<table>
<thead>
<tr>
<th>Country</th>
<th>Pakistan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full JA or JA update</td>
<td>☑ full JA ☐ JA update</td>
</tr>
<tr>
<td>Date and location of Joint Appraisal meeting</td>
<td>November 11th – November 20th 2018</td>
</tr>
<tr>
<td>Participants / affiliation</td>
<td>See Annex A for full list of participants</td>
</tr>
<tr>
<td>Reporting period</td>
<td>2017</td>
</tr>
<tr>
<td>Fiscal period</td>
<td>2017 for Partners, July 2017-June 2018 Government</td>
</tr>
<tr>
<td>Comprehensive Multi Year Plan (cMYP) duration</td>
<td>2014-2018</td>
</tr>
<tr>
<td>Gavi transition / co-financing group</td>
<td>Preparatory transition</td>
</tr>
</tbody>
</table>

1. RENEWAL AND EXTENSION REQUESTS

Renewal requests were submitted on the country portal

| Vaccine (NVS) renewal request(by 15 May) | Yes X ☐ No ☐ N/A ☐ |
| HSS renewal request | Yes ☐ No ☐ N/A X |
| CCEOP renewal request | Yes X ☐ No ☐ N/A ☐ |

Observations on vaccine request

| Population | 198,276,348 (Year 2017 as per PC-1) and 207,774,520 as per 2017 Census |
| Birth cohort | 6,939,672 (As per PC-1) not published as part of the census yet. |
| Vaccine | Pentavalent PCV IPV Rota |
| Population in the target age cohort | 6,426,136 6,426,136 6,426,136 6,426,136 |
| Target population to be vaccinated (first dose) | 6,426,136 6,426,136 6,426,136 6,426,136 |
| Target population to be vaccinated (last dose) | 6,426,136 6,426,136 6,426,136 6,426,136 |
| Implied coverage rate | 90.4% 90.2% 77.3% - |
| Last available WUENIC coverage rate | 75 75 67 - |
| Last available admin coverage rate | 90.4% 90.2% 77.3% - |
| Wastage rate (open vial) | 5% 10% 20% 5% |
| Buffer | 3 months 3 months 1 month 3 months |
| Stock reported | No Stock out No Stock out No Stock out No Stock out |
The targets were calculated on basis of the surviving infants which is 92.6% of the birth cohort. The requested doses calculated by apply the formula (Surviving infant’s × no of doses administered × estimated 90% coverage × wastage factor) and the closing balances and opening balances of the vaccine stocks at federal and provincial levels were also considered. Moreover, based on the data available in vLMIS and data provided by the provinces there was no vaccine stock out during 2017/2018. In addition, according to the National EPI Policy the wastage rate/wastage factor of vaccines are as Pentavalent 5%/1.05, PCV 10%/1.11, IPV 20%/1.25 and Rota 5%/1.05. Additionally, the three months buffer stock for Pentavalent, PCV and Rotavirus vaccine was requested in NVS application.

While there were no stock outs at national and provincial level, shortage of IPV in Punjab and irregularities at sub-provincial levels were reported.

**Indicative interest to introduce new vaccines or request Health System Strengthening support from Gavi in the future**

<table>
<thead>
<tr>
<th>Programme</th>
<th>Expected application year</th>
<th>Expected introduction year</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCV</td>
<td>Already applied</td>
<td>2019</td>
</tr>
<tr>
<td>MR</td>
<td>2019</td>
<td>2020</td>
</tr>
<tr>
<td>HPV</td>
<td>2020-21</td>
<td>2021</td>
</tr>
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2. **RECENT CHANGES IN COUNTRY CONTEXT AND POTENTIAL RISKS FOR NEXT YEAR**

**Major positive highlights**
- Report of PDHS re-confirming the positive trends in increasing coverage.
- Successful nation-wide measles campaign during a transition year for the government
- Closer collaboration with polio eradication team
- More attention to equity and reaching the missed children, e.g. during the measles campaign and as part of urban immunisation initiative
- Successful implementation of Y-1 CCEOP deployment and supply chain system design.

**An improving immunisation status**

Preliminary findings of the recent DHS 2017-18 show that the percentage of fully immunised children has increased from 54% to 66% since 2013-14. In terms of equity, across all metrics, the difference between highest and lowest categories are decreased while the capacities and performance of Provincial programs remain highly variable.

**Political transition**

Federal and provincial elections were held in July 2018 and resulted in a change of leadership at the federal level and in two of the four provinces. In all four provinces and at the federal level, new Ministers of Health and Secretaries of Health have been appointed. In the months leading up to the election, a caretaker government was appointed, replacing both the federal and provincial Cabinets as well as senior civil servants, including all

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2 Providing this information does not constitute any obligation for either the country or Gavi, it merely serves for information purposes.
Commissioners and Deputy-Commissioners. As a result of these political developments, most provinces and the federal level had at least three Ministers and Secretaries throughout 2018. The Prime Minister, Imran Khan, has laid down a 100-day agenda for change for his administration. In health, this agenda is focused on the development of new health strategies for each province. On PM’s portfolio, child health and nutrition are mentioned among the key priorities for his government.

Fiscal constraints
Pakistan has a low domestic investment in health and social sector. In addition, the government is currently facing financial challenges in terms of large fiscal deficits and a growing balance of payments. Foreign reserves posed bigger challenges of stabilizing the financial economy as a result Pakistan approached the IMF and foreign loans for a bailout in late 2018. Following this development, the Government of Pakistan has announced an austerity drive, and many provinces are facing budgetary shortfalls. This has impacted health and immunization program as well, whereas it is critical to continue reliable disbursements to meet the NISP goals. Advocacy continues for a shift of immunization expenditure from development to recurrent budget for sustainability, in addition to the importance of reliable and continuous release of development budget.

Response to the measles epidemic
To respond to a growing number of measles cases, Pakistan conducted a nation-wide measles SIA in October 2018. Having the campaign in the first weeks of having the new administration onboard posed so many concerned, nevertheless, the results show an over 95% coverage in half of the country (Punjab province) and close to 95% coverage in the rest of the country, confirmed by a post-campaign coverage survey. The campaign reached 37mil children in 2 weeks period and had no serious adverse events caused by that. Few other vaccine-preventable outbreaks affected the country in the reporting period. Wild polio virus outbreaks (in humans and environmental samples) were observed in more than 10 districts.

What needs to be done better?
* Pooled procurement mechanism in trouble
* Fund flow under the PC-1s (specifically in KP and Balochistan)
* Delays in recruitment of senior staff at the Federal and Provincial levels and threat of losing those who were recruited, due to fiscal constraints
* Bureaucratic bottlenecks that negatively affect programme implementation (e.g. TOR of project director, CES, delays with NISP requests and approvals)
* Need for more clear strategies and operational plans to reach the systematically missed children and marginalized families
* Stronger programme oversight, monitoring and reporting

Forward-looking review and risks to achieving programme objectives
2019, much like 2018 is set to be an extremely busy year for the programme, including a potential TCV introduction and catch-up campaign, the operationalising of the urban immunisation support which has been planned the last 18 months and the development of the Gavi Programme Support Rationale for HSS-3.

The ongoing support to Pakistan, through the Multi-Donor Trust Fund continues to require significant engagement by all parties. The change of government will require a close collaboration and high intensity of engagement and advocacy with new officials to assure the smooth running of a complicated DLI and reimbursement mechanism.

Risks
Sustainability: The sustainability of the programme, including the funding by government of vaccines and the addition of new vaccines and the continued effort to regularise resources is occurring in a more constrained
Pakistan Joint Appraisal (2018)

environment. As Pakistan enters a nationally constrained funding environment due to various economic factors, the continued growth in costs of the EPI programme (linked to increased co-financing) is a risk. The efforts to regularise the vaccine costs and critical HR costs of the EPI programme is at various stages across Provinces.

Equitable progress: Punjab continues to improve and strengthen its EPI programme while the progress across Provinces remains unequal. The diversity of issues and the growing gap in coverage and performance will further challenge programmes to tailor support, appropriately and to continue to challenge better performing programmes to reach missed children with new strategies (i.e. equity gaps in urban and mobile populations in otherwise high coverage areas).

Technical assistance dependency: The continued support by national and sub-national partner staff and the key gaps filled by expanded partner contracts are appreciated by Federal EPI. Staff are a blend of gap-filling and skill transfer. However, the more technical staff – such as those assigned to cold chain, surveillance and data management are filling key gaps and few positions are available in the government system to receive skill-building. The discussion on transfer of skills is frequent, however, the need to develop a plan to improve staffing in EPI is needed.

Polio transition: Pakistan is in the end stages of Polio eradication and continues to hold multiple campaigns annual with thousands of staff available through the polio programme. Efforts at PEI – EPI synergy are aimed at EPI using PEI resources and skills to strengthen RI, however, these opportunities and the key role played by PEI in demand generation for RI and surveillance will transition over time as the polio objectives are achieved.

Low demand linked to quality of care: As the focus continues to be expanding care to areas of the country where the services were low (remote and urban), there is less focus and attention on the quality and consistency of services. This requires further study, however, quantitative discussions reflect on the poor performance and interaction with government staff in certain areas and the poor access to funds for improving government facilities, including for even basic needs such as tables and chairs. This can affect demand for immunisation and will present as a key bottleneck in future years.

Key activities for 2019

* Full portfolio planning, with consideration of all the new policies and strategies that are being developed, informed by data and evidence.
* Revision of PC-1s (if needed) and restructuring of MDTF with availability of additional financing (with the assumption that financial flow matters are resolved quickly and there is no need to re-examine the model and support).
* Use the opportunity of the new government’s commitment to health and sustainability to move vaccine and other major costs from EPI PC-1s (development side) to the recurrent side of the budget.
* Make the quality of EPI reviews better by more systematic use of data, and focus them on immunisation bottlenecks to reach missed children. Request the Chief Minister to chair at least one of them in Q1/2 of 2019.
* Plan and mobilise Sindh for TCV, the same and even better than what was done for measles.

Full Portfolio Planning:
The HSS-2 grant was exceptionally approved under the Country Tailored Approach in 2016 for a 2016-2019 implementation (November). In this case, Pakistan is eligible for a new HSS investment beginning in 2020. The plan is to begin the full portfolio planning process in 2019, which would include the development of a new cmyp, government PC-1 and the new Gavi investment (all strategy documents to be aligned). It was discussed during the Joint Appraisal that the development of the various strategic documents will occur through the execution of a series of topic-specific missions including; data, immunisation supply chain, leadership and human resources etc.
The cost effectiveness analysis of new vaccines is currently under contracting in order to inform the development of the vaccine request in the proposal.

3. PERFORMANCE OF THE IMMUNISATION PROGRAMME

3.1. Coverage and equity of immunisation

Preliminary key findings of the Pakistan Demographic Health Survey 2017-18 were released in August 2018. This section summarises some key results by core coverage and equity metrics. Overall, we observe progress mostly across all metrics and all areas.

For example, the overall Penta3 coverage has increased from 54% to 75% in the last five years. When examining coverage estimates by provinces and areas, an increase is noted apart from KP and Islamabad Capital Territory where coverage has decreased by approximately 5%. Given that DHS surveys have typically a precision of ±5%, this decrease should be interpreted as coverage not having improved rather than decreased.

When comparing Penta3 coverage by residence, the gap between urban and rural areas has decreased significantly from 20% in 2012-13 to 10% in 2017-18. Similarly, in terms of wealth equity, the difference between the lowest and highest wealth quintiles has decreased from 58% to 42%. Maternal education has reduced from 36% to 26%. While we observe a reduction in both metrics, the overall difference still reflects significant inequities and warrants specific tailored strategies for reaching missed children. Section 3.2 details Pakistan’s efforts in designing and implementing pro-equity strategies relating urban settings and gender barriers. Of note, the difference in Penta3 coverage between males and females has remained similar (from 4% to 3%).
The Pakistan DHS 2017-18 also provides an analysis of the fully immunised child from two perspectives: (1) looking at the basic vaccines which coverage was measured in the last survey round (i.e. BCG, measles, and 3 doses each of DPT and polio vaccine [excluding polio vaccine given at birth]; and (2) age-appropriate vaccination which includes BCG, three doses of pentavalent, four doses of oral polio vaccine, one dose of inactivated polio vaccine, three doses of pneumococcal vaccine, and one dose of measles. When examining trends of age-appropriate vaccination, coverage estimates do not exceed 50% except in Punjab and Azad Jammu and Kashmir. The results are consistent with progress achieved to date vis-à-vis strengthening of coordination and accountability at the operational level. Punjab, owing to strong political commitment — and facilitated by the introduction of the e-VACC system to track vaccinators — pockets of under-immunised children were identified resulting in children being vaccinated. In Azad Jammu and Kashmir, there is strong demand for immunisation services and parents make a concerted effort to follow the immunisation schedule.

Data from polio post campaign surveys measures key RI indicators 3 times a year since 2017. In the absence of a full immunisation coverage survey, that gives a good overview of the situation in the country and geographic inequities.
3.2. **Key drivers of sustainable coverage and equity**

<table>
<thead>
<tr>
<th>Leadership, management and coordination</th>
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<tr>
<td>The challenges in the leadership, management and coordination of the EPI programme in Pakistan and particularly the issue of coordinating technical assistance at the Provincial level featured highly during the Joint Appraisal discussions. The issues in prioritisation, use of data and the development of annual workplans were key findings during discussions on the bottlenecks to improving the management and coordination of the EPI programme. Although Quarterly Reviews at the Provincial level occurred with more frequency, the further improvement of these reviews and the ability to follow-up on key actions is required.</td>
</tr>
<tr>
<td>The capacity of programme management varies significantly by Province. Gavi has engaged LMC support through Acasus in Balochistan and Sindh, two of the most challenging Provinces regarding management and accountability. The Acasus support, due to cuts from other donors, will be supported in three of the four Provinces for the tracking of high-level interventions to overcome bottlenecks.</td>
</tr>
<tr>
<td>There is significant technical assistance available across Provinces, with partners and expanded partners having Provincial focused support and staff. The communication between agencies and also between agencies and expanded partners is weak. Although significant effort is deployed in aligning terms of reference and key annual activities, there is limited collaboration and extremely limited information sharing. It was highlighted during the mission that there were multiple data collection efforts on key immunisation delivery inputs (health facility, staff, cold chain) being collected by different agencies/staff which leads to duplication and inefficiencies.</td>
</tr>
<tr>
<td>Gavi supports technical assistance in a review of the ICC in 2018. The report was finalised and an ICC capacity building plan is being developed for implementation in early Q1 2019. It is proposed that Acasus engage at a Federal Level to support the new ICC secretariat in Federal EPI in the execution of meetings and to facilitate the highlighting of key priorities to the committee.</td>
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<thead>
<tr>
<th>Supply chain</th>
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<tr>
<td>The immunisation supply chain in Pakistan has significant investments from Gavi and partners in order to improve both the design and the efficiency of the system. These are outlined in more detail in Section 4, including progress on CCE OP implementation.</td>
</tr>
<tr>
<td>Due to improved programme monitoring in Balochistan with the technical support of Acasus and Unicef, stock outs are being reported. The reasons for the stock outs are complex and under further review.</td>
</tr>
<tr>
<td>The immunisation supply chain in Pakistan is complex and through Gavi-support, the system redesign process reviewed key areas of risk, efficiency and equity for overall improvement. The mission agreed to bring forward the recommendations of the report to develop a costed implementation plan.</td>
</tr>
<tr>
<td>The installation and use of vLMIS in all districts in Pakistan was supported through remaining balances funding and is linked to a DLI. The mission highlighted key challenges as many Provinces launched new MIS systems, specific to Provinces in 2018. This led to a drop in use of vLMIS as data entry staff are now required to report in two systems. A key action is to develop a plan for integration or elimination of a platform for reporting in each Province and Area.</td>
</tr>
<tr>
<td>In 2017, Gavi completed a clean vaccine audit and a temperature monitoring study. Both of these reports have recommendations which are under implementation.</td>
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<tr>
<th>Health Work Force</th>
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<tbody>
<tr>
<td>In 2018, Pakistan developed a human resource vision document and have commenced a health human resources reform. This is expected to be a lengthy process. WHO has performed an EPI Review of EPI in 2018.</td>
</tr>
<tr>
<td>Pakistan’s EPI programme is vertical and there are a large number of vaccinators and Lady Health Workers around the country. However, the rationalisation, performance and quality of staff remains a significant challenge.</td>
</tr>
<tr>
<td>The attendance of vaccinators remains a challenge, despite the presence of e-Vaccs which highlights the need for accountability and a review of staff retention. A review in 2017 of Lady Health Workers showed there are some gaps in their training related to BCG and Measles vaccines and that only certain Provinces (Sindh) are permitting</td>
</tr>
</tbody>
</table>
them to vaccinate. There is a poor dynamic between vaccinators and LHWs which is expressed in meetings but needs further research.

The quality of human resources remains a significant challenge. Although steps have been made to improve performance in relation to attendance and capacity building, the size of staff and diversity of training and hiring protocols remains a bottleneck to improving quality of vaccination service. Technical positions, such as for cold chain maintenance remain a challenge to recruit and for existing posts to operate with high performance.

Service delivery

Progress on service delivery inputs: Service delivery varies in terms of coverage and capacity across the country. There are significant issues with the availability, quality and distribution of service delivery components: HR, fixed and outreach sites and cold chain. Efforts are being made by the government to open new sites, add more vaccinators and improve the performance of existing vaccinators. In KP, 71 new EPI centres were established. Sindh recruited 547 vaccinators in Karachi and 1732 vaccinators for Interior Sindh are under recruitment.

Engagement of private and CSO providers: Gavi is supporting the development of private sector engagement and CSO engagement frameworks (separately) through HSS and via expanded partner support. A recommendation from the Joint Appraisal in 2017 highlighted the need to improve EPI-CSO collaboration. The Secretariat contracted a CSO (CHIP) to support the development of standard contracts and improved information flow between EPI and CSOs at Provincial level to promote the use of NGOs and CSOs in hard to reach areas of the country. As part of this support, there was CSO EPI engagement during the recent Measles campaign and CSOs are working with Unicef on the urban immunisation programme. However, there remain significant challenges facing CSOs operating in Pakistan, including the registration and licence to operate.

International CSOs (ICSOs) are expected to register with the Ministry of Interior (MoI) while National CSOs are expected to sign MoUs with the Economic Affairs Division (EAD). Since 2015, 141 applications of ICSOs are received by Ministry of Interior. As of October 2018, only 63 ICSOs have been able to sign MoUs with them while 72 ICSOs are still waiting for a decision. Recently 18 large International CSOs were given notices of 60 days to wrap up their operations and leave the country. There are more than 5000 registered CSOs across multiple sectors in Pakistan. A landscape analysis of CSOs identified that CSOs working on health and immunization ranges between 150-200. The size of CSOs and their programme greatly vary across different provinces and districts. Both JPHIEGO and JSI have had programme delays due to pending NOC which had significant impact on timelines and support.

PCCHI, previously Gavi-supported platform in Pakistan received its last funding in early 2018. The Secretariat is still planning the modality of engagement with previously supported CSO platforms. Currently, the platform does not have other operating funds which is a risk to the continuity of the programme. During the mission, the CSO platform and their representatives prepared a detailed analysis on potential modalities of engagement through Gavi and partner support.

With PEF support, WHO commenced a series of consultations between EPI programmes and the private sector. Although there are opportunities to expand service delivery through private providers, a challenge remains with how to interact with the “informal” private sector which tend to be present in high need areas such as urban slums.

Urban immunisation:

Unicef through CSO CHIP has completed the profiling of eight (08) targeted mega cities (Faisalabad to be completed by end Dec 2018) identifying 4,287 slums and 667 underserved and high-risk areas. So far, total of 469 fixed EPI facilities have been assessed in addition to implementation of an EPI coverage assessment in the profiled areas. The final data is under validation and entry process and as a result numbers may change. Since the coverage rates for Islamabad Capital Territory have dropped, the government has requested to do the profiling of slums and coverage assessment in Islamabad Capital Territory as well. With this, underserved and high-risk areas in 10 mega cities would be made available for preparing a customised road map for strengthening routine immunization.

Equity-focused Integrated Urban Immunization/Health roadmap for Karachi and other mega cities has been updated and finalized. A monitoring framework for the roadmap developed, with an additional DLI duly agreed with provinces for the USD 16 million allocated for urban health initiative.
Technical Assistance (TA) plan has been drafted to roll out implementation. Routine Immunization (RI) micro plans have been developed for Karachi, Peshawar and Quetta and other mega cities of Punjab. Intensified field monitoring and performance-based payments to vaccinators and supervisors is being conducted in Karachi. An integrated service delivery prototype has been developed through CHIP (CSO) in selected slums of one UC (UC 110) of Lahore. Vaccination camps have been organised and total 261 children were facilitated for vaccination. Out of these 261, 14 children were zero dose and 147 were late for age appropriate vaccination. Advocacy, Communication and Social Mobilization (ACSM) Coordinators have been recruited to support four provinces through CHIP. They are based in Provincial EPI Cells and are supporting them in strengthening the communications committees at provincial and district levels. They are responsible to strengthen social mobilisation and demand promotion component in EPI system. UNICEF implemented 34 integrated (EPI/PHC) outreach sessions in August/September in Quetta where 629 (133 were zero dose) children and 109 pregnant women were vaccinated, 650 children were screened and 35 and 68 were diagnosed as SAM and MAM respectively and managed. Antenatal care was provided to 13 pregnant women. The latter data was collected through an android app and a web-based dashboard at provincial level. Effective use of GIS for mapping and micro planning is being finalized. Option of birth registrations is under discussion.

Overall, Government of Pakistan is very keen on urban immunization agenda, however, due to weak second tier of management, there are capacity constraints within EPI to coordinate across different sectors at national and provincial level. There is no strategic policy framework for urban health/immunization that calls for a national urban health/immunization strategy with multi-stakeholder involvement. In the devolved health context with predominant vertical programming; revamping and operationalization of Primary Health Care approach is the need of the time. Coordination across different sectors, operationalizing public private partnerships, establishing proficient fund flow mechanism are envisaged as potential key challenges. In addition, exact quantification of un immunized/under immunized children especially in urban disadvantaged/high risk and migratory population is another potential issue.

In 2019, the city specific concept notes will be translated into costed action plans and will be implemented, and progress will be monitored.

**Demand Generation**

Demand issues caused by numerous factors, including the lack of confidence in the system due to the inconsistency of timing and quality of government services. For polio campaigns, vaccinators travel from house to house which raises similar expectation for routine vaccination. EPI has poor branding when compared with the Polio program and needs support to strengthen its image.

The recent Measles campaign provided an opportunity to test and implement stronger demand generation approached. The learnings from the campaign are currently being documented. A new child platform registry in Sindh expands the capacity for SMS and voice messaging and is in contracting to provide 2-way SMS capability. This was used during the Measles campaign and the platform will be supported as an expanded partner in 2019.

The urban programme is gathering information from caretakers around where they find health information and how they learned of immunisation. This data collection, focused on urban poor areas, will inform a targeted demand strategy for Pakistan’s cities.

In 2016-2017, Unicef developed communications strategies for Federal and Provincial levels. These have not been supported with funding. There is technical assistance available for the improvement of demand generation efforts and planning at Provincial level.

**Gender-related barriers faced by caregivers and staff**

The LHW programme continues to work with EPI. The role of Lady Health Workers is deemed important in the provision of maternal and child health services and their terms of reference are growing. They are used in a variety of ways (as a vaccinator or social mobiliser or health educator) depending on the Province. Their involvement is being considered as part of the HR for health reforms. It is extremely important to assess their capacity in relations to the terms of reference assigned to determine if this is a right approach to overload them.

During the Measles campaign, the hours in Karachi were extended into the evening as mothers reported they could not leave the house with their child for an immunisation session without the Father present. This is an interesting learning which may point to challenges in business-hour vaccination sessions in Pakistan’s urban centres.
3.3. Data

### Status of health information systems

The administrative data flow, for coverage, surveillance and vaccine safety data, is more or less similar across province. Data is collected generally on a paper and/or electronic based system at the EPI Centre level which is then entered at the sub-district / district level. Differences are observed in the choice of the management information system tool ranging from interactive dashboards to Excel spreadsheets. The table below lists the tools used by province / area.

<table>
<thead>
<tr>
<th>Province / Area</th>
<th>Data Flow and System Used</th>
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<tbody>
<tr>
<td><strong>Coverage data</strong></td>
<td><strong>Surveillance and vaccine safety</strong></td>
</tr>
<tr>
<td>Monthly report is generated</td>
<td>Weekly report is generated</td>
</tr>
<tr>
<td>AJK, Balochistan, Islamabad (CDA / ICT), GB</td>
<td>Data is compiled manually in an Excel spreadsheet at the district level which is then sent to the provincial management team via email.</td>
</tr>
<tr>
<td>Punjab</td>
<td>Surveillance sites send weekly paper-based report to the district health office. Compiled data in Excel format is sent to provincial level by e-mail.</td>
</tr>
<tr>
<td>Sindh</td>
<td>Health facilities up to Rural Health Centres submit surveillance data through an online surveillance dashboard on a daily basis. Data can be directly accessed by the provincial level.</td>
</tr>
<tr>
<td>Data is entered at the sub-district level</td>
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The University of Oslo conducted a review of existing information systems in Punjab and Sindh in May 2018. Below are key findings:

Use of technology in Punjab is quite advanced albeit there is a definite need to standardise indicators and indicator definitions across systems. Indeed, there are over 30 systems utilised in the health sector. Integration has been highlighted as a significant challenge. The University of Oslo failed to identify an overarching structure and governance body taking care of how these systems fit together, how sharing of data is facilitated, and how these many data sources contribute to a bigger architecture that allows for integrated data analysis. Currently linkages between various health information systems is done manually. Sindh faces a number of bottlenecks which affects data quality and use namely:

- Fragmentation of data systems (between those used for tracking private sector activities and the child tracking system piloted by IRD)
- Lack of a regulatory authority for facilitating data use
- Duplication of data across systems (i.e. same data being entered into different systems)
- Poor completeness and quality of health facility data
- Lack of centralised hub which would help in ensuring that standards and norms are maintained across systems
- Stakeholders’ lack of willingness to integrate systems
- Lack of processes for standardised data collection and analysis

In addition, the Joint Appraisal mission noted the challenge of integration at the Federal level. To address this issue, Zenysis has been contracted through Gavi support to explore technical solutions for integrating / utilising the range of immunisation data sources available for decision-making.

Estimations of target population

In 2017, the Government of Pakistan commissioned a census survey. Up until now, the full set of results have not yet been disclosed mainly owing to the recent elections. Indeed, only district-level data is available by gender (data by age group has not been shared). Once made available, they will inform the revision of target population estimates currently used by the programme.

Data availability, quality and use

A data quality assessment was conducted in 2016 which highlighted significant issues in the collection, analysis and use of routine immunisation data. Resulting data improvement plans were developed; by and large, at least 60% of activities have been completed (except for GB) as illustrated by the below graph. In KP, the development of new vaccination cards as well as child booklets for women of child bearing age is still pending. As for Punjab, while digitalised maps at the Union Council level have been made available, this has yet to be done at the facility level. In Sindh, a number of activities remain to be implemented ranging from making digitalised maps available and training on and reinforcement of the use of data collection tools by vaccinators. In Balochistan, a number of challenges are observed:

- Use of tally sheets by vaccinators is irregular;
- Temperature monitoring during holidays is not ensured;
- Vaccinators are not using a defaulters list;
- Supervisory plans are not made properly, and reports or feedback are not provided to the districts or health facilities;
Pakistan Joint Appraisal (2018)

- Districts have not prepared and shared their annual work plans nor their micro plans with provincial office; and
- Equitable distribution of vaccinators is under process but not completed.

A repeat data quality (self) assessment is planned in all provinces and areas in 2019.

Compliance with Gavi’s data quality and survey requirements
Pakistan is compliant with all data quality and survey requirements. Of note, the review of available coverage data conducted in Mar 2018 (supported by WHO) resulted in a revised time series of official country estimates which was endorsed by the WUENIC working group. The Pakistan Demographic Health Survey key findings are available. A nation-wide MICS survey as well as provincial MICS surveys (Punjab and Sindh) are planned. The KP MICS survey is at the data analysis stage. Given the number of upcoming surveys, a second review of coverage data is planned in Feb / Mar 2019 to review and revise if applicable the time series for the different antigens.

3.4. Immunisation financing
The Aide-Memoire, the report provided by the World Bank on the progress of the MDTF, was made available following the mission in December 2018 and is available in Annex B. The report outlines the reasons for the World Bank's downgrading of the project status to “Moderately Unsatisfactory” and outlines key actions by the Government of Pakistan and partners in overcoming challenges. The key performance issues outlined by the report include;

1. Delays in release of Provincial Development Budget to EPI programmes (particularly for Sindh, KP and Baluchistan)
2. Shifting of EPI expenditures from development to recurrent budget
3. Procurement under the project (issues in process for procurement which leads to unnecessary delays)
4. Issues during the GoP transition for the pooled procurement mechanism for vaccines. The funds for the procurement by Federal EPI has not been made by the Ministry
5. Financial Management (progress on the DDO codes have been made but still challenges with performance of the Financial Management Specialists under the project)
6. Social and environmental safeguards compliance has also been downgraded, with specific actions by the WB to support Federal EPI in implementing the policies

- Availability of national health financing framework and medium-term and annual immunisation operational plans and budgets
- Allocation of enough resources in national health budgets for the immunisation programme/services
- Timely disbursement and execution of resources: i.e. expenditure on PC-1 for 2016-2017 and 2017-2018
- Adequate reporting on immunisation financing and timely availability of reliable financing information to improve decision making

4. PERFORMANCE OF GAVI SUPPORT

4.1. Performance of GPF and Vaccine Support

Performance against GPF targets for all Gavi support
Based on GPF targets, achievement varies across provinces and areas with Punjab and AJK being high performers. This is coherent with the key preliminary findings of the Pakistan DHS 2017-18. The other provinces and areas struggle with a number of challenges ranging from inequitable distribution and numbers of vaccinators (Balochistain, CDA and ICT), insufficient supervision and accountability of staff (Sindh and KP), insecurity (FATA and
Of concern is the fact that overall performance has regressed since the last Joint Appraisal. Supporting narrative and rationale is included in section 4.2.

### NISP Performance and Results Framework

**Achievement of Gavi Grants by Province & Areas**

*Jan – June 2018 Achievement*

- Punjab: 20
- Sindh: 12
- KP: 14
- GB: 26
- AJK: 11
- FATA: 22
- CDA: 24
- ICT: 23

Legend:
- Green: Indicators met target
- Red: Indicators did not meet target
- Grey: Indicators for which target achievement comparison is N/A

**Overall Achievement of Gavi Grants at National level**

*Jan – Dec 2017 Achievement*

- 38 indicators in green:
  - One reporting and monitoring tool for both Gavi and the World Bank
  - Results framework includes 38 indicators which are monitored both at Provincial/Area but also Federal levels
  - Reporting is done through the Gavi Country Portal
  - This shows that some indicators have not met target owing to significant delays in the implementation of key activities.

- 16 indicators in red:

Legend:
- Green: Indicators met target
- Red: Indicators did not meet target
- Grey: Indicators for which target achievement comparison is N/A

### Performance of Vaccine Support

When the analysis is restricted to vaccine support, based on administrative data, coverage targets were met by and large for all antigens and doses except for rotavirus vaccine. Currently, Pakistan does not have official targets for the 2nd dose of measles vaccine which will be addressed in the upcoming revision of the cMYP. The picture is less rosy when examining drop-out rates which still remain high for ongoing vaccines (e.g. pentavalent, PCV and measles) and even higher for rotavirus which is newly introduced. Lessons learned from the recent measles showed that close monitoring of immunisation activities (supported by digital tools) can help in identifying missed children who are then vaccinated as soon as possible. The institutionalisation of this measure is proposed as a remedial measure in all
provinces and areas of Pakistan. This will be facilitated by the scale up of digital child registration systems in Punjab (i.e. e-VACC 3rd generation) and Sindh (ZM).

Figure: Progress of Vaccine-specific indicators, 2017

Measles Campaign Section
Measles campaign was concluded in the weeks preceding to the Joint Appraisal with high administrative coverage and no major reported AEFI. The mobilisation was phenomenal, and the initial data received through the post-campaign coverage survey indicates over 92% coverage across all provinces and in Karachi. A separate report is to be generated on the campaign and its lessons learnt.

PCV Switch
Pakistan will switch PCV10 presentations in 2019, from 2 dose to a 4 dose presentation, with the main difference being that the new 4 dose presentation contains preservative and meets the criteria for the multi-dose vial policy (MDVP) application. When the country introduced PCV10 in 2012-13, significant efforts were made to raise awareness on the fact that the 2 dose vial was in fact a multi-dose vial liquid vaccine but did not meet the criteria from MDVP, so it had to be handled differently than other liquid vaccines in the programme.

In the recent measles SIA ToTs in Sindh a brief orientation on the upcoming switch was included, but it is expected that all provinces will need to at least conduct training of EPI coordinators/DSVs to assure the switch is conducted safely and effectively, with focus on effective vaccine management. Training will be conducted as per the plan developed for the district and UC level staff. Additionally, extensive supervision and monitoring will be required after the switch is conducted to ensure compliance and avoid potential stock outs.

Building in the EPI/PEI synergy and taking lessons learnt on the tOPV switch emphasis will be placed on the effective monitoring and supervision of this switch. EPI and Polio staff from the government and partners will carry this monitoring and supervision. It is expected that there will be an overlap of the two presentations at district and health facilities for some time. Clear instructions will be provided to the health workers to use first the 2 dose vials. For the successful completion of the switch a “switch grant” support of 0.25USD will be available from Gavi according to the application.

TCV application
In the recent IRC meeting the TCV application for Pakistan has been approved with clarifications. The current plan includes SIAs in all urban areas of Pakistan starting from Q2/Q3 2019 in Sindh, followed by introduction of routine, as per the following plan (the plan might be modified based on the availability of vaccine and the decision letter). The country phased introduction will take place over a period of 3 years approximately.

The target age group for the SIAs is 9 months to 15 year with a population of 39.7 million. For the routine TCV dose will be administered at 9 months of age with a total target population of 7.5 million children. WHO, along with other partners, has conducted 3 missions to the country in 2018 on the request of MoH to assess the situation of extensive drug resistance for typhoid disease, sporadic outbreaks and providing remedy actions.

Surveillance
In spite of many efforts and significant improvement in the last 3 years, VPD surveillance in Pakistan still requires strong investment and support to expand to all health facilities including private sector and traditional healers.
Measles case based surveillance started in 2012 and has much improved since 2016 when dedicated staff was hired by WHO at the provincial and area level. VPD and AEFI surveillance training has been conducted for the district staff, as well as review meeting at provincial and district level. With the support of WHO staff, a weekly VPD and AEFI Surveillance bulletin is issued on a regular basis in every province. In the last 2 years, the non-measles reporting rate was above 2 per 100,000 population. At the moment around 8000 sites exist for VPD surveillance in the entire country.

VPD surveillance is an integral part of the integrated disease surveillance system and response.

There is a dashboard for VPD surveillance which is part of the overall dashboard for EPI.

In the context of the current EPI/PEI synergy, Polio staff is supporting VPD surveillance in all provinces.

It is worth mentioning that online VPD reporting and outbreak response systems are established Punjab and KP for the timely reporting and response activities. In 2017-18 Pakistan experienced extensive measles outbreaks which affected more than 51 thousand children and caused around 430 deaths, as seen in the table below:

### Table: Measles cases, outbreaks and deaths 2017-2018

<table>
<thead>
<tr>
<th>Province</th>
<th>Measles cases 2017</th>
<th>Outbreaks 2017</th>
<th>Deaths 2017</th>
<th>Measles cases 2018</th>
<th>Outbreaks 2018</th>
<th>Deaths 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punjab</td>
<td>3084</td>
<td>24</td>
<td>3</td>
<td>11303</td>
<td>121</td>
<td>113</td>
</tr>
<tr>
<td>Sindh</td>
<td>5294</td>
<td>98</td>
<td>55</td>
<td>7400</td>
<td>181</td>
<td>122</td>
</tr>
<tr>
<td>KP</td>
<td>10895</td>
<td>112</td>
<td>15</td>
<td>9992</td>
<td>529</td>
<td>18</td>
</tr>
<tr>
<td>Balochistan</td>
<td>1703</td>
<td>51</td>
<td>77</td>
<td>1386</td>
<td>36</td>
<td>44</td>
</tr>
<tr>
<td>Total</td>
<td>20976</td>
<td>285</td>
<td>131</td>
<td>30081</td>
<td>608</td>
<td>297</td>
</tr>
</tbody>
</table>

In order to assess the disease burden and generate evidence based data for informing decision making, sentinel sites were established in major hospitals: 3 IBD, 4 Rotavirus disease and 4 CRS surveillance. A monthly bulletin from the sentinel site surveillance is also produced on a monthly basis.

WHO is supporting the national Labs for measles, rota (also at hospital level) and IBD which are fully functional. There is plan to expand with 2 subnational measles labs in KP and Punjab in Q1 2019, and potentially continue expansion to other provinces.

Support of VPD activities will continue to be a priority for EPI and WHO in 2019.

### Synergy EPI/PEI

A concept note on synergy was developed to guide the Synergy Task Force, which met on a weekly basis, in achieving the following goals:

- To ensure the synergy work to achieve the results as indicated in the National Emergency Action Plan (NEAP) 2017/18
- To collaborate and coordinate between EPI and PEI at the national, provincial and district levels to increase the vaccination coverage to at least 80% of IPV-1 and pentavalent 3.
The measles SIA was a turning point in the relationship between EPI and PEI when the worked in a very coordinated manner at all levels:
- The national/provincial EOC Coordinators were members of the National/Provincial Steering Committees for Measles SIA
- Representatives from the National/Provincial EOCs were members of the technical subcommittees
- All PEI staff at all levels were mobilized to participate in the measles SIA starting from the planning phase through the implementation phase
- PEI administration structures at the district level (DPEC) were fully involved in the implementation of the measles SIA

This lesson learnt should be the foundation for strengthening the cooperation and coordination between EPI/PEI in achieving future goals.

The realisation is now there, across the board, that without a strong routine system, eradication cannot be achieved.

Out of the 12 wild-polio cases identified in 2018, 8 had received no routine dose (66%). RI is generally very weak in polio priority districts. Strengthening RI in polio tier-1 districts can help reducing inequities and expedite polio eradication in Pakistan. Modelling exercises have demonstrated that for every 10% increase in RI coverage, the odds of reporting a polio case decreases by 25-30% (Molodecky N. PLOS Med 2017).

Work through new technologies brought in by partners such as Zenysis technologies can help identifying the zero dose children and link them with routine. This kind of work to continue in 2019 and assessed during the next JA.

4.2. Performance of Gavi HSS support (if country is receiving Gavi HSS support)

HSS Grant Performance
The HSS grant is channelled through the World Bank’s National Immunisation Support Project which utilises a disbursement-linked indicator (DLI) system. As such, the analysis of NISP / HSS performance is reflected by progress achieved against expected DLI per project year. The choice of these metrics is informed by bottlenecks identified at the start of the project and reflect core immunisation activities and relevant practices that should be implemented by the EPI programme. While targets have only been set for provinces, these metrics are also tracked for each Federating Area; a national aggregated figure is also calculated. Provincial target setting factored available capacity and resources into account; for example, much more is expected of Punjab than of Balochistan.

The below graph shows progress achieve to data against DLIs. Cells in red indicate that targets are not achieved; those in yellow reflect that target is almost achieved (within 10%) and green cells indicate target achievement based on self-reported data. In terms of Federating Areas, progress by and large is slow. Almost all indicators show poor performance except for AJK where routine immunisation activities appear to be implemented. This is confirmed by the results of the Pakistan DHS 2017-18.

Table: Progress on DLIs, by Province

<table>
<thead>
<tr>
<th>S#</th>
<th>Indicator</th>
<th>Year</th>
<th>Province</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Punjab</td>
</tr>
<tr>
<td>1</td>
<td>Percent of children aged between 12-23 month old in each project province who are fully immunised</td>
<td>3</td>
<td>Green</td>
</tr>
<tr>
<td>2</td>
<td>Percentage of UC in each project province for which revised computerised UC level micro plans are in functional use at district and provincial levels</td>
<td>2</td>
<td>Green</td>
</tr>
</tbody>
</table>
### 4.3. Performance of Gavi CCEOP support (if country is receiving Gavi CCEOP support)

<table>
<thead>
<tr>
<th></th>
<th>Percentage of districts in each project province reporting at least 80% coverage of Penta3 immunisation in children between 12-23 month old, as validated by third party</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Percentage of districts in each project province with at least 80% timely and complete reporting on vLMIS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Percentage of districts in each project province with their recognised surveillance sites having functional online surveillance systems for VPD and AEFI</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Percentage of districts in each project province with at least 95% functional cold chain equipment in place as per specifications in each tier of the health system (including at least 1 month buffer stock capacity at district level)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Percent of detailed UC supervisory plans implemented by district supervisors and made available to supervisor officers in each project province</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Percent of children under two years of age with vaccination cards available in each project province</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>No data is available</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Budget allocations for immunisation are continuous, adequate and can be easily tracked within the provincial financial management information systems</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

Punjab has met the majority of DLIs apart from the ones relating to the scale-up of the vLMIS and financial management system. Uptake of the vLMIS has been particularly challenging given the number of current information management systems utilised by the Punjab EPI programme. Indeed, it has been scaled up to all 36 districts only as of May 2018. With ongoing technical assistance, Punjab has shown progress albeit the target has not yet been met. The World Bank has contracted Ernst & Young to help all Provincial Governments track expenditure relating to immunisation. This work is progressing, with DDO codes established in two provinces and a framework for tracking in-kind and off budget support developed. Full implementation of the national immunization accounting system will form the basis for the transition to sustainable immunization financing. This will require continued political commitment and investment of financial management human resources. Sindh has experienced challenges in meeting targets partially owing to a delay in the release of funds as well as insufficient staff (and their relative distribution) at the operational level. A total of 547 vaccinators were recruited for Karachi; the recruitment process for an additional 1,732 vaccinators is underway. The latter staff will be posted in interior Sindh. It should be noted that the tenure for District Health Officers has been habitually too short to ensure that qualified capacity is retained at the district level. As a result, basic activities such as micro-planning and supervision did not occur owing to a lack of available tools (e.g. supervision checklists) and trained staff (resulting from high turnover).

The Pakistan DHS 2017-18 showed a lower Penta3 coverage for KP as compared to the 2012-13 survey. Since the inception of the NISP, a number of significant fund flow challenges were experienced. Firstly, the terms of the financing agreement and what is budgeted under the PC-1 are not coherent resulting in queries being raised by the respective authorities involved in the release of annual funds. While KP has reported having achieved the bulk of DLIs, this has yet to be validated by an external party.

In Balochistan, no funds have been released in the last six months owing to the recent Government change. In practice, this means that no salaries for district level staff have been paid therefore significantly affecting the motivation of staff to perform routine immunisation activities. This serious issue has been raised a number of times with the relevant provincial authorities by the Alliance; however, thus far, this issue has not come to a resolution.

More detailed analysis on the progress against DLIs is Available in Annex B.
CCEOP Target Achievement

All targets for CCEOP were met for all provinces and federating areas, as targets were revised downwards for 2018 upon order and receipt of shipments. Targets for 2019 and 2020 have yet to be defined based on the revised Operational Deployment Plan.

CCEOP Performance

The country is receiving Gavi supported CCEOP equipment to improve cold chain capacity in the country. A total of about 15,000 CCE are planned to improve cold chain capacities during this period. The country is currently implementing year one with operational plans to install 6,828 CCE in 5,124 facilities by end of December 2018. The number of new facilities that the year one deployment vary for each Province. While KP equipped new 91 new facilities to deliver RI, FATA has 25 newly facilities equipped and Balochistan 13. The other Provinces and Areas concentrated on improving the capacities of existing facilities and replacement of obsolete and non-functional cold chain equipment.

The plan for year 2 CCEOP deployment is ongoing, incorporating the learnings from Year 1 and system redesign. Provinces are focusing on equipping for facilities to serve the underserved communities and improved equity as a follow-up of the system design findings. The performance of the operation of the CCEOP in Pakistan have been very satisfactory with minor challenges that are been addressed as the process continue. Some of the lessons learnt during the year one deployment would be used to improve Year 2 operations.

System Design

The overall objective of the system design study in Pakistan was to improve the immunization supply chain efficiency, reduce cost and improve equity. A summary of the extent to which the system design achieved the objectives are summarized below:

(1) Efficiency
✓ Point of Entry: Potential annual reduction of in-country vaccine and dry goods travel distance
✓ Potential distance travel reduction by 99% on PKR4bn/$38M worth of vaccines (Sindh), 81% on PKR8bn/$74M worth of vaccines (Punjab) and 83% on PKR924M/$8M worth of vaccines (Balochistan)
✓ Potential distance travel by dry goods reduction by 99.7% (Sindh), 81% (Punjab) and 83% on (Balochistan)
✓ Number of handling points reduces by between 3 and 5 for vaccines and dry goods across provinces
✓ Provinicial: Varying inputs for each Province with improve infrastructure and HR to implement an effective ISC system.

(2) Cost
Point of Entry
✓ In Sindh, potential savings of about $1m (PKR100M) in vaccine (RI and Polio) freight costs and about $500k (PKR50M) in dry goods freight costs over 5 years
✓ In Punjab, KP and Balochistan , change in point of entry increases vaccine (RI and Polio) freight costs by $700k (PKR85M), $215k (PKR24M), $30k (PKR3.5M) respectively

(3) Equity
✓ The major outcome of equity from the system design analysis was applying it to determine the underserved population, identify existing facilities thin those areas with no CCE and plan to equip them in year 2 ODP.
✓ The second application was to prioritized facilities with HRs for support to deliver immunization services

Next steps
✓ Development of implementation guideline with timelines by provinces and Areas
✓ Detailed costing of activities required to implement system design changes
✓ Mobilize resources to implement roadmap
✓ Re-evaluate changes agreed and make realistic changes as may be required

4.4. Financial management performance
Currently, cash support is channelled through partners via the MDTF and direct agreements with Unicef and WHO. A summary of the support, utilisation and compliance of reporting is provided in the table below.

Financial flow issues from PC-1 to be outlined

**Status of Funds Flow:**

**Federal:** Procurement of Vaccines under pool procurement has been approved duly endorsed by ECNEC decision with provision for adjustment / settlement of provincial payments against the vaccine shares respectively. For last two years the Provincial payments against the provincial shares of vaccine procurement were adjusted by Federal adjuster, yet authorization from P&D is required annually for release of PSDP funds against allocation. Current year release is on hold as P&D is awaiting the provincial consent for deduction at source before the releases can effectuate. Finance is on board, yet the case is being pursued for ensuring uninterrupted supply of vaccines

**Baluchistan:** Funds under development releases are frozen in Balochistan. Funds were released in first 2 years as per requirement and allocation although with some delay. In FY 2018-19, work plan of more than 600 million PKR was submitted to P&D for operational cost and staff salaries but not completely approved. Still no amount is released for operational and salary expenditure

**Sindh:** Funds not yet released, currently under process in Finance.

**Punjab:** Funds for half of quarter released against PKR 4300 M Allocation. Salaries of 500 vaccinators for the 2017-2018 not released.

**KPK:** Funding not released. Allocation of funds under two separate components for MDTF) and ADP components jeopardized the smooth flow of funds and lack of clarity in understanding of Provincial Finance and P&D Departments. KP-EPI has submitted PC-I for revision which will follow a lengthy process of administrative approvals.

**Status of PC-I Recruitment:**

**Punjab:** Delayed -PC-I positions renationalized from 71 to 26, yet Advertisements were made for recruitment, no progress made till now. 500 vaccinators out of sanctioned total 2357 vaccinators were hired last year, yet year salaries for 6-months were only released in last year with no releases in current years. Hiring of remaining vaccinators thus not yet started owing to the lack of clarity and delays in releases of salaries of existing 500 vaccinators.

**Sindh:** In Process -Recruited 547 Vaccinators in Karachi, while written tests conducted for remaining 1732 Vaccinators for Interior Sindh, Interview will be conducted in Dec. Recruitment process for PC- Staff positions has been completed, offer letters to be issued.

**KP:** On Halt- Recruitment for PC-I positions at halt due to court stay order issued under the litigation case filed by Paramedic association. No vaccinators were hired under KPISP PC-I. However earlier 1500 vaccinators were hired earlier under integrated PC-I supported by DFID.

**Baluchistan:** Completed -Recruitment of PC-I positions completed yet facing issue of release of staff salaries in current year due to shortage of funds. The EPI program is facing the prospect of losing these hardly-won human resources.
Pakistan Joint Appraisal (2018)

Financial management specialists positioned at EPI offices in Islamabad and provinces through NISP can play a stronger role to advise EPI and minimize financial flow hinderances. EPI is to revise the TORs and ensure they coer beyond NISP and support overall financial capacity development.

NISP fund flow delays were not limited to payments against DLIs, also there was a delay in signing Unicef MoU for TA component. The issue is from legal teams and due to a condition put forward by Gates Foundation on use of investment income.

**Table: Cash grants to Pakistan, by implementing entity**

<table>
<thead>
<tr>
<th>Grant Type</th>
<th>Implementing Agency</th>
<th>Budget</th>
<th>Funds Utilised by January 2018</th>
<th>Funds Utilised by June 2018 (if available)</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIG Rotavirus</td>
<td>WHO</td>
<td>1,372,441</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VIG Rotavirus</td>
<td>UNICEF</td>
<td>2,537,695</td>
<td></td>
<td>487,942.60</td>
<td></td>
</tr>
<tr>
<td>ISS</td>
<td>UNICEF</td>
<td>5,182,240</td>
<td></td>
<td>4,445,109.05</td>
<td></td>
</tr>
<tr>
<td>ISS</td>
<td>WHO</td>
<td>9,480,000</td>
<td>9,098,048</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HSS-2</td>
<td>World Bank*</td>
<td>99,750,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CCE OP</td>
<td>UNICEF</td>
<td>15,392,139</td>
<td></td>
<td>na</td>
<td></td>
</tr>
<tr>
<td>Measles Remaining balance³</td>
<td>WHO</td>
<td>20,699,680</td>
<td>10,825,988</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HSS-1</td>
<td>Federal EPI</td>
<td>16,898,500</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All other remaining balances (VIG IPV &amp; PCV)</td>
<td>WHO</td>
<td>3,697,440</td>
<td>2,679,723</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All other remaining balances (HSS-1)</td>
<td>UNICEF</td>
<td>3,344,400</td>
<td>125,494.80⁴</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Remaining Balances**

**ISS:** The ISS grant balances as of 18 November is 185k USD. Based on the agreement between WHO and Gavi, the unspent funds of the ISS grant were used on the preparation activities of the measles SIA.

In addition, these funds were used on:
- HR review of Fed and provincial EPI programs
- Development of EPI MIS
- Scale up of Vaccine logistic management information system (vLMIS)
- Data Quality assessments and DQIP
- Comprehensive EPI Reviews Comprehensive EPI review
- Coverage Evaluation Survey
- MLM Training

³ Remaining balance from 2012 disbursement
⁴ Remaining balance requested to be reimbursed
Pakistan Joint Appraisal (2018)

- Strengthening VPD Surveillance
- Training in micro-plan development for RI
- Providing funds to IHME

**Rota VIG and other VIGs:** The remaining balances under the Rota and other VIGs grants as of 18 November is 425K USD, expiring in December 2018 and January 2019. Although in the application the Rotavirus vaccine introduction was planned on 01 January 2017, but it was done in phase manner as described in the proposal. Leverage was given to the provinces to complete preparatory activities, as cold chain expansion was under way. Punjab was the first province to introduce Rota (December 2017) and FATA is the last area (August 2018). The Rota vaccine is now part of the immunization schedule throughout the country.

WHO, supported the pre-requisites for the introduction of new vaccine;
- National consultation was held on 26-27 Jan 2017
- Development, guidelines, revision of EPI recording and reporting tools to incorporate Rota vaccine
- National TOT was conducted on 16-17 Feb 2018
- Training of the health workers.

The remaining balances will be used for the development of the updated cMYP, outreach activities and monitoring and supervision.

The Status of vaccine audit recommendations, as reported by the government is captured below:

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>VSM 1: Incomplete implementation and under-utilisation of the web-based stock recording tool</td>
<td>The Vaccine Logistics Management Information System (vLMIS) has been rolled out throughout the country in 2018 and data reporting on vLMIS has been improved.</td>
</tr>
<tr>
<td>VSM 2: Data migration from manual registers to the web-based tool not effectively planned</td>
<td>During the Vlmis roll out in the country the data migration was done following the properly planned procedure with the support of the Chemonics and all retrospective data was migrated from manual ledgers to the System. Moreover, the technical personnel at federal, provincial and district level offices were trained for the data migration.</td>
</tr>
<tr>
<td>VSM 3: Non-compliance with ?Early Expiry First Out? (EEFO) principles</td>
<td>Early Expiry First Out EEFO principal is being followed at all level considering the effective vaccine management practices. In some cases like the progressed VVM and smaller batch size the late expiry batches are issued earlier but the priority in the vLMIS system are always followed. Moreover, the EPI is also planning to update the logistics manuals Based on Best Practices following EVM guidelines. The issue will be addressed in revised logistic manuals.</td>
</tr>
<tr>
<td>VSM 4: Discrepancy between the stock records maintained in manual registers and the web-based tool</td>
<td>These discrepancies were found at Provincial level at the time of Gavi vaccine audit. At that the Vlmis was not fully implemented in the country so that was the main reason of the discrepancies but now the vLMIS has been rolled out through the country and discrepancies have been minimized at all level.</td>
</tr>
<tr>
<td>VSM 5: Discrepancy between the quantities of stocks physically found in the vaccine stores and the stock records</td>
<td>These discrepancies were also observed at Provincial level during the Gavi audit. This issue has been addressed through periodic stock count and minimized after the roll out of vLMIS.</td>
</tr>
</tbody>
</table>
Transaction in stock records have improved by the segregation of the duties of the staff handling the stock physically and in system. Moreover, the periodic count of the stock has also been done on regular basis which has improved the system.

The cold chain capacity of the provinces and districts have been enhanced through Rota VIG at Provincial and district level and through CCEOP at district level, so this issue has also been resolved. Moreover, the provincial and Areas cold rooms/freezer rooms are equipped with the web based Central Temperature Monitoring system for 24/7 monitoring of the temperature of the CR/FRs which have improved the temperature monitoring of the cold rooms. In addition, the WHO PQS Fridge tags have also been provided to the provinces/districts to improve the temperature monitoring of the vaccines.

Duties of the vaccine management staff have been segregated with specific controls in the system e.g. the person who is responsible for the receiving of vaccine cannot enter the issuance data of the vaccines and vice versa. Moreover, the officials have also been designated to investigate the entries in the system (receiving and issuance) and identify errors which are rectified on real time basis. The store keepers does not have access to do purpose transfer and adjustment in the system. Deputy NPM Operation and Deputy Director Operation are authorized to do the adjustment of any after mentioning the reason.

The Programme Capacity Assessment was finalized and GMRs are in final draft stage to be shared with the country in the coming weeks.

### 4.5. Technical Assistance (TA)

#### Progress and challenges in technical assistance provision in Pakistan, 2017-2018

Based on Technical Assistance (TA) needs identified during previous Joint Appraisal, in 2018 Pakistan was receiving support via Core and Expanded Partners in the following focus areas:

- Coverage and Equity (Urban immunisation)
- Vaccine specific needs
- Leadership, Management and Coordination (LMC)
- Data
- Health Financing and Sustainability
- Demand Promotion
- Supply chain design

Table: PEF TCA Support to Pakistan, 2018 by Programmatic Area
Overall, there was a positive response on the provision of TA in priority areas, although the coordination and information sharing between partners and government remained a challenge.

The implementation of technical assistance to support EPI faced the following challenges;

- Human resources: contracting or hiring personnel for implementation of activities under current contracting mechanism
- Lack of coordination and information sharing between existing partners
- Lack of funding or untimely funds allocation result in delays of implementation of certain activities

**General reporting compliance overview, 2018**

All the partners have reported on their activities during June and November rounds of reporting. In general, most of the planned activities were completed on time or on track of implementation. A summary is available in the following table.

**Table: Milestone progress for core and expanded partners, 2018 reporting**

<table>
<thead>
<tr>
<th>MILESTONES REPORTING: JUNE</th>
<th>MILESTONES REPORTING: NOVEMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Completed</strong></td>
<td><strong>Completed</strong></td>
</tr>
<tr>
<td><strong>On Track</strong></td>
<td><strong>On Track</strong></td>
</tr>
<tr>
<td><strong>Major Delays</strong></td>
<td><strong>Major Delays</strong></td>
</tr>
<tr>
<td><strong>Minor Delays</strong></td>
<td><strong>Minor Delays</strong></td>
</tr>
<tr>
<td><strong>Re-programmed</strong></td>
<td><strong>Re-programmed</strong></td>
</tr>
</tbody>
</table>

The following section outlines key activities of expanded and core partners, including any key details on progress of activities.

**Acasus**
Main scope of work: Strengthening of EPI capacities in Baluchistan and Sindh

Geographic focus area: Baluchistan, Sindh

In total, Acasus is engaged with four provinces of Pakistan: KP, Punjab, Baluchistan and Sindh. A part of the scope of engagement via DFID with KP and Punjab is immunisation coverage, with the majority being in primary care and MNCH. As part of coverage and equity agenda, Acasus is engaged in strengthening EPI capacity of Baluchistan and Sindh provinces, under their contract with Gavi.

Baluchistan

The updated diagnostic has been completed and syndicated with major stakeholders including Gavi team. This diagnostic focused on areas identified in the end of project report and reflections prepared in late 2017. It built on the original diagnostic undertaken in late 2016/early 2017. In addition, a vision document was prepared for the rest of the year for the project which lays out, at a higher level, how Acasus plan to define success for Baluchistan through to January 2019, which enable positive engagement with provincial EPI, as Regular meetings held with Secretary. Briefing held with interim Minister.

An updated diagnostic of the EPI program and action plan showing activities, timelines and targets for key interventions agreed the Government to support Provincial health leadership in overcoming key bottlenecks to improving immunisation coverage is almost finalised.

Sindh

Acasus has engaged in work in Sindh only recently. As part of leveraging work of partners in urban immunisation to develop a series of Karachi-specific reviews with Karachi leadership, Karachi specific review was held on the first day of the Sindh Quarterly Review on 1 October. The Acasus team worked with other partners to include performance management data on Karachi town performance in this review. Introductory sessions have been held with the Minister of Health and Acasus helped prepare the performance management sections. As part of the use of the health workforce and child registry tracking data from Zindagi Mehfooz, regular meetings with IRD team (ZM developers) were held to develop indicators and use of the platform. Acasus has facilitated IRD interaction with government and developed a template to improve sharing of NM and Unicef TKF monitor data into government review meetings.

In general, Provincial EPIs have expressed satisfaction of interaction and engagement with Acasus and have found their work to be catalytic in accomplishing broader programme objectives.

Civil Society Human and Institutional Development Programme (CHIP)

Main scope of work: Strengthen engagement between Federal/Provincial EPI Cells and CSOs for demand promotion for further improving coverage of missed children and promoting equity in immunization, as well as development of the Standard Operating Procedures (SOPs) and M&E framework for CSOs engagement.

Geographic focus area: Provincial and Federal

Expected result: Mapping of CSOs across the country and facilitation of their further engagement with the Federal and provincial governments.

In view of recent Measles SIA campaign, the objective was to engage CSOs to facilitate messaging around the campaign. CHIP has used it as a platform for better engagement with CSOs in four provinces of Pakistan. As of now 88 CSOs were identified. Work on identifying their areas of engagement is ongoing. Even though, SOPs are still under development and complexity of CSOs work and areas of engagement are posing issues for M&E framework development, CHIP has noted that some CSOs were directly contracted by the provincial EPIs as a result of recent campaign.

Dalberg Global Advisors

Scope of work: ICC capacity strengthening

Geographic focus area: Federal

Expected results: Strengthened capacity of ICC Secretariat, increased accountability, enhanced decision-making functions.

As part of outcome and recommendations from last year’s Joint Appraisal mission, Dalberg was contracted to strengthen capacities of the Interagency Coordination Committee at the Federal level. Most of the activities were focused and training of NICC personnel in programme management, planning, revision of NICC Terms of reference structure. Most of
the activities are completed or on track of implementation, although Measles SIA campaign has caused some minor delays in the implementation. Therefore, recently a non-cost extension was granted till the end of March 2019, to enable the development of the ICC strengthening capacity building workshop.

**John Snow Research and Training Institute, Inc. (JSI)**

*Scope of work:* Development of roadmap to improve routine immunisation specifically in Karachi and the transitioning of key support from the USAID MCHIP programme in interior Sindh.

*Geographic focus area:* Sindh

JSI was contracted as a result of last year’s recommendation to retain key support to Sindh’s EPI programme, previously supported by Sindh and to develop a roadmap for immunisation in Karachi.

With regards to the plans to transition the District Immunisation Officer programme and as of date of current Joint Appraisal, most of the milestone were delayed subject to delays in hiring personnel by the government for the implementation of planned activities. Planning of these positions under PC1 is indicated as bottleneck to hiring personnel. Therefore, workplan was recently revised subject to hiring process completion.

Following the discussion with Sindh EPI and other expended partners, activities in Karachi and the province, it was advised to improve coordination with EPI and Unicef on the urban activities. A meeting is planned to develop a joint workplan by all partners in early December 2018.

**Jhpiego.**

*Scope of work:* To support Human Papilloma Virus (HPV) vaccine national introduction activities at the country level in Pakistan.

*Geographic focus area:* Federal

While most of the preparatory work was conducted (draft of engagement plan and preparation of assessment tool), implementation of other activities with external stakeholders were put on hold awaiting the No Objection Certificate from the Federal Ministry of Interior Affairs. Gavi has provided a non-cost extension until end of 2020 to ensure implementation of all activities.

**UNICEF**

<table>
<thead>
<tr>
<th>Total approved</th>
<th>US$ 1,007,007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilisation rate</td>
<td>43%</td>
</tr>
</tbody>
</table>

Positions funded via PEF TCA:
1. P4 Immunization specialist at CO level
2. (4) NOB at provincial / FO level
3. P3 Immunization supply chain management
4. NOC, Communication Specialist
5. NOC, Health Specialist HSS
6. Total of positions: 8

Implementation of support under Technical Assistance for Pakistan is done via UNICEF staff, financed through PEF TCA. None of the activities receives direct funding.

Areas of work under PEF TCA include:
- Urban Immunisation
- Cold chain
- ACSM

UNICEF is reporting on their milestone on time. Most or their activities are completed or on track of implementation. However, realisation of “at least two national immunisation reviews” was delayed due to preparations and carrying out of Measles SIA campaign.
Main constraints to implementation of activities. Sixteen HSS TCA milestones in 2018 were unfunded due to delayed budget from World Bank. UNICEF used own resources to fund several of these activities and this will require reversals of funding source once WB funds are received.

Focus areas:

Coverage and Equity

Urban Health

- UNICEF provided technical support for integrated urban health/immunization initiative in targeted nine mega cities of Pakistan through a local CSO CHIP. First round of data collection for profiling of 8 mega cities completed and identified 4,287 slums and 667 underserved and high-risk areas. A total of 469 health facilities have been assessed and a household survey to know childhood immunization coverage rates implemented in the profiled areas. The data validation is under process and numbers may change. GIS maps developed for Karachi and Hyderabad while these would be developed for 07 cities. Results of the profiling of slums in 09 mega cities would be disseminated in March 2019. City specific roadmaps for all 9 cities would be developed.
- A proto type on immunization in slums of one union council in Lahore is being developed and implemented through a local CSO CHIP. It has begun the social mobilisation and demand promotion. As a result, 261 children have been immunised in which 114 were zero dose.
- TA urban immunization plan for the additional Gavi urban funding has been developed.
- Outreach sessions initiated in UCs where previously they were absent for 1-2 years. Previous irregular outreach implementation became more organized and periodic. 34 integrated outreach sessions implemented in Quetta: 629 (133 were zero dose) children and 109 pregnant women were vaccinated; 650 children screened and 35 and 68 were diagnosed as SAM and MAM respectively and managed. 13 pregnant women received ANC.
- Intensified third party field monitoring has been established in Karachi and interior Sindh (188 & 272 targeted union councils) to identify gaps in immunization service delivery and ensure evidence-based corrective measures.
- Microplan of 2,342 out of 2,551 union councils computerized, 1259 (49%) validated in 56 RED/REC districts. Approach will be evaluated in 2019. As of September 2018, 78% of UCs (September 2018) have RI micro plans compared to 38% in March of this year.
- Missing areas identified (included in polio but not RI plans)
- Ghost vaccinators were tracked (in coordination with DPCR) and made to report for duty (Qamber District)
- Initiation of defaulter lists
- Immunization quality improved
- 15,774 health workers of different cadres were trained on the RED/REC strategy in these districts
- EPI-PEI synergy SoPs were finalized and endorsed by FEPI and NEOC
- Data on zero dose children is collected through, NIDs, CBVs (polio tier 1 districts), AFP surveillance and shared with EPI. Collaboration between EPI and PEI helped retrieve 36% of the reported zero dose children (676,311 out of 1,882,197) – Highest in Punjab (95%), and lowest in Balochistan (6%).

Cold Chain

- Implementation of the recommendations from the temperature monitoring study.
- System design study concluded and report shared and waiting for final costing for implementation
- A total of 6,075 cold chain system were procured through CCEOP in 2018 and 5,832 cold chain equipment has been installed to fill the nationwide gaps identified through the System Design Study findings.
- In addition 3,200 continuous temperature monitoring devices (TMDs) were procured for existing cold chain equipment giving a total of 75% of the equipment in Pakistan having TMDs.

Demand Promotion - ACSM

- Rollout of one national and four provincial immunization strategies
- 7 Advocacy, Communication and Social Mobilization committees and 35 district communication committees setup in Baluchistan;
- The social mobilization toolkit for immunization containing short animated videos and public messages (English and Urdu) disseminated across all provinces/areas during the WIW and Measles SIA.
- The official website and social media pages (Facebook, Twitter and YouTube) of Federal EPI were developed and the toolkit/key messages/additional material were disseminated through these channels.
Operational Research: 10 implementation research projects were completed and the teams were supported to document the process through reports.

**WHO**

<table>
<thead>
<tr>
<th>Total approved:</th>
<th>US$ 1,054,959</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount received:</td>
<td>US$ 739,457 (75%)</td>
</tr>
<tr>
<td>Spent:</td>
<td>US$ 383,971</td>
</tr>
<tr>
<td>Utilisation rate:</td>
<td>52%</td>
</tr>
</tbody>
</table>

1. Positions funded under PEF TCA: 12
2. National Professional Officer (EPI)
3. Coordinator (HSS/EPI)
4. Technical Officer EPI
5. (4) Technical Officer (EPI - Data & Surveillance)
6. Technical Officer EPI (Monitoring & Evaluation)
7. (3) Technical Officer (EPI)
8. Virologist
9. Laboratory Scientist
10. Laboratory Technician
11. EPI Finance Assistant

Implementation of support under Technical Assistance for Pakistan is done via WHO staff, financed through PEF TCA. None of the activities receives direct funding.

Areas of work under PEF TCA include:

- Vaccine specific support
- Data
- Supply chain
- LMC
- Coverage & Equity

**Vaccine specific support**

- Technical, financial and logistics support for continuation of IBD and Rotavirus disease surveillance provided and additional personnel trained as part of capacity building for VPD and AEFI surveillance following introduction of rotavirus vaccine
- CRS surveillance on four sentinel sites established

**Coverage and Equity**

- Family practice approach has been launched in 12 selected districts. Technical support is being provided for expansion to all health facilities provided as part of integrated (immunization, MNCH, ATM, NCD and nutrition, and emergency preparedness) service delivery in Family Practice model districts establishment

**Data**

- DQ IP development on progress in the areas where DQA done.
- The process of expansion of Measles laboratory at provincial level has been initiated. One laboratory at Khyber Medical university Peshawar was ready to start Measles/Rubella testing on serological bases. Pre-assessment and staff training for this activity is ongoing.
- Major delays in development of slide deck containing summary findings of the coverage evaluation survey for each province and area due to delays in realisation of the survey

**LMC**

- Comprehensive EPI review was done in Sindh, KP and AJK.
- Development of an annual operational plan of actions at the provincial level based on cMYP and PC-1 as well as EVM IP and DQ IP done in all areas.
Pakistan Joint Appraisal (2018)

- Review and possible revision of EPI policy and related SOPs is ongoing.
- cMYP revision is ongoing. Consultant is expected to be hired shortly to finalise the revision by January 2019.
- Capacity building in micro-plan development was completed in all areas, except FATA
- Development of a policy for engagement of private sector in immunization service delivery and setting strategies for implementation is delayed due to non-availability of funds.

Note: Remaining funds from other cash support were reprogrammed for implementation of some of the activities.

World Bank

Total funding: US$90,000

Programme areas:
- Health Financing and Sustainability
- Financial Management

Finalisation of TCA 2017 activities were completed on time. However, all of the activities planned under 2018 TCA were re-programmed.

PEF TCA Request for 2019: Summary for Pakistan

Requested PEF support for 2019 consists of 27 staff and longer-term consultants, majority in provinces and areas, mostly with a transfer of skills profile as reflected in the table below:

<table>
<thead>
<tr>
<th>WHO</th>
<th>National Professional Officer (EPI)</th>
<th>National</th>
<th>Same as last year</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHO</td>
<td>EPI Officer (HSS)</td>
<td>National</td>
<td>Change in the grade from P5 to P4</td>
</tr>
<tr>
<td>WHO</td>
<td>Technical Officer (EPI - M&amp;E)</td>
<td>National</td>
<td>New position for 2019*</td>
</tr>
<tr>
<td>WHO</td>
<td>Technical Officer (EPI - Data &amp; Surveillance)</td>
<td>Sub-National Baluchistan</td>
<td>Same as last year</td>
</tr>
<tr>
<td>WHO</td>
<td>Technical Officer (EPI - Data &amp; Surveillance)</td>
<td>Sub-National KP</td>
<td>Same as last year</td>
</tr>
<tr>
<td>WHO</td>
<td>Technical Officer (EPI - Data &amp; Surveillance)</td>
<td>Sub-National Sindh</td>
<td>Same as last year</td>
</tr>
<tr>
<td>WHO</td>
<td>Technical Officer (EPI)</td>
<td>Sub-National Islamabad</td>
<td>change in TOR to cover vaccine management and demand</td>
</tr>
<tr>
<td>WHO</td>
<td>Technical Officer (EPI)</td>
<td>Sub-National GB</td>
<td>change in TOR to cover vaccine management and demand</td>
</tr>
<tr>
<td>WHO</td>
<td>Technical Officer (EPI)</td>
<td>Sub-National KP</td>
<td>change in TOR to cover vaccine management and demand</td>
</tr>
<tr>
<td>WHO</td>
<td>Technical Officer (EPI)</td>
<td>Sub-National AJK</td>
<td>change in TOR to cover vaccine management and demand</td>
</tr>
<tr>
<td>WHO</td>
<td>Virologist</td>
<td>National</td>
<td>final year of support - to be transferred to the government</td>
</tr>
<tr>
<td>WHO</td>
<td>Laboratory Scientist</td>
<td>National</td>
<td>final year of support - to be transferred to the government</td>
</tr>
</tbody>
</table>
**WHO** | Laboratory Technician | National | final year of support - to be transferred to the government
--- | --- | --- | ---

* with the deduction of salaries of downgraded HSS position and with discontinuation of finance assistant’s position, the addition of national M&E officer will fit within the envelop of the last year.

| Unicef | P4 - Immunization specialist at CO level | National | same as last year
| Unicef | NOB - Immunisation officer | Sub-National Punjab | same as last year
| Unicef | NOB - Immunisation officer | Sub-National Baluchistan | same as last year
| Unicef | NOB - Immunisation officer | Sub-National Sindh | same as last year
| Unicef | NOB - Immunisation officer | Sub-National KP | same as last year
| Unicef | P3 - Immunization supply chain management | National | same as last year
| Unicef | NOC- Communication Specialist | National | same as last year
| Unicef | NOC- Health Specialist HSS | National | same as last year

* Unicef has requested a number of additional staff for integrated child health support in Sindh, Balochistan and FATA as priority locations. This is partially reflected in the additional request for 2019 and some are being covered from Unicef Regular Resources and urban immunisation grants.

Above the ceiling, the following asks are being tabled at the PEF management meeting based on JA recommendation:

| WHO | P4 - Surveillance | National | **New request for PEF funding** - There is a need for a highly technical dedicated staff to support surveillance work and strengthening
| Unicef | NOC - Monitoring, Evaluation & reporting | National | **New request for PEF funding** - To support Unicef’s M&E team and ensuring better documentation and reporting of EPI work
| Unicef | P4 - Health Specialist (integration) | National | already in place – funded from non-PEF sources - a 10% to 30% contribution of PEF to staff salary is requested.
| Unicef | P3 - Health Specialist (Immunisation) | Sub-national - Baluchistan | already in place – funded from non-PEF sources - a 10% to 30% contribution of PEF to staff salary is requested.

We understand that there are other positions that agencies are funding from non-PEF TCA resources (including but not limited to Gavi HSS and vaccine specific grants) which are not reflected here.
Pakistan Joint Appraisal (2018)

Please note that as we are above the annual envelop, there is no possibility to fund activities under PEF TCA. The priority activities shall go under MDTF NISP TA or specific grants through mutual agreement. The Secretariat has not yet received cost per position and that has made the calculations approximate. Please advise your teams to share those at their earliest possible to avoid mis-calculations and potential deficits during the year.

<table>
<thead>
<tr>
<th>Expanded partners</th>
<th>Key area/location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acasus</td>
<td>Leadership, Management (All Provinces, Federal)</td>
</tr>
<tr>
<td>CHIP</td>
<td>CSO engagement (All Provinces, Federal)</td>
</tr>
<tr>
<td>Dalberg</td>
<td>ICC Strengthening (Federal)</td>
</tr>
<tr>
<td>Jphiego</td>
<td>HPV Landscape (Federal)</td>
</tr>
<tr>
<td>JSI</td>
<td>Sindh urban and DIO transition (Sindh)</td>
</tr>
<tr>
<td>IRD</td>
<td>Sindh Electronic Immunisation registry (Sindh)</td>
</tr>
</tbody>
</table>

5. **UPDATE OF FINDINGS FROM PREVIOUS JOINT APPRAISAL AND ACTION PLAN: SUMMARY OF FINDINGS, ACTIONS AND RESOURCE/SUPPORT NEEDS IDENTIFIED AND AGREED DURING THE JOINT APPRAISAL**

As the Joint Appraisal of 2017 provided short and medium-term recommendations to the programme, many of the recommendations remain relevant. The mission proposed to add two new recommendations and mark one of the previous recommendations as completed. The remaining recommendation progress has been reviewed and the progress recorded. Updated actions have been proposed and will be monitored throughout the monitoring missions of 2019.

**Status of progress against 2017 JA recommendations:**

<table>
<thead>
<tr>
<th>2017 Joint Appraisal Recommendation</th>
<th>Progress at the time of 2018 Joint Appraisal</th>
<th>Key Bottlenecks</th>
<th>Required actions, timelines and responsible party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Challenges in the operationalisation of PC-1 include fund flow for program delivery and technical assistance, as well as the delayed hiring of planned Government posts:</td>
<td></td>
<td>Funds are not released from Finance to Health at the provincial level - KP issue with PC-1 - Punjab and Sindh had a partial release - Balochistan full freeze</td>
<td>- Federal and Provincial EPIs to monitor the fund flow from finance departments to EPI PC-1s and regularly report on that at the beginning of each quarter. - The World Bank to continue its close engagement with provincial Finance and Planning Divisions and advise on the most appropriate solutions when</td>
</tr>
</tbody>
</table>
### Pakistan Joint Appraisal (2018)

<table>
<thead>
<tr>
<th><strong>Reinforce and clarify the duties, responsibilities and level of authority of NISP project managers (Federal and Provincial EPI managers) with Ministries of Finance and Health through notified Terms of Reference.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reinforce and clarify the duties, responsibilities and level of authority of NISP project managers (Federal and Provincial EPI managers) with Ministries of Finance and Health through notified Terms of Reference.</strong></td>
</tr>
<tr>
<td>The project is under the World Bank agreement and the delegations as outlined by the project should be operationalised</td>
</tr>
<tr>
<td>MoNHSRC Secretary to re-notify the authorities of project director World Bank to seek clarity on rule 5 (PPRA) and statuary order of the government on procurements under WB grants and advise on the solution if that is the bottleneck to NISP implementation.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Streamline reporting burden for partners supported by the MDTF Technical Assistance; through a narrative and financial report on PEF portal, the same to be presented to the NISP monitoring missions (and the MDTF Steering Committee) twice a year.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank has agreed to align reporting; given that fund release was delayed reporting has not yet had happened. The Gavi PEF portal still needs to be accommodate for this reporting to occur (e.g. linkages between PEF and GPF indicators).</td>
</tr>
<tr>
<td>Partners to report in the portal before the next MDTF SC in February. This should apply to all activities that are funded through NISP TA transfer, including those back-dated, and include both programmatic and financial updates and final reports (both programmatic and financial) not later than XX months after conclusion of the activities).</td>
</tr>
<tr>
<td>Gavi to ensure that the portal can capture partner reporting on TCA (funded from non-PEF TCA sources).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WHO to expedite the pace of implementation whose delays was one of the factors which affected overall program performance, including the progress of EPI against their Disbursement-Linked Indicators (e.g. Coverage survey, scale up of vLMIS, Rotavirus vaccine expansion, procurement and other activities).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Out of all procurement activities, procurement of 32 vehicles and EPI office refurbishment will be concluded by end of 2018</td>
</tr>
</tbody>
</table>

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5 Which mentions
The World Bank to continue to work closely with Provincial governments on identified significant bottlenecks and blocks to project performance, including NISP fund flow mechanism and further educate key stakeholders on NISP process, and engage in policy dialogue on PC-1 operationalisation.

- Coverage Evaluation Survey is stalled owing to pending NOC from the Ministry of Interior; only 25% of the data has been collected.

- Bank has provided some support to improve fund flows and release of funds. Nonetheless, this has not resulted in funds being released fully across all provinces.

- WB to revise the grant performance level and accordingly enhance the attention which was given to the grant for improved performance.

- WB to prepare a proposal for re-examining the NISP financing model for achieving set objectives for the next SC in case bottlenecks are not resolved by then.

Federal EPI to continue to oversee the reporting of the results framework. After 5 rounds of reporting, issues around understanding indicator definition have affected the quality of the reporting.

- Data-specific mission to be conducted in Q2 2019 to review reporting, monitoring and evaluation mechanisms.

**2017 Joint Appraisal Recommendation**

<table>
<thead>
<tr>
<th>Progress at the time of 2018 Joint Appraisal</th>
<th>Key Bottlenecks</th>
<th>Required actions, timelines and responsible party</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pakistan is fighting its final battle against Polio and is under huge pressure to interrupt virus circulation. Polio eradication activities should continue at their maximum strength.</strong></td>
<td>The excellent momentum and collaboration built during the measles campaign to be taken forward with the same spirit and energy. EOC and EPI to implement the recently developed SOPs for EPI/PEI synergy and report on the implementation in their appropriate forums on a quarterly basis.</td>
<td></td>
</tr>
<tr>
<td>Consider bringing EOC and EPI together at the Provincial level (in Sindh, KP, Balochistan) and maximise synergy between the two programmes by strict implementation of the decisions of PM’s Task Force on polio and NEAP 2017-18 RI indicators monitoring and IPV and ensure all updated polio micro plans are utilised by EPI and zero-dose children identified during polio campaigns are reached and enrolled in routine system.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In addition, National EOC to facilitate access of EPI programmes to missed and zero dose children. EPI at federal level to take part actively in PEI and TF Provincial EPIs to work closely with EOCs to make sure supply side of RI is adequately available in all polio tier 1 districts. Clear targets to be set for this indicator and it to be monitored in all EPI reviews, PEI and EOC TF meetings and ICCs.

<table>
<thead>
<tr>
<th>2017 Joint Appraisal Recommendation</th>
<th>Progress at the time of 2018 Joint Appraisal</th>
<th>Key Bottlenecks Opportunities</th>
<th>Required actions, timelines and responsible party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Given the evolving immunisation needs, it is critical to review and revise the National EPI Policy and country strategic plan (cMYP), with particular focus on:</td>
<td>- Coverage survey not completed, therefore rest of review process has not been finalized. Pending discussion on how to move CES forward and review the related outputs - Cymp revision to commence late in 2018</td>
<td>- DHS 2017-18 findings are available  - NNS and NMICS is ongoing and covers aspects of immunization (Gvt Punjab already released findings for the NMICS) - Use of additional immunization and programme data can feed into this process</td>
<td>- Completion of the CES  - Extension of the cMYP until 2019, with initiation of activities towards updating full cMYP starting in 2019, with the required update of the EPI Policy  - ICC to review progress of these critical activities in mid-2019  - Revise the PC-1s if appropriate and found necessary by the government, in consideration of additional need for vaccines, new vaccines</td>
</tr>
<tr>
<td>- Reaching hard to reach children, urban immunization and recent developments in supply and cold chain;</td>
<td></td>
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<tr>
<td>- This should be done in a systematic way, informed by census and immunisation coverage survey data, updating EPI policy and strategic plan; and</td>
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<tr>
<td>- Explore the possibility of reviewing PC-1s based on the identified issues and gaps.</td>
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</tbody>
</table>
Pakistan Joint Appraisal (2018)

Develop and disseminate EPI Standard Operating Procedures and make simplified version of policies available to all relevant stakeholders and partners, including CSOs.

The mission was encouraged with the better and more systematic use of data for decision making and accountability. In addition to the importance of more traditional uses of data (such as EPI reviews), innovations applied by Punjab to address coverage and equity through the work of PITB are outstanding.

- The current M&E system uses a number of tools and information systems, some of which have evolved organically. There is a need to rationalise these systems and clarify governance related implications.
- Linking surveillance to coverage data as well as other data systems (such as supply chain) to add to the accuracy of conclusions
- A number of health surveys are planned for the 2018-2019 period. These multiple surveys can be streamlined with further country leadership and donor coordination, taking into account the respective information and quality needs of different programs, under the leadership of MoNHSRC and in coordination with provincial authorities.

To convene stakeholders on Human Resources reform in 2018 following a Human Resources Review currently scheduled for 2017-2018. The review and potential reform should address the following issues;

- Clarity on use of vaccinators vs. health technicians;
- The ability of the EPI salary scale to retain key capacities;
- Involvement of Lady Health Workers in immunisation;

- EPI reviews have been conducted at Provincial Level
- No National EPI Reviews were held but progress in the use of data for management occurred (particularly for the Measles campaign and immunisation supply chain)
- Existence of multiple parallel systems in Federal MoH and NIH
- MoH to align Federal with NIH and Federal EPI HIMS on system synergy needs and requirements
- Harmonize coverage survey methodology and aim at district level disaggregation, and if this is achieved the this data can be used to inform programme

- HR for Health Vision for PAK in 2018 but it does not go into the details of this recommendation.
- EPI HR Review has occurred

- Study further the opportunities and risks of repositioning the HR needs for EPI within the wider PHC.
### 2017 Joint Appraisal Recommendation

<table>
<thead>
<tr>
<th>Development of a central repository for technical information on Pakistan’s EPI program to facilitate communication and coordination between Federal and Provincial offices;</th>
<th>Progress at the time of 2018 Joint Appraisal</th>
<th>Key Bottlenecks</th>
<th>Required actions, timelines and responsible party</th>
</tr>
</thead>
<tbody>
<tr>
<td>• A repository for ICC related information is already under development for 2018. This repository may also serve to:</td>
<td>Still in progress; online repository has been established.</td>
<td></td>
<td>Federal EPI to share the link to the repository widely and set up a process to update the content regularly, at least once every quarter.</td>
</tr>
<tr>
<td>• Capture lessons learned from program implementation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Access to E-learning modules</td>
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<tr>
<td>• Archive EVM committee documents and minutes</td>
<td></td>
<td></td>
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<tr>
<td>• Keep track of achievement against Indicators used in the current monitoring and evaluation system</td>
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</tr>
</tbody>
</table>

### Build the capacity of Federal and Provincial EPI to identify preferred contractual modality for effective outsourcing immunisation-related activities from PC-1 resources to Civil Society Organizations and private sector, in order to address equitable immunisation coverage in hard to reach areas including urban slums.

| • Government and PCCHI are encouraged to engage more closely on the above. | Progress is slow; thus far, no CSOs contracted by the GoP from PC-1 resources. TA available for developing SOPs. | PPRA rules – are they a bottleneck? Can we follow them in a timely manner? | Each province to contract at least one CSO for targeting high-risk and marginalised children in their province from PC-1 resources before the end of fiscal year. |

---

- The qualifications of vaccinators and merit-based recruitment;
- Ensuring rational workforce distribution;
- The provision of appropriate learning and training opportunities based on performance; and
- The ability of programs to quickly address non-performance (length of contract etc.)
Develop the capacity of Federal and Provincial EPI programs and district EPI teams in monitoring and supervision, through enabling the program’s access to PC-I financial resources and recruitment of human resources.

Progress against DIP show very little supervision has happened in 2017-2018 partly owing to lack of staff and lack of adapted tools.

Adequate resources are allocated to demand in the PC1. Implement evidence-informed interventions that increase demand, including better interaction between the health care workers and caregiver, address misconceptions and improve quality and reliability of services.

The measles campaign was a successful example of demand promotion activities. They are not being adapted for the RI programme.

Conditional Cash Transfer with BISP has been initiated using PC-1 funds.

Support for costed Provincial plans for communications?

More available in provincial ppts.

Recognise and determine a strategy to mitigate the missed opportunities for vaccination caused by the verticality of the immunisation program and promote the access of EPI services within wider health system including MNCH, LHWs, hospitals, private facilities and non-government operated programs. This approach is particularly relevant in the expansion of EPI sites and may be a cost-effective approach in urban areas.

Birth dose policy: Balochistan is using the hepatitis programme in order to adopt the birth dose

Urban

Focus on BHUs that provide services on a 24h service institutionalised in KP

Standards and norms of practices and reporting for the Private Sector is still pending although consultations have begun with EPI and private sector

ICT / CDA – coverage rates for measles are quite low. How can we strengthen service delivery in Islamabad?

Urban immunisation roadmap of Karachi to be consulted, finalised and gets approved by the competent authority before the next monitoring mission of NISP in February.

<table>
<thead>
<tr>
<th>2017 Joint Appraisal Recommendation</th>
<th>Progress at the time of 2018 Joint Appraisal</th>
<th>Key Bottlenecks</th>
<th>Required actions, timelines and responsible party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensure alignment of various immunization supply chain components (vLMIS, Vaccine Management Committees and Vaccine Management Secretariats, system redesign, asset management, temperature monitoring systems, immunisation supply-chain related trainings, assessment, cold chain equipment deployment and maintenance, etc.)</td>
<td>- Not done completely, work in progress - System redesign plan completed</td>
<td>- Lack of comprehensive plan for immunization supply chain - System design results remain to be costed</td>
<td>- Develop a final costed plan on the way forward for System Redesign. The process to develop the plan to</td>
</tr>
</tbody>
</table>

| 36 |
### Pakistan Joint Appraisal (2018)

<table>
<thead>
<tr>
<th>Key Bottlenecks</th>
<th>Required actions, timelines and responsible party</th>
<th>2017 Joint Appraisal Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual forecast has been developed</td>
<td>- Vaccine forecast should be a priority in the vaccine supply plan, and should be more efficiently conducted (aiming at pull mechanism)</td>
<td>Given the increasing trend in confirmed Measles cases, country’s decision to conduct a nation-wide supplementary immunisation activity in 2018 seems justified. Technical assistance for addressing IRC recommendations and help preparing for a high-quality campaign can be mobilised through Global Measles Working Group (WG) established for Pakistan.</td>
</tr>
<tr>
<td>Service delivery data is challenging and affecting reliability of push delivery system</td>
<td></td>
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</tbody>
</table>
A national working group, in connection with an external advisory body shall oversee the preparedness and implementation of Measles campaign, leveraging and building on the learnings from the upcoming campaign in Karachi which is done with strong engagement of EOC.

Measles surveillance to be strengthened to capture any new cases following the campaign.

<table>
<thead>
<tr>
<th>2017 Joint Appraisal Recommendation</th>
<th>Progress at the time of 2018 Joint Appraisal</th>
<th>Key Bottlenecks</th>
<th>Required actions, timelines and responsible party</th>
</tr>
</thead>
<tbody>
<tr>
<td>The preparation of Provinces and Federal in advance of the mission was a positive advancement and to further the progress, the following recommendations are made for the organisation of next year’s JSAEM mission, specifically;</td>
<td></td>
<td></td>
<td>Having the JSAEM after EPI reviews would save time and resources. It is recommended to take any possible opportunity to align as possible.</td>
</tr>
<tr>
<td>- As it has been so far, JSAEM July/August mission to be more focused on wider EPI programme and with participation of Alliance partners and February/March monitoring missions to focus deeper on NISP implementation and indicators.</td>
<td></td>
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<tr>
<td>- Alignment of time of the July/August mission with the National EPI review and JSAEM will bring additional efficiency</td>
<td></td>
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<tr>
<td>- Include the presence of Provincial representation (in coordination with EOC) and all mission members throughout the JSAEM to further cross-learning and sharing of lessons learned</td>
<td></td>
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<tr>
<td>- Include representation from additional levels of</td>
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</tbody>
</table>
Pakistan Joint Appraisal (2018)

Additional Recommendations for 2019 (in addition to actions taken from the above).

Strengthen oversight, monitoring, and coordination of technical assistance at Federal and Provincial level through;

- Establishment of a standing monthly government and partner immunization technical coordination meeting along with separate technical working groups on supply chain, M&E, vaccine introductions, campaigns that are anchored in co-developed annual workplans for each group that guides all the work and TA and which are used to monitor progress. These workplans should incorporate and track recommendations from JA, NISP reviews, NITAGs and other relevant bodies.
- Establish a cadence of quarterly coordination meetings between Federal EPI + partners and provincial EPI + partners to coordinate between Federal and provincial annual immunization workplans and to review progress.
- Institutionalize review of progress on all of this work at semi-annual ICC meetings.
- Each province should establish the same coordination and oversight structures that will effectively achieve the goal of quarterly EPI review.

Leadership, Political commitment and Financing;

- Establish coordination Task Force to convene weekly coordination meeting at national and provincial level.
- Engage higher political leadership for EPI to enhance the accountability and oversight. Utilize national and provincial Polio Task Force for this purpose.
- Recent Measles SIA is a good example of EPI and Polio working together. This should continue for Routine Immunization. Convene monthly coordination meetings between EPI cell and EOC at the national and the provincial level co-chaired by EPI manager and EOC coordinator.
- Engage Deputy Commissioners at the district level to take charge of EPI as is currently practiced for Polio.
- Country team to prepare for the introduction of Rubella vaccine into Routine and catch up campaign. EPI might aim to implement the MR campaign in the 1st Q 2020. Advocate with the Government to secure funds for the routine Rubella (MR) cost.
- High quality TCV campaign is to be ensured by having quality preparations.

Challenges in the operationalisation of PC-1 include fund flow for program delivery and technical assistance, as well as the delayed hiring of planned Government posts;

- Reinforce and clarify the duties, responsibilities and level of authority of Federal NISP project manager with Ministry of Health through notified Terms of Reference.
- Fund flow from Departments of Finance to provincial programs should be monitored by designated FM specialists at Federal and Provincial Levels on a quarterly basis and bottlenecks to flow of funds addressed as necessary with bureaucrats at a senior level. (FM specialist performance criterion)
- Continue at least twice-yearly policy dialogue with provincial departments of Finance and Planning at Secretary level (WBG), to be followed up by all alliance partners more frequently.
- High level workshop coordinated by Ministry of Finance on financial sustainability of immunization (Recurrent budget financing and addressing operational and financing constraints in NISP) (MoNHSRC and WBG).
- If the financing bottlenecks are not addressed by February 2019, WB and co-financing partners need to re-examine the NISP financing model for achieving set objectives.
- Operationalization of National Immunization Accounts and Budgeting system, supported by increased FM capacity in federal and provincial EPI programs – assigned responsibility for accounts and budgeting officers (in EPI or Departments of Health), technical assistance in FM.
- Production of budget vs. actual expenditure report from SAP system for FY19
- Development of a National Immunization Financial Dashboard

Measles, Measles Rubella/Portfolio planning and TCV;
Lessons learned and best practices from the recent Measles campaign needs to be documented and mainstreamed for routine immunization including catch up campaigns for TCV and Rubella.

CRS Surveillance: Evidence based data generated from sentinel surveillance sites needs to be used to inform the introduction plans.

In 2019, plan for the development of one strategic plan for the period July 2020-2025 including the cMYP and EPI-PC-1 revision.

Comprehensive joint annual plans to be prepared in the last quarter of every year.

Country team to prepare for the introduction of Rubella vaccine into Routine and catch up campaign. EPI might aim to implement the MR campaign in the 1st Q 2020. Advocate with the Government to secure funds for the routine Rubella (MR) cost.

High quality TCV campaign is to be ensured by having quality preparations.

6. ACTION PLAN: SUMMARY OF FINDINGS, ACTIONS AND RESOURCE/SUPPORT NEEDS IDENTIFIED AND AGREED DURING THE JOINT APPRAISAL

Overview of key activities planned for the next year:
* Launch of TCV support and introduction of TCV into Routine Immunisation
* Implementation of Urban Health Strategies across nine cities in Pakistan, with a more integrated PHC approach, with a special attention to Karachi
* Strengthen RI in polio high-risk districts which are generally deprived from health and immunisation services
* Commencement of the Full Portfolio Planning

7. JOINT APPRAISAL PROCESS, ENDORSEMENT BY THE NATIONAL COORDINATION FORUM (ICC, HSCC OR EQUIVALENT) AND ADDITIONAL COMMENTS

The Joint Appraisal mission consisted of all agencies (outlined in Annex A). The discussions included representation from Provincial EPI. The ICC meeting reviewed the findings and recommendations of the mission.
8. ANNEX: Compliance with Gavi reporting requirements

Please confirm the status of reporting to Gavi, indicating whether the following reports have been uploaded onto the Country Portal. It is important to note that in the case that key reporting requirements (marked with *) are not complied with, Gavi support will not be reviewed for renewal.

<table>
<thead>
<tr>
<th>Reporting Requirement</th>
<th>Yes</th>
<th>No</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grant Performance Framework (GPF) * reporting against all due indicators</td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>Financial Reports *</td>
<td></td>
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<tr>
<td>Periodic financial reports</td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>Annual financial statement</td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>Annual financial audit report</td>
<td>X</td>
<td></td>
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<tr>
<td>End of year stock level report (which is normally provided by 15 May as part of the vaccine renewal request) *</td>
<td>X</td>
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<tr>
<td>Campaign reports *</td>
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<tr>
<td>Supplementary Immunisation Activity technical report</td>
<td>X</td>
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<tr>
<td>Campaign coverage survey report</td>
<td>X</td>
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<tr>
<td>Immunisation financing and expenditure information</td>
<td>X</td>
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<tr>
<td>Data quality and survey reporting</td>
<td>X</td>
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<tr>
<td>Annual data quality desk review</td>
<td>X</td>
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<tr>
<td>Data improvement plan (DIP)</td>
<td>X</td>
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<tr>
<td>Progress report on data improvement plan implementation</td>
<td>X</td>
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<tr>
<td>In-depth data assessment (conducted in the last five years)</td>
<td>X</td>
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<tr>
<td>Nationally representative coverage survey (conducted in the last five years)</td>
<td></td>
<td>X</td>
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<tr>
<td>Annual progress update on the Effective Vaccine Management (EVM) improvement plan</td>
<td>X</td>
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<tr>
<td>CCEOP: updated CCE inventory</td>
<td>X</td>
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<tr>
<td>Post Introduction Evaluation (PIE)</td>
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<td>X</td>
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<tr>
<td>Item</td>
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<td>----------------------------------------------------------------------</td>
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<tr>
<td>Measles &amp; rubella situation analysis and 5 year plan</td>
<td>X</td>
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<tr>
<td>Operational plan for the immunisation programme</td>
<td>X</td>
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<tr>
<td>HSS end of grant evaluation report</td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>HPV specific reports</td>
<td>X</td>
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<tr>
<td>Reporting by partners on TCA and PEF functions</td>
<td>X</td>
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</tbody>
</table>
Pakistan Joint Appraisal (2018)

ANNEX A: List of participants

ANNEX B: Progress against Disbursement-Linked Indicators

Year 1 DLI

**Percentage of detailed UC supervisory plans implemented for all district supervisors to all provincial supervisor officers (as of Jun 30, 2018)**

- **Balochistan:** 30% (Y1 Target), 30% (2018 Result), 42% (Validated)
- **KP:** 50% (Y1 Target), 50% (2018 Result), 50% (Validated)
- **Punjab:** 80% (Y1 Target), 80% (2018 Result), 82% (Validated)
- **Sindh:** 80% (Y1 Target), 80% (2018 Result), 82% (Validated)

**Percentage of detailed UC supervisory plans implemented for all district supervisors to all supervisor officers (as of Jun 30, 2018)**

- **AJK:** 100% (Y1 Target), 100% (2018 Result), 100% (Validated)
- **CDA:** 50% (Y1 Target), 50% (2018 Result), 50% (Validated)
- **FATA:** 71% (Y1 Target), 71% (2018 Result), 71% (Validated)
- **GB:** 0% (Y1 Target), 0% (2018 Result), 0% (Validated)
- **ICT:** 0% (Y1 Target), 0% (2018 Result), 0% (Validated)
- **National:** 88% (Y1 Target), 88% (2018 Result), 88% (Validated)

Year DLIs

**Percentage of UC in each project province for which revised computerised UC level micro plans are in functional use at district and provincial levels**

- **Balochistan:** 40% (Y2 Target), 41% (2018 Result), 41% (Validated)
- **KP:** 60% (Y2 Target), 60% (2018 Result), 60% (Validated)
- **Punjab:** 80% (Y2 Target), 80% (2018 Result), 80% (Validated)
- **Sindh:** 100% (Y2 Target), 100% (2018 Result), 84% (Validated)
Pakistan Joint Appraisal (2018)

**Percentage of UC for which revised computerised UC level micro plans are in functional use at district and area levels**

<table>
<thead>
<tr>
<th>AJK</th>
<th>CDA</th>
<th>FATA</th>
<th>GB</th>
<th>ICT</th>
<th>National</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>0%</td>
<td>56%</td>
<td>0%</td>
<td>0%</td>
<td>87%</td>
</tr>
</tbody>
</table>

**Percentage of districts in each project province with at least 80% timely and complete reporting on vLMIS**

- **Balochistan**: 50% (Y2 Target), 55% (2018 Result), 72% (Validated)
- **KP**: 80% (Y2 Target), 72% (2018 Result), 75% (Validated)
- **Punjab**: 100% (Y2 Target), 100% (2018 Result), 73% (Validated)
- **Sindh**: 71% (Y2 Target), 61% (2018 Result), 61% (Validated)

**Percentage of districts in each area with at least 80% timely and complete reporting on vLMIS**

<table>
<thead>
<tr>
<th>AJK</th>
<th>CDA</th>
<th>FATA</th>
<th>GB</th>
<th>ICT</th>
<th>National</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>73%</td>
</tr>
</tbody>
</table>
Pakistan Joint Appraisal (2018)

Percentage of districts in each project province with at least 95% functional cold chain equipment in place as per specifications in each tier of the health system

- **Ballochistan**: 80%, 88%
- **KP**: 80%, 100%
- **Punjab**: 80%, 89%
- **Sindh**: 80%, 76%

Percentage of districts in each area with at least 95% functional cold chain equipment in place as per specifications in each tier of the health system

- **AKJ**: 100%
- **CDA**: 100%
- **FATA**: 100%
- **GB**: 100%
- **ICT**: 100%
- **National**: 89%

Budget allocations for immunization are continuous, adequate and can be easily tracked within the provincial financial management information systems

- **Ballochistan**: 100%
- **KP**: 100%
- **Punjab**: 100%
- **Sindh**: 100%
Budget allocations for immunization are continuous, adequate and can be easily tracked within the area financial management information systems.

Year 3 DLIs

Percent of children aged between 12-23 months old in each project province who are fully immunised

- Y3 Target
- 2017 Result
- Validated (PDhS 2017-18)

Balochistan: 35%, 29%
KPK: 75%, 55%
Punjab: 75%, 80%
Sindh: 65%, 49%

Percent of children aged between 12-23 months old in each project province who are fully immunised

- AJK: 75%
- CDA: 0%
- FATA: 30%
- GB: 57%
- ICT: 21%
- National: 66%
Pakistan Joint Appraisal (2018)

Percentage of districts in each project province reporting at least 80% coverage of Penta3 immunisation in children between 12-23 mont old, as validated by a third party

<table>
<thead>
<tr>
<th>Province</th>
<th>Y3 Target</th>
<th>2018 Result</th>
<th>Validated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balochistan</td>
<td>3%</td>
<td>20%</td>
<td>40%</td>
</tr>
<tr>
<td>KP</td>
<td>40%</td>
<td>75%</td>
<td>100%</td>
</tr>
<tr>
<td>Punjab</td>
<td>64%</td>
<td>70%</td>
<td>39%</td>
</tr>
<tr>
<td>Sindh</td>
<td>70%</td>
<td>70%</td>
<td>39%</td>
</tr>
</tbody>
</table>

Percentage of districts in each area reporting at least 80% coverage of Penta3 immunisation in children between 12-23 mont old, as validated by a third party

<table>
<thead>
<tr>
<th>Area</th>
<th>Y4 Target</th>
<th>2018 Result</th>
<th>Validated</th>
</tr>
</thead>
<tbody>
<tr>
<td>AJK</td>
<td>30%</td>
<td>0%</td>
<td>62%</td>
</tr>
<tr>
<td>CDA</td>
<td>0%</td>
<td>14%</td>
<td>30%</td>
</tr>
<tr>
<td>FATA</td>
<td>13%</td>
<td>30%</td>
<td>62%</td>
</tr>
<tr>
<td>GB</td>
<td>30%</td>
<td>0%</td>
<td>62%</td>
</tr>
<tr>
<td>ICT</td>
<td>0%</td>
<td>0%</td>
<td>62%</td>
</tr>
<tr>
<td>National</td>
<td>0%</td>
<td>0%</td>
<td>62%</td>
</tr>
</tbody>
</table>

Percentage of districts in each project province with their recognised surveillance sites having functional online surveillance systems for VPD and AEFI

<table>
<thead>
<tr>
<th>Province</th>
<th>Y4 Target</th>
<th>2018 Result</th>
<th>Validated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balochistan</td>
<td>0%</td>
<td>40%</td>
<td>0%</td>
</tr>
<tr>
<td>KP</td>
<td>100%</td>
<td>100%</td>
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Percentage of districts in each area with their recognised surveillance sites having functional online surveillance systems for VPD and AEFI

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<th>2018 Result</th>
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