

## Joint Appraisal report 2018

*The italic text in this document serves as guidance, it can be deleted when preparing the Joint Appraisal (JA) report.*

*Gavi's support to a country's immunisation programme(s) is subject to an annual performance assessment. The Joint Appraisal (JA) is a key element of this performance review. It is an annual, country-led, multi-stakeholder review by the senior leadership of the MoH and its partners of the implementation progress and performance of Gavi's support to the country, and its contribution to improved immunisation outcomes.*

**Joint Appraisals require careful preparation. This includes:**

- **By 15 May: Submission of the vaccine renewal request** on the country portal (including provision of end of year stock reporting, targets, wastage rates, etc.)
- **4 weeks before the Joint Appraisal:**
  - **Submission of required reporting documentation** on the country portal;
  - **Submission of HSS and CCEOP renewal request** (if new tranche needed), on the country portal including HSS budget for requested tranche;
  - **Gavi partners (WHO, UNICEF and others)** to report progress against their milestones and PEF functions on the partner portal.

### **Reporting requirements**

**The following reporting is required for renewal purposes and must be posted on the country portal 4 weeks before the JA:**

- **Update of the grant performance framework (GPF)**
- **Financial reports, annual financial statements and audit reports** (for all types of direct financial support received)
- **Reporting on any campaigns/SIA conducted** (if applicable)
- **End of year stock reporting** (which is to be submitted by 15 May together with the vaccine renewal request)

**Other required reporting information to be posted on the country portal 4 weeks before the Joint Appraisal includes:**

- *Immunisation financing and expenditure information*
- *Data and survey requirements*
- *Annual progress update on the Effective Vaccine Management (EVM) improvement plan*
- *Updated CCE inventory (if receiving CCEOP support)*
- *HPV specific reporting (only if applicable)*
- *HSS end of grant evaluation (only if applicable)*
- *Post Introduction Evaluation (PIE) reports (only if applicable)*
- *Gavi transition and/or polio transition plans or asset mapping information (if applicable)*
- *Expanded Programme on Immunization (EPI) review / plan of action implementation report (if available)*

**Note: Failure to submit the renewal requests as well as required reporting on the country portal four weeks ahead of the Joint Appraisal meeting (except for the vaccine renewal request, which is to be submitted by 15 May) may impact the decision by Gavi to renew its support, including a possible postponement, and/or decision not to renew or disburse support.**

|   |   |
|---|---|
| Country                                       |   |
| Full JA or JA update                          | full JA      JA update  |
| Date and location of Joint Appraisal meeting  |   |
| Participants / affiliation <sup>1</sup>       |   |
| Reporting period                              |   |
| Fiscal period <sup>2</sup>                    |   |
| Comprehensive Multi Year Plan (cMYP) duration |   |
| Gavi transition / co-financing group          | <i>e.g. initial self-financing or preparatory transition...</i> |

## 1. RENEWAL AND EXTENSION REQUESTS

### Renewal requests were submitted on the country portal

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

### Observations on vaccine request

Briefly comment on **assumptions and observations concerning the vaccine renewal/extension request and vaccine allocation**, such as quantification data triangulations conducted, target coverage used as basis for requested doses; available stock, stock-outs, variations/trends in the stock held & consumption; significant changes (+/-5%) in number of doses required, etc.

|   |           |           |           |     |     |
|---|-----------|-----------|-----------|-----|-----|
| Population                                      |           |           |           |     |     |
| Birth cohort                                    |           |           |           |     |     |
| Vaccine   | Vaccine 1 | Vaccine 2 | Vaccine 3 | ... | ... |
| Population in the target age cohort             |           |           |           |     |     |
| Target population to be vaccinated (first dose) |           |           |           |     |     |
| Target population to be vaccinated (last dose)  |           |           |           |     |     |
| Implied coverage rate                           |           |           |           |     |     |
| Last available WUENIC coverage rate             |           |           |           |     |     |
| Last available admin coverage rate              |           |           |           |     |     |
| Wastage rate                                    |           |           |           |     |     |
| Buffer  |           |           |           |     |     |
| Stock reported                                  |           |           |           |     |     |

### Indicative interest to introduce new vaccines or request Health System Strengthening support from Gavi in the future<sup>3</sup>

| Indicative interest to introduce new vaccines or request HSS support from Gavi | Programme | Expected application year | Expected introduction year |
|--|-----------|---------------------------|----------------------------|
|  |           |                           |                            |
|  |           |                           |                            |

<sup>1</sup> If taking too much space, the list of participants may also be provided as an annex.

<sup>2</sup> If the country reporting period deviates from the fiscal period, please provide a short explanation.

<sup>3</sup> Providing this information does not constitute any obligation for either the country or Gavi, it merely serves for information purposes.

## 2. RECENT CHANGES IN COUNTRY CONTEXT AND POTENTIAL RISKS FOR NEXT YEAR

*Comment on changes which occurred since the previous Joint Appraisal, if any, to **key contextual factors** that directly affect the performance of the immunisation programme and Gavi grants (such as natural disaster, political instability, conflict, displaced populations, inaccessible regions, etc., or macroeconomic trends, health worker industrial actions, disease outbreaks or severe and unexpected Adverse Events Following Immunisation, etc.).*

*For **fragile countries or countries facing humanitarian emergencies or hosting refugees**<sup>4</sup>: Please indicate if any flexibilities in grant management are being requested, and also mention in case the vaccine or HSS renewal requests were adjusted.*

*For countries transitioning from the **Global Polio Eradication Initiative**: Please briefly describe the impact on immunisation and primary health care services and specify whether the country has a polio transition plan in place. If such a transition plan exists, please briefly describe it. If no transition plan exists, please describe actions being taken to prepare for polio transition. Please also comment on whether Gavi investments are being used/expected to be used in the polio transition.*

The contextual environment in which the GAVI grant implementation took place in 2017, was greatly influenced by prevailing social, political and economic factors, which included a GDP reduction from 3.8% in 2016 to 3.7% in 2017. There was a general decrease in donors support, resulting in reduced disbursement from PROSAUDE partners to the Health Sector.

The detection of a type2 vaccine-derived poliovirus (VDPV2) in the newly created Derre district in central Zambézia province in January 2017 and the mass immunization response consumed most of the time of MISAU and technical partners during the first half of 2017. This significantly delayed the implementation of activities planned for 2017.

While responding to the vaccine-derived poliovirus (VPDV) event in Zambézia province from February to May 2017 (with 2 rounds SIAs), several remote and difficult to access communities were identified through mapping which hitherto were not part of the target populations for the immunization program. This situation extends to other central and northern provinces, and it is believed that several communities continue to remain inaccessible in those provinces, as there has not been opportunities to conduct mapping exercises, with children in these communities denied of critical child survival interventions including immunization. The lessons learnt from identifying these communities and designing strategies to reach them with vaccination will be scaled up.

*Also provide a forward-looking perspective on what additionally may happen over the next year given current conditions, vulnerabilities, dependencies, trends and planned changes. This refers to potential events which, if they actually happened, would affect the ability to sustain gains or make further progress in the different areas described in this report. E.g. current uncertainties in demand may increase the risk of vaccine expiry next year, a current decline in coverage may increase the risk of outbreaks, or a currently planned election may require to anticipate potential social unrest and security challenges.*

*Drawing on existing country risk assessments, take the following aspects into account in identifying risks:*

- *Upcoming changes in the immunisation programme (e.g. new initiatives and innovations) and the country context (whether political, economic, social, technological, legal or environmental) leading to new risks*
- *The possibility of new barriers to achieving critical objectives and milestones. Ask ‘what-if’ questions to focus on the exception, not on the norm.*
- *Dependencies on financial, human and material resources and third parties and whether these would continue to be available. Reliance on estimates or assumptions that may become no longer valid.*
- *Problems that have happened in the past or to others and the possibility that similar events (re)occur*

*Please list a maximum of five most important risks (i.e. with a high likelihood to happen and / or a high potential impact if it did happen). Consider the need for proactive actions to prevent them from happening or to timely detect and effectively respond once they will happen. Also clarify whether these risk mitigation actions are being prioritized in the action plan (section 6 below).*

<sup>4</sup> For further information refer to <http://www.gavi.org/about/programme-policies/fragility-emergencies-and-refugees-policy/>



### 3. PERFORMANCE OF THE IMMUNISATION PROGRAMME

*This section is expected to capture primarily the **changes since the last Joint Appraisal** took place. It should provide a succinct analysis of the performance of the immunisation programme with a focus on the evolution / trends observed over the past two to three years and including an analysis of immunisation coverage and equity, as well as a review of key drivers of poor coverage. It*

*Information in this section will substantially draw from the recommended analysis of coverage and equity and other relevant programme/service delivery aspects which can be found in the Joint Appraisal Analysis Guidance (<http://www.gavi.org/support/process/apply/report-renew/>). In addition, the annual desk review exercise is considered an important source of analytics that can be used for populating the Joint Appraisal report.*

*Countries are encouraged to present the information in tables, graphs and maps, and to reference the source of data.*

#### 3.1. Coverage and equity of immunisation

*Please provide an analysis of the situation related to coverage and equity of immunisation in the country, **focusing on new data & analysis, trends and changes, including outbreaks observed since the last Joint Appraisal** was conducted.*

*Provide a summary of the trends in **coverage and equity**, across geographical areas, economic status, populations and communities, including **urban slums, remote rural settings and conflict settings** (consider population groups under-served by health systems, such as slum dwellers, nomads, ethnic or religious minorities, refugees, internally displaced populations or other mobile and migrant groups). Relevant information includes: overview of districts/communities which have the lowest coverage rates, the highest number of under-vaccinated children, disease burden: number and incidence of vaccine preventable diseases (VPD) cases as reported in surveillance systems in regions/ districts, etc.*

*Countries are strongly encouraged to include heat maps or similar to show immunisation coverage trends over time. Examples of such analysis are available in the Joint Appraisal Analysis Guidance (available via <http://www.gavi.org/support/process/apply/report-renew/>)*

Available data on immunisation and basic health package coverage in 2016, it was noted that the access and utilisation of services were still much below the desired level especially in hard-to-reach areas. For instances, according to the JRF 704,417 (69%) of children were fully immunized and 323,243 (31%) could not complete their vaccination schedules by 12 months, and 77% of the latter were in districts of the 4 priority provinces of Nampula, Zambézia, Tete and Manica.

Indeed, in spite of some progress observed in indicators of the key inequity drivers in the IMASIDA 2015 as compared to DHS 2011, data still point out to persistent high dropout rate, inequitable access, uneven distribution of coverage and the impact of social determinants of health, with children from wealthy families, residents in urban areas and educated mothers having much more probability of accessing health services than their peers from poor families, residents in rural areas and mothers with no school education (see table 1). It is noted that access to services for children of illiterate mothers has worsened (1.27 in 2015 against 1.19 in 2011), indicating some gap in communication strategy addressing the needs of this vulnerable group of population. This might be a result of limited interpersonal communication skills amongst frontline health workers and poor knowledge of communities on the vaccination schedule and benefits of vaccination, as identified in PIE for Rotavirus, IPV and MSD conducted in 2016.

The identified data is limited as it does not provide sub national estimates of inequity at district level to guide appropriate actions and the survey was almost 3 years old noting the dynamics of population characteristics that could be affected by the economic environment faced lately.

Table 1: DPT3 coverage by social characteristics and area of residence

| Cobertura da DPT3 por características sociais |          |              | Cobertura da DPT3 por Provincia |          |         |
|---|----------|--------------|---------------------------------|----------|---------|
| Características                               | IDS 2011 | IMASIDA 2015 | Características                 | IDS 2011 | IMASIDA |
| <b>SEXO</b>                                   |          |              | <b>PROVINCIA</b>                |          |         |
| Masculino                                     | 76.2     | 83.1         | <i>Niassa</i>                   | 82.8     | 85.1    |
| Feminino                                      | 76.1     | 80.2         | <i>Cabo-Delgado</i>             | 67.8     | 95.5    |
| <b>NIVEL DE ESCOLARIDADE DA MAE</b>           |          |              | <i>Nampula</i>                  | 75.1     | 74.6    |
| Nenhum  | 71.5     | 73.1         | <i>Zambezia</i>                 | 60.3     | 68.2    |
| Primario                                      | 76.9     | 82.8         | <i>Tete</i>                     | 79.9     | 69.6    |
| Secundario +                                  | 85.6     | 92.6         | <i>Manica</i>                   | 76.6     | 90.8    |
| <b>QUINTIL DE RIQUEZA</b>                     |          |              | <i>Sofala</i>                   | 85.3     | 82.9    |
| Mais Baixo                                    | 64.9     | 72.8         | <i>Inhambane</i>                | 81.8     | 90.2    |
| Segundo                                       | 70.2     | 72           | <i>Gaza</i>                     | 89       | 92.6    |
| Terceiro                                      | 79.2     | 85.6         | <i>Maputo Provincia</i>         | 96.7     | 97.5    |
| Quarto  | 85.3     | 91.1         | <i>Maputo Cidade</i>            | 90.1     | 91.4    |
| Mais Elevado                                  | 87.1     | 94.9         | <i>PAIS</i>                     |          |         |
| <b>RESIDENCIA</b>                             |          |              |                                 |          |         |
| Urbano  | 86.3     | 89.7         |                                 |          |         |
| Rural   | 72.4     | 78.9         |                                 |          |         |

Building on the 2016 analysis above, interventions put in place to reduce inequities in 2017/18 included implementation of RED/REC approach in 24 priority districts (10 in *Zambézia*, 4 in *Manica*, 4 in *Tete*, 3 in *Nampula* and 3 in *Sofala*), representing 33% (24/72) of districts covered in the 4 priority provinces, and 15% (24/161) of districts covered countrywide. Were also trained 75 health workers on community mapping and mapped 5,392 communities in 21 districts of *Nampula* and *Zambézia* provinces, representing 47% (21/45) of districts mapped in these 2 priority provinces. In the same districts, 3,205 community health focal persons were trained in vaccination defaulter tracing. There was also allocation of vaccination schedules to health units to promote good practices and 1,890 health workers were trained on interpersonal communication.

In addition, 252 religious leaders were trained in "health and life" to promote health seeking behaviour in their communities, including immunization that is also expected to reinforce community engagement. There was also production and dissemination of messages on radio using community radios in the same priority districts.

The country also conducted a knowledge, attitude and practice (KAP) study for health workers and immunization service users and developed an immunization communication plan to be submitted for approval by end of August 2018. This will further include risk communication strategy for events/outbreaks and severe AEFIs.

The efforts to increase demand generation and equity resulted in some improvement in the immunization coverage. For instance, the analysis of 2017 administrative data on immunisation indicates that in 2017, national reported Penta 3 coverage reached 99%, with 91% (147/161) of districts with Penta3  $\geq$  80%, representing an increase in 2% as compared to 2016 (143/161, i.e., 89%). Meanwhile, 70,762 (??) could not complete their vaccination schedule by 12 months, against the baseline of 323,243 (31%) in 2016, while the number of children that missed MCV2 was of 434,316 representing 40% dropout between MCV1 and MCV2 at national level in 2017, as compared to 44% observed in 2016. Even though this level of dropout represents a decline in 4% it is still very high as those who missed will not be fully immunised. Districts in the 4 RED/REC priority provinces had a decline that was higher (between 5%-10%) than the national average indicating improved service utilization.

Despite these reported improvements, this apparent reported high immunization coverage has been a source of concern due to low data reliability and poor data management at district level, that has been justified in several ways: the population base used to calculate the target groups is smaller than the real, or there is an over-reporting of cases (the same child may be counted twice – outreach and regular health facility data.), or children are vaccinated outside the target group and included in the numerator.

Furthermore, there is also lack of consistency between the apparently high coverage and all sorts of difficulties in implementing outreach. For instances, in general the implementation of outreach strategy countrywide has been challenging, contributing with 14% to overall routine immunization coverage, against the expected 40%. This was attributed to a combination of factors, namely poor micro plan, limited community engagement in planning with some unknown and hard to reach communities not included in the outreach plans, poor flow of funds from central to peripheral levels, limitation in funds management and accountability at province / district level leading to delays in the release of subsequent funds and its availability at operational level for fuel and subsidies for vaccination teams, poor transport maintenance system, amongst others.

Lastly, in general the dropout rate was within the acceptable values  $\leq 10\%$ , except in 3 provinces of Cabo-Delgado, Zambézia and Tete, with 15%, 16% and 11% respectively.

The lesson learned was that despite all efforts put in place in 2017 to increase demand as explained above, the inadequate management practices have limited the availability of immunization services through outreach, indicating the need to very quickly address management and fund flow issues. Furthermore, the good practices on demand side need to be further reinforced and expanded to include much more districts for better impact on equity. The planned District Health Management Training and the MLM trainings may contribute to improved managerial practices.

Additional data on coverage and equity come from the comparative qualitative study implemented by VR in 6 district over 3 provinces to identify the main reason for children vaccination missed opportunities. Main results after analyzing more than 780 interviews with parents, health providers and health care manager and focus groups and despite, the MOV is 72%. Main bias of this study are time and localization specificity but the study highlighted different hypothesis for

MOV :

- On the demand side, 71% parent acknowledge that they don't know about recommended vaccine for their children and 62% didn't received any side effect information. There is also some difficulty regarding acceptability of various doses repeated in a short period of life.
- On the supply side, lack of human resources and limited knowledge / capacity regarding vaccination were identified. Also accessibility issues were identified like remoteness area, stock out and registration difficulties.

Main recommendations are :

- To improve knowledge and communication capacity of health provider regarding vaccination promotion.
- To develop vaccination promotion strategy at community level. (Broadcast, promotion tool...)
- To improve information system and data quality
- To improve data management through electronic file and registration
- To improve EPI supply and logistic

Further data on coverage and equity were provided by ACASUS, an agency that focus on Health and Education development in developing countries mainly through management and technology to improving access and use of services. Its multidisciplinary team is working to impact more than 35 millions of people.

Based on Punjab, Afghanistan ground experience, ACASUS is offering to improve Mozambique vaccine coverage stagnation for more than 10 years (66% fully vaccinated Children according to IMASIDA 2015). Moreover ACASUS is observing that Mozambique despite real improvement is still facing inequity in vaccine coverage with three provinces (Zambézia, Nampula and Tete) under 65% coverage and two (Sofala, Manica) under 75%. ACASUS recommendation to address such issue in Mozambique are :

1) Focusing on priority provinces (Zambézia, Nampula, Tete +/- Sofala, Manica);

- 2) To incentive health management capacity through diffusion of best practice;
- 3) To strengthen Health Information system in order to improve daily activity monitoring and to facilitate health decision making based on evidence;
- 4) To implement independent Coverage survey at Provincial level;
- 5) To strengthen advocacy and to involve political in result based approach of EPI;
- 6) To improve the coordination of EPI program with partners.

### 3.2. Key drivers of sustainable coverage and equity

Please highlight the key health system and programmatic drivers of the levels of coverage and equity highlighted in the section above, **focusing on the evolution and changes since the last Joint Appraisal**. For those districts/communities identified as lower performing, explain the evolution of key barriers to improving coverage.<sup>5</sup> To the extent possible, **please list the barriers below by order of priorities with regards to coverage and equity bottlenecks:**

- **Health Work Force:** availability, skill set and distribution of health work force.
- **Supply chain:** integration, key insights from latest EVMs and implementation of the EVM improvement plan, and progress on the five supply chain strategy fundamentals.<sup>6</sup>
- **Service delivery and demand generation:** key insights related to service quality improvement and community engagement strategies, integration and cost-effectiveness strategies, demand for immunisation services, immunisation schedules, etc.
- **Gender-related barriers faced by caregivers<sup>7</sup>:** Please comment on what barriers caregivers currently face in bringing children to get vaccinated and interventions planned or implemented (through Gavi or other funds) to facilitate access to immunisation services by women for their children. (For example: flexibility of immunisation services to accommodate women's working schedules, health education for women on the importance of vaccination and social mobilisation targeting fathers, increasing the number of female health workers etc.)
- **Leadership, management and coordination:** leveraging the outcomes of the Programme Capacity Assessment and/or other assessment, please describe the key bottlenecks associated with management of the immunisation programme; this includes the performance of the national/ regional EPI teams/health teams managing immunisation (e.g. challenges related to structure, staffing and capabilities), use of data for analysis, management and supervision of immunisation services, and broader sectoral governance issues.
- **Other critical aspects:** any other aspect identified, for example based on the cMYP, EPI review, PIE, EVM or other country plans, or key findings from available independent evaluations reports<sup>8</sup>.

### 3.3. Data

Provide a succinct review of key issues related to the timely availability, quality and use of immunisation data **focusing on the evolution and changes since the last Joint Appraisal**. This section should at least cover insights on immunisation coverage data (target populations, number of children vaccinated) and available triangulation with vaccine supply chain data, vaccine preventable disease (VPD) surveillance data, and adverse events following immunisation (AEFI) data. Please take the following aspects into account:

<sup>5</sup> Relevant discussion questions on a number of the strategic areas here can be found in the programming guidance available on the Gavi website: <http://www.gavi.org/support/process/apply/additional-guidance/>

<sup>6</sup> More information can be found here: <http://www.gavi.org/support/hss/immunisation-supply-chain/>

<sup>7</sup> For additional programmatic guidance refer to <http://www.gavi.org/support/process/apply/additional-guidance/#gender>. Gender-related barriers are obstacles (for access and use of health services) that are related to social and cultural norms about men's and women's roles. Women often have limited access to health services and are unable to take their children to get vaccinated. Barriers include lack of education, lack of decision-making power, low socio-economic status, women unable to move freely outside their homes, inaccessibility of health facilities, negative interaction with health workers, lack of father's involvement in healthcare etc.

<sup>8</sup> If applicable, such as Full Country Evaluations (relevant for Bangladesh, Mozambique, Uganda and Zambia) and Technical Assistance evaluations (conducted for Gavi Partners' Engagement Framework tier 1 and tier 2 priority countries).

## Joint Appraisal (full JA)

- *Status of the **health and immunisation information system** (e.g. DHIS2, parallel systems, surveillance system), and updates on eventual national HMIS strengthening plan.*
- ***Denominator**-related information, e.g. any difference between national denominator, UN estimates, and programmatic targets, and planned census,*
- *Key challenges pertaining to **data availability, quality and use**, referring to results from most recent annual desk review, any recent assessments and implementation of immunisation data improvement plan. For example, are you aware of key limitations / weaknesses related to the quality of the data and data analyses you have used to inform this Joint Appraisal.*
- ***Compliance** with Gavi's data quality and survey requirements (the requirements are listed in the JA Annex; and are described in detail here <http://www.gavi.org/support/process/apply/additional-guidance/#data>). If you are not compliant, explain why.*
- *Main **efforts / innovations / good practices** focused on evidence-based data improvement interventions and level of scale up.*

The quality of program data (routine immunization, surveillance, SIAs) remains a source of concern for the program. Several studies conducted to assess the quality of data produced by the program between, such as the EPI review in 2016, supportive supervision reports and DQS assessments conducted by provinces in several districts between 2015 and 2017, found poor data quality management affecting the reliability of data produced, the lack of regular analysis and use of data, issues of data accuracy, completeness, timeliness and consistency between different levels, poor filling out of the vaccination registry books, uncertainty about accuracy of denominators at the health facility level, amongst others. The verification factor in most of these assessments was situated below the recommended minimum score of 80%. Moreover, there are concerns about large fluctuations in reported coverage from one year to another at district level, reflecting low data reliability and poor data management.

Sub-optimal data quality makes planning, monitoring and evaluation of the program performance challenging. For example, there is >10% point disparity between the official DTP3 coverage (>90%) and WUENIC and Coverage Estimate Surveys, which both put the coverage at <80% over the last 5 years.

For instances, while the country registered between 84% and 100% of monthly reporting by the 1555 reporting health facilities in 2017 against the minimum acceptable of 80% (*except in October and November, with 0%, due to SISMA migration*), in most provinces there is large fluctuation in reported data from one month to another without clear and convincing explanation (possible outliers). In addition, the difference between Penta 3 routine administrative data between 2015-2017, with both IMASIDA survey (2015), and WUNEIC (2015-2017) is considerably huge, of at least 18%, pointing out to data reliability issues.

It was also noted that vaccines with same vaccination schedule has differences in coverage, except in the 4 southern provinces, even in cases when no reported stock out of one of the vaccines. The lost opportunities to vaccinate in this case for Penta3, Polio3 and PCV3, varies from 1% in Niassa to 21% in Sofala, being Polio3 the most affected, probably due to vaccine stock out.

According to INE (national bureau of statistic), as per last population census, the coefficients for calculating the vaccination target group vary from one province to another, from 2.1% in Maputo City to 4.1% in Niassa. However, the country is equally using 3.9% everywhere, a value in place since the inception of EPI. This is a source of distorted target number in many provinces. Taking into account the existing variation in districts within the same province, it is even more difficult to rely on available data to judge the achievements per districts and better orient efforts for equity improvement. This points out to the need to adjust the number of targeted children per district adjusted to specified coefficient, for better estimate of denominators.

As an improvement to previous the Visibility and Analytics Network (VAN) dashboard based in Excel, an online version of the dashboard has been developed and is currently under implementation. This online dashboard will load and display the data from different sources such as SELV, SISMA, Cold Trace and the



monthly/quarterly reports created by the provinces and central levels regarding the RED/REC implementation, HSS funds execution and community engagement activities.

### 3.4. Logistic and supply chain management

During 2017, vaccine distribution teams visited HF on a monthly base from January to December, between 223 and 747 health facilities, and reported a monthly vaccine stock out varying from 2% to 24% for BCG, 4% to 51% for IPV, 2% to 27% for Polio, and 1% to 4% for measles.

The IPV vaccine stock out, mostly attributed to global shortage, was more prominent in the 7 central and northern provinces in last semester 2018, been observed in 44% of visited health facilities in Zambézia to 62% in Cabo-Delgado, while stock out variation for the 4 southern provinces was between 1% to 14%. This points to vaccine management challenges.

As for traditional vaccines, Polio IPV vaccine was the most affected with stock out at health facility level, varying from 7% to 31% of visited health facilities, followed by BCG vaccine between 3% and 22% and finally measles, between 1% and 16%. Indeed, an analysis of vaccine stock management at the national vaccine store indicated that only BCG and IPV vaccine were out of stock for 107 and 144 days, respectively. Yet measles and Polio bOPV also were out of stock at health facility levels, as above demonstrated, indicating vaccine management stock and distribution gaps. Overall, 2017 distribution data showed the percentage of health facilities visited decreasing by an average of 53% in the last 6 months of the year. In addition, delivery intervals were inconsistent over the 12 months. An assessment of reasons given by provincial distribution teams for this 12 months period pointed to various system constraints at the province level with the highest reason given being funds flow for fuel, per-diem and vehicle maintenance .

Indeed, according to the latest Effective Vaccine Management Assessment (EVMA) conducted in May 2015, vaccine stock outs observed at service delivery levels were mainly due to poor vaccine management at provincial and district levels. The stock management systems and procedures scored 65% for provincial level vaccine store (PVS), 51% for district level vaccine store (DVS) and 38% for health facility level. Vaccine stock outs and/or over-stocks were observed in almost all provincial and district vaccine stores (PVS & DVS) and in 12 of the 17 (71%) health facilities that were evaluated. Since, an EVMiP was developed in late 2016 and is being implemented since with HSS Gavi's funds.

The country conducted in 2017, a national cold chain equipment inventory, to prepare the application for the CCEOP, submitted to GAVI in May 2018, and recommended for approval by the IRC in July 2018 with clarification request.. The inventory showed that out of a total of 2,051 cold chain equipment at all level countrywide, 93.4% are refrigerators approved by WHO/UNICEF for vaccine storage (PQS), 2% domestic refrigerators and other non PQS, 0.9% walk in cold rooms and 3.7% freezers, both in the WHO/UNICEF catalogue. The CCEOP application aims to replace the non PQS pieces of equipment and the non-functioning equipment mostly at health facility level.

During 2017 and 1st semester 2018, capacity building was conducted through different means and work stream areas. A National System Design Workshop was held and participants included MISAU-EPI (national and provincial staff), Provincial Medical store managers and CMAM staff, and partner's representatives such as (PSM, MSF, Agility, CHAI, JSI-MCSP, WHO, etc.). This workshop presented the opportunity to review progress made to date, share lessons learned, assess remaining gaps on the supply chain, and define next steps. Main objective of the workshop was to provide to the audience a better understanding of the benefits of supply chain design and the potential opportunities and "risks" of Integrating vaccine supply chains with other health supply chains; provide a concrete vision and

framework on system design and Integration and; Served as a trigger for decision making by EPI and other MISAU product/disease programs to determine what activities within your supply chain can benefit if they are Integrated. Each province developed a mini-project plan for integration between PAV and other health commodities. SELV (an electronic and Web based Vaccine Logistic Management System) training and expansion for the 10 planned provinces, as well as training at the central level with the MISAU team, was completed. At the same time, central and provincial EPI staff were trained on the new developed EPI Dashboard (a tool that automatically extracts data from SELV, SISMA (DHIS2) and Cold Trace ), and provides data and visualizations for PAV analysis and decision making) Other workshops regarding cold chain management and maintenance (5 and 27 participants respectively), SELV for central, provincial and district levels (10, 70 and 150, respectively) and DVDMT for province and district level (22 and 140 staff respectively) were implemented to strengthen staff capacity and to stimulate initiative of integration between both supply chain.

The main logistic constraints were IPV vaccine shortage, delays in the reception of traditional vaccines, delay in releasing funds for vaccine distribution, mostly affecting vaccine delivery to central and northern provinces, and availability of quality data for tracking vaccine management at peripheral levels (SELV, DVDMT training in progress). There has also been delay in responding to cold chain maintenance requests.

### **3.5. Integrated Disease Surveillance and Response, including Rotavirus / Hib /Pn and surveillance of Adverse Events Following Immunization (AEFI)**

In 2017, the country reported 396 AFP cases, all investigated with stool samples. None was confirmed wild Poliovirus. The non-polio AFP detection rate was of 3.2/100,000 children < 15 years, against the acceptable rate of at least 3.0/100,000 < 15 years for countries that reported wild or vaccine derived poliovirus. Adequate stool sample rate reach 85% at national level, against the acceptable of at least 80%. However, there are gaps at sub-national level for both AFP and stool adequacy rates. For instances, with 4/11 provinces reporting NPAF rate of ranging from 2.3 to 2.6, and 5/11 provinces reporting a stool adequacy rate ranging from 70% to 79%. The desegregation of data by districts show that 68/161 (42%) of districts were below the acceptable NPAF rate, while 106/161 (66%) reached the acceptable stool adequacy rate.

The country also responded to a vaccine derived poliovirus type 2 detected in Derre district in Zambézia province, with two vaccination rounds of mono OPV2, in January and May 2017. The campaign involved also other 13 districts in the surroundings of Derre district. As part of the response, surveillance was strengthened in these districts. However, only 7/14 (50%) reached the acceptable NPAFP of at least 3.0, ranging from 3.1 to 5.7, while in the remaining 50% of districts the rate varied from 2.1 to 2.9.

Concerning measles / rubella surveillance, a total of 1,702 suspected cases (representing 6.3/100,000 inhabitants NMFR illness) have been reported and investigated in the lab. Out of the total, 1,412 (83%) were IgM negative, 55 (3%) compatible with measles and 35 (2%) IgM+ for measles. Rubella IgM+ was verified in 44 (3%) of the investigated samples.

At district level, 89% (144/161) districts had a NMFR illness rate within the recommended standards of at least 2/100,000 inhabitants.

As for NNT, in 2017 the country reported through the weekly reporting system, a total of 502 cases with 11 deaths (2.2% case fatality rate). From the reported cases, only 108 (22%) have been investigated using the case investigation form (CIF) and reported 14 deaths (12.9% CFR). This is indicative of considerable gaps and weaknesses of the surveillance system.

From the 108 investigated cases, 84 (77.8%) were classified as NNT, 13 (12%) not NNT cases, and 11 (10.2%) unknown. However, there was no systematic vaccination response targeting WCBA in response

to clinically classified cases of NNT.

### **Rotavirus and Hib surveillance**

In what concerns rotavirus surveillance it is active in 6 sentinel sites, in Maputo, Beira, Quelimane and Nampula. All sites processed a total of 411 samples, out of which 104 were rota+, representing 25.3% positivity. This amount of processed sample in one year as compared to eligible diarrheal cases reported in the same sites (0-59 months), is indicative of very weak surveillance system, with very low detection rate. However, an analysis of the rota+ by tranche of age, indicates a decline in positivity as we move towards older ages. For instance, rota positivity was 61/214 (28.5%) for children 0-11 months, 33/137(24.1%) for children 12-23 months, and 10/60 (16.7%) for children 24-59 months, which might possibly be associated to the impact of recently introduced rotavirus vaccine.

Surveillance of bacterial meningitis and pneumococcus is active in Maputo, Beira and Nampula. Available data points to reduction in the Hib and pneumococcus burden in children. For instance, the detection of *S. pneumoniae* by PCR 2013-2015 reduced from 33.6% (124/369) in 2013 to 15.3% (33/215) in 2014 further down to 1.9% (3/160) in 2015. This tendency was maintained in 2016 (13/308=4%) and 2017 (2/67=3%). The huge fluctuation in the number of reported cases is suggestive of reporting tool and process weaknesses of the surveillance system that should urgently be addressed.

In addition, a recent supportive supervision conducted jointly by WHO and CDC, highlighted some data management issues (poor data quality) that need to be addressed by INS in laboratory surveillance database of both rotavirus and Hib/pneumococcus.

The surveillance of adverse events following immunization surveillance has been taking place in an incipient way, integrated into the established pharmaco-vigilance system, within the National Directorate of Pharmacy. In 2017, the system reported only 31 of mild / moderate suspected AEFI cases, against a minimum 102 cases expected.

In order to strengthen the surveillance of adverse events following immunization (AEFI), a national team composed of EPI, pharmaco-vigilance and WCO attended the AEFI training in Harare in September 2017, after which the country adapted the generic AEFI tools and guidelines into national context.

With the technical support from WHO the country conducted the central level training of trainers on AEFI (5 EPI staff, 2 surveillance staff and 3 pharmaco-vigilance staff) in February 2018. A coordination mechanism and data flow between pharmaco-vigilance and EPI was established. The training was replicated at provincial and district levels in April, anticipating the MR catch up campaign. At provincial level were trained 2 EPI staff, 2 surveillance and 1 pharmaco-vigilance staff in each of the 11 provinces, along with 3 staff / district from each of the 161 districts that attended the MR training at provincial level. In turn, the districts trained the respective health facility catchment areas staff.

During the MR catch up campaign, were reported 143 AEFI cases, one of which resulted in death. The national AEFI committee has not subjected the deadly AEFI case to causality assessment, as the committee was not yet been established at national level. The case was investigated and classified as coincidental, not a result of the vaccination, by local team at provincial level.

The current AEFI surveillance challenges relate to establishing the national AEFI committee, which is pending finalization of the translation of the AEFI causality assessment guidelines and tools, and training of the AEFI committee members recently nominate by MoH. IST/AFRO will provide technical support in conducting the training, once when the country has translated the tools. Lastly, there is a need to strengthen the AEFI surveillance system at district / health facility level to improve reporting.

Other disease surveillance challenges relate to expansion of the rotavirus, pneumococcus and Hib

surveillance through creation of additional sentinel sites countrywide, training of district officers on integrated disease surveillance and response (IDSR) and provision of computers to districts for surveillance data management.

### 3.6. Measles / rubella catch up campaign

The country conducted two phased rounds of MR catch up campaign, in April (4 Northern provinces) and May 2018 (7 remaining provinces), targeting 13 million children under 15 years, followed by MR vaccine introduction into the routine national immunization program. The campaign also included vitamin A supplementation for children 6-59 months and deworming with mebendazol tablets for children 12-59 months. A complementary intervention included supplementation with acid folic for girls 10-19 years.

The campaign had previously been planned to take place in April 2017, but it was postponed to November 2017, as the country was responding to a vaccine derived poliovirus event with two OPV2 vaccination rounds in February and May 2017, in some districts of 3 central provinces of Zambézia, Tete and Sofala. In September 2017, the MOH decided to further postpone the campaign to April/May 2018, to allow for better preparation, given that both national and district readiness assessment scores were very low.

In December 2017, the national bureau of statistics released the results of the last population census, conducted in 2017. The population has grown more than previously estimated through the projections of the 2007 census, which was used to estimate the vaccine and injection safety needs when the MR campaign application was submitted in 2016 to GAVI. The country requested additional MR vaccine to GAVI, to cater for the additional children in the target group as per last census. Using its 5% flexibility policy Gavi granted an additional 598,800 doses of MR to the country. Considering that country vaccine needs estimates for this campaign were based on the children below 15 years old (i.e., 0-14 years), GAVI requested the country to provide the number of children aged 0 to 8 months, as GAVI only finance the target of 9 months to 14 years, so that corresponding vaccine would be deducted from the next country MR vaccine shipment.

In total, the country received 15,125,700 doses of MR vaccine, of which were used 13,770,070 were used during the campaign, with a balance of 1.2 million doses, largely owing to the very low wastage rate (2%) achieved, as compared to 15% estimated in vaccine needs.

In the preparatory phase, the country adapted and translated the generic SIA's and measles/rubella (MR) training materials and guidelines by March 2017, and in November 2017, conducted the training of trainers for national and provincial supervisors, noting that between July and October 2017, there were other priority activities going on, including joint appraisal preparation, PCV10/13 switch, national health week, amongst others.

In the meantime, other campaign preparatory activities took place such as, needs assessment in human resources, cold chain capacity for vaccine storage, cold boxes and vaccine carriers for team supervisors and vaccination teams, transport for logistic of the campaign, amongst other needs. Partners supported MoH in distributing motorbikes that were still at central level and installing walk in cold rooms (WICR) in all provinces, both items financed through GAVI HSS funds.

In February 2018, the country initiated intensive supportive supervision to provinces / districts, implementing the readiness assessment tool, in order to inform the decision making process and improve campaign preparedness and readiness.

The main constraint highlighted by the readiness assessment, was the delay in the disbursement of funds from the MoF to MoH and to provinces resulting in delay of most preparatory activities at all levels. For instances, at central level there was delay in the printing of social mobilization materials, vaccination cards and transport to provinces. At provincial level, the procurement of some goods and services essential to the preparation and implementation of the campaign was delayed, as well delay in the training of district teams. At district level, there was delayed micro plan and training of health facility staff, most of these activities happening in the week previous to the campaign at province, district and health facility level. The provinces and districts initiate social mobilization using the electronic materials received during the central / provincial TOT in November 2017, but the print out of these materials reached districts in the week previous to the campaign commencement.

Along with the constraints above, there also has been delay in the delivery of finger markers and vaccination cards, transport of cold boxes to provinces, and from there to districts, reaching this last level in the last week previous to campaign, so that districts had to deal simultaneously with the training of health facility staff, adjust the micro plan and distribute cold boxes, vaccines and vaccination materials to health catchment areas. Some district initiated campaign without vaccination cards and / or finger markers, which were delivered at some point during the campaign.

Districts also faced shortage of human resources, transport and vaccine carriers for vaccination teams, so the central level advised them to readjust the number of teams to the available resources, and extend the campaign implementation for few more days as deemed necessary. It also rained heavily in some districts in all provinces of the phase I campaign in April. Districts were advised to map all areas that could not be covered or were poorly covered as indicated by independent monitors, and continue vaccinating beyond the campaign stipulated dates, even in the routine, until all areas are well covered.

The campaign was almost entirely funded by a GAVI grant which was entirely disbursed to the government. However, owing that the government's financial systems and procedures do not provide an efficient mechanism for the payment of non-government civil workers nor for the procurement of goods outside the country, MoH requested UNICEF and WHO to facilitate the flow of funds that would allow to pay subsidies for graduated health professionals not absorbed by the system, as well as community volunteers. WHO and UNICEF also received direct funding from GAVI under TCA to support campaign preparation and implementation activities.

As the decision to transfer funds to partners for subsidies was taken lately, it was agreed that WHO and UNICEF frontload required resources. However, there has been slight delay in the transfer of funds for subsidies, owing delayed official MoH request to GAVI to disburse funds to WHO and UNICEF, resulting in non-timely formalization of agreement between these organizations with GAVI.

In spite of this slight delay in the reception of funds in the week of the campaign, the implementation of campaign was not affected noting that payment of subsidies is usually done only in the following weeks after the campaign ends.

The preparation and implementation of the campaign was supported technically by WHO, UNICEF and PwC. WHO supported with adaptation of training materials, training of trainers for national, provincial and district supervisors, district micro plan development, development of campaign supervisory check list, and training on and implementation of the readiness assessment tool for national and district levels. WHO also adapted independent monitoring tools, trained independent monitoring supervisors, and coordinated both in and end independent monitoring processes. WHO also deployed an international consultant that supported with campaign coordination and report writing.

UNICEF supported with adaptation of social mobilization materials and training of trainers at central, provincial and district levels. UNICEF also provided logistic support for collection and transport of cold boxes from one province to another.

PWC, which was recruited as monitoring agent, monitored the preparation and implementation of the campaign, identified bottlenecks and provided useful recommendation to improve the readiness and implement quality campaign.

The first lady launched the campaign in Niassa province in April 2018. Government involvement and leadership at all levels was prominent and decisive to the successful implementation of the campaign, despite all constraints above mentioned. Even with heavy rain in some districts with very difficult accessibility roads, vaccination teams courageously did their best to reach communities to immunize children, which was commendable by MoH and partners. The implementation has been subject to in process and end process monitoring by independent monitors, which visited vaccinated areas to assess the coverage level and identify the bottlenecks to attendance, and provide this information to vaccination team supervisors during the daily district campaign coordination meetings, in order to schedule the revisit to poorly covered areas and address the bottlenecks.

The MR campaign targeted 13 million children in all 161 districts, and reached 13.2 million, representing 101.7% administrative coverage. Overall, 153 (95%) of districts had coverage of  $\geq 95\%$ , 5 (3%) had coverage of  $\geq 90\%$  and  $< 95\%$ , and 3 (2%) of districts had coverage of  $< 90\%$ .

Independent monitors (IM), inquired 374, 717 (300,533 children in house & 74,184 children out house) during the in process monitoring in 1571 reporting districts, and found that 334,377 (92%) were immunized. From these children, 300 613 (242,932 in house & 57,681 out house), i.e., 87% of immunized children had vaccination cards and 296 569 (237,041 in house & 59 528 out house) i.e., 86% nail marked.

During the end process evaluation, IM inquired 115,970 children (94 432 in house and 21 538 out house) in 135 reporting districts, and found that 110,953 (90,243 in house & 20,710 outhouse), i.e., 96% were immunized. Out of these, 102,459 (84,481 in house & 17,978 out house), i.e., 92% had vaccination cards and 99,718 (80,555 in house & 19,163 out house), i.e., 90% nail marked.

Four districts had  $< 10$  children inquired in the data base and were excluded from the analysis, and 26 districts could not conduct the end process due to insufficient fuel and motorbikes, which were provided only for in process monitoring. Below is presented a summary table of the independent monitoring process.

|                                      | IN PROCESS    |              |               | END PROCESS  |            |              |
|--------------------------------------|---------------|--------------|---------------|--------------|------------|--------------|
|                                      | In House      | Out House    | Average       | In House     | Out House  | Average      |
| Nr de distritos que reportaram       | 157           | 138          | 148           | 135          | 135        | 135          |
| <b>Total Razoes de nao Vacinacao</b> | <b>24 477</b> | <b>5 863</b> | <b>15 170</b> | <b>4 189</b> | <b>829</b> | <b>2 509</b> |
| crianca ausente                      | 2 025         | 341          | 1183          | 247          | 47         | 147          |
| falta de vacina no posto             | 364           | 51           | 208           | 85           | 6          | 46           |
| posto de vacinacao distante          | 586           | 110          | 348           | 190          | 47         | 119          |
| Recusa                               | 1 104         | 155          | 630           | 236          | 29         | 133          |
| % Recusa                             | 5%            | 3%           | 4%            | 6%           | 3%         | 5%           |
| Outras                               | 20 398        | 5 208        | 12803         | 3 431        | 704        | 2068         |
| <b>Tota Motivos de Recusa</b>        | <b>1 104</b>  | <b>155</b>   | <b>630</b>    | <b>236</b>   | <b>29</b>  | <b>133</b>   |
| crencas religiosas                   | 75            | 18           | 47            | 28           | 7          | 18           |
| % crencas religiosas                 | 7%            | 12%          | 9%            | 12%          | 24%        | 18%          |
| crianca doente                       | 131           | 13           | 72            | 40           | 2          | 21           |
| outro                                | 898           | 307          | 603           | 168          | 21         | 95           |

The country has also planned the post campaign coverage survey (PCCS), which will inform the definitive coverage achieved. The PCCS is being implemented through the national institute of health (INS). Data collection has been finalized in the provinces of phase 1, and ongoing in the provinces of phase 2. The final report is expected by October 2018.

### 3.7. Overview of country performance

The total investment of MR campaign and routine introduction amounts at \$ 18.5 million, in both kind and cash. The country planned under 15 year's MR campaign while GAVI policy applies to 9 months – 14 years. The 0-8 month's corresponding vaccine doses will be deducted from the country 2019 MR allocations, as explained earlier.

Concerns raised during the JA regarding the plan for utilization of the 1.6 million doses of measles remaining at the central vaccine store. The vaccine will be used in mini-catch up campaigns. Details and plan still need to be provided as well as costing and funding if any. The MOH needs to make a quick decision owing the date of expiry of the various batches (expiry dates for vaccines currently stored at central level vary from February 2019 to August 2019).

GAVI also contracted PwC to monitor preparation and implementation of the MR campaign and routine introduction, as well as the financial reporting of the operational costs/VIG grants in view of the upcoming GAVI audit (covering all MoH transactions related to GAVI grants from 01.2015 to 06.2018).

PCV10/13 switch started in Q3 2017 and took place in districts of the northern and central provinces + Inhambane. The remaining 3 southern provinces are still using PCV10. There are 905,200 doses remaining countrywide (expiring between Nov/2018 – June/2019). This amount differs from the one reported in the portal (868,200 doses which concerned the stock at central vaccine store only), while this takes into account the stock at province / district levels. The MOH has sought recommendations to WHO on both remaining measles and PCV10 vaccines.

For PCV WHO recommends to use it in the next 6 months, i.e., July 2018 to January 2019, in 61 selected districts countrywide (29 from the 3 southern provinces of Gaza, Maputo province and Maputo City, and the remaining 32 districts from the other 8 provinces that had already switched to PCV13). The target group for 2018 in these districts amounts at 668,636 children. The PCV coverage target is of 87% of these children, i.e., 581,713. In the next 6 months, it is expected to cover approximately half, i.e., 290,857. These will consume 872,570 vaccine doses, out of the 905,200 doses above mentioned. The remaining 32,630 PCV10 doses correspond to wastage of 3.7%, well within the acceptable range of  $\leq 5\%$ . It is noted that there are 24,600 PCV10 doses expiring in November 2018 and 10,200 expiring in January 2019. The remaining doses expire in June 2019. The first expire first out principle will be carefully observed.

As for the measles vaccine, a dual approach is proposed: 1) use the vaccine in schools and immunize students above 14 years, noting that the country has just had a catch up campaign (under 15 years), or identify selected high risk or hard to reach districts and immunize adolescents and adults  $\geq 15$  years. In both cases will be used routine immunization sessions in fixed, outreach and mobile sites, already financed through on going HSS grant.

The total HSS commitments for Mozambique amounts at US\$ 26,767,676 including carryover of VIG. To date, US\$ 10,837,667 (40%) has been disbursed. The implementation has improved in 2017 compared to 2016 (US\$ 3.851 M versus 2.204 M, respectively). However, the country needs to accelerate activity implementation /fund utilization as the 4th year of implementation has started.

Still on HSS, it was suggested that the country focus on outcomes and data of the 2017-18 implementation to inform future HSS investments and prioritize targeted interventions in the selected priority provinces.

Performance based financing (PBF) – the country was approved in 2017 for US\$1.48 M (for its 2016

performance). The grant will be used mostly for CCOP country co-financing to UNICEF SD (US\$1 m) and the remaining to WHO and UNICEF (surveillance and printing). For 2017, the country is not eligible for PBF (the discrepancy administrative data and the WUENIC is greater than the 5% ppt).

Coverage and Equity – the main points area: in the last 10 years, measles coverage is converging, while Penta 3 is diverging, indicating need to improve the quality of data. Country Data Quality Improvement Plan (DQIP), which was included in WHO TCA 2016, is overdue since 2017. MoH with WHO support has organized a data quality workshop to finalize the DQIP in August 2017. The DQIP should include establishing a system for routine data verification at national and subnational levels; strengthen staff capacity through training and provision of adequate tools for data analysis to support planning and decision-making, and improved linkages/coordination between partners and all pieces of data work streams/components in alignment with the country HMIS are required.

It what concerns equity, GAVI noted that in the last two surveys (DHS2011 and IMASIDA 2015), southern provinces consistently have higher coverage of fully immunized children (FIC), while with regards to all other provinces, only Cabo-Delgado has increased the FIC coverage to catch up with southern provinces. All others lag behind including the 4 HSS priority provinces. What lessons can be learnt from Cabo-Delgado that could support improvement in other northern / central provinces.

Furthermore, the country improved coverage and equity in the last 5 years has improved in rural areas, but stagnated in urban areas, raising the concern on what to do to reaccelerate coverage and equity, noting that 32% of population live in urban areas.

On financial management and reporting, the country annual financial report for 2017 (HSS) and periodic reports (HSS Q2 2018, PCV SG and MR OP COSTS/VIG) were submitted as per the deadline

The external audit report for 2016 was submitted late (03.2018 instead of 12.2017), and contained a number of gaps/weakness, like, description in the report not separated by grant and not providing an overall opinion; there were issues related to internal control, ineligibles, likely miss-use of funds, etc. Besides those gaps, GAVI was concerned for lack of update in the implementation of the previous audit recommendations. *GAVI would also like to understand what area the bottlenecks for budget approval / disbursement (GAVI to MEF/ MEF to MoH/Provinces), for capacity at provincial/district level in FM and what is the impact of current measures (HSS regional advisors, TCA in FM/MA).*

Regarding co-financing the 2018 obligations will increase to US\$2,363,500. To date the country never defaulted on their obligations. Meanwhile, the co-financing projections for the period 2019-2023, vary between USD\$ 2.46- 2.76 M (lower estimates based on historical performance of the country) and USD\$ 3-3.42 M (upper estimates based on the targets planned by the country for future years). This is useful info for the country as works in its financial sustainability plan.

Targeted country assistance (TCA) to Mozambique has increased 49% between 2016 and 2017, from USD\$1.1 M to 1.66 M, and 62% between 2017 and 2018, to USD\$2.69 M, including both core (WHO UNICEF and CDC) and expanded partners (JSI, VR, Acasus, MB consulting, PWC). Gavi insisted that such an increase in funding should be accompanied with strengthened EPI program and such high level of funding is unlikely to continue should TCA providers' milestones/expected outcomes not be met.

TCA evaluation – the main areas evaluated were planning, implementation, capacity building and oversight. The review highlighted strengths and weaknesses in each area, proposed solutions and made amongst others, the following recommendations:

**For MoH:**

1. Lead the prioritization of activities to meet national and sub-nation goals, with emphasis to priority provinces.



2. Increase accountability on all sides by holding regular and transparent reviews of progress in TCA implementation/milestones

**For Partners:**

1. Continue to provide extremely valuable support;
2. Increase efforts to support oversight of TCA implementation at highest level as to ensure complementarity and coordination, and advocate to MoF for timely release of HSS funds;
3. Increase advocacy for and prioritization of immunization on national health agenda

**For GAVI:**

1. Provide critical improvements to Leadership and Management of the EPI Programme;
2. Include requirement for capacity building plans/indicators in One TCA Plan;
3. Accelerate disbursement of HSS funds.

### 3.8. Immunisation financing

Please provide a brief overview of the main issues affecting the planning, budgeting, allocation, disbursement and execution of funds for immunisation. Please take the following aspects into account:

- **Availability of national health financing framework and medium-term and annual immunisation operational plans and budgets**, whether they are integrated into the wider national health plan/budget, and their relationship and consistency with microplanning processes.
- **Allocation of sufficient resources in national health budgets for the immunisation programme/services**, including for Gavi and non-Gavi vaccines, (integrated) operational and service delivery costs. Discuss the extent to which the national health strategy incorporates these costs and any steps being taken to increase domestic resources for immunisation. If any co-financing defaults occurred in the last three years, describe any mitigation measures that have been implemented to avoid future defaults.
- **Timely disbursement and execution of resources**: the extent to which funds for immunisation-related activities (including vaccines and non-vaccine costs) are made available and executed in a timely fashion at all levels (e.g., national, province, district).
- **Adequate reporting on immunisation financing and timely availability of reliable financing information to improve decision making**.

Info not available. Country to prepare for future joint appraisals processes.

## 4. PERFORMANCE OF GAVI SUPPORT

### 4.1. Performance of vaccine support

Provide a succinct analysis of the performance of Gavi vaccine grants, focusing on **recently (i.e. in the last two years) introduced vaccines**, or planned to be introduced vaccines, and **campaigns**, supplementary immunisation activities (SIAs), demonstration programmes, MACs etc., as well as switches in vaccine presentations. This section should capture the following:

- **Achievements against agreed targets**, as specified in the grant performance framework (GPF), and other grant-related activity plans. If applicable, reasons why targets as specified in the GPF have not been achieved, identifying areas of underperformance, bottlenecks and risks.
- **Overall implementation progress** of Gavi vaccine support.
- **Campaigns**: Provide information on the periodicity of campaigns and key results of the post-campaign survey, including the coverage achieved. If achieved coverage was low, provide reasons. How was the operational cost support spent? Explain how the campaign contributed to strengthening routine immunisation e.g. by identifying zero-dose children and lessons learned.

- Update of the **situation analysis for measles and rubella** (using the latest immunisation coverage and surveillance data for measles, rubella and congenital rubella syndrome from national and sub-national levels<sup>9</sup>) and update of the country's **measles and rubella 5 year plan** (e.g. future dates of MR intro, MCV2 intro, follow-up campaigns, etc.).
- **Describe key actions related to Gavi vaccine support in the coming year** (e.g. decision-making on vaccine introduction, future application, planning and implementation of introduction/ campaigns) **and associated needs for technical assistance**<sup>10</sup>.

In the next 5 years, the country has planned to introduce HPV vaccine, whose application will be submitted on the September 2018 window.

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

Provide a succinct analysis of the performance of Gavi's HSS support for the reporting period.

- **Progress of the HSS grant implementation** against objectives and budget, and significant deviations from plans (e.g. implementation delays, low expenditure rates, etc.), **using the below table**.
- **Achievements against agreed targets** as specified in the grant performance framework (GPF), and key outcomes. E.g. how does the number of additional children vaccinated and under-immunised children in districts supported by the HSS grant compare to other non-supported districts. Which indicators in the GPF were impacted by the activities conducted?
- How is Gavi support **contributing to address the key drivers of low immunisation** outcomes:
  - contributing to advancing the overall performance of the immunisation programme/service delivery structure supporting immunisation and health sector strategies;
  - targeting districts and/or population groups with lower coverage (including in urban slums, remote rural settings and conflict settings);
  - addressing key barriers to coverage & equity identified in section 3 above.
- Comment whether the **selection of activities is still relevant**, realistic and well prioritised in light of the situation analysis conducted, as well as financial absorption and implementation rates.
- Provide information on **plans to address implementation bottlenecks**, including planned budget reallocations (please attach the revised budget).
- If applicable, briefly describe the usage and results achieved with the **performance based funding (PBF)** the country received. What grant performance framework (GPF) metrics will be used to track progress?
- Briefly describe how Gavi HSS support is aligned, coordinated and **contributing to the country's health sector strategies** and plans. Mention synergies with other development partners' support.
- (If pertinent, mention other relevant initiatives not supported by Gavi that address the key drivers of low coverage and equity.)

Partially described in point 4.4 – Financial management performance

| Objective 1   |  |
|---|--|
| Objective of the HSS grant (as per the HSS proposals or PSR)                              |  |
| Priority geographies / population groups or constraints to C&E addressed by the objective |  |
| % activities conducted /  |  |

<sup>9</sup> Please refer to the JA analysis guidance document for additional information on the expected analyses for measles and rubella.

<sup>10</sup> Note: When specifying Technical Assistance (TA) needs, do not include elements of resource requirements. These will be discussed in the context of the Targeted Country Assistance (TCA) planning. The TCA planning will be informed by the needs indicated in the JA. TA needs should however describe - to the extent known to date - the type of TA required (staff, consultants, training, etc.), the provider of TA (core/expanded partner) the quantity/duration required, modality (embedded; sub-national; coaching; etc.), and any timeframes/deadlines. JA teams are reminded to both look back (TA which was not completed/successful in the past) and forward (planned vaccine introductions, campaigns, major upcoming HSS activities, etc.) when specifying TA priorities for the coming year. The TA menu of support is available as reference guide.

|  |  |
|--|--|
| <b>budget utilisation</b>  |  |
| <b>Major activities implemented &amp; Review of implementation progress</b><br>including key successes & outcomes / activities not implemented or delayed / financial absorption |  |
| <b>Major activities planned for upcoming period</b><br>(mention significant changes / budget reallocations and associated <b>needs for technical assistance</b> <sup>11</sup> )  |  |
| <b>Objective 2:</b>  |  |
| <b>Objective of the HSS grant</b> (as per the HSS proposals or PSR)  |  |
| <b>Priority geographies / population groups or constraints to C&amp;E addressed by the objective</b>   |  |
| <b>% activities conducted / budget utilisation</b>   |  |
| <b>Major activities implemented &amp; Review of implementation progress</b><br>including key successes & outcomes / activities not implemented or delayed / financial absorption |  |
| <b>Major activities planned for upcoming period</b><br>(mention significant changes / budget reallocations and associated <b>needs for technical assistance</b> <sup>11</sup> )  |  |
| <b>Objective 3:</b>  |  |
| <b>Objective of the HSS grant</b> (as per the HSS proposals or PSR)  |  |
| <b>Priority geographies / population groups or constraints to C&amp;E addressed by the objective</b>   |  |
| <b>% activities conducted / budget utilisation</b>   |  |
| <b>Major activities implemented &amp; Review of implementation progress</b><br>including key successes & outcomes / activities not implemented or delayed / financial absorption |  |
| <b>Major activities planned for upcoming period</b><br>(mention significant changes / budget reallocations and associated <b>needs for technical assistance</b> <sup>11</sup> )  |  |

<sup>11</sup> Note: When specifying Technical Assistance (TA) needs, do not include elements of resource requirements. These will be discussed in the context of the Targeted Country Assistance (TCA) planning. The TCA planning will be informed by

#### 4.3. Performance of Gavi CCEOP support (if country is receiving Gavi CCEOP support)

If your country is receiving CCEOP support from Gavi, provide a brief update on the following:

- **Performance** of CCEOP indicators – achievement against agreed targets as specific in the grant performance framework (GPF);
- **Implementation status** (number of equipment installed / waiting installation, user feedback on preventive maintenance training, refrigerator performance, etc.), including any challenges / lessons learned;
- **Contribution** of CCEOP to immunisation performance;
- **Future needs for technical assistance** in implementing CCEOP support.<sup>11</sup>

Note: an updated CCE inventory must be submitted together with the CCEOP renewal request.

Not applicable

#### 4.4. Financial management performance

Provide a succinct review of the performance in terms of financial management of Gavi's cash grants (for all cash grants, such as HSS, PBF funding, vaccine introduction grants, campaign operational cost grants, switch grants, transition grants, etc.). This should take the following aspects into account:

- **Financial absorption** and utilisation rates on all Gavi cash support listed separately<sup>12</sup>;
- **Compliance** with financial reporting and audit requirements noting each grant (listing the compliance with each cash support grant separately, as above);
- **Issues arising from review engagements** (e.g. Gavi cash programme audits, or Gavi programme capacity assessments, annual external audits, internal audits, etc.) and the implementation status of any recommendations;
- **Financial management systems**<sup>13</sup>.

The country (MoH, UNICEF and WHO) received a total of USD 12,5 million (HSS) since the inception of HSS in July 2015 and USD8,8million for the MR campaign (op cost) and introduction in Routine (VIG) . The utilization rate of HSS funds was of 63.9% and 95.45% respectively in 2016 and 2017, reflecting considerable improvement in financial flow management practices in 2017.

75% of 2017 HSS funds were used for programme coordination and management, capacity building, supportive supervision, M&E, social mobilization, vaccine distribution and outreach activities. 25% of the 2017 HSS budget were used for procurement of informatics equipment, 100 motorbikes, 09 vehicles, cold chain spare parts, vaccine carriers and vaccine temperature monitoring devices. 60% of the capital investments was managed by UNICEF, 40% by MoH.

Despite the improvements observed, there are challenges in the flow of funds and utilization at operational level, namely budgeting of funds within the utilization capacity of districts, centralization of fund management at provincial level, leading to delays in disbursement and accountability by districts in a vicious cycle. Moreover, there has been challenges in monitoring the fund utilization with regards to implementation of planned activities.

Lastly, there has also been challenges in the alignment of the GAVI disbursements with the country

the needs indicated in the JA. TA needs should however describe - to the extent known to date - the type of TA required (staff, consultants, training, etc.), the provider of TA (core/expanded partner) the quantity/duration required, modality (embedded; sub-national; coaching; etc.), and any timeframes/deadlines. JA teams are reminded to both look back (TA which was not completed/successful in the past) and forward (planned vaccine introductions, campaigns, major upcoming HSS activities, etc.) when specifying TA priorities for the coming year. The TA menu of support is available as reference guide.

<sup>12</sup> If in your country Gavi funds are managed by partners (i.e. UNICEF and WHO), fund utilisation by these agencies should also be reviewed.

<sup>13</sup> In case any modifications have been made or are planned to the financial management arrangements please indicate them in this section.

financial year ending in December, leading to a short period of three months at the beginning of each year with no funds for activity implementation. This is partially attributable to three interrelated processes : 1) delayed agreement between GAVI and MoH regarding next year budget; 2) Delayed in the provision of the external audit report by the administrative court, which not always match GAVI established deadline for submission; and 3) low level of execution of funds. The latest is mainly due to late fund availability at operational level because of late disbursement from GAVI and slow processing at national level (DAF).

To break this vicious circle, country should anticipate submission of AWP / APP budget and audit report and effective administrative and financial process at all level. That the main objectives of the MB Consulting TA at central level and HSS Advisor at provincial level who have been strengthening planning and budgeting, financial monitoring and reporting since Q3 2017.

#### 4.5. Transition planning (if applicable, e.g. country is in accelerated transition phase)

*If your country is transitioning out of Gavi support, specify whether the country has a transition plan in place. If no transition plan exists, please describe plans to develop one and other actions to prepare for transition.*

- *If a transition plan is in place, please provide a brief overview on the following:*
  - *Implementation progress of planned activities;*
  - *Implementation bottlenecks and corrective actions;*
  - *Adherence to deadlines: are activities on time or delayed and, if delayed, the revised expected timeline for completion;*
  - *Transition grant: specify and explain any significant changes proposed to activities funded by Gavi through the transition grant (e.g., dropping an activity, adding a new activity or changing the content/budget of an activity);*
  - *If any changes are requested, please submit a consolidated revised version of the transition plan.*

Not applicable

#### 4.6. Technical Assistance (TA)

- *Describe the strategic approach to Technical Assistance (TA) delivery to improving coverage and equity in reaching the under-immunised and unimmunised children. (i.e. embedded support, subnational support, support from expanded partners etc.)*
- *On the basis of the reporting against PEF functions and milestones, summarise the progress of partners in delivering technical assistance.*
- *Highlight progress and challenges in implementing the TA plan.*
- *Specify any amendments/ changes to the TA currently planned for the remaining of the year.*

During the JA exercise were identified those activities that are already benefiting of TCA support as well as those new ones that will require technical support from partners in several program components, as well as partners with comparative advantages, as described below:

##### 1. Coverage and Equity

1. Conduct community mapping in the remaining districts of the 4 priority provinces in both rural and urban areas;

##### 2. Demand generation intervention:

1. Conduct social mapping, including in the urban settings;
2. Train other staff to implement EPI educator / advisor along with other SRMNI priorities;

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| <p>3. Produce EPI simplified bulletins to foster more engagement of local leadership in immunization</p>   |
| <p>3. Program Management</p> <ol style="list-style-type: none"> <li>1. Build capacity of the district level and health units on RED/REC</li> <li>2. Adapt ISS tool to national needs and train national, provincial and district supervisors on its use.</li> </ol>  |
| <p>4. Financial management</p> <ol style="list-style-type: none"> <li>1. Pilot direct fund disbursement to districts in districts of Maputo province;</li> <li>2. Train districts on financial management and procurement procedures;</li> </ol>   |
| <p>5. Information management system</p> <ol style="list-style-type: none"> <li>1. Build capacity at all levels of the system on SELV / SMT / DVDMT / DQS.</li> <li>2. Develop a spreadsheet to visualize health facility specific targets and indicators.</li> <li>3. Build capacity of NED district monitoring team on data analysis and feedback</li> <li>4. Pilot computerization of EPI records in health units (Open SRP).</li> </ol> |
| <p>6. Disease and AEFI Surveillance</p> <ol style="list-style-type: none"> <li>1. Conduct refresher training for lab staff on lab surveillance of VPD</li> <li>3. Train health workers on integrated VPD and AEFI surveillance and implement online notification system;</li> <li>6. Prepare measles and rubella outbreak response plan</li> </ol>   |

## 5. UPDATE OF FINDINGS FROM PREVIOUS JOINT APPRAISAL

Provide the status of the prioritised strategic actions identified in the previous Joint Appraisal<sup>14</sup> and any additional significant Independent Review Committee (IRC) or High Level Review Panel (HLRP) recommendations (if applicable).

| Prioritised actions from previous Joint Appraisal   | Current status  |
|---|---|
| <p><b>KF1-GOVERNANCE PROGRAM MANAGEMENT &amp; SUSTAINABLE FINANCING:</b></p> <p>Develop SOPs that clearly outline simplified processes for funds disbursement and the tracking of flow of funds at all levels</p> | <ul style="list-style-type: none"> <li>- Financial and administrative processes revised and updated at national and provincial level</li> <li>- Ensured effective implementation of existing guideline and process (MoH Administrative and Finance Guidelines) to facilitate timely financial flow at central and provincial level.</li> <li>- Adapted monitoring of funds disbursement and cash flow</li> <li>- Improved financial reports to identify activity related funds and facilitate monitoring process of cash flow.</li> <li>- Central and Provincial administrative and finance staff trained and supervised on funds disbursement processes</li> </ul> |
| <p><b>KF2-DEMAND CREATION &amp; COMMUNITY LINK WITH SERVICES:</b></p>   | <ul style="list-style-type: none"> <li>- Improved EPI team functionality and staff capacity thanks to better planning and timely</li> </ul>   |

<sup>14</sup> Refer to the section "Prioritised Country Needs" in last year's Joint Appraisal report

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| <p>Improve functionality of the national EPI team by reviewing the organizational structure, roles and process of national</p> <p>Build capacity of the EPI staff in accordance to the required competencies</p> <p>Provide managerial training and coaching for staff at all levels with a focus on the national level</p>   | <p>implementation of activities.</p> <ul style="list-style-type: none"> <li>- Technical Advisor seconded to the EPI management staff for 11 months from August 2017 to July 2018 and completed:</li> <li>- On the job mentorship in program planning and coordination. Better understanding and strengthening of EPI team task and responsibility as well as Technical working group.</li> <li>- Staff capacity building plan developed and will be implemented next Q3 2018</li> <li>- EPI management training planned to start Q3 2018 under WHO DHMT TA</li> </ul>  |
| <p><b><u>KF3- GOVERNANCE, PROGRAM MANAGEMENT &amp; SUSTAINABLE FINANCING</u></b></p> <p>Finalise and implement the new ToR/more inclusive list of participants</p> <p>Strengthen the ICC Secretariat and lift it up to the level of DG Public Health</p> <p>Develop monitoring indicators to hold ICC members responsible for their oversight support to the program</p> <p>Coach ICC members and the Secretariat on their role and provide tools (e.g. performance dashboards of the EPI programme) as needed</p> <p>Escalate critical EPI performance bottlenecks/HSS implementation issue to Minister level by including Gavi issues with the Health sector coordination mechanism</p> | <ul style="list-style-type: none"> <li>- Every HSS activities have been reported to Technical working group at Minister level during second semester 2017 and first semester 2018</li> </ul>   |
| <p><b><u>KF4- DEMAND CREATION &amp; COMMUNITY LINK WITH SERVICES</u></b></p> <p>Develop guidelines for engaging community resource persons and trained health facility workers, including community health workers in community engagement.</p>   | <ul style="list-style-type: none"> <li>- Religious guide developed in 2014. 338 Religious leaders trained on key facts for life messages in December 2017. From January to 30 May, approximately 35.000 believers were reached with FFL key messages including immunization. Radio programme being produced and broadcast through community radios with involvement of service providers, religious and community leaders and other influent community members.</li> <li>- Developed EPI Communication Strategy to be launched August 2018</li> <li>- EPI focal point community worker identified through the RED/REC strategy.</li> <li>- The development of Advocacy scorecards/flyers will be through a consultancy. TOR was already developed and shared with Ministry of Health who will lead the process.</li> </ul> |
| <p><b><u>KF5-COVERAGE AND EQUITY</u></b></p> <p>Train Health Facility and community health workers, including APEs on the mapping of all communities within the catchment areas. Leverage and</p>   | <ul style="list-style-type: none"> <li>- Community mapping in progression Nampula and Zambézia engaging all stakeholders. To be expended to Tete and Sofala from August 2018</li> <li>- Missed opportunity during the MR campaign to implement community mapping cause of funds</li> </ul>   |

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| <p>complement mapping exercise for MR campaign and for CHW to inform equity improvement plans.</p>  | <p>constraint.</p> <ul style="list-style-type: none"> <li>- MOV study implemented in 2018 to identify access and demand constraint and improve communication with community regarding vaccine access through vaccine integration into Health services.</li> <li>- Development of Provincial capacity for leading the expansion of the REC to 21 districts in 4 provinces using Traditional” mapping but also New community mapping approach.</li> <li>- Country team attended the revised RED/REC guidelines workshop. The revised tools already adapted to local context. Pilot for new tools to be conducted in August 2018. Final guidelines to be approved by end August 2018.</li> </ul>   |
| <p><b>KF6 - DATA QUALITY AND USE</b></p> <p>Finalize and implement data quality improvement plan. The plan will include, establish a system for routine data verification at national and subnational levels and strengthen staff’s capacity through training and provision of adequate tools for data analysis to support planning and decision making</p> | <ul style="list-style-type: none"> <li>- VAN TA developed data quality tools and used at central and provincial level.</li> <li>- VAN workshop implemented all over the country at regional level (except Zambézia to be done soon) and monitoring of replicate training at provincial and district level in progress.</li> <li>- Monthly data analyse meeting implemented at central and provincial level to strengthening programme management based on evidence.</li> <li>- Effective Vaccine Management System (SELV) implemented in 9 provinces. All EPI logistic manager at central and provincial were trained. HU logistic KPI routinely collected and analysed at provincial level through SELV.</li> <li>- SELV /SIGLUS integration in progress to align both Information systems according to National Logistic Information system</li> <li>- SELV update to allow Open SRP integration facilitating e-registration at HU level (Vaccinated Children and Vaccine Consumption...)</li> <li>- Relevant MoH program and CMAM personnel trained in vaccine logistic forecasting, new VIVA tool. VIVA reports are developed and regularly monitored in the EPI Logistics TWG</li> <li>- Data quality planning developed in March 2018 and to be finalized during the DATA Quality national workshop scheduled in August 2018. Supportive supervision of the DQiP on going.</li> </ul> |
| <p><b>KF7 - SERVICE DELIVERY</b></p> <p>Build capacity and establish District Health Management Teams (DHMT)</p>  | <ul style="list-style-type: none"> <li>- Funds already at provincial level. DHMT yet to be shared and translated into Portuguese prior training. Activity planned for August 2018 involving two district of priority provinces of Manica and Tete.</li> </ul>   |



|   |   |
|---|---|
| <p><b>KF9 - SYSTEMS STRENGTHENING</b></p> <p><b>Logistics:</b></p> <ul style="list-style-type: none"> <li>- Continue strengthening system designs and strengthen capacity of provincial teams to implement new optimised distribution systems.</li> <li>- Align EPI systems with PELF according to recommendations by consultant when and as opportunities arise.</li> <li>- Continue efforts to strengthen NLWG by implementing consultancy recommendations.</li> </ul> <p><b>Cold Chain:</b></p> <ul style="list-style-type: none"> <li>- Establish a National Tool for CC equipment live Inventory that will be easily updated on an ongoing basis.</li> <li>- Develop a Comprehensive CC Expansion Plan using National CCE Inventory data from August 2017</li> <li>- Expand RTM- Cold Trace at District warehouses and health facility levels</li> </ul> | <p><b>Logistics:</b></p> <ul style="list-style-type: none"> <li>- Support System design workshop at national level in June 2018. Provinces developed integration plan draft to optimize integrated vaccine delivery from province to HU ( direct delivery, direct data collection...) and to strengthen Vaccin Supply Chain (SDL, TSS...)</li> <li>- Integration model projected and tested in Tete. Lessons learned shared during System Desing Workshop.</li> <li>- Integration of Epi and Medical supply Information system (SELV and SIGLUS) in Vilanculos intermediary warehouse to be implemented by the end of 2018.</li> <li>- Aligned SoPs of intermediary warehouse to integrate EPI and medical supply</li> <li>- NLWG strengthen by TA and NLWG plan developed</li> </ul> <p><b>Cold Chain:</b></p> <ul style="list-style-type: none"> <li>- 10 provincial and 1 central EPI warehouse equipped with functional WICR/WIFR allowing enough storage capacity for new vaccine introduction and aligned with CCEOP</li> <li>- 3PL to HF functional in Tete province. 3PL starting discussion in Sofala. 3PL functional to district in Inhambane, Maputo Province, Manica.</li> <li>- Live inventory tool still in progress. Depend on SELV upgrade. Live inventory update to be starting early 2019.</li> <li>- Cold Chain inventory implemented in September 2017 and finalised March 2018. Existing Cold Chain data base.</li> <li>- Developed and submitted Maintenance Plan including last mile activities</li> <li>- Developed and submitted CCEOP for 2019-2021 including new vaccine introduction projection.</li> <li>- Cold Trace equipped in Gaza, Tete and Niassa provinces. Delay in 3 additional provinces expansion. 906 devices delivered to central warehouse.</li> </ul> |
| <p><b>Additional significant IRC / HLRP recommendations (if applicable)</b></p>   | <p><b>Current status</b></p>  |
|   |   |

*If findings have not been addressed and/or related actions have not taken place, provide a brief explanation and clarify whether this is being prioritised in the new action plan (section 6 below).*

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

Briefly summarise the **key activities to be implemented next year** with Gavi grant support, including if relevant any introductions for vaccine applications already approved; preparation of new applications, preparation of investment cases for additional vaccines, and/ or plans related to HSS / CCEOP grants.

In the context of these planned activities and based on the analyses provided in the above sections, describe the **five highest priority findings and actions to be undertaken to enhance the impact of Gavi support or to mitigate potential future risks to programme and grant performance.**

Please indicate if any modifications to Gavi support are being requested, such as:

- Changes to country targets as established earlier, either from the agreed Grant Performance Framework (GPF) or as part of the NVS renewal request submitted by 15 May;
- Plans to change any vaccine presentation or type;
- Plans to use available flexibilities to reallocate budgeted funds to focus on identified priority areas.

|                               |  |
|-------------------------------|--|
| <b>Key finding / Action 1</b> | High number of un-immunized / not completely immunized children  |
| Current response              | Map districts that have not yet conducted the community mapping  |
| Agreed country actions        | Train those districts on community mapping, implement the mapping and train / engage community health activists on defaulter tracing   |
| Expected outputs / results    | All communities in the catchment areas identified and included in the micro plan, and offered essential health interventions ; defaulter children identified and offered missing vaccination / essential health interventions  |
| Associated timeline           | Jan – June 2019 for mapping, and all year for outreach and defaulter tracing   |
| Required resources / support  |  |
| <b>Key finding / Action 2</b> | Conduct social mapping in urban settings and train EPI and other staff on IPC to implement EPI communication   |
| Current response              | IPC tool developed;  |
| Agreed country actions        | Integrate social and communication aspects in the community mapping tool; Train staff on IPC   |
| Expected outputs / results    | Increased demand and utilization of services   |
| Associated timeline           | April – June 2019 for social mapping; August – October 2019 for training on IPC  |
| Required resources / support  |  |
| <b>Key finding / Action 3</b> | Build capacity of districts on RED/REC   |
| Current response              |  |
| Agreed country actions        | Train districts on RED/REC micro plan development, adapt and use the integrated supportive supervision tool (ISS)  |
| Expected outputs / results    | Quality RED/REC micro plans and improved district performance  |
| Associated timeline           | Jan-June 2019  |
| Required resources / support  |  |
| <b>Key finding / Action 4</b> | Poor Data Quality  |
| Current response              | Development of data quality improvement plan   |
| Agreed country actions        | Train NED district monitoring team on data analysis and feedback; implement systematically data quality review meetings and DQS; implement data quality improvement plan;<br>Reinforce VAN activities at provincial level and expand to selected districts. Implement SELV in all 11 provinces and continue efforts to integrate SELV with |

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|                               |  |
|-------------------------------|--|
|                               | SIGLUS; Upgrade SELV to OpenLMIS v3; and pilot OpenSRP at the HF level to improve vaccine inventory visibility and management.   |
| Expected outputs / results    | Quality routine EPI data for better decision making process  |
| Associated timeline           | Jan – June 2019  |
| Required resources / support  |  |
| <b>Key finding / Action 5</b> | Weak Disease Surveillance System   |
| Current response              | Supportive supervision to provinces / districts  |
| Agreed country actions        | Train health workers on integrated VPD and AEFI and implement online notification; Conduct refresher training for lab staff on laboratory surveillance of VPD ; Procure lab reagent and consumables; Develop measles and rubella outbreak response plan  |
| Expected outputs / results    | Improved disease surveillance indicators; quality data on the impact of the new vaccines introduced in the national immunization program   |
| Associated timeline           | January – December 2019  |
| Required resources / support  |  |
|                               |  |
| <b>Key finding / Action 6</b> | Low fund utilization rate and noncompliance with financial and procurement procedures  |
| Current response              | Deployment of regional financial advisers to support provinces / districts   |
| Agreed country actions        | Train districts on financial management and procurement procedures; Pilot direct fund disbursement to districts in districts of Maputo province  |
| Expected outputs / results    | Increased utilization of funds; Compliance with financial management and procurement procedures as recommended by auditors   |
| Associated timeline           | April – June 2019  |
| Required resources / support  |  |
|                               |  |
| <b>Key finding / Action 7</b> | Systems strengthening – Logistics  |
| Current response              | Integrated model presented and tested in one province (Tete).  |
| Agreed country actions        | Follow up on National System Design June 2018 Workshop recommendations. Create a stakeholders Committee for SC Integration and elaborate clear and concise TORs for this Committee function (including R&R). Support with strategic and operational SC performance management and improvement. Develop SOPs specific for vaccines handling and storage during transportation in an integrated system. Support development of integration strategy/plan between CMAM & EPI: clarify the role of EPI in an integrated system. Build capacity for adequate program management and implementation in all districts and ensure reliable supportive supervision. Expand NLWG to the provinces. |
| Expected outputs / results    | More efficient and streamlined supply chain system. Increased accountability of the programs.  |
| Associated timeline           | April – June 2019  |
| Required resources / support  |  |
|                               |  |
| <b>Key finding / Action 8</b> | Systems strengthening - Cold Chain   |
| Current response              | Established national CCE inventory and approved CCEOP application  |
| Agreed country actions        | NLWG manage CCEOP implementation and monitoring. Revise NLWG TORs to better incorporate CCEOP implementation and monitoring. Continue expansion of NLWG to the provinces. Train MISAU technicians on cold chain maintenance at the district level using an electronic/ web-based application (user-centered design approach).  |
| Expected outputs / results    | Smooth CCEOP implementation. Established system for CCE maintenance at the last mile.  |
| Associated timeline           | April – June 2019  |
| Required resources / support  |  |

|                               |   |
|-------------------------------|---|
|                               |   |
| <b>Key finding / Action 9</b> | Service Delivery  |
| Current response              | Capacity established through DHMT teams   |
| Agreed country actions        | Hold a human centered design workshop to identify and create a supervisory tool that is will support accountability. Train Provincial and District staff on formative supervision skills (2 provinces). |
| Expected outputs / results    | Improved supervision and accountability for EPI program.  |
| Associated timeline           | April – June 2019   |
| Required resources / support  |   |
|                               |   |

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

- *Does the national Coordination Forum (ICC, HSCC or equivalent) meet the Gavi requirements (please refer to <http://www.gavi.org/support/coordination/> for the requirements)?*
- *Briefly describe how the Joint Appraisal was reviewed, discussed and endorsed by the relevant national Coordination Forum (ICC, HSCC or equivalent), including key discussion points, attendees, key recommendations and decisions, and whether the quorum was met. Alternatively, share the meeting minutes outlining these points.*
- *If applicable, provide any additional comments from the Ministry of Health, Gavi Alliance partners, or other stakeholders.*

A draft report was developed and shared with partners at local and international levels, and comments integrated. The ICC members received the draft report in advance to familiarize with its content. The ICC meeting took place on 06 September to endorse the final report priority activities for 2019/2010 as presented in the report. The meeting was led by National Director for Public Health attended to by ICC member, namely WHO, UNICEF, USAID, Village Reach and CHAI, and by the technical working group. The main discussion points in the meeting were around the bottlenecks for improved performance and fund utilization, and the planned activities to overcome those constraints. ICC endorsed the activity plan as proposed in the report.

**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.**

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

*In case any of the required reporting documents is not available at the time of the Joint Appraisal, provide information when the missing document/information will be provided.*