management, analysis and use at all levels.
- Ensure widespread support of families and communities so that eligible children and pregnant women are immunized. The strategies for this include: (i) preparing a national communication plan for increasing demand for RI vaccines; (ii) mobilizing community participation in advocacy for implementation and increasing demand for services; (iii) targeted communication to reach underserved population; (iv) identify communication gaps and implement social mobilization plans; (v) utilizing available funds with districts for health communications; (vi) devising appropriate strategies to influence behaviour at the household level; and (vi) devising strategies for mobilizing involvement of the wider community and district networks.
- Institutionalize a surveillance system for VPDs and early detection of any outbreak and establish an effective and reliable management information system to record, report, compile, and analyze immunization data to provide feedback for appropriate actions. These objectives would be achieved through i) laboratory strengthening, ii) capacity building, iii) intensified RI monitoring, iv) developing institutional mechanism for feedback sharing and actions etc.

2. **Draft 12th FYP (2012-17).** Vaccination is identified as one of the top 5 priorities in the 12th FYP. The current FYP notes that efforts should be made to strengthen rural health infrastructure, especially sub-centres, PHCs and CHCs. This should be done by ensuring adequate staffing, ready availability of mobile linkages to hospital networks, and computerizing data collection. In addition, interlinking all health facilities and using

⁸National Health Profile, India (2010).

information technology (IT)/mobile technology is a goal for the future.

3. **National Vaccine Policy (2011).** The policy lays emphasis on improving operational efficiency of the UIP and deals with AEFI and VPD surveillance systems, cold chain and EVM, HR in immunization, vaccine coverage, advocacy and communication.
4. **Establishment of Immunization Technical Support Unit (ITSU) (2012).** The ITSU was established in response to a study on HR needs assessment at national and state levels in 2010. The Indian Institute of Management Ahmedabad conducted a study for the Human Resource Department Committee on the UIP to understand the managerial needs for the immunization unit.⁹ The study focuses on HR needs at the national and state level and gives an overview of the HR requirements in four states.¹⁰ The specific objectives of the study were to: (i) assess the current HR situation at the national level and in the four states in terms of existing organizational structure, focusing on the officers' qualifications, tenure, training, expertise, contribution, work load priorities, etc; (ii) assess functions of the immunization programme and provide estimates of HR needs to improve managerial functions at national and state level; and (iii) develop recommendations and a road map to improve the HR capacity for immunization.
5. **National Rural Health Mission (NRHM).** The NRHM was established to address the gaps in health infrastructure and HR. Core strategies of NRHM include: (i) train and enhance capacity of *Panchayati Raj* institutions to supervise and manage public health service; (ii) strengthen existing PHCs and CHCs; (iii) integrate vertical health and family welfare programmes at national, state and district levels; and (iv) strengthen capacities for data collection, assessment and review for evidence based planning, monitoring and supervision. BCC is given significant importance under NRHM as opposed to simple information dissemination under the Information, Education and Communication (IEC) approach.
6. **National Health Policy (2002).** The National Health Policy aims to increase access to decentralized public health systems by establishing new infrastructure in deficit areas and by upgrading existing infrastructure. As related to demand generation and advocacy, the policy focuses on IEC to maximize dissemination of information to those population groups that cannot be effectively approached by using only mass media. Within IEC the policy focuses on inter-personal communication and folk and other traditional media to bring about behavioural change.
7. **National Population Policy (2000).** IEC is one of the strategic themes intended to achieve the National Population Policy's socio-demographic goals. This policy emphasizes that IEC of family welfare messages must be clear, focussed and disseminated everywhere, including the remote corners of the country, and in local dialects; to ensure that messages are effectively conveyed. These need to be strengthened and their outreach widened, with locally comprehensible media and messages. Child health and survival is one of the key strategic themes of this policy.
8. **Operational guideline for Communications strategy development (2012).** BCC has been cited as a critical factor in raising immunization coverage in the country. The objective of this document is to share guidelines, strategic approaches, and tools with immunization officers in the field, so that local-level BCC plans can be developed and implemented effectively. The guide is meant primarily for immunization programme managers and IEC functionaries at the state, district and block.¹¹

2.2 Key Health Systems Constraints

→ Please describe key health systems constraints at national, sub-national and community levels preventing your country from improving immunization coverage and introducing new vaccines. Include constraints particular to key populations and other unreached, marginalised, or otherwise disadvantaged populations (including gender related barriers). Provide cross reference to the Vaccine Policy, cMYP, EVM and any other relevant policy or assessment report.

A series of reviews conducted over the years (UIP review meetings at national and state levels, Joint Review Missions and Common Review Missions organized by MoHFW on a regular basis) have noted that whilst UIP performance in India has improved overtime, there still remain a number of key constraints impacting immunization coverage in the country. Further, there are significant inequities in vaccination coverage in different states based on various factors related to individual (gender, birth order), family area (area of residence, wealth,

⁹Indian Institute of Management, Ahmedabad (2011): "Universal Immunization Programme in India: A Study on HR Needs Assessment at National and State Levels"

¹⁰These states are Gujarat, Rajasthan, Madhya Pradesh and Assam.

¹¹Ministry of Health and Family Welfare (2012): "Strategic Communication Development and Operational Guidelines

parental education), demography (religion, caste) and the society (access to health care, community literacy level) characteristics.¹²

We set out below some of the main constraints currently preventing India from achieving a quality immunization programme with universally high coverage rates. GAVI funding would be catalytic in addressing these constraints and allowing the UIP to both increase coverage rates of RIs and build the required infrastructure for introduction of new vaccines.

1. Cold Chain and Vaccine Logistics Management

Key constraints relate to poor management of vaccine logistics and cold chain, inadequate HR, insufficient/poor quality cold chain infrastructure and lack of proper planning and systems for information, monitoring and review

There is limited cold chain infrastructure and capacity in many states – even for routine UIP vaccines. Systematic efforts to identify gaps and address issues in cold chain and VLM have been conducted in recent years. In addition to the 2008 NCCA, a number of vaccine and cold chain management assessments (Vaccine Management Assessment Tool (VMAT)/EVM assessments) have been conducted in 10 states¹³ and one national UIP store (Government Medical Store Depots (GMSD) – Karnal) between 2007-11. ITSU has conducted an exercise to identify the gaps and constraints in the vaccine and logistics supply chain in Bihar, Uttar Pradesh and Madhya Pradesh. These assessments have identified the following key constraints:

- Infrastructure issues including poor infrastructure of vaccine stores and transportation systems; lack of standards for vaccine stores at different levels; insufficient safety devices for temperature monitoring of bulk vaccines stored at GMSDs, state, and regional stores; difficulties in procuring the right quality of cold chain equipment on time with adequate after sale support; repair kits and spares cold chain technicians and inequitable cold chain point (last vaccine storage site) distribution.
- HR issues such as lack of a support unit with experts on cold chain for both the immunization division of MoHFW and at the state level; lack of induction training and a regular educational programme for staff inducted in the Cold Chain Logistics (CCL) system; insufficient institutional training capacity to manage cold chain and logistics at all levels; shortage of trained manpower and relevant job-aids for managing cold chain at all levels (state, division/regional and district levels); and lack of HR with capacity for VLM at all levels (national, GMSDs, state, district and PHCs). The shortage of HR is more acute in the poor performing states and specifically at the field level.
- Monitoring and MIS issues such as lack of monitoring of cold system, lack of cold chain inventory and real-time NCCMIS, no regular review of CCL system at the state and district level, and poor documentation and MIS for vaccine management (standardized registers, records and procedures).
- Vaccine management issues and non-adherence to principles of logistics management at all levels leading to mismatch between procurement, forecasting and utilization.

These constraints have led to high breakdown rate of equipment, overstocking and stock outs, inadequate monitoring and supervision, poor management, and the possibility of AEFIs, thus hampering improved vaccine coverage.

2. Comprehensive Advocacy and BCC

Low levels of awareness, communication and information sharing amongst frontline workers as well as poor HR capacity for BCC in government institutions as a whole contributes to the problem of high lefts outs and drop outs.

Studies have shown that insufficient and ineffective health communication as well as lack of promotion or follow-up of RIs are two of the main health system constraints behind low coverage in immunization, preventing parents from initiating or following through with their child's vaccination schedule. Given that the actual rate of immunization is low, the high drop-out rate reduces the number of fully immunized children in the country. Poor populations and those with lower levels of education are most vulnerable to impacts of low levels of advocacy and communication. Listed below are some of the system-related constraints in advocacy and communication that lead to low levels of immunization coverage.

- There is weak capacity at the state level and inadequate HR to generate evidence based communication

¹²Joseph L Mathew (2012): "Inequity in Childhood Immunization in India: A Systematic Review", Indian Pediatrics, Volume 69, March 16, 2012.

¹³These assessments were done at GMSD Karnal and in Odisha, Bihar, Jharkhand, Chhatisgarh, Rajasthan, Madhya Pradesh, Assam, Maharashtra and West Bengal.

strategies, and effective BCC campaigns

- Information dissemination is not timely, and often mixed messages are received by beneficiaries
- Weak interpersonal communication (IPC) skills among health workers and community mobilizers affects appropriate communication of messages

There is an urgent need to strategically approach communication, aiming at behaviour change both at the service delivery level and to generate demand among the caregivers.

3. Data Management and Evidence Generation

Lack of strong data collection and analysis at all levels leads to a lack of adequate evidence to support immunization related decision making in the country.

Without adequate data collection and analysis it is not possible for the NTAGI and UIP to design and implement strategies to improve immunization quality and coverage. Some of the main constraints in the area of data management and evidence generation are listed below:

- Poor monitoring and evaluation for data entry, resulting in errors in data entry and inaccurate data. In recent years, partners' support and networks have contributed to increased monitoring and supportive supervision with visible positive impact in select states. However, there is a need to build the capacity of government officials and strengthen the system to improve monitoring and supervision by government officials.
- Poor monitoring and evaluation results in insufficient data quality and reporting rates. A vast majority of states have wide gaps in reported and evaluated coverage data. The factors for this variation need to be identified through regular data quality audits and necessary corrective measures should be taken.
- Inadequate data quality and reporting rates result in poor surveillance of VPDs and AEFIs. While some attention has been paid to strengthening VPD surveillance, systemic deficiencies and bottlenecks such as insufficient laboratory capacity and limited trained manpower at the district levels to carry out surveillance, continue to exist. There is a felt need for HR capacity building in VPD surveillance, strengthening laboratory capacity by improving infrastructure and making reagents available, and building system for timely reporting and actions. Similarly surveillance of AEFI cases is poor and a structured response to reported serious cases of AEFI is lacking.
- Limited focus on operational research for immunization and finding locally suitable solutions.

Strengthening data management and evidence generation is crucial for creation of realistic goals and strategies for improvement of current coverage levels and introduction of new antigens.

TWO PAGES MAXIMUM

2.3 Current HSS Efforts

→ *Please describe current HSS efforts in the country, supported by local and/or external resources, aimed at addressing the key health systems constraints.*

The NRHM was established in 2005 as a result of the MoHFW's commitment to raise public spending on health from 0.9% of the GDP to 2-3% of the GDP. It seeks to provide effective healthcare to the rural population throughout the country with a special focus on 18 states with weak public health indicators and/or weak infrastructure. In addition, efforts of donors have contributed to address some of the health system issues (refer our response to Q8 below).

The NRHM has implemented a number of programs that are working to contribute to HSS, these efforts are listed below:

- *Introduction of accredited social health activists (ASHAs)*
 - Through this programme the NRHM has selected over 800,000 ASHAs to begin to address the unmet need of advocacy and communication for immunization and maternal and child health. ASHAs are meant to mobilize the community and facilitate them in accessing health services. They receive incentive based payments for successful immunization of children.
- *Introduction of auto disable syringes and hub cutters*
- *Support of alternate vaccine delivery to session sites such as urban slums and underserved areas*

Other current HSS efforts include:

Mother and Child Tracking System (MCTS)

The MCTS is designed to collate information of all pregnant women and infants into a central database to ensure that all pregnant women and children receive full maternal and immunization services. This centralized database will enable functions like data analysis, report generation, and therefore contribute to greater strategic decision-making and need-based allocation of resources. It will act as a feedback system for health workers like Auxiliary Nurse Midwives, ASHAs, etc. and will enable better health service delivery by drawing out action plans for health workers for antenatal care, prenatal care and child immunization. MCTS will also generate reports such as facility service statistics, and Auxiliary Nurse Midwife monthly action plans. Currently the states aggregate the relevant data in an excel template available on the HMIS portal. MCTS has been fully operational since April 2010, and has picked up speed in terms of usage by states and union territories as of April 1, 2011. An assessment study was conducted by the ITSU to understand the technical, programmatic and operational challenges at all level of MCTS in three states, Uttar Pradesh, Rajasthan and Karnataka involving 6 districts in December 2012. The outcome in the form of recommendations to improve the MCTS will be converted in to action plan.

Under this system, SMS alerts are sent to pregnant women who are nearing the delivery date to remind them of the need to visit the PHC for pre-natal check-up and delivery. Women are also reminded over the cell phone on the due dates for immunization of their children to ensure follow through with RI. This system is expected improve institutional deliveries and help reduce the IMR and MMR in the country.

Teeka Express

The *Teeka Express* is a vehicle proposed for vaccine delivery in areas where motorable roads are available and is ready for piloting by MoHFW. The MoHFW is planning to support states with one 4-wheel light vehicle with the branding of *Teeka Express* to each iced lined refrigerator cold chain point, usually located at PHCs and catering to a population of 30,000- 50,000. The primary objective is to strengthen immunization services through:

- strengthening alternate vaccine delivery systems;
- facilitating need based transportation of health worker to the session sites;
- providing immunization services through the mobile team in outreach and difficult to reach pocket; and
- improving community awareness of immunization services through branded vehicles.

The MoHFW covers the full cost of this implementation, which includes cost of vehicles, operations and HR cost. UNICEF is providing technical support for branding of *Teeka Express*, micro-planning and assessment of alternate vaccine delivery to improve immunization service delivery in underserved areas.

The *Teeka Express* vehicles will be provided to 50 pilot districts. Procurement of these vehicles is underway. The *Teeka Express* will strengthen vaccine supply to immunization session sites.

Year of intensification of RI

2012-13 has been declared as the year of intensification of RI in India. In this context, MoHFW has put in place a few strategic actions to improve immunization coverage. These include: (i) health systems improvement; (ii) identifying the unreached and conducting immunization weeks; (iii) tracking every mother, every child; (iv) social mobilization efforts including advocacy; (v) improving public confidence; (vi) improving logistics and supply chain; (vii) programme monitoring supervision and review; (viii) strengthening partnerships; (ix) evidence generation; and (x) policy strengthening including operational research. India has developed a strategic framework for intensification of RI, which includes coverage improvement plans for 2012-13.

Call to Action

India's 'Call to Action on Child Survival and Development' announced in February 2013, and led by the MoHFW, GoI, calls for a concerted, convergent and inter-sectorial approach to achieving the country's child survival goals by 2017. This five-year ambitious target will heighten the importance of 'continuum of care', ensuring the tight linkage between maternal and newborn health as outlined in the new strategic document called RMNCH+A (Reproductive, Maternal, Newborn, Child Health Plus Adolescents). Strengthening RI to increase coverage has been identified as a key intervention in RMNCH+A. A number of different ministries, global and Indian experts, good-will ambassadors, private sector, civil society, media, and faith-based organizations have pledged to recommit themselves to the Call to Action.

Short term intensive trainings of frontline health workers for RI

As a part of the intensification of routine immunization in India, it has been decided to conduct an intensified and focused training of frontline workers with the objective of enhancing the operational and interpersonal skills of these workers. The goal of this training is to improve the coverage and quality of RI services by reaching the children that have been missed so far.

WHO-NPSP is providing support for an intensified and focused training of the frontline workers such as auxiliary nurse midwives, lady health visitors, anganwadi workers and ASHAs in the 9 priority states of UP, Bihar, Jharkhand, MP, Chhattisgarh, Rajasthan, Haryana, Gujarat and West Bengal. The number of frontline workers likely to be trained in these states is 1.2 million.

A training curriculum and the various training materials required at the state, district and block levels have been developed by WHO-NPSP. The training of trainers has been completed in all states with more than 1300 trainers trained, while the district training of trainers is currently ongoing with technical and organization support from WHO-NPSP. The trainers will conduct a half-day intensified and focused training of the front line workers at the block level before the end of May, 2013. WHO-NPSP will monitor the quality and progress of training.

Simultaneously, UNICEF proposes to identify key elements in inter personal skills development needs of health workers (primarily ASHAs) and conduct short-term intensive training to enable effective delivery of messages and negotiation skills.

Some of the strategies that have been undertaken by the MoHFW and state level initiatives include:

Cold chain and vaccine management innovations

- Using wireless data loggers for walk in freezers and walk in coolers in 10 states and 1 GMSD for temperature monitoring to improve quality of vaccine storage.
- Vaccine freezing study is being conducted in 8 states for assessing risk levels.
- Temperature monitoring devices have been tested on a pilot basis in Jharkhand and Chhattisgarh to check temperature of vaccines at all levels of ice line refrigerator and deep freezer.
- Establishment of NCCMIS for real-time monitoring and tracking of cold chain equipment. This web-based MIS serves to track existing cold chain equipment and spare parts and can therefore be used to forecast cold chain equipment requirements. This has been piloted in Punjab and Maharashtra and nation-wide scale up has begun. Key objectives of the NCCMIS are to provide information/guidance on:
 - (i) cold chain infrastructure up to the lowest level with performance indicators; (ii) stock positions of cold chain equipment spare parts at GMSDs and state and also provide guidance for specification for local procurement; (iii) troubleshooting of cold chain equipment; (iv) cold chain and vaccine management practices as per national norms; (v) available trained HR in cold chain and training programmes; and (vi) cold chain space requirements for introduction of new vaccines. Baseline data has been uploaded to the NCCMIS for 322 (51%) of the 629 districts in 19 (54%) of the 35 states. Detailed status is as follows:
 - Nine states have fully implemented NCCMIS. This means that they have uploaded their data, all cold chain technicians are trained and data is regularly uploaded. These states are Bihar, Chandigarh, Haryana, Jharkhand, Maharashtra, Odisha, Punjab, Sikkim and Uttarakhand¹⁴.
 - Ten states have partially implemented NCCMIS. For these states, only data has been uploaded. These states are Chhattisgarh, Daman & Diu, Delhi, Goa, Himachal Pradesh, Jammu and Kashmir, Karnataka, Lakshadweep, Madhya Pradesh and Rajasthan.
 - The rest of the states are still in the process of baseline data collection from the field.
- Establishment of an NCCVMRC for strengthening cold chain and VLM through planning, training, monitoring and creation of cold chain and accessory equipment. The NCCVMRC has been approved by the MoHFW, GoI. Space has been demarcated at the National Institute of Health and Family Welfare (NIHFW), New Delhi and architectural plans and estimates as well as terms of reference for staff are ready. Funding has been earmarked for civil works, hiring of basic staff and purchase of equipment. Hiring will commence in March 2013 as soon as funds are received by the NIHFW from the GoI. Construction will start in April 2013 and will be completed within three months; the centre will be fully operational by August 2013.
- Establishment of a NCCTC at the state health transport office, Pune for training of cold chain technicians, testing of compatible spares and cold chain equipment. GoI has approved the proposal for the training centre and testing lab, and the state health transport office, Pune, has provided space. The NCCTC has an MoU signed with NIHFW to jointly conduct training programmes and share resources.

Monitoring, data management and MIS related activities

- Strengthening the existing surveillance system, outbreak based measles and rubella surveillance system, and hospital based Meningitis sentinel surveillance system at 11 sites in 6 states.
- The intensified RI monitoring system is being rolled out and additional efforts proposed in this proposal would build upon the existing system. The information generated by MCTS would help identify the equity gaps.
- The Annual Health Survey reports provide district wise health information for 9 states, all of which are

focus states in this HSS proposal.

- Monitoring of RI sessions and state immunization weeks through partnership with implementing organizations. Monitoring of RI sessions and community monitoring for RI status has been ongoing in UP, Bihar and Jharkhand for at least 3 years. Support was provided to GoI to revise National RI monitoring formats to collect additional key session-based information as well as cold chain and vaccine logistics at the Block-PHC level. A district level RI monitoring data entry and analysis tool has been designed and this tool is being shared with states. In addition, the preparatory and implementation phases of the state immunization weeks are being done along with the provision of actionable data to block, district and state health officials.
- Expanded laboratory support has been provided for measles outbreak surveillance and surveillance of other vaccine preventable diseases. Labs supporting measles surveillance have been launched in Haryana, Maharashtra, Punjab and Orissa and are seeking technical assistance.
- Creation of National RI dashboard including key immunization data for programme decision making purposes.

Some of the proposed strategies by the MoHFW include:¹⁵

Cold chain strengthening and maintenance

- EVM exercises are currently underway in all priority states to assess and strengthen cold chain and vaccine management systems. This exercise will help identify the gaps in cold chain and vaccine management, and in the development and implementation of improvement plans. The improvement plans will be part of the state annual PIPs.
- Strengthening and integration of existing VLM and information systems in use such as ProMIS in many states and stores.
- Need based procurement of cold chain equipment, spares, toolkits and accessories will be done.
- MIS to identify cold chain equipment, spare parts, working status will be operationalized across the country and integration of VLM modules in use such as ProMIS/OVLMS/Tamil Nadu HMIS.
- States will develop systems for effective inventory management, distribution, repair and maintenance of cold chain equipment, spares and accessories.
- New innovations like solar/hybrid power and real time temperature sensors for cold chain equipment will be used.
- Research will be carried out by involving academic institutions through the NCCVMRC and the NCCTC.
- Development of appropriate training materials and job-aids will be undertaken to develop human resources for operations and maintenance.

Vaccine and logistics management

- Institutional mechanisms will be streamlined for effective VLM to prevent stock-outs and shortages.
- Vaccine and logistics supply chain assessment to understand the weaknesses in the vaccine supply chain in high priority states is underway to identify gaps and suggest solutions for improvement through public-private partnerships or system strengthening.

Institutional capacity building

- Programme management will be strengthened at the national and state level in key areas of planning, monitoring, disease surveillance, data management, cold chain and logistics management and communication.
- At the national level, the ITSU, which has been set up with support from BMGF is providing technical support to the UIP for strengthening, revitalization and successful implementation of RI. The ITSU is expected to augment HR capacity at the MoHFW in order to: (i) carry out strategic HR planning at all levels for immunization; (ii) document 'best practices' of immunization programmes from within and outside India; (iii) support development of policies, procedures and guidelines to improve programme management; (iv) develop data driven decision support tools and research to provide baseline information for decision support; (v) support development of appropriate guidelines and tools for state technical assistance; (vi) conduct operations research to identify the role of affordable information and communications technology tools for UIP strengthening in areas of social mobilization, supply chain management, operations, and vaccine preventable diseases; and (vii) incubate, develop and leverage role of technology in strengthening immunization. There is a need to expand some of these activities to the state level so that programme delivery is improved.
- The establishment of an AEFI Secretariat is underway at ITSU in collaboration with an AEFI National Resource Centre based at a leading medical college in New Delhi to improve AEFI management in the country. With the help of partners, workshops have already been conducted to improve the national policy for vaccine safety including surveillance systems to detect AEFI cases and to improve

¹⁵Ministry of Health and Family Welfare, Immunization Division (2012): "Strategic Framework for Intensification of Routine Immunization in India, Coverage Improvement Plans for 2012-13"

management of cases and reporting.

Thus the MoHFW is committed and working towards addressing some of the key HSS constraints outlined above in Section 2.2. These initiatives are also supported by several external donors' programmes in areas of HSS, including the World Bank's National Vector Borne Disease Control Project; USAID Health Partnership Programme; KfW Pulse Polio Immunization programme; DFID's sector wise approach to strengthening health, amongst others. The HSS components suggested below to be funded by GAVI seek to address the constraints that are still unmet/unaddressed by the available MoHFW/external donor funding and activities, and therefore GAVI funding is intended to be additional and catalytic.

3. Health Systems Strengthening Objectives

3.1 HSS objectives addressed in this proposal

→ Please describe the HSS objectives to be addressed by this proposal and explain how they relate to, and flow from, the information provided in section 2 (National Health System Context). Please demonstrate how the objectives proposed to GAVI will improve health outcomes related to immunization.

India's RI programme targets twenty-six million infants and pregnant women every year and is one of the largest immunization programs in the world. However, immunization rates through the national programme are uneven across twenty-eight states in India. The proportion of children under age five who are vaccinated exceeds 70 percent in only eleven states; it drops below 53 percent in eight states that are the most populous. India procures enough vaccine to immunize all of its children but health system challenges stand in the way of significant improvements in coverage that would be essential in order for India to meet its Millennium Development Goals for child survival.

The overarching goal of the activities proposed in the HSS proposal is to improve the quality and level of immunization coverage in India and prepare for the adoption of new antigens by catalyzing the development of a 21st century immunization programme that is capable of high performance even in settings where the capacity of the regular government infrastructure is poor. The proposal is in alignment with national targets and focuses on improvement on both the supply side and demand side of RI and policy-making to guide programmatic improvements and expansion of the UIP.

The specific objectives of this proposal are as follows:

1. Strengthen vaccine logistics and cold chain management in poor performing states through public-private partnerships and through improved human resources capacity, institutional strengthening and supporting supervision
2. Design and implement an eVIN that will enable real-time information on cold chain temperatures and vaccine stocks and flows
3. Increase demand for RI through a national BCC strategy
4. Strengthen the evidence base for improved policy-making (at all levels) in programmatic areas like procurement and vaccine delivery and on sequencing and adoption of new antigens
5. Leverage the success of the National Polio Surveillance Project to strengthen RI service delivery in 8 priority states

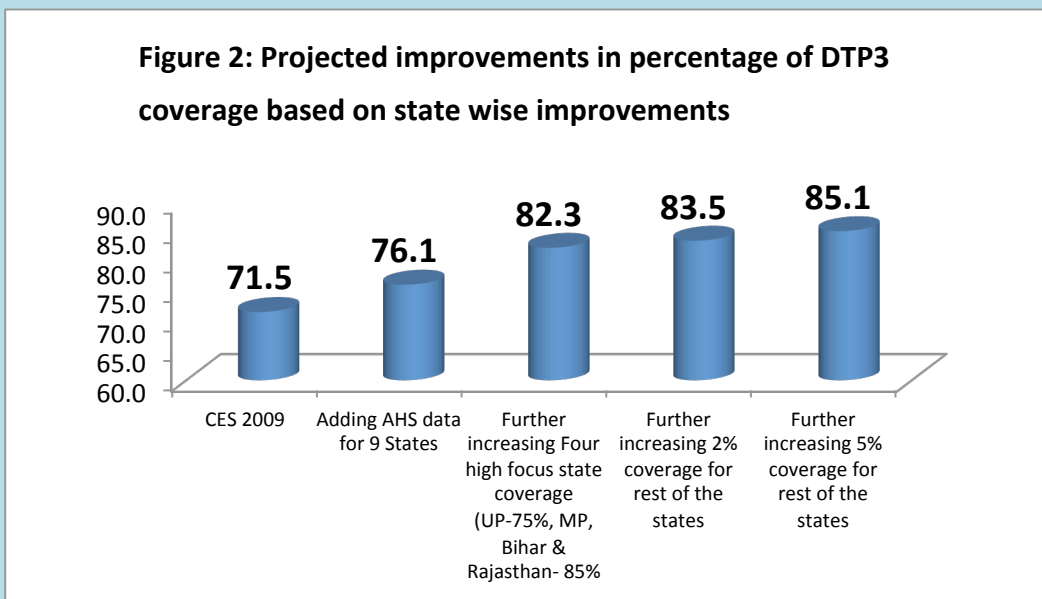
Catalytic Improvement

India proposes to commit significant funds to UIP expansion during the 12th FYP. Meanwhile, the UIP itself is being strengthened with the setting up of the ITSU which has enabled greater system capacity for programme monitoring and oversight, better evidence-driven decision-making and piloting of novel approaches to improve UIP performance. The UIP, which has remained largely unchanged for the last two decades is using technology in new and innovative ways to compensate for poor system capacity at various levels and allow for information flows that will allow for greater accountability for programme performance by UIP implementers at state, district and block levels.

GAVI funding will leverage the significant allocation of the 12th FYP resources to MoHFW by allowing for the scale-up of new approaches and strategies that will improve UIP performance. These innovations will be first tested at a sub-district level under the ITSU and then scaled up to two or three high focus states under this

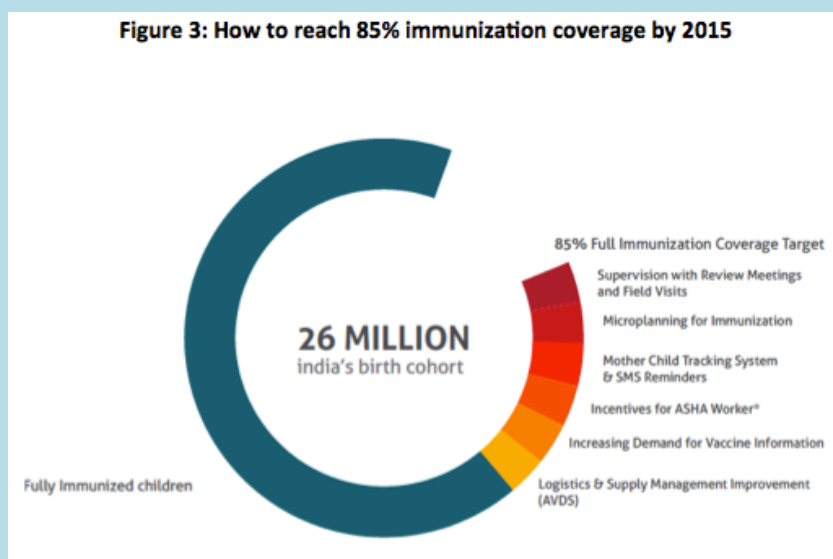
proposal. Evidence generated in the context of state level scale-ups will be crucial in allowing for a nationwide expansion under UIP in partnership with UNICEF, WHO, UNDP and other immunization partners.

The focus of this proposal will be on 12 states (Assam, Uttar Pradesh, Bihar, Madhya Pradesh, Rajasthan, Gujarat, Chhattisgarh, Jharkhand, Odisha, Nagaland, Manipur and Arunachal Pradesh) that are a sub-set of the 18 NRHM priority states where immunization coverage is below 61%¹⁶. A focus on these states will help maintain the gains of the polio programme and support the national rollout of the pentavalent vaccine.



Link to Outcomes

MoHFW has declared 2012 as the year of Intensification of RI. Moreover, it is unlikely that India will be able to meet upcoming Millennium Development Goal targets for child survival in 2015 without a significant scale up of RI coverage. With this context, the current proposal has been designed to ensure to balance a rapid scale-up of coverage before 2014 with a sustainable upgrade and strengthening of the RI system to accommodate current and future needs. Recent improvements in RI coverage in Bihar from under 20% to over 65% in a decade have demonstrated that similar improvements are possible elsewhere. Figure 2 shows that modest improvements in coverage in just the four states that have both the largest birth cohorts as well as the largest numbers of unimmunized children can lead to a significant increase in national coverage. Additionally, system strengthening nationwide through on-going programmes such as ASHA incentives and the MCTS, along with new efforts proposed here, are expected to lead to a further ten percentage point increase in RI coverage with a national coverage rate of 80% before 2015.



¹⁶ Ministry of Health and Family Welfare (2009): Coverage Evaluation Survey

TWO PAGES MAXIMUM

- a) Narrative description of programmatic activities

→ Please provide a narrative description of the goals, objectives, Service Delivery Areas (SDAs) and key activities of this proposal.

Objective 1: Strengthen vaccine logistics and cold chain management in poor performing states through public-private partnerships and through improved HR capacity, institutional strengthening and supportive supervision

A key need of the UIP is to improve the performance of the supply chain of vaccines and syringes, particularly in the poor performing states. The current supply chain is completely handled by government body (demand estimation and procurement at the national level and distribution in the state by state health officials) and operates with some shortfalls. The ITSU is developing alternate supply chain models for vaccines and syringes in these states using a public-private partnership model. Similar models have been adopted by the National Tuberculosis Control Programme to deliver drugs to DOTS centres and have the potential to allow for efficient vaccine delivery and cold chain maintenance even in states and districts with otherwise poorly performing health systems. The ITSU has engaged an external partner with the required technical capabilities to 1) conduct a field assessment of vaccine logistics performance problems in 2 pre-defined geographic scopes; 2) assess potential private sector players to address ascertained vaccine logistics problems; 3) in active consultation with ITSU, and all relevant partners, construct a public-private partnership model with adequate monitoring and supervision safeguards; and 4) develop a detailed implementation plan for said model. Parts 1 and 2 have been completed, part 3 is ongoing, and part 4 is expected to be completed by the end of April 2013. This project is geared towards addressing performance problems in the public sector, including urban areas. The private sector delivery of immunization services is a complex area with multiple players, and is a separate programmatic concern. That said, the public-private partnership model does have the potential of including willing private sector immunization service providers. There is also a need to build system capacity through human resource capacity strengthening. GAVI support will help in:

Service Delivery Area (SDA): Procurement and Supply Chain Management

Activity 1.1 *Implementing Public-Private Partnership Models for Vaccine Logistics and Cold Chain Management.* The ITSU is developing a business model involving private sector actors alongside the public sector to deliver vaccines from state level depots to cold chain points. This approach, which has been previously used to improve vaccine delivery performance in South Africa, is expected to be helpful in districts with poor cold chain infrastructure and manpower capacity.

Sub-activity 1.1.1 Design a business model in detail with exact roles and responsibilities defined for outsourced agency and government officials

Sub-activity 1.1.2 Pilot and evaluate new public-private partnership models for vaccine delivery in 10 low-performing districts to improve reliability of vaccine supply chains and reduce wastage.

Sub-activity 1.1.3 Establish benchmarks for vaccine inventory management, demand forecasting, wastage rates and institutional and operational requirements for scaling up to more districts and states.

SDA: Health Workforce

Activity 1.2 *Improve human resources to improve cold chain performance.*

Shortage of trained manpower is identified as a key constraint in managing cold chain systems according to the assessments conducted.

Sub-activity 1.2.1 Establish the NCCVMRC at NIHFWD, Delhi and strengthen the NCCTC with testing lab at Pune to support long term national cold chain development plan, national standards for cold chain and VLM, collaborations, research and development activities.

Sub-activity 1.2.2 Train and equip UIP staff at the national and state level, including refrigerator mechanics, cold chain and vaccine handlers, health workers, medical officers, and immunization and cold chain programme managers.

Activity 1.3 *Supportive supervision to ensure quality implementation*

Supportive supervision is recognized as an important component to ensure quality implementation of a public health intervention. Various models of supportive supervision exist, using line supervisors, externally hired monitors or medical college faculty to provide mentoring and supportive supervision. A mixed approach will be applied based on state requirements to ensure that RI sessions use quality vaccines that have maintained appropriate temperatures throughout the cold chain. Effective cold chain and vaccine management consultants

will be used to support review of improvement plans and vaccine store self-assessments using standard formats and local improvement plans from facilities visited.

Sub-activity 1.3.1 Establish supportive supervision for cold chain, vaccine logistics and immunization in the GAVI supported states using the most appropriate approach

Activity 1.4 *Implement EVM improvement plans*

Sub-activity 1.4.1 EVMs conducted and PIPs implemented in larger states

EVMs will be conducted twice in larger states, once in the inception phase and the second in the last year of the 3-year GAVI support period. Between the two EVM assessments, recommendations from the inception phase EVM will be implemented through PIPs of the respective states. A trained pool of effective cold chain and vaccine management consultants will review progress of PIPs in states that have completed an EVM assessment and prepared improvement plans. GAVI funds will be catalytic in implementation of these improvement plans, which will lead to improvement in the CCL system.

Sub-activity 1.4.2 Nationwide rollout of the national cold chain MIS, including at all four GMSDs after successful pilot in 2 states, upgrading of the NCCMIS to include additional data on immunization sites and linkages of cold chain equipment linkages with temperature loggers as proposed in the document

Sub-activity 1.4.3 Integration of VLM System based on existing models such as ProMIS & state VLMS implemented in 4 GMSDs and GAVI supported 10 states (Except UP and Bihar) to provide real time vaccine logistics stocks information

SDA: Infrastructure

Activity 1.5 *Institutional capacity building to strengthen the cold chain system*

Sub-activity 1.5.1 Build institutional capacity of the NCCVMRC at NIHFWD, Delhi and the NCCTC and testing lab at Pune to monitor and manage performance of the cold chain & VLM system.

Sub-activity 1.5.2 Expand cold chain capacity in selected states, increase the number of cold chain points close to vaccination session locations using solar/hybrid technology, and improve the usability of existing equipment by undertaking repairs and maintenance and by upgrading the technology.

Objective 2: Design and implement an eVIN that will enable real-time information on cold chain temperatures and vaccine stocks and flows

A significant challenge to improving RI coverage is the lack of accountability at nearly levels in the chain. Managers have no real time to know how well the vaccine supply system is performing, either in terms of vaccine availability or in terms of maintaining cold chain temperatures. Without such information, it is difficult to hold system functionaries responsible for lack of performance or to generate prompt responses to a breakdown in the vaccine supply chain. Recent data from the coverage evaluation surveys indicate that there is limited vaccine wastage until the cold chain point, but these surveys do not measure vaccine losses due to freezing, a problem that may be more widespread than previously realized¹⁷. Data from the states where VMAT, EVM and/or deep dives were conducted by UNICEF and ITSU indicates that the distribution of vaccines through the system is uneven with some cold chain points with excess stock while others have stockouts. Even when there are few stockouts reported, there is evidence that store managers are slowing down outflow to cold chain points below them or to session sites as a means of preventing stockouts, although this kind of stock management leads to insufficient vaccines reaching the field. Without real-time data, programme managers in National, State and District headquarters have little information on the basis to manage the supply side of vaccines, perform course corrections or ensure accountability from those further down the chain. We propose to use GAVI funds to reduce stock outs and overstocking of vaccine by 80% from year 1 of GAVI support (*Source: Real time MIS for vaccine logistics*) through the development of a vaccine intelligence system that keeps track of both vaccine stocks and flows as well as temperature levels throughout the cold chain.

SDA: Infrastructure

Activity 2.1: *Scale up a system for SMS-enabled real time MIS for cold chain and VLM*

Sub-activity 2.1.1 Scale up SMS enabled loggers to all 1,700 cold chain points in Bihar and Uttar Pradesh. Currently eight vaccine stores at the state level have web-enabled temperature loggers that allow for centralized reporting. Under this proposal, we propose to scale up SMS-enabled loggers to all 1,700 cold chain points in Bihar and Uttar Pradesh. Following this initial installation the MoHFW plans to install SMS-enabled

¹⁷ Indian Council of Medical Research (2012): Temperature monitoring of the vaccine cold chain to assess the level of freezing in Indian states

loggers throughout the entire country.

Sub-activity 2.1.2 Pilot the technology for keeping track of vaccine stocks using Radio Frequency ID tags. The MoHFW proposes to electronically link GMSDs, state, divisional, district and the lowest cold chain points to monitor real time vaccine stock situations (over and under stock), status of cold chain equipment, spare parts and other transactions. The technology for keeping track of vaccine stocks using Radio Frequency ID tags is to be piloted by ITSU.

Sub-activity 2.1.3 Scale up of monitoring system to monitor real time vaccine stock situation in high focus states

SDA: Health Workforce

Activity 2.2 *Human resource and capacity building for vaccine intelligence*

An eVIN needs to be supplemented by an operations team that is both keeping the network operational as well ensuring that the UIP responds promptly to information generated from the network. Introduce a Vaccine Logistics Manager at the national level as well as the district levels at 12 states. These staff will be provided training on EVM and effective cold chain and vaccine management courses. All staff engaged for vaccine management will be given appropriate induction training before or soon after joining. GAVI funds will be used for training module development, training of trainers, training monitoring, review and evaluation, and for other quality assurance activities

Sub-activity 2.2.1 Development and pilot of training module and curriculum.

Sub-activity 2.2.2 Capacity building workshops and initiatives for vaccine and logistics handlers and managers

Objective 3: Increase demand for RI through a national BCC strategy

The recent Coverage Evaluations Surveys conducted by UNICEF indicate that lack of awareness of the need for immunization is a major barrier to scaling up RI coverage in areas where the health system is able to deliver the programme. Child health is often considered as a routine activity and there is low risk perception prevalent in the community for the health of children. Although the supply and demand sides are not neatly separable – supply inefficiencies and poor quality could result in reduced demand for the programme – there is consensus among partners that a strong integrated BCC approach is a critical component of any strategy to scale up coverage.

The primary focus of these BCC interventions will be on reducing drop-outs – children who receive the BCG vaccine but subsequently fail to complete the full course of RI. We will also work to ensure equity in vaccination coverage. Data from India reflect significant gender disparities in coverage. Despite a reduction in disease burden of VPDs through childhood immunization, considerable progress needs to be made in terms of ensuring equity of vaccination coverage. Analysis of 2001 DHS data cross-checked with MICS data suggested a difference in full coverage of 13.4% in favor of boys. Analysis of three rounds of NFHS data between 1992 and 2006 also revealed that girls consistently have lower coverage than boys, although the differentials do not appear to be as wide in these surveys. Gender disparities in coverage also varied widely by state in India. Our goal is to increase awareness of the community so that they are able to perceive the risks for an unimmunized child and take action to complete their immunization.

MoHFW, UNICEF and its partners have developed operational and technical guidelines for communication that were shared with states in September 2012 during the national communication consultation meeting. Following the consultation, states are now developing their state-specific BCC plans, which will be implemented with IEC funds available under the state's NRHM budget. Each state, while developing its specific communication strategy, will keep underserved populations and low-coverage areas – both in rural and urban areas and including gender constraints and issues of equity – as a special focus in the strategy. These guidelines mention conducting microplans to overcome communications challenges in hard to reach areas.

As part of national efforts, an integrated communication campaign will be developed which will support the state BCC implementation plans. This national plan will include capacity building, mass media, IEC prototype development, advocacy, and institutional strengthening interventions in order to create an enabling environment in the high focus states for successful implementation of state interventions. Special attention will be paid to the four high focus states of Uttar Pradesh, Bihar, Madhya Pradesh and Rajasthan. Ensuring equity and reducing gender disparity will be emphasized to ensure that more children complete their full course of immunizations.

We also plan to strengthen capabilities at the state level to develop and implement evidence-based communication strategies that will increase awareness about the benefits of immunization, build confidence in caregivers and service providers, and inform constructive policy for appropriate funding support. There is funding available at the state level, but weak capacity to deliver. To successfully develop and implement a strong BCC programme, partnerships between the government, development partners, private sector, public sector, community-based organizations, educational institutions and self-help groups will be built. This will ensure a

BCC programme that outlasts GAVI funding and is able to position RI as a central element in the development agenda for state and local governments and a corporate social responsibility agenda for private and public sector corporations. Demand generation for immunization will also subsequently feed into the larger efforts being made under the continuum-of-care strategy in the Call to Action for child survival.

Specific proposed activities under the GAVI funding are described below.

SDA: Stewardship & Governance

Activity 3.1 *Implement a multi-pronged, national BCC strategy development and operational plan with a special emphasis on priority states*

Issues like branding, integration, advocacy, social mobilization, monitoring and evaluation, air time procurement and BCC activities will require substantial technical, financial and managerial resources for implementation. Guidelines on how to develop a communication strategy and operationalize it effectively have been produced and disseminated widely among SIOs and communications consultants associated with generating demand for immunization. SIOs and communications professionals at the state level will be supported through capacity building programmes to enhance their skills in developing and implementing BCC in a strategic manner. A comprehensive visual and message-oriented branding exercise has been initiated, with a new logo, tagline, and colour coding to give RI a distinct identity. The new logo and tagline along with two television commercials, radio spots and posters are in development to have an integrated approach and employ media mix to reach the masses. The draft material was pretested in five states for comprehension, likeness, relatability and reliability. The material was well received at the community level. The branding and communication material will to be launched by the Health Minister of India before it is rolled out. UNICEF has created a vast network of social mobilizers called the Social Mobilization Network (SMnet) (1400 in Bihar and 5600 in UP). These social mobilizers, along with institutions and selected CSOs, will be engaged to intensify mobilization using high-risk block microplans and inclusion of underserved populations. The SMnet was created for the NPSP and will be catalytic in reaching hard to reach populations.

Sub-activity 3.1.1 Support all 12 states independently in developing evidence-based communication strategy plans through strategy development workshops

Sub-activity 3.1.2 Launch and disseminate nationally the new brand being developed for RI

Sub-activity 3.1.3 State-level review meetings on the progress of planned activities

Sub-activity 3.1.4 Bi-annual national-level review meetings for exchange of lessons learned

Sub-activity 3.1.5 Small surveys, evidence generation

Sub-activity 3.1.6 Strengthen communication monitoring and reporting systems for managers

Sub-activity 3.1.7 Document communication activities

Sub-activity 3.1.8 Technical assistance to develop and implement BCC programs (enabled through three program specialists/officers contracted at the UNICEF-India office and one program specialist/officer in each of the 9 priority states)

SDA: Health Workforce

Activity 3.2 *Enhance infrastructure and HR capacity to develop and implement BCC strategies*

Sub-activity 3.2.1 Support operationalization of BCC cell and development of tools.

Equip BCC cell with dedicated hardware/software to support operational aspects of communication, monitoring and analysis of data, and documentation. Identify, hire and place communications professionals as consultants to support BCC strategy development and its rollout, as per HR needs assessment.

Sub-activity 3.2.2 Facilitate inter-state exposure visits for SIOs, including district immunization officials for learning and experience sharing.

Sub-activity 3.2.3 Strengthen delivery of IPC using the polio SMnet, CSOs and schoolteachers. Facilitate capacity development of schoolteachers to generate awareness about immunization amongst school children using the School Health Programme and other student-level networks, and initiatives to promote immunization among school children. Similarly national-level youth groups and networks such as the National Cadet Corps, corporate social responsibility bodies, and other CSOs will be engaged to support social mobilization efforts.

Sub-activity 3.2.4 Support consultative meetings and workshops for development of BCC institutional setups, hiring HR and other policy decisions as well as capacity building

SDA: Advocacy communication & social mobilization

Activity 3.3 *Develop and broadcast immunization messages through mass media, mid media, new media and IPC*

Sub-activity 3.3.1 Produce two TV Public Service Announcements (PSAs) highlighting key messages on RI.

Sub-activity 3.3.2 Purchase airtime for broadcast of TV spots, radio spots and radio jingles.

Sub-activity 3.3.3 Development of IEC prototypes to enable the centre and state to publicly brand RI

Sub-activity 3.3.4 Provide support to monitor and evaluate the impact of TV PSAs and other mid media and IPC activities on message recall, comprehension, likeability and reliability

Sub-activity 3.3.5 Produce an advocacy film on RI (2-3 minutes in duration) highlighting the milestones achieved so far in RI, which can be used on several platforms

In addition to the above activities, radio jockeys will be used to disseminate immunization messages to the public. Though ownership of radios is decreasing in India, radio has the potential in the form of community radio and FM channels in urban and peri-urban areas to contribute to information dissemination. UNICEF has already trained over 200 radio jockeys. They will be used for disseminating messages on RI through quizzes, talk shows and interspersing the messages during the existing programmes.

Activity 3.4 *Promote advocacy with media for creating an enabling environment for increasing demand for RI services (current and new vaccines)*

Sub-activity 3.4.1 Hold national and state media workshops to sensitize electronic and print media personnel and AEFI committee members about immunization programmes and new vaccines.

Sub-activity 3.4.2 Media monitoring and tracking

Sub-activity 3.4.3 Media, parliamentarians and CSO to meet two times a year per state

Sub-activity 3.4.4 Develop a partnership with the Indira Gandhi National Open University for leveraging information for reaching remote areas

Sub-activity 3.4.5 Develop partnerships with the Indian Women Press corps and Press Clubs for promotion of immunization

Sub-activity 3.4.6 Field visits for media to better-performing states

Sub-activity 3.4.7 Advocacy for inserting immunization capsule in media training in media institutions and in the school health programme

SDA: Surveys, Evaluation & Research

Activity 3.5 *Monitoring and Evaluation for communication through media analysis and other quantitative and qualitative assessments*

UNICEF SMNet will help in session monitoring (including Village Health and Nutrition Days), generating evidence for gap analyses and training community mobilizers and frontline workers for correct dissemination of messages at the community level.

Sub-activity 3.5.1 Periodically conduct qualitative & quantitative assessment on ongoing IEC/BCC interventions

Sub-activity 3.5.2 Analysis of Media reporting at the end of 2013, 2014 & 2015

Objective 4: Strengthen the evidence base for improved policy-making (at all levels) in programmatic areas like procurement and vaccine delivery and on sequencing and adoption of new antigens

Responsibility for policy-making in programmatic areas of the UIP – such as on procurement, human resource capacity and expansion to new antigens – rests with the MoHFW. However, the LCTT identified a scope for strengthening the evidence base on which decisions on policies, practices and implementation of the national immunization programme are made, through more systematic collation of field-level data. GAVI funds will help strengthen existing mechanisms in the following ways:

Activity 4.1 *Build the capacity of existing institutions at the national, state, district and block levels in generating and interpreting evidence through measles and other VPD surveillance for improved policy-making*

SDA: Routine data collection, analysis and use

Sub-activity 4.1.1 Develop sentinel sites for VPD surveillance

Sub-activity 4.1.2 Strengthen laboratory capacity

Provide technical assistance to states to strengthen capacity to generate evidence: This will be achieved both through developing sentinel sites for VPD surveillance and through strengthening of existing laboratories capacity for VPD surveillance.

SDA: Health Workforce

Sub-activity 4.1.3 Conduct VPD surveillance workshops and trainings at sentinel sites

Training and workshops will be conducted for immunization staff at national, state and district level on various aspects of evidence generation and data management. These trainings would focus on building capacity of programme staff for VPD surveillance, designated laboratory staff on laboratory diagnosis of VPDs and data managers for improvements in data quality.

Sub-activity 4.1.4 Conduct state, district and block level measles surveillance workshops and trainings

SDA: Stewardship & Governance

Activity 4.2 *Expand model based strategy development approaches to support policy decisions in seven additional states*

An example of a model based strategy development approach, HERMES, is a dynamic computer simulation model that represents a vaccine supply chain in any designated country. Utilizing a technique known as discrete-event simulation, the software follows each vaccine vial as an individual, computational entity as it moves through every level of the supply chain to its ultimate destination, monitoring storage temperatures throughout. Therefore, HERMES provides a virtual laboratory for understanding the exact impact that the introduction of new vaccines, altering vial sizes, modifying transport routes, adding new cold chain equipment, etc. has on the supply chain. The HERMES model outputs are well correlated with the specificity of its data inputs; so that collecting sufficient input parameters (e.g. district storage capacity, number of transport devices at block level, etc.) from a field visit will yield an incredibly useful tool. Challenges will of course include gaining limited data from block, district, and regional levels to model the rest of the supply chain. INCLIN is currently piloting HERMES in two states. The initial model will be built for the state of Bihar, using data collected by INCLIN. The pilot model will be built using the baseline data from 5 districts. The optimized model for Bihar is currently underway and is expected to be complete by June 2013. Following this, the model will gradually be expanded to the states of Kerala and Gujarat.

Sub-activity 4.2.1 Develop and design a HERMES or a similar dynamic computer simulation model for vaccine supply chain

Sub-activity 4.2.2 Scale up the use of the model based strategy development approaches such as HERMES in seven high focus states to support state level decision-making on aspects of vaccine logistics, cold chain and system needs, to take action on expansion in coverage of existing antigens as well as UIP expansion to new antigens

SDA: Monitoring & Evaluation, Evidence-Building

Activity 4.3 *Support evidence generation to assess the case for new antigens based on system readiness, avertable burden, programme costs and cost-effectiveness.*

With the rapid scale up of the pentavalent vaccine in India and the success of the polio elimination effort, there is a need to:

Sub-activity 4.3.1 Set up a research network comprising the Indian Council for Medical Research, Indian research institutions and other partner organizations to support upcoming decisions on new antigens.

Sub-activity 4.3.2 Support research studies on vaccine avertable disease burden, system readiness and cost-effectiveness as they relate to new antigens

5. Leverage the success of the NPSP to strengthen RI service delivery in 8 priority states

The WHO India Country office, in agreement with the MoHFW, GoI has developed a Country Cooperation Strategy (CCS) for 2012-17. One of the strategic priorities under the CCS is a gradual, phased, transfer strategy of WHO services to national, state and local authorities with the non negotiable condition that no erosion of effectiveness occurs during the transition period (strategic priority 3 of CCS). This transition is expected to happen through a consultative process with the aim of 'De-verticalizing' polio, AIDS and TB programs and transitioning the WHO service delivery components to regular government structures run by district, state and central authorities. The CCS emphasizes a shift of focus from polio eradication to RI, which feeds into the overall goal of strengthening health systems in the country. The activities proposed as part of objective 5 under this proposal, therefore, have a clear mandate in WHO's CCS and are in alignment with the government of India's priorities, where increased attention is paid on strengthening RI.

With the recent unprecedented progress to achieve polio eradication in India, the landscape of the RI program in the country has changed. WHO's experience and technical support structures established for polio eradication, both at the national and sub-national levels, provide an opportunity for scale up to support the RI program. With HSS support it is possible for the WHO to scale up some of the existing activities and undertake some additional activities to support the intensification of the RI programme in 8 states (Bihar, Uttar Pradesh, Rajasthan, Haryana, Jharkhand, Chhattisgarh, West Bengal and Madhya Pradesh).

The WHO-NPSP is headquartered in Delhi and has a network of 275 field offices with 350 medical officers. The NPSP is supervised by 42 sub-regional team leaders and 7 regional team leaders posted across the country. The WHO-NPSP hires nearly 1000 field volunteers in select high-risk states to support polio planning and monitoring activities. Since 2004, a dedicated team of medical officers located at WHO-NPSP headquarters have been assisting with intensification of RI activities in high priority areas. Additionally, a medical officer, exclusively devoted to RI strengthening, has been deployed in each of the priority states such as Uttar Pradesh, Bihar, Jharkhand, Rajasthan and Chhattisgarh to provide technical support to these states for strengthening RI activities. Convergence with the Polio network in the field, and adapting lessons learned regarding identifying missed children is necessary and can lead to significant outcomes in achieving the RI programme outcomes.

The WHO-NPSP is providing strategic support and technical guidance to the central and state governments on development of technical and operational guidelines for RI in India, capacity building of government officials at various levels, support for introduction and scale up of new antigens in UIP, RI monitoring, and AEFI and VPD surveillance in India. Extensive technical guidance including monitoring and evaluation is being provided for ongoing measles supplementary immunization activities, the scale up of hepatitis B vaccine and the rollout of Hib as pentavalent vaccine in select states of the country.

All medical officers of WHO-NPSP receive a standard two week training on various facets of the polio eradication programme, including RI. Refresher trainings are organized as needed. Additionally, programme reviews are organized each year to review progress, build capacity and provide strategic guidance. In February 2012, India was removed from the list of polio endemic countries, and with this followed a subsequent reduction in the intensity of polio supplementary immunization activities. It is now possible for the WHO-NPSP medical officers in the field to devote time to support RI activities without compromising polio eradication efforts. The medical officers of WHO-NPSP are highly experienced and uniquely positioned to support RI activities in a way that could result in a rapid increase in RI coverage, especially in the high risk areas most vulnerable to the occurrence of VPDs.

It is well known that WHO-NPSP provided tremendous strategic support to the polio eradication initiative in India through activities that include identification of high risk areas and their inclusion in the polio micro-plans, organization of state and district level task forces to review programme implementation and ensure accountability, intensive program monitoring, regular surveillance reviews, and quality trainings of health staff. It has been increasingly recognized by experts and the government that similar efforts and activities will be required to increase access and utilization of vaccines in the UIP in India. The WHO-NPSP, having first-hand experience in these activities, is best positioned to apply the lessons from polio eradication to RI program strengthening in India. The close and existing working relationship and understanding of ground realities is likely to further expedite the process.

The funding provided by GAVI will be used to support the following activities:

SDA: Monitoring & Evaluation, Evidence-Building

Activity 5.1 *Identification and enumeration of high risk populations*

The identification and enumeration of high risk population has been undertaken as part of Emergency Preparedness Response Planning for polio eradication efforts in India. This information has the potential to be integrated into RI micro-plans to improve RI services delivery in the most at-risk populations. More than 250,000 sites with migrants population and additionally more than 150,000 sites with settled high risk populations have been identified as a part of the polio emergency preparedness and response plan. These high risk areas had been identified as per the laid down criteria and in consultation with the local health staff at various levels. WHO field staff was involved in the identification, validation and mapping of these high risk areas. This was followed by sharing the information with appropriate level and incorporating these areas into polio microplans for the appropriate corrective measures. The available epidemiological data indicates that these polio high risk areas have low coverage with routine immunization vaccines also. Thus, these sites are vulnerable not only for polio but also for all other vaccine preventable diseases. MoHFW, GOI has issued instructions for inclusion of the high risk sites in the RI micro-plans of their respective state and districts. NPSP-WHO will help to build capacity within the different levels of the government for identification and tagging of these HR sites to workable RI microplans. Progress on the inclusion of the high risk areas would be monitored and reported back to the state and district task forces.

Sub-activity 5.1.1 Integrate RI micro-plans to improve RI service delivery in the most at-risk populations

Sub-activity 5.1.2 Build capacity within the different levels of the government for identification and tagging of these HR sites to workable RI microplans

Sub-activity 5.1.3 Monitor progress of inclusion of high risk areas to report back to the state and district task forces

Activity 5.2 Intensive RI monitoring

The WHO has been supporting national and state governments in RI monitoring. As part of RI service delivery strengthening, RI monitoring, in agreement with government, could be further improved and expanded to generate actionable data for the programme.

Sub-activity 5.2.1 Utilize all existing field volunteers (~ 1000) in UP, Bihar, Jharkhand and West Bengal for RI monitoring

Sub-activity 5.2.2 Provide training and oversight to monitors hired by the government in other states to support RI monitoring

Sub-activity 5.2.3 Generate actionable data on critical aspects such as involvement of local governments, missed areas for RI, reasons for partial RI coverage, quality of mobilization activities etc. on a regular basis (frequency determined based on needs in different areas)

Sub-activity 5.2.4 Institutionalize quality assurance mechanisms for reliability of RI monitoring data, similar to the lines of polio monitoring

Activity 5.3 Linking of acute flaccid paralysis (AFP) surveillance and UIP reviews

One of the major contributors to polio eradication efforts in India has been the regular and high quality AFP surveillance reviews. These reviews provided useful data, which was utilised for the further programmatic corrections and follow up reviews. These surveillance reviews are part of polio eradication efforts.

Sub-activity 5.3.1 Programmatic information related to RI will be collected during all AFP surveillance reviews coordinated by WHO and provided to state governments for appropriate corrective actions

Sub-activity 5.3.2 UIP reviews shall be undertaken in high priority states to review progress of RI intensification and implementation of recommendations from previous reviews.

SDA: Facility Management and Organization

Activity 5.4 Technical support to the state and district RI action groups in key high priority states

The Polio program has immensely benefitted from both state and district level task forces, which review polio eradication activities at regular interval, provide strategic directions and fix accountability. These Polio task forces have been regularly supported by WHO-NPSP. Following directives from MoHFW, GoI similar task forces are now being constituted at state and district levels for strengthening RI service delivery in India.

Sub-activity 5.4.1 Institutionalize functional action groups for RI at state and district levels

Sub-activity 5.4.2 Guide the composition and creation of a ToR of these action groups and provide feedback to the MoHFW on their functionality status.

Sub-activity 5.4.3 Ensure high quality actionable monitoring data is presented during action group meetings and appropriate follow up actions are supported.

SDA: Health Workforce

Activity 5.5 Build capacity of frontline workers at state and district levels in high priority areas

WHO-NPSP has been supporting national government in drafting the technical and operational guidelines for RI in India. It is proposed that these efforts would be further intensified and appropriately resourced as part of the funding from this HSS grant by undertaking the following activities:

Sub-activity 5.5.1 Provide technical support at the state and district level workshops conducted for RI review and strengthening. These workshops are likely to be organized urgently by the state and district governments to highlight the importance of RI, the current gaps and the actions to be taken by the District Immunization Officers and Block Medical Officers for RI strengthening.

Sub-activity 5.5.2 Develop training plans, training curriculum and training materials for an intensified and focussed training of more than 1 million frontline workers involved in delivery of immunization services. These frontline workers include the ANMs, Anganwadi workers and accredited social health activists (ASHAs). The objective and focus of these trainings will be on building the interpersonal skills of these frontline workers and to equip them with the information and skills required to address the queries of the parents so that they can undertake better mobilization and reduce drop outs.

Sub-activity 5.5.3 Support training of trainers at the state and district level in the 8 priority states so that quality training can be provided to the front line workers in these states

Sub-activity 5.5.4 Assist with a quantitative and qualitative monitoring of the trainings provided.

All activities proposed in this objective will be linked to the efforts suggested as part of other objectives of this proposal. The WHO efforts would be aligned and linked to other efforts being done by partner agencies and states and local governments.

- b) Logframe

→ Please present a logframe for this proposal as Attachment 2.

Please refer to the logframe enclosed as an Attachment.

- c) Evidence base and/or lessons learned

→ Please summarise the evidence base and/or lessons learned related to the proposed activities. Please provide details of previous experience of implementing similar activities where available.

Based on 13 state, 38 regional, 153 districts, and 292 PHC vaccine stores, and 1 GMSD using VMAT/EVM tools, NCCA and vaccine wastage study, key evidence generated for improvement includes:

- HR (cold chain experts, vaccine logistics managers, cold chain technicians and cold chain handlers).
- Infrastructure like vaccine stores with WHO's Model Quality plan.
- Storage capacity.
- Temperature monitoring; (lack of modern temperature monitoring devices to ensure vaccine quality and safety like wireless data loggers in bulk vaccine storage depots – GMSDs, state and regional vaccine stores; use of 30-days temperature monitoring devices in selected cold chain points with poor performance record).
- Maintenance and repair of cold chain equipment (facilitate recruitment of cold chain technicians, making spare parts available and mobility support for cold chain technician and implementation of cold chain MIS)
- Stock management, vaccine arrival and distribution (implementation of online VLM system, improved management of pipeline supply of vaccines, strengthen alternate vaccine delivery to session sites).
- Vaccine management practices at the field level (introduction of vaccine management documentation system like registers and passbook).
- Planning and documentation (improved forecasting and adequate vaccine supply, reduction in wastage);
- Supportive supervision, monitoring and management of programme staff.
- Real-time monitoring and management of vaccine supply.

At all the levels, there is tremendous scope for the improvement of managerial skills and capacity as reflected by the low scores at the management category level compared to others (for details please refer to National Fact Sheet on VMA/EVM, 2011). The Odisha model of CCL strengthening included two rounds of the VMAT exercise with the following interventions in between: (i) concurrent monitoring of the immunization programme and related training at three levels with a focus on cold chain and vaccine management by medical colleges; (ii) implementation of work plans based on VMAT recommendations; (iii) introduction of vaccine registers and pass books from sub-centres to the state vaccine store; (iv) engagement of a new cadre of HR through the State Maternal and Child Survival Cell of the NRHM, cold chain consultant (since Jan 2008), vaccine logistics manager (March 2009) and regional vaccine logistics coordinators and district RI coordinators and cold chain technicians in each district; (v) streamlining procurement of cold chain spare parts; (vi) introduction of OVLMS for web based supply management system; and (vii) strengthen implementation of micro planning and Alternate Vaccine Delivery System for outreach sessions. This resulted in improved vaccine stock management and equipment maintenance, reduced stock-outs and improved coverage measured in terms of the absolute number of children immunized. Signs of improvement in HR infrastructure planning, monitoring and supervision, documentation and use of standard practice for vaccine management are evident in other states like Jharkhand, Gujarat, Madhya Pradesh, Rajasthan, Maharashtra and Bihar.

SIX PAGES MAXIMUM

3.3 Main Beneficiaries

→ Please describe how the proposed activities under each objective contribute to equity (e.g., gender, geographic, economic), reach the unreached, underserved and marginalised populations with health services, and benefit the poorest and other disadvantaged populations. Describe how this will improve immunization coverage in states/districts with low coverage.

1) Strengthen vaccine logistics and cold chain management in poor performing states through public-private partnerships and through improved human resource capacity, institutional strengthening and supportive supervision

GAVI funds under this activity will be primarily used for:

1.1 Implementing Public-Private Partnership Models for Vaccine Logistics and Cold Chain Management

Improved vaccine stock management and distribution practices as a consequence of GAVI support would result in reduced vaccine wastage and stock-outs thereby improving coverage. In addition,

support from the private sector can be leveraged to maintain constant vaccine supply in hard to reach areas with poor health systems thereby increasing RI coverage.

1.2 *Improve human resources to improve cold chain performance*

GAVI funds would be utilized to improve institutional capacity and HR capacity at important positions in the vaccine supply chain. This includes training and sensitization of staff at the national and state level. This investment in HR and functional cold chain capacity closer to immunization site locations would result in improved vaccine logistics thereby improving RI coverage.

1.3 *Supportive supervision to ensure quality implementation*

Various models of supportive supervision exist, using line supervisors, externally hired monitors or using medical college faculty to provide mentoring and supportive supervision. A mixed approach will be applied appropriate for the state to ensure that routine immunization sessions will have necessary cold chain and vaccine with quality.

1.4 *Implement effective vaccine management (EVM) improvement plans*

GAVI funds will contribute to implement improvement plans formed on the basis of EVM assessments, which will lead to improvement in the CCL system and subsequently coverage. The funds will also contribute to the rollout of the national cold chain MIS, after successful pilot in 2 states and implement integrated vaccine logistics MIS to provide real time vaccine and logistics stocks.

1.5 *Institutional capacity building to strengthen cold chain system*

The support is aimed at creating additional cold chain points (Solar/hybrid power) in areas closer to immunization session sites, but with problem in grid power supplies, as well as creating additional cold chain space by improving the useability of existing equipment with repairs, maintenance and newer technology fitments.

2) Design and implement eVIN that will enable real-time information on cold chain temperatures and vaccine stocks and flows

GAVI funds under this activity will primarily be used for:

2.1 *Scale up a system for SMS-enabled real time MIS for cold chain and VLM*

This would result in better maintenance and corrective actions to problems detected in cold chain equipment and vaccine logistics. The outcome of this effort would be improved efficiency and performance of both the cold chain and vaccine logistics, resulting in better immunization coverage especially in those districts where RI coverage is hampered by cold chain failure and vaccine stocks-outs.

2.2 *Human resource and capacity building for vaccine intelligence*

GAVI funds utilized to standardize and improve documentation systems for vaccine management and hiring and training of vaccine logistic managers at the national and district levels would result in better programme implementation and thereby coverage under the UIP.

3) Increase demand for RI through a national BCC strategies

GAVI funds under this activity will primarily be used for:

3.1 *Implement a multi-pronged, national BCC strategy development and operational plan with a special emphasis on high focus states*

Implementation of this plan with an emphasis on high focus states will increase awareness of primary care givers (irrespective of their level of literacy) to clearly comprehend the benefits of immunization. This in turn would reflect in an enhanced demand for immunization services.

3.2 *Enhance infrastructure and HR capacity to develop and implement BCC strategies*

GAVI funds used to train and strengthen State Immunization Officers (SIOs), IEC bureaus, BCC cells and communications professionals at the state level to enhance their skills in developing and implementing BCC in a strategic manner will result in an improved branding for the immunization program. At the state level this will result in increased visibility and awareness regarding immunization. Funds used to train field workers to implement BCC strategies will increase on the ground demand for vaccination services thereby increasing vaccination coverage.

3.3 *Develop and broadcast immunization messages through mass media, mid media, new media and IPC*

Increased visibility of the immunization programme through media messages and communications regarding the benefits of immunization (both with current as well as newer vaccines) will result in an improved reach of the UIP and enhanced demand for vaccines.

3.4 *Promote advocacy with media for creating an enabling environment for increasing demand for RI services (current and new vaccines)*

GAVI funds used for this objective will result in analyses of media reporting, training of national and state media officials and workshops for concerned personnel at the district, state and national levels to equip them to deal with the media effectively. Media learning visits will be conducted for state and district media for good performing states and lessons learnt will be implemented in states with poor performance. The media will additionally be leveraged to communicate with the public regarding AEFI's thereby ensuring that their occurrence does not impact the UIP negatively. This will result in improved strategies for approaches to media and ultimately increased demand for immunization

services.

3.5 Monitoring and Evaluation for communication through media analysis and other quantitative and qualitative assessments

GAVI funds used for monitoring and evaluation will be beneficial in reviewing the success of the implemented BCC strategies and enable evidence based improvements to campaigns and strategies to ensure increase awareness and demand for immunization services.

4) Strengthen the evidence base for improved policy-making (at all levels) in programmatic areas like procurement and vaccine delivery and on sequencing and adoption of new antigens

4.1 Build the capacity of existing institutions at the national, state and district and block levels in generating and interpreting evidence through measles and other VPD surveillance mechanisms for improved policy-making

The main beneficiaries of this activity would be the national decision making bodies, programme managers at both national and state levels at district levels in select states. The support for evidence generation will be provided through capacity building and laboratory strengthening. The staff will be trained in the use of data for action and wider dissemination of the information.

4.2 Expand model based strategy development approaches to support policy decisions in seven additional states

GAVI funds would enable a detailed simulation of the supply chain of five additional states (expansion of INCLIN's pilot study in two states) and this in turn would enable informed changes in policy at the state level in these states to improve the efficiency of their vaccine supply chains. This would eventually result in improved vaccine supply and thereby increased RI coverage in these states.

4.3 Support evidence generation to assess the case for new antigens based on system readiness, avertable burden, programme costs and cost-effectiveness.

GAVI funds used to support research into the efficacy, avertable disease burden, and cost-effectiveness of new vaccines would enable evidence-based decisions and policies at state and national levels regarding the introduction of new vaccines.

5) Leverage the success of the National Polio Surveillance Project to strengthen RI service delivery in 8 priority states

5.1 Identification and enumeration of high risk populations

The inclusion of both migrant and settled high risk populations in RI microplans will ensure attention is paid to specific populations that have been identified to be at risk for VPDs and disease outbreaks due to low RI coverage.

5.2 Intensive RI monitoring

Increased quality monitoring of RI activities will help highlight problem areas, generate actionable data and hold local governments accountable for the improvement of RI.

5.3 Linking of AFP surveillance and UIP reviews

Surveillance through AFP will provide additional resources and data for programmatic decisions and improvement plans for the UIP at the state level. Additionally, a few detailed UIP review would provide opportunity for the immediate and corrective actions at the local levels.

5.4 Technical support to the state and district RI action groups in key high priority states

The establishment of action groups in high priority states will catalyze the use of data for action in states and districts with low immunization coverage

5.5 Build capacity of frontline workers at State and District levels in high priority states

Training state and district officials in high priority states will increase knowledge on the importance of RI, outline the current gaps and provide strategies to improve RI coverage where improvements are most needed.

TWO PAGES MAXIMUM

4. Performance Monitoring and Evaluation

4.1 National Monitoring and Evaluation (M&E) Plan and Performance Framework

→ Please present your National M&E Plan as Attachment 3, and the Performance Framework for this proposal (using prescribed template) as Attachment 4.

4.2 a) M&E arrangements

→ Please describe how the Performance Framework in this proposal uses existing national indicators, data collection tools and reporting systems.

The table below presents the proposed M&E arrangements for the objectives of the HSS proposal. Since program evaluation is an integral part of the GAVI proposal, partners have put aside a separate budget for the evaluation of the GAVI HSS programs Details on baseline, targets etc. for these indicators are provided in the

logframe attachment.

S.No	Indicators	Data collection tool
Impact indicators		
1.	Reduction in Infant Mortality Rate (IMR)	Sample Registration System (2010)
Objective 1: Strengthen vaccine logistics and cold chain management in poor performing states through public-private partnerships and through improved human resource capacity, institutional strengthening and supportive supervision		
Outcome indicator		
1.	Number of states where cold chain breakdown rate meets the national standard of less than 2% (out of 12 priority states)	NCCMIS ¹⁸
2.	Increase in Full Immunization Coverage	Coverage Evaluation Survey
Output indicators		
1.	NCCVMRC is established and have developed National Cold Chain operational and strategic framework including National Cold Chain Plan and National cold chain standards.	MoHFW report
2.	States that have implemented NCCMIS (already successfully piloted in Punjab and Maharashtra)	NCCMIS
3.	Number of states where 80% of cold chain staff are trained in effective cold chain and vaccine management	NIHFW training report
4.	Number of states that have developed an improvement plan after EVMs conducted over the 3 year support period	EVM assessment report
5.	Number of additional cold chain points developed using solar hybrid technology	NCCMIS
6.	Number of districts where public-private partnership models for vaccine delivery have been piloted and evaluated	MoHFW report
7.	Minimum two options of Vaccine store prototypes for state, regional and district vaccine stores developed	NIHFW report
8.	Number of states with functional supportive supervision mechanism	MOHFW report
9.	Number of cold chain equipment improved with compatible devices for better temperature control	NCCMIS
10.	Integrated VLMS module developed and implemented using ProMIS and state based VLM/MIS systems.	MOHFW report/ IVLMS
Component 2: Design and implement an eVIN that will enable real-time information on cold chain temperatures and vaccine stocks and flows		
Outcome indicator		
1.	Number of states (UP and Bihar) not reporting stock out for any antigen in UIP for > 1 month during last 12 months of GAVI Support	Online MIS
2.	Increase in Full Immunization Coverage	Coverage Evaluation Survey
Output indicators		
1.	Number of states where 90% of cold rooms are operational with wireless data loggers for temperature monitoring	Wireless data loggers report
2.	Number of states implementing online vaccine stock management system	Online vaccine management report

¹⁸ Refer to the website of NCCMIS <http://www.nccvmc.org/umbraco/CC/frmMain.aspx> User ID: national, Password: national

3.	Number of districts where Vaccine Logistics Managers at district and state levels have been trained on vaccine intelligence	MOHFW training report
4.	Number of districts where refresher trainings provided on vaccine intelligence	MOHFW training report
Component 3: Increase demand for RI through Innovations in BCC Strategies		
Outcome indicators		
1.	Increase in Full Immunization Coverage	Coverage Evaluation Survey
2.	Reduction in % of parents/ caregivers of eligible children whose child received partial or no immunization, did not feel the need of adhering to the schedule of immunization.	Coverage Evaluation Survey
Output indicators		
1.	Number of states implementing their own BCC and social mobilization strategies in immunization	State PIPs
2.	Number of states where 80% of HR involved in BCC are trained (BCC staff other than ASHA)	MoHFW training report
3.	Percentage of ASHAs trained in BCC for 12 high priority states	Training records (NRHM Report; NHRC ASHA Module Training)
4.	Increase in the number of immunization messages on TV/radio and print media	UNDP Monitoring Report/Reports (TAM-Television Audience Measurement)
5.	Number of states that have a defined media tracking and assessment plan.	State PIPs/ UNICEF Report
6.	Number of Qualitative and Quantitative assessment conducted for on-going IEC/ BCC interventions	MOHFW Report
7.	Number of Media Analysis reports for 2013, 2014 & 2015	MOHFW Report
Component 4: Strengthen the evidence base for improved policy-making (at all levels) in programmatic areas like procurement and vaccine delivery and on sequencing and adoption of new antigens		
Outcome indicators		
1.	Number of states where 80% or more of the districts send timely and complete reports on surveillance and immunization indicators for the previous financial year	HMIS
Output indicators		
1.	Percentage measles outbreaks investigated out of flagged outbreaks, which should have been investigated	Measles Surveillance Report
2.	Percentage of sites sending timely and complete VPD surveillance reports	VPD Surveillance Report
3.	Percentage of sites sending timely and complete measles surveillance reports	MoHFW report
4.	Number of VPD surveillance workshops conducted at sentinel site	VPD Surveillance Report
5.	Number of measles surveillance workshop conducted at district level	Measles Surveillance Report
6.	Number of states developed and designed computer simulation model for vaccine supply chain	INCLN, ITSU
7.	Number of states where relevant changes in policy based on a detailed simulation of the supply-chain of vaccines using model based strategy development approaches have been made	INCLN, ITSU
8.	Function research network set up and operational	MOHFW Report
Component 5: Leverage the success of the NPSP to strengthen RI service delivery in 8 priority states		

Outcome indicators		
1.	Percentage of monitored high risk areas receiving RI services as per RI micro-plans;	NPSP Monitoring data
2.	Percentage of districts where intensified RI monitoring feedback for action is shared with district officials on quarterly basis	NPSP Monitoring data
3.	% of Front-line workers who have received intensified and focused RI training.	MoHFW training report
Output indicators		
1.	% of blocks with identified high risk settlements that are linked to RI session sites.	MoHFW report
2.	% of states with state task force on Immunization constituted to review RI programme and take appropriate action.	MoHFW report
3.	% of districts with a district task force on immunization constituted to review RI programme and take appropriate action.	MoHFW report
4.	% of states that have conducted state level training of district trainers for Intensified and focused RI training of front line workers.	MoHFW training report
5.	% of districts that have conducted training sessions for block trainers for conducting intensified and focused RI training of front line workers.	MoHFW training report

4.2 b) Strengthening M&E systems

→ Please describe, if relevant, the M&E systems strengthening activities to be funded through this proposal.

Strengthening of real-time monitoring and evaluation is an explicit component of this HSS proposal under eVIN, NCCMIS and innovative supportive supervision implementation in objective 1 & 2. This will allow programme managers at all levels to access real time data on system performance on cold chain, vaccine stocks and, by extension, to coverage indicators. GAVI funds will also contribute to: -

- Regular reviews of CCL at state and district levels and introducing standard documentation systems for CCL management.
- Nationwide rollout of NCCMIS for real time monitoring.
- Improving documentation, monitoring and management system to keep track of vaccine stock and thus improve vaccine delivery. This will include:
 - Introducing standard documentation system for vaccine management (e.g. standardized registers, records and procedures).
 - Developing web-based MIS for VLM and linking GMSDs, state, regional, divisional and district vaccine stores to monitor real time vaccine stock situations (e.g. over and under stock), status of cold chain equipment, spare parts and other transactions.

In addition, activities will be undertaken to strengthen existing data and information systems and overcome the gaps in the existing capacity of the government system – which will strengthen capacities for monitoring and evaluation, amongst others. GAVI funds are proposed to contribute to the following: (i) providing high quality evidence based technical assistance at the national and state level; (ii) building capacity of existing institutions at the national, state and district levels in generating and interpreting evidence and using data for action (e.g. VPD surveillance data management); (iii) conducting data quality audits in selected identified states; and (iv) conducting operational research in identified areas and strengthening the evidence databank through collaboration with local institutions.

THREE PAGES MAXIMUM

5. Detailed Work Plan And Budget

5.1 Detailed work plan and budget

→ *Please present a detailed work plan and budget as Attachment 5.*

5.2 Supporting information to explain and justify the proposed budget

→ Please include additional information on the following:

- *Efforts to ensure Value For Money*
- *Major expenditure items*

GAVI's support to India is seen as additional and catalytic to current ongoing efforts in HSS (Figure 1). In order to complement the ongoing work of the government and other partners and to avoid any duplication, MoHFW has requested GAVI's technical assistance and support to: a) improve vaccine delivery through public-private partnership approaches to cold chain management and vaccine logistics, b) design and implement a system of vaccine intelligence to monitor the cold chain and vaccine stocks effectively, c) implement targeted and evidence-based strategic communication campaigns to increase the demand and awareness regarding RI and d) strengthen the evidence base for improved policy-making at all levels of the immunization chain; with an initial focus on 12 weak performing states

MoHFW will seek to ensure that GAVI HSS fund are utilized in the most efficient and effective manner, with the funds being distributed to reach the poorest/hard to reach sections of the country's population. As noted above, the main beneficiaries of the HSS activities are 12 states with less than 61% immunization coverage (according to the coverage evaluation survey, 2009). In addition, MoHFW will give due consideration to equity issues by ensuring that the GAVI HSS activities are targeted at the poorest and include sufficient targeting of women and children.

Further efforts to ensure value for money will focus on ensuring maximum efficiency and accountability in the governance, management and implementation of the HSS activities, through the following approaches:

- *Focus on coordination:* The lead implementers of the activities – WHO, UNICEF and UNDP – will work in close coordination with each other and the ITSU to implement the proposed activities. WHO, UNICEF and UNDP will identify focal persons for implementing the various activities. Efforts will be made to coordinate the activities across states and to leverage opportunities where feasible.
- *Robust financial management:* The proposed financial management arrangements will ensure timely disbursement of funds to the states, in order to maximise efficiency and avoid funds being left idle. Other financial management plans are elaborated in Section 6.
- *Emphasis on M&E:* Regular meetings will be held among the lead implementers and members of the ITSU to review progress of activities implemented and results achieved against the milestones on a monthly basis. At the national level, the IAG, chaired by Additional Secretary & Mission Director/Joint Secretary Child Health will meet every quarter to review the progress, discuss the challenges and to take the corrective actions. To coordinate and facilitate the review and monitoring process, a project management cell will be established at UNDP and will collect the reports from states and other stakeholders, compile and analyse the reports and present them to the IAG for action. As program evaluation is an integral part of the GAVI proposal, partners have put aside a separate budget for the evaluation of the GAVI HSS programs. The GoI has already communicated to the states to set up of state and district task forces on immunization to review the progress and to take corrective actions. These platforms will be utilized through participation of national team members and include the review of work done through GAVI HSS. Progress will be reported through the GAVI annual progress report to be submitted by MoHFW; reporting will be based on the NRHM state reports and the common review mission reports. Performance indicators have been developed to measure the output, outcome and impact of each objective of the HSS proposal. Simultaneously the project management cell at the UNDP will plan for baseline, midterm and endline evaluation of the work under the GAVI HSS grant. A robust logframe will be instituted for the grant funding, as set out in Section 4.2.
- *Use of internationally accepted norms and standards:* Wherever applicable, procurement of new equipment will be done in accordance with the established UN procurement guidelines in the most efficient manner.

Major expenditure items include strengthening cold chain infrastructure, advocacy and (mass media) communication, and HR strengthening/capacity building.

5.3 Financial sustainability

MoHFW will ensure that the GAVI-funded activities are sustained beyond the support period.

MoHFW has proposed to increase public expenditure on health from 1.2% of GDP to 2-3% under the NRHM. The draft 12th FYP of India (2012-17) has also proposed a significant increase in the funding allocation for the health sector. The High Level Expert Group on Universal Health Coverage in India has recommended a significant increase in the allocation of funds to the health sector, to the tune of 2.5% of GDP by 2017 and 3.0% of GDP by 2022. All of these planned increases in health expenditure would contribute towards the long-term sustainability of the GAVI-funded activities. The government funding would particularly be used to sustain all of the supported activities including HR and capacity building, after GAVI's initial catalytic support.

Previous experience of GAVI's support to India indicates that India has a good track record of sustaining external support beyond the support period. For example, GAVI support for injection safety and Hepatitis B monovalent vaccine catalyzed the adoption of a national policy and national wide scale up of both activities. India procures both the safety equipment and the vaccine locally with its own resources.

It is also essential to take note of the fact that unlike most developing countries, India self-finances most of its health budget; and that the RI programme is 100% financed by the government from its domestic resources. The 2011-12 immunization budget of MoHFW is INR 14.4 billion (\$262 million) – this budget covers vaccines, logistics/cold chain, and operating costs of the immunization programme. Budget for IEC activities, HR employed by states for immunization, and publicity costs are funded additionally beyond this budget.

GAVI funds will be catalytic to NRHM funding and efforts will be made from the beginning to mainstream these activities into NRHM over a period of 3-4 years. For example, district level training will be funded through NRHM, and national and state level training will be undertaken through GAVI funds initially and later mainstreamed with the NRHM programme.

TWO PAGES MAXIMUM

6. Implementation Arrangements, Capacities, and Programme Oversight

6.1 a) Lead Implementers (LI)

-> For each LI, please list the objectives they will be responsible for implementation. Please describe what lead to their selection, including their technical, managerial and financial capacities to manage and oversee implementation of objectives, including previous experience managing GAVI grants. Describe any challenges that could affect performance (refer to any current assessments of capacity if available) as well as mitigation strategies to address this.

→ Please copy and paste the tables below if there are more than two Lead Implementers (LI). Where a LI will act for more than one objective, list all objectives.

Lead Implementer: UNICEF	
<p>Objective(s):</p> <p>1. Strengthen vaccine logistics and cold chain management in poor performing states through public-private partnerships and through improved human resource capacity, institutional strengthening and supportive supervision</p> <p>3. Increase demand for RI through a National Behaviour Change Communication (BCC) strategy</p>	<p>Cold chain and VLM</p> <p>1.2) Improve human resource capacity to improve cold chain performance.</p> <p>1.3) Supportive supervision to ensure quality implementation</p> <p>1.4) Implement effective vaccine management (EVM) improvement plans</p> <p>1.5) Institutional capacity building to strengthen the cold chain system</p> <p>Advocacy and (mass media) communication</p> <p>3.1) Implement a multi-pronged, national strategic communication plan with a special emphasis on priority states</p> <p>3.2) Enhance infrastructure and HR capacity to develop and implement BCC strategies</p> <p>3.3) Develop and broadcast immunization messaging through mass media, mid media, new media and IPC</p> <p>3.4) Promote advocacy with media for creating an enabling environment for increasing demand for RI services (current and new vaccines)</p>
<p>→ <i>Description of the Lead Implementer's technical, managerial and financial capabilities.</i></p> <p>UNICEF-India has one country office and 13 field offices at state headquarters. UNICEF is the key partner of government of India in routine immunization, polio eradication, measles control and new vaccine introduction. UNICEF has technical capacity in</p> <ul style="list-style-type: none"> • EVM trainings and assessments; • Vaccine and cold chain management training; • Cold chain assessment; • Vaccine wastage studies. • Temperature monitoring studies and projects and for preparing specification for procurement of cold chain equipment, vaccine vans and other accessories. • Developing and implementing BCC and social mobilisation strategies and plans in immunization. • Mass media communication on immunization. <p>UNICEF is presently procuring pentavalent vaccine for Government of India using GAVI funding</p>	
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Lead Implementer: UNDP	
<p>Objective(s):</p> <p>1. Strengthen vaccine logistics and cold chain management in poor performing states through public-private partnerships and through improved human resource capacity, institutional strengthening and supportive supervision</p> <p>2. Design and implement an eVIN that will enable real-time information on cold chain temperatures and vaccine stocks and flows</p> <p>4. Strengthen the evidence base for improved policy-making (at all levels) in programmatic areas</p>	<p>Cold chain and vaccine logistics management</p> <p>1.1) Implementing Public-Private Partnership Models for Vaccine Logistics and Cold Chain Management</p> <p>Design and implementation of eVIN</p> <p>2.1) Scale up a system for SMS-enabled real time MIS for cold chain and VLM</p> <p>2.2) Human resource and capacity building for Vaccine Intelligence</p> <p>Advocacy and (mass media) communication</p> <p>3.5) Monitoring and Evaluation for communication through media analysis and other quantitative and qualitative</p>

like procurement and vaccine delivery and on sequencing and adoption of new antigens	<p>assessments</p> <p>Strengthening of evidence generation</p> <p>4.2) Expand model based strategy development to support policy decisions in seven additional states</p> <p>4.3) Support evidence generation to assess the case for new antigens based on system readiness, avertable burden, programme costs and cost-effectiveness.</p>
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→ *Description of the Lead Implementer's technical, managerial and financial capabilities.*

UNDP partners with people at all levels of society to help build nations that can withstand crisis, and drive and sustain the kind of growth that improves the quality of life for everyone. On the ground in 177 countries and territories, UNDP offers global perspective and local insight to help empower lives and build resilient nations. Programmatically UNDP focuses in areas of poverty reduction and achievement of MDGs, Democratic Governance, Crisis Prevention and Recovery, Environment and Energy for Sustainable Development, HIV, Health and Development, Women's empowerment and capacity development.

In keeping with its global role, and by virtue of its strong administrative and operational capacities in the Country, UNDP provides programme and operational services to partner UN agencies, Government, civil society organizations, non-governmental organizations, and donors. UNDP is the lead agency in administering funding from various donors providing operational support for programme resource management, and ensuring implementation in accordance with financial and accounting rules and regulations. The fund management services respond to country-level demands, which place UNDP in a central position to coordinate and provide coherence to all United Nations activities in the country. The UNDP is the principal recipient of Global Fund grants in 29 countries. As of 1 June 2012, UNDP is managing a total of 64 active grants with a value of US \$1.4 billion (2-5 year periods). UNDP therefore currently manages approximately 12% of Global Fund grant volume for all active signed grants. Since the beginning of the partnership in 2003, UNDP has implemented \$2.12 billion of Global Fund spending, which represents about 13% of total Global Fund spending of US\$16.5 billion over the period.

HALF-PAGE MAXIMUM

Lead Implementer: WHO	<p>Strengthening of evidence generation</p> <p>4.1) Build the capacity of existing institutions at the national, state and district levels in generating and interpreting evidence and using data for action, (e.g. VPD surveillance data management)</p> <p>Leveraging polio gains</p> <p>5.1) Identification and enumeration of high risk populations</p> <p>5.2) Intensive RI monitoring</p> <p>5.3) Technical support to the state and district RI action groups in key high priority states</p> <p>5.4) Linking of AFP surveillance and UIP reviews</p> <p>5.5) Capacity building at State and District levels in priority states</p>
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→ *Description of the Lead Implementer's technical, managerial and financial capabilities.*

- WHO has been supporting Gol in RI data and information management.
- WHO has extensive experience and a strong track record of supporting RI monitoring and data support.
- The organization has vast field presence and trained manpower available. In the past, the organization has implemented the GAVI hepatitis B vaccine introduction grant to India

HALF-PAGE MAXIMUM

6.1 b) Coordination between and among implementers

→ Please describe how coordination will be achieved (a) between multiple Lead Implementers, if there is more than one nominated for the proposal; and (b) between each nominated Lead Implementer for the proposal and its respective Sub-Implementers.

There are three lead implementers to carry out the proposed activities: WHO, UNICEF and UNDP. The lead implementers will work in close collaboration with each other and in consultation with ITSU. To coordinate and facilitate the review and monitoring process, a project management cell will be established at UNDP that will coordinate efforts between partners. A detailed implementation plan will be prepared to conduct the various activities stated in the HSS proposal, in order to achieve efficient coordination amongst the lead implementers both at the national and state/district levels

This plan will be prepared jointly by ITSU in consultation with WHO, UNICEF and UNDP, other development partners, state officials and other stakeholders. The implementation plan will be aligned with cMYP of India and will have a detailed description of the activities to be conducted. The lead implementers will identify focal persons for implementing the activities proposed. These focal persons will work in close coordination with the ITSU focal person. The Partners' Forum and the IAG will be utilized for regular coordination, reporting and monitoring of these activities. Regular coordination meetings would be held. The frequency of these meetings would be decided on a need basis and as appropriate.

ONE PAGE MAXIMUM

6.1 c) Strengthening implementation capacity

(a) Applicants are encouraged to include a funding request for technical assistance to achieve strengthened capacity and high quality services, supported by a summary of a technical assistance (TA) plan. In the table below, please provide a summary of the TA plan.

→ Please refer to the *Strengthening Implementation Capacity information note* for further background and detail.

Management and/or technical assistance objective	Management and/or technical assistance activity	Intended beneficiary of management and/or technical assistance	Estimated timeline	Estimated cost → same as proposal currency
→ add extra rows as needed	No TA is anticipated at this time. TA involved in implementing the goals of the HSS is included in the project proposal.			

(b) Describe the process used to identify the assistance needs listed in the above table (working group meetings, etc.).

There a number of new activities proposed in this proposal to be implemented by the lead implementers. The implementation of these activities will require additional HR and operational cost. Requirements for additional assistance were decided through a detailed assessment of the work needed for implementation of the proposed activities in this HSS proposal. This assessment was based upon the past experience in the similar activities.

This was discussed internally by the lead implementers in their own organizations and was subsequently

deliberated in the GAVI HSS proposal drafting working groups.

HALF-PAGE MAXIMUM

(c) If no request for technical assistance is included in the proposal, provide a justification below.

Not Applicable. Any TA support has been added to the component-wise budget requested above.

HALF-PAGE MAXIMUM

6.2 Financial management arrangements

→ Please describe:

- a) *The proposed financial management mechanism for this proposal;*
- b) *The proposed processes and systems for ensuring effective financial management of this proposal, including the organization and capacity of the finance department and the proposed arrangements for planning and budgeting, treasury (fund management and disbursement), accounting and financial reporting, internal control and internal audit, procurement, asset management and external audit.*
- c) *Technical Assistance (TA) proposed to strengthen the financial management capacities in order to fulfil the above functions.*

a) Proposed financial management arrangements

Once the proposal is approved, an agreement will be signed between GAVI and both MoHFW and lead implementers (WHO, UNICEF and UNDP) to devise the appropriate mechanisms for financial transfers from the GAVI Alliance. The funds for the proposed activities will be transferred directly by GAVI to the three lead implementers. There will be no direct fund transfer from GAVI to the MoHFW for this proposal.

Mechanism	Description
Mechanism for channelling GAVI HSS funds into the country	<ul style="list-style-type: none">• There would not be any direct money transfer to the MoHFW. Funds related to objectives 1 and 3 will be channelled through UNICEF.• Funds related to objective 1.2 through 1.4 on cold chain upgrading, and objective 3.1 to 3.4 on demand generation will be channelled through UNICEF.• Funds related to objective 4.1 on evidence generation and data management for policy-making and objective 5 will be channelled through WHO.• Funds related to objective 1.1, 2, 3.5, 4.2 and 4.3 will be channelled through UNDP to immunization partners working with the MoHFW.
Mechanism for channelling GAVI HSS funds from Central to the peripheral level	<ul style="list-style-type: none">• The funds will be dispersed as per the agreed plan, by the mechanisms laid down by the respective lead implementers and as agreed with MoHFW.
Mechanism (and responsibility) for budget use and approval	<ul style="list-style-type: none">• An initial implementation plan, with a detailed budget for each activity will be prepared and referred to. This plan will be agreed between MoHFW and lead implementers and will be approved before the actual implementation and utilization of the funds.
Mechanism for disbursement of GAVI HSS funds	<ul style="list-style-type: none">• As described above, the approved funds would be channelled through lead implementers.

b) Auditing procedure

Two of the lead implementers (WHO and UNICEF) are alliance partners to GAVI and have their own standardised, transparent audit and reporting mechanisms. An audit report for the funds received and expenditure incurred will be prepared by the respective responsible organization. These audit reports/certificates will be shared through appropriate reporting mechanisms including through the submission of GAVI annual progress report. UNDP will share certified donor reporting reflecting fund utilization.

TWO PAGES MAXIMUM

6.3 Governance and oversight arrangements

→ Please describe:

- a) *The committee(s) responsible for the governance of the HSS support in the country (this should include the*

roles of the HSCC, including how the roles of these bodies are aligned with GAVI requirements);

- b) The mechanisms for coordinating the proposed HSS support with other health system strengthening activities and programmes;
- c) Plans (where appropriate) to strengthen governance and oversight;
- d) Technical Assistance (TA) requirements to enhance the above governance processes.

The table below presents a description of the governance and management mechanism of the HSS activities

Management of GAVI HSS support

Name of lead individual/unit responsible for managing GAVI HSS implementation/M&E	<ul style="list-style-type: none"> • GAVI HSS activities will be managed through existing structures and coordination mechanisms between the MoHFW and lead implementers. • The overall responsibility will be vested with the Additional Secretary and Mission Director, NRHM, with support from the Joint Secretary, RCH and technical officers within the immunization division and the ITSU, MoHFW, GoI. • The responsible persons for HSS funding will be identified within WHO, UNICEF and UNDP, under the overall supervision and guidance of the country representatives for these three organizations. • The reporting will be captured through the NRHM state reports and the common review missions. Moreover, existing reporting mechanisms including HMIS will be used for monitoring and evaluation of the activities proposed under the HSS proposal.
Role of HSCC (or equivalent) in implementation of GAVI HSS and M&E	<ul style="list-style-type: none"> • The Partners Forum and IAG (the HSCC equivalent in India) will review the financial and physical progress of the activities outlined in the GAVI HSS application through the periodic meetings. • Activities will be reported through the annual progress report submitted by MoHFW.
Mechanism for coordinating GAVI HSS with other system activities and programmes	<ul style="list-style-type: none"> • The GAVI HSS activities will be implemented through NRHM through existing health systems structures. Coordination will be achieved through half-yearly meetings and reviews with partners as is being done for NRHM at present. • At the field level, the State Mission Director of NRHM will coordinate with the SIOs and District Immunization Officers (DIOs) to ensure the implementation of the GAVI HSS activities.

Reporting arrangements

This will entail two kinds of reporting

1. Financial reporting

The financial reporting for activities implemented by WHO and UNICEF will be done through their internal reporting mechanisms and will be reported to the GAVI Alliance through audit reports sent at the time of submission of the annual progress report. UNDP will share certified donor reporting reflecting fund utilisation. Since there is no direct transfer of funds to the GoI, there will not be any additional financial reporting by the MoHFW.

2. Programme activity reporting

The lead implementers will share the activity reports on a periodic basis with the focal point in ITSU. This will be shared at the Partners Forum, as appropriate. Programme activity reports will also be captured in the annual progress report submitted to GAVI.

ONE PAGE MAXIMUM

8. HSS External Funding

→ Please fill in the below table outlining all HSS support from external funders. Please add columns as needed for additional external funders.

7. Risks and Unintended Consequences

7.1 Major risks

→ Please describe any major “internal” risks (within the control of those managing the implementation of the HSS support) and “external” risks (beyond the control of those managing the implementation of the HSS support) that might negatively affect the implementation and performance of the proposed activities.

Risks	Mitigating strategies
There is change of priorities of the national Government (e.g. change of priorities of MoHFW based on the 12 th FYP as the cMYP is finalized (2012-17)	<ul style="list-style-type: none">• Advocacy for immunization strengthening to ensure that it retains high priority in MoHFW’s health agenda.• Invest in evidence building to support the immunization focus.
Unforeseen circumstances leading to delays in implementation of proposed activities.	<ul style="list-style-type: none">• All stakeholders and possible players would be apprised and will be kept updated.
Unplanned delays in eVIN scale-ups in states.	<ul style="list-style-type: none">• National cold chain assessment will be undertaken after implementing NCCMIS to identify current and future needs.
Delays in conducting EVMs in selected states	<ul style="list-style-type: none">• Meticulous planning and regular monitoring to ensure that EVMs are conducted in a timely manner across the planned states.
Inability to identify and recruit the appropriate and qualified HR for cold chain strengthening and VLM in a timely manner, and risk of attrition	<ul style="list-style-type: none">• Hire HR agency to manage recruitments, and undertake a talent hunt to identify appropriate candidates.• Timely recruitment of good quality staff.• Maintain a big pool of shortlisted candidates.• Attractive salaries and training programmes as an incentive to retain staff.
Delay in infrastructure building	<ul style="list-style-type: none">• Develop clear milestones for infrastructure strengthening.• Regular follow up of the building and infrastructure under construction.

7.2 Unintended consequences

→ Please describe any possible unintended consequences that might occur as a result of implementing the proposal and the strategies to mitigate these unintended consequences.

Following are the unintended consequences that might occur as a result of implementing the proposal:

- Supply of vaccines and improvements in health systems are unable to keep up with the increased demand for vaccines (as a result of improved mass media communications/demand creation activities) due to differential levels of implementation of the proposed strategies and activities in this proposal.
- Strengthening of data generation and evidence management systems may lead to generation of large amounts of data that is unable to be used.

Mitigating strategies include:

- Regular monitoring to ensure that demand and supply side activities progress as planned.
- Sustainability of the intervention beyond the period of GAVI support.

HALF-PAGE MAXIMUM

8. HSS External Funding

→ Please fill in the below table outlining all HSS support from external funders. Please add columns as needed for additional external funders.

	World Bank	DFID	NORAD	USAID	UNICEF	WHO	KfW	BMGF	European Union	Global Fund ¹⁹
Time-frame	2009-13	2006-15	2008-12	2010- 15	2008-12	2012-13	2009-12	2010-ongoing	2008-13 ²⁰	2010-12
Funding Amount	USD 271 million (loan)	GBP 617 million	USD 80 million	USD 310 million	USD 512 million	USD 89 million	Euro 56.3 million ²¹ (loan)	USD 10 million (2010-15) ²²	Euro 110 million	USD 416 million
Areas of Support	National Vector Borne Disease Control Project; procurement of OPV for pulse polio immunization programme	RCH-II Madhya Pradesh Health Sector Reform Programme Odisha Health Sector Support Sector Wide Approach to Strengthening Health in Bihar	Child health (MDG4)	Health Partnership Programme - Health system strengthening, BCC, RCH, family planning, public-private partnership	RCH, nutrition, child protection and environment, education, HIV/AIDS, emergency	Communicable diseases, non-communicable diseases, maternal and child health, pharmaceutical, stewardship, regulation and immunization	Pulse Polio Immunization Programme – XIV, XV and XVI - strengthening of cold chain and procurement of OPV	National programme capacity (e.g. ITSU) Supply chain logistics (e.g. pilot decision support tools) RI delivery innovations in state-based programmes (e.g. in Bihar)	Improving coverage, quality and equity of RCH services Institutional strengthening/reform at district, state and central levels for effective implementation of RCH services. Reducing social and geographical disparities in access and utilization of quality and quantity of RCH services	Country Coordinating Mechanism (CCM)
Geographic Location	National Vector Borne Disease Control Project focuses on endemic districts of the disease. Polio support is nationwide	Nationwide (includes Madhya Pradesh, Odisha, Bihar)	5 states (UP, Bihar, Rajasthan, Odisha, MP)	Nationwide and selected states for specific activities	Nationwide with focus on 15 states	Nationwide	Nationwide	Nationwide and in Bihar	Nationwide	Nationwide

¹⁹ As noted in the Global Fund Country Coordinating Mechanism (CCM) funding agreement with India

²⁰ The project ended in March 2012, reimbursements will be filled up to March 2013.

²¹ This includes EUR 52 million earmarked for procurement of cold chain equipment and OPV vaccines under Line XIV to XVI of Pulse Polio Immunization Programme from 2009-12; and EUR 4.3 million earmarked for Line IX till December 2012 for procurement of oral polio vaccines under Pulse Polio Immunization Programme.

²² This is the non-R&D, immunization HSS-relevant portfolio

Mandatory Attachments

→ Please tick when the attachment is included

No.	Attachment	✓
1.	<p>National policy, national strategy, or other documents attached to this proposal, which highlight strategic HSS interventions</p> <ul style="list-style-type: none">• National Vaccine Policy (2011) (http://mohfw.nic.in/WriteReadData/l892s/1084811197NATIONAL%20VACCINE%20POLICY%20BOOK.pdf)• Draft 12th Five Year Plan (http://planningcommission.nic.in/plans/planrel/index.php?state=planbody.htm)• National Health Policy (2002) (http://www.mohfw.nic.in/NRHM/Documents/National_Health_policy_2002.pdf)• National Population Policy (2000) (http://populationcommission.nic.in/npp.htm)	
2.	Logframe	
3.	National M&E Plan Health Information Management System (HMIS) - http://nrhm-mis.nic.in/	
4.	Performance Framework	
5.	Detailed Budget	
6.	EVM assessment and improvement plan (web links for cold chain assessments) http://www.unicef.org/india/National_Cold_Chain_Assessment_India_July_2008.pdf http://www.unicef.org/india/VMAT_Orissa.pdf http://www.unicef.org/india/Current_Alternate_Vaccine.pdf	
7.	Draft Comprehensive Multi Year Plan for Immunization	
8.	Minutes of HSCC or equivalent decision making body recording the endorsement of the proposal	

Optional Attachments

→ Please tick when the attachment is included

<i>No.</i>	<i>Attachment</i>	✓
9.	Immunization Action Group (IAG) meeting minutes	
10.	EPI Review Meeting of High Focussed Group States (2012) meeting minutes	
11.	Immunization Partners Meeting (2012) meeting minutes	
12.	Dr D.V Mavalankar, Prof. K.V. Ramani and Prof. Manjari Singh (2011): "A study on HR Needs Assessment at National and State Level"	
13.	Minutes of meeting of National Technical Advisory Group on Immunization (2012)	
14.	Additional meeting minutes	
15.	IRC review CC&VLM responses	
16.	Details on State and Divisional CC&VLM	

