Joint Appraisal (JA) – Yemen

Report following JA meeting in April 2024

The Joint Appraisal (JA) is an **essential element of Gavi's regular monitoring and performance management (MPM).** The JA has evolved to align with Gavi 5.0 strategic shifts.

The JA is an **annual, country-led, multi-stakeholder** review/discussion that represents an important opportunity for countries to engage Gavi Alliance partners and other key stakeholders on annual progress of routine immunisation programmes against national goals and objectives, and to discuss how Gavi support is contributing to this progress. Key stakeholders involved in the country's immunisation programme should be represented at the Joint Appraisal, including civil society organisations (CSOs).

As an integrated part of Gavi's portfolio management process, the JA discussion should review **Gavi's contribution to immunisation programme performance** in 2022/early 2023, including current status of your COVID-19 programme and efforts on integration. A key feature of the JA is the joint discussion about the **promising practices, challenges met and future needs** for improving immunisation performance with a focus on reaching zero-dose children and missed communities.

The modality of the Joint Appraisal exercise is tailored to the country context and may be scheduled taking into consideration other planning exercises such as EPI reviews or National Immunisation Strategy Development.[1] The JA process will involve preparatory work to assemble and analyse data in advance of the discussion, exchange on the trends and their implications for the EPI program, and will conclude with the finalisation of a report and relevant deliberation outcomes and follow-up actions. At least one live discussion (in person or virtual) of the multiple stakeholders engaged in the Joint Appraisal should be organised.

The 2022 Joint Appraisal template is structured as follows

- **Section 1: Country situation**: overview of performance of Gavi support & discussion on progress and challenges faced
- **Section 2: Looking forward**: summary of discussion points and follow up actions

The information and indicators contained in section 1 on the country immunisation programme performance and Gavi support are mostly based on standard reporting. They are part of Gavi's monitoring and performance management framework, which will inform ongoing portfolio discussions, the JA, as well as discussions at Gavi's High-Level Review Panel (HLRP).

Section 1 is also where Gavi expects reporting against the Grant-linked Key Performance Indicators developed during FPP / EAF applications. For these indicators, results are to be analysed as (1) the absolute change in the indicator as a trend over time and; (2) the percent change in the indicator against the baseline value from the FPP or EAF application. Changes over time will be assessed against the end of grant target set during the application stage. Please ensure that sufficient data is provided to conduct such analyses, including the baseline values, targets, and sufficient annual data to infer trends.

The below set of cross-cutting questions should be considered to structure qualitative information:

Cross-cutting Questions

1. What factors have facilitated or impeded progress?
2. What promising practices and/or innovations have emerged?
3. What key contributions have partners made to drive performance?
4. What are the top risks that should be mitigated?

[1] Countries which are finalising in the course of 2022 a Full Portfolio Planning are not expected to conduct a JA.

Section 1 forms the analytical foundation to structure the JA discussion with Section 2 summarising the outcome of the JA and follow-up actions.

The outcome of this Joint Appraisal will include a joint assessment of promising practices, perceived challenges and opportunities for Gavi investments, and should elaborate future actions with clear targets and assigned responsibilities which is owned by the full set of in-country stakeholders.

Section 1: Country situation: overview of performance of support & discussion on progress, challenges faced

A. Immunisation Programme Performance – Zero-dose, Routine immunisation coverage, Vaccine introductions, campaigns, and outbreak response

1. Learning Question: What progress has been made to reach zero-dose and under-immunised children with vaccinations?

Indicator		2019	2020	2021	2022	2023	% change, 2019-2023	% change, 2022-2023
Number of zero dose children at national level	**Admin (2023)[1]**	70,651	51,142	68,542	38,168	184,878	62%	79%
	WHO/UNICEF[2]	198,833	181,022	197,403	169,424	NA	NA	NA
Drop out from DTP1 to DTP3 at national level	**Admin (2023)[1]**	6%	9%	7%	8%	9%	33%	11%
	WHO/UNICEF[2]	10%	13%	12%	13%	NA	NA	NA
Drop out from DTP1 to last routine dose of MCV2 at national level[1] Admin1		42%	43%	36%	34%	46%	9%	26%
Percentage of health facilities that reported no stock-outs for the full year for DTP[2]		NA	NA	NA	NA	NA	NA	NA

Country comments:

Over the past three years, Yemen has encountered numerous challenges in implementing health interventions. These challenges encompassed issues of accessibility and enabling health facilities to deliver comprehensive primary healthcare (PHC) services across all facilities. Furthermore, the population's distribution, which is spread across large settlements and rural areas, presented additional obstacles. Limited resources further compounded the difficulties faced.

Despite these formidable challenges, the Expanded Program on Immunization (EPI) persevered and continued its crucial work of administering lifesaving vaccines against 11 targeted vaccine-preventable diseases (VPDs). The targeted population for these vaccinations is estimated to be around 1.1 million children under the age of one in 2023. A comprehensive assessment conducted by the Ministry of Public Health and Population (MOPHP) and the World Health Organization (WHO) called HeRAMS in 2023 encompassed all governorates of Yemen. The results revealed that out of the 4,922 health facilities included in the assessment, only 72% were fully accessible. In terms of functionality, the HeRAMS data indicated that 55% of the facilities were fully functional, 39% were partially functional, and 5% were not functional.

Given the prevailing situation of outbreaks and epidemics, competing priorities have negatively impacted the participation of both caregivers and healthcare providers in vaccination campaigns and immunization sessions. Additionally, misinformation and rumors have played a significant role in influencing vaccine uptake and hesitancy. These concerns, coupled with social and behavioral determinants, hinder the achievement of goals related to measles elimination and polio eradication.

The EPI has greatly benefited from the support of Gavi and other health partners. Their assistance has focused on increasing and sustaining coverage, particularly through routine immunization provided at fixed health facilities (HFs). As part of the MOPH&P model, support for PHC HFs has been instrumental in securing incentives and operational costs, leading to improved functionality. This, in turn, has resulted in increased utilization rates and sustained immunization coverage, even without conducting Intensified Outreach Rounds (IORs) in 2023 in (Northern governorates).

Presently, over 50% of PHC HFs receive support, and the MOPH&P aims to extend coverage to include all HFs through an integrated PHC service package. This comprehensive approach will enhance community trust, promote increased demand, and facilitate access to various health interventions, including vaccination. To ensure improved EPI coverage and mitigate the risk of coverage deterioration, it is crucial to expand health interventions to encompass all health facilities, focusing not only on EPI services but also on maternal, newborn, and child health (MNCH) services. Concurrently, the MOPH&P envisions rehabilitating temporary health posts in hard-to-reach areas, working in parallel with the functioning of all HFs.

The main challenges facing the health system including immunization in Yemen include:

- Continuation of the siege, humanitarian crises and since 2015 resulting in non-functionality or partially functionality of almost half of the health facilities, despite the improving the situation in 2023 according the MOPH&P/WHO (HeRAMS 2023);
- Overload on the Ministry of Health to respond to curative care requirements with a shortage in medicines, equipment, fuel, and staff;
- A considerable portion of the population, comprising more than two-thirds, faces limited healthcare access, particularly in rural areas. In 2023, the third level of health facilities in the northern governorates did not cover by any IORs, even though these rounds have the potential to contribute an average of 34% to the overall annual coverage of the EPI, based on data from the MOPH&P since 2003.

- Lack of salaries and operational cost for the HFs,
- Lack of the trust and decreased demand due to shortage of medicines, shortage of medical equipment and leakage of staff.
- Inadequacy of the quality of services provided across the three levels of care due to insufficient of recourses.
- In addition to the previous barriers, misinformation and rumors against vaccines were the reason for the increase in the number of zero doses and unvaccinated children starting in Q4, 2022.

Thus, the MOPHP submitted a proposal to Gavi for the Equity Accelerator Funding (EAF) opportunity to reach the zero-dose and dropout children. The support aims at increasing national capacities in responding to demand and supply-related barriers. Accordingly, the main objectives for the EAF proposal are, scaling up demand and community engagement, enhancing the availability of immunization services in locations with a high number of zero-dose and dropout children, updating the integrated package of health and nutrition services for populations living in tier three (more than 5 m or one hour from the nearest health facility), ensuring evidence-based planning of immunization services for equitable distribution of human and financial resources, and maintaining high-level advocacy efforts through Social Behavioral Change Communication (SBC). The EAF activities respond to the four main identified barriers facing vaccine uptake in Yemen which are: accessibility, imperfect microplanning, misinformation/ misconception, and socio-economic.

Since the outbreaks of COVID-19 there are several VPDs outbreaks in the country, during 2022- 2023 there has been a resurgence of measles, with increased numbers of cases in many governorates. Measles cases registered a high increase with a suspected over 51,450 Measles/Rubella (MR) cases (2154 confirmed cases) and 544 deaths in 23 Governorates, compared to 27,373 cases and 217 associated deaths in 2022.

Fig. (1): Distrebution of measles suspected cases, deaths, during 2019- 2023

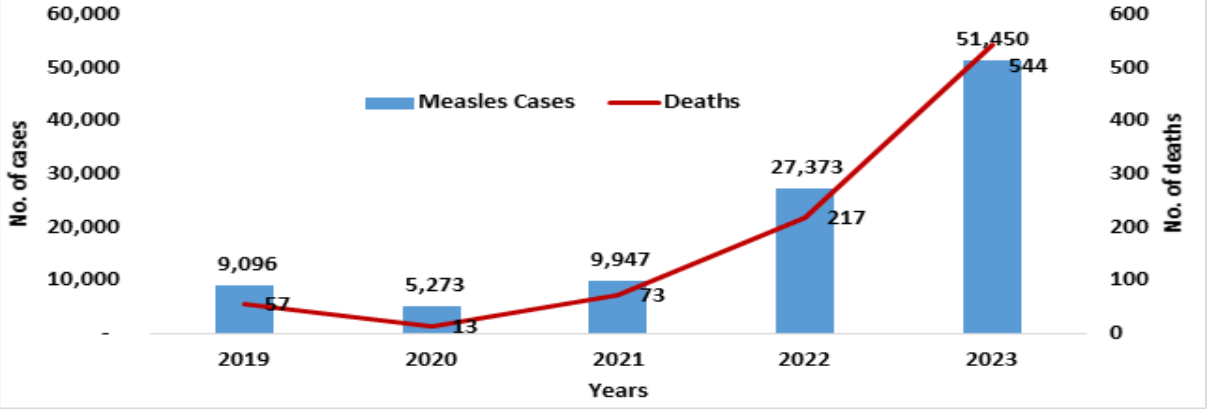


Figure (2) : Historical EPI Coverage Penta3 2019-2023

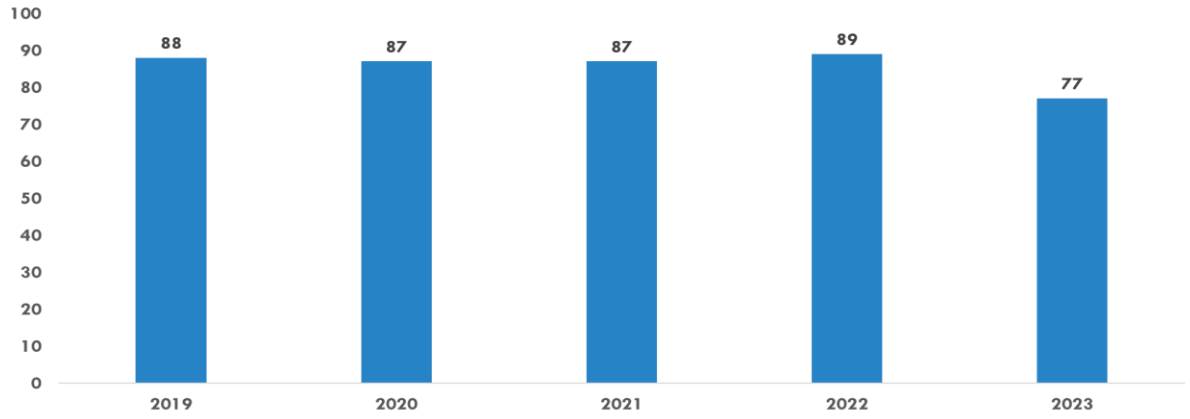
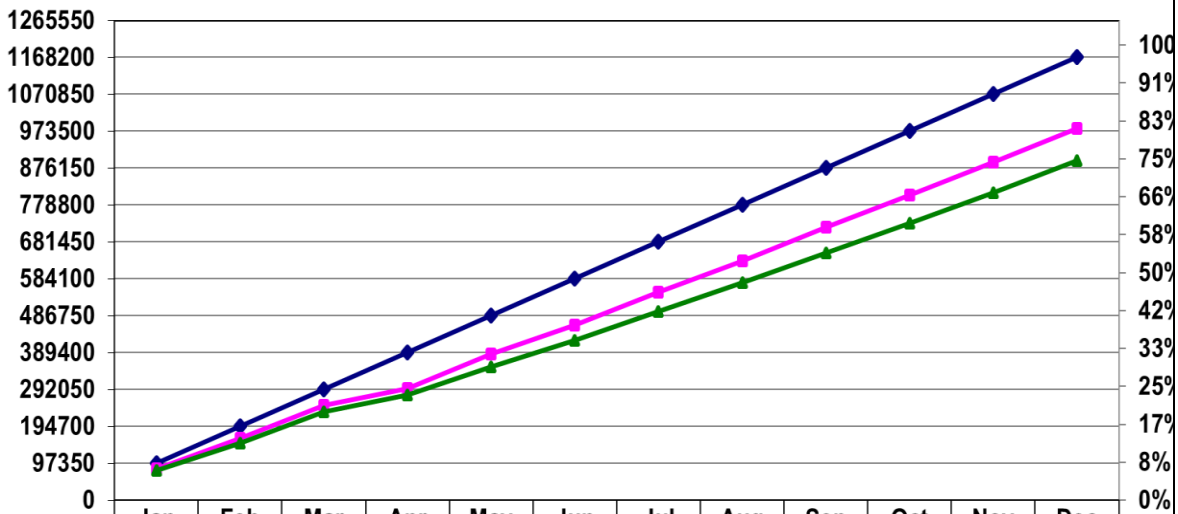


Figure (3): Drop Out Of Penta vaccine By Months,(Yemen 2023)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
100% of target	97350	194700	292050	389400	486750	584100	681450	778800	876150	973500	107085	116820
Penta 1	82933	162309	249303	293603	384608	462516	547790	630716	720678	805161	892201	980621
Penta 3	78376	151046	233059	277978	351649	421611	498290	573872	653400	730988	810940	896298
Drop out	4557	11263	16244	15625	32959	40905	49500	56844	67278	74173	81261	84323
Drop out Rate	5	7	7	5	9	9	9	9	9	9	9	9

Figure (4): PENTA3 Coverage by months (Yemen 2022 and 2023)

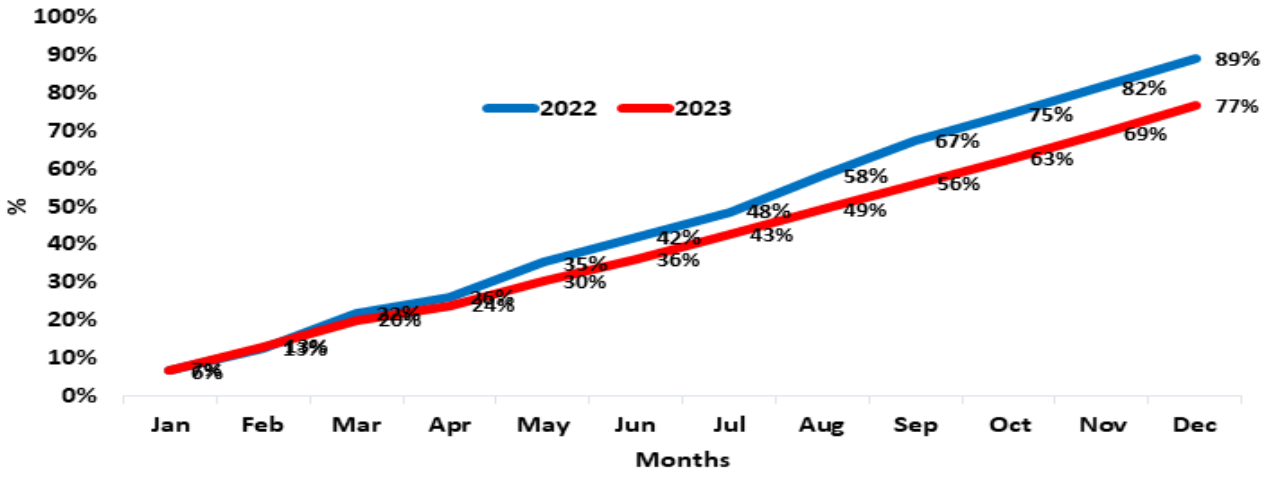
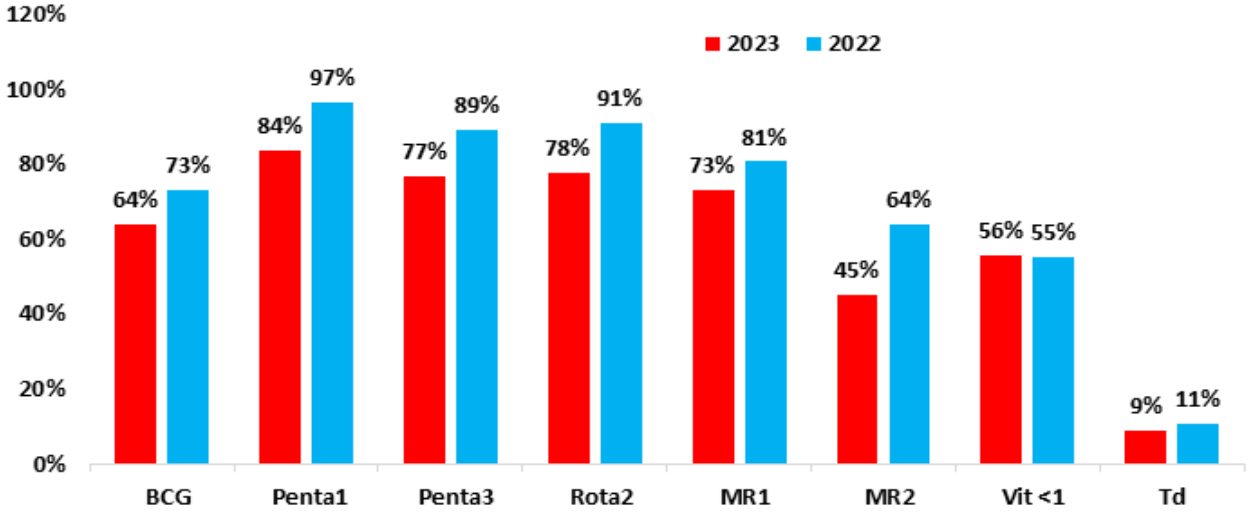


Figure (5) National immunization coverage for key antigens, 2022-2023



1,164,466 Targeted Children

896,298 Vaccinated Children

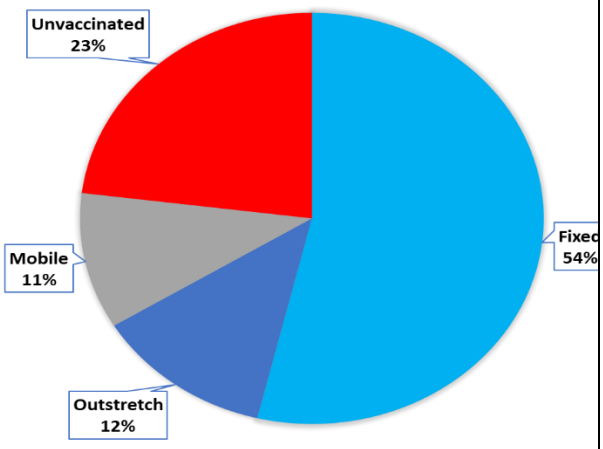
77%

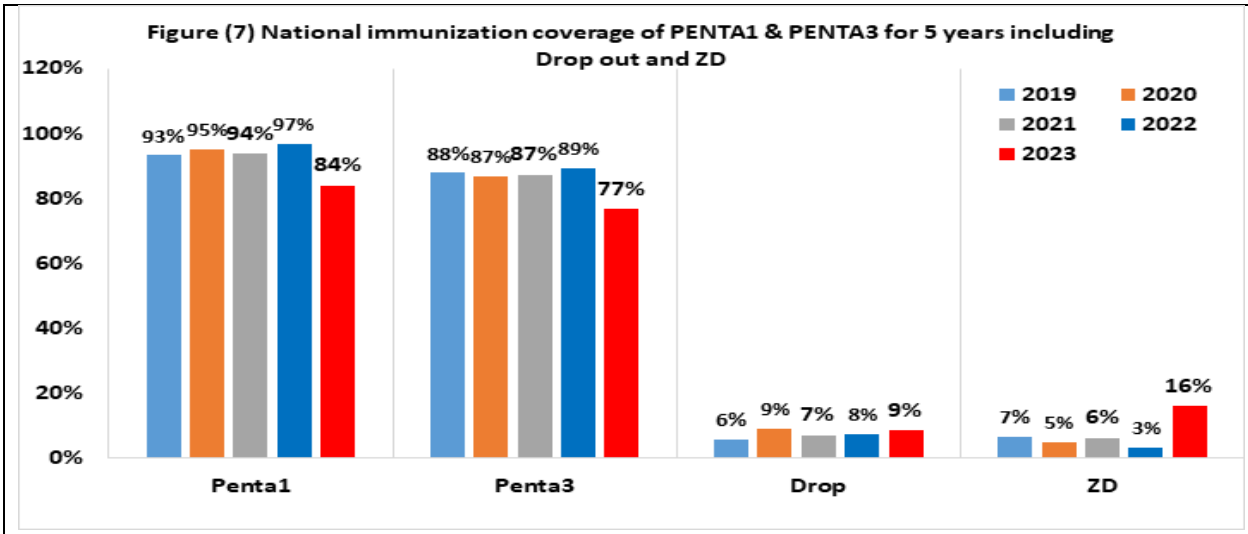
626,391 Fixed

145,265 Outstretch

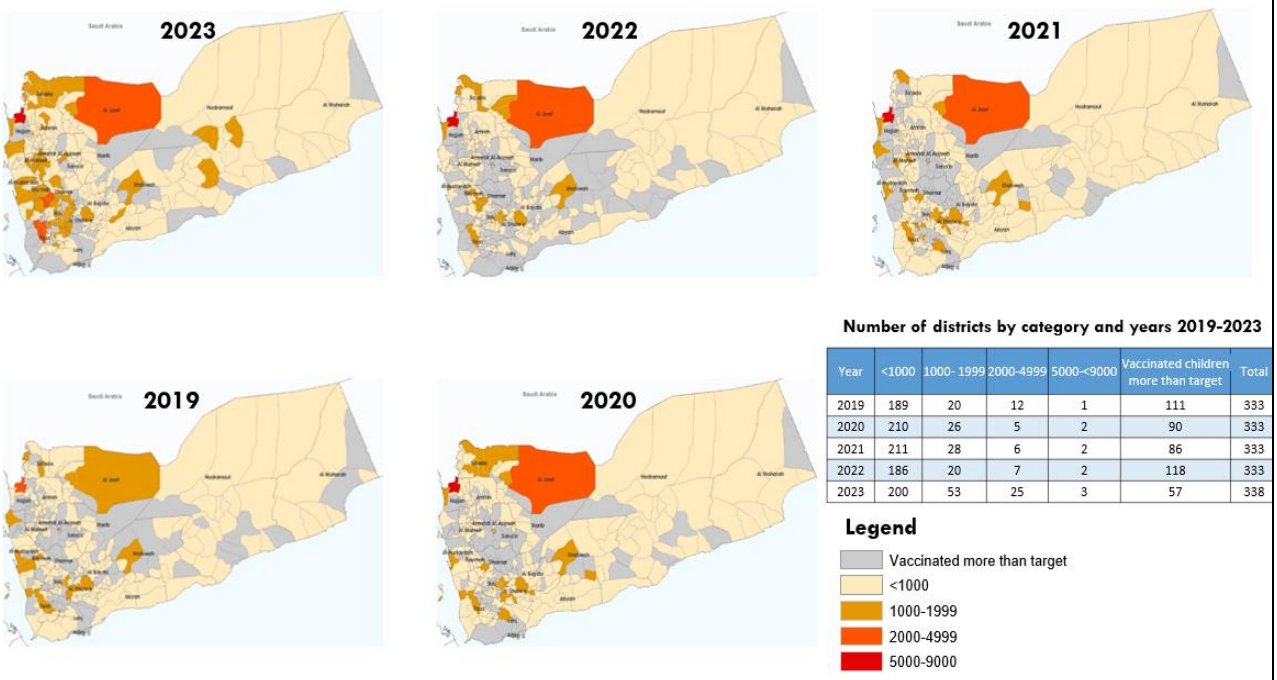
124,642 Mobile

FIGURE (6) THE NATIONAL IMMUNIZATION COVERAGE OF PENTA3, 2023





Figures (8-9,.) Zero-dose children (surviving infants – Penta1) by districts 2019-2023



Year	<1000	1000- 1999	2000-4999	5000-<9000	Vaccinated children more than target	Total
2019	189	20	12	1	111	333
2020	210	26	5	2	90	333
2021	211	28	6	2	86	333
2022	186	20	7	2	118	333
2023	200	53	25	3	57	338

The maps provided display the distribution of children who have not received any vaccination doses, referred to as "zero dose" (ZD) children, across different districts in 2022 and 2023. According to the report, two districts located in Aljawf and Hajjah governorates had over 5000 ZD children in both years. Additionally, the number of districts reporting at least 1000 ZD children increased from 29 districts in 2022 to 81 districts in 2023. Notably, 27 districts consistently reported at least 1000 ZD children for two consecutive years, with the majority of these districts situated in the northern governorates.

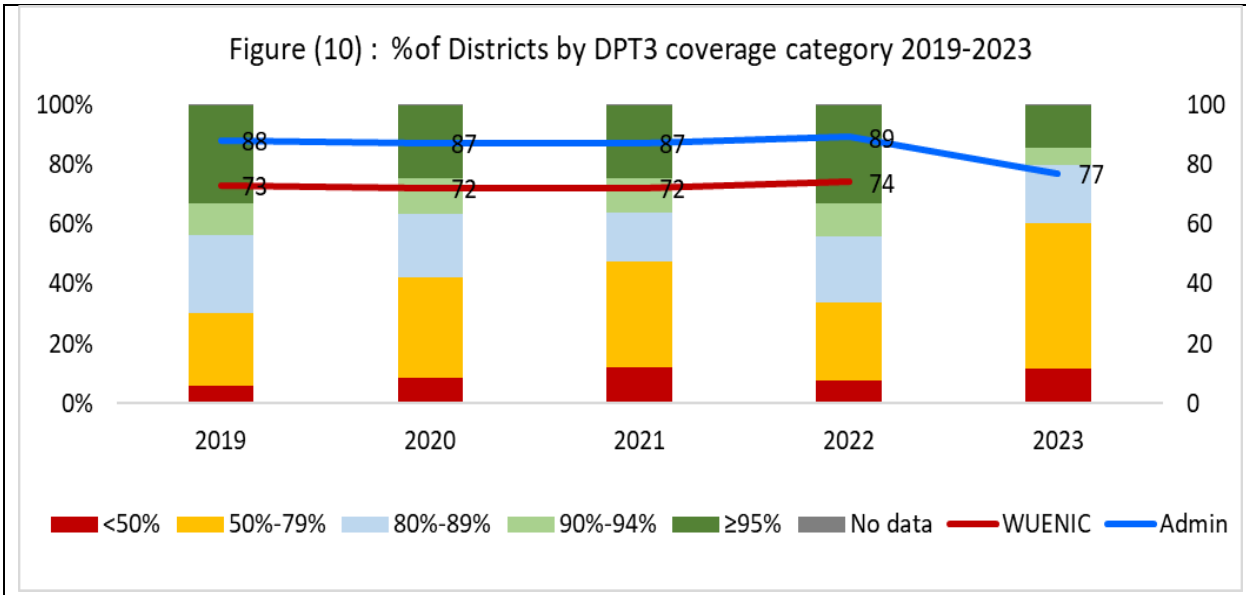


Figure (11) : Trend of national DPT3 coverage by different data sources, 2019-2023

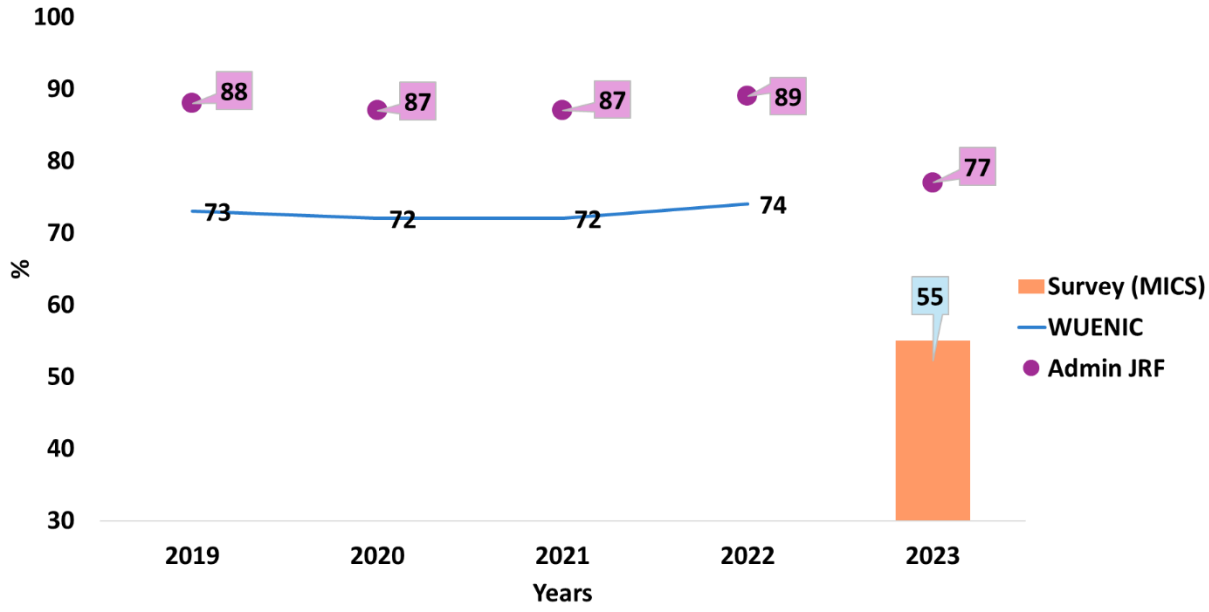
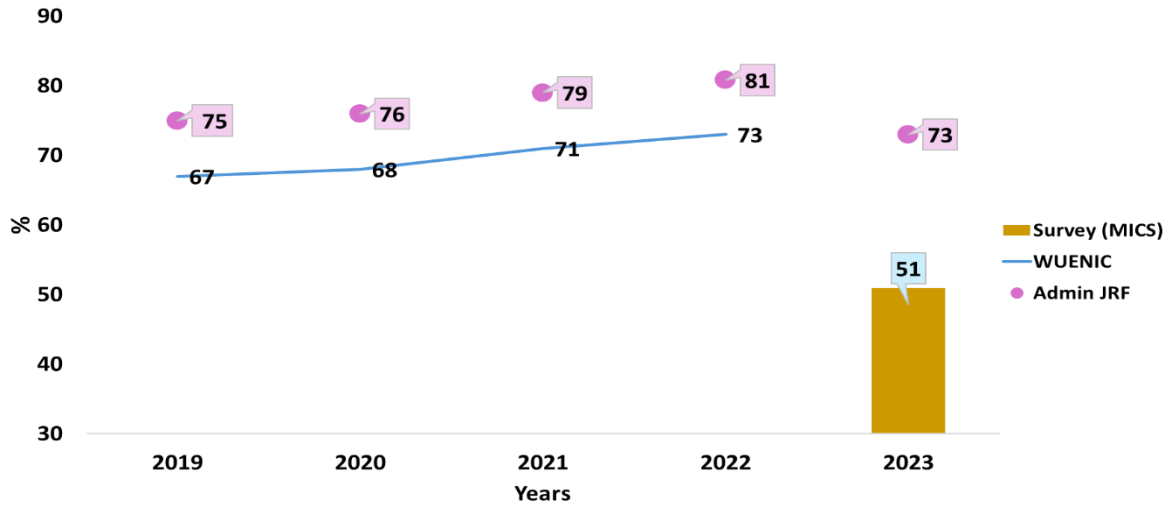


Figure (12) : Trend of national MCV1 coverage by different data sources, 2019-2023



The provided charts illustrate the trends in districts achieving a minimum of 77% coverage for the penta3 vaccine between 2019 and 2023. In 2019, it was observed that nearly 70% of the regions had a coverage rate of more than 80% for penta3. In 2020-2021, about 60% of regions experienced a recession and failed to exceed this coverage threshold. In 2022, there was a modest improvement, with about 75% of regions exceeding the 80% coverage threshold. However, the following year, 2023, the proportion of regions achieving coverage above 80% saw a significant decline, falling to just 39%.

In 2022, the reported national average coverages for Penta 3 and MR1 were 89% and 81% respectively. However, according to WHO-UNICEF estimates, the coverages were estimated to be 74% for Penta 3 and 73% for MR1. In the last national survey conducted in2022- 2023, the coverage survey data for Pent 3 and MR1 were reported as 55% and 51% respectively.

Similarly, in 2023, the reported national average coverages for Penta 3 and MR1 were 77% and 73% respectively. The absence of recent coverage survey data, with the last survey conducted in 2011-2012, presents challenges in accurately assessing the current performance.

What were the top 3 community-based activities/strategies to increase uptake of immunization services?

What efforts have been made to reach zero-dose and under-immunised children with vaccinations?

Screening and referral of identified ZD children using community-based structures (over 24,000 ZD and under-immunized children referred for services in South): The sponsored child initiative and other community-based initiatives like Father-to-Father and mother-to-Mother groups enhanced the identification of unvaccinated children in the Southern governorates.

The immunization efforts included the implementation of Intensified Outreach Rounds (IORs) to address barriers and improve access for zero dose and under-immunized children, with a total of five IOR rounds conducted in the South. Starting from May 2023, social mobilizers were incorporated as part of the IOR team to enhance community mobilization and awareness. In the northern governorates, the Outreach Strategy at the second level was specifically directed towards supported facilities. This targeted approach resulted in a coverage rate of 14% for the third dose of the pentavalent and polio vaccine.

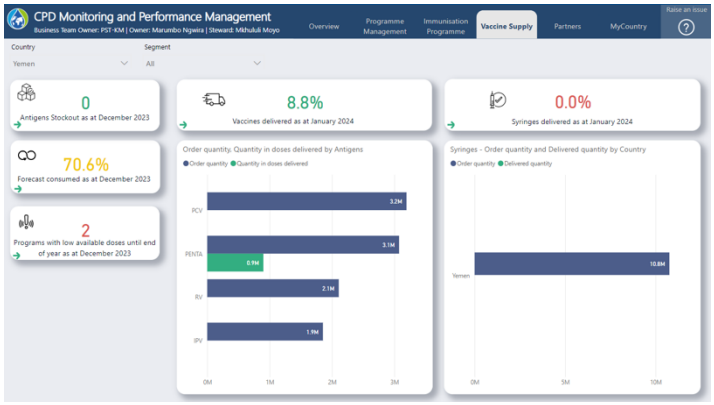
The Mobile Strategy at the third level ensured the provision of immunization services through mobile clinics, aiming to maintain continuity. Despite limited availability and the inability to cover all areas at the third level, this strategy achieved a coverage rate of 8% for the third dose of the pentavalent and polio vaccine.

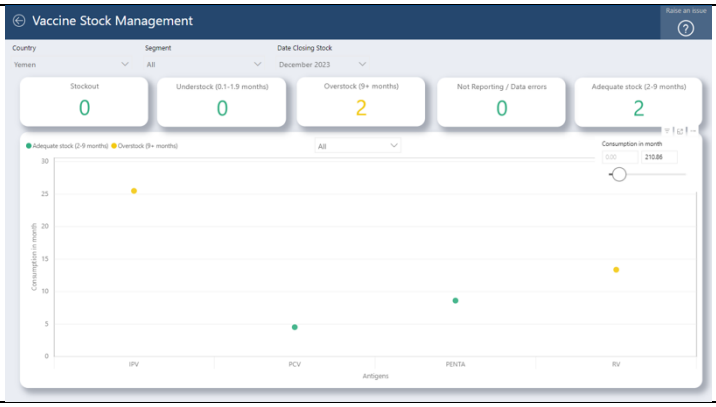
2. Learning Question: How well are vaccine stocks being managed?

Indicator(s):

- Number of health facilities that reported no stock-outs of DTP containing vaccine
- Number of health facilities that reported no stock-outs of Measles containing vaccine
- Closed vial wastage of DTP-containing vaccine
- Number of CCE received/installed/ leased through third party providers.
- Equipment maintenance and/or onsite readiness.
- Cumulative volume of C19 doses expired to date (and volume specific

Graphs:



to COVAX supported doses, if the data is available)	

Country comments

System optimization and segmentation:

Yemen's immunization supply chain functions across four levels: central, governorate, district, and health facility. Vaccines shipments are delivered to central cold stores in Sana'a and Aden for nationwide distribution. The current system relies on an "informed push" approach, where lower levels manually report stock and request supplies. The supply interval is quarterly for governorates and monthly for districts and health facilities.

The HSS3 fund was utilized in 2023 to support the distribution cost of vaccines within the country, starting from central stores in both Sana'a and Aden and reaching the subnational, governorate, and district levels. However, the last-mile distribution of vaccines to service delivery points continues to be a significant challenge because it relies solely on health workers (HWs) from health facilities who need to arrange for collecting their supplies from the district level. Unfortunately, due to limited resources, the process could not be systematized to ensure optimal efficiency. Optimizing this last-mile delivery through a more systematic approach is crucial for ensuring timely delivery of vaccines to all health facilities across the country.

Fundamental infrastructure:

The central warehouse in Sanaa has 16 walk-in cold rooms and 3 walk-in freezer rooms, supported by 3 generators to ensure an uninterrupted power supply. In Aden, the central store features 6 cold rooms and two freezer rooms, connected to the national grid with two backup generators. At the governorate level, each warehouse is equipped with at least one walk-in cold room and several freezers. In southern and eastern governorates, warehouses are connected to the national grid with backup generators. In the North, generators are employed to ensure a continuous power supply at the governorate level.

HSS3 fund was utilized to supply fuel for operating generators and ensuring the functionality of cold chain equipment at both central and governorate levels. Fuel was provided on a regular basis, typically quarterly, and distributed directly to the governorates.

District-level stores and 80% of health facilities utilize solar direct drive (SDD) refrigerators, offering a sustainable and renewable energy source. Ongoing investments aim to provide SDDs to the remaining health facilities that currently use other types of refrigerators (electrical, gas, and solar battery). One of the investments made in the cold chain system in Yemen is the Cold Chain Equipment Optimization Platform (CCEOP) supported by Gavi. The first two years of the project have been implemented successfully, leading to the provision of Solar Direct Drive (SDD) refrigerators to 586 health facilities. In 2024, the project will continue by providing an additional 168 SDD refrigerators to health facilities mostly in the South.

In 2023, a total of 260 icepack solar freezers were supplied to the EPI warehouses at the district level. This initiative aimed to enhance the cold chain system, particularly for supplementary activities such as campaigns and outreach programs.

For monitoring vaccine storage temperature, temperature monitoring sheets, continuous temperature monitoring devices (30 Days data logger), and freezer watches are employed at all levels. The introduction of Remote Temperature Monitoring Devices (RTMD) faces challenges due to security concerns in the North and weak GSM network coverage in the South. Distribution from the central level to governorate warehouses utilizes refrigerated trucks, while cold boxes and vaccine carriers are used for onward distribution to lower levels, including district warehouses and health facilities. This ensures vaccines are transported between levels within the recommended temperature range.

In 2023, a project was launched to support the rehabilitation of EPI warehouses at the central and governorate levels, with support from KFW through UNOPS. The project's scope includes structural rehabilitation, provision of cold chain equipment, warehouse management equipment and software, as well as solarization. The project commenced in Q4 2023 at the central EPI warehouse in Sana'a and will continue throughout 2024, targeting 10 sites in 6 governorates.

Data visibility:

Vaccine stock management data in Yemen faces limitations due to a reliance on manual processes. While the two central stores and some governorates use Vaccination Supplies Stock Management (VSSM) which is paired with manual record-keeping using the vaccine stock ledger. The paper-based system is solely dominating at district and health facility levels.

Vaccine consumption and wastage rates are manually monitored monthly at governorate and district levels using cumulative vaccine movement summary. The absence of automated and standardized vaccine stock management software at all levels remains a significant obstacle, impeding the capture of various indicators, such as vaccine consumption and wastage rate, in the immunization supply chain system. The manual compilation of data from health facilities to the national level is not consistently and effectively performed.

Recognizing this challenge, plans are underway to leverage the existing acceptance and usage of DHIS by introducing a vaccine logistics module for real-time monitoring of stock levels at various levels. This digital platform promises to improve data collection and provide much-needed visibility into vaccine stock management throughout the supply chain.

Capacity development and professionalism:

The EPI task force, present within the MoPHP in both the South and North, plays a crucial role as the technical entity responsible for overseeing all immunization-related activities. However, it is evident that during 2023, due to competing priorities, the attention given to immunization supply chain issues was relatively low. This situation highlights the pressing need to establish National and Subnational Logistics Working Groups (NLWGs) to facilitate coordinated efforts in immunization logistics and supply chain activities.

Immunization Supply Committees at the central level in both the South and North continued their role in supervising the operational aspects of vaccine supply in the country. They oversee the receipt of vaccine shipments, monitor storage conditions at the central stores, and manage the distribution of vaccines to lower levels. However, the government's inability to pay salaries and other allowances remains an ongoing challenge. Here, the HSS3 fund stepped in, providing crucial compensation and incentives to keep essential relevant staff working. Allowances for receiving and distributing vaccine shipments, as well as shift allowances, were regularly paid in 2023.

Recognizing the significance of skilled personnel in enhancing cold chain and vaccine management practices, a considerable effort was made in 2023 to continue building staff capacity. A specific training program on Cold Chain and Vaccine Management (CCVM) was conducted, benefiting a total of 888 health workers. In addition, 1,037 health workers received basic training on the Expanded Program on Immunization (EPI), which included a dedicated module covering cold chain and vaccine management. These training initiatives aim to equip health workers with the necessary skills and knowledge to efficiently and effectively provide immunization services.

Smart integration and harmonization:

A major milestone in the health information system in Yemen is the implementation of DHIS-2, a robust and comprehensive health information management platform. The integration of Expanded Program on Immunization (EPI) information within the DHIS-2 system continued during 2023. This integration aims to bring together all components of service utilization, vaccine management and cold chain inventory into a single, unified platform.

This integration when fully completed would enables real-time data collection, aggregation, and analysis of immunization-related information, providing decision-makers with up-to-date and accurate insights. This data-driven approach enhances the ability to monitor vaccine availability, track immunization coverage, and identify potential stockouts or cold chain issues promptly. Additionally, the integration promotes efficient information sharing and collaboration among different stakeholders involved in the immunization supply chain.

Strategic planning:

Vaccine procurement and shipment planning are informed by the Annual Vaccine Forecast, prepared at the beginning of each year. The exercise, conducted for 2023, ensures a precise estimation of the country's vaccine needs. In this process, vaccine shipments are planned, considering factors like storage capacity and average consumption to ensure the smooth delivery of vaccine shipments into the country.

As part of a strategic shift towards sustainable and cost-effective power sources for the operation of cold chain equipment, Yemen has made significant progress. Currently, EPI stores in 10 governorates are equipped with solar systems serving as a power source for the operation of the store. At lower levels, all district stores and 80% of health facilities (HFs) are equipped with solar refrigerators, eliminating the reliance on traditional energy sources.

Yemen is in the process of planning and applying for the Cold Chain Equipment Optimization Platform (CCEOP) 2.0 support offered by Gavi. The primary goal of this endeavour is to achieve full coverage of solar refrigerators in all health facilities across the country. By securing this support from Gavi, Yemen aims to enhance the availability and accessibility of cold chain equipment, thereby ensuring the safe storage and efficient distribution of vaccines.

Yemen is planning to apply for Cold Chain Equipment Optimization Platform (CCEOP) 2.0 lever of support available from Gavi. The main objective is to reach 100% coverage with solar refrigerators in all health facilities. This project will further improve the availability of cold chain equipment across the country, ensuring the safe storage and distribution of vaccines.

To support the expansion and optimization of the cold chain infrastructure, a comprehensive cold chain inventory was conducted in 2023. This inventory will provide evidence-based insights into the cold chain equipment requirements in the country. The data collected will help inform the development of a strategic replacement and expansion plans to ensure that all health facilities have access to Performance, Quality, and Safety (PQS) certified cold chain equipment.

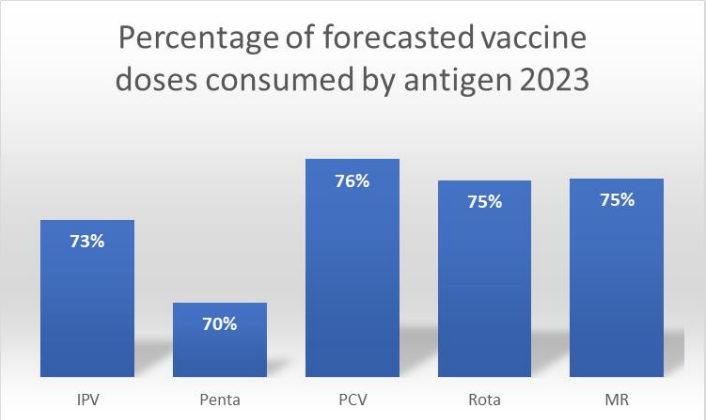
Additionally, the inventory data will be crucial in developing decommissioning and maintenance plans for existing cold chain equipment. This proactive approach will ensure that the equipment remains functional and reliable, minimizing the risk of disruptions in the vaccine supply chain.

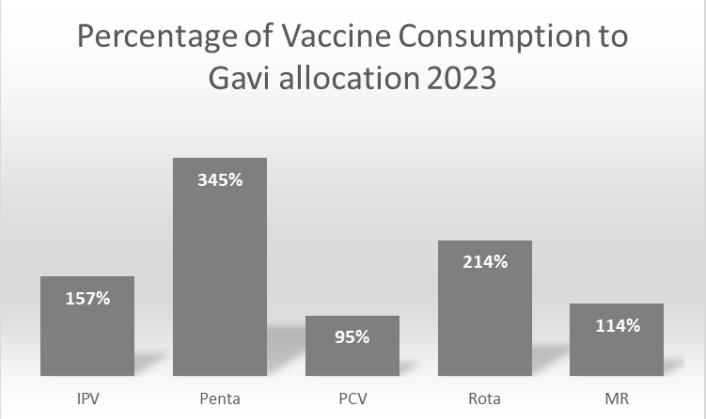
3. Learning Question: Are vaccines being consumed at rates that are in-line with approved forecasts? What are the key drivers of consumption compared to expectation (e.g., stockouts, increased coverage, wastage)?

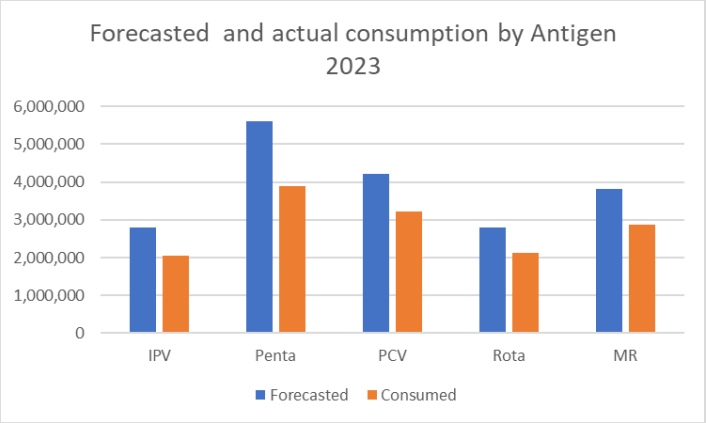
Indicator(s):

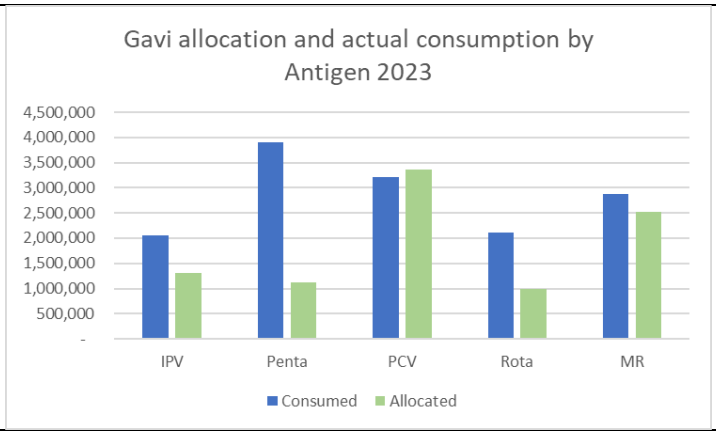
- Percentage of forecasted Annual Vaccine Requirement (AVR) consumed in prior period (by antigen)

Graphs:









Country comments:

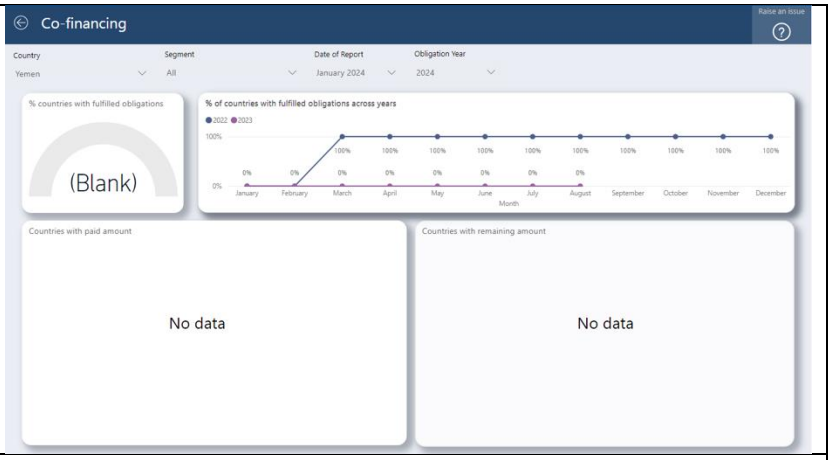
The vaccine consumption in 2023 falls short of the approved forecasts, mainly due to the country's low immunization coverage. As highlighted in section 1 of the report, various factors contribute to the challenges of achieving higher immunization rates. Prolonged instability, infrastructure damage, insecurity, limited healthcare access, economic constraints, vaccine hesitancy, and the overall humanitarian crisis impacted the ability to achieve the forecasted coverage rates and hence contributed to the low consumption of vaccines.

On the flip side, when comparing the vaccine consumption with Gavi's allocation for each vaccine, it becomes evident that the allocated quantities fell short of covering the actual need, based on the administered doses during 2023. The consumed Penta doses reached 3,900,625, representing 345% of the Gavi allocation of 1,130,800. Similarly, the consumed Rota doses amounted to 2,112,903, making up 214% of the Gavi allocation of 987,000. For PCV, the consumed doses were 2,060,185, accounting for 157% of the Gavi allocation of 1,313,200. While the comparison is more favourable for PCV and MR, with the consumed doses representing 95% and 114% of the allocated doses respectively. As previously explained, it's evident that additional quantities of Gavi-supported vaccines provided through UNICEF prevented critical stockouts in the country.

Given this scenario, it is imperative to reassess the parameters used by Gavi to calculate future allocations to Yemen, ensuring they meet the actual need and guarantee supply sustainability. The availability of other resources to fund complementary quantities in the coming years may not be certain, highlighting the importance of reviewing Gavi-supported vaccine forecasting.

4. Learning Question: Is the country complying with co-financing requirements in a timely manner?

Indicator(s):	**Graphs:**
• Country co-financing obligation met in a timely manner	



Country comments:

The country had been meeting its co-financing obligations for Gavi-supported vaccines. However, since the onset of the crisis in Yemen in 2015 and the resulting economic challenges, the country has been unable to fulfil its commitment using its domestic resources. To ensure that the co-financing obligation is still met, UNICEF has taken the initiative to mobilize resources on behalf of the country. So far, the country has not defaulted on this obligation.

Towards the end of 2021, the country requested Gavi to consider granting them a waiver for the next few years, citing the economic predicament and fragility of the country. In response to this request, Gavi has approved the waiver of Yemen's co-financing obligations, acknowledging the difficult circumstances faced by the country.

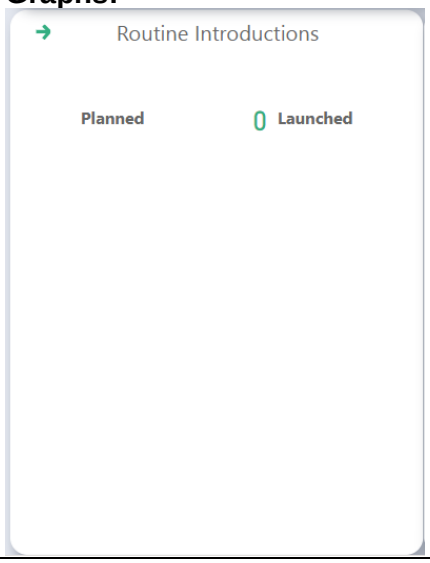
5. Learning Question: If applicable, have new vaccines been introduced as planned and if not, why? Is coverage of recently introduced vaccines being scaled-up as expected?

Indicator(s):

- Number of routine introductions completed over number of targets set for the calendar year
- Coverage of recently introduced vaccines

In addition, forecasted routine introduction & campaign dates should be validated during the JA discussion

Graphs:



Country comments:

Following the NITAG approval in 2022, the introduction of the hepatitis B vaccine to newborns immediately after birth did not proceed as planned in 2023. The sensitivity surrounding the immunization program, coupled with a well-organized anti-vaccination campaign in the North and other competing priorities in the South, has disrupted the implementation of the new vaccine introduction. Moreover, it has been recognized that additional resources are needed for a successful introduction, such as training healthcare workers and preparing necessary printing tools.

The most recent vaccine introduced in the country was the second dose of the inactivated Polio vaccine (IPV2), which was implemented towards the end of 2021. This vaccine specifically targeted children at 9 months old who had previously received the IPV1 dose at 4 months. In 2023, efforts were made to expand the coverage of IPV2, resulting in an increase to 53% compared to only 34% in 2022.

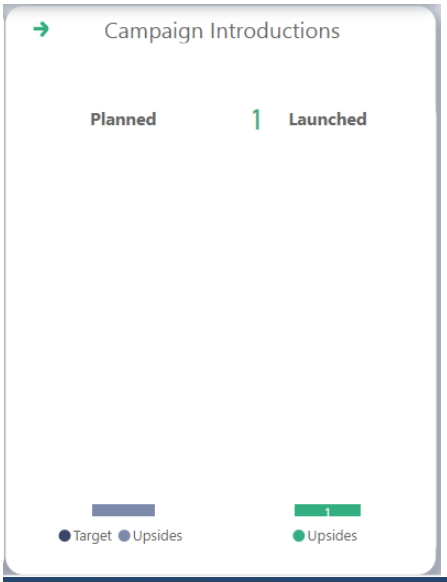
The country plans in some (priority) or all governorates to introduce lifesaving vaccines such as malaria, HPV and birth dose hepatitis B vaccines. In addition, the program aims to switch from DPT-HEPB-Hib + IPV to hexavalent vaccine in the form of DPT-HEPB-Hib-IPV vaccine.

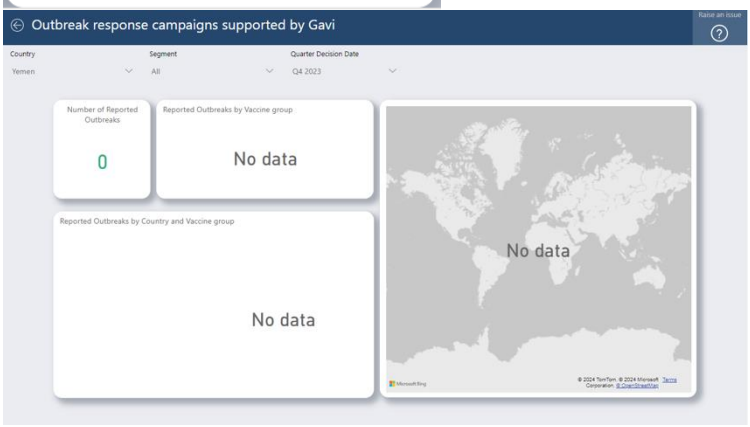
6. Learning Question: If relevant, how effective have recent Gavi supported vaccination campaigns been?[2] Please highlight lessons learned which are applicable for routine immunisation and upcoming campaigns (e.g., timeliness of outbreak response, quality, campaign reach and link back to strengthening routine immunisation).

Indicator(s):

- Number of vaccination campaigns conducted (stratified by type of campaigns, including preventive, reactive, catch-up, follow-up, sub-national and national)
- Coverage of recent Gavi-supported campaigns, compared to target (coverage rate disaggregated by sex if collected)
- Number of reported outbreaks of vaccine-preventable diseases (for which GAVI supports with reactive campaigns)

Graphs:





Country comments:

Yemen was one of the five countries in EMRO with the largest measles outbreaks over the year 2021-2023. In 2023, Yemen experienced an extended measles outbreak across the Governorates during which time over 50,000 suspected measles cases were reported.
EPI Yemen through routine immunization schedule offers 2 doses of measles vaccine (MCV) upon completion of 9 months and at 18 months of age for every child. Unfortunately, coverage of MCV 1 and MCV2 through

[2] Please reflect on those campaigns conducted since the last Joint Appraisal/Multi-Stakeholder Dialogue exercise.

routine immunization is still far from being able to reach the optimum 95% needed to prevent future outbreaks. Hence, supplemental vaccination activity is an important strategy to prevent and respond to measles-rubella cases.

With generous Gavi funding support and technical assistance of WHO and UNICEF, the MoPHP conducted Measles-rubella vaccination campaign in all 13 Governorates and (121) districts in the southern governorates. A total of (1,154,919) children were vaccinated, reaching out to 91 % of the intended age group 6 months to 59 months.

The campaign was carried out through (847) fixed health facilities and (2,178) temporary vaccination posts. A total of (6897) health workers, and (699) supervisor implemented the campaign. The campaign was also supported/supervised by supervisors from various levels (central, governorate, and district) and was monitored by the independent monitors deployed by WHO, M&E officers WHO, and WHO/UNICEF technical staff.

Community volunteers, religious leaders, and mother-to-mother mobilizers were mobilized for the campaign, supported by UNICEF and other partners. The campaign aimed to rapidly build up the herd immunity for both measles and rubella diseases in the community so as to interrupt the outbreak circulation.

Therefore, all children 6 months to 59 months were targeted in the selected districts to receive the MR vaccine during the campaign. As well surveillance systems are strengthened in the health facilities and community level to detect any suspected case.

On the other side, proper case management and treatment at facilities were provided to all detected cases as per Measles treatment protocol and increased awareness about Measles prevention among the communities, and the community's role in health awareness-raising was reactivated.

As the strategy of MR campaign not from house to house so in order to achieve maximum coverage during the campaign, intensified and multiple social mobilizations activities, approaches, and channels were used: house-to-house visits, camps, community gathering, scaling up through social media and WhatsApp, PRIVATE sector community Radios and TVs. Megaphones vehicles used to make announcements, print, and distribution of banners, posters, and leaflets.

Administratively (61.5) % of governorates namely (AlHudaida- Al-Dhalee- Taizz-Aden –Lahaj, Marib, Abyan, and Al-Beyda) achieved 100%-90%, (15.4) % of governorates namely (Hadramout Al-Sahil and Soquatra) achieved 89-80%, (15.4%) achieved >=79-70% (Hadramout Al-Wadi and Shabwa) while only one governorate (7.7%) (AlMahara) achieved less than 70%.

Considering the measles epidemiological situation in the northern governorates, and due to the suspension of outreach and campaign activities, a new Health Emergency Expansion and Response (HEER) initiative to reach the populations with accessibility challenges has been proposed by the government and UN partners (WHO and UNICEF). The implementation of this initiative will be guided by three strategic directions:

- Strategic direction 1: Strengthening integrated routine PHC services.
- Strategic direction 2: Preventing and responding to ongoing and future outbreaks (mainly measles and Polio).
- Strategic direction 3: Developing a roadmap to revitalize the national health system and improve service delivery mechanisms.

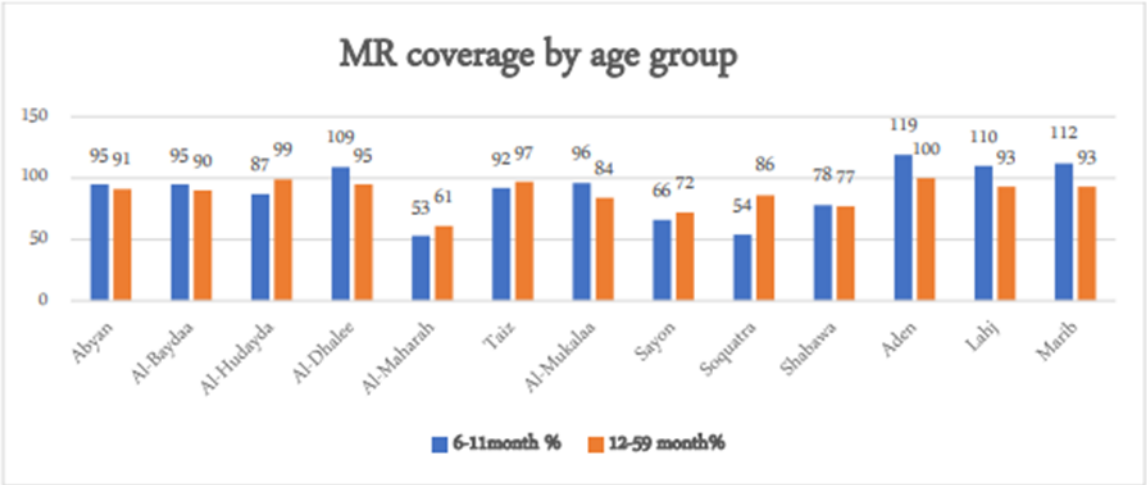
Success metrics of the initiative include:

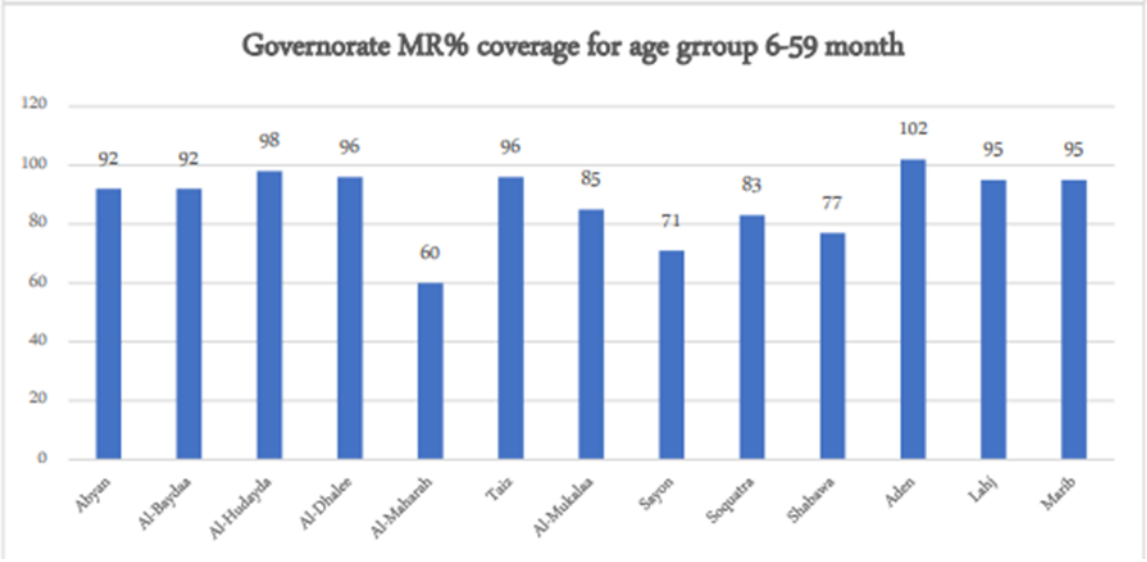
1. Reach over 80% of targeted communities in the selected governorates with the integrated essential health package services by the end of 2024.
2. Completion of at least four outbreak response activities covering all 227 districts in the northern governorates by the end of June 2025.

3. Achieve over 90% of vaccination and essential health services in all outbreak response activities, as assessed by Post Campaign Independent Monitoring.
4. Development of a roadmap for sustainable health systems strengthening interventions, with engagement from stakeholders by the end of 2024.

The implementation timeline for this initiative is planned to start on July 2024 and continues till the end of June 2027. During the implementation proposed timeline, the initiative will be assessed and the based on the review, adjustments in response modality will take place for changing operating dynamics, as necessary.

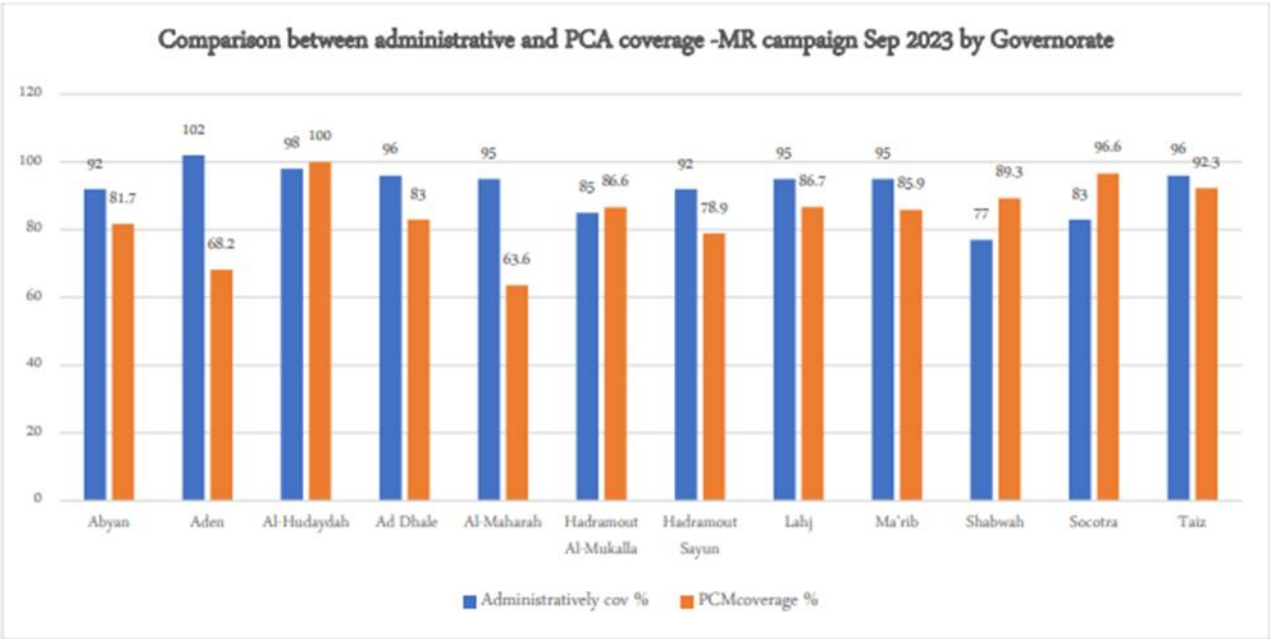
A national HEER task force will be formed with primarily responsibility for monitoring and evaluation as well as generating monthly reports on implementation status to be presented to the government's leadership and steering committee and shared with donors and partners as part of health systems strengthening approaches and universal health coverage requirements.





Post Campaign Assessment (PCA) was conducted in (119) districts that showed the highest crude SIA coverage with MR vaccine was achieved in Al-Hudaydah governorate (100%), followed by Socotra (96.6%), Taizz (92.3%) and Shabwa (89.3%). However, coverage in other governorates ranged from 63.6% in Al-Maharah to 86.7% in Lahaj.

Graph showing Comparison between administrative and PCA coverage -MR campaign Sep 2023 by Governorate



7. Learning Question: What is the current status of your COVID-19 vaccination?

Indicator(s):

- Report and reflect on progress in uptake, with particular emphasis on older adults, health workers and other high-priority population group (as defined by WHO SAGE guidance). Analyse both primary series uptake and boosting.
- Describe if and how the country is integrating delivery of COVID-19 vaccine with routine immunisation & other primary health care services, including reflecting on how Gavi CDS has been used to support these integration efforts (if applicable).
- How have CDS funds been used to strengthen broader RI efforts beyond COVID-19?

I

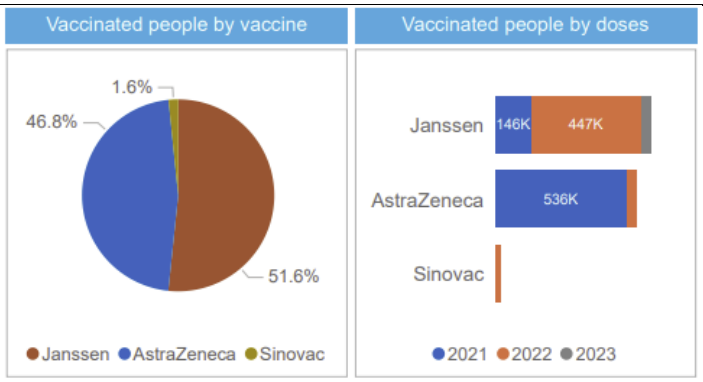
Total target and Vaccinated people

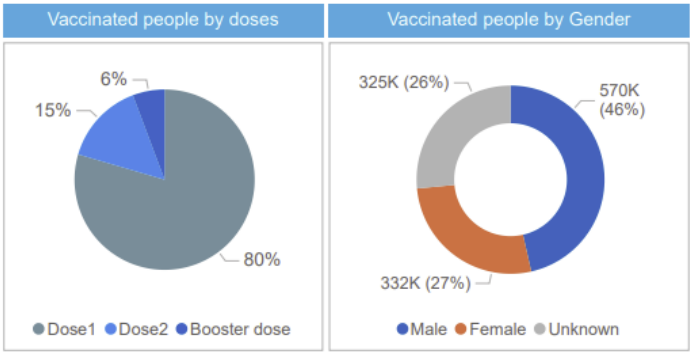
Total coverage TP	15%	Fully vaccinated	733,839	9%
		Partially vaccinated	422,631	5%
Total coverage 18yrs+	32%	Booster dose	70,264	1%

Vaccinated people by vaccine type and doses

Vaccine type	Dose1	Dose2	Booster dose	Total vaccinated
Janssen	552,991	10,465	70,144	633,600
AstraZeneca	408,122	165,307	120	573,549
Sinovac	14,509	5,076	0	19,585
Total	975,622	180,848	70,264	1,226,734

Year	Dose1	Dose2	Booster dose	Total vaccinated
2021	544,099	137,963	66	682,128
2022	402,991	39,863	61,053	503,907
2023	28,532	3,022	9,145	40,699





Country comments:

In accordance with the 2023 plan set forth by CDS-3 Gavi WHO, four outreach rounds were scheduled within the allocated budget. The WHO in collaboration with the ministry and partners effectively carried out four comprehensive outreach rounds.

The coverage analysis for the implemented IORs is detailed as follows:

- In 2023, south Yemen implemented four rounds (3 from WHO and 1 from UNICEF) of Integrated Outreach rounds with the support CDS & USAID funds, which gave people with a package of services were able to address multiple health needs of people in a comprehensive manner.
- Through the Integrated Outreach approach, 15,353 doses of COVID-19 vaccine were administered, which helped to protect people from the COVID-19 pandemic.
- The child centered comprehensive Integrated Outreach approach also strengthened immunization rates for children, as it allowed for the immunization of children who had not received any previous doses of vaccine. (7,933 children received their first dose of zero-dose vaccine and 38,984 and 43,895 children under 1 and under 2 years of age were protected against measles and rubella).
- The Integrated Outreach approach also yielded benefits for maternal and child health, as it allowed for the detection and treatment of childhood illnesses. (167,963 children were examined, and 5724 severe cases of childhood illnesses were identified. There were 20,745 pneumonia-like infections and 59,023 cough cases detected).
- Additionally, the Integrated Outreach approach allowed for the screening of children for malnutrition, which helped to identify and address nutritional deficiencies in children. (57,343 children were screened for undernutrition, 9,025 micronutrient supplements were given, and 8,042 children were referred for treatment (7%).
- Innovative approach adopted and integrated outreach activities strengthened through the involvement of reproductive health care services provided with 18,596 first visits, 9,264 second visits and 5,735 third visits. 21,399 Vitamin A supplements and TT vaccination were also provided.

- strategies to reach high risk groups such as elderly and care workers in public and private facilities:
- In 2023, ongoing efforts have been made to develop strategies for COVID19 vaccination targeting the elderly and healthcare providers.
- These efforts have included integrating COVID-19 vaccination into high-coverage routine vaccination health facilities.
- Additionally, integrated vaccination counters have been established at specialized clinics (such as those for diabetes, hypertension, hepatitis, cardiac issues, non-communicable diseases, and tuberculosis) as well as at teaching hospital outpatient departments for the vaccination of individuals aged 50 and above, as well as patients with comorbidities.
- Throughout routine and integrated outreach activities, teams have been instructed to prioritize the vaccination of healthcare providers and the elderly population.
- WHO initiated an integration of COVID-19 vaccination into primary healthcare facilities. This initiative involved the engagement of 181 health facilities across all governorates of South Yemen. These health facilities were responsible for providing primary healthcare services as well as administering COVID19 vaccinations specifically to individuals aged 50 years and above with comorbid conditions.
- A commendable 44% of healthcare professionals are now fully vaccinated, and 40% of our senior citizens have also received their full vaccination schedule. Fully vaccination of high priority groups depicted good results with 10% coverage of health care providers and 6% coverage of elderly age group remarkedly increased in this year.

Support development of micro plan to strengthen routine immunization coverage:

Developed microplanning for integrated MR & COVID-19 campaign through in-depth technical discussions with MOPHP Aden. In addition, facilitate a validation workshop focused on microplanning for MR & COVID-19 vaccination at the central level with representatives from various governorates, including GHO and District Health Officers (DHO). The microplanning and training sessions emphasized the development of comprehensive plans for conducting immunization sessions, which encompassed aspects such as scheduling, logistics, and service delivery.

8. Learning Question: Trajectory and progress against targets set

- **How does the progress over the past year compare with your Theory of Change or programme objectives and HSS3 workplan?**
- How has **COVID-19** and **COVID-19 vaccination** impacted your routine immunisation programme, what has been done to maintain and restore immunisation and what has been the impact of it (please include reference to trends in DTP3 and MCV1 coverage)?
- If there are **other factors** (e.g., government transitions, natural disasters, other disease outbreaks, etc.) which have led to disruptions in your immunisation programme over the last year, please also reflect on those.

Indicator(s):	**Graphs:**
• Number of children who received DTP3 and number of children who received MCV1 in the past year compared to the number who received those vaccines in 2019. • Qualitative information	

Country comments:

Grant-linked Key Performance Indicators (KPIs)

Grant Start Year: **Grant End Year:**

	Indicator	Baseline	Baseline Year	End of Grant Target (Change from Baseline)	End of Grant Value (Projected)	Data source	Frequency of reporting
C.1	Number of Zero Dose Children at national level	145,470	2022	-13%	126,559	WUENIC & UNPD	Annually
C.2	Drop out from DTP1 to DTP3 at the 40 targted districts level	13%	2022	4%	9%	WUENIC	Annually
C.3	Drop out from DTP1 to last routine dose of MCV at the 40 targted districts level	34%	2022	7%	27%	WUENIC	Annually
C.4	Percentage of health facilities that reported no stock-outs for the full year for DTP	0%	2021	3%	3%	Admin (JRF)	Annually
C.5	Annual timely fulfilment of co-financing obligation	NA	[year]	Yes	n/a	Gavi Secretariat	Annually
S.1	Number of children reached (with DTP1) in areas targeted for intervention	200306	2022	6%	212324	Admin (JRF)	Annually
S.2	Drop out from DTP1 to DTP3 in areas targeted for intervention	17908	2022	4%	8,954	Admin (JRF)	Annually

B. Programme Management

Financial implementation of Gavi cash grants

Cash[3] Support Summary* (as at 31 March 2024)

Grant	Recipient	Period		Cash Bal- 31 Mar 2024		Compliance**	
			Grant Value	Approved	Disb31/3/24	Total expenditures + commitment 31/03/24	Utilisation
HSS3 2021-2023	UNICEF	2021-2023	$10,350,203	$10,350,203	$10,350,203	$9,815,730	95%
2023 TCA	UNICEF	2023	$981,753	$981,753	$981,753	$981,753	100%
CDS	UNICEF	2021-2023	$3,391,845	$3,391,845	$3,391,845	$3,329,270	98%
COVAX TA	UNICEF	2021-2022	$516,200	$516,200	$516,200	$516,200	100%
IPV dose 2 introductions	UNICEF	2021	$258,101	$258,101	$258,101	$258,101	100%
MR grant	UNICEF	2023	$556,609	$556,609	$556,609	$226,439	41%

*All amounts are in USD
**Comment below in case of non-compliance

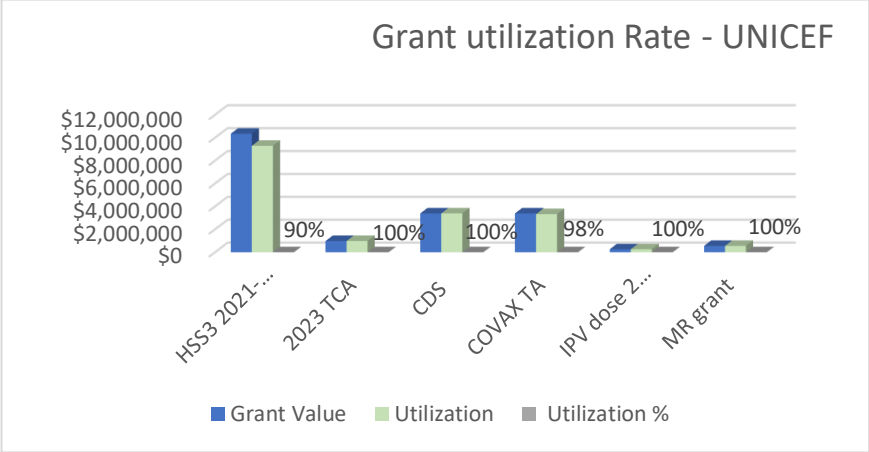
[3] All HSIS grants (HSS, VIGs, OPS, Switch), EAF and CDS cash support as applicable.

9. Learning Question: How well is the country able to absorb Gavi funding and what are the drivers? (This should cover all funding including funds channelled through partners.)

- Comment on the financial implementation progress of grants including but not limited to the utilisation rates. What are the key issues? And what is affecting absorption rates?

Indicator(s):

- Percentage of grant funds utilised
- Amount of cash balance in-country



Country comments:

The financial implementation progress of grants varies across different programs. While grants like TCA, COVAX TA, and IPV2 introduction show full utilization rates, others like HSS3 and MR grants face challenges. These challenges are programmatic in nature and are largely attributed to obstacles beyond the control of the technical team.

For HSS3, certain activities such as social behavior change (SBC) activities, real-time temperature monitoring, rehabilitation of EPI warehouses, and operational costs for EPI warehouses couldn't be implemented, leading to a lower overall utilization rate of the HSS3 grant.

In the northern governorates, the MoPHP did not approve the use of real-time temperature monitoring due to security reasons. Despite successful training of trainers (ToT) for real-time temperature monitoring devices (RTMD) in the southern governorates, the lack of necessary GSM network coverage hindered their installation and functionality.

The MoPHP, both in Sana'a and Aden, approved the implementation of immunization supply chain warehouse rehabilitation through UNOPS. Consequently, the allocated funds under the HSS3 for this purpose have been saved for reprogramming.

The restriction on social mobilization activities continues to pose a challenge in the northern governorates, leading to the inability to implement approved social mobilization activities outlined in the HSS3 plan.

Regarding the MR grant, all the fund channelled through UNICEF is for SBC activities. 59% of the grant was successfully utilized within the MR campaign in the Southern governorate implemented last November. However, the campaign hasn't been conducted yet in the North. Discussions on the implementation strategy through HEER are underway, with anticipation for implementation during 2024.

10. Learning Question: How well is the country resolving issues arising from assurance activities? What issues are left to solve and what is the path forward?

- What is the progress of Grant Management Requirements (GMRs) implementation? Where GMRs have not been fully implemented, what are the bottlenecks and how can these be resolved.
- How has the country addressed recommendations arising from past audit recommendations (annual external audits + Gavi Programme Audit)?
- Comment on the improvements that have been made to financial management and risk assurance activities with support of assurance providers (e.g., Fiscal Agents, Monitoring Agents, Financial Management Technical Assistance)?
- Describe briefly the current assurance mechanisms in place by different implementers.

Country comments:

The country is making all efforts to respond to issues arising from financial assurance activities. To mitigate risks associated to Cash transfers to partners, UNICEF adopted the Enhanced Harmonized Approach to Cash Transfers (HACT Plus) including conduct of an Enhanced Risk Assessment (ERA). The objective of ERA/micro assessments is to assess the capability of partners to handle financials/funds given to them by donors (financial management capability) including. Financial systems of the implementing partners, Implementing Partners' internal controls, Partners funds flow, Partner's procurement system, Partners organizational structure if at all they have enough human resources to handle donor Programme funds and interventions, Internal audit function of the implementing partners and segregation of duties of IPs. The following measures related to HACT are included under this enhanced framework:

- Internal supervision and control by the Ministry: The Ministry of Public Health and Population enjoys technical and financial supervision through the primary health care sector, the General Administration of Financial Affairs, and the existence of a financial and accounting system subject to the financial and supervisory laws in force in the Republic of Yemen. And through the General Department of Financial Affairs, where continuous and permanent monitoring is carried out before, during and after implementation, in addition to documenting and recording all financial operations and supporting documents that can be referred to at any time by stakeholders, auditors and partners upon request.
- Re-assessment: Through an enhanced partial evaluation methodology that goes beyond UNICEF's Harmonized Approach to Cash Transfers framework – for all implementing partners (including government counterparts), via banks and exchange houses in coordination with the Ministry.
- Limit direct cash advances to implementing partners to the minimum possible by increasing the use of direct payments to suppliers and service providers; and reimbursement of expenses already paid by implementing partners.
- Implementing an enhanced random inspection approach and increasing the number of assurance activities for implementing partners - Program Monitoring Visits (PMV), spot checks and audits.
- Strengthening third-party monitoring by increasing the number of field verification operations and coordinating the work of field monitors. The process of selecting a TPM agent for HSS3 is ongoing.

Additionally, UNICEF adapted direct cash transfer model through Yemen Service Centre (YSC) to facilitate direct payment of health workers per diem, health facilities operational cost and EPI incentives. The model involves strict measures to generate and validate the beneficiary list and associated with grievance redressal mechanism and third-party monitoring.

S/n	GMR description	Updates
1	Monitoring and Supervision	
1.1	Both UNICEF and WHO will engage Third Party Monitoring (TPM) agents to specifically cover the Gavi funds including	TPM agency is on board and the field monitoring is completed. First draft report shared with UNICEF.

1.2	cash, cold chain equipment and vaccines. The following actions which will apply:	TPM has been engaged for PHC support. This has been Synced with TPM for other donors such as WB and FCDO.
1.3		MoPHP to be fully engaged for endorsement of the TPM activities at central, Governorate, district and HF levels
2	Financial and programmatic reporting	
2.1	WHO and UNICEF shall submit six-monthly financial reports in line with Gavi Guidelines on Financial Management and Audit Requirements	Ongoing through The HQ
2.2	Six monthly progress reports (financial and programmatic) shall be submitted to UNICEF by all implementing entities receiving funds directly from UNICEF.	Ongoing
3	Funding modality and assurance arrangements by Alliance partners	
3.1	UNICEF will manage funds on behalf of the Government of Yemen through the stipulated in the grant agreement between Gavi and UNICEF for this purpose.	Funds are channeled through UNICEF and WHO
3.2	Considering the high fiduciary risk in Yemen, as part of UNICEF HACT-PLUS procedures, standard micro-assessments shall be carried out for all fund recipients (Government and CSOs) as per the stipulated thresholds.	UNICEF conducts micro-assessment through its HACT-PLUS procedure
3.3	UNICEF will ensure that findings of the micro-assessment are taken into consideration and additional risk mitigation measures are introduced as appropriate.	Completed and ongoing
3.4	To ensure timely implementation of activities, UNICEF will ensure that the approved Gavi funds are made available to the implementing entities within 15-30 days of transfer of funds by Gavi.	Timely implementation is ensured as per UNICEF modalities (HACT and DCT)
4	Finance Manual for use at HSS Units, MoPH Saana and Aden	
4.1	A Finance and administration Policy and Procedures manual will be developed (current one updated) for use at the HSS Units, MoPH Aden and Sana'a. The following will be included: Reporting procedures (i.e. monthly, quarterly and annual reports); Fixed asset management; and Record Archiving.	MoPHP has Finance and administration Policy and Procedures manual
5	Cold chain equipment and all program assets and supplies	
5.1	Procurement of all cold chain equipment funded by Gavi or any other subsequent cash grants will be carried out by UNICEF in accordance with UNICEF guidelines and procedures for procurement.	Ongoing
6	Annual work plans/budgets/procurement plans	
6.1	MoPH with support from UNICEF will prepare annual operational work plans, budgets and procurement plans (including items to be procured by UNICEF) and submit to Gavi for review and approval.	The plan was developed based on HSS3 with budget and timeline
7	Fixed Assets Management- MoPH	

7.1	A comprehensive Fixed Asset Register (FAR) will be maintained for all assets, including but not limited to cold chain equipment, vehicles and IT equipment procured or to be procured through Gavi grants to Yemen.	Detailed Fixed Asset Register developed and share with MoPHP for use
7.2	This Fixed Assets Register will be maintained by Government of Yemen and updated regularly.	In place
7.3	All assets procured with Gavi funds will be tagged with unique identifiers and asset verification will be carried out at least annually, reconciling the physical assets count and condition to the FAR at all levels.	ongoing
7.4	Scope of work of the TPM firm will include carrying out independent physical verification of cold chain equipment at all levels	Done
8	Vaccine stock management and inventory control:	
8.1	A standard web-based stock management tool will be implemented for vaccine stocks management at all levels.	Ongoing
8.2	Until the web-based system is fully operational, manual stock registers will be maintained at all levels parallel to the computerized system.	Done
8.3	The issuance of stock will be strictly on First Expired First Out (FEFO) basis and the stock management tool will only allow issuance of stock on FEFO basis.	Done
9	Verification of stock	
9.1	Periodic (ideally quarterly) physical verification of stocks will be carried out by MoP/ EPI staff (independent of stock management) at the NVS.	Ongoing but irregular
9.2	The TPM firm will also carry out physical verification on a periodic basis at the NVS, Governorate, District and Health Facility level.	Done through the HSS3 and PHC TPM
9.3	Results of the physical verification will be formally documented and agreed action plans followed up.	The outcome informs distribution plan
9.4	The report of physical verification will be shared with Gavi at least biannually.	Done during the TCA milestone reporting

11. Learning Question: Please comment on any other financial management-related bottlenecks for implementation and compliance.

Country comments:

- Delay of payments of operational costs and payment of per diem of the health workers respectively due to delay in confirming list of Health workers who have conducted integrated outreach.
- The bureaucracy processes, such as delays in reviewing the list of the beneficiaries in some heath facilities or replacing some beneficiaries, have complicated the payment schedule. This is because the payments are made quarterly and need to synchronize with other payments from the support for other Primary Health Care services such as FCDO, EHCP, CERF etc.
- The restriction of social mobilization activities outside the health facility has resulted in the non-implementation of key activities such as increasing demand for the vaccination services through involvement of mass media at central, governorate and district level. As a result, these activities were reprogrammed for the upcoming years.

- Due to the security concerns, the implementation of real-time temperature monitoring across the country was not carried out. This critical activity, intended to ensure the monitoring of vaccines at national and sub-national level, was not approved for implementation in the North. As a result, this activity had to be reprogrammed.
- Even though the new partner in the immunization space, such as UNOPS presented a great opportunity to support the rehabilitation for the EPI warehouse, the delay in approval of the UNOPS project for rehabilitation of immunization supply chain warehouse has impacted the potential for implementing this activity.
- The reprogramming activities involved consultations between Gavi and stakeholders, which prolonged the finalization of reprogramming process and planning for 2024-2026 HSS3 activities.
- The delayed submission of the final list of health workers has resulted in a delay in the internal verification process and agreement for the retro-active payment (Q4-2022 and Q1-2023) of Health Workers.

12. Learning Question: Is the country effectively addressing gender related barriers (e.g. faced by caregivers or adolescents in accessing immunisation services and barriers faced by health workers in delivering immunisation services)?

Indicator(s):	**Graphs:**
• Did (when) the country conduct a gender analysis that identified barriers faced by health workers, caregivers and adolescents (yes/no) • Has the country implemented initiatives that remove or reduce gender related barriers?	

Country comments:

Despite the gender backlash, anti-gender campaign and the national ban on vaccination activities outside PHCs in northern Yemen, UNICEF has continued to support the integration of gender in immunization and health services through various practices including the important role of community health workers (CHW) (100% females) in ensuring access to health care and immunization services that cannot be overemphasized.

In Yemen, the significant contribution of the CHW to health care service delivery including immunization has been documented. To promote polio and measles vaccinations, the female CHW would facilitate the mobilization of households for the extra-facility-based activities, preparing them to receive the vaccine, they will additionally work at the community level to report spread of vaccination misconception. UNICEF has also been mobilizing with the MOPHP to scale up 100 female CHW across 2 Governorates through the CanGIVE funding, with challenges from the authorities to expand the number of CHWs specifically in the North. And as part of the Ministry of Public Health and Population's plan for the digitalization of health information, including immunization, ongoing discussions are being held to ensure that sex and age-disaggregated data is included in this digitalization initiative. This inclusion is aimed at capturing and analysing data based on sex and age categories, which can provide valuable insights for addressing gender integration issues in healthcare.

And in response to the main barrier of the gender backlash in the northern part of the country, UNICEF has made significant contributions to enhancing policy, knowledge, and power capacities to promote acceptance of the "Gender Equality" through the implementation of the "National Vision for Social Justice" Project which all UN agencies in Yemen are building on in all gender-related programmes. This project was led by the Higher Council for Motherhood and Childhood (HCMC), in collaboration with government ministries and institutions such as the Ministry of Planning and Development (MoPD), Women National Committee (WNC), and Sana'a University, where bilateral and roundtable discussions were conducted with high-level decision-makers, including the Supreme Council for the Management and Coordination of Humanitarian Affairs (SCMCHA),

MoPHP, and other line ministries. In November 2023, the Prime Minister launched the National Vision for Social Justice Policy Paper, marking a significant success for the project. This achievement not only reaffirmed UNICEF's commitment to promoting equality and justice principles in Yemen, but also played a significant role in reducing the risks of extremism against women's rights. In May 2024, the Prime Minister issued a decree of A Social Justice Steering Committee from Senior Official (Ministers level).

Barriers faced by caregivers

Barrier (state the barriers that restricts the caregiver from access the service)	Intervention that addresses barriers (state the interventions planned)	Was the intervention implemented? (no, partially, fully)	What was the impact (provide evidence)?
Rural hard to reach areas and inability to travel for long distances due to cost and other issues	Training local female community health workers (CHWs)to provide services at their communities	fully	The reported cases of beneficiaries on monthly basis from the CHWs

13. Learning Question: How well is the country implementing its health information systems and data strengthening, monitoring and learning activities?

- What is the progress of planning and implementing health information system and data strengthening, monitoring and learning activities? Do these collectively constitute at least 10% of your HSIS/EAF grant budget?

  - WHO supported integrating routine immunization data and other programs into DHIS2 platform including capacity building, IT equipment , Server management and hosting services , SMS services , payments and Technical support for southern governorates.
  - WHO and MoHs implemented the below programs:
    1. In June 2021, Implementation of routine immunization including vaccine stocks, and the electronic COVID-19 vaccination certificate at district level in all Southern governorates.
    2. In 2022, Implementation of Case Based Nutrition Information System at 159 HFs in (Northern and Southern).
    3. In 2023, Implementation of Non-Communicable Disease (NCD) and Mental Health (MH) data collection (Northern and Southern).
    4. In 2023, Implementation of Case Based for injury surveillance at HF Level - (Northern and Southern).
    5. In March 2024, Implementation of Electronic Immunization Registry in 14 Southern districts at 163 health facilities.

- How will the country address remaining data-related gaps or barriers to immunization programme performance?
- Comment on key results or findings for identified learning priorities based on country's application. Specifically, what actions have been taken to improve immunization programme performance based on these data? e.g. better understand specific barriers to immunisation, successfully guide implementation, inform course correction for grant activities

LEARNING & EVALUATION		
LEARNING OR EVALUATION ACTIVITIES **[What critical evidence gap or question needs to be addressed for better planning or monitoring of your programme?]**	**Linked to which grant objective(s)**	**Use case**
Are specific approaches designed to reach zero-dose children and missed communities working, what worked well, what did not work as well and why?	Strengthen country capacity to detect, evaluate and respond to serious adverse events following immunisation	Supporting 40 Health Centers and 40 Health Units and newly established 40 micro-clinics in the 40 targeted districts to perform integrated PHC services. Decisions to be made based on the results When: Annually Who: PHC sector
What are the key barriers, and enabling factors, including gender and demand-related, to close immunity gaps?	Scale up digital health information interventions based on country needs, priorities, plans, strategies, and readiness	Establish an electronic system for collecting and analyzing data that is linked to EPI departments at all levels through collecting data and analysis and strengthening links with civil registration and vital statistics with the community and birth records. Decisions to be made based on the results
What are the key enablers or bottlenecks to rapid scale-up / update of new and underused vaccines? Specifically, to increase proportion of Fully Immunised Children (FIC)?	Integrate delivery of services to improve efficiency, regularity and/or reliability of planned immunisation activities with a focus on zero-dose and underimmunised children and missed communities.	Application of the innovation top-up model to support utilization of services including transportation in hard-to-reach areas. Decisions to be made based on the results When: Annually Who: PHC sector

C. Implementation of Technical Country Assistance (PEF-TCA)

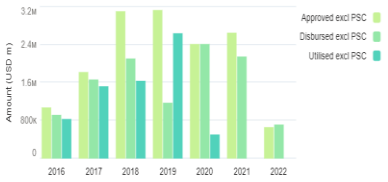
14. Learning Question: Is the country implementing PEF TCA and COVAX TA as expected? Please explain how the TCA has helped to support the achievement of the country objectives.

Indicator(s):

- Country analysis on partner performance as per workplans

Graphs:

Year	Approved excl PSC	Disbursed excl PSC	Utilised excl PSC
2016	$1,077,849	$920,953	$834,135
2017	$1,823,216	$1,666,390	$1,524,042
2018	$3,104,880	$2,108,660	$1,638,787
2019	$3,129,892	$1,176,234	$2,641,124
2020	$2,414,138	$2,414,138	$507,557
2021	$2,652,460	$2,150,440	$0
2022	$662,143	$716,813	$0



Country comments:

The country implemented PEF TCA and COVAX TA (in southern governorates) through WHO and UNICEF. This support contributed to implementation of not only activities under TCA and COVAX but also overall routine immunization, COVID19 deployment, integrated outreach, preventive and reactive campaigns as well as capacity building at levels of the health system.

Implementation status of WHO TCA activities, 2023

Activity	Status	Achievement description
Update COVID19 micro plan to accelerate coverage of high-risk groups	completed	Updated the deployment plan for 2023 and developed micro plan targeting high risk groups
Develop workplan for implementation of integrated outreach and COVID19 vaccination campaigns	completed	developed integrated workplan for Covid19-MR campaign and IOR
Implement 4 integrated outreach and one surge COVID19 campaigns	completed	Implemented five rounds of IOR in 2023

Support development of National Immunization Strategy 2023-2027	on track	produced final draft NIS document
Support integrated workplan to enable regular and predictable integrated outreach services	completed	Implemented five rounds of IOR in 2023
Support and monitor preparedness and implementation of MR campaign	Completed	Implemented MR campaign in Sept. 2023 which protected 1.2 million children
Support functioning of operational centers and EPI taskforce	completed	Provided technical and logistical support to the taskforce and discussed critical immunization issues

Implementation status of WHO COVAX activities, 2023

Activity	Status	Achievement description
Implement four rounds of IOR (vaccination team, supervision, data entry…)	COMPLETED	Four rounds of IORs were conducted in 2023
COVID19 post introduction evaluation	Reprogrammed	Lessons about strengthen and challenges of vaccine deployment gathered through review meetings and other consultations
COVID19 campaign	Completed/reprogrammed	One round of integrated measles-COVID19 campaign was conducted. The remaining round is reprogrammed
COVID19 data management including IOR	completed	dashboard updated on regular bases and information shared with stakeholders
Review meeting	completed	Two rounds of review meeting and planning workshops conducted
Establish vaccination centers in special clinics and centers	Minor delay	Integration was supported in 80 health facilities. The balance is reprogrammed to support IOR in 2024
AEFI guideline and training on AEFI surveillance	completed	

Row Labels	Completed	Major Delays	Minor Delays	On Track	Re-programmed	Unreported	Grand Total	Achievement
COVAX Technical Assistance (WHO)	**5**	**0**	**1**	**0**	**1**	**0**	**7**	

Target Country Assistance (WHO)	**8**	**0**	**1**	**5**	**0**	**0**	**14**	
Grand Total								

Section 2: Looking forward: Summary of key discussion points and follow up actions

Briefly summarise the **key discussion points**, including **identified needs** and **follow up actions** resulting from the Joint Appraisal review and dialogue.
This may include

- Identified (future) needs and priorities
- Follow-up actions to accelerate planned activities
- Expected adjustments to activities and as applicable the Gavi workplan, targets and budget, such as budget reallocations, modifications in TCA planning, revision of dates for anticipated new vaccine applications or introductions, etc. [4]
- Roll-out or expansion of promising practices and innovations
- Other aspects and follow up actions

Thematic area	#	Recommendation	Responsible	Timeline
Planning	1	Finalize the National Immunization strategy, including identification of standardized targets and incorporating inputs from the JA and latest evidence such as MICS and revised WHO-UNICEF estimate	MOPHP, Partners	June 2024
	2	Conduct costing of the NIS, including funding gap analysis, detailed annual workplan and target harmonization across national strategies	MOPHP, Partners	July 2024
	3	Include approach to addressing gender related barriers to address challenges in the health workforce based on findings from UNICEF report	MOPHP, Partners	Aug 2024
Demand generation	4	Sustain the gains of community engagement for demand generation and incorporate recommendations of UNICEF SBC strategy from CDS3 and other funding to potentially include in GAVI CSO support	MOPHP, CSOs	Aug 2024
	5	Work with CSOs to address demand generation activities not covered by EAF and HSS	MOPHP	Jun 2024
	6	Develop and determine service package which will provide for selected households	MOPHP	Dec 2024
Big catch-up and zero-dose children	7	Finalize the national schedule for catch up vaccination	MOPHP, Partners	May 2024
	8	Finalize BCU implementation plan & identify key national indicators based on Yemen's context	MOPHP, Partners	June 2024
	9	Secretariat to share Gavi BCU monitoring indicators	Gavi	April 2024
	10	Assessment to find missed children and understand barriers to sustain coverage using multiple data sources	MOPHP, Partners	Dec 2024
	11	Update and distribute recording, monitoring and reporting tools and include gender	MOPHP	May 2024
Cash grants and financial management	12	Finalize EAF proposal using input from JA meeting	MOPHP, Partners, Gavi	May 2024

[4] This refers to all types of Gavi support

	13	Commence grant agreement phase with partners (HSS3 years 3 & 4, EAF year 1) and commence implementation	MOPHP, Partners, Gavi	May – June 2024
	14	Core partners to enhance financial management capacity / HR reinforcement for Gavi grants	Partners	June 2024
	15	Involve MOPHP in selection process and supervision of third party agencies	MOPHP, Partners	May 2024
Data quality and information system	16	Strengthen DHIS2 implementation in a harmonized and integrated manner (logistics module)	MOPHP, Partners	June 2024
	17	Develop data quality improvement plan using outcome of data quality self-assessment (DQS)	MOPHP, Partners	July 2024
	18	Document impact of electronic immunization register piloted in 3 governorates for potential scale up, (e.g. with notifications including demand generation SMS, considering cost implications)	MOPHP, Partners	Dec 2024
	19	Document experience & encourage microplanning using geospatial tool to improve geographical access & map communities, facilities & HW, with a focus on 40 EAF districts	MOPHP, Partners	Aug 2024
	20	Finalize ongoing digitization / information system architecture comprehensive strategic & implementation plan	MOPHP, Partners	Sep 2024
Leadership, Management and Coordination (LMC) including supervision	21	Encourage participation of CSOs, World Bank & other partners to ICC, taskforce & JA meetings	MOPHP, Partners	Before next JA
	22	Create national community health & nutrition and health workforce norms and standards	MOPHP	Dec 2024
	23	Develop operational guidance, monitoring system and accountability structure for Supervision (e.g. verification that it takes place, identification of areas for focused support)	MOPHP, Partners	Nov 2024
	24	Prepare supportive supervision plan & expand use of digital supportive supervision for all EPI activities & align between partner & MoPHP	MOPHP, Partners	Dec 2024
	25	Strengthen monthly corrective actions & provide periodic joint monitoring (including trend / impact of supportive supervision) of planned activities & performance review to lower levels	MOPHP	May 2024
	26	JA recommendations to be incorporated into quarterly workplan of MOPHP	MOPHP, Partners	May 2024
VPD Surveillance	27	Sustain VPD surveillance using HSS and other complementing fundings	MOPHP	Jun 2024
		Consider submitting preventative OCV application for November IRC round (Sept submission date)		
Comprehensive Vaccine Management (CVM)	28	Smart integration supply chain planning, distribution & storage given the high cost of transportation	MOPHP	Jul 2024
	29	Conduct landscape of partners and assess solarization needs & costing at the warehouses / national vaccine store	MOPHP, Partners	Jun 2024

	30	Planning: Train the NLWG to ensure its functionality and develop organogram and ToRs for the SC staff at national and governorates approved by MoHP	MOPHP	May 2024
	31	Operationalizing: Identify SC officers to support the national level and in 5 governorates with high impact	MOPHP	May 2024
	32	Finalize CCEOP application and conduct EVM assessments	MOPHP	Sep 2024
	33	Develop workplan for CVM and healthcare waste management	MOPHP	Jun 2024
	34	Conduct supply chain redesign and innovations in context of Yemen for last mile delivery	MOPHP, Partners	Dec 2024
COVID19 and integration	35	Document the experience of implementation of integrated outreach activities supported by CDS3	MOPHP, Partners	Sep 2024
Human resource & technical assistance	36	Develop strategy with operational plan to enhance the impact of technical assistance in building capacity of the MoPHP	MOPHP, Partners	Dec 2024
New vaccine introduction & switches	37	Prioritize timing and support proposals for new vaccine introduction including malaria, Hexa Switch (Sep 2024); HPV, Hep B birth Dose (2025)	MOPHP, Partners	Sep 2024