# Mozambique

# 2019 Programme Support Rationale

**2021-2025**

**The Programme Support Rationale (PSR) presents the rationale and objectives for the programming of Gavi support for the upcoming period. It includes the Health System Strengthening (HSS) component and - together with the online vaccine application(s) mentioned below - replaces the previous application forms used to request new support.**

- The PSR is developed approximately once every five years based on and in alignment with the Country's health sector strategic plan(s,) the immunisation strategic plan(s) and budgets.
- It incorporates the Joint Appraisal in the year of its review.
- **Stock levels and requests for vaccine renewals or product switches need to be reported on the Gavi Country Portal between late March and 15 May.**
- All required reporting has to be submitted on the country portal, as per the reporting guidelines.
- The PSR builds on robust analysis of country data and evidence of progress made (or persistent challenges) on the coverage and equity situation, in the landscape of country health systems. The HSS component is expected to anchor the full portfolio of requested support to the country health sector context, providing the rationale for the proposed objectives and related activities.
- In parallel to the PSR, the Gavi budgeting and planning template and Gavi grant performance framework (GPF) are completed to complement the objectives presented in the PSR. This should be reflected in the country's own operational budget and workplan.
- The Coordination Forum (ICC, HSCC or equivalent body) is required to endorse the PSR prior to final submission to Gavi.
- Signatures of both the Minister of Health and Minister of Finance or their delegated authority are required to endorse the final PSR before submission to Gavi.
- The PSR will be reviewed by members of the independent review committee (IRC) who will make a recommendation to Gavi on the full portfolio of support for the duration of the PSR, including any current support that needs to be renewed.
- Following the independent review there will be a period for countries to respond to any 'issues to be addressed' ahead of final Gavi approval and disbursement.
- **It is recommended that this process be initiated 15-18 months prior to expected grant disbursement.**
- **Vaccine support is a key component of the full portfolio. Specific vaccine applications are developed via Gavi's online country portal and submitted for review and approval 15 to 18 months before the planned vaccine launch or campaign.**
- On an annual basis the budget will be reviewed and updated to take into account implementation progress and any new information from the joint appraisal.

Visit Gavi's website (http://www.gavi.org/support/process/apply/) for available programmatic and process guidance to support the development of the PSR and vaccine applications. For a **list of mandatory documents** to be submitted together with this PSR, please refer to Annex 1 of the Application guidelines.

# Part A: Overview of portfolio of support

**All grey boxes to be pre-filled by the Gavi Secretariat**
**All white boxes to be filled by Country**

## 1. Vaccines: Gavi support requested and projected country co-financing for current and new Gavi-funded vaccines

### 1.1. Current Gavi-funded vaccines: co-financing estimates

| Programme and type of support | | Estimated projections[1] | | | | |
|---|---|---|---|---|---|---|
| | | 2021 | 2022 | 2023 | 2024 | 2025 |
| Pentavalent routine | Country co-financing (US$) | $562,587 | $573,839 | $585,316 | $597,022 | $608,962 |
| | Gavi support (US$) | $1,990,638 | $2,030,450 | $2,071,059 | $2,112,481 | $2,154,730 |
| Pneumococcal routine | Country co-financing (US$) | $573,098 | $584,560 | $596,251 | $608,176 | $620,339 |
| | Gavi support (US$) | $7,911,039 | $8,069,260 | $8,230,645 | $8,395,258 | $8,563,163 |
| Rotavirus routine | Country co-financing (US$) | $355,996 | $363,116 | $370,379 | $377,786 | $385,342 |
| | Gavi support (US$) | $3,909,770 | $3,987,965 | $4,067,725 | $4,149,079 | $4,232,061 |
| MR routine | Country co-financing (US$) | $651,560 | $664,591 | $677,883 | $691,441 | $705,270 |
| | Gavi support (US$) | $932,282 | $950,928 | $969,946 | $989,345 | $1,009,132 |
| HPV routine | Country co-financing (US$) | $178,348 | $163,167 | $134,064 | $134,206 | $155,705 |
| | Gavi support (US$) | $3,905,822 | $3,573,355 | $2,765,270 | $2,415,380 | $2,698,038 |
| IPV routine | Country co-financing (US$) | $0 | $0 | $0 | $0 | $0 |
| | Gavi support (US$) | $2,365,019 | $2,412,319 | $2,460,566 | $2,509,777 | $2,559,973 |
| a) Total Country co-financing for current vaccines (US$) | | $2,321,589 | $2,349,273 | 2,363,892 | $2,408,631 | $2,475,618 |
| b) Total Gavi support for current vaccines (US$) | | $21,014,570 | $21,024,277 | $20,565,211 | $20,571,320 | $21,217,096 |
| **c) Total cost of current vaccines (a+b) (US$)** | | **$23,336,159** | **$23,373,550** | **$22,929,103** | **$22,979,951** | **$23,692,715** |

If applicable, list additional vaccine support that might have been approved, but not yet introduced.

*[1] These estimates provide visibility to the total funding needs that a country should plan to complement the Gavi financing. These estimates are projections and may differ from actual commitments, which are calculated year-by-year and reflected in Gavi decision letters. The source of these estimates are the latest input received from country, with adjustments performed by the Gavi Secretariat (eg price updates, supply constraints, etc.)*

## 1.2. New vaccine support to be requested: presentation and implementation dates

Country to complete all columns for each new vaccine introduction and campaign planned over the duration of the PSR and for which the country seeks support.

| Programme and type of support | Preferred presentation[2] | Target submission date of request | Desired date for vaccines to arrive | Planned launch date | Support requested until[3] |
|---|---|---|---|---|---|
| **MR campaign** | MR, 10 doses/vial, lyophilized | September 2021 | November 2022 | May 2023 | 2023 |
| **Hepatitis B at birth (research pending)** | TBC | TBC | TBC | TBC | 2025 |
| **Typhoid conjugate vaccine (research pending)** | TBC | TBC | TBC | TBC | 2025 |

## 1.3. New vaccine support to be requested: summary of targets, co-financing and Gavi support

For types of vaccine support and guidelines, please refer to http://www.gavi.org/support/process/apply/vaccine/)

| Programme and type of support | Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---|---|---|---|---|---|---|
| **[Type of support 1]** (eg Measles second dose routine) | Population in the target age cohort (#) | # | # | # | # | # |
| | Target population to be vaccinated (first or only dose) (#) | # | # | # | # | # |
| | Target population for last dose (#) | # | # | # | # | # |
| | Estimated wastage rates[4] | % | % | % | % | % |
| | Country co-financing (US$) | $ | $ | $ | $ | $ |
| | Gavi support (US$) | $ | $ | $ | $ | $ |
| **[Type of support 2]** (eg Meningitis A routine) | Population in the target age cohort (#) | # | # | # | # | # |
| | Target population to be vaccinated (first or only dose) (#) | # | # | # | # | # |
| | Target population for last dose (#) | # | # | # | # | # |
| | Estimated wastage rates | % | % | % | % | % |
| | Country co-financing (US$) | $ | $ | $ | $ | $ |
| | Gavi support (US$) | $ | $ | $ | $ | $ |
| d) Total Country co-financing for new vaccines requested (US$) | | $ | $ | $ | $ | $ |
| e) Total Gavi support for new vaccines requested (US$) | | $ | $ | $ | $ | $ |
| **f) Total cost of new vaccines requested (a+b) (US$)** | | **$** | **$** | **$** | **$** | **$** |

*[2] For vaccine presentations, please refer to the detailed product profiles available here: https://www.gavi.org/about/market-shaping/detailed-product-profiles/*

*[3] For routine vaccine introduction, support is usually requested until the end of the country's valid cMYP, as per the guidelines and may be extended in the future. If you wish to request Gavi support for a shorter time period than the end of your cMYP you may do so. For campaigns the "support requested until" field will normally be the same or one calendar year from the launch date, but can be extended for a phased campaign.*

*[4] For indicative wastage rates for preferred presentations (%), please refer to the detailed product profiles available here: https://www.gavi.org/about/market-shaping/detailed-product-profiles/*

### 1.5 Request for vaccine presentation switches[5] for current support (if applicable)[6]: Please note that this requires further documentation containing cold chain capacity, stock levels of the current product, and a costed activity plan (to be submitted via the Country Portal, here: http://www.gavi.org/support/process/country-portal/ in the Supporting Documents section).

| Current presentation | Desired new presentation | Desired switch month and year | Rationale for the switch in presentation including any anticipated impact on coverage and equity | Do you request a product switch grant in the vaccine renewal request on the country portal? |
|---|---|---|---|---|
| … | … | … | … | YES or NO |
| … | … | … | … | YES or NO |

## 2. Financial support requested

### 2.1. Currently active Gavi financial support (only grants already approved but not yet closed)

| Type of support | Amount committed | Amount approved | Amount disbursed | Year(s) of support |
|---|---|---|---|---|
| ***HSS 1*** | *$27,700,874* | *$22,902,501* | *$21,893,684* | *2015-2019* |
| ***HSS1 - PBF*** | *$1,489,620* | *$1,489.620* | *$479,999* | *2018-2022* |
| ***MR-Catch-up campaign op.costs*** | *$7,935,500* | *$7,935,500* | *$7,879,866* | *2017-2018* |
| ***Pneumo- Product Switch Grant*** | *$292,000* | *$292,000* | *$271,286* | *2017-2018* |
| ***CCEOP*** | *$5,128,062* | *$4,57,948* | *$0* | *2019-2021* |

### 2.2. New financial support requested: Country to complete table below. For all types of vaccine support and guidelines, please refer to: http://www.gavi.org/support/process/apply/

| **Target start and end date for financial support:** | **Month & year** Prefilled by Gavi Sec (PO) | | | | | |
|---|---|---|---|---|---|---|
| Please note the **country's total HSS ceiling** for the coming 5 years: (US$ ceiling amount) | **Indicative estimates** | | | | | |
| | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Total** |
| **Health Systems Strengthening support (HSS)** | | | | | | |
| *Objective 1: Improved and Integrated Vaccine Supply, Quality & Logistics* | $3,577,655 | $2,039,419 | $2,049,548 | $1,875,143 | $1,975,988 | $11,517,753 |
| *Objective 2: Focused and Effective EPI Programme Management* | $2,564,139 | $3,146,278 | $2,553,673 | $2,559,723 | $2,483,571 | $13,307,384 |
| *Objective 3: Focused and Effective Service Delivery, Communication & Demand Generation* | $1,299,941 | $923,762 | $2,487,588 | $880,022 | $834,349 | $6,425,662 |
| **Total HSS (US$)** | $7,441,735 | $6,109,458 | $7,090,809 | $5,314,888 | $5,293,908 | $31,250,799 |
| **Cold Chain Equipment Optimisation Platform (CCEOP)** | | | | | | |

[5] *Gavi aims to meet country's preferences on vaccine presentation to the extent possible. When there is not enough supply of a desired product to meet country demand, Gavi will consider the rationale for the switch in order to prioritise supply between countries.*

[6] *For a detailed description of the vaccine product profiles, please see here: https://www.gavi.org/about/market-shaping/detailed-product-profiles/*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| CCEOP Gavi joint investment | | | | | | | |
| **CCEOP country joint investment** | | | | | | | |
| • National funds | | | | | | | |
| • Gavi HSS (with this amount clearly budgeted for within the HSS ceiling to avoid double counting) | | | | | | | |
| • Other partners | | | | | | | |
| **Total CCEOP (US$)** | | | | | | | |
| **New vaccine support (vaccine introduction grants, or operational support for campaigns, or switch grants)** (as per type of support requested in table 1.2) | | | | | | | |
| *e.g. Measles second dose routine VIG* | Live births | # | # | # | # | # | # |
| | Gavi Support (US$) | $ | $ | $ | $ | $ | $ |
| *e.g.Measles follow-up campaign operational support* | Population in the target age cohort | # | # | # | # | # | # |
| | Gavi Support (US$) | $ | $ | $ | $ | $ | $ |
| **Total Gavi support: VIGs, OPS, switches (estimate)** | | | | | | | |
| **Total HSIS support requested (US$)** | | | | | | | |

## 2.3. Data verification option for calculating HSS/Performance Based Funding (PBF) payments

Country to indicate one data verification mechanism among the proposed ones (please mark with an "X" in the relevant box. Please note that the selected option will be utilized for the whole duration of the HSS grant.

| | | | | | |
|---|---|---|---|---|---|
| **Use of country admin data** | … | **Use of WHO/UNICEF estimates** | **X** | **Use of surveys** | … |

## 2.4. Country health and immunisation data and national health planning and budgeting cycle

Country to complete table below

| **Country health and immunisation data** - All figures in US$ | **2018** | **2019** |
|---|---|---|
| **Total government expenditures (past year)** | **$ 4,831,498,300** | Not applicable |
| **Total government health expenditures (past year)** | **$ 357,116,700** | Not applicable |
| **Immunisation budget (past & current year)** | **$ 1,619 057,48** | **$ 1,619 057,48** |

## 2.5. National health planning and budgeting cycle, and national planning cycle for immunisation

| **National cycles** | **From** | **To** |
|---|---|---|
| **Years of National Health Plan** | 2015 | 2022 |
| **Years of immunisation strategy (e.g. cMYP)** | 2020 | 2024 |
| **Start and end dates of fiscal period** | 1 January | 31 December |

## Part B: Situation analysis

**Part B contains the situation analysis, on the coverage and equity of immunisation in the country and the key health system and programmatic drivers[7] (section 3), as well as the performance of past Gavi support (section 4).**

→ ***This section is the basis for the identification of objectives, to be defined in Section C, for future programming including Gavi support.***

→ ***It replaces the Joint Appraisal for this year.***

This section explains over and under achievement of goals and targets, programmatic strengths and implementation challenges, the background for further planning. The review should focus on the evolution/trends observed and lessons learnt over the past two to three years and particularly on changes since the last Joint Appraisal took place.

Information in this section will substantially draw from the analysis recommended in the Joint Appraisal analysis Guidance (http://www.gavi.org/support/process/apply/report-renew/) as well as from other analyses and reviews of the country's health sector as opportune. It is expected to provide key information and make exact reference to other documents and reports provided as annexes (e.g. national strategic documents and review reports) or through the Gavi country portal (e.g. the updated grant performance framework, financial reports, data quality assessment etc.)

## 3. Situation analysis of health systems for sustainable immunisation coverage & equity

**Provide national and sub-national data on the coverage and equity related to immunisation and key health system and programmatic drivers of the levels and trends described.**
In tables 3.1 and 3.2, identify 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.

**Among sources available, consider** administrative data, immunisation coverage surveys, DHS/MICS, equity analyses, Knowledge-Attitude-Practice surveys, disease patterns (e.g. for measles), health sector / systems reviews or routine reports.
*Please also refer to the guidance on gender related barriers to immunisation* (https://www.gavi.org/support/process/apply/additional-guidance/#gender)
Please clearly reference the source(s) of the data used in this section.

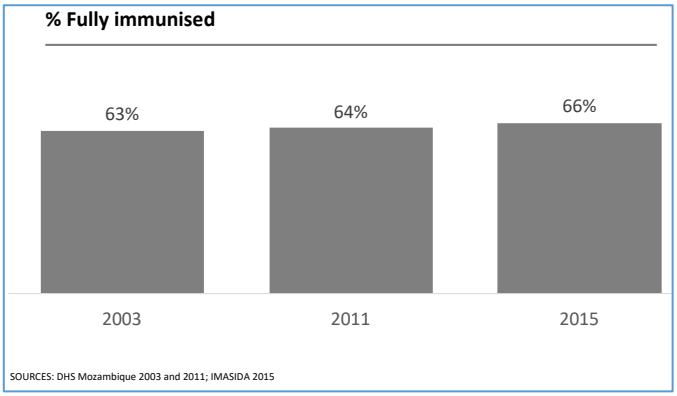
→ ***This section is key to determine the targeted / prioritized fields of activities, geographies and/or population groups for Gavi HSS investment***

### 3.1. At the national level: (Include data source & year for each)

| | |
|---|---|
| **Coverage:**<br>DTP3, MCV2, etc. | According to the most recent census of 2017, the total population of Mozambique is 29,494,628, with two thirds (66.6%) living in rural areas (INE, 2019). Survey data show immunisation coverage in Mozambique has stagnated over the last decade (Figure 1). However, this hides significant provincial variation, with the immunisation challenge concentrated in five provinces (down from seven in 2003); see Figure 6 heat map (page 13). |

[7] *Programmatic drivers: = related to EPI programme management (e.g. staffing on the EPI office)*
*Health system drivers = related to broader health system issues (e.g. HR strategy deficient or unfunded …)*

***Figure 1: Percentage of fully immunised children in Mozambique 2003-2015; Source: DHS 2003 & 2011 and IMASIDA 2015***




There has been no nationally representative household survey since 2015 (IMASIDA) – this, plus unreliable administrative data mean WUENIC has flatlined since 2015. Recently released estimates (17 July 2019) indicate increasing distance between WUENIC and administrative data e.g. 36% difference for DTP3 (80% and 116% respectively) and 30% for MCV1 (85% and 115% respectively). WHO and UNICEF recommend a high-quality survey to verify reported levels of coverage[8]– a DHS is expected in 2021.

Table 1 below shows the discrepancy in fully immunised children (FIC) and DPT3 coverage between administrative data, WUENIC and household surveys. This discrepancy has been increasing over the years, particularly in 2018. The increase in reported administrative coverage is likely an artefact of a 5% decrease in the reported target population between 2017 and 2018.

In 2018, to improve the accuracy of administrative data, EPI introduced district-specific coefficients to calculate target groups; these coefficients were used at central level for the 2018 six-month, nine-month and annual reports. Provinces began adopting use of district coefficients during 2018 and 2019. Coefficients are applied to 2007 census projections for 2018 and 2019 because use of 2017 census data has yet to be officially endorsed. Following their introduction, Maputo Province and Maputo City administrative data tallied more closely with survey coverage rates (previously administrative data was much lower), however coverage in the rest of the country exceeded 100%.

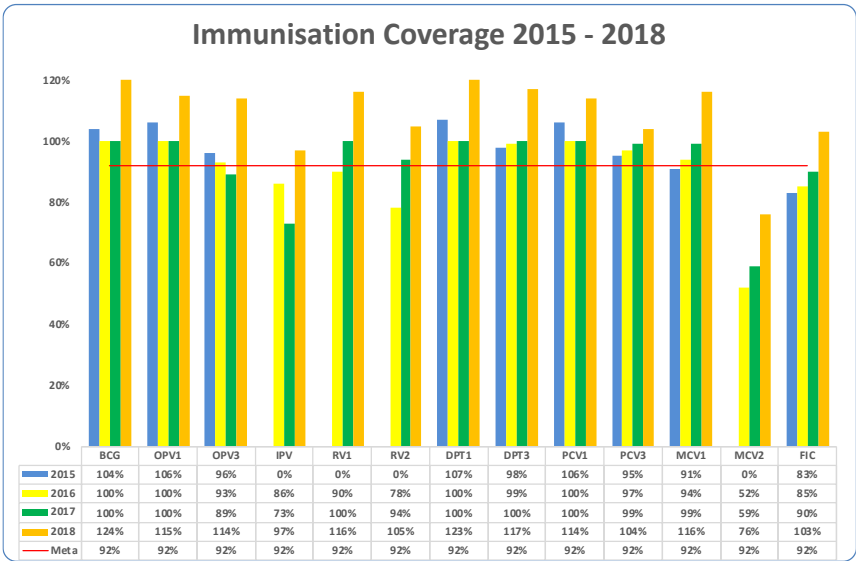
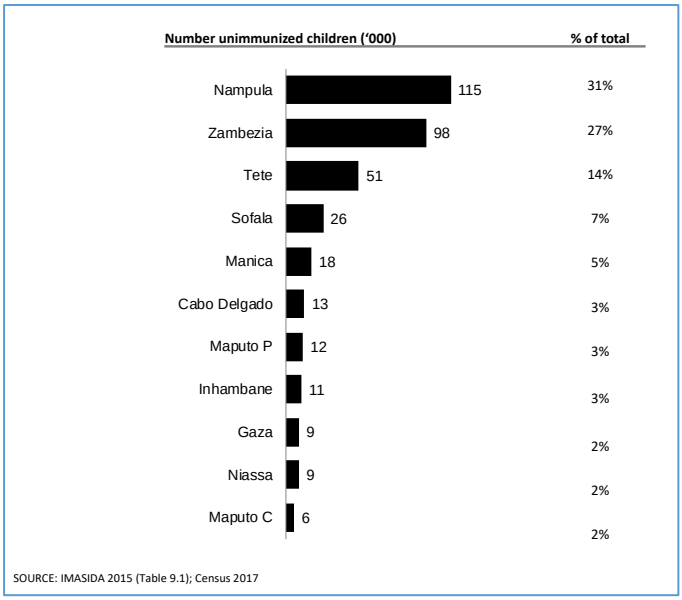
***Table 1: FIC and DPT3 coverage rates in Mozambique over time from different data sources***

| Year | 2007 % | 2008 % | 2011 % | 2015 % | 2018 % |
|---|---|---|---|---|---|
| Administrative DPT3 coverage rate (MoH) | 89 | 86 | 92 | 103 | 116 |
| WHO/UNICEF estimates DPT3 coverage rate | 85 | 75 | 76 | 80 | 80 |
| Surveys (DHS, IMASIDA) – DPT3 coverage rate | 67 | 70 | 71 | 78 | n/a |
| Surveys (DHS, IMASIDA)- FIC coverage rate | n/a | 63 | 64 | 65.8 | n/a |
| Discrepancy between Admin ***vs*** WHO estimates | 4.5 | 12.8 | 17.4 | 22.3 | 31 |
| Discrepancy rate between Admin ***vs*** Surveys | 24.7 | 18.6 | 22.8 | 24.3 | n/a |

**Trends in vaccination coverage by antigen:** Figure 2 below, draws on administrative data to show trends[9] in immunisation coverage from 2015-2018. These data reveal an overall increase in coverage over the period, particularly between 2017 and 2018, and that in 2018 immunisation coverage in Mozambique was above 90% for all antigens except MCV2, with national FIC at 103%. In Mozambique, children are considered fully immunised if they have received all required doses of vaccines for all major vaccine preventable diseases (VPD) i.e. polio, measles (first dose), tuberculosis, diphtheria, pertussis and tetanus within the first year of life.

*[8] Mozambique WHO and UNICEF estimates of immunisation coverage: 2018 revision, July 2 2019, page 5*

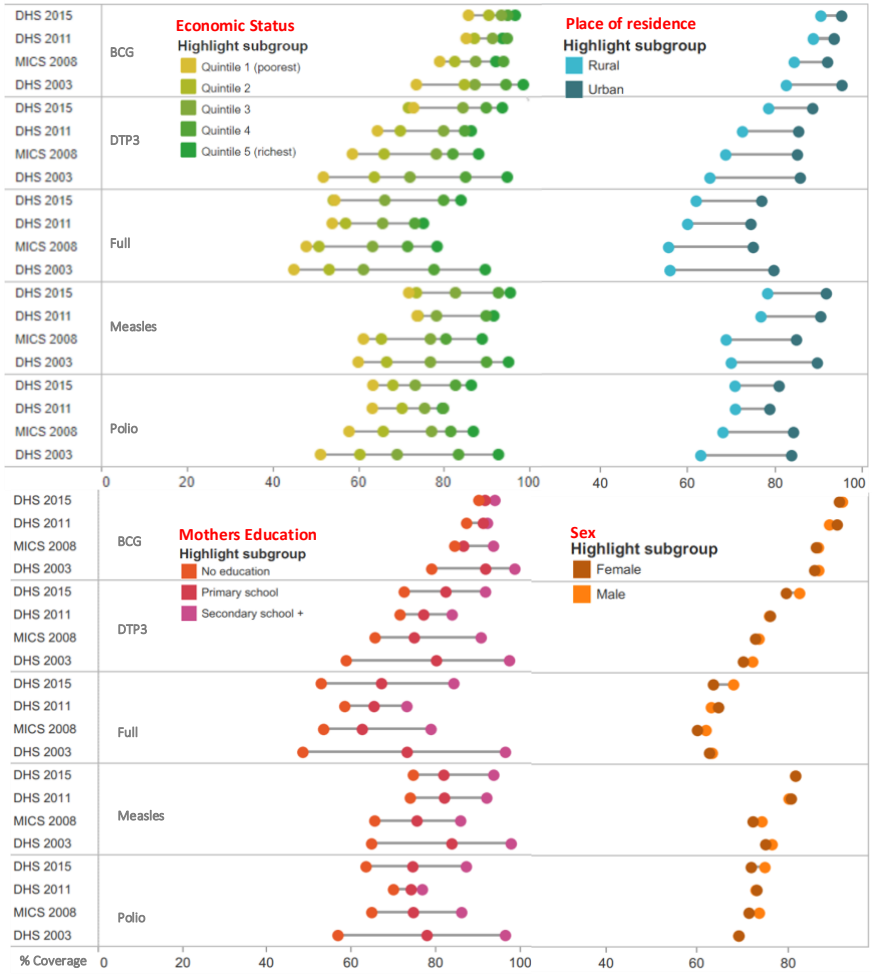
*[9] Despite issues with administrative data, trends observed are considered reliable – First Report of the Gavi Full Country Evaluations Phase 2 Mozambique 2017/18, page 58*

| | |
|---|---|
| | ***Figure 2: EPI vaccine coverage 2015-2018; source DHIS2***   <br>Coverage figures for MCV2 of <90% over the period are considered to be due to its introduction in late 2015; it was not measured in IMASIDA 2015. MCV2 coverage appears to be increasing year on year. Coverage of OPV3 and IPV were at or under 90% in 2016 and 2017. In 2017 the Programme experienced stockouts of BCG, polio and IPV, particularly at provincial, district and health facility level[10]. In 2017 there was also a global crisis in IPV production. |
| **Coverage:**<br>Absolute numbers of un- or under-immunised children | **Absolute numbers of unvaccinated children:** Figure 3 maps administrative data to show the number of unvaccinated children per province (who received no vaccinations at all) in Mozambique in 2015 (IMASIDA 2015[11]). The number of unvaccinated children in Mozambique varies significantly by province. More granular data at district level is presented in section 3.2.<br><br>***Figure 3: Number of unvaccinated children in Mozambique; Source IMASIDA 2015***   |
| **Equity:**<br>• Wealth (e.g. high/low quintiles)<br>• Education (e.g. un/educated)<br>• Gender | **Trends in vaccination coverage by wealth status, education, sex and residence below have drawn on analysis from the 2019 Coverage and Equity Assessment (CEA Section II**, from page 32 to 38) and extended that analysis to include IMASIDA 2015 findings. Data from national household surveys conducted between 2003 and 2015 indicate those most economically disadvantaged (first quintile) are also those with lower coverage over the years; the same applies to mothers with low schooling, people living in rural areas and women in general. |

*[10] See First Report of the Gavi Full Country Evaluations Phase 2 Mozambique 2017/18, page 26 for more details*
*[11] IMASIDA page 111*

- Urban-rural
- Cultural, other systematically marginalised groups or communities e.g. from ethnic religious minorities, children of female caretakers with low socioeconomic status, etc.

***Figure 4: Estimates for wealth status, education, gender and place of residence; Source: WHO Health Equity Assessment Toolkit***




**Trends in vaccination coverage by wealth status (Figure 4):**

In 2003, coverage among the poorest for BCG was below 60% and among the richest above 95%. By 2011 all groups had coverage above 80%, with the highest increase was seen amongst the poor. Immunisation coverage increases the higher the wealth quintile. In 2003 only 45% of children aged 12-23 months in the lowest quintile received all vaccinations at the time of the survey compared to 53% in 2015. In 2015, a significant improvement between wealth quintiles was noted, however coverage in the upper three quintiles (86%-95%) remained higher compared to the lowest two (72%). The discrepancy between FIC in the richest and poorest quintiles is gradually reducing, from 50% in the poorest quintile to 80% in the richest (2011) to 53% and 85% respectively in 2015. 85.1% respectively. The highest quintile has seen a reduction between 2003 and 2015, particularly for DPT3, polio and FIC.

**Trends in vaccination coverage by education (Figure 4):**

All surveys have shown immunisation coverage increases the higher the education level of the mother/caregiver. Between 2003 and 2015 immunisation coverage improved among those with no education, with DPT3 coverage between women with least education and those with the highest schooling ranging from 59% to 98.6% in 2003 and 73.1% to 92.6% in 2015. FIC increased from 53.2% in 2003 to 57% in 2015. Comparing 2011 and 2015, there were improvements at primary level (77% to 83%) and secondary level (86% to 93%), but little change among those with no education (72% to 73%).

**Trends in vaccination coverage by gender (Figure 4):**

The UNDP Gender Development Index measures gender equality of countries by looking at gender gaps in human development achievements, accounting for disparities between women and men in health, knowledge and living standards. In 2017, Mozambique was ranked 124 of 164 countries – potentially impacting the immunisation programme. The CEA 2019 explored gender barriers to

| | |
|---|---|
| | immunisation[12] – detailed in Section 3.4, priority issue 5. Difference in immunisation coverage by gender is shown by the FIC coverage of 68.1% in boys versus 63.5% in girls in 2015 (IMASIDA, 2015).<br><br>**Trends in vaccination coverage by urban/rural residence (Figure 4):**<br><br>Although differences in access to vaccination services depending on urban/rural residence have been reducing, those living in urban areas have greater access. In 2015, coverage was just under 90% in urban areas compared to nearly 79% in rural areas. EPI is concerned to conduct a study to assess challenges in access faced by the urban poor, with a view to addressing these and comparing them with challenges faced by rural communities. In 2003, 56% of children aged 12-23 months in the rural areas received all vaccinations at the time of the survey compared to 62% in 2015, for urban areas the difference was 80% in 2003 and 78% in 2015. |

## 3.2. At the sub-national level identify the target areas and groups of low coverage and equity: (Include data source & year for each)

→ ***Identified target groups to be used in subsequent sections for tailored interventions***

**Coverage by geographies / population group:**
DTP3, MCV2, etc.

Mozambique faces both denominator and numerators issues. In order to calculate immunisation coverage, annual population estimates from the National Institute of Statistics (INE) are used as the denominator; estimates are derived from projected birth rates using historical census data. These estimates are currently based on projections from the 2007 Census. Without accurate denominator data, it is difficult to plan and monitor true immunisation performance[13].

To address this situation, EPI's Data Quality working group has been tasked with drawing up solutions to coverage data issues and producing recommendations and guidance, including for regular review of target populations, in order to support existing data quality improvement activities. Discussions on the denominator require collaboration with INE, to be brokered through the Ministry of Health's (MoH) Department of Planning and Cooperation (DPC).

Table 2 below shows districts with coverage of DPT3 below 80% between 2016 and 2018 based on administrative data. In 2018, only seven districts did not achieve 80% coverage.

***Table 2: Provinces and districts with DPT3 coverage below 80% from 2016-2018; source: DHIS2***

| Districts with DPT3 coverage under 80% | | | | | | |
|---|---|---|---|---|---|---|
| **Province** | 2016 | | 2017 | | 2018 | |
| | Total | District Name | Total | District Name | Total | District Name |
| **Niassa** | 2 | Chimbonila, Ngauma | 1 | Chimbonila | 1 | Chimbonila |
| **Cabo Delgado** | 0 | | 0 | | 0 | |
| **Nampula** | 3 | Liupo,Mogincual, Rapale | 2 | Mogincual, Rapale | 1 | Mogincual |
| **Zambézia** | 5 | Chinde, Gurue, Ile, Milage, Murrumbala | 5 | Chinde, Gurue, Ile, Milage, Nicoadala | 0 | |
| **Tete** | 4 | Changara, Chifunde, Mutarara, Tsangano | 3 | Changara, Magoe, Doa | 1 | Maravia |
| **Manica** | 4 | Barue, Gondola, Macossa, Manica | 3 | Barue, Macossa, Manica | 2 | Gondola, Macossa |
| **Sofala** | 2 | Maringue, Muanza | 1 | Maringue | 0 | |

[12] *Análise da cobertura e equidade (CEA) para o programa de vacinação – Moçambique, 2019. UNICEF; Section II 3.5, page 42*
[13] *First Report of the Gavi Full Country Evaluations Phase 2 Mozambique 2017/18, page 59*

| | | | | | | |
|---|---|---|---|---|---|---|
| **Inhambane** | 0 | | 0 | | 0 | |
| **Gaza** | 0 | | 2 | Chicualacuala, Massangena | 0 | |
| **Maputo Province** | 2 | Matutuine, Namaacha | 0 | | 0 | |
| **Maputo City** | 1 | Kamaxakene | 1 | Kamaxakene | 2 | Kamaxakene, Kamubukwana |
| **TOTAL** | 23 | | 18 | | 7 | |

In light of these numerator / denominator challenges, and in order to be able to target and prioritise the PSR objectives, in terms of geographical areas, EPI's Data Quality working group has analysed data sets to establish the poorest performing districts in need of additional support and/or immunisation interventions. Sixty- three districts were identified, across the country (see Appendix 6) as requiring specific focus during the period of this PSR. Forty-four of these are districts in the PSR priority provinces: 15 in Nampula, 11 in Zambézia, 7 in Tete, 6 in Manica and 5 in Sofala. The remaining 19 districts are spread across the remaining provinces: Cabo Delgado (7), Niassa (6), Inhambane (1), Gaza (1), Maputo Province (2) and Maputo City (2).

To reach this conclusion, the working group selected six key immunisation-related indicators for analysis based on availability of updated district level data:

1) 2018 coverage of second dose of measles and rubella vaccine (agreed as more reliable than the third dose of DTP3 vaccine) – source DHIS2;
2) The DTP vaccine dropout rate (average from 2016-2018 DTP1-DTP3/DTP1) – source DHIS2;
3) Measles incidence rate i.e. confirmed and reported cases by epidemiological surveillance in 2018 – source MoH Epidemiological Surveillance Department;
4) Number of health facilities providing routine immunisation (RI) services per 10,000 population – source DHIS2 and 2007 Census population projections for 2018;
5) Number of health workers providing vaccination services per 1,000 inhabitants – source DHIS2 and 2007 Census population projections for 2018.

All these data were extracted from the DHIS2 and 2007 Census population projections for 2018 as the main sources of information. Subsequently, all indicators were categorised, based on their distribution, in three levels to obtain a weighting from 1 to 3, where 1 indicates good performance, 2 indicates reasonable performance and 3 indicates poor performance. After individual indicator categorisation, all indicators contributed equally based on the results of the categorisation. In order to rank the country's 161 districts, individual points obtained per district were added up and the final ranking was based on the total points. Total points were then categorised into three groups:

1) High priority districts: with a total greater than or equal to ten points
2) Low priority districts: between seven and nine points
3) Non-priority districts: less than or equal to six points.

This methodology was then triangulated with the coverage and equity assessment (CEA) which considered additional sources of information, such national surveys, in the same districts[14]. This prioritisation exercise identified low-performing districts in all provinces across the country.

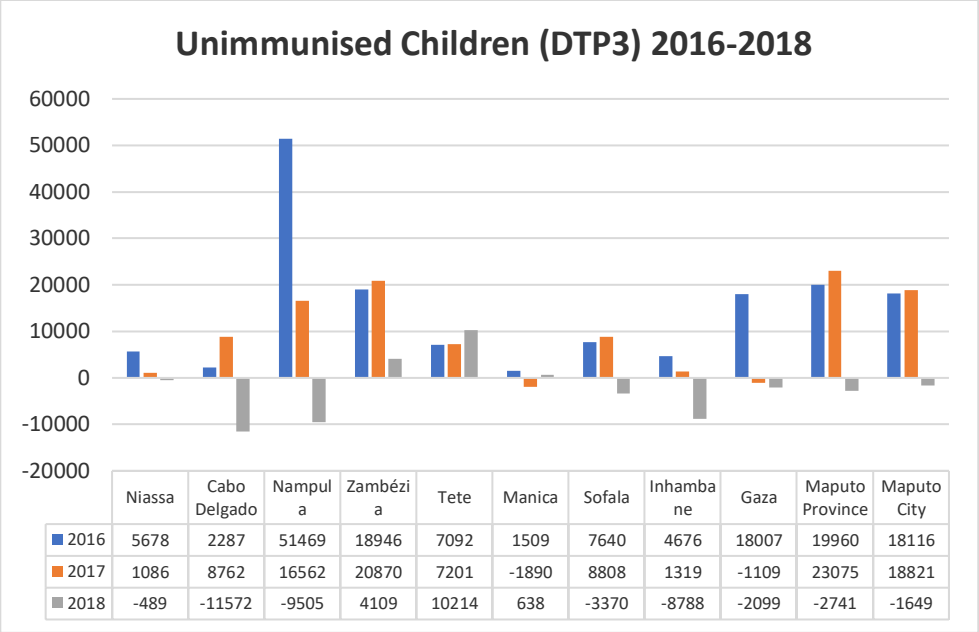
**Based on this analysis, EPI will focus efforts to improve coverage and equity in all 63 districts across the country identified as high priority. EPI will also continue to focus efforts to improve coverage and equity on the current four priority provinces of Zambézia, Nampula, Tete and Manica, extending this prioritisation to include Sofala province for the new HSS investments given IMASIDA 2015 results (see Figure 6 below) and its devastation following cyclone Idai.**

**Coverage by geographies / population group:** Absolute numbers of un- or under-immunised children

Given the challenge related to denominators and the gradual adaptation of district-specific coefficients across the country, it is difficult to estimate exact numbers of unvaccinated or under-vaccinated children by district or urban area. However, Figure 5 provides the absolute numbers of children vaccinated with DPT3 based on administrative data, for the period 2016-2018. The number of unvaccinated children in Mozambique varies significantly by province, with Nampula (the most populous province) showing the most dramatic reduction, increasing the number of FIC between 2016 (74%) and 2017 (92%). 2017 reveals an upward trend in unvaccinated children compared to 2016 in Cabo Delgado and Maputo province, with only slight variations in Zambézia, Sofala and Maputo city.

*[14] Index of Vaccine Inequity, Section III, pages 54-59. Análise da cobertura e equidade (CEA) para o programa de vacinação – Moçambique. 2019. UNICEF*

*Figure 5: Number of unimmunised children (DPT3); source DHIS2*




| | Niassa | Cabo Delgado | Nampula | Zambézia | Tete | Manica | Sofala | Inhambane | Gaza | Maputo Province | Maputo City |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2016 | 5678 | 2287 | 51469 | 18946 | 7092 | 1509 | 7640 | 4676 | 18007 | 19960 | 18116 |
| 2017 | 1086 | 8762 | 16562 | 20870 | 7201 | -1890 | 8808 | 1319 | -1109 | 23075 | 18821 |
| 2018 | -489 | -11572 | -9505 | 4109 | 10214 | 638 | -3370 | -8788 | -2099 | -2741 | -1649 |

Introduction of district coefficients resulted in slightly decreased target groups in 2018, with the denominator reducing in most provinces, thereby increasing coverage. As a result, 2018 saw an apparent lack of unvaccinated children for most antigens. 2018 data illustrate the challenge currently faced in reliably estimating un- or under-immunised children. It should be noted DHIS2 has yet to integrate the immunisation module being developed through Gavi's 2019 TCA.

**Equity by geographies / population group:**

- Wealth (e.g. high/low quintiles)
- Education (e.g. un/educated)
- Gender
- Urban-rural
- Cultural, other systematically marginalised groups or communities e.g. from ethnic / religious minorities, children with low socioeconomic status, etc.

District level data is not available by wealth status, education, gender or urban/rural residence. Section 3.1 provides a description of these variables at national level – there is no evidence of gender bias in relation to child immunisation and it is known urban coverage is higher than rural, with coverage increasing the higher the mother (or caregiver's) education level.

The 2018 Joint Appraisal[15] noted coverage and equity had improved in the last five years in rural areas but stagnated in urban areas, raising concerns on how to accelerate coverage and equity given 32% of the population lives in urban areas. EPI has initiated mapping of urban settings; this health systems strengthening (HSS) investment includes an urban immunisation study to determine the need for focused responses to urban equity challenges identified.

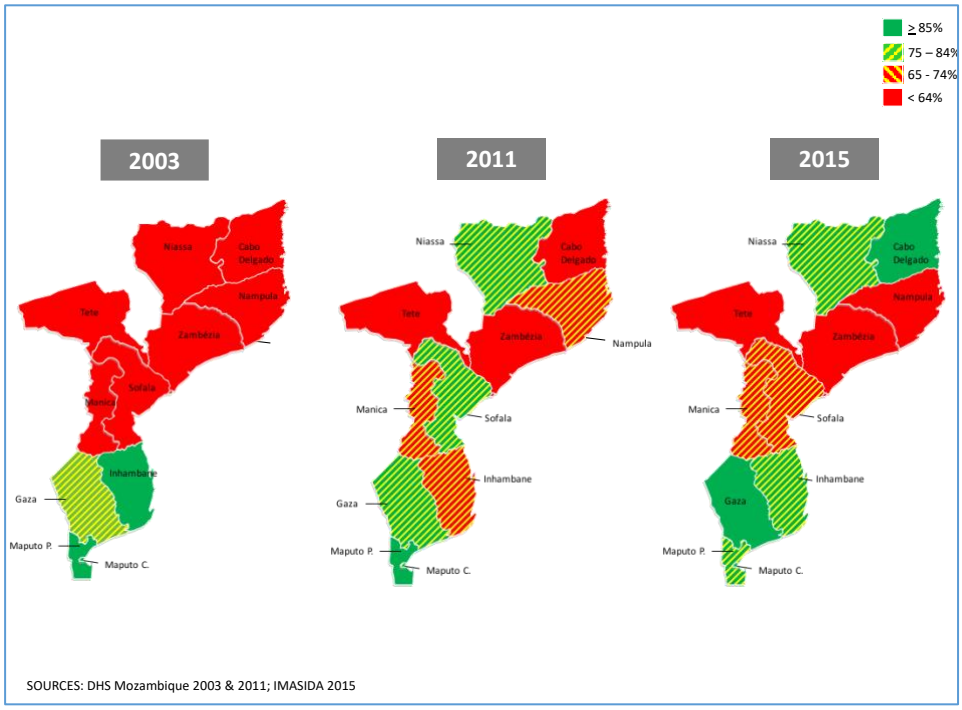
To further elaborate on sections 3.1. and 3.2 above, **countries are strongly encouraged to include heat maps or similar to show immunisation coverage trends over time**, and to reference the source of data. Examples of such analysis are available in the Joint Appraisal Analysis Guidance (http://www.gavi.org/support/process/apply/report-renew/)

Figure 6 provides an overview of immunisation trends over time according to the last three household surveys (DHS 2003 and 20011 and IMASIDA 2015). It is worth noting the positive evolution in Cabo Delgado from 2011 to 2015. Factors influencing this improvement are thought to include community mapping to enable active search for dropouts as well as targeted communication to districts with low coverage. In addition, the province focuses on data analysis and ensuring feedback between levels in order to target corrective actions.

Priority provinces, Zambézia, Tete, Nampula and Manica, were selected for the current HSS grant (referred to as HSS1 in the rest of the document) based on having FIC below 70% coverage data from the DHS 2003 and 2011[16]. As explained above, **the PSR continues to prioritise Nampula, Zambézia, Tete and Manica provinces and, from 2021, Sofala province.** These five provinces are home to 64% of the country's total population (INE 2019); the national average birth cohort is 3.7%.

[15] *2018 EPI Mozambique Joint Appraisal; page 16*
[16] *Gavi Full Country Evaluations, 2016 Annual Dissemination Report; Mozambique Report page 35*

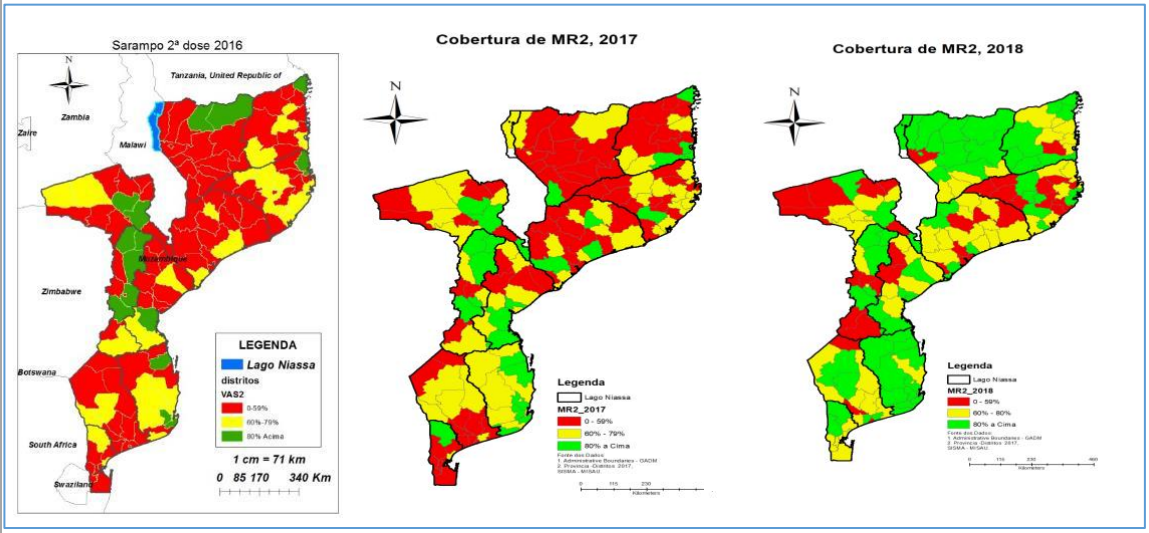
*Figure 6: Heat map of FIC coverage trends; Source: DHS 2003 and 2011 and IMASIDA 2015*




The heat maps below (Figure 7) illustrate trends in percentage of MCV2 coverage by district using administrative data, showing gradual improvement in coverage through routinisation of the vaccine. In 2016, immediately following introduction, the majority of districts demonstrated coverage rates under 50%; however, by 2018, this picture has changed significantly – although the country is still below its 95% coverage target.

There are two particular success stories emerging – Niassa province in the northwest and Inhambane province in the southeast. In 2018, both provinces purposefully adopted approaches for all health workers interfacing with children to verify vaccination cards as well as introduced active searches for dropouts, thereby increasing coverage (details in Appendix 17).

*Figure 7: Heat map of MCV2 coverage trends; Source: DHIS2*



## 3.3. Key drivers of sustainable immunisation coverage and equity at service-delivery level

Please highlight the key **drivers – strengths and challenges – of immunisation coverage and equity at service delivery levels**: what is needed to immunise children, what is there and working, what needs improvement.

Please list the issues below, prioritising and ranking – to the extent possible – the 3-5 biggest issues affecting immunisation.

This component refers to all aspects of immunisation service provision, including aspects for increasing coverage and equitable access, consistently meeting demand and ensuring reliable immunisation supply chain (iSC) to health facilities and for outreach in order to achieve the MoH[17] target of 94% of FIC protected from VPD by 2019. Opportunities exist to improve coverage through establishing clear strategies (building upon the initiatives used in Inhambane, Cabo Delgado and Niassa provinces mentioned above) to reduce missed opportunities for vaccination (MOV) and dropouts and increase the contribution of outreach. Purposeful targeting of evidence-based interventions and further integration of services provide opportunities to better meet service delivery challenges.

In Mozambique, the standard drivers for sustainable coverage and equity apply i.e. social determinants of health, proximity to health services, quality of service delivery, human resources for health (HRH) and demand creation, supply chain (SC), data and evidence, planning and communication.

| Current situation | Strength / opportunity |
|---|---|
| **1. Access:**<br>• Disperse population and limited health infrastructure affect equitable access to services. Long distances to reach vaccination sites in rural areas negatively affects uptake, especially when the nearest health facility is over 60 minutes away, the case for 90% of the population – particularly in Nampula, Zambézia, Tete and Inhambane provinces[18].<br>• Outreach, essential to achieving greater equity and access, is contributing only 11% to service provision (principally due to weak planning and resource constraints). | • PESS includes gradual expansion of the health network[19].<br>• The effectiveness and scale of outreach can be increased through improved resourcing, planning, and activity targeting (un / under immunised, mapped communities, urban areas), and improving communication messages to encourage uptake among those living closer to health facilities. |
| **2. Quality of service delivery:**<br>• Low service quality and health worker knowledge, skills (including interpersonal communication), tools (including communication tools) and performance management, particularly in areas of low coverage, constrain delivery of quality RI services (including outreach planning) and negatively impact demand.<br>• Service quality is negatively impacted by financial resource constraints (transport / fuel for outreach) and insufficient health workers to meet demand for services, leading to long waiting times etc.<br>• MOV exist at schools and crèches to reach children (to mobilise parents and as the parents of the future) with vaccination messages. | • Improving health worker knowledge, skills and communication capabilities is a critical driver to increasing demand by ensuring caregivers have a positive experience at health facilities and are engaged to complete the immunisation schedule.<br>• Furthering integration with other primary health care (PHC) community level interventions will raise awareness and increase use of immunisation services. |
| **3. Supply chain:**<br>• Frequency of vaccine and supplies stockouts has reduced; challenges remain in ensuring timely availability of vaccines in sufficient quantity and quality. Vaccine temperature monitoring by districts and health facilities is weak and health facility vaccine management skills are poor[20]. | PELF, the national Pharmaceutical Logistics Strategy is designed to improve cold chain (CC) efficiency; EPI is supporting its rollout through outsourcing vaccine distribution and CC equipment (CCE) maintenance and establishing a single vaccine logistics management tool – two innovations for EPI. |
| **4. Community engagement:**<br>• Low levels of awareness of immunisation among hard-to-reach populations, urban poor, illiterate or low-educated caregivers affects uptake of services.<br>• Health workers inadequately involve local leaders and communities in planning immunisation services. Achieving better coverage, reducing dropouts and identifying unimmunised children requires their engagement in planning and scheduling targeting. | • RED/REC strategy specifically addresses community engagement; accelerating rollout of new approach with partner support and standardising processes for inclusive outreach planning which engages communities through community health workers (CHW) and other community systems, can reduce under-/un-immunised children, increasing awareness and demand.<br>• EPI communication plan for community engagement includes specific activities for remote communities and to address gender barriers – it requires full resourcing. |

*[17] As established in the Health Sector Strategic Plan 2015-2019 (2023) – referred to as the PESS.*

*[18] Análise da cobertura e equidade (**CEA**) para o programa de vacinação – Moçambique. 2019. UNICEF; page 44-47*

*[19] By late 2020, in line with GoM plans to ensure a hospital in every district, 12 new district hospitals and two health facilities are expected to be delivering services; source: MoH Infrastructure Department.*

*[20] Mozambique EVM assessment, 10 June – 10 July 2019, Findings and Recommendations of the Assessment Team 2019; V3 21082019, page 36*

| | |
|---|---|
| **5. Data:**<br>• Overall, data quality is poor. Data discrepancy results from multiple reporting tools at facility level, poor completion of registers, low use of data to plan services locally, along with inadequate capabilities to detect, investigate and notify VPD. | • Scale-up of the new electronic immunisation register (EIR) seeks to address data quality issues at service delivery level.<br>• Revised guidance on target populations, improved workflow around registers and use of data to plan are planned[21]. |

## 3.4. Key drivers of sustainable immunisation coverage and equity at the programme management level

Please highlight the key **health system and programmatic drivers of the levels of immunisation coverage and equity**. Consider both national and sub-national levels.

Reflect how the immunisation programme is progressing toward maturity within the country's health systems: what are the drivers, current strengths, challenges, developments or shortfalls. How the immunisation programme is able to protect the country population against vaccine preventable diseases.

Please list the key issues, prioritising and ranking – to the extent possible – the 3-5 biggest issues and how they are currently addressed (including other external support). Provide evidence and lessons learned from previous activities.

- **Health Work Force**: availability, skill set and distribution of health work force at national and sub-national levels. Human resource management and development.
- **Vaccine management system and supply chain**: integration, procurement planning and forecasting, key insights from latest EVMs and implementation of the EVM improvement plan, and progress on the five supply chain strategy fundamentals.[22] This subsection might be informed by available dashboards and tools, for example the Immunisation Supply Chain Management Dashboard that links EVM, Maturity Scorecard and DISC (Dashboards for immunisation Supply Chain) indicators.
- **Leadership, management and coordination**: please describe strengths and challenges related to management of the immunisation programme. This include structure, staffing, capacities and performance of the EPI teams / health teams managing immunisation at national and sub-national levels; use of data for analysis, management and supervision of immunisation services; coordination of planning, forecasting and budgeting, coordination related to regulatory aspects; coordination within the primary health care / basic services; and broader health sector governance issues. Use the outcomes of the Programme Capacity Assessment and/or other assessments.

  This also includes effective functioning of the relevant Coordination Forum (including links with the health sector / MoH coordination mechanisms and alignment to Gavi guidance[23]
- **Data / Information system:** Strengths and challenges related to the immunisation data (routine data collection and reporting system, integration within the health information system, regular surveys, targeted surveys, quality of data, use of data. Links with the surveillance system). At national and at sub-national levels.
- **Gender-related barriers** faced by caregivers: 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.).
- **Other critical aspects**: any other aspect identified, for example based on the cMYP, EPI review, C&E assessment, PIE, EVM or other country plans, or key findings from available independent evaluations reports[24].

**Health Work Force:** The National Human Resources Development Plan (PNDRH) 2016-2025 and the Strategy to Attract and Retain Human Resources for Health 2018-2022 (the retention strategy has limited donor support and is only partially

*[21] The EPI Data Quality working group undertakes regular data quality analysis, ensuring provision of feedback.*

*[22] More information can be found here: http://www.gavi.org/support/hss/immunisation-supply-chain/*

*[23] Gavi guidance on Coordination: http://www.gavi.org/support/process/apply/additional-guidance/ under the heading 'Leadership, management and coordination*

*[24] 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).*

implemented) are the core guiding documents for this area. EPI's key functions, upon which effective implementation of the Programme depends, are defined – however the ToR for each function require updating and there is a need to review the structure of teams at national and subnational level in view of the growing RI schedule. Numerous evaluations and studies, including the CEA 2019, reinforce the strategic allocation of vaccinators as a key determinant of immunisation coverage and equity as well as the skills of health workers[25]. Opportunities have been identified to improve health worker skills along with the quality of their client interactions. The CHW programme continues to implement its roadmap for expansion, with 7,200 CHW to be deployed across the country by 2020; retention is high at over 95%. CHW play a key role in increasing immunisation demand, mobilising communities, improving service delivery (most notably via outreach) and ensuring linkages between the health sector/facilities and communities.

Strengths / challenges:

- Mapping of vaccinators has initiated to gain a better perception of distribution, numbers, allocation and real gaps. Generally, the more inexperienced health workers are posted to the periphery (without adequate preparation or support) and, as experience is gained, they migrate towards the district / provincial centres – leading to concentrations of vaccinators at these levels[26].
- Current perception is there are insufficient numbers of vaccinators and their allocation / distribution (decentralised to provincial and district level) is not based on coverage / equity targets.
- In addition to state training institutes, a large number of private institutes are also training vaccinators (preventative medicine technicians – TMP – and maternal and child health – MCH – nurses) across the provinces. The quality of training is considered to vary, and EPI plans to develop a standardised EPI module to be incorporated in curricula in order to improve and standardise the capability of new graduates.
- Training institutes have work placements with selected health facilities where students improve their practical skills. This offers busy health facilities and outreach activities an opportunity to positively impact the quality and knowledge of students. However, no formal guidance is provided to health facilities on how to manage these work placements and the risk is insufficient effort is placed on improving skills.
- A skilled and knowledgeable workforce is core to achieving coverage and equity goals. There are gaps in frontline health worker skills (interpersonal communication, technical, planning and management), as well as in EPI managers e.g. of districts / facilities (planning, data use, coordination, supportive supervision). These gaps need to be addressed in order to increase demand for vaccination services.
- In addition, with a focus on priority districts and low-performing health facilities, there is a need to provide recommendations for vaccinator allocation and distribution criteria used by provinces and districts for better targeting of resources. In some cases, this will require contracting new staff, in others it will require measures to motivate experienced staff to work outside district capitals or provinces.
- MoH is strengthening its engagement with community systems – providing opportunities for integration and innovation by building on e.g. the CHW roadmap and the preventative and promotive services they and other community structures (e.g. traditional medicinal practitioners, traditional midwives and community activists) provide to communities.

**Priority issue 1: The need to strengthen human resources for health and review allocation criteria to reduce inequity**

**Vaccine management system and supply chain:** CMAM (Central Medicines Stores) is responsible for drug logistics, rapid tests and laboratory reagents, whereas the Supply Centre (*Centro de Abastecimento*) is responsible for consumables, medical and surgical equipment, and vehicles. There have been a number of improvements in storage capacity (at national and provincial level; lower levels will soon benefit from the CCEOP). Recurrent failures to maintain vaccine stocks at all levels undermine the Programme's ability to maintain adequate coverage, improve equity and increase demand. There is an opportunity to define a sustainable LMIS strategy and timeline for rationalising and integrating existing systems e.g. SIGLUS, SELV, DHIS2, SMT etc. and for planned integration with CMAM's PELF. Different vaccine distribution mechanisms are in use across the country, including outsourcing of vaccine distribution – as CMAM will ultimately assume responsibility for vaccines from procurement to delivery to health facilities, efforts in this area will be coordinated with CMAM, guided by its PELF.

Innovative approaches adopted by EPI include the two core areas of integration driving EPI's ability to improve vaccine coverage and equity – integration with the PELF (including maintenance, storage and transport of vaccines and human resources) and harmonisation of the multiple logistics management information system (LMIS) reporting tools in use at different levels of the system.

Strengths / challenges:

- The current review of denominators and numerators will improve accuracy of procurement planning and forecasting and ensure consistency in target group figures used across EPI.
- Key insights from the 2019 Effective Vaccine Management Assessment (EVMA V3) have been incorporated into an improvement plan (EVMIP) and actions prioritised for 2021 are[27]:
  - Ensuring the Supply Centre and CMAM adopt and use UNICEF's Product Arrival Reporting format for injection supplies and safety boxes.
  - Continuing to embed EVM iSC standard operating procedures (SOPs) at all levels.

[25] *Análise da cobertura e equidade (**CEA**) para o programa de vacinação – Moçambique. 2019. UNICEF; page 38*
[26] *Análise da cobertura e equidade (**CEA**) para o programa de vacinação – Moçambique. 2019. UNICEF; page 40-41*
[27] *Mozambique EVMIP, 10 June – 10 July 2019; prioritised activities Version 1, 26 August 2019*

- Ensuring MoH has evidence-based data to identify a standardised transport solution for vaccine distribution at all levels for timely delivery of vaccines and vaccine supplies in the correct quantities and quality.
- Improving EVM by ensuring quantities of freeze-dried vaccines and diluents are compatible.
- Strengthening of sub-national stores by ensuring iSC managers adhere to vaccine management practices – monitoring stock adequacy at various levels of the SC to reduce stock outs.
- Establishing and implementing an appropriate web-based stock management tool for all levels.
- Conducting a systematic temperature monitoring study to assess vaccine exposure to freezing during transportation.
- Ensuring national and provincial vaccine stores download, analyse and file electronic or hard copy temperature reports from the remote temperature monitoring (RTM) system for future reference.
- Ensuring vaccine stores at all levels have adequate SOPs for temperature monitoring, including alarm events.
- Continued strengthening of the technical capacity of provincial and district EPI iSC personnel, in line with the PELF.
- Establishing and regularly updating a national CCE inventory system.
- Continued improvement to the quality, documentation and follow-up of supervision.
- Ensuring CCE maintenance at all levels, integrating with the PELF.
- Developing a costed preventive maintenance plan, detailing costs/requirements for spare parts, tools, manpower, travel and per diem for technicians etc.
- Better management of vaccines and dry goods storage at national level, aligned with WHO guidelines.

**Status of the five supply chain strategy fundamentals:**

1. **Continuous improvement:** in 2019 the country developed a multi-year plan (cMYP), conducted an EVMA and developed an EVMIP to guide strategic and operational iSC improvements.
2. **Leadership / management:** the well-functioning national logistics working group (NLWG) plans to establish logistics working groups in all provinces. EPI and CMAM are in discussions re integration of vaccines in the medicines SC and the requirement for a cadre of logisticians to effectively manage vaccines. STEP training has been scheduled for late 2019.
3. **Supply chain data:** current focus is on rationalising and integrating existing LMIS tools in order to improve efficiency as well as ensure required availability and use of current data in order to address stock management issues.
4. **CCE** (including maintenance) – having been awarded a CCEOP grant in 2019, the country has successfully developed its Operational Deployment Plan (ODP). CCE maintenance is outsourced to provincial level and performed by provincial maintenance teams at district / health facility level. Outsourcing aligns with PELF expansion plans, however contract management capability in CMAM and Provincial Health Directorates (DPS) must be built. Provincial maintenance teams are not dedicated to CCE reducing response timeliness and risking immunisation services in affected health facilities. A PSR innovation is to pilot outsourcing CC maintenance to health facility level.
5. **System design** – the PELF represents the MoH innovative roadmap to a more agile, efficient, effective SC. Integrating iSC activities with CMAM will align with rollout of reforms to the warehousing and distribution systems. There is a need for clear communication between CMAM and EPI to plan integration. The iSC has been improved in recent years, however, to date the new distribution routes from provincial warehouses to health facilities are not yet consistently used in all provinces (outsourcing of distribution and rollout of PELF aim to further improve the system).

**Priority issue 2: The need to fully implement the EVM improvement plan (including M&E) and align with the PELF.**

**Leadership, management and coordination:** This area involves coordinating the organisation, direction and implementation of activities to achieve Programme outcomes and reach national targets. It includes financial management, coordinating interdependent activities and work streams, as well as oversight of any risks and issues arising. Through various evaluations and the PSR situation analysis, opportunities have been identified to continue to strengthen this component. The PSR process in itself has significantly contributed to building leadership capability and strengthening ownership of the EPI Strategic Framework which guides the Programme.

Strengths / challenges:

- EPI human resource capacity at central and (particularly) provincial level is challenged by the additional workload resulting from growing RI demands i.e. increased number of vaccines included in the routine schedule and related activities including supervision, flow of funds and financial reporting, planning and data management. There is a need to review the EPI team structure at central, provincial and district level to ensure it adapts and responds to evolving needs and responsibilities.
- The EVMA 2019 (V3) identified a requirement for two additional resources in the central warehouse[28]. Discussions with CMAM have initiated and at least one of these roles will be added to the responsibilities of an existing CMAM resource.
- Clear terms of reference for EPI roles at all levels would add clarity to operations. There are opportunities to apply relevant aspects of the MoH HRH Retention Strategy to increase motivation.
- HSS1 funding to key positions in support of delivering the grant (HSS national and regional advisors, central administrator, finance/procurement consultant) will be continued in HSS2.

[28] *Mozambique EVM assessment, 10 June – 10 July 2019, Findings and Recommendations of the Assessment Team 2019; V3 21082019; page 38*

- TCA support to EPI teams at all levels should include a (measurable) component of capability building / skills transfer, particularly in the areas of management, planning, data analysis and use. This requirement aligns with Government of Mozambique (GoM) and Gavi institutional strengthening principles and sustainability of investment.
- EPI coordination mechanisms have been strengthened over the last year and efforts to improve partner coordination are continuing. Increased focus will be placed on improving coordination with other relevant MoH programmes in order to support greater integration and improve reach.
- The Interagency Coordinating Committee (ICC) governance role has not been fulfilled to date and its functionality is suboptimal due to the lack of clarity around the roles and responsibilities etc. Current health sector reforms to MoH/ partner coordination and governance structures may offer an opportunity to integrate ICC functions.
- Innovative approaches, with partner assistance, have been introduced at provincial level, providing EPI managers consistent support and mentoring on performance management based on user-friendly applications.

Priority challenges to be addressed:

- There is an opportunity to build more robust programme management structures based on well-functioning coordination mechanisms at all levels, supported by timely and inclusive planning processes.
- There are significant gaps in availability and reliability of information from monitoring, supervision and studies, as well as the required skills to analyse, interpret and plan prioritised responses to evidence.
- There is an opportunity to more proactively engage programme stakeholders to advocate for a strengthened EPI mandate and resourcing, including updating of the EPI policy.
- Governance mechanisms are not sufficiently robust to oversee and guide strategic and operational objectives of the programme.
- Overall programme financial planning, management and reporting require strengthening to ensure efficiency, quality, enable resource mobilisation and financial sustainability.

**Priority issue 3: The need to strengthen governance, coordination and financial planning and management capabilities of the programme.**

**Data / Information system:** MoH uses DHIS2. Health facility data is aggregated and entered at district level; data is immediately available at provincial and central level and quality of reporting has improved since its introduction. There is a recognised need to harmonise / integrate the different information systems in use and improve data quality. TMP (core EPI frontline vaccinator staff) are considered to have reasonable skills in surveillance of measles and polio, however many districts do not comply with reporting requirements. A critical challenge to urgently resolve lies with the denominators and numerators used for administrative data, as many districts report coverage over 100%. Additional factors affecting data quality include discrepancy introduced between multiple registers, loss of registers, and poor registration practices / capability. As a result, for reporting and decision-making, administrative data can be unreliable; data from the most recent national immunisation survey (2015) is out-of-date.

**Strengths and challenges:**

**Routine data collection and reporting system:** Sub-optimal data quality challenges planning, monitoring and evaluating programme performance[29]. Capacity to manage and analyse data at more peripheral levels influences the use of results to address coverage and equity challenges[30]. Inaccurate and uncertain target population data result in regular reported coverage >100% (96% of districts) and >10% point disparity between official coverage and WUENIC. The result of the current review of population calculations is urgent to improving coverage and equity. Current TCA support will pilot EIR in Manica province in 2020 prior to scale-up to the remaining priority provinces from 2021.

**Integration within the health information system** (HIS) is an MoH and EPI priority for ownership and sustainability. Planning is underway to integrate SELV with both SIGLUS (used for medicines logistics to health facility level) and DHIS2. An immunisation module is being developed for DHIS2 (2019 TCA).

**Regular surveys** are essential to measuring coverage and progress. The most recent national immunisation household survey took place in 2015 and EPI has been operating with a serious information gap given the unreliability of administrative data. Financial support to the DHS planned for 2020/21 is included in this PSR.

**Targeted surveys** (see Appendix 21) have been planned for late 2019 in three provinces (Tete, Nampula, Zambézia) to initiate in November 2019. Results will be ready in Q1 2020. In addition, five provinces (Maputo, Tete, Nampula, Zambézia and Manica) will be implementing their own coverage surveys in 2019, these will provide data for management purposes. For 2021, EPI may implement additional targeted surveys, if required, to establish a baseline for new priority districts.

**Use of data for analysis, management and supervision of immunisation services:** considerable operational data is generated by EPI, however there are multiple tools being used to varying degrees at different levels, with the need for review and rationalisation urgent. The poor quality of programme data (RI, surveillance, supplementary immunisation activities) affects its reliability and analysis / use[31]. Greater understanding of the role of data gathered in planning, monitoring and performance improvement is required. Data discussions need to shift the focus from meeting targets to in-depth analysis of the causes and associated factors influencing coverage and developing potential solutions.

[29] *2018 EPI Mozambique Joint Appraisal; section 3.3 page 8 of 29*
[30] *First Report of the Gavi Country Evaluations, Phase 2, Mozambique, 2017-2018, page 6*
[31] *2018 EPI Mozambique Joint Appraisal; section 3.3 page 8 of 29*

The EPI dashboard (Appendix 22) is being rolled out to address the issues and data burden caused by these multiple and parallel HIS to help drive holistic data reviews and decision-making, the dashboard collates data from multiple sources, including iSC data (DHIS2 and SELV), and programmatic data (health facility stockouts, coverage, vaccine utilisation rates, dropout rates, community engagement, outreach, HSS budget execution and RED/REC expansion rates). The dashboard is designed to be used at central and provincial level during monthly data review meetings and whenever there is a need for data visibility or analysis.

Monthly data review meetings use the visibility analytics network (VAN) to support and embed the use of data for decision making. VAN drives problem-solving using root cause analysis to design action plans to guide implementation of solutions. VAN is used at central and provincial level and will expand to district level. The EPI dashboard enforces VAN implementation by ensuring visibility of key programme and supply chain performance indicators for use in the decision-making process. EPI recently launched the EPI Champions League (Appendix 34) initiative to strengthen VAN implementation in provinces and add a spirit of competition to data usage and improving results.

**Surveillance**: INS is responsible for surveillance activities related to rotavirus in six sentinel sites (three in Maputo and one each in the main hospitals in Sofala, Zambézia and Nampula) and vaccine-preventable bacterial meningitis in three sentinel sites (in Maputo, Sofala and Nampula). Reports (weekly, monthly, quarterly, annual) are produced to monitor disease burden, serotype changes, coverage of PCV and PCV impact, as well as detect outbreaks. Gavi has supported INS through CDC Foundation and it has been agreed current capacity will be consolidated prior to the expansion of sentinel sites (which is planned in this PSR). The INS undertakes surveillance for EPI using the M-Alert epidemiological surveillance system which is now fully deployed in Inhambane, Maputo and Manica provinces and being rolled out in Cabo Delgado province. USAID will be funding WHO to identify requirements and support MoH polio surveillance[32].

Principle challenges to surveillance include available funds and contracts with the courier company responsible for collecting biological samples, leading to lengthy delays in transporting them from sentinel sites to central level and delays in disbursement of funds to laboratories.

**Priority issue 4: The need to develop and implement an information management strategy and plan to structure continued efforts to increase availability, use and quality of data ensuring the integration and harmonisation of data management systems and tools for VPD and RI.**

**Gender-related barriers faced by caregivers:** Hierarchical forms of family organisation are prevalent in Mozambique; these tend to relegate decisions on seeking health services to men and older women who hold high status in the family. Men are the primary decision makers on seeking health services yet believe women to be responsible for taking children to a health facility. The main carers of children are their mothers or other young women who have limited power to make decisions on their child's health. In addition, women, especially single mothers and widows, are affected by the indirect costs of vaccination (transport and illicit charges) because of their low economic status. The weight of domestic responsibilities and need to ensure subsistence for the family means women may also face time constraints to seek health services. Low educational level and poor health literacy results in low knowledge about the importance of vaccination. At institutional level, the way immunisation services are organised constrains the participation of men and other family members. At the same time, health services, interventions and approaches that reinforce these gender power relations and the role of women as primarily responsible for a child's well-being. These approaches make it even less likely men become involved in or prioritise immunisation[33]. To address this, EPI in this HSS2 will introduce specific interventions to address gender-related barriers, based on evidence to be gathered.

**Priority issue 5: The need to develop and implement specific interventions to address gender-related barriers, creating inclusive gender policies for increased coverage.**

**Other critical aspects:**

**Demand generation and communication:** The EPI communication plan was developed in 2018 and implementation is underway. Current efforts include training to improve health worker interpersonal communication skills to support efforts to improve demand for health services and reduce dropouts and MOV. There are opportunities to collaborate with National Directorate of Medical Assistance (DNAM)[34] in this area, supporting implementation of the current MoH strategy to improve the quality and humanisation of care (Appendix 23) as well as integrate with DNSP's MCH initiatives e.g. Criança Sadia[35] / Paragem Única[36] which aim to provide integrated child health services. In addition, EPI will document lessons learned from successful, innovative approaches in Inhambane and Niassa provinces to reduce dropouts (described in Appendix 17) – this will be a first step to developing guidance for replication in other provinces.

This PSR will increase prioritisation and funding for communication to allow essential scale-up of activities in order to better link communities to services. There is a need for rapid assessments and other studies to identify barriers and enablers to service uptake in different regions of the country in order to tailor approaches and materials based on evidence.

*[32] PSR Situation Analysis, page 31*
*[33] Análise da cobertura e equidade (CEA) para o programa de vacinação – Moçambique. 2019. UNICEF; page 43*
*[34] DNAM is responsible for medical care (except primary health care) provided by all health facilities*
*[35] Appendix 24, pages 6-10 provide and overview; pages 29-30 refer specifically to vaccination*
*[36] Appendix 32 Guião Orientador Sobre Modelos Diferenciados de Serviços em Moçambique – Paragem Única approach described for MCH (pages 92-94) & at-risk children (page 96)*

There are opportunities to develop tools and guides to support provinces and districts with improved community engagement (taking better advantage of existing community mechanisms e.g. health committees, community and religious leaders etc.), targeted activities to reduce dropouts, MOV, generate demand and improve communication to ensure consistency and quality. Collaboration with rollout of the CHW programme roadmap across the country will be particularly important to strengthen the link between health services and communities. Opportunities to integrate information gathering and flow through the CHW data information system (UPSCALE) may be identified during the planned HIS review process; in addition, the Department for Information Systems is planning a new community / communication module for the DHIS2. This PSR will also support broader MoH efforts to strengthen its community system approach (traditional medicine practitioners and birth attendants, community health committees etc.) for greater engagement in planning and design of health services e.g. human-centred design.

**Priority issue 5: The need to strengthen and resource the comprehensive EPI communication (including demand generation) strategy and plan.**

## 3.5. Immunisation financing

- **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.

- A National Health Financing Strategy is under development with GFF support.
- EPI planning aligns with Ministry of Economy and Finance (MEF) and MoH national planning cycle.
- EPI is integrated in the PESS and the MoH annual plan (PES) which establishes medium-term priorities. MEF reviews the PES and establishes ceilings.
- MoH regularly negotiates with MEF to mobilise additional domestic resources for healthcare, prioritising PHC. However, there has been a decline in government funding for immunisation, reduced partner support, limited fiscal space and prospects for mobilising additional domestic resources are poor. EPI operational funding is insufficient, leading to delayed or non-implementation of critical activities (e.g. outreach).
- For the PES, central and provincial EPI, with partners, develop annual plans/budgets (based on district plans which are aggregated by provinces). A predetermined envelope results in cutbacks to planned activities, which cascade to district level, and plans are then adjusted to funds available.
- The cMYP 2020-2024 defines medium term immunisation planning and budgeting requirements. Heavily reliant on external financing, EPI's projected 2020-2024 resource requirements are US$316,289,134. Of this, US$218,690,441 (70%)[37] is reasonably believed to be secured based on previous funding trend projections. Gavi estimates Mozambique's 2021-2025 co-financing obligations (current immunisation schedule with HPV nationwide introduction in 2021) at $11.92m, considering the country will remain in the initial self-financing category over the period.
- Resource allocation to districts/health facilities is affected by complex procedure and communication flow between central and lower levels, timeliness in requesting and reporting funds and long procurement processes.
- Gavi disbursement delays result from late delivery of external audit and late submission of financial reports (in Q2/3). HSS funds external audits.
- EPI performs weekly provincial budget execution reviews to recommend corrective action. Budget analysis for Gavi quarterly reporting aligns activities with plans and financial reports are timely.

[37] *National Immunization Program Comprehensive multi-year plan (cMYP) 2020 – 2024 (Version A3); pages 54 and 58*

## 3.6. Polio transition planning (if applicable)

| If transitioning out of immunisation programme support from other major sources, such as the Global Polio Eradication Initiative, briefly describe the transition plan. If none exists, describe plans to develop one and other preparatory actions. |
|---|
| Free of indigenous transmission, Mozambique interrupted the circulation of wild poliovirus in 2016. There is a functional polio committee overseeing polio free status. High-quality active case-based surveillance for AFP is maintained at national level (3.7/100 000 in 2018). Zambézia province has had three circulating vaccine-derived polio virus (cVDPV) outbreaks: 2011 (type 1 outbreak); 2016 (type 2 event), and 2018/19 (type 2 outbreak), indicative of a local immunity gap.<br>AFP surveillance targets are not being met; Mozambique's polio transition plan focuses on improving surveillance – better training, supervision, data quality and tools, ensuring active case detection in districts/provinces – to be supported in this PSR. APE community level surveillance is integrated into the APE referral system.<br>To respond to recurrent cVDPV, EPI is strengthening IPV RI, allocating HSS2 funds to micro-planning and outreach, surveillance and quarterly risk assessments. |

# 4. Past performance of Gavi support, implementation challenges and lessons

Briefly comment on the performance of the vaccine support and health systems and immunisation strengthening support (HSS, Ops, VIGs, CCEOP, transition grants) received from Gavi.

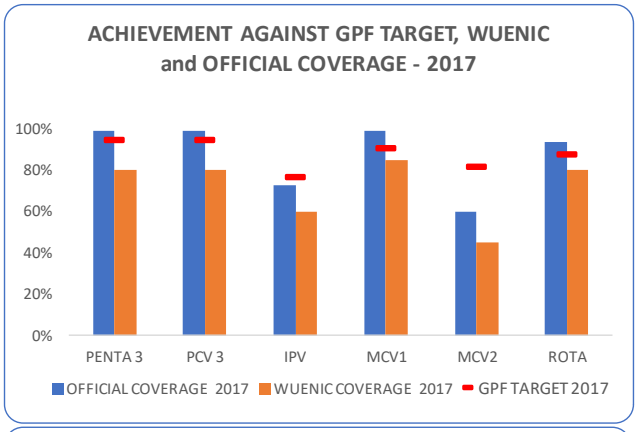
## 4.1. Programmatic performance of Gavi grants, in terms of:

- Achievements against agreed targets
- Overall implementation progress, lessons learned and best practices
- Progress and achievements specifically obtained with Gavi's HSS and CCEOP support
- Usage and results achieved with performance based funding (PBF)
- If applicable, implementation progress of transition plan, implementation bottlenecks and corrective actions

Figure 8 below uses WUENIC coverage estimates to illustrate progress to achieving GPF coverage targets (2017, 2018), illustrating <80% coverage caused by:

- 2017: global IPV vaccine shortages led to under-supply, contributing to target non-achievement.
- 2018: SC issues related to RV vaccine delivery from central to health facility level contributed to target non-achievement.
- Initial low coverage is common following MCV2 introduction until the second dose becomes established; MCV2 increased by 15% between 2017 and 2018.

***Figure 8: EPI achievement against 2017 and 2018 GPF targets; Sources DHIS2, WUENIC, GPF***



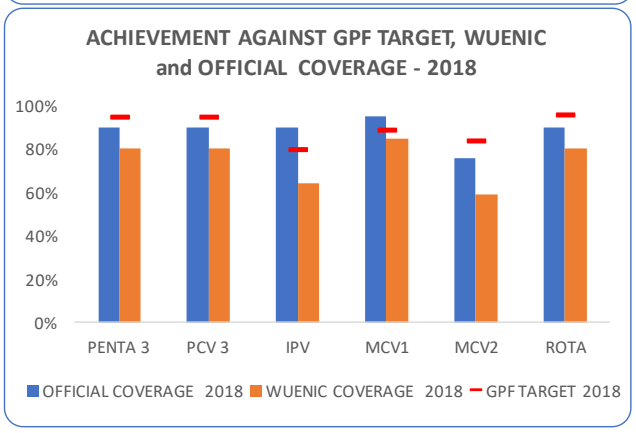
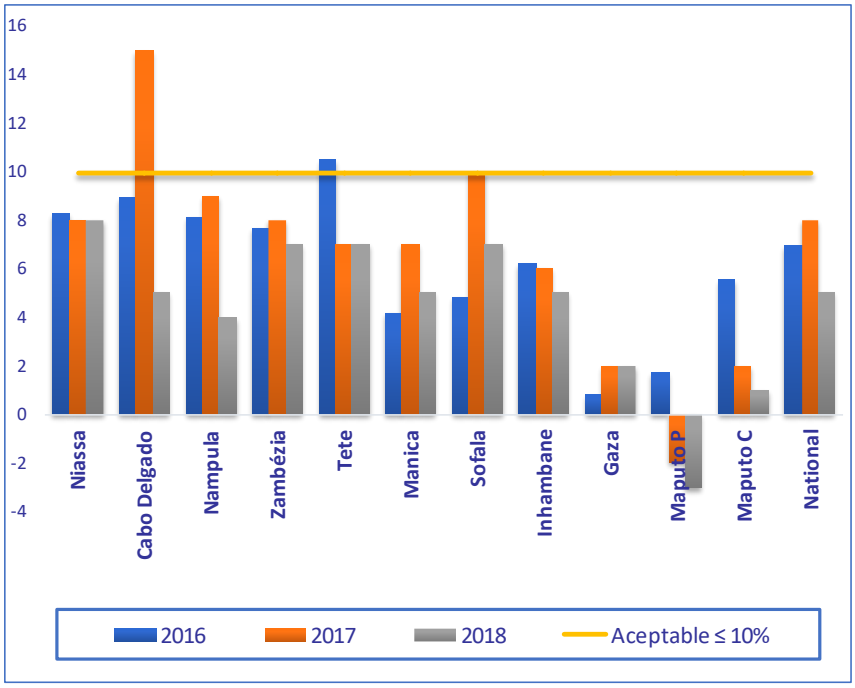
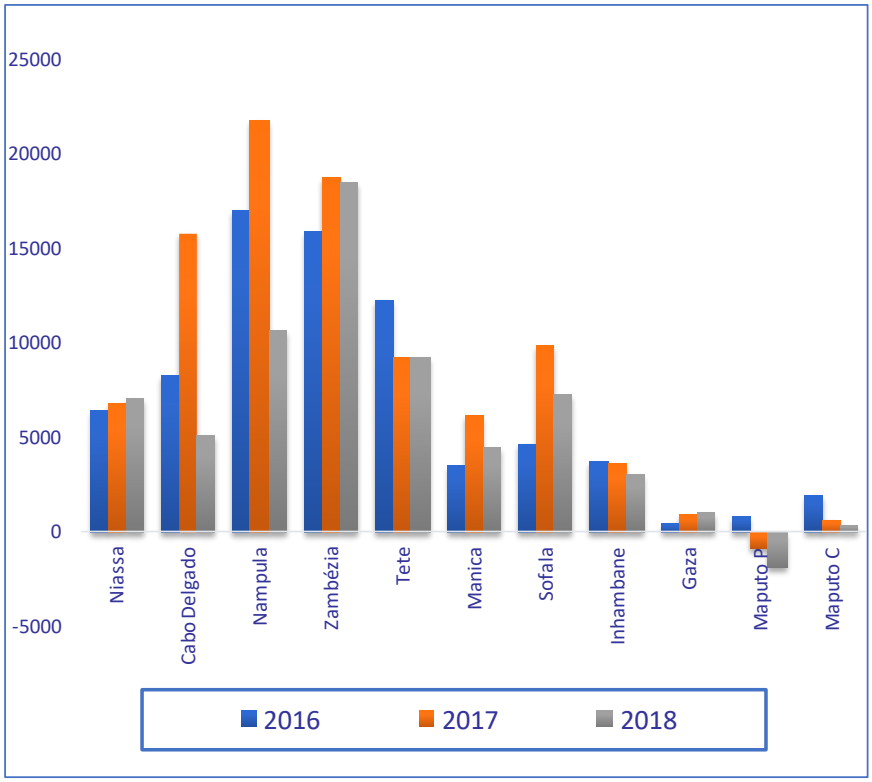



Figure 9 below illustrates trends in dropout rates for DPT3 from DHIS2 data and reveals EPI has made some gains related to specific antigens.




2017 health facility IPV, BCG and OPV stockouts may have increased overall dropout rates because, based on the lack of these vaccines, parents stopped bringing their children for any vaccinations.

Figure 10 below illustrates absolute numbers of dropouts for DPT3 from DHIS2 data.




In 2019, programme activities were impacted by (i) availability of leftover VIG funds from 2018, enabling activities to proceed in Q1; (ii) delays to central Q1 activities primarily due to the Zambézia cVDPV campaign; (iii) development of the cMYP and EVMA (iv) delayed RED/REC rollout due to late fund disbursement to provinces by alliance partners; (v) delays to payment of service providers following introduction of MPE module (see section 4.2) (vi) two cyclones requiring emergency responses to the centre and north.

- To protect RI activities, based on learning from the polio campaign, EPI split into two teams (one each for emergency and routine activities) following the cyclones.
- Funds secured for campaigns / new vaccines provided opportunities to strengthen RI e.g. sharing the updated vaccination schedule, checking vaccination cards etc.
- Despite costs and slow rollout, EPI remains committed to REC[38]. Dependence on alliance partners for timely disbursement has been problematic. Going forward MoH plans to manage all REC funds, introduce tighter controls and include components in an innovative EPI mobile supervision application.
- Implementation of DQIP (from 2018), has been slow and visibility poor. EPI will assume ownership, prioritising and integrating activities, monitoring districts and provinces and reporting regularly to the EPI Technical Group.
- NLWG will report more regularly to the EPI Technical Group on implementation of the EVMIP.
- EPI team skills are being built e.g. staff now use of DQS / VAN independently of TCA partners.
- Integration of nutrition and MCH services in outreach is taking those interventions more regularly to communities.

**Through Gavi's HSS and CCEOP support:**

- EPI profile in MoH has risen due to HSS1 resources; increased visibility and resources have positively affected EPI personnel motivation/engagement.
- EPI ownership of planning processes at all levels has improved, becoming more systematic. 2019 saw more inclusive bottom-up planning, with the majority of districts submitting their plans and priorities to provinces for aggregation prior to the national EPI planning meeting. This area requires continued strengthening.
- TCA monitoring by EPI is beginning to improve TCA partner accountability and visibility of results/progress. There remains room for improvement.
- Implementation of the CCEOP grant has yet to begin. The ODP is finalised and UNICEF expects equipment and installation tender results in September 2019.
- Vaccine availability at health facilities has improved, though challenges in frequency of distribution from central to provincial and on to health facility level persist.
- HSS support to outreach has increased its scale (with 80% of planned outreach implemented in the 4 priority provinces).
- CC has improved – central and all provincial warehouses have walk-in cold and freezer rooms; maintenance is outsourced. Obsolete CCE in health facilities have been replaced by solar direct drive (SDD) fridges and SDD have been installed in previously unequipped facilities.
- EPI's improved HSS1 execution rates (section 4.2) partly resulted from establishing clear targets, adopting a holistic approach and passing project management accountability to the central EPI management team per technical area. This enabled the National HSS Advisor to focus more on monitoring and corrective action. Ownership and timely implementation has improved annually.
- Since 2017, HSS planning at all levels has improved substantially, with greater structure to financial management and reporting increasing budget execution.

**Use of PBF:** In 2018, Mozambique was approved for US$1.48m PBF (2016 performance), allocated as follows:

- 68% - UNICEF supply division: joint CCEOP investment;
- 25% - WHO and UNICEF (Mozambique) for surveillance (M-alert) and printing;
- 7% - EPI for surveillance (INS / Epidemiology Department), supervision visits, administrative support.

Though activities are commencing, there are (i) early signs of improved PFA case detection (ii) improved coordination between HSS regional advisors and DAF/UGEA centrally through joint supervision to provinces (improving accuracy and compliance with financial reporting and flow of funds). Since 2017, the >5% discrepancy between administrative and WUENIC data means Mozambique has been ineligible for PBF.

## 4.2. Financial management performance, in terms of:

- Financial absorption and utilisation rates
- Compliance with financial reporting and progress in addressing audit requirements
- Major issues arising from review engagements (e.g. Gavi cash programme audits, Gavi programme capacity assessments, annual external/internal audits, etc.) and the implementation status of any recommendations
- Financial management systems, including any modifications from previous arrangements

Since 2015 Gavi support has increased significantly with the introduction of new vaccines and initiation of HSS1. January 2015 to June 2019, US$108,392,600 were disbursed to Mozambique, including cash grants (US$22,517,517) and vaccine support (US$85,875,083). MoH received US$15,884,586 of the cash grants directly and the remainder via WHO and UNICEF (US$6,632,931) (Table 3).

***Table 3: Summary of Gavi grants and disbursements to Mozambique; Source Gavi***

[38] *In the last year a new RED/REC approach has been developed, which includes partner support to implementation in three provinces.*

| GRANT | APPROVED VALUE | DISBURSED | MOH SHARE | EXECUTION (TO JUNE 2019) |
|---|---|---|---|---|
| **HSS 2015-2020*** | $27,700,876 | $21,893,679 | 72% | 62% |
| **PBF 2017**** | $1,489,620 | $479,999 | 21% | |
| **MR OP COST 2018** | $7,879,866 | $7,879,866 | 100% | |
| **MR VIG 2018***** | $933,198 | $933,198 | 100% | 0% |
| **IPV VIG 2015***** | $824,500 | $824,500 | 100% | 5% |
| **ROTA VIG 2015** | $885,500 | $885,500 | 100% | 93% |
| **MSD VIG 2015***** | $885,500 | $885,500 | 100% | 0% |
| **PCV SG 2017** | $271,286 | $271,286 | 100% | 66% |

* WHO/UNICEF received US$6,184,528 mostly for procurement of assets; execution rate: 88%
** WHO/UNICEF received US$377,976 to support national health week;
*** Grant closed; balance reprogrammed to HSS in 2018

HSS implementation effectively began in 2016 with funds becoming available six months after disbursement due to lengthy project registration with MEF and fulfilment of additional process requirements. From 2017, flow of funds efficiency between MEF and MISAU has improved due to coordination efforts. Improved planning, coordination and implementation monitoring increased execution (Table 4). In Q4 2018, execution was affected by the aggregation to e-SISTAFE of the GoM's MPE platform – introduced to improve budget execution transparency, it has resulted in substantial congestion of payments.

***Table 4: Summary of MoH budget execution of Gavi HSS funds received; source DAF/MoH***

| YEAR | DISBURSED TO MOH | EXECUTED BY MOH | EXECUTED |
|---|---|---|---|
| **2016** | $4,204,735 | $2,709,531 | 49.45% |
| **2017** | $3,851,113* | $3,600,027 | 93.48% |
| **2018** | $4,258,983 | $3,475,206 | 81.59% |
| **2019** | $4,501,180 | $1,590,398.50** | 35.33% |

* Includes US$1,725,909 VIG balance plus 2017 HSS and US$2,125,204 HSS 2016 balance
** Execution to June 2019

Submission of financial reports to Gavi is often late; delays to the Administrative Court external audit reports have reduced and on-time submission is expected in 2019. Submitting the annual activity plan and budget for timely approval remains a challenge due to the duration of reviews and adjustments between Gavi and MoH. Financial TA from MB Consulting, the UNICEF HSS Advisor and HSS Regional Advisors have improved efficiency in these areas. EPI is in the process of contracting (HSS1 funds) a consultant to support with procurement (contracting) and finance (HSS2 to continue this support).

An Administration and Finance Directorate (DAF) department follows-up on sector and programme audit recommendations, verifying and monitoring expenditure justifications for State and external (including Gavi) funds. The audit action plan tracks progress at central, provincial and district level and is monitored by the SWAP Administration and Finance Working Group.

Principle audit challenges have been DAF monitoring of compliance with audit recommendations, particularly in relation to provision of payment process justifications at all levels.

Gavi conducted their first programme audit in September 2018 covering all grants from January 2015 to June 2018, focussing on those managed by the GoM (financial and vaccines support). The audit assessed the management of Gavi support as unsatisfactory. Following Gavi's request for reimbursement, MoH is preparing a payment schedule for submission to Gavi early September to reimburse US$885,846 related to unsupported expenditures and procurements and ineligible expenditures. MoH will also provide evidence on reimbursement of US$1,144,274 (related to ineligible VAT payments) to Gavi programme bank account before end June 2020. The MEF Taxation Directorate-General has now authorised Gavi funds to be VAT-exempt[39]. MoH will respond (September) to proposed Grant Management Requirements derived from the Programme Capacity Assessment (shared with MoH in August).

Gavi grants are incorporated in the State Budget and executed using e-SISTAFE, the State budgetary, financial, asset management, accounting and internal state control instrument. Flow of funds for implementation has improved over the years, reducing the time between disbursement and availability of funds at provincial level. There remain challenges to smooth flow of funds to district and health facility level.

*[39] With the exception of expenditure referred to in Decree 66-2017 VAT ineligibility*

## Part C: Planning for future Gavi support[40]

**Section C** details the new vaccine support and health system strengthening support requested for the upcoming 3-5 years, including strategic considerations and prioritized activities. Operational details are presented in the **Gavi budgeting and planning template** and performance measurement is presented in an updated **grant performance framework**.

**If you plan to request new vaccine support** (routine introductions and/or campaigns**) in the upcoming 3-5 years,** please fill in section 7 below.

**If you plan vaccine routine introductions and/or campaigns in the next 18 months,** in addition, please fill in the relevant vaccine specific request, on the Country Portal, here: http://www.gavi.org/support/process/country-portal/

# 5. Planning for future support: strategic approach, coordination and alignment

## 5.1. Strategic approach of Gavi investments requested for the next 3-5 years

**From the situation analysis in Part B, describe the rationale for Gavi investments requested for** HSS, CCEOP and (new) vaccine supports and expected achievements.

**Describe synergies across Gavi support, including planned introductions or campaigns.** If relevant, comment on capacity and appropriate systems to introduce multiple vaccines. Also describe how the country will mitigate any programmatic and financial risks associated with multiple introductions.

Explain how the requested support will be used to **improve the coverage and equity of routine immunisation.**

**Rationale for Gavi investments requested for HSS:**
Development of Section 6 involved an intensive, inclusive and iterative strategic planning process to ensure the requested investment is based on solid theory of change logic which strategically and directly aligns the actual situation and challenges being addressed. We interrogated our own logic, ensuring objectives responded to our priority requirements, and would be achieved through the selected strategies (interventions).The elaboration process included methodology to ensure activities developed could effectively and practically deliver the selected strategies and objectives, ensuring a full alignment cycle to test the soundness of the inherent theory of change[41]. The rationale is also based on international guidance and Gavi programming guidance related to common challenges and the methodologies and approaches to most effectively address them.

**Synergies across Gavi support:**

- This PSR has built on experience gained implementing HSS1 and other Gavi grants (VIG and operational costs). In 2020, preparations for HPV vaccine inclusion into RI will begin; the PSR will support this activity, with particular synergies around gathering evidence for context-appropriate communication activities, strengthening the AEFI system and related communication.
- Gavi TCA is currently supporting immunisation module development for the DHIS2 – by 2021 this is expected to be operational.
- An unintended benefit of the PSR process has been that EPI and partners have gained a thorough, shared understanding of the programme and its vision for the PSR period, afforded through joint analysis of the cMYP, EVMA and CEA.

**Requested support will improve coverage and equity of RI** on a number of levels:

- **Supply chain:** investment in the iSC and rollout of the (current) CCEOP will impact availability of vaccines and vaccine supplies in rural areas to address inequities. The PELF warehousing and distribution plan (including outsourcing) is expected to improve efficiency and timeliness of vaccine and vaccine supply deliveries.
- **Programme management:** rationalised HIS and supervision, along with improved data and planning skills, will support EPI manage and prioritise activities according to coverage and equity principles. It will also support planning based on realistic resources (human, material and financial) which is responsive to incoming evidence, information and data.
- **Data:** the identification of priority districts allows EPI to improve equity nationally – contributing financially to the 2021 DHS will provide much needed immunisation coverage information. A particular focus is on harmonising RI systems, increasing their effectiveness and improving data quality. This, along with introduction of EIR, is expected to provide more reliable data and support embedding data analysis and use in planning and targeting of services

*[40] The duration of Gavi funding should be discussed in consultation with the Gavi Secretariat to align to the extent possible to a country's strategic period. For Measles Rubella the high-level plan with coherent and integrated measles and rubella disease control activities is expected to cover the next5 years, regardless of the duration of the national strategy.*
*[41] Notes from EPI Working Sessions 23rd - 25th July 2019 (Appendix 19) provides details.*

– thereby increasing coverage and equity. In addition, funding the INS and other institutions to support and implement EPI's research agenda as well as surveillance activities for VPD and coverage will enable EPI and partners to take decisions informed by data and evidence.

- **Service delivery:** rollout of REC will continue to focus on underserved and vulnerable populations in priority districts and is expected to be more efficient with EPI managing related finances and integration within supervision HIS. A new approach to implementing the RED/REC strategy is being piloted with partner support in three provinces; this is expected to ensure more children are reached by improving the microplanning process, implementing it at health facility level and involving community members. The approach includes strengthening supportive supervision and use of information to monitor progress and for problem-solving. Districts will increase community involvement in planning and implementation and tailoring of services to their needs. This PSR will also support recruitment in priority districts to fill gaps in vaccination health workers in addition to providing incentives to motivate existing vaccination staff to work in the periphery, increasing access to and availability of services. A focus on building health worker performance and skills through improved methodologies for adult learning and continued investment in improving health worker interpersonal communication skills will support demand generation at health facilities. Improved, planning of services – from health facility workflow to outreach (including community involvement in planning) – orientated by purposeful integration with other services, is expected to lead to efficiency gains and increased coverage, reducing dropouts and MOV.
- **Communication and demand generation:** evidence gathered in 2020 and through implementation of the EPI research agenda, will inform community engagement activities and targeted messages to build knowledge and understanding on immunisation. A number of programmes (HIV, MCH etc.) have been developing new platforms/approaches to engaging with communities and EPI will work to coordinate and integrate with these to support broader systemic change as well as more focussed and coordinated community level efforts[42]. This includes the use of technology and tailored, human-centred design interventions to address inequities and gender barriers will be prioritised.

*[42] Community platforms include initiatives such as the APE (community health worker), the model family (Appendix 28 page 44), Guidelines for engaging men in health care (Appendix 33 page 34) etc.*

## 5.2. Alignment

**How does Gavi support align with the country's national health and immunisation strategies including multi-year plans (e.g. Health Sector Plan, cMYP)?**

- Explicitly address how Gavi support will complement, both financially and programmatically, the achievement of objectives set out in the most recent strategic multi-year plan (e.g. cMYP).
- Given the immunisation strategies proposed in this PSR, explain and show how these will contribute to the implementation of the national health strategy and priorities, including the country's approach to primary health care and universal health care, or if there are gaps, describe what needs to be done to address these.
- Describe the extent to which Gavi's support proposed in this PSR (in areas such as data, supply chain, etc.) will be implemented through national routine systems and processes or explain the steps that are being taken to achieve integration.

**How Gavi support will complement achievement of cMYP objectives:**

The cMYP 2020-2024 was developed in parallel with this PSR process; the draft fed into joint strategic planning working sessions (July 2019) and the PSR in-country workshop (August 2019). Participants undertook exercises to analyse the draft cMYP content, adding, enhancing and prioritising objectives, strategies and activities to test the strategic logic and build consensus on what would most effectively and sustainably support achievement of coverage and equity goals. Results of the PSR strategic dialogue and elaboration of Section 6 will now inform an updated and improved version of the cMYP.

**How proposed strategies will contribute to national health strategy and priorities:**

The National Health Strategy (PESS) 2015-2019 (extended to 2023) establishes the MoH vision for gradual implementation of universal health coverage in an increasingly decentralised system. Mozambique's GFF investment case reflects both the SDGs and PESS priorities and includes an immunisation component, with FIC as an indicator.

MoH commitment to the PHC agenda includes a specific department to coordinate PHC activities. Vaccination is a priority intervention and key strategy to reducing high child mortality in live births in Mozambique. PESS immunisation strategies and indicators are central to measuring achievement of national PHC goals. Specific immunisation indicators include percentage of FIC (for access and uptake of services), DTP3 coverage (for improved child health) and dropout rate (for efficiency and effectiveness). This PSR directly contributes to achieving these indicators and, through support to the 2021 DHS, will provide an updated measure of progress. The exercise to correct denominator/numerators for administrative coverage measurement will improve reliability and confidence in these data and is of wider benefit to the health system.

**How Gavi support will be implemented through national routine systems / steps to achieve integration:**

In this PSR, EPI will build on planned TCA for 2019/20 to map and analyse existing HIS used by EPI and the MoH in order to rationalise systems, ensuring a structured approach to assessing usefulness and use in decision-making at different levels.

Integration of EPI's SELV with CMAM's SIGLUS and DHIS2 has initiated. Integration with DHIS2 will align with broader, evolving MoH streamlining. EPI will coordinate within MoH to ensure inclusion / alignment of immunisation. Gavi support to improved data quality will improve reliability of administrative data.

The PSR commits to supporting CMAM's role, gradually integrating the iSC and passing responsibility to CMAM as PELF warehouse and distribution reforms are rolled out.

## 5.3. Coordination

**What steps were taken to ensure complementarity, coherence and technical soundness of Gavi's support across government and stakeholders?**

- What role was played by the national coordination forum (ICC, HSCC or equivalent) and the national immunisation technical advisory group (NITAG) in the development of the PSR?

Fundamental to this PSR is the focus on ensuring complementarity, coherence and technical soundness of its objectives and interventions. The process involved extensive consultation and involvement of government and stakeholders[43] to identify areas for integration, alignment and complementarity and to ensure coordinated efforts across government and other stakeholders. In particular:

- The PSR prioritises support to PELF rollout through joint, coordinated planning e.g. aligning procurement of cold rooms with the extension of the intermediate warehouse network, outsourcing vaccine distribution and CCE maintenance (as well as contract management skills building) and phased integration of EPI logistics functions within CMAM.
- Harmonising and streamlining different EPI HIS, including integrating SELV with DHIS2, feed into broader MoH efforts to strategically guide this area and ensure DHIS2 meets current and emerging requirements.

[43] *PSR Situation Analysis, Final Version, July 2019, p44-45, Annexes B and C illustrate the extensive consultations realized in development of this document*

- Global Fund (GF), Global Financing Facility (GFF) and main health sector donors such as USA, UK, Canada and Netherlands were consulted during the PSR development to identify synergies.

**ICC and NITAG role in the PSR development:**

Mozambique's ICC has struggled to fulfil its expected governance role despite efforts[44]. Representatives of ICC members have been involved in the PSR development. In addition, the PSR project team, formed to oversee the application development, was headed by the Director of Public Health and included the Director of Planning and Cooperation as well as representatives from other MoH departments, WHO, UNICEF and Gavi[45]. The ICC has endorsed this application.

The Committee of Experts on Immunisation (COPI in Portuguese, equivalent to NITAG), advised EPI to gather evidence on possible new vaccines (see section 5.5) for inclusion in the routine vaccine schedule. COPI will analyse this evidence to advise MoH. A member of COPI was involved in the PSR development.

## 5.4. Harmonisation and synergies with other Global Health Initiatives

**How is the requested support complementary and creating synergies with the support of other Global Health Initiatives, such as the Global Fund and Global Financing Facility (GFF)?**

**Complementarity and synergies with GF and GFF support:**

Complementarity with GFF's investment case includes:

- Shared urgency on improving administrative data reliability.
- Support to national PELF rollout; GFF is analysing existing last mile distribution approaches in order to propose a national approach.
- GFF is introducing quality scorecards in health facilities and hospitals, with scores shared from district to central level. EPI will look for opportunities for integration of immunisation requirements and assess supporting rollout of the system.
- Availability of funding to support outreach.

Complementarity with GF investment in HSS includes:

- Support to PELF rollout through rehabilitation of intermediate warehouses to include storage and management of EPI and other vaccines.
- Support to outsourcing medicines distribution. The involvement of a number of core stakeholders in this area reinforces the relevance of EPI synergy with this area.
- GF and Gavi are both supporting the inclusion of additional modules in the DHIS2.
- Development of a CHW supervision and information system – preceded by analysis of HIS across the health system. This will support EPI efforts to harmonise and integrate HIS and offers opportunities to contribute to an eventual CHW supervision and information system.
- Through WHO, GF is strengthening pharmacovigilance.
- Current reform of the GF Country Coordinating Mechanism bylaws, membership and policies may offer an opportunity to integrate ICC functions. Note, reforms to the current structure of MoH/health partner coordination and governance mechanism will influence where the ICC function may reside.
- Providing training to vaccinators on applying a rights-based approach to service delivery (GF is funding 1,000+ health workers). This effort aligns with MoH's strategy for service quality and humanisation (Appendix 23) and complements EPI training on interpersonal communication.

## 5.5. Financial Sustainability

**Discuss the financing-related implications of the new vaccine support requested**, particularly how the government intends to fund the additional co-financing obligations.

This PSR does not request new vaccine support. Based on COPI recommendations, MoH would like to introduce Hepatitis B at birth during the period of this PSR and will conduct research so COPI can advise on introduction of TCV into the RI schedule.

Following the COPI decision, based on the evidence gathered, MoH will assess co-financing obligations. However, it is expected the GoM would continue its current policy of guaranteeing co-financing obligations within a specific budget line in the State Budget. The GoM will sustain and continue to fund other system-wide incremental requirements resulting from the possible introduction of additional vaccines. It is to be noted that to date the GoM has never defaulted on its co-financing obligations despite a difficult economic situation experienced in recent years.

[44] *PSR Situation Analysis, Final Version, July 2019, p14*

[45] *Refer to: Gavi PSR Process Plan of Work draft, April – Sept 2019, (English version); page*

# 6. Programmatic description of Gavi supported HSS investments

## 6.1. Objectives and priority activities for Gavi financial support

Given the target geographic and population groups identified and key national and sub-national bottlenecks determined in **Section B**, this section asks you to strategically consider these findings, and develop the **3-5 key objectives and specific activities within these to be supported by Gavi and the rationale for choosing these**. The link between data and evidence and proposed interventions must be clear. **The activities listed here are to be costed in Gavi's budgeting and planning template.**

The activities proposed must contribute to sustainable improvements in coverage and equity. For **Programming Guidance** for targeting interventions in each of Gavi's strategic focus areas (i) leadership, management and coordination, (ii) supply chain, (iii) data (iv) demand promotion, and (v) immunisation financing, please see the Gavi website here: http://www.gavi.org/support/process/apply/hss/
*To apply for CCEOP support, include CCEOP as one of the activities under a supply chain objective. For countries in the accelerated transition stage, dedicate one objective to those activities specific to appropriate transition planning.*

| ***Template for Supply Chain (Applicable even if country is not applying for CCEOP):*** | |
|---|---|
| ***Objective 1:*** | Improved and Integrated Vaccine Supply, Quality & Logistics:<br>**Ensure functioning of the supply chain so 98% of vaccines and vaccine supplies are available at all levels on time and in sufficient quantity and quality to achieve coverage and equity goals, focusing on availability of vaccines, integration with CMAM's PELF, CC optimisation and electronic logistics management information system (e-LMIS).** |
| **Timeframe:** | 2021-2025 |
| **Priority geographies/population groups or constraint(s) to coverage and/or equity** to be addressed by the objective:<br>→ ***List to match those identified in Section B*** | Priority geographies: countrywide, with a focus on the North and Central regions – Nampula, Zambézia, Tete, Manica, Sofala provinces and 63 priority districts.<br><br>Priority population groups: under- and un-immunised children in the targeted geographies, in both rural and urban settings.<br><br>**1. Availability of vaccines & integration – constraints**<br>a) The EVMIP should be used consistently as the principle tool to monitor, report progress and adaptively plan within the Programme and all relevant coordination mechanisms.<br>b) Central and northern regional warehouses lack adequate CC capacity, constraining the ability to store vaccines in the required conditions.<br>c) Insufficient funds constrain the Programme's ability to outsource vaccine transport to achieve efficiencies.<br>d) The Programme's ability to achieve efficiencies in distribution through the use of third parties is constrained by lack of skills to engage and manage performance of service providers and funding.<br>e) Frequent staff rotation, insufficient quantity and insufficient technical ability of logisticians constrains the ability to achieve EVM.<br>f) Limited visibility of actual demand, consumption and stock levels produces unreliable forecasting at subnational level.<br>g) The strategy and SOPs for immunisation waste management require review both as MoH increases the number of available incinerators and to monitor practices in health facilities using open pits for disposal of vials, syringes etc.<br>**2. Cold Chain – constraints**<br>a) Insufficient RTM and capacity / skills to monitor and respond affects CCE performance leading to poor vaccine management and uncertainty around potency of vaccines.<br>b) Frequent staff rotation, insufficient quantity and insufficient technical ability of logisticians constrains the ability to effectively, efficiently and sustainably manage SC operations. |

| | |
|---|---|
| | c) CCE maintenance is constrained by resources and capacity, leading to poor vaccine storage and management.<br>d) Transportation is constrained by resources and capacity, leading to inefficiencies in vaccine products (e.g. surpluses or stockouts) coupled with poor coverage/inequity in hard-to-reach areas.<br>e) There is no strategy or SOPs to guide disposal of obsolete CCE to minimise environmental impact; this is particularly required for implementation of the CCEOP.<br>**3. E-LMIS - constraints**<br>a) Coordination and the quality of communication between decision-makers in EPI and CMAM for integration of vaccine logistics, as well as LMIS, has improved and it has been agreed CMAM will assume responsibility for vaccine logistics from EPI. There remains a need to accelerate the steps required for this integration.<br>b) Lack of a single electronic tool for vaccine and medicines stock / logistics management at all levels, constrains availability of data and information, information flow and decision-making related to the SC.<br>c) SELV (not currently used in Inhambane or Nampula provinces) is expected to be scaled up nationally by end 2021. By December 2019 the OpenLMIS upgrade to version 3 is expected to be completed; currently funding is required for its rollout (training etc.). |

**Describe the tailored intervention to address the particular supply chain constraints** and provide evidence of efficacy of the intervention:

1. **Availability of vaccines & integration: Guarantee efficient and effective management of vaccines and vaccine supplies at all levels i.e. ensure availability of vaccines and vaccine supplies at all levels. In particular, this includes optimising transport systems (outsourcing) and integration with CMAM and the Pharmaceutical Logistics Plan (PELF).**
   a) Integrate with PELF in different areas: transport; HR (ToR and capacity building); warehouse; LMIS; CCE maintenance; procurement, planning and forecasting; financing; CCE (cold rooms at national and provincial level – intermediate warehouses); mapping of CC (SOPs and capacity building). Aligning SOPs and processes within the scope of CMAM-led outsourcing and related assessments.
   b) Guarantee implementation of the prioritised EVMIP 2019 recommendations, with a focus on the five priority provinces – recommendations have already been reviewed and prioritised by the NLWG and EPI has appointed a central level focal point to monitor progress.
   c) Adopt, fund and implement optimised transport solutions for distribution of vaccines and vaccine supplies through integration in the medicines SC (as per PELF) and outsourcing of transport services.
2. **Cold Chain: Guarantee the functionality of the CC at all levels of the health system, in tandem with the continued expansion of vaccination services and operationalisation of the PELF intermediate and regional warehouses i.e. CC, with a focus on piloting outsourced maintenance to health facility level (last mile), building capacity of provincial teams for CC maintenance, and the use of remote temperature monitoring and dashboards for monitoring CCE performance to the last mile. Planned interventions complement the recently awarded CCEOP through a focus on preventative maintenance, embedding of SOPs, support supervision (for improving skills) and in-service training which will build upon the initial training provided on installation of the CCE.**
   a) Develop and implement a plan for CC rehabilitation, maintenance and expansion to be adopted by provinces.
   b) Strengthen capacity (HR and tools) for the regular and timely maintenance and performance monitoring of the CC using support supervision and in-service training for improved results and cost-benefit.
   c) Expand and rehabilitate the CC at all levels in line with the CCEOP, guaranteeing regular updates to the ODP.
   d) Equip the EPI regional warehouses (Sofala and Nampula) with new CCE to act as the vaccine point of entry and distribution in these regions, thereby reducing transport costs and time.
   e) Outsource CCE maintenance at central, DPS and intermediary warehouse cold rooms.
   f) Build the local market to promote involvement of the private sector in last mile CC transport and maintenance i.e. to health facility level in selected districts/provinces (innovation).
3. **E-LMIS: Ensure the use of integrated (unified) electronic tools (LMIS) for the management of vaccines and vaccine supplies, ensuring interoperability with other key systems such as SIGLUS and DHIS2. i.e. e-LMIS, including the updating, rollout and integration of the SELV national vaccine stock management system integrated into SIGLUS and DHIS2. This will create a single vaccine logistics management tool for use by EPI and CMAM. Currently a strategy to orientate MoH on how to holistically strengthen the information system (data policies, workforce, technical know-how, data analytics, and software) is being drafted by CMAM, Village Reach and PSM. Once approved, EPI will adopt this strategy.**
   a) Ensure effective coordination and quality communications to enable planned integration of EPI within implementation of PELF. A Stakeholders Integration Committee (see Appendix 26 for ToR) is overseeing this exercise and workshops (Appendix 27) is planned for October. 2019 – the outcome of this workshop will act as a tool to advocate for an MoH digital strategy.
   b) National rollout of the integrated electronic vaccine supplies stock management tool i.e. SELV (into SIGLUS and DHIS2) at all levels (innovation).
   c) Continuous training and in-service technical assistance in the use of electronic tools at all levels (e-LMIS, RTM, electronic dashboard), guaranteeing inclusion of e-LMIS tool in all initial (pre-service) training of health personnel

involved in immunisation (innovation); streamlining of data input and use of interventions will be included in the DQIP for inclusion in the curriculum.

d) Continue to rollout use of the EPI dashboard to allow efficient stock management at different levels, allow triangulation of SC and programmatic data in support of decision-making (action).

**List priority activities for each of the five supply chain fundamentals:**

*Describe the activities related to supply chain fundamentals – for those planned in years1-2 and those planned in the outer years (3-5).*

→ ***These activities should be linked to the latest EVM Improvement Plan and be reflected in the operational workplan & budget***

## 1. Continuous Improvement

- ***First two years (Years 1-2)***

a) Align, integrate and update existing information systems (LMIS, RTM, dashboard etc.); adjusting as necessary to an eventual MoH digital health strategy.
b) Create operational capacity at the regional warehouses in Sofala and Nampula to act as the vaccine entry and distribution points for these two regions.
c) Ensure outsourcing of vaccine distribution services from the intermediate/provincial warehouses in Sofala and Nampula to provinces/health facilities, prioritising distribution to health facilities.
d) Train private companies in vaccine handling and data collection during distribution.
e) Procure vehicles for distribution of vaccines in the five priority provinces, in line with CMAM PELF rollout plans[46].
f) Ensure direct delivery from DPS/intermediate warehouses to health facility level in order to guarantee full stock availability at service delivery level – this will be monitored through SELV at central and provincial level.
g) Revitalise and expand the CC – supporting PELF plans for regional and intermediate warehousing.
h) Ensure maintenance of CCE at all levels.
i) Pilot outsourcing of last mile CC maintenance (in one of the five priority provinces).
j) Install and monitor RTM to the last mile in all facilities in the five priority provinces.

- ***Outer years (Years 3-5)***

k) Achieve full integration of vaccine logistics into CMAM responsibilities.
l) Build on lessons from piloted outsourcing of last mile CC maintenance – adapt and/or expand to remaining priority provinces.
m) Continue to revitalise and expand the CC – supporting PELF plans for regional and intermediate warehousing.
n) Ensure maintenance of CCE at all levels.

## 2. Management/Leadership

- ***First two years (Years 1-2)***

a) Continually improve capability in data analysis and use for decision-making (EPI dashboard / VAN) by core EPI coordination fora (ICC, NLWG, EPI Technical Group).
b) Contract/allocate from CMAM staff a technical resource to provide strategic and management support to central level vaccine logistics.
c) Implement learning from STEP (2019), focusing on priority provinces and districts and the design and implementation of a specific performance monitoring framework to ensure ongoing support and continuous improvement[47].
d) Build the management and leadership capability of provincial EPI warehouse managers.
e) Build the capability of maintenance technicians in CCE, including performance monitoring.
f) Build EPI central, provincial and district manager capability to proactively use data, embedding use of VAN and the EPI dashboard (including RTM) for decision-making and action (focus on five priority provinces and priority districts); this includes promotion of the EPI Champions League.
g) Build capability to design, manage and monitor third party contracts effectively to ensure good service provision.
h) Include use of the e-LMIS for vaccine management in all initial training modules.
i) Expand and strengthen the Provincial Logistics Working Groups.
j) Continue to build capability of EPI at national and provincial, embedding the use of the EPI dashboard.
k) Continue to build capability of EPI at district and service delivery level on basic EPI principles.

- ***Outer years (Years 3-5)***

l)

## 3. Data for Management

- ***First two years (Years 1-2)***

a) Rollout integrated and inter-operable LMIS for stock management at all levels, with a focus on ensuring functionality and documenting lessons learned in the five priority provinces.
b) Use data to address stock management and other SC issues.

*[46] Vehicles will only be procured where outsourcing has not been established; outsourcing of distribution (managed by CMAM) is subject to gradual phase-in across the country as per the PELF (Appendix 35, pages 19-20 and 35).*

*[47] The intention is to ensure STEP learning and relevant training components are adapted and adopted for use in national logistics training modules*

c) Strengthen the use of the EPI dashboard, including RTM, for decision-making, with a particular focus on building strong capability in the five priority provinces.
d) Update and train the relevant staff in the use of e-LMIS (SELV) for vaccine stock management integrated into SIGLUS and into the CMAM management information system.
e) Monitor and provide continuous technical assistance to all DPS in the use of VAN / DQS and e-LMIS, building capability for data visibility and to inform decision-making.
f) Procure 800 tablets for use of e-LMIS and EIR at health facility level and support recurrent costs (data etc.).
g) Support the national health observatory in informing policy decision-making using collected data.

- *Outer years (Years 3-5)*

**4. Cold Chain Equipment (including maintenance)**

- How will the country ensure that aspects of maintaining the cold chain are addressed (e.g. preventive and corrective maintenance, monitoring functionality, technicians, financing for maintenance, spare part procurement etc.)?
- What is the frequency of preventative and corrective maintenance that the country commits to (supported by partners)?
- How will the country monitor the completion of preventive and corrective maintenance?
- Indicate the sources of funding for planned maintenance activities
- How will the country dispose of obsolete and irreparable equipment replaced by new equipment?

- *First two years (Years 1-2)*

a) Implement the CCEOP ODP focusing on meeting requirements of health facilities and warehouses in priority provinces and districts.
b) Acquire CCE for new health facilities and intermediate warehouses, aligned with the PELF upgrade and CCE rehabilitation plan.
c) Update and transfer the CCE inventory into an appropriate management system to allow regular visibility of status, functionality, quantity, requirements, maintenance etc.
d) Update and disseminate the CCE Maintenance Plan to all DPS.
e) Define a strategy and SOPs for the management of immunisation solid waste and obsolete CCE.
f) Outsource CC maintenance at central and provincial level and for regional and intermediate warehouse cold rooms.
g) Install RTM in all health facility fridges (last mile) to inform decisions on maintenance and plan required procurements e.g. for spare parts etc.
h) Pilot outsourcing of CC maintenance to health facility level (last mile) in one priority province.

- *Outer years (Years 3-5)*

i) If Gavi opens new CCEOP grant applications, assess the relevance of applying for a new grant.
j) Inform decisions related to CCE maintenance and spare part requirements using the EPI dashboard, automated inventory and RTM.

**5. System design (all countries should answer)** *If the country is applying for CCEOP, also indicate how system design considerations impacted the choice of CCE for which the CCEOP support is requested.*

- *First two years (Years 1-2)*

a) Create a CCE automated inventory (performed and updated regularly)
b) Install RTM for remote monitoring, maintenance and decision-making

- *Outer years (Years 3-5)*

c) Embed the CCE automated inventory

**Describe how the sustainability of these activities will be ensured in the future:**

To ensure sustainability and based on the principles of continuous improvement and institutional strengthening, all immunisation and supply chain improvements are being integrated into relevant national strategies, reforms and systems i.e. PELF, DHIS2, National Health Observatory.

**List indicators to monitor progress toward objective:**

→ ***Reflect these in the Grant Performance Framework***

If requesting CCEOP support, include mandatory indicators (please refer to the programming guidance, here: http://www.gavi.org/support/process/apply/hss/)

**Please note, reporting frequency is annual for all indicators.**

| Indicator | Definition | Data Source | Baseline (2018) | Target Year | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | 2021 | 2022 | 2023 | 2024 | 2025 |
| | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Percent of districts with at least 90% functional cold chain equipment | Percent of districts with at least 90% functional cold chain equipment | Administrative LMIS data | 85% | 87 % | 89 % | 91 % | 95 % | 95 % |
| Percent orders delivered on-time and in-full (OTIF) | Percent of orders delivered on-time and in-full (OTIF) from first level to the second level of supply chain | Administrative LMIS data | 48% | 50 % | 55 % | 60 % | 70 % | 70 % |

**Detail TA needs required to support this activity and** clarify how much is not covered by PEF/TCA.

All TA listed is expected to be funded via the HSS2 unless identified as *(TCA supported)*

1. **Availability of vaccines & integration**
   a) Support the NLWG to manage, oversee and monitor progress of the EVMIP and all supply chain-related activities, establishing an appropriate monitoring system in Year 1 e.g. maturity model. *(TCA supported)* [Years 1-2]
   b) Provide assistance to central and provincial level related to managing outsourced cold room maintenance post-handover. [Years 1-3]
   c) Update, maintain and monitor implementation of the EVMIP monitoring system (established in 1a). [Years 1-5]
   d) Build capability to design, manage and monitor third party contracts effectively to ensure good service provision. *(TCA supported)* [Years 1-2]
   e) Develop a supply and demand management process which complements the national forecast to allow proactive identification of stock risky situations (wastage, excess and shortages) to enhance vaccine management and availability at central level. *(TCA supported)* [Year 1]
2. **Cold Chain**
   a) Implement pilot in one priority province for outsourcing last mile CC maintenance. Evaluate pilot and develop appropriate scale-up strategy and plan based on pilot results. *(TCA supported)* [Years 1-2]
   b) Develop a strategy and SOPs for management of solid immunisation waste and obsolete CCE. *(TCA supported)* [Year 1]
3. **E-LMIS**
   a) Support to embed analysis and use of data for decision-making using existing tools e.g. automated dashboards (EPI dashboard, RTM dashboard, automated inventory etc.). *(TCA supported)* [Year 1]
   b) Monitor and provide continuous TA to all DPS, building capability and autonomy in the use of VAN and e-LMIS. *(TCA supported)* [Years 1-5]
   c) Embed analysis capability and use of data and dashboards at district level in the five priority provinces. *(TCA supported)* [Years 1-2]
   d) Implement research on data quality and support continuous improvement of data (in line with research agenda – Objective 2). *(TCA supported)* [Years 1-2]
   e) Support rollout of the integrated LMIS (SELV/SIGLUS/DHIS2). *(TCA supported)* [Years 1-2]
   f) Develop a mobile application for maintenance and other SOPs. *(TCA supported)* [Years 1-2]

| **How much HSS and CCEOP budget is allocated to this objective**<br>→ ***Insert here same figures as in table 2.4. and also reflect these in the budget and planning template*** | **Years 1-2** | *US$ 7,350,689* |
|---|---|---|
| | **Years 3-5** | *US$ 6,259,650* |

**Please also provide details on the key cost drivers, inputs and assumptions required for the main activities of this objective, here:**

Key cost driver details

| Activity | Inputs | Assumptions |
|---|---|---|
| 1.1.f Ensure direct delivery from DPS/intermediate warehouses to health facility level in order to guarantee full stock availability at service delivery level – this will be monitored through SELV at central and provincial level | Transport costs<br>Per diems for stock distribution staff | Integration will be progressive and full integration of the iSC into CMAM's medicines supply chain is expected in 2022 in all provinces of the country. |
| 1.2.d, e & f - Build EPI central, provincial and district manager capability to proactively use data, embedding use of VAN | Two training sessions per year for five years – total of 85 people having 5 days of training during this period.<br>Per diems for a total of 903 days/year | Includes RTM monitoring, DQS and VAN training at provincial and district level. |

| | | |
|---|---|---|
| and the EPI dashboard (including RTM) for decision-making and action (focus on five priority provinces and priority districts); this includes promotion of the EPI Champions League | Total of 77 air tickets/year | TA (funded by HSS) for the 5 years of the PSR required, equivalent of one training per year. Training is once a year for provincial and once a year for district level staff<br><br>Involves travel of EPI staff by land and air |
| 1.3.a - Rollout integrated and inter-operable LMIS for stock management at all levels, with a focus on ensuring functionality and documenting lessons learned in the five priority provinces. | Nationwide: Trainings: 10 (1 each DPS)<br>Participants: 249 (PAV central, DPS and district)<br>Airtime<br>TA to DPS and district level<br>TA to HF implementing SELV (5 priority provinces)<br>TCA for 3-5 years<br>Priority provinces:<br>Training: 5 (1 each DPS)<br>Days: 2 (each DPS)<br>Participants: 249 (PAV central, DPS and district) - 50 por provincia<br>Airtime<br>TA to DPS and district<br>TA to HF implementing SELV<br>TCA for 3-5 years | Nationwide rollout of SELV V3.0<br>Training of EPI personnel from priority provinces and districts<br>TA and TCA required |
| 1.4.f - f) Outsource CC maintenance at central and provincial level and for regional and intermediate warehouse cold rooms | CC includes: Generator at $88.000/year; cold rooms and spare parts at 225.000 USD/year (includes corrective and preventive maintenance); supervision: 8.000 USD/year | Private sector contracts at central and provincial level, including 1 intermediate warehouse (Vilankulos)<br>From 2025 CCE maintenance outsourcing for regional and intermediate warehouses is to be CMAM's responsibility. |

| | |
|---|---|
| ***Objective 2:*** | Focused and Effective EPI Programme Management:<br>**Establish effective leadership and management based on knowledge, skills, evidence and fully integrated coordination to deliver the Programme's prioritised strategic framework i.e. establish robust evidence-based programme management that uses an integrated approach to planning and coordination, which has streamlined HIS delivering reliable data and information for decision-making, enabling accurate targeting of coverage and equity priorities, ensuring quality service delivery, access to underserved communities and maximising uptake of immunisation services nationwide.** |
| **Timeframe:** | 2021-2025 |
| **Priority geographies/ population groups or constraint(s) to coverage and/or equity** to be addressed by the objective:<br>→ ***List to match those identified in Section B*** | Priority geographies: **Countrywide, with a focus on the five priority provinces: Nampula, Zambézia, Tete, Manica, Sofala and the 63 prioritised districts.**<br>**1. Programme management constraints:**<br>a) Low planning capability at health facilities / districts constrains delivery of the programme.<br>b) Inaccuracies in target group definition negatively impact the Programme's ability to plan effectively.<br>c) Programme decision-making is severely constrained from lack of harmonisation as well as inconsistent use of HIS at central and subnational levels.<br>d) Lack of effective programme governance (ICC function) leaves a gap in the strategic guidance necessary to support leadership of EPI.<br>e) Inefficiencies in financial planning, management and reporting are one of the factors constraining the Programme's ability to reach coverage and equity goals, along with the ability to effectively mobilise the required resources.<br>**2. Constraints re data, information management systems, tools & skills**<br>a) Programme decision-making is severely constrained due to unreliable administrative data and lack of harmonisation as well as inconsistent use of data (VPD / RI) and management information systems, tools and varying skills levels.<br>b) Inaccuracies in target group definition negatively impact the Programme's ability to plan effectively.<br>c) Lack of up-to-date, independent coverage data is a severe constraint to the Programme's ability to assess progress and address coverage and equity through responsive and targeted planning.<br>d) Lack of research agenda to ensure information gaps are filled.<br>e) Current surveillance sentinel sites are limited in geographic scope – there is a requirement to expand, in particular to ensure presence in priority provinces.<br>f) There have been long delays in accessing surveillance funds negatively impacting sample transport, classification etc. There is also a need to improve DPS awareness of the importance of allocating resources to surveillance activities..<br>**3. Human resourcing constraints**<br>a) Human resource capacity for immunisation in relation to required numbers, allocation and distribution is considered inadequate to successfully deliver the programme.<br>b) Knowledge, skills, tools and performance management of health workers, particularly in areas of low coverage, constrains the Programme's ability to deliver RI services and negatively impacts demand.<br>**c)** There is an acute shortage of HR for communication and demand generation at district level. Currently there is only one person, responsible for community engagement and health promotion for immunisation as well as other priority areas e.g. malaria, diarrhoea, cholera, HIV, TB, etc. |

**Describe the tailored interventions to address this constraint** and provide evidence of efficacy of the intervention. Describe the critical national capacities that will be established or strengthened as a result of this investment.

1. **Strengthen overall leadership, programme management and governance through improving EPI's planning, coordination and monitoring processes, engaging and involving all actors appropriately and effectively at all levels:**
   a) Have an EPI policy defined and disseminated by 2022 and establish leadership based on driving and guiding programme strategic priorities to deliver the cMYP.
   b) Ensure programme management structures are based on well-functioning coordination mechanisms at all levels, supported by timely and inclusive planning processes.
   c) Ensure programme decision-making, response and prioritisation is based on a solid foundation of evidence from monitoring, supervision, and relevant and up-to-date programme information.
   d) Engage programme stakeholders to proactively advocate for a strengthened EPI mandate and resourcing.
   e) Establish a robust governance mechanism which oversees and provides strategic guidance to the programme.

f) Strengthen overall programme financial planning, management and reporting, focusing on efficiency, quality and resource mobilisation.

- **Directly addressing overall programme management structures and capabilities ensures prioritisation and targeting decisions are based on the best evidence as well as the principles of coverage and equity, while enabling optimisation of opportunities for integration within PHC services at national, provincial, district and health facility level.**
- **Delivering this objective will result in strengthened national, provincial and district EPI capacity in planning, prioritisation and targeting based on evidence and enabled and supported by improved overall programme (including financial) management, leadership and governance.**

**2. Develop and implement an information management strategy and plan to increase availability, utilisation and quality of data for use by the Programme and EPI managers at all levels. This exercise will ensure the integration and harmonisation of data management systems and tools for VPD and RI. A central part of this information strategy is to generate evidence, as aligned with EPI's prioritised strategic framework, to effectively inform policy and programming. This includes directly supporting DHS implementation and introduction of EIR for improved data quality.**

a) Develop and implement a prioritised data and management information strategy and plan (including a research agenda), aligned with EPI goals and objectives and MoH reforms, to ensure accurate and timely evidence is available for decision making and the timely availability of quality data to enable effective planning and response based on reliable evidence.
b) Scale-up introduction of EIR based on documented lessons learned from pilot (2020).
c) Identify, plan and implement opportunities to achieve integration, interoperability and harmonisation of all relevant HIS, tools and skills to support delivery of the programme.
d) Directly support implementation of DHS 2021, advocating for collection of district-level data in priority districts.
e) Data analysis and use in decision-making is inconsistent at provincial and district level despite the introduction of tools e.g. EPI dashboard, VAN etc.; this practice requires embedding alongside improved data availability and quality.
f) Strengthen surveillance quality for VPD at all levels through expansion of sentinel sites, particularly in priority provinces.
g) Ensure adequate funds are allocated for surveillance at provincial level to enable timely quarterly disbursements for effective delivery of surveillance activities. Funds will be used to allow regular implementation of surveillance activities, procurement of dedicated cold boxes, freezers and fridges and timely transport of samples etc.

- **Improving overall data and HIS, as well as addressing critical gaps and bottlenecks, ensures these will answer the key questions that need to be addressed to guide the Programme's actions. Prioritisation and targeting decisions, based on the best data and evidence, using an integrated systems approach, provides the best opportunity for the Programme to reach its coverage and equity goals.**
- **Delivering this objective will result in strong, reliable, streamlined and consistently used data and information systems and tools, and required skills, which guide programme decision-making and actions.**

**3. Enable delivery of effective immunisation services at all levels through developing and implementing a prioritised and integrated plan to strengthen capacity of health workers, advocating for strategic distribution and allocation of vaccination personnel, as well as significant improvements in performance management processes.**

a) Develop and implement a prioritised, integrated and aligned EPI HR plan to strengthen capacity of health workers, including a comprehensive training plan focused on vaccine management, planning, data analysis and use, and vaccine logistics and SC.
b) Enable implementation of the EPI HR plan through developing a set of training modules, SOPs, vaccinator roles and responsibilities and trainer profiles.
c) Improve delivery of EPI services through advocating for optimised allocation and distribution of immunisation health workers at subnational level.
d) Strengthen the ability of EPI to achieve its mission through targeted, high-quality technical assistance and skills transfer from partners.
e) Continue to fund the following key roles through HSS: one National and three Regional HSS Advisors, one Financial and one Administrative officer at central level; and one EPI Warehouse Manager position within CMAM.
f) Following analysis in 2019/20, HSS2 will be used to create a number of new positions and/or an incentive package for existing vaccination health workers to improve immunisation service offering in remote rural health facilities. Introduction of incentives will align with MoH strategy.

- **Having the right numbers of immunisation professionals with the required skills and in the right places is fundamental to increasing access to immunisation services.**
- **Delivering this objective will build national human resources for health capacity at all levels with particular focus on critical skills and priority geographies.**

**List approximately five (5) specific activities to be undertaken to achieve this objective**:

→ ***Reflect these activities in the budget & planning template***

**1. Programme management**

a) Develop central, provincial and district capabilities for effective planning, ensuring effective coordination and cohesion between national coordination mechanisms and provincial structures with plans directly informed by district needs, evidence and priorities.

b) Develop and maintain a financial management improvement plan of action, collaborating with all key stakeholders (MoH and donors – GF, GFF, Gavi) to resolve systemic issues constraining delivery of the Programme.

c) Evaluate an alternative central control and supervision mechanism (ICC) that can be adapted to the current mechanisms in place (e.g. DNSP coordination meetings, CCC, CCS etc.).

d) Develop an action plan to achieve the updated EPI policy, including an advocacy strategy to formalise the policy and strengthen the EPI mandate and resourcing.

e) Build a process to ensure the quality, strategic alignment and embedded ownership of the Programme's strategic and operational plans, establishing and implementing an effective monitoring and evaluation framework for the cMYP.

f) Implement the ToR for the EPI working groups and establish a clear communication flow chart for reporting and escalation.

g) Further strengthen EPI skills and management planning tools based on the processes and tools used to develop this PSR.

**2. Data, information management systems, tools & skills**

a) Develop and implement a prioritised data and management information strategy and plan, including a research agenda and actions to strengthen coordination between EPI, the Epidemiology Department and INS to improve the system for early detection and response to outbreaks e.g. cholera, meningitis, and AEFI
   - EPI plans to conduct research to inform programmatic decisions on the introduction of typhoid conjugate vaccine (TCV). This research has been commissioned by the COPI in 2019[48].
   - Urban immunisation diagnostic.
   - Research will also include design and implementation of a performance management system to support improved service delivery quality.

b) Establish sentinel sites in every province, with a focus on the five priority provinces.

c) Scale-up EIR in health facilities in the remaining four priority provinces, based on results of the pilot.

d) Embed practices of data analysis and use for decision-making (EPI dashboard / VAN) at all levels.

e) Ensure continued rollout and embed use of DQS in all districts, with a focus on priority districts.

f) Develop a component of data and information management tools, skills and SOPs for inclusion in the EPI training plan (component of the EPI HR plan).

g) Develop and implement a plan to build field and laboratory (at field, provincial and central level) capacity to detect and respond to risks, underperformance and outbreaks of VPD and related endemic diseases e.g. cholera, meningitis, rotavirus, measles and rubella, influenza as well as AEFI.

h) Advocate for inclusion of district-level data for priority districts in the 2021 DHS to enable better evidence[49].

i) Integrate evidence generated by EPI into the National Health Observatory, allowing secondary analysis and increasing EPI profile so as to influence / inform policy decisions.

**3. Human resources**

a) Develop and implement a prioritised, integrated and aligned EPI HR plan (HRH planning and management component as well as health worker performance management plan).

b) Develop a set of training modules, SOPs and profiles for vaccinator roles and responsibilities.

c) Develop guidelines to support advocacy for optimised allocation and distribution of immunisation health workers.

d) Develop and implement a process to assess EPI HR requirements, reviewing in line with expansion of immunisation services.

e) Develop (with the TCA working group) and implement the annual EPI TA plan (One TA plan) which includes funding and resource agreements with partners, including a component of monitoring and reporting on the effectiveness and value of all TA interventions.

f) Fund the following key roles through HSS: 1 national and 3 Regional HSS Advisors, 1 Administrator at central level; 1 Warehouse Manager position within CMAM; 1 national Communication & Demand Generation position at central level. In addition, surveillance activities will be strengthened through contracting of seven staff for meningitis, measles, rotavirus and influenza.

g) Based on analysis in 2019/20, create and fund a number of positions and/or an incentive package for existing vaccination health workers to improve immunisation service offering in remote and underserved health facilities.

*[48] COPI minutes (pending ratification) from meeting held on 5 July 2019*

*[49] See Appendix 25 for record of initial discussions*

**Update the GPF to propose indicators to monitor progress toward this objective:** These provide a means to assess achievement of intermediate results and activity implementation.

→ ***Reflect these in the Grant Performance Framework***

**Please note, reporting frequency is annual for all indicators.**

| Indicator | Definition | Data Source | Baseline (2018) | Target Year | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | 2021 | 2022 | 2023 | 2024 | 2025 |
| Verification factor | Verification factor for data on the third dose of pentavalent vaccine; comparison between health facility and district levels. Suggested range of acceptability is 90-100%, where <100% is over-reporting and >100% is underreporting. Verification can be done for different antigens and at various levels of the health system. | Administrative HMIS data | 120% | 115 % | 110 % | 105 % | 98 % | 98 % |
| Percent of districts that report DTP3 coverage >100% | Percent of districts that reported administrative data of DTP3 coverage greater than 100% | Annual data quality desk review of administrative data | 76% | 64 % | 54 % | 42 % | 30 % | 30 % |

**Technical Assistance:** List the anticipated TA needs and timelines required to support this objective and plans for securing it (e.g., Gavi HSS, PEF/TCA, other sources?)

All TA listed is expected to be funded via the HSS2 unless identified as *(TCA supported)*

1. **Programme management**
   a) Further strengthen EPI skills and management planning tools based on the processes and tools used to develop this PSR. *(TCA supported)* [Years 1-2]
   b) Develop and maintain a financial management improvement plan of action, collaborating with all key stakeholders (MoH and donors – GF, GFF, Gavi) to resolve systemic issues constraining delivery of the Programme. *(TCA supported)* [Years 1-2]
   c) Support the ICC to oversee PSR and cMYP implementation. [Years 1-5]
2. **Data, information management systems, tools & skills**
   d) Develop and implement a prioritised data and management information strategy and plan including research agenda and actions to strengthen coordination between EPI, the Epidemiology Department and INS to improve the system for early detection and response to outbreaks e.g. cholera, meningitis, and AEFI. *(TCA supported)* [Years 1-2]
   e) Strengthen the use of for decision-making by embedding consistent use of available tools e.g. the EPI dashboard including RTM, with a particular focus on building capability in the five priority provinces. *(TCA supported)* [Years 1-2]
   f) Develop components on data (including laboratory data) and information management tools, skills and SOPs for inclusion in the EPI training plan (component of the EPI HR plan). *(TCA supported)* [Years 1-2]
   g) Align data flow with the National Health Observatory activities. [Years 1-2]
   h) Implement a system-wide assessment to identify current MoH information system capability, characteristics and needs; this assessment should engage all relevant stakeholders and deliver an effective work plan towards enhancing all components of a national information system aligned to the "wrap-around" and TSS global recommendations. *(TCA supported)* [Year 1]
3. **Human resources**
   i) Develop and implement a prioritised, integrated and aligned EPI HR plan. *(TCA supported)* [Years 1-5]
   j) Developing a set of training modules, SOPs and profiles for vaccinator and trainer roles and responsibilities. *(TCA supported)* [Years 1-2]

k) Develop and implement a process to assess EPI HR requirements, reviewing in line with expansion of immunisation services. *(TCA supported)* [Years 1-2]

**l)** Finance and procurement consultant to support financial management (DAF). [Years 1-5]

**Financing:** Justify any requests for Gavi to support major recurrent costs (e.g. human resources) regardless of transition stage.

→ ***Countries in the preparatory and accelerated transition phase are restricted from using Gavi funds for recurrent costs*** *(please refer to the Guidance on supporting countries' HR capacity, available here:* http://www.gavi.org/support/process/apply/additional-guidance/).

As discussed in this PSR, coverage has stagnated at 66%, two thirds of Mozambicans live in rural areas (section 3.1) and 90% of the population lives over an hour from the nearest health facility (Section 3.3) – a key driver negatively affecting service uptake. In order to improve coverage and equity, MoH wishes to create demand for vaccination services by improving their availability and the competence of those delivering them.

**Gavi is therefore requested to support the following recurrent HR costs:**

a) **Service delivery roles**:
- Salaries of new vaccination staff at health facility level posted in priority provinces and districts for a limited period in the medium-term. Salaries will be set at state levels in order to facilitate absorption of these new recruits into the health system. MoH proposes to gradually takeover costs of these staff from year three. These staff are considered essential to achievement of coverage and equity goals as they will be placed in under-performing or under-staffed health facilities in priority districts
- for which address issues requiring long-term systemic change
- Incentive package for existing, experienced vaccination staff in support of their allocation to work in difficult, hard-to-reach areas. The incentive package will be developed with the HR department and reflect MoH's HR and retention strategies.

b) **Embedded HSS roles:** 1 national and 3 Regional HSS Advisors, 1 Administrator at central level; 1 financial technical advisor; 1 Warehouse Manager position within CMAM; 1 national Communication & Demand Generation position at central level. In year 2 of the PSR, EPI aims to negotiate budget provision for these positions in order for them to become included in annual public tenders for contracting MoH personnel, as per government regulation (Appendix 28).

c) **Surveillance roles:** seven staff for meningitis, measles, rotavirus and influenza surveillance activities.

d) **Per diems:** for daily expenses to implement supportive supervision, attend training sessions / workshops / meetings. Per diems will follow MoH allowance scale and guidance.

| **How much HSS budget is allocated to this objective:** → ***Reflect the details in the budget and planning template*** | **Years 1-2** | *US$ 4,707,654* |
|---|---|---|
| | **Years 3-5** | *US$ 6,064,269* |

**Please also provide details on the key cost drivers, inputs and assumptions required for the main activities of this objective, here:**

Key cost driver details

| **Activity** | **Inputs** | **Assumptions** |
|---|---|---|
| 2.1.a (2.1.a1-2.1.a3) - Develop central, provincial and district capabilities for effective planning, ensuring effective coordination and cohesion between national coordination mechanisms and provincial structures with plans directly informed by district needs, evidence and priorities. | Transport and per diem costs | Annual EPI / HSS planning meetings taking place at central, provincial and district level |
| 2.2.g - Develop and implement a plan to build field and laboratory (at the field, provincial and at central level) capacity to detect and respond to risks, underperformance and outbreaks of VPD and related | HR-7 laboratory technician for 5 years<br>AEFI data collection<br>Reagents and Kits<br>Monitoring and Supervision<br>Workshops for disease eradication<br>Equipment maintenance | Surveillance support through INS<br>Capacity building includes introduction and implementation of new technologies and is to take place at:<br>(i) Subnational level – case detection; sample collection and dispatch; completion of forms etc.). |

| | | |
|---|---|---|
| endemic diseases e.g. cholera, meningitis, rotavirus, measles and rubella, influenza as well as AEFI. | Research to assess introduction of new vaccines<br>Capacity building – (1 training per sentinel post per year; 4 central level technicians to train outside of the country);<br>Surveillance Review meetings - 4 Workshops/yr; data analysis; reports; quality indicators of surveillance; update of SOPs;<br>Active surveillance - active search of of cases in all districts in the whole country; also high-risk health centres;<br>National measles elimination comittee - quarterly meetings at central level | (ii) Central level - receiving and testing samples |
| 2.3.f - Fund the following key roles through HSS: 1 national and 3 Regional HSS Advisors, 1 Administrator at central level; 1 Warehouse Manager position within CMAM; 1 national Communication & Demand Generation position at central level. In addition, surveillance activities will be strengthened through contracting of 3 staff for meningitis, measles, influenza. | 1 HSS National Advisor<br>3 HSS Regional Advisors<br>1 Administrator central level<br>1 Warehouse manager CMAM | Core positions supported through HSS |
| 2.3.g - Based on analysis in 2019/20, create and fund a number of positions and/or an incentive package for existing vaccination health workers to improve immunisation service offering in rural health facilities. | 48 technicians: 15 central level and 33 provincial level (as per the MoH Retention Strategy) | Government salaries to be paid as per government scale (Appendices 30a & 30b)<br>Payment of incentives (based on performance) as per HR retention strategy (Appendix 31). |

| | |
|---|---|
| ***Objective 3:*** | Focused and Effective Service Delivery, Communication & Demand Generation:<br>**Reduce the incidence of vaccine preventable diseases through consistently providing good quality immunisation services at all health facilities and through outreach, reducing inequities, engaging with communities, and creating demand in order to reach coverage targets, as guided by policy, priorities and informed by reliable data, evaluations and research.** **i.e. plan and manage the Programme to ensure the focus of efforts is on quality service delivery, effective community engagement, strong vaccination knowledge and understanding at all levels and the use of effective communication approaches and tools to maximise uptake.** |
| **Timeframe:** | 2021-2025 |
| **Priority geographies/population groups or constraint(s) to coverage and/or equity** to be addressed by the objective:<br>→ ***List to match those identified in Section B*** | Priority geographies: **Countrywide, with a focus on the five priority provinces: Nampula, Zambézia, Tete, Manica, Sofala and the 63 prioritised districts.**<br><br>**1. Quality of service delivery**<br>a) Sixty-three districts and five provinces have been identified as target geographies as they consistently miss coverage targets (See Section B 3.2).<br>b) Quality of services is low, which negatively impacts demand for vaccination services.<br>c) Knowledge, skills, tools and performance management of health workers, particularly in areas of low coverage, constrains the Programme's ability to deliver quality RI services and negatively impacts demand.<br>**2. Low demand**<br>a) Sixty-three districts and five provinces have been identified as target geographies as they consistently miss coverage targets (See Section B 3.2).<br>b) Outreach activities are an essential component of the approach to achieving greater equity and access, yet they are not achieving required targets, negatively impacting equity and access.<br>c) Measles second dose was recently introduced and although coverage is increasing over time, optimal coverage has not yet been achieved in all provinces or nationally. Given it is essential to attain and maintain high immunity of 95% in both doses, there is a specific need to access children not normally reached by RI.<br>**3. Low immunisation awareness**<br>a) Sixty-three districts and five provinces have been identified as target geographies as they consistently miss coverage targets (See Section B 3.2).<br>b) Low levels of awareness of immunisation among hard-to-reach populations, urban poor, illiterate or low-educated caregivers affects uptake of services.<br>c) Low awareness among relevant health and education programmes and services, where there are opportunities to raise awareness and increase coverage, constrains the Programme's ability to maximise uptake.<br>**4. Lack of evidence for decision making re demand generation**<br>a) Effective programming is severely constrained due to the lack of relevant and fundamental information related to the barriers and enablers to uptake of services.<br>b) An inconsistent approach to capturing lessons and learning from programme implementation constraints EPI's ability to adaptively plan and target to optimise results. |

**Describe the tailored interventions to address this constraint** and provide evidence of efficacy of the intervention. Describe the critical national capacities that will be established or strengthened as a result of this investment.

1. **Through provision of quality, community-centred services, create demand to achieve vaccination coverage targets and reduce the incidence of VPD – i.e. achieve at least 90% coverage at national level by 2024 in all antigens and 80% in all districts, maintaining acceptable dropout rates of under 10% nationally and reducing the number of districts with dropout rates >10% by 2024.**
    a) Implement strategies consistent with creating an environment within health facilities where people will engage with the services.
    b) Build a process to ensure the quality, prioritisation and integration of the Programme's coverage and equity improvement plan, including an effective monitoring and evaluation framework and ensuring the inclusion of an approach for retrieving dropouts.
    c) Ensure the EPI HR plan (health worker performance management component) captures all the essential components to provide the skills and tools required of vaccination health workers to deliver quality and patient-centred services, including capturing the potential to directly influence the knowledge and skills of vaccinator (TMP and MCH nurses) interns during their work experience.
    d) Ensure the EPI HR plan is supported by effective and consistent performance management of health workers using appropriate tools, sufficient levels of supportive supervision and proactive response and follow-up on issues and trends identified.
    e) Optimise the benefits achievable to the Programme through synergies with the MoH national strategy to improve the quality and humanisation of health services[50].
    f) Fully integrate vaccinations with the MCH "Paragem Única" and "Consulta de Criança Sadia" initiatives in order to reduce MOV in fixed posts.
    g) Implement a supplementary immunisation activity to support increased immunity principally by reaching those children not normally reached by routine immunisation activities.

    - **Higher quality health service provision directly and positively impacts uptake of services.**
    - **Improving knowledge, skills and interpersonal communication capabilities of health workers is a critical factor in increasing demand by ensuring parents and caregivers have a positive experience at health facilities and are engaged to complete the immunisation schedule.**
    - **Delivering this objective will improve general as well as immunisation specific services through a more structured and innovative approach to adult learning and performance management of health workers, as well as using a more integrated approach to service delivery improvement efforts.**

2. **Ensure community involvement in planning and performance of immunisation services as a key strategy for achieving coverage, equity and access goals, particularly in identified areas of low coverage – i.e. through community engagement, increase demand for vaccination services in the community to 95% of the population by end 2024 and increase coverage from outreach activities.**
    a) Ensure a high quality, targeted community engagement component is included in the demand generation plan, including tailored delivery strategies for remote and underserved communities and to specifically address gender barriers.
    b) Ensure, through standard planning processes at health facility and district level, that outreach activity planning more consistently involves and effectively engages communities and community leaders to reduce un- / under-immunised children, increases awareness and increases demand for immunisation.
    c) Based on identified barriers and enablers for service uptake, tailor interventions to communities' needs in order to accelerate rollout of the RED/REC strategy.
    d) Proactively capture opportunities to integrate with other PHC interventions at community level to raise awareness and increase access to immunisation services.

    - **Community involvement in planning immunisation services is a critical factor in improving access and reducing inequities, particularly in prioritised geographies, leading to increased uptake.**
    - **RED / REC is the primary EPI strategy to address inequities in rural and hard-to-reach communities – implementation requires acceleration to achieve its purpose.**
    - **Integration with other PHC interventions at community level will build on the success of selected approaches in order to adapt and more effectively target resources.**
    - **This objective will build general capacity of the Programme to most effectively engage with and involve communities in directly addressing local challenges to positively impact achievement of national targets.**

3. **Increase awareness on immunisation at all levels by embedding understanding and knowledge on vaccination and the vaccination schedule to increase uptake of services**
    a) Involve all levels of community leadership in mobilising and raising awareness of the importance of accessing and completing vaccinations as well as involve them in planning and vaccination promotion activities,

[50] *Estratégia Nacional para a Melhoria da Qualidade e Humanização dos Cuidados de Saúde 2015-2019, National Programme to Improve the Quality and Humanise Healthcare, MoH*

establishing partnerships with a range of community-based communication stakeholders to improve information dissemination.

b) Ensure quality (effectiveness and appropriateness) of communication by developing and implementing high quality communication tools to support implementation of the communication plan.

c) Define and implement an advocacy strategy to raise awareness among key institutions and influencers i.e. parliament, ministers, other government ministries, civil society organisations, non-governmental organisations, the media and leaders (governors, local, traditional, religious etc.).

d) Increase focus and effort on using different forms of media as key communication tools (e.g. radio, TV and social media) to reach and engage different populations with accessible and appropriate messages.

e) MOV will be reduced by developing and implementing strategies to integrate confirmation of a child's vaccination status with other programmes and services e.g. birth registry, creches, kindergartens, schools, churches, doctor's consultations, children's wards etc. Where large numbers of under-immunised children are identified, specific outreach activities will be conducted to retrieve dropouts, building on lessons from Inhambane, Cabo Delgado and Niassa provinces.

f) Proactively capture opportunities to integrate with other health and education programmes and services to raise awareness and increase access to and uptake of immunisation services.

- **Raising awareness and ensuring commitment at all levels of the importance of accessing and completing vaccinations is one of the enabling factors to increased coverage.**
- **Poor coverage of the health network increases the importance of effective communication strategies and integrated approaches for raising awareness, community engagement and demand generation for outreach.**
- **General capacity of the country to mobilise resources, prioritise EPI efforts, achieve local, national and global vaccination targets through meaningful engagement and awareness of immunisation.**

4. **Develop and deliver the demand generation and communication component of the EPI research agenda, using evidence to inform adaptive programming, communication planning and development of materials and processes for RI and crisis communication.**

a) Ensure the EPI data and information strategy and plan includes relevant research and documentation of lessons and best practice and is used to design effective and evidence-based communication interventions, tools and materials, as well as respond directly to results.

b) Design and implement a system to monitor and evaluate effectiveness of communication, community engagement and demand generation activities.

- **Generating relevant evidence answers key questions that need to be addressed to effectively guide programme focus, targets and actions.**
- **Relevant and reliable information to guide programme decision-making and actions.**

**List approximately five (5) specific activities to be undertaken to achieve this objective**:

→ ***Reflect these activities in the budget & planning template***

1. **Service delivery and demand generation**
   a) Develop and deliver an action plan to fully integrate vaccinations with the MCH "Paragem Única" and "Consulta de Criança Sadia[51]" initiatives.
   b) Support implementation of the GoM 'Model Family" initiative (Appendix 28, page 44) in priority districts, awarding families that meet criteria related to immunisation (as well as hygiene, sanitation, antenatal care, family planning, birth registration and education).
   c) Map existing EPI supervision tools and practices in order to develop a more harmonised, streamlined and integrated approach; mapping will include broader MoH reforms and programmes where integration opportunities exist or should logically be created.
   d) Implement a national measles, mumps and rubella catch-up campaign in 2023.
2. **Community involvement and demand generation**
   a) Deliver the EPI communication plan, including community and HRH engagement components (integrated into annual operational plan), with a focus on equity by using innovative platforms and models.
   b) Develop and implement a plan (included in the communication plan) to provide support and materials for APEs for community engagement.
   c) Accelerate rollout of the RED/REC and community engagement strategy and other innovative methods for engaging communities in the design of gender-sensitive services e.g. human-centred design as well as initial training of health workers and community focal points, district review and re-planning processes, supervision etc.
3. **Immunisation awareness and uptake**
   a) Develop and disseminate effective communication tools to community outreach and engagement mechanisms e.g. health committees, local leader groups, teachers, religious and youth groups etc. as per EPI communication plan.
   b) Develop and implement an EPI advocacy strategy to raise awareness and mobilise resources.

[51] *PSR Situation Analysis, Final Version, July 2019Section 6.4, bullet 5, page 39*

c) Coordinate with other primary health care programmes for integrated communication and demand generation messages and approaches and ensure each level has appropriate tools for all interventions and target groups, and the skills and capabilities are in place to use the tools effectively e.g. traditional medicine practitioners, traditional birth attendants, community programmes (community health committees / health facility co-management committees), Primary Health Care Department strategies etc. These activities require production of target messages and materials and associated dissemination costs.

d) Develop and implement a plan to collaborate with MINEDH (HPV) and other programmes to increase access to vaccination information and promote uptake.

4. **Evidence**

a) Plan and implement relevant research (communication and demand generation component) and documentation of lessons and best practice:

- Research agenda may include gathering evidence for the design of more effective interventions e.g. qualitative research and human-centred design methodology on demand (knowledge, attitudes, practices and behaviours of communities and health workers, gender roles and urban areas) in order to address inequities; review of different mentorship models used in Mozambique to build health worker skills and reduce reliance on training; review of workflows in health facilities and during outreach in order to improve clients' experience etc.

b) Adaptively plan and manage communication based on evidence, routine monitoring and effectiveness of strategies and approaches used to engage with communities and health workers

**Update the GPF to propose indicators to monitor progress toward this objective:** These provide a means to assess achievement of intermediate results and activity implementation.

→ ***Reflect these in the Grant Performance Framework***

**Please note, reporting frequency is annual for all indicators.**

| Indicator | Definition | Data Source | Baseline (2018) | Target Year | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | 2021 | 2022 | 2023 | 2024 | 2025 |
| Percent of health facilities offering integrated outreach including immunisation | Percent of health facilities that conduct integrated outreach sessions (i.e. immunisation and at least one other basic health service) | Programme data | 80% | 84 % | 88 % | 92 % | 95 % | 95 % |
| Percent of districts where CSOs conducted community awareness/ mobilisation sessions | Percent of districts where CSOs conducted community awareness/ mobilisation sessions | Administrative data | 0% | 50 % | 55 % | 60 % | 65 % | 70 % |

**Technical Assistance:** List the anticipated TA needs and timelines required to support this objective and plans for securing it (e.g., Gavi HSS, PEF/TCA, other sources?)

**All TA is expected to be funded via the HSS2 unless identified as *(TCA supported)***

1. **Service delivery and demand generation**

a) Develop and implement EPI Programme's coverage and equity improvement plan. *(TCA required)* [Years 1-5]

b) Map existing EPI supervision tools and practices in order to develop a more streamlined and integrated approach, mapping will include broader MoH reforms and programmes where integration opportunities exist or should logically be created. [Year 1]

2. **Community involvement and demand generation**

a) Develop and implement a comprehensive operations plan for EPI communication plan and tools (including education tools materials for community engagement to be used by APEs, community outreach and engagement mechanisms e.g. health committees, local leader groups, teachers, religious and youth groups etc.). *(TCA required)* [Years 1-3]

b) Deliver the EPI communication plan and supporting materials. *(TCA required)* [Years 1-5]

c) Accelerate rollout of the RED/REC strategy. *(Activities and funds managed by EPI; specific TCA as required)* [Years 1-3]

3. **Immunisation awareness and uptake**

a) Develop and implement an EPI advocacy strategy (including for collaborations with MINED and other programmes). *(TCA required)* [Years 1-5]

**4. Evidence**

a) Plan and implement relevant communication and demand generation monitoring, research and documentation of lessons and best practice. [Years 1-2]

**Financing:** Justify any requests for Gavi to support major recurrent costs (e.g. human resources) regardless of transition stage.

→ ***Countries in the preparatory and accelerated transition phase are restricted from using Gavi funds for recurrent costs*** *(please refer to the please refer to the Guidance on supporting countries' HR capacity, available here:* http://www.gavi.org/support/process/apply/additional-guidance/).

As discussed above, coverage has stagnated at 66%, two thirds of Mozambicans live in rural areas (section 3.1) and 90% of the population lives over an hour from the nearest health facility (Section 3.3). In order to improve coverage and equity, MoH wishes to continue and improve the quality of service delivery to underserved and remote communities.

**Gavi is requested to support the following recurrent costs:**

a) **Outreach**: Mozambique's health network is unable to reach approximately 40% of the population, making outreach an essential service to identify and provide services to populations at risk of under-vaccination and VPD. Prioritising and targeting delivery through bringing services to communities (and engaging communities in service design) is a core strategy of the PESS and is implemented by EPI (integrating vaccination with other PHC services). This PSR requests support to ensure regular, quality outreach is provided to remote and underserved communities in order to improve RI and reach un- and under-vaccinated children.

b) **Microplanning:** To achieve effective outreach, increase coverage and improve equity, district and health facility EPI teams must develop detailed micro plans, involving appropriate community systems e.g. CHW, local leaders etc. Joint micro planning is critical to defining catchment areas; it improves accuracy and targeting of outreach activities and supports community mobilisation, creating demand for and increasing coverage of RI.

Effective outreach and microplanning are critical to achievement of improved coverage and equity and are recognised as issues requiring long-term systemic change – for which continued HSS2 support is essential as Mozambique is in Gavi's initial self-financing phase.

| | | |
|---|---|---|
| **How much HSS budget is allocated to this objective:** → ***Reflect the details in the budget and planning template*** | **Years 1-2** | *US$ 3,314,619* |
| | **Years 3-5** | *US$ 5,824,832* |

**Please also provide details on the key cost drivers, inputs and assumptions required for the main activities of this objective, here:**

Key cost driver details

| Activity | Inputs | Assumptions |
|---|---|---|
| 3.2.a - Deliver the EPI communication plan, including community and HRH engagement components, through an integrated into annual operational plan), with a focus on equity by using innovative platforms and models. | • 25 religious leaders in 5 priority provinces, in 6 districts.<br>• Average cost per training (3 days training, including transport: $3,500.<br>• Health Committees training on Model families in 5 priority provinces in 6 districts. Average costs training $2,000 (includes 20 community members for 3 days).<br>• Training traditional healers at district level in 5 provinces and 6 districts: 20 traditional healers/ district for 4 days. Average costs $2,000 | Training performed annually |
| 3.2.b - Develop and implement a plan (included in the communication plan) to provide support and materials for APEs for community engagement. | Printing of communication materials at an average costs per unit of $40 | CHW communication materials. |
| 3.3. | • | |

## 7. Description of requested support for new vaccines

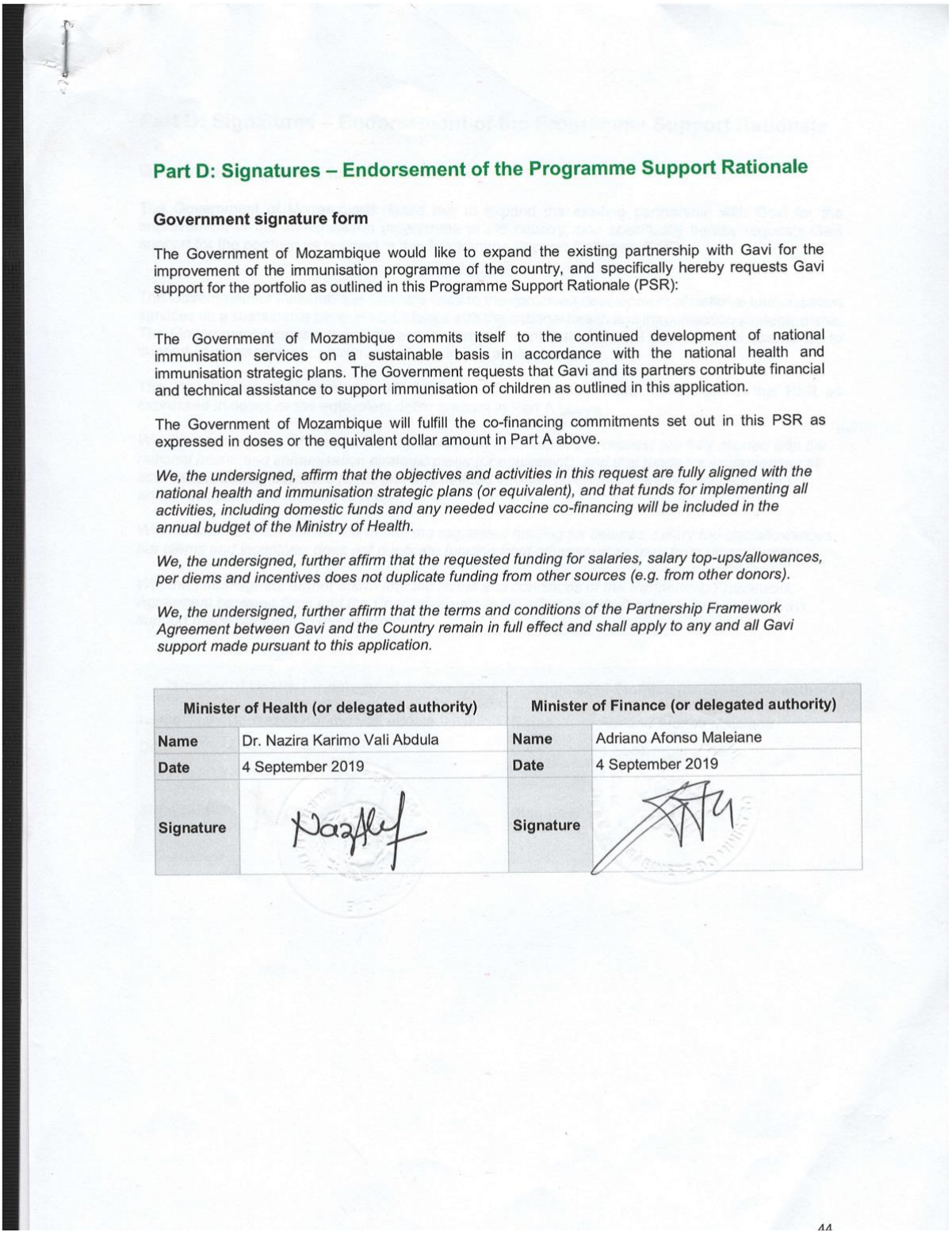
**More specific planning needs for new vaccine support**, listed in table 1.2, are described here. Greater details on activities needed to prepare for the vaccine introduction and/or campaign (addressing the programmatic challenges and bottlenecks outlined above) should be reflected in the country's annual EPI work plan.

**Exclude here vaccines that were already approved by Gavi, even if not yet introduced.**

| | |
|---|---|
| Measles / Measles Rubella ***(routine and campaign/s)*** | To encourage a complete and longer term planning approach to measles and rubella for programmatic and financial sustainability, a **country's cMYP or equivalent multi-year plan attached to this PSR must include a comprehensive situation analysis and a 5 year plan on measles and rubella.** If the current cMYP or equivalent multi-year plan does not contain all the required information, a cMYP addendum needs to be developed and submitted with the PSR as an attachment.<br>To develop your comprehensive situation analysis and 5 year plan for measles and rubella, please use the **Gavi template** available here: http://www.gavi.org/library/gavi-documents/guidelines-and-forms/m-r-situation-analysis-and-5-year-plan-for-cmyp/<br><br>Provide a **technical justification** for each type of support requested for Measles / Measles Rubella in the next 5 years and indicate for when each introduction or campaign is planned |
| | **Follow-up campaign:** The last national MR campaign was conducted in 2018; pending risk assessment, the country plans to request Gavi support to conduct a targeted MR campaign at subnational level in 2023 and will submit an application to Gavi 15 to 18 months prior to the anticipated date of the campaign as per Gavi guidelines. |
| | List the **Technical Assistance** needed to support the introductions and/or campaign(s) outlined in your 5-year plan. Describe how you plan to secure it and by when. |
| | • Development of proposal and OP costs (2021)<br>• Planning and implementation of campaign (2022-2023)<br>• Campaign monitoring (2023)<br>• Post campaign coverage survey (2023) |
| | Describe how the health systems strengthening support requested in this Programme Support Rationale will contribute to **MCV1 and MCV2 routine immunisation** strengthening and to **measles, rubella and congenital rubella syndrome surveillance** strengthening.<br><br>National coverage of MCV2 has been improving with HSS1 support – this PSR will build on these gains through improving the efficiency of the iSC, improving health facility performance by strengthening planning, implementation and monitoring skills and improving data quality and supervision. Demand will be created through improved health worker capability, more effective outreach as well as increased engagement of communities and community systems in in service design, mobilisation for immunisation and monitoring the immunisation status of children to improve service uptake and reduce defaulters. Innovative, integrated system approaches implemented in Niassa and Inhambane provinces will be modelled for replication.<br><br>Surveillance quality for VPD will be strengthened at all levels through expansion of sentinel sites, particularly in priority provinces. Funding will support an INS resource for measles surveillance. |
| **Typhoid** *(Conjugate Vaccine Routine with catch-up)* | **Anticipated introduction date:** From 2025, however this will be dependent on available evidence. |
| | Describe any **data supporting the rationale for introducing TCV** into the national immunisation schedule (epidemiological / modelling data) |
| | Based on evidence, the country may apply for support to introduce TCV – HSS2 will be used to generate evidence. |

| | |
|---|---|
| | **Technical Assistance:** List the anticipated TA needs and timelines required to support this activity and plans for securing it (e.g., Gavi HSS, PEF/TCA, other sources?) |
| | Establishment of a typhoid fever surveillance system – HSS2 (2021-2023) |

## Part D: Signatures – Endorsement of the Programme Support Rationale



### Part D: Signatures – Endorsement of the Programme Support Rationale

**Government signature form**

The Government of Mozambique would like to expand the existing partnership with Gavi for the improvement of the immunisation programme of the country, and specifically hereby requests Gavi support for the portfolio as outlined in this Programme Support Rationale (PSR):

The Government of Mozambique commits itself to the continued development of national immunisation services on a sustainable basis in accordance with the national health and immunisation strategic plans. The Government requests that Gavi and its partners contribute financial and technical assistance to support immunisation of children as outlined in this application.

The Government of Mozambique will fulfill the co-financing commitments set out in this PSR as expressed in doses or the equivalent dollar amount in Part A above.

*We, the undersigned, affirm that the objectives and activities in this request are fully aligned with the national health and immunisation strategic plans (or equivalent), and that funds for implementing all activities, including domestic funds and any needed vaccine co-financing will be included in the annual budget of the Ministry of Health.*

*We, the undersigned, further affirm that the requested funding for salaries, salary top-ups/allowances, per diems and incentives does not duplicate funding from other sources (e.g. from other donors).*

*We, the undersigned, further affirm that the terms and conditions of the Partnership Framework Agreement between Gavi and the Country remain in full effect and shall apply to any and all Gavi support made pursuant to this application.*

| Minister of Health (or delegated authority) | | Minister of Finance (or delegated authority) | |
|---|---|---|---|
| **Name** | Dr. Nazira Karimo Vali Abdula | **Name** | Adriano Afonso Maleiane |
| **Date** | 4 September 2019 | **Date** | 4 September 2019 |
| **Signature** | | **Signature** | |

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