

Joint appraisal report

Country	Pakistan
Reporting period	2014
cMYP period	2014 - 2018
Fiscal period	1 st July 2014 – 30 th June 2015
Graduation date	After 2020

1. EXECUTIVE SUMMARY

1.1. Gavi grant portfolio overview

Gavi Alliance has been supporting Pakistan's National Immunization Programme since 2001 through three different windows of support, namely New Vaccine Support (NVS), Immunization Services Support (ISS), Health System Strengthening Support (HSS) and Civil Society Organization (CSO) funding from time to time over the programme cycles in addition to Vaccine Introduction Grant (VIG) for new vaccine introduction and support for Measles Supplementary Immunization Activities (SIA).

Summary of Gavi support to Pakistan:

Funding source	Recipient	Approved amount until Dec 2015	Total Disbursed until June 2015	Disbursed in 2014	Disbursed in 2015	Total Pending to disburse	Unspent	% Funds Disbursed	% Disbursed Funds Unspent
Health Systems Strengthening - HSS	MoNHSR&C, UNICEF, WHO	23,524,500	23,524,500	-	-	-	3,913,556	100%	17%
Immunisation Services Support - ISS	GoP, UNICEF, WHO	48,763,740	43,581,500	-	-	5,182,240	6,407,531	89%	15%
Measles SIA -	UNICEF, WHO	21,664,500	21,664,500	-	-	-	13,029,023	100%	60%
Vaccine Introduction Grants - VIG	UNICEF, WHO	10,429,000	10,171,394	-	3,420,894	257,606	1,536,397	98%	15%
Civil Society Organizations - CSO	UNICEF	7,756,073	7,756,073	-	-	-	-	100%	0%
Total Cash Support		112,137,813	106,697,967	-	3,420,894	5,439,846	24,886,507	95%	23%
New Vaccine Support			645,488,007	84,401,714	36,090,972	-			
Total Inc. Vaccines			752,185,974	84,401,714	39,511,866				

July 2015

During the reporting period, Pakistan also submitted application for the introduction of Inactivated Polio Vaccine (IPV) under Routine Immunization (RI) that was awarded by GAVI. The introduction took place in Punjab in July 2015, National launch was on the 20th of August 2015.

1.2. Summary of grant performance, challenges and key recommendations

Grant performance (programmatic and financial management of NVS and HSS grants)

Programme Management, Service Delivery

Achievements

- Introduction of PCV10 completed in phased manner.
 - Vaccination cards were updated with the inclusion of PCV10.
 - Reporting forms and guidelines on PCV10 introduction were disseminated.

- Comprehensive Multi-year Plan for Immunization (cMYP) 2014 – 18 was developed individually for all provinces and areas including a national document by adopting a bottom up approach.
- The GoP developed in close collaboration with UNICEF the IPV application, which was submitted and approved by Gavi.
- A PEI-EPI Synergy Plan was agreed in 2013 and updated in June 2015. Structural interaction can be much improved here, e.g. with regards to the joint oversight of service provision, the role of vaccinators in campaigns and routine immunization, the monitoring of immunization performance, and the reduction of missed opportunities.
- Joint (WHO & UNICEF) proposal submission on PEI & EPI synergy in selected districts which was later approved by Immunization Systems Management Group IMG after discussions and decisions to revive and speed up implementation were taken in June 2014.
- Commencement of implementation of second phase of Gavi HSS work plan to utilize the second tranche of 6.626 m pending utilization since 2008.
- Refresher training of approximately 2000 Lady Health Workers (LHWs) on EPI was completed under HSS work plan in Balochistan. Provincial workshop for training of LHWs in EPI was conducted in KP and AJ&K.
- Measles SIA was completed in all areas of Pakistan except for FATA. A total of 58 million children were vaccinated aged between 6 months to 10 years, national coverage of 103% was achieved.
- In some provinces, political commitment for immunization is strong, and innovative approaches are being initiated, such as enabling Lady Health Workers (LHW) to perform routine immunization, improved session monitoring by retired army personnel, or vaccinator and session tracing using Android phones.

Challenges

- Pakistan has been in default for co-financing requirements repeatedly since 2012 due to non-fulfillment of obligations in procurement of vaccines (Penta & PCV-10). Key reasons related to this are: delayed or unsuccessful tenders and issues with release of funds under PC-1. However it came out from default every year.
- Roles and responsibilities of Federal and Provincial health entities are being discussed, but still need to be more clearly defined.
- Implementation of immunization services in the provinces still faces challenges: Coverage of routine antigens is low (54% fully immunized child coverage acc. to DHS 2013; 73% Penta3 coverage acc. to WUENIC 2014) with a wide variation between provinces and districts and no significant improvement over the past decade.
- Urban slum areas and remote areas are not sufficiently being served by routine services. Immunization waste disposal in most areas is insufficient.
- The EPI in Pakistan has serious shortfalls in the quality and number of human resources at both the management and operational level. There is an overall lack of accountability, limited career potential and often limited job security. There is a frequent staff turnover at all levels. Significant gaps exist specifically in cold chain and logistics staff number and technical knowledge at Federal and Provincial levels.

Vaccine and Supply Chain Management

Achievements

- A vaccine stock management system (vLMIS) has been developed with support of Deliver/USAID and other international partners. This system provides a snapshot of all routine and SIA vaccine stock position up to the service delivery level by month. Implementation of vLMIS in 54 polio high risk districts.
- A Cold chain inventory was conducted
- Effective Vaccine Management (EVM) assessment was carried out in 2014 based on which the EVM Improvement Plan (IP) has been developed in 2015.
- Ongoing construction of 19 warehouses in provinces:

Challenges

- The complex procurement processes and procedures have negatively impacted the timely availability of vaccines leading to frequent stock outs. While provinces have delegated procurement authority to federal, the conditions beyond expiration of current NFC award (June 2016) is not clear.
- The cold chain inventory data are now included in the vLMIS, but districts have no ability to update these data on a regular basis.
- The cold chain infrastructure in Pakistan has improved over the last few years (with support from GAVI, Govt. of China and USAID), however, there are still significant capacity gaps at all levels that need to be addressed for both cold and dry storage, as well as maintenance of equipment.
- As of August 2015 vLMIS is further rolled out to a total of 83 districts, however it is imperative to undertake an assessment of the vLMIS in the pilot HRDs, while further scale-up is moving forward as scheduled.

Surveillance and Data Quality

Achievements

- An e-Vaccs system for immunization coverage reporting was introduced in Punjab. Initially this was piloted in three districts and it is planned to be expanded to all districts after pilot evaluation
- Punjab is conducting coverage assessments by districts every six months (performed by Nielsen).
- EPI runs an independent weekly case based vaccine preventable diseases (VPD) surveillance system which includes childhood tuberculosis, polio (AFP), diphtheria, pertussis, tetanus, neonatal tetanus and Measles. The National Polio and Measles Laboratory provides support for the diagnosis of suspected cases.
- IBD and rotavirus gastroenteritis diseases surveillance is functioning in four sentinel sites in two provinces with support of WHO and the national NIH laboratory.

Challenges

- The last census was conducted in 1998, no exact denominator data by community is available for microplanning also representing a major difficulty in accurately forecasting vaccine requirements.
- There is no appropriate system for the periodic assessment of immunization coverage at district level. The last coverage evaluation survey (CES) was done in 2006. PDHS data is available but that does not provide district level estimates.
- At present, EPI uses a monthly reporting mechanism which is paper based and requires manual compilation. Tools for recording and reporting of all immunization activities held at grassroots level and for compilation at different levels are available. However, completeness and timeliness is not satisfactory.
- EPI data quality is questioned including by the program itself. No reliable report of the number of children vaccinated, vaccination sessions conducted, children unimmunized, sessions supervised/monitored etc. is available.
- An AEFI surveillance system does not exist although comprehensive guidelines and reporting tools are available.

Demand Generation, Advocacy and Social Mobilization

Achievements

- In 2014, UNICEF completed a national KAPB survey to revisit the barriers to immunization in the post- devolution scenario and the findings highlight barriers both on the demand as well as the supply side

Challenges

- Advocacy and communication is a neglected part of the Pakistan EPI program. The level of expenditure on this area in the past years remains negligible. There is neither a communication infrastructure nor dedicated human resources.
- Based on the findings of the KAPB survey, a four year national communication strategy for RI aligned with the Comprehensive Multi Year Plan 2014-18 has been developed. However, no substantial progress could be made with finalization of the costed provincial chapters and its implementation, due to the absence of dedicated communication focal persons in the provinces.
- A number of CSOs are working in the area of maternal and child health, but often with limited geographic scope, often disconnected from government services and under limited coordination with the EPI program.

There is a significant amount of unspent resources from ISS and Measles SIA in the country. The reason for the situation is explained at the relevant parts in this report. Utilization of these resources in the best way to increase coverage and equity is a key recommendation to the HLRP for their consideration to fill the gap until the time that new HSS grant is available.

Key recommended actions to achieve sustained coverage and equity

1. Secure full political commitment for RI especially with regards to the ownership of the political and government leadership to sustained coverage and addressing inequities in immunization coverage.
2. Strengthen the number and capacity of human resources involved in EPI at all levels considering findings of a planned comprehensive HR review.
3. Ensure EVM improvement plan recommendations are implemented.
4. Put in place technical resources with right skill set to fully implement all five elements of Reaching Every District (RED) and Reach Every Community (REC) approach in the districts with low immunization coverage and tracking trends in coverage over time on a regular basis and ensure that accountability mechanisms at all levels are fully operational.
5. Improve population denominator data and conduct regular EPI coverage surveys.
6. Implement a province tailored comprehensive communication strategy.
7. Given that the resolution of vaccine procurement issue with provincial delegation to federal, it should be ensured that future sustained supply of vaccines be available at all levels.
8. Develop strategy for hard to reach populations and areas, and ensure full engagement of community based organizations / CSOs.

1.3. Requests to Gavi’s High Level Review Panel

Grant Renewals

New and underused vaccine support

- Request for Renewal (Extension) of Pneumococcal (PCV10), 2 dose(s) per vial, LIQUID for the programme period 2016 -2018; since the approval for vaccine support is terminating in 2015.
- Request for Renewal (Extension) DTP-Hep B-Hib, 1 dose(s) per vial, LIQUID for the programme period 2016 -2018; since the vaccine support will be terminating in 2015.
- Request for reprogramming of activities for the balance of \$13.22 million Measles SIA grant for two years i.e. till December 2017.
- Request for the continued demand generation activities at the community level

1.4. Brief description of joint appraisal process

GAVI introduced Joint Appraisal as the new mechanism for grant management and Grant /funding proposal review, the appraisal process has replaced the earlier APR. Now each year GAVI shall be conducting a joint appraisal instead.

For Pakistan a joint Appraisal was conducted , co- convened by GAVI and Ministry of NHR&C together with the team of representatives from Federal, Provincial government, CSO, WHO, UNICEF, Bill and Melinda Gates Foundation etc. from 5th August 2015 to 13 August 2015. The purpose of Joint Appraisal is to review the financial and programmatic performance of the GAVI supported grants specifically HSS and NVS and to identify the challenges and recommended actions to be included in the forthcoming HSS and NVS support. The process included desk review of available documents, grant performance reports and coverage data; visit to Punjab and the national vaccine store and Emergency Operations Centre (EOC). Appraisal findings were incorporated into a final report. Pakistan has also prepared a formal application for HSS funding by 8th September 2015 and results of the JA have informed this application.

2. COUNTRY CONTEXT

Programme Management, Service Delivery

Pakistan is a federation of four provinces, Punjab, Sindh, Khyber Pakhtunkhwa and Balochistan, and regions/areas of Islamabad Capital Territory, Federally Administered Tribal Areas (which include the Frontier Regions) and Gilgit Baltistan (GB). Azad Jammu & Kashmir (AJ&K) relies on the Government of Pakistan for administrative, including health system support. The local government in Pakistan is structured around a three-tier system of districts, tehsils and union councils with an elected body at each tier. There are 147 districts in the country.

According to the 18th amendment of the constitution, health issues and services are devolved to the provinces. Decentralization brought about initial challenges including a disconnect between the federal and provincial EPI cells. Meanwhile, roles and responsibilities are being discussed, but still need to be more clearly defined and endorsed. As it stands, implementation and execution of immunization services and of raising immunization coverage is the responsibility of provincial governments, while the Federal EPI Cell under the Ministry of National Health Services, Regulations and Coordination (MoNHSRC) has the responsibility for coordination, technical support, international collaborations and donor coordination, disease information and surveillance, monitoring of infectious diseases in addition to regulations, standards and accreditations.

Recently a Health Planning, System Strengthening and Information Analysis unit is notified to oversee and coordinate health systems related work in the country.

In 2014, for the first time, provincial cMYPs were developed and reflected in a National cMYP (2014-18). As of mid-2015, however, the Sindh provincial cMYP is yet to be approved. Based on these plans, separate provincial PC-1s besides one PC-1 for the Federating Units have been developed and are still to be approved. Overall, the process for approval of PC-1s is time consuming, and the signing-off process gets stuck easily.

All four provinces have given concurrence to the Federal Government for the procurement of vaccines for both the Gavi co-financing as well as for routine vaccination. This is valid until the expiry of current financial award – June 2016 – and can automatically be extended. During the period of the present NFC award, the Federal Government will be procuring the vaccine for provinces. Relevant PC-1s will need to be revised, once a new NFC award is initiated.

The Inter-agency Coordination Committee (ICC) for Immunization is a coordinating body for oversight on utilization of GAVI (and other) grants. All Alliance partners, provincial/area EPI managers, Health Sector Reform Units and CSOs are member of the ICC which is chaired by the Minister MoNHSRC. Roles and responsibilities of the ICC include providing and coordinating support as well as overseeing financial commitment to the national immunization program activities, supporting the national level to review donor proposals, enhancing transparency and accountability by reviewing the use of funds and other resources at regular intervals and ensuring that the EPI program receives both financial and political support. The ICC has been involved in endorsement of Gavi proposals and APRs, but does not have a regular meeting schedule and is not actively following up on the implementation of the cMYP, the annual operational plans and recommendations from the various partner missions.

A National Immunization Technical Advisory Group (NITAG) exists comprised of renowned scientists, experts in different technical disciplines as core members along with key technical partners and relevant professional bodies as liaison members. This body provides technical advice on immunization to the ministry and has been instrumental in recommending new vaccine introductions.

Polio remains a top priority in Pakistan as one of the two remaining countries in the world still harboring the wild virus. There are increasing opportunities for synergies between the Polio and EPI programs at federal and provincial level – with improved collaboration in the Emergency Operating Centers, now also – at times - covering routine immunization issues. A PEI-EPI Synergy Plan was agreed in 2013 and updated in June 2015. Structural interaction can be much improved here, e.g. with regards to the joint oversight of service provision, the role of vaccinators in campaigns and routine immunization, the monitoring of immunization performance, and the reduction of missed opportunities.

Immunization programs in provinces and Federating Units are run by the Directorate of EPI under the respective provincial/area Department of Health. Provincial/area EPI managers oversee the implementation of program activities through the district health management team headed by the Executive District Officer (Health) or District Officer Health. The District Health Management Team is overall responsible for developing microplans and vaccinators and other trained paramedic staff at the Union Council level provide immunization services at about 7,000 fixed EPI centers and through outreach activities, the latter still comprising about two thirds of immunization service delivery.

In some provinces, political commitment for immunization is strong, and innovative approaches are being initiated, such as enabling Lady Health Workers (LHW) to perform routine immunization, improved session monitoring by retired army personnel, and/or vaccinator and session tracing using Android phones.

A number of CSOs are working in the area of maternal and child health, but often with limited geographic scope, and frequently disconnected from government services and under limited coordination with the EPI program.

Implementation of immunization services in the provinces still faces challenges: Coverage of routine antigens is low (54% fully immunized child coverage acc. to DHS 2013; 73% Penta3 coverage acc. to WUENIC 2014) with a wide variation between provinces and districts and no significant improvement over the past decade. Urban slum areas and remote areas are not sufficiently being served by routine services. Immunization waste disposal in most areas is insufficient.

Costing and financing

EPI Pakistan provides vaccines (BCG, OPV, Pentavalent, PCV10, Measles) to children aged below 2 years age and TT vaccine to pregnant women. Except for Penta and PCV10 all other vaccines and required injection equipment are procured by the Federal Government with its own resources. Penta and PCV10 are provided by GAVI under a co-financing agreement. Pakistan is in the process of introducing IPV in the RI schedule with GAVI support and Hepatitis B birth dose with its own resources.

In 2014, the country's total immunization programme expenditure (not including Gavi supported vaccines) was \$41.34 M. The Government contributed 53% of the total expenditure; while GAVI contributed 16% and the rest was received by other partners including USAID, UNICEF, WHO and JICA.

Provinces develop their own annual budgets, which are implemented through their own PC-1. The Federal EPI cell develops PC-1 to run their central functions in coordination and M&E, vaccine procurement for the provinces and logistics support including for the federating units. With the exception of HR costs and some operational costs in Punjab, most of the immunization costs are in the development budgets at both the provinces and at federal level.

Pakistan has been falling in default for co-financing requirements repeatedly since 2012 due to non-fulfillment of obligations in timely procurement of vaccines (Penta & PCV-10). Key reasons related to this are delayed or unsuccessful tenders and issues with release of funds under PC-1, which follow the financial cycle of June – July as compared to GAVI requirement of making co financing by the end of calendar year.

Human resources

The EPI in Pakistan has serious shortfalls in the quality and number of human resources at both the management and operational level. Most of the provincial/area program offices including the Federal EPI have insufficiently skilled staff with insufficient technical and managerial competency. TORs are unspecific, there is an overall lack of accountability, limited career potential and often limited job security. Orientation, training and continued education is only rudimentarily provided. There is a frequent staff turnover at all levels. Significant gaps exist specifically in cold chain and logistics staff number and technical knowledge at Federal and Provincial levels. Temporary support is provided by partners (WHO, UNICEF and USAID) to the Federal and provincial program offices through secondments or other contractual arrangements, but their adequacy as well as current state of utilization is being questioned due to limited management capacity. The vaccinator / population ratio is very low resulting in highly irregular service delivery. The new EPI policy requires a minimum number of vaccinators per population and geographic area. Provinces have taken initiatives to recruit more vaccinators and at the same time train LHWs to perform routine immunization services.

Vaccine Management and Supply Chain

Equipment

The cold chain infrastructure in Pakistan has improved over the last few years (with support from GAVI, Govt. of China and USAID), however, there are still significant capacity gaps at all levels that need to be addressed for both cold and dry storage, as well as maintenance of equipment. These are further magnified with the introduction of new vaccines (IPV and potentially Rotavirus). The capacity to store vaccines at +2-8°C at the Central store in 2014 was not sufficient to accommodate RI vaccines if received on a quarterly basis and if a 3 month buffer stock is maintained. There has been a significant overhaul of central warehouse in early 2015, including its vaccine management system.

A fire incident in the Federal EPI sub store located at NIH occurred on August 9th, 2014. A committee at the federal level was constituted and the report mentioned that one of the cold rooms was damaged.

Detail of destroyed stock:

Vaccine	Activity	Total stock as of 10.08.2014	Stock destroyed CR # 1, 2, 3	Stock in hand
Measles	Routine	5,394,650 ds	1,910,000 ds	3,484,650 ds
Measles	Campaign	23,367,100 ds	1,549,640 ds	2,187,460 ds
Penta	Routine	7,470,214 ds	870,949 ds	6,599,265 ds

Summary Report:

Vaccine	Manufacturer	Total stock in affected CR (ds)	Secured quantity (ds)	Damaged quantity (ds)	Unit price per ds (PKR)	Total loss (PKR)	Remarks
Measles	BioFarma	1,910,000	704,800	1,205,200	20.43	24,622,236	PSDP
Measles	Serum Institute of India	1,549,640	28,800	1,520,840	25.44	38,690,169.6	Gavi donation
Penta	Novartis	870,949	0	870,949	266.00	231,672,434	GAVI donation

There was another incident in central warehouse in Islamabad in February 2015 where 1.34 million doses of Penta were wasted due to exposure to heat in the cold room. An investigation took place and staff negligence was identified as the main reason behind this incident. Government since then strengthened its vaccine logistics and management systems, put more controls in place, advertised 45 vacant posts and asked US Deliver to assist in management of cold rooms (and warehouses). JSI / US Deliver has supported the government with its vaccine logistics management and building the capacity of government staff.

A situational analysis / EVM was completed in 2014 and Pakistan did not achieve the set standard in any of the assessed areas. The EVM improvement plan has been finalized and costed. The costs have been integrated in the provincial PC-1s. A cold chain inventory was completed, however continuous update of the equipment in line with new procurement is required down to district level.

A vaccine stock management system (vLMIS) has been developed with support of Deliver/USAID and other international partners. This system provides a snapshot of all routine and SIA vaccine stock positions up to the service delivery level by month. It was piloted in 54 high risk districts and is intended to be used for polio and RI activities. Provinces are not yet using the vLMIS for requisition of vaccines from the federal level. However, currently it is not fully functional for polio work and the quality and reliability of data is to be further assessed as gaps were identified throughout the process, of which some have been addressed and others in particular related to HR need further improvement including an accountability framework. The cold chain inventory data are now included in the vLMIS, but districts have no ability to update these data on a regular basis. As of August 2015 it is further rolled out to a total of 83 districts.

Surveillance and Data Quality**Data quality**

The last census was conducted in 1998, no exact denominator data by community is available for microplanning. The Federal EPI makes projections for the district denominators based on the 1998 census data but acceptability by the provinces is variable. There is a major difficulty in accurately forecasting vaccine requirements.

At present, EPI uses a monthly reporting mechanism which is paper based and requires manual compilation. Tools for recording and reporting of all immunization activities held at grassroots level and for compilation at different levels are available. However, completeness and timeliness is not satisfactory. Some important attributes like vaccine consumption are not routinely reported even though part of the reporting tool.

There is no appropriate system for the periodic assessment of immunization coverage at district level. The last coverage evaluation survey (CES) was done in 2006. PDHS data is available but that does not provide

district level estimates. Moreover, PDHS does not cover all administrative areas. Punjab is conducting coverage assessments by districts every six months (performed by Nielsen).

EPI data quality is questioned including by the program itself. No reliable report of the number of children vaccinated, vaccination sessions conducted, children unimmunized, sessions supervised/monitored etc. is available.

An E-Vaccs system for immunization coverage reporting was introduced in Punjab. Initially this was piloted in three districts and it is planned to be expanded to all districts after pilot evaluation. Except for some innovative initiatives in Punjab (e.g. independent monitoring of program performance) there is no system available for validating reported data.

Surveillance

EPI runs an independent weekly case based vaccine preventable diseases (VPD) surveillance system which includes childhood tuberculosis, polio (AFP), diphtheria, pertussis, tetanus, neonatal tetanus and Measles. The National Polio and Measles Laboratory provides support for the diagnosis of suspected cases.

An AEFI surveillance system does not exist although comprehensive guidelines and reporting tools are available.

IBD and rotavirus gastroenteritis diseases surveillance is functioning in four sentinel sites in two provinces with support of the national NIH laboratory.

Timeliness and completeness of reporting including other surveillance indicators are far from satisfactory. Data sharing with the federal EPI is very irregular and incomplete. Some provinces and federating units do not share their surveillance data with the Federal EPI. Monitoring of the surveillance indicators by district is not strong at provincial and federal levels. Capacity of data analysis and use of data including for epidemic response is inadequate. The private sector is not included in the surveillance network. Coordination between reporting units, districts, provinces, the Federal EPI cell and the laboratory is weak.

An online surveillance dashboard was introduced in Punjab with a daily reporting system for all communicable diseases including VPDs. This system was introduced at the tertiary level and in DHQ hospitals. In all provinces, follow-up of weekly reporting from districts to the province is done with technical support of WHO and surveillance indicators are shared at the provincial Task force meetings. WHO provides technical and logistics support to the National Measles lab, National Rotavirus lab, National bacteriological lab and to sentinel surveillance sites. Performance review of the national laboratories and the sentinel sites laboratories is done annually by WHO.

Demand generation, Advocacy, Communication and Social Mobilization- engagement with the CSOs

Advocacy and communication is a neglected part of the Pakistan EPI program. The level of expenditure on this area in the past years remains negligible. There is neither a communication infrastructure nor dedicated human resources for advocacy and communication in the provinces. Despite evidence generation on the key barriers to immunization (two studies conducted by UNICEF in 2004 and 2009) none of the recommendations of these studies were taken into account.

In 2014, UNICEF completed a national KAPB survey to revisit the barriers to immunization in the post-devolution scenario and the findings highlight barriers both on the demand as well as the supply side. Based on the findings of the survey, a four year national communication strategy for RI aligned with the Comprehensive Multi Year Plan 2014-18 has been developed. However, no substantial progress could be made with finalization of the costed provincial chapters and its implementation, due to the absence of

dedicated communication focal persons in the provinces. Government and donors will need to invest adequate resources to address gaps on the demand creation side.

Gavi has supported 10-15 CSOs for community mobilization, awareness raising and small service delivery activities from 2009 until June 2015 under type B funds managed through UNICEF. The partnership agreement was signed between Federal Ministry of Health, UNICEF and GAVI. CSOs signed MoUs with their respective district health departments and implemented activities in close coordination and consultation with them at district level, however the coordination with provincial EPI has been limited. Between 2014 and 2015, 12 CSOs were able to facilitate immunization of over 50,000 children. A baseline survey conducted through a 3rd party in May-June 2014, through UNICEF, demonstrated the impact of work by 12 CSOs in 21 districts of Pakistan. The coverage rates for the immunization of children and women were high and knowledge level about importance of immunization and maternal child health care was also remarkable. Additional support through Gavi was initiated in July 2012, managed through CRS. A platform of CSOs is now established named "Pakistan Coalition of Civil Societies for Health and Immunisation", with 21 CSOs in Sindh, 16 in Punjab and 16 in KPK. Its governance structure is in place and the platform is in the process of being registered, which would enable them to function as a recognized body. The support has also helped in the documentation of best practices and contributing towards independent global Reports, which are being included annually as part of the GVAP Reports (2014-15)¹.

Meanwhile, several areas were identified in the work of CSOs that need to be improved. A more structured approach, ensuring baselines and standardized outcome and impact indicators, a defined strategy for reaching the most marginalized populations with stronger presence in more locations are among the identified recommendations. Communication and exchange between provincial and federal government and CSOs is not strong and there are gaps to be filled.

The recent trends in communication show that programme communication is skewed towards media, yet social mobilization remains a tiny element of the programme communication. The main rationale for development of the four-year national communication strategy for RI is the focus it places on the application of *Communication for Development (C4D)* principles and approaches.

There is an urgent need to appoint dedicated communication staff who are technically proficient at the Federal and provincial level. The existing Health Education and Promotion units at the federal and provincial levels need to be revitalized and strengthened.

Evidence shows that investing in the IPC skills of Health Care Providers has a long term impact on the behavioral change of the communities and this is also validated by the findings of the KAPB survey.

One window of opportunity is the EPI-PEI Synergy Plan and there is a critical need for using Polio assets for strengthening RI through integrated communication for both Polio and EPI. IPV introduction under RI is a good example of integrated communication yet there is a strong need for a close coordination between National and provincial EOCs. A national Working Group, comprised of provincial and federal members, could develop a work plan, possibly short-term, that would lay the foundation for practical convergence activities.

RI branding "Teeku" needs to be revived. Creative materials should be developed and produced by professionals who understand audience segmentation, pre-testing and a tailored approach. As fathers are the decision makers in many families, special materials and careful selection of communication channels for them will be needed.

¹ AKU, AKHSP, APWA, BDN (Muzafarabad, Nowshera, Kasur, Multan, Mastung) CHIP, HANDS, HELP, LIFE, NRSP, PAVHNA, PRSP, PVDP, Save the Children Fund UK later merged to Save the Children International, THF, SABAOWN Progress reports of 12 CSOs submitted to on Quarterly basis until June 2015
Baseline Report by EYCON Pvt. Ltd. October 2014

Furthermore, a mechanism needs to be devised to work with the CSOs on the equity agenda. Possibilities for partnerships should be explored with new and existing CSO partners, especially those that work in hard-to-reach areas where government facilities are minimal or non-existent e.g., in urban slums . The Health Camp models (of UNICEF and AKU) have been successful in raising demand for vaccination. Punjab has organized health camps in 11 slums areas and experience of working with the deprived and marginalized, high risk mobile populations has been a successful experience that needs to be documented and expanded.

The National Communication Technical Committee (NCTC) has been holding joint meetings on EPI and PEI at the national level. This Working Group could be given the authority to make specific recommendations that would promote implementation of the communication strategy over its full lifetime. Alternatively, an EPI/PEI Communication Working Group could be established in one province to pilot the mechanism.

There is a need to revise all immunization (routine and polio) communication materials and training or orientation materials used by COMNet staff, LHWs and other healthcare givers, should be reviewed to ensure they include messages about all vaccines. Many polio-specific materials now integrate messages about routine immunization. RI materials should refer to approaching eradication of polio in Pakistan.

2.1. Comment on the key contextual factors that directly affect the performance of Gavi grants.

Devolution of health (following 18th constitutional amendment in 2011) without clear division of roles and responsibilities for federal and provincial governments has negatively affected performance of Gavi grants. Clear policies that would apply to every part of the country, effective coordination, reporting and accountability at all levels, as well as the need for strengthening managerial capacities should be prioritized. Oversight and supervision has been a weak aspect of programme management which has been improved, in some parts of the country, through use of innovative approaches and application of advanced technologies. Overall human resource capacities for immunization within government and support of partners should be assessed, coordinated, and improved.

The existence of national and provincial cMYPs makes assessment of performance and accountability possible, although Sindh has not yet approved its provincial plan. PC-1s are developed based on cMYPs, yet most of them for the date are not approved. Annual provincial and federal work plans should be in place and regularly monitored (through quarterly EPI meetings at provincial level and bi-annual meetings at federal level).

Political leadership on immunization has improved over the past year, particularly at the federal level, but it varies among the provinces. Political leaders in Sindh, in particular, need to be more engaged. The ICC, as a strong governing body for Gavi support and overall immunization, has not been fully functional and is to be further strengthened.

Vaccine procurement has now been delegated to the federal EPI cell by all provinces. The duration of this delegation and the financial flow for it should be clarified as a priority matter.

Polio and routine immunization interactions bring lots of opportunities and some challenges. Synergy between the two programmes should be strengthened according to the approved plan.

Engagement and role of CSOs, particularly in hard to reach areas and urban slums, can be essential. This needs, however, to be better defined, and coordinated with the EPI programme .

3. GRANT PERFORMANCE, CHALLENGES AND RENEWAL REQUESTS

3.1. New and underused vaccine support

3.1.1. Grant performance and challenges

In 2014, Pakistan received Gavi NVS support for Pentavalent and PCV10. No new vaccine was introduced in 2014. Coverage of GAVI supported vaccines during 2014 was reported as follows:

1. For 3rd dose of PCV10, the 2014 JRF national coverage of 86 % was achieved against the target of 79%; with a wastage rate of 10%.
2. For 3rd dose of DTP-HepB-Hib; the 2014 JRF national coverage achieved was 90 % against the target of 68% with the wastage rate of 5%.

PCV10 was introduced during 2014 in Balochistan and Giltgit-Baltistan provinces and was not introduced in FATA, which explains the differences in coverage between 3rd dose of PCV10 and 3rd dose of DTP-Hep B-Hib.

In 2015, 1.3 million doses of DTP-Hep B-Hib vaccine had expired and there were reports of misappropriation of AD syringes and cold chain equipment. The Government of Pakistan is taking serious action and initiated a legal inquiry and proceedings against the persons responsible. The process is still ongoing and some of the staff are still under the custody of authorities who are investigating the incident. The national vaccine store and the dry store are being managed by the USAID supported DELIVER Project. In addition, the barcode system has been introduced for TT and Measles vaccines at the federal level.

In 2014, US\$ 559,321 was carried forward from 2013 as Vaccine Introduction Grant (VIG) for PCV10 and Penta. Out of this US\$ 51,767 was utilized for the PCV 10 introduction activities during 2014 and the post-introduction evaluations of PCV10 completed in early 2015. The VIG was used to conduct trainings of health workers, dissemination of vaccine introduction guidelines, development of Standard Operating Procedures and to conduct Advocacy, Communication and Social Mobilization activities.

Challenges:

1. One of the major challenges faced in NVS management was the difficulty in meeting the co-financing obligations. Pakistan was in repeated default due to a number of issues, which included managerial and financial delays and litigation initiated by vaccine suppliers.
2. Discrepancies between coverage reports and recorded vaccine use.
3. In 2014, there was inadequate staff to manage the national vaccine stores; however, the GoP has initiated the recruitment process of 45 additional vaccine store staff from its own resources.

There is a delay in introducing PCV10 due to inadequate readiness of Federally Administrated Tribal Areas (FATA) and insecurity

Proposal of unspent VIG:

The 2015 balance of VIG funds will be utilized for the following activities:

1. Supplement cost of IPV introduction. In 2015, WHO received a VIG (US\$1,761,400) to implement IPV. This amount is not adequate to cover all of the costs for IPV introduction (e.g., cost of printing the new EPI cards was US\$500,000).
2. Printing and distribution of revised vaccination cards, EPI reporting and recording materials and guidelines
3. Training of health workers and service providers on introduction of IPV.

Measles SIA support

GAVI partially supported the Measles SIA following the massive measles outbreak in Pakistan in 2012 and 2013. The measles campaign was launched in 2014 in the whole of Pakistan except FATA (~3.9% of target population), where the campaign is planned to be conducted in August 2015. The campaign covered 58 million children from 6 months to 10 years of age for measles vaccine with a reported

national coverage of 103%. A third party evaluation of the coverage in Sindh province found coverage to be 95%. The table below shows reported administrative information on coverage.

Area	Targets	Targets reached	Admin coverage
Sindh	13,418,263	14,026,013	105%
KPK	9,377,344	9,646,690	103%
Punjab	29,670,753	30,633,406	103%
Balochistan	3,474,044	3,512,771	101%
Islamabad (CDA)	240,921	227,762	95%
Islamabad (ICT)	269,890	204,308	76%
Gilgit Baltistan	414,494	413,695	100%
AJK	1,438,492	1,439,882	100%
Total	58,304,201	60,104,527	103%

GAVI support was used to cover the cost of vaccine and operations for children under 5 years of age while costs for 5 – 10 year old children was mostly borne by the respective provincial governments.

Funds received by WHO from GAVI for operational costs of the SIA for <5 years children were as follows:

- Total funds received in 2013: US\$20,699,680
- Funds spent in 2014: US\$2,218,377
- Funds spent in 2015: US\$5,483,669
- Current balance: US\$12,997,634

JICA also provided support worth US\$ 3.9M for procuring measles vaccine and the Measles Rubella Initiative provided support worth US\$2.64M for procuring injection equipment for the SIA. The total amount of contribution by GoP (all provinces) was \$US 12 million.

Challenges in implementing measles SIA

1. There was a delay in release of matching funds by the provincial governments, except KP and Sindh, for the 5-10 years age group
2. There were constraints in the implementation of the SIAs as districts were heavily engaged in implementing the intensive polio low season plan during Q3, Q4 of 2014.
3. Considering the large target population, there was difficulty in mobilizing the appropriate number of skilled persons for the vaccinating team
4. Monitoring and supervision at some levels was not up to the mark.

The way forward

Complete the SIA by conducting campaigns in FATA in August 2015

Use the leftover funds for measles elimination activities (and other priority interventions for increasing coverage and equity): Due to the almost 100% contribution for operation costs by the government of KP and Balochistan, support received from other partners and a comparatively lower unit cost expenditure than budgeted in more populated provinces as in Punjab and Sindh, a significant amount of operational support received (~ \$US 13 million) is still available for conducting other related activities. The country plans to utilize these funds during 2016 – 17 for measles outbreak response activities; improving equity through raising measles second dose coverage especially in low coverage districts through localized routine immunisation activities; strengthening case-based measles surveillance, assess measles coverage in all districts as part of a planned coverage evaluation for routine immunisation in 2016 and exploring innovative interventions for coverage improvement through the RED approach in selected high risk districts ie. by using the WHO Measles risk assessment tool.

KEY LESSONS LEARNED FROM TARGET ASSESSMENT**Challenges:**

No PIE was done in 2014

PVC10 PIE was conducted in early 2015 which report is not yet finalized. Key findings include:

- Ensure adequate time for the implementation of planned activities
- Conduct quality training and provide reference materials, including refresher trainings
- Vaccine wastage should be calculated at all levels
- Ensure good planning and timely procurement, to avoid stockouts at all levels
- National waste disposal guidelines and injection safety should be insured
- Thorough assessment of cold chain for every level should be undertaken
- Plan for monitoring and supervision needs to be prepared, AEFI surveillance system needs to be fully functional
- Opportunity of new vaccine introduction should be used to strengthen RI

ISS fund

Total investment and reward grant for Pakistan since 2001: US\$48,763,740

- Disbursement to country till 2010: US\$34,101,500
- GoP: US\$24,646,500
- UNICEF: US\$8,955,000
- WHO: US\$500,000

Disbursement to WHO in 2013: US\$9,480,000

- Expenditure in 2013: US\$18,932
- Expenditure in 2014: US\$638,434
- Expenditure in 2015: US\$2,415,103
- Current balance with WHO: US\$6,407,531
- Current balance with the GAVI Secretariat: US\$5,182,240

Key activities implemented with ISS fund with WHO in 2014,

1. Planning: development of cMYP, provincial annual PoAs
2. Support for HR to the Federal EPI
3. Operational, logistics support for Federal EPI
4. Capacity building
5. EVM and EVM IP
6. M&E

Challenges:

Due to non-availability of any bank account with the EPI program, they can't sign any Direct Financial Cooperation (DFC) with WHO. Hence, government is dependent on WHO to implement the activities.

Future plan:

The leftover ISS funds with WHO along with the fund available at the GAVI Secretariat will be used for priority activities identified during the Joint Appraisal to increase coverage and equity

3.1.2. NVS renewal request / Future plans and priorities

Pakistan requested the renewal / extension of following vaccines for the period of 2016-2019.

- Pneumococcal (PCV10), 2 dose(s) per vial, LIQUID
- DTP-HepB-Hib, 1 dose(s) per vial, LIQUID

Future Plans:

- Transition from tOPV to bOPV (tOPV-bOPV switch)
- Introduction of IPV in routine immunization. Pakistan is currently preparing for the introduction: Trainings of the master trainers at national, provincial and district level have been rolled out, a cold chain capacity assessment is being completed and communication plan and IEC material developed and finalized for the formal introduction of IPV starting from 20th August 2015.
- Pakistan also plans to introduce rotavirus vaccine, following the provincial consensus and consultation, a national application shall be submitted following the completion of IPV introduction in 2016.
- Pakistan should reassess the need for future measles and measles-rubella vaccine support from Gavi in the next years. Technical Assistance may be required to better assess the situation.
- Pakistan will apply for Gavi support through the cold chain equipment optimization platform.

3.2. Health systems strengthening (HSS) support**3.2.1. Grant performance and challenges**

The current HSS grant of US\$ 23.5M was approved for Pakistan in 2007. The first tranche of US\$ 16.9M was disbursed in Aug 2008 for utilization in two years (2009-10) through three implementing partners namely, the defunct Ministry of Health (\$ 7.5M), World Health Organization (\$ 3.4M) and UNICEF (\$ 5.96M).

WHO & UNICEF work plan activities were completed in 2009- 2010. However, MOH activities to be implemented through PC 1 mechanism remained pending. The delay continued due to devolution and consequently the difference of opinion with P&D, so that an approximate amount of US\$ 3.48M remained unspent till 2015. The issue was resolved in Feb 2015 by the decision of the Ministry of National Health Services Regulations & Coordination to utilize the balance amount through WHO. However, the work plan developed by the Ministry has not yet been approved by the Gavi Secretariat. Similarly, the MoU between Mo NHR&C and WHO remains under process of approval and signatures in the WHO.

The second tranche of US\$ 6.6M approved in Sep 2008 was released to Pakistan in Sep 2013 and is currently under implementation through WHO & UNICEF.

The main achievement has been in addressing the systemic bottlenecks to improving immunization coverage through focus on data quality issues and logistics' management activities including provision of equipment and software. Similarly, capacity building for ensuring equity in access to immunization was taken up through activities such as training of LHWs in Routine EPI (Annex)

Key Achievements in 2014

Following are the key achievements made under the HSS implementation during the year 2014.

- Training and refresher training of LHWs in Routine EPI
- Updating EPI training curriculum to include new vaccines
- Integration of Health information and disease surveillance system
- Establishment and strengthening of warehouses and cold storage across the country
- support CSOs under CSO grant for demand generation
- Completion of EVM assessment and developing costed improvement plans for all provinces
- Finalization of communication strategy for RI

Challenges:

- Engagement with several provincial/ regional DOH on an individual basis, which are essentially different entities in terms of status of development, needs and priorities, existing capacities and political inclinations. Competing priorities (frequent NIDs & SNIDs)
- Deployment and utilization of Lady Health Workers trained in Routine EPI in Phase-1 (2009-10)
- Post devolution obligation to engage simultaneously with several provincial/ regional DOH on an individual basis, which are essentially different entities in terms of status of development, needs and priorities, existing capacities and political inclinations.
- A significance implementation constraint has been the time taken up for functional availability of funds with lengthy procedural and processing formalities within the UN organization.
- HR support both at the Federal and Provincial levels has been an ongoing challenge. The assigned staff is also responsible for other activities. The mode and duration of contractual employment (SSA contracts) needs to be revised to a regular contract to ensure an enabling work environment. The non-availability of a dedicated admin/finance support has been a persistent challenge.

Monitoring and Evaluation:

The aspect of strengthening of management and accountability has been included in the revised work plan for utilization of balanced HSS Grant. More over most recently the Ministry of NHR&C has taken a policy decision of establishing the Health Planning System Strengthening & Information Analysis Unit (HPSI). The focus of HPSI unit will be to ensure that the scope of monitoring is wider than just assessing project deliverable and also include review of overall performance, emerging gaps, partnerships, resource requirements, with particular attention to achieving the targets and improvement in EPI indicators.

Participation of Stakeholders in the implementation of HSS Grant:

GAVI HSS Work plan and fund utilization is being undertaken with all the involvement of all the key stakeholders. The key stakeholders involved in the coordination and implementation for GAVI HSS grant include the Ministry of NHR&C, Federal EPI cell, Provincial /Regional EPI Program, Provincial Health sector Reform Units (HRSUs) Provincial Lady Health Workers Programs (PPIUs), CSOs, WHO & UNICEF. However, post devolution Health Sector Coordination Committee ceased to exist after 2011. The Inter Agency Coordination Committee was assigned for Gavi HSS oversight with re-notification with inclusion of provincial Health Sector Reform Units (HRSUs), other technical partners in EPI (JICA, and others) and NGOs.

However, there is a recognized need to review and revise the ToRs of IACC. In this regard, the balance HSS work plan includes activities for strengthening the oversight role of IACC and capacity building of the members.

3.2.2. Strategic focus of HSS grant

The objective of Gavi HSS support is to address system bottlenecks to achieve better immunization outcomes, including increased vaccination coverage and more equitable access to immunization through the involvement of all stakeholders including the CSOs. The focus is to align all activities under various supports through a results chain and performance based funding approach depicting a clear linkage of the HSS supported activities for the achievement of immunizations outcomes.

The strategic direction will be derived from a strong bottleneck and gap analysis to enable and ensure a monitoring oversight for demonstration of clear links between the proposed activities and improved immunisation outcomes. Another focus will be on complementarity with other HSS investments for added value of Gavi support to reducing bottlenecks and strengthening the health system.

3.2.3. Request for a new tranche, no-cost extension, re-allocation or reprogramming of HSS funding / Future HSS application plans

Pakistan is in progress of implementation of second tranche of HSS (\$ 6.626M) through its partners WHO & UNICEF. The expiry date for UNICEF's grant is July 31 2015 while WHO concludes its project activities by April 2016. While the issue concerning the balance funding of \$ 3.48M has been resolved yet the funds have been reprogrammed along with the approval of no-cost extension, these funds shall be utilized till 30th June 2016 under approved work plan.

Outstanding balance of \$ 5.2M from the previous ISS grant is not yet disbursed to the country. It requires serious consultation and consensus building on the key areas of interventions amongst the relevant stakeholders under the stewardship of Ministry of National Health Services, Regulation and Coordination (MoNHSR&C) for the effective and efficient utilization of these funds. The potential areas for using this balance is to further build upon the existing network of 19 warehouses (currently under construction by UNICEF) to build the dry and cold storage capacities of the provinces in addition to the continuous social mobilization activities through the implementation of provincial communication strategies to enhance demand for RI including PCV-10 hence contributing to improved immunization coverage.

Pakistan is currently preparing its formal application for the new HSS funding up to the volume of \$100M for five years. The provincial consultations have been completed with the help of local consultant for finalizing the HSS priorities aligning with cMYP funding needs and NISP DLI's to increase RI coverage. The priority areas includes a) Governance, Policy and Planning; b) Programme Management and Accountability; c) Human Resource Development; d) Financing; e) Logistics, Cold chain and Monitoring; f) Data Quality; and g) Demand Creation. Joint Appraisal findings and recommended actions based upon the past HSS funding performance review shall feed into the HSS application.

3.3. Graduation plan implementation (if relevant)

Not Applicable

3.4. Financial management of all cash grants

The FMA was conducted in 2009 when the first tranche had recently been disbursed for HSS grant utilization.

Third Party Audit of all cash based Gavi grant including HSS is being undertaken through support of WHO; with the audit report is in the final stage of approval.

Utilization of funds by MOH through PC 1 has compromised the financial grant performance. Funds remained unutilized from 2008-2014, with the subsequent decision to channel the funds through WHO to utilize the balance of the grant.

UNICEF and WHO manage the cash components of Gavi funds in the country for the moment. Financial statements have been submitted.

Changes to management processes in the remaining life span of current grant are not foreseen.

Use of a to-be-established Multi Donor Trust Fund to be administrated by World Bank is being considered for the future HSS support to the country. There will be a need to conduct another FMA in view of the utilization of potentially available next HSS grant of \$100M.

3.5. Recommended actions

Actions	Milestone / timeline (where and when available)
<u>Programme Management, Service Delivery</u>	
1. Identify and formalize roles and responsibilities between federal and provincial levels in immunization	End 2015
2. Reinforce the role and capacity of the National Interagency Coordinating Committee	June 2016
3. Increase fixed EPI centres for sustainable service delivery and upgrade those not yet providing immunization	End 2015
4. Assess and improve involvement of local CSOs in immunization delivery	Q1 2016
5. Strengthen HR capacity at federal and provincial level by developing a strategic HR plan - including staff supported by partners	Q1 2016
6. Provide management support through regular EPI review meetings and relevant capacity building	Continuous. On a quarterly basis.
7. Support service delivery through biannual EPI reviews and implementation of annual plans of action	Biannual, starting end 2015
8. Ensure that specific strategies for urban slums and other marginalized populations are included in micro plans	Q1 2016
9. Implement the EPI – PEI synergies plan	Continuous. Assessed every quarter
<u>Vaccine and Supply Chain Management</u>	
1. Ensure EVM improvement plan recommendations are implemented with special focus on: - maintenance of cold chain equipment at all levels and increase of trained cold chain technicians - continuous update of CCEM for cold chain inventory at all levels	Q2 2016

- ensuring that only WHO pre-qualified equipment is acquired in line with the cold chain standardization catalogue specific to Pakistan.	
2. Collect VM & stock data and update regularly with new incoming consignments/deliveries and through vLMIS, where implemented and through paper system in all other areas. (next 6-12 months)	Q2 2016 (pending availability of resources)
- Establish a clear accountability mechanism to improve vaccine management data quality. (Q4 2015)	End 2015
- Conduct an assessment of the vLMIS in order to ensure a well-functioning system while rolling out. (Q4 2015)	End 2015
3. Ensure that Vaccine Management Committees at all levels are fully functional. (Q4 2015)	End 2015
<u>Surveillance and Data Quality</u>	
1. Improve population denominator data at operational level by Dec 2015, making use of polio data	End 2015
2. Conduct coverage evaluation survey by district - following standard WHO methodology - and addressing equity by early 2016 and at regular intervals thereafter	Q2 2016
3. Develop a comprehensive data quality improvement plan by Q4 2015	Q4 2015
4. Document the experience of the Punjab e-Vaccs project by Q4 2015 and expand to the whole province by Q2 2016 and to other provinces by Q4 2016	End 2015
5. Strengthen integrated communicable disease and AEFI surveillance	Q2 2016
6. Develop an integrated monitoring framework for EPI using a tool/dashboard	Q1 2016
<u>Demand Generation, Advocacy, Communication and Social Mobilization</u>	
1. Perform advocacy with political leadership/parliamentarians to prioritize integrated communication on RI including polio	Continuous. A plan to be developed by Q1 2016.
2. Finalize context-specific provincial communication strategies and initiate implementation of communication plans (June 2016)	Q2 2016
3. Strengthen the existing Health Education and Promotion Resource Centers at the federal and provincial level with the objective of improving immunization outcomes (March 2016)	Q1 2016
4. Explore possibilities for partnerships with new and existing CSOs in immunization, especially those that work in hard-to-reach areas where government facilities are minimal or non-existent (June 2016)	Q2 2016

4. TECHNICAL ASSISTANCE

WHO and UNICEF, as the technical partners, have been delivering the technical support during the implementation of GAVI grants across various areas of the health system. The past focus of the technical support was across the areas of programme planning, capacity building, procurement of vaccines, surveillance; vaccine logistics and supply chain management; development of policies, SOPs, guidelines, Supplementary Immunization Activities (SIA), new vaccine introductions, addressing inequities in immunization, evidence generation (surveys, evaluations, reviews) and advocacy, communication and social mobilization.

Upon request of Government of Pakistan USAID supported the immunization programme in the development and implementation of a vaccine logistics and management information system (vLMIS) which was implemented in 54 districts across Pakistan. It provides real time data access to information on key vaccine logistics and cold chain indicators from the district/sub-district to the national level, which can be used towards improving and informing decision making. The data can be used by management and EPI staff for making realistic calculations of vaccine requirement, stock management, vaccine wastage and ensuring the quality of vaccines through a continuous reporting on vaccine expiry and VVM status. Though the system is operational in the 54 high risks districts, there are still issues with regards to the timely sharing and quality of data from the districts. It is thus critical to undertake an assessment of the vLMIS while its scale up to other districts.

Various areas of technical assistance were identified during the development of the cMYP and further endorsed by the provinces during the HSS application development consultation process. The main areas identified for future technical support were trainings and capacity building of health workers, LHWs and polio workers on EPI; trainings on Surveillance and M&E Reporting, trainings on data reporting, use of data and analysis; need for development of robust and integrated management information system, expansion of vLMIS and scale up for integration of functions of Surveillance, and M&E. The need for upgrading standardized Cold Chain equipment across all districts was highlighted during the EVM Assessment. In addition, demand creation for RI and the renewed engagement strategy with CSOs is an area that needs close attention.

4.1 Current areas of activities and agency responsibilities

Pakistan received technical assistance across the immunization and Health system strengthening programme from the following partners: WHO, UNICEF, World Bank, Government of China, USAID, JICA and Rotary.

WHO:

WHO on the whole provided technical support along with the operational support for the implementation of the GAVI's Immunization Strengthening Support, Measles SIA, New vaccine introduction and the Health System Strengthening grants in the following areas:

- Provided support for development of the comprehensive multiyear plan (cMYP) 2014-18 for immunization. A team of international and national consultants hired by WHO developed separate cMYPs for every province and areas and the Federal EPI and a consolidated national document was generated through a consultative process with all stakeholders and partners.

- Assisted provinces in developing annual action plan for EPI
- Supported introduction of new vaccines (PCV10, IPV) through,
 - Development of applications
 - Development and printing of SoPs, guidelines, training curriculums for health workers on new vaccines
 - Revision, printing and distribution of EPI recording and reporting tools for inclusion of new vaccines
 - Training of health workers and service providers for the new vaccines
 - District readiness assessment for introduction of new vaccines
 - Post introduction evaluation for new vaccine (PCV10)
- Development of EPI policy.
- Conducted LQAS and Third party evaluations of the campaigns through hiring of independent firms.
- Conducted EVM Assessment in 2014 and developed of EVM Improvement plans in partnership with UNICEF.
- WHO being the member of vaccine logistics management committee VLMC provides quality assurance services for the effective vaccines management to EPI along with other partners.
- Capacity building
 - Training on new vaccine introduction and immunization basics for health workers
 - Training on measles SIA for health workers, medical officers and mid-level managers
 - MLM training
 - Training of LHWs on routine immunization service delivery.
 - Training on microplanning according to RED/REC approach
 - EVM training
- Provided technical support in establishing and strengthening case based measles surveillance as a part of the integrated Vaccine Preventable Diseases (VPD) surveillance
- Provided technical, HR, logistics and financial support for National Measles Laboratory, and sentinel surveillance for IBD and Rotavirus diseases surveillance in four sites and the national lab.
- Provided technical and logistics support for functioning of NITAG
- Provided operational and technical support for conducting nationwide Measles SIA.
 - Technical support to NITAG and govt. for decision making
 - Advocacy for resource mobilization and application development
 - Planning, strategy setting, development of guidelines, recording and reporting tools
 - Training of mid-level managers and health workers
 - Assistance in microplanning at operational level
 - Assistance in budget preparation
 - Pre-campaign readiness assessment of districts
 - Monitoring and supervision of the implementation
 - AEFI management
 - Post-campaign evaluation
- Supported activities related to objective 2 of Polio End Game Strategy
- HR support to the Federal EPI through recruiting technical officers on Surveillance, M&E, Measles SIA, Cold chain and logistics, Communication and Social mobilization, Donor relations, Data, IT, Finance along with necessary support staff. A total of 20 HR were recruited through WHO as SSA to provide support to the Federal EPI cell.
- HR support at the Federal & Provincial level for HSS and implementation of HSS work plan

UNICEF:

UNICEF provided technical support in the implementation of GAVI's HSS and CSO funding's:

- UNICEF is currently implementing Reach Every District (RED)/ Reach Every Community (REC) approaches to address inequities in immunization thereby attributing to coverage

improvement. UNICEF has started off in 23 districts and plans to scale up this approach in one-fifth of the country during the next five years.

- UNICEF provides technical support for procurement of vaccines and logistics.
- Conducted Cold Chain Equipment Assessment and supported in preparation of Standardized list of Cold Chain Equipment- standardization document is now annexed to the approved EPI policy 2015.
- UNICEF supported the construction/renovation of 19 warehouses across four provinces and one area i.e., Gilgit Baltistan (GB) under Gavi HSS financial support.
- UNICEF also supported in piloting the introduction of birth dose of Hepatitis B that was endorsed by NITAG on 1 February 2011 and is part of the approved EPI policy 2015. UNICEF is in close consultation with the federal and provincial counterparts and WHO finalized the planning of the introduction of birth dose of Hepatitis B in a total of nine secondary health care facilities (02 in Punjab, 04 in Sindh, 03 in KPK) on a pilot basis. Based on the number of births occurring in these health facilities in one year, a requisite quantity of Hepatitis B birth doses is being procured by UNICEF. Furthermore the NNCUs are being strengthened across three provinces. Health Care Providers have been trained on the introduction of birth dose of Hepatitis B and vaccination initiated in these facilities on pilot basis.
- Following the incidence of vaccine wastage, UNICEF along with WHO and USAID provided support for upgrading the cold rooms through the rearrangement and re-verification of the vaccines in addition to the procurement of five cold rooms for the national stores through Gavi IPV Vaccine Introduction Grant (VIG).
- With the support of international consultants, UNICEF jointly with WHO supported the Effective Vaccine Management assessment in April 2014 followed by the development of the costed Improvement plans for EVM.
- UNICEF along with WHO jointly supported the cold rooms' space assessment and also provided the certification of the stores capacity for the storage of vaccines quantities as per WHO protocols.
- UNICEF supported the development and implementation of the communication plans for the Measles SIA across four provinces and four areas (AJK, GB, FATA, ICT/CDA) in addition to development of Measles and RI messages including designing and printing of the IEC materials.
- With WHO, UNICEF supported the introduction of PCV-10 in Pakistan.
- Provided training to the cold chain technicians all over Pakistan for the maintenance of the refrigerators and ILRs.
- Completed a national Knowledge, Attitude Practice and Behavior (KAPB) study in 2014.
- Based on the findings of the National KAPB survey, UNICEF supported the development of the national communication strategy for RI with the support of an international consultant.
- Technical support in the implementation of MNTe campaign was carried out in the five intermediate risk districts of Punjab. Pre-validation for Punjab is to be undertaken by the end 2015 and the validation survey to be planned for Q-2 of 2016 as the province with 53% of total population has completed all planned activities.

USAID

USAID through its Deliver Project provided support in the development of vaccine logistics management information system (vLMIS) for immunization along with its operationalization in 54 districts of Pakistan during 2014. USAID | Deliver provided both hardware and software along with the trainings on vLMIS.

USAID is also funding MCHIP for routine immunization in some districts of Sindh.

Government of China:

The Government of China provided cold rooms, refrigerators, as well as refrigerator trucks for the transportation of vaccines. It also provided technical services of repair and maintenance of the cold rooms and trucks.

World Bank:

World Bank provided technical support in the designing and development of National Immunization Support Project at the request of the Government of Pakistan in the post devolution scenario for the increase in coverage of RI. The Bank also provided technical support in holding workshops for the development of Disbursement linked indicators (DLI) and for building understanding and consensus amongst the provincial programmes. The Bank also provided consultants for the development of NISP PC-1s for the provinces and Federal levels, both with the development of M&E Frameworks and funds management flow mechanisms.

JICA

Support has been provided to measles SIAs and cold chain in KPK

Rotary international

As a key partner in Polio eradication, Rotary has supported Pakistan immunization.

4.2 Future needs (3-5 Priority areas for next year)

A consultative meeting was held on 11 August 2015 in the Federal EPI Cell with representatives from all provincial and area EPI program managements including their respective partner organization and CSOs. The Federal EPI team lead by the National Program Manager participated along with the Joint Appraisal mission members. The meeting was chaired by the Director General Health, Federal Ministry of National Health Services, Regulations and Coordination. Each province presented their TA need under four thematic areas. Later the JA team worked with individual provincial teams in separate groups to identify the priority program components under four thematic areas where TA is required and prioritized the areas of support. Outcomes of this exercise are described below as key program components under the thematic areas where provinces require TA. A detailed break-up of TA with cost by province is given in Annex I

1. Programme Management, Service Delivery

1. Revision and update of cMYP 2014 – 18
2. Development of annual PoA
3. Development of district level microplan
4. Capacity building of Mid-level managers
5. Defining roles and responsibilities and TOR of health personnel at different tiers
6. Development of non-financial incentives and implementation modalities
7. Capacity building of immunization health workers
8. Operational research
9. Identifying modalities for CSO engagement
10. Outreach service delivery
11. Mapping of functioning health facilities without EPI service
12. Identifying modalities for 'Pay for Performance' scheme
13. Short term HR support for Health Planning System Strengthening and Information Analysis Unit in the Federal Ministry
14. ICC meetings
15. Short term HR support for Fed EPI, provinces/area and laboratories
16. Periodic EPI review meeting
17. Training need assessment
18. Comprehensive program review
19. Development of EPI monitoring framework
20. EPI-PEI synergy plan implementation

2. Vaccine and supply chain management

1. Implementation of EVM IP
2. Capacity building of HR on vaccine and supply chain management, EVM including temperature monitoring of the cold chain system
3. Review and tailor guidelines/SoPs/ToRs for supply chain management and EVM
4. Assessment of vLMIS software while expansion to all districts
5. Upgrading of vLMIS software and expansion to all districts
6. Short term consultant for procurement of vaccines and cold chain equipment and installation
7. Procurement, repair, maintenance and installation of cold chain equipment
8. Standardization of cold chain equipment
9. Operational research on supply chain matters

3. Surveillance and Data Quality

1. District wise coverage evaluation survey following WHO approved standard methodology with equity analysis
2. Consolidation of population data using available polio data
3. Development of data quality improvement plan
4. Capacity building for data quality improvement
5. Documentation of Punjab e-Vaccs project (Q4 2015) for scale up to other districts (Q2 2016) and provinces (Q4 2016)
6. Strengthening VPD and AEFI surveillance system as a part of integrated communicable diseases surveillance through developing/expansion online surveillance dashboard, periodic surveillance review and monitoring indicators
7. Capacity building of health workers and service providers on VPD surveillance
8. Implementation of online tracking of vaccinators
9. Monitoring of CSO activities for immunization service delivery
10. Continuation of the sentinel surveillance for IBD and Rotavirus diseases surveillance
11. Continuation of laboratory support for Measles, IBD and Rotavirus disease surveillance

4. Demand Generation, Advocacy, Communication and Social Mobilization

1. Development of provincial communication strategy and plan
2. Devising modalities for improving demand generation through conditional cash transfer and engagement of CSOs
3. Advocacy for immunization and follow-up by the federal team with provincial political leadership
4. Strengthening partnerships between programs and partners, including CSOs

Supplementation of WHO and UNICEF support to EPI Pakistan

Considering the Technical Assistance (TA) needs of the provinces and federating unit, which were presented by them on meeting with JA mission on 11 August 2015 and the subsequent discussions, WHO and UNICEF propose to enhance their technical support to the country.

The relevant thematic areas identified for TA are as follows:

Programme Management, Service Delivery

- Assisting in revision of cMYP, preparing annual POAs, micro planning, monitoring and training on RED approach, comprehensive program review, capacity building of mid-level managers, strengthening ICC.

Vaccine and supply chain management

- Assisting in planning, implementation and monitoring of activities related to vaccine management including EVM IP implementation

Surveillance and Data Quality

- Assisting in development of data improvement plan based on system analysis, strengthening various components of data management, including periodic DQS and data validation exercises with introduction of web-based reporting system.

Demand Generation, Advocacy, Communication and Social Mobilization

- Assisting in implementation and monitoring of communication plans at various levels and identifying modalities of CSO engagement

Health systems strengthening

- Coordinating and monitoring the implementation of activities under GAVI health systems support and Global Health initiatives.

The number of required staff, with place of posting and estimated cost is given in table below.

Proposed additional staff for supporting EPI Pakistan

Area of work	Staff category	Estimated unit cost /post/year	Estimated travel cost/post/year	operational cost/post/year	Position based at	No of posts required	Total annual cost	Position based at	No of posts required	Total annual cost		
Service Delivery & data management	P4	240,000	20,000	12,000	Nat'l level	1	272,000	Nat'l level	1	272,000		
	National Officers- B	70,000	15,000	3,500	Prov level	7	619,500			-		
	National Officers-C	80,000	15,000	4,000	Nat'l level	1	99,000			-		
Vaccine Management and Cold Chain	National Officers- B	70,000	15,000		Prov level			Prov level	5	425,000		
	National Officers-C	80,000	15,000	4,000	Nat'l level	1	99,000	Nat'l level		-		
Communication	National Officer-C	80,000	15,000	4,000	Nat'l level			Nat'l level	1	99,000		
Health Systems Strengthening (specific to immunization e.g financial systems, HR, management etc)	P4	240,000	20,000	12,000	Nat'l level	1	272,000			-		
	National Officer-C	80,000	15,000	4,000	Nat'l level	1	99,000			-		
	National Officer-B	70,000	15,000	3,500	Prov level	4	354,000	Nat'l level	1	88,500		
TOTAL											1,814,500	884,500

Total for WHO & UNICEF (US\$)

2,699,000

HR requirements:

UNICEF:

One international P4 staff for immunization service delivery/marginalized communities (including urban slums), Six national staff (4 provincial for coordination of operations, 1 national staff for communication, one national staff for cold chain/vaccine logistics/EVM). The total annual cost for these positions amounts to US\$ 884,500. Details are annexed – Annex H

WHO

Roles/responsibilities of WHO staff

Program management, Governance, Service delivery:

1. Technical assistance in revision of cMYP
2. Technical assistance in development of PoA
3. Technical assistance in development of microplan
4. Capacity building of mid-level managers
5. Capacity building of immunization health workers
6. Technical assistance in enabling outreach service delivery
7. Strengthening ICC
8. Periodic review meeting
9. Comprehensive program review
10. Technical assistance in development of a monitoring framework
11. New vaccine introduction

Vaccine management and cold chain:

1. Implementation of EVM IP
2. Capacity building of health staff in vaccine management
3. Periodic focused EVM assessment for monitoring
4. Technical assistance in development/revision of SOP, guideline for vaccine and supply chain management

Data management:

1. Data system analysis and development of data improvement plan
2. Capacity building of health staff for data use and improvement
3. DQS and DQA
4. Technical assistance in developing web-based reporting system, evaluation and expansion
5. Technical assistance in immunization coverage evaluation survey
6. Technical assistance strengthening VPD and AEFI surveillance including sentinel surveillance system for IBD and Rotavirus

HSS:

1. Assist in implementing activities for immunization service strengthening under the new HSS proposal

To undertake all of the above responsibilities at national and provincial levels WHO country office needs additional HR. For this purpose two international (P4) positions and two national (NOC) positions at federal level and twelve (NOB) positions at provincial level are proposed. The total annual cost of these positions amounts to US\$ 1,814,500. Details are annexed – Annex H

5. ENDORSEMENT BY ICC, HSCC OR EQUIVALENT & ADDITIONAL COMMENTS

Comments / observations on JA report and recommendations:

The mission report including above TA needs was endorsed by all ICC members and all Provinces on 13th August – with a revision CSO section allowing the also the CSO representative to endorse the report. It was stated, however, that CSOs need to take in the relatively critical feedback received from the provinces – their point of view is to be reconciled.

The Secretary Health thanked Dr. Hamidreza and the mission members, and all partners, and stated their consensus and commitment based on the report. He appreciated the commitment of the provinces, with Punjab leading the change through technological solutions and drastic changes in management. He stated that the KPK commitment was heartening with routine immunization now becoming a priority. He insisted that a combination of monitoring tools was necessary, and suggested that annual coverage surveys, at least for the next two years, to be incorporated in the plans and recommendations of JA. He also referred to the great interest of the NISP directly from the PM office. He ensured that a census will be done to obtain quality data acceptable to all in 2016 as basis for future programs.

The DG Health stated that the PEI – EPI synergy plan was not yet implemented, but that routine immunization strengthening is possible, strengthening a one team spirit under the same roof in the EOC, and making use of the great experience of merging teams in Punjab resulting in coverage improvement by 10%. He insisted that polio assets be made fully available for RI at all levels, but cautioned that it was not possible to make a huge shift of focus at this critical point in time, but that PEI was able to assist with data collection and quality assurance. The implementation of RI for now remained the responsibility of EPI team.

In addition the ICC requested application of the following flexibilities for Pakistan’s forthcoming HSS application by utilization of Gavi’s Country Tailored Approach:

- 1) An adjustments to co-financing requirement timeframe, to align it with financial cycle of Pakistan.
- 2) Shortening the HSS application timeframe from 5 to 3 years and allocation of a total ceiling to the country within the shortened period, taking in to consideration the validity of the current cMYP (2014-18), the magnitude of needs, and the absence of a national health strategy.
- 3) Utilization of National Immunization Support Project (NISP) as a performance-based co-financing mechanism for federal and provincial cMYPs and requesting Gavi to disburse HSS resources through the Trust Fund which will be established by the World Bank in order to pool immunization resources. Provinces will received funding from the Trust Fund against their approved cMYPs / PC1s, by achieving provincially tailored targets for Disbursement Linked Indicators (DLIs) listed in the NISP.
- 4) Utilization of a common Performance Framework by Gavi and NISP to ensure their complete alignment and to reduce reporting burden on the country.
- 5) Gavi to disburse funds to NISP Trust Fund on annual basis, following fulfilment of performance indicators and meeting Financial Management Assessment requirements.
- 6) While NISP is a performance based mechanism designed around DLIs, Pakistan can receive additional Performance Based Funding (PBF) on top of the programmable level of US\$ 84 million of the HSS ceiling, contingent to meeting Gavi PBF criteria. The framework for that can be established within one year from the time of approval of HSS application, and shall be designed in a way to award high-performing provinces, while having an overall coverage and equity consideration in mind for the whole country.

6. ANNEXES

[Please include the following Annexes when submitting the report, and any others as necessary]

- **Annex A. Key data** (this will be provided by the Gavi Secretariat)
- **Annex B. Status of implementation of the key actions from the last joint appraisal and any additional High Level Review Panel (HLRP) recommendations NA.**

Key actions from the last appraisal or additional HLRP recommendations	Current status of implementation

- **Annex C. Description of joint appraisal process** (e.g. team composition, how information was gathered, how discussions were held)

Organization	Name	Position	email
Federal EPI	Saqlain Gillani	EPI Manager	zain_asg2@hotmail.com
Federal EPI	Nosheen khawar	Donor Coordination Officer EPI	nosheenkhawar@hotmail.com
WHO - HQ	Carsten Mantel	New Vaccines and Innovation – Priority Area Leader	mantelc@who.int
WHO - EMRO	Mounir Farag	Regional Advisor MO HSS	faragm@who.int
WHO - EMRO	Irtaza Chaudhri	Regional Focal Point	chaudhrii@who.int
WHO - CO	Quamrul Hasan	Medical Officer	hasanq@who.int
WHO - CO	Farah Sabih	Focal Point for HSS	sabihf@who.int
UNICEF - HQ	Richard Duncan	Senior Immunization Specialist	rduncan@unicef.org
UNICEF - RO	Yin Yin Aung	Regional Immunization Adviser	yyaung@unicef.org
UNICEF - CO	Anahitta Shirzad	Procurement Services Specialist	ashirzad@unicef.org
UNICEF - CO	Saadia Farruk	Health Specialist	sfarrukh@unicef.org
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VITAC	Huma Khawar	Consultant	humakhawar@gmail.com
Gavi Secretariat	Hamidreza Setayesh	Senior Country Manager - Pakistan	hsetayesh@gavi.org
Gavi Secretariat	Mario Jimenez	Programme Officer	mjimenez@gavi.org
Gavi Secretariat	Alan Brooks	Director, Health Systems and Immunisation Strengthening	abrooks@gavi.org
Gavi Secretariat	Melissa Ko	Senior Programme Manager, Vaccine Implementation	mko@gavi.org
Gavi Secretariat	Yvonne Njage	Strategy & Performance Consultant	ynjage-external-consultant@gavi.org

• **Annex D. HSS grant overview**

General information on the HSS grant							
1.1 HSS grant approval date		2007					
1.2 Date of reprogramming approved by IRC, if any		none					
1.3 Total grant amount (US\$)		23,524,500					
1.4 Grant duration		On going					
1.5 Implementation year		on going					
(US\$ in million)	2008	2009	2010	2011	2012	2013	2014
1.6 Grant approved as per Decision Letter							
1.7 Disbursement of tranches	16898500					6626000	
1.8 Annual expenditure							
1.9 Delays in implementation (yes/no), with reasons		Yes, following devolution of health in Pakistan based on constitutional amendment, there was significant delays in implementation of all activities. There is a remaining balance of US\$ 3.3 million which will be transferred from a government's account at State Bank of Pakistan to WHO for implementation of the final part of HSS -1 work until July 2016.					
1.10 Previous HSS grants (duration and amount approved)							
1.11 List HSS grant objectives							
1. Improve access and utilization of maternal, neonatal and child health care service at the district level.							
2. Enhance effectiveness of district health care delivery service through strengthening human resource development, organizational management and support systems.							
3. Improve community and civil society organizations involvement in health system decision making mechanism.							

1.12 Amount and scope of reprogramming (if relevant)

Gavi requested the remaining unspent US\$ 3.3 million to be returned in December 2014, where country agreed to release the funds to WHO for implementation of the remaining activities on LHW trainings and management and accountability. WHO and GoP have not yet finalized their MoU and this at this point of time has caused further delays in the process.

- **Annex E. Best practices (OPTIONAL)**
- **Annex F Detailed Actions suggested**

Programme Management, Service Delivery

1. Identify and formalize roles and responsibilities between federal and provincial levels in immunization
 - Finalize PC-1 for 2016 and onwards and follow up on funding flows for vaccine procurement between federal and provinces
 - Ensure longer term provincial approval of federal vaccine procurement
 - Update cMYPs based on revised population data
2. Reinforce the role and capacity of the National Interagency Coordinating Committee
 - Review ICC TOR, including protocols as what are the events upon which ICC should be mandatory to be called.
 - Revise roles and responsibilities and membership regarding HSS (HSS subcommittee?)
 - Hold regular quarterly scheduled meetings and invite provinces to participate, possibly by videoconference.
 - Strengthen capacity of NICC by providing a specific Secretariat within federal EPI
3. Increase fixed EPI centres for sustainable service delivery and upgrade those not yet providing immunization
4. Map and involve local CSOs in immunization delivery
5. Strengthen HR capacity at federal and provincial level by developing a strategic HR plan - including staff supported by partners
 - Establish HR Manager position at the Federal EPI Cell
 - Map GoP and Partner supported staff numbers including TOR and performance management processes with KPIs including joint staff appraisals between GoP and partners
 - Develop a comprehensive career development plan
 - Ensure HR availability for longer periods of time at federal and provincial level (workshop capacity and workforce regulation of Nov 2013 and May2015) – building on political commitment
 - Provide HR surge capacity (technical and management support) at various levels, ensuring that seconded staff report directly to the EPI manager
 - Make sure all health workers get paid, the right amount, and on time (consider Polio team electronic payment system)
 - Follow up on regularization of previously Gavi-funded vaccinators
 - Increase technically qualified staff for vaccine management / cold chain maintenance, data management
6. Provide management support through regular EPI review meetings and relevant capacity building
 - Support management capacity and improve accountability by monitoring annual plan of actions through

- 6-monthly EPI review meetings at federal level linked to ICC meetings or videoconferences
 - quarterly EPI meetings including partners at provincial level and ongoing monthly district level meetings
 - technical and management capacity building support at all levels according to cMYP using innovative approaches, where appropriate
 - Provide improved subnational support for provincial EPI cells
7. Support service delivery through biannual EPI reviews and implementation of annual plans of action
- Develop annual immunization plan of actions at national and provincial level and perform joint annual reviews (quarterly review meetings at provincial and high risk district levels & biannual review meetings at national level)
 - Develop a dashboard so that we all can follow/review/ensure transparency – see Polio examples.
 - Ensure that CSOs are selected based on a competitive process with complete capacity assessment and where necessary conduct micro assessment by internal and external teams.
 - Scale up EPI services in health facilities presently not providing immunization
 - Scale up RED/REC support
 - Improve logistics for outreach services (Acasus model) - expand e-VACS or similar innovative system (hosted by ITD)
 - Improve immunization waste management
8. Ensure that specific strategies for urban slums and other marginalized populations are included in micro plans
9. Implement the EPI – PEI synergies plan
- Improve Polio - EPI synergies according to EPI - PEI Synergy plan beyond the original 16 districts and develop detailed work plan including evaluation /assessment system of the various initiatives.
 - Health facilities providing RI to provide RI vaccination during NIDs/SNIDs and outreach clinics to be planned during polio campaigns
 - HR: Polio staff to perform session monitoring
 - Include EPI issues in existing high level polio meeting agenda
 - RI indicators to be monitored regularly in the DPEC and Provincial Task Force meetings
 - EOCs to collect, analyse and regularly share key data with EPI for tracking progress with RI with robust feedback and follow up system on RI indicators on monthly or quarterly basis, so that local supervisory authorities can take corrective action.
 - EPI focal persons to have access to EOC dashboards and attend the daily/regular EOC meetings so that opportunities to coordinate and leverage polio resources and activities can be taken

Vaccine Supply Chain Management & Cold Chain

Surveillance and Data Quality

Actions suggested:

1. Improve population denominator data at operational level by Dec 2015, making use of polio data
 - Use Polio SIA data as a best proxy for denominator at UC or community level. Aggregate last 4 Polio SIA coverage data for <1 years and <5 years children for every community/UC for determining denominator.
2. Conduct coverage evaluation survey by district following standard WHO methodology and addressing equity by early 2016 and at regular intervals thereafter
3. Develop a comprehensive data quality improvement plan by Q4 2015
 - Perform data quality audits at provincial and district level in 2016 and improve capacity building of district staff on DQS

4. Document the experience of the Punjab e-Vaccs project by Q4 2015 and expand to the whole province by Q2 2016 and to other provinces by Q4 2016
5. Strengthening integrated communicable disease and AEFI surveillance
 - Expand the Punjab Communicable Diseases surveillance system in other provinces
6. Develop an integrated monitoring framework for EPI using a tool/dashboard
 - Explore integration of different data system e.g. vLMIS, e-Vaccs, surveillance dashboard and develop a dashboards for all electronic data system

Annex H

Proposed WHO HR Positions to support EPI Pakistan

EPI Service Delivery, Data Management

International P-4 Staff:

There is currently a P4 staff in the country office funded by CDC. However given the challenge of devolution and wide range activities in different provinces/areas with variable challenges there is a need for at least one additional P4 staff.

The proposed P4 staff to be funded from GAVI, shall oversee immunization service delivery at national/provincial level with a specific focus on:

- Providing Technical guidance to Federal and Provincial Governments on matters related to immunization in the country.
- Implementation of all five elements of RED approach with an equity lens at community level in the selected districts.
- Will impart technical assistance to the WHO NPOs as well as Federal and Provincial EPI staff for capacity building
- Assist in planning, implementing and monitoring of activities related to new vaccines support, data management and validation of data.
- Assist in proper utilization of GAVI and other donors support and required reporting.

National Professional Officers

NO-B

Currently WHO has four NPOs under SSA contract in four major provinces. Their contract is going to end in Dec 2015 and afterwards these will be converted to staff (NO-C) positions for which funding are expected from CDC. There is no HR support from WHO in five smaller federating units. For timely implement all the above mentioned responsibilities additional positions are required in four major provinces and in three federating units.

NO-C

At present there no national position at the country office level. Considering the workload and need for extensive coordination among four major provinces plus 5 federating units, it's proposed to have one additional national position at country office. This position in addition to provide technical assistance to the federal level and play a central coordinating role with the provincial counterparts will also look after the remaining two smaller federating units.

These additional positions are proposed to be funded by GAVI.

Under the overall leadership of the P4 staff, and working in close coordination with the Federal/Provincial EPI Cells, they will assist in implementation of the activities highlighted above at national and provincial level.

Cold Chain and vaccine management

National Professional Officer – C

Currently there is no position at WHO to support vaccine management. Numerous TA e.g. EVM assessment, EVM IP development, capacity building are currently provided through WHO RO and UNICEF to support country in area of vaccine management and cold chain.

The proposed NPO to be recruited through GAVI support would be based at national level but would provide assistance to both federal and all provincial/federating units in implementing EVM IP, capacity building, develop/revise SOPs, guideline etc. for vaccine and supply chain management according to standard protocols.

Health System Strengthening

International P-4 Staff:

Currently there is no international staff to coordinate the HSS related support to the country, including taking a lead for development of HSS proposal.

The proposed staff to be recruited through GAVI support will perform following functions.

- Provide technical support for GAVI- Health System and immunization strengthening (HSS) at Federal and Provincial levels
- Provide support on HSS related issues to MOH and WHO staff , to improve Grant development, implementation through-out their life-cycles, and oversight of grants' implementation at Federal and provincial levels , including assisting to address bottlenecks to HSS grant implementation with other departments and Partners
- Contribute to the documentation of HSS results , Joint Annual reviews, PBF reporting forms,
- Document lessons learned and continue
- Provide technical support coordinating Global Health Initiatives System Strengthening in various technical working groups (ICC and HSS committees)
- Prepare quarterly briefing and coordinate country involvement in quarterly GAVI Live monitoring
- Coordinate HSS work of the Federal and Provincial NPOs

National Professional Officers

Currently there are 5 HSS- SSA (1 Federal and 4 Provincial). However their contract is coming to an end in August 2015 with a possibility of extension till Dec 2015.

The proposed NPOs to be recruited under GAVI support will be crucial for successful implementation and success of the programme. They will perform the following functions:

- Forge relevant partnerships with the stakeholders including development partners for implementation and monitoring of Gavi HSS activities at the national, provincial and district levels. Foster critical linkages between the Donor driven (GAVI/GF/Global Health Initiative (GHI)) and other HSS initiatives and donor investments to strengthen impact and equitable access to healthcare.
- Will provide technical assistance under broad categories like Policy Analysis, Strategic Planning, Data Analysis, identifying issues and challenges in Health Governance, Service Delivery and Accountability in health with particular reference to immunization service delivery.
- Specific support will include coordination for development of training plans and tools to monitor and supervise trainings and other HSS work plan activities with relevant counterparts; oversee and support monitoring of work plan activities at all levels;
- Assist in regular reporting of the programme performance.

Proposed UNICEF HR Positions to support EPI Pakistan

S.No	Position	Level	Number	Source of funding	Life of funding
1	Immunization specialist	NoC	1	RR	ongoing
2	Health Officer Cold chain & VM	NoB	1	GBP	Dec 31 2015
3	Health Officer EPI	NoB	4	GBP	Dec 31 2015
4	C4D Specialist	NoC	1	used to be charged to PCV-10- ended in Dec 2014	NA

In addition to the above mentioned positions, we have one vaccine management unit in the Polio section comprising of one P3 position of vaccine management specialist that will end in September 2015 and one temporary appointment of NoB vaccine management officer recruited for the completion of the cold chain inventory.

Furthermore UNICEF Polio section is supporting 04 Vaccine Management Officers (VMOs). These are SSAs seconded to the Federal and provincial EPI (one each) who are exclusively focusing on SIAs and CCI. Till this time country had 27 SIAs and has planned 09 for the low transmission season. After the end of the low transmission season, in the second quarter of 2016, UNICEF Polio section will undergo major restructuring and most of the positions will be cut. Moreover, these VMOs are NoA level (to be verified from Polio section) Diploma holders and not qualified public health professionals who can steward the Effective Vaccine Management agenda in its true spirit.

- **INTERNATIONAL P-4 STAFF:** Shall oversee immunization service delivery with a specific focus on the implementation of all five elements of RED approach with an equity lens at community level in the selected districts. Will impart technical assistance to the UNICEF's Health Officers based in the provinces and the government counterparts at the provincial and the district level on equity and coverage especially with reference to the design and operationalization of the Reaching Every Community approach in the selected districts of Pakistan. This position will also leverage Polio resources for strengthen RI under PEI-EPI synergy agenda.
- **COLD CHAIN/VACCINE MANAGEMENT/EVM-** The proposed position shall be based at the Country office level and will ensure that the vaccine management progressively takes up standards and processes recommended by the Effective Vaccine Management (EVM) Initiative. Assists in identification and selection of technical supplies and cold chain equipment and recommends appropriate action based on evidence. Assists in the annual EPI forecasting and maintains the stock status of the vaccines and devices. In addition, imparts technical assistance to federal and provincial governments in the effective and efficient implementation of the EVM IP and communicates with local counterpart authorities on project feasibility and effectiveness including monitoring the flow of supply and non-supply assistance. In addition, these positions will deal with day to day operations and coordination related to RI with the government and partners and impart technical assistance to the government. Undertakes monitoring and supportive supervision, introduction of new vaccines and planning and operationalization of campaigns (Measles/TT).

- **NATIONAL C4D SPECIALIST:**

This NoC position will be based at the PCO level and shall work under the direct technical guidance of EPI specialist to impart technical assistance to the government at the federal as well as the provincial level to ensure that a C4D national communication strategy is translated into the costed provincial chapters and implementation is initiated.

Provide capacity building including training on C4D for RI to national counterparts at central and local levels as well as to other partners involved in RI. Works closely with the Polio section to ensure integrated communication especially in the context of introducing new vaccines in the country. Advocate with National and local authorities for political engagement for strengthening RI and for the endorsement of Behaviour and Social Change communication as a key strategy. Receive and share updates on C4D approaches and innovations and promote their adaptation to communication for RI.

- **HEALTH SYSTEMS STRENGTHENING**

UNICEF's Pakistan Country Office is also looking for one national HSS position to provide technical assistance to the federal and provincial counterparts on the effective and efficient implementation of the HSS interventions, communicate and coordinate with the relevant stakeholders, explore innovative models of public private partnerships, pay for performance and leverage resources between different streams of HSS support available to the country.

Annex I

Detail break-up of TA with cost by province (excel sheet)