Updated Joint Appraisal (JA) report 2019

Country	The Republic of Djibouti
Full JA or JA update[1]	☐ full JA ☑ **JA update**
Date and location of Joint Appraisal meeting	3 - 7 November 2019
Participants / affiliation [2]	Ministry of Health, EPI, DIS, UGP, WHO, UNICEF, Gavi
Reporting period	
Fiscal period[3]	January - December
Comprehensive Multi Year Plan (cMYP) duration	2016 - 2020
Gavi transition / co-financing group	Preparatory transition phase

1. RENEWAL AND EXTENSION REQUESTS

Renewal requests were submitted on the country portal

Vaccine (NVS) renewal request (by 15 May)	Yes ☒	No ☐	
Does the vaccine renewal request include a switch request?	Yes ☐	No ☒	N/A ☐
HSS renewal request	Yes ☐	No ☒	N/A ☐
CCEOP renewal request	Yes ☐	No ☒	N/A ☐

2. GAVI GRANT PORTFOLIO

Existing Vaccines Support

Introduced / Campaign	Date	2018 Coverage (WUENIC) by dose	Objective 2019		Approx. US$	Comment
			%	Children		
Penta	2007	84	94%	22,198	33,000	
Pneumococcal	2012	84	89%	22,198	174,500	
Rota	2013	87	88%	22,198	40,500	
IPV	2015	44	77%	19,978	57,500	

Existing Financial support

[1] Information on the difference between a full JA and JA update can be found in the *Guidelines on reporting and renewal of Gavi support*, https://www.gavi.org/support/process/apply/report-renew/

[2] If taking too much space, the list of participants may also be provided as an annex.

[3] If the country reporting period deviates from the fiscal period, please provide a short explanation.

Grant	Channel	Period	First disbur-sement	Cumulative financing status @ June 2019				Compliance	
				Comm.	Appr.	Disb.	Util.	End	Audit
HSS-1	Total	2014 -18	08/2015	3,436,480	3,436,480	3,050,305 : 89%	2,261,179: 74%	N/A	N/A
	UNICEF	N/A	11/2016	597,199	597,199	597,199: 100%	597,199: 100%	N/A	N/A
	Government	2014 -18	08/2015	2,802,801	2,802,801	2,453,106 : 85%	1,663,980: 68%	2018	2018
IPV VIG	Government	2015	07/2015	100,000	100,000	100,000: : 100%	70,823 : 70%	2018	2018
CCEOP	UNICEF	2017 - 2018	12/2017	270,252	270,252	188,417 : 69%		N/A	N/A

Comments

Djibouti has submitted the required financial reports. However, the audit report is still pending. PWC-Madagascar was retained with technical assistance funds in 2019 to prepare interim financial reports for years 3 and 4 as well as work plans and budgets for year 5 of HSS. The report was submitted to Gavi by the Ministry during the May 2019 mission.

Indicative interest to introduce new vaccines or request Health System Strengthening support from Gavi in the future[4]

Indicative interest to introduce new vaccines or request Health System Strengthening support from Gavi	Schedule	Expected application year	Expected introduction year
	Health system strengthening (HPP)	2020	2021

Grant performance framework - recent reports for 2018

Intermediate results indicator	Target	Actual
Percentage of children fully immunised before their first birthday (BCG+ 3 doses of Penta/Pneu/+2 doses of Rota + 1 dose of IPV+ measles)	85%	86%
Expansion of cold chain equipment in existing sites	86%	89%
Cold chain equipment replacement, rehabilitation in existing sites	86%	70%
Cold chain equipment extension in non-equipped sites or in new sites	29%	29%
Percentage of supervision sessions completed at the provincial level in the districts	100%	100%
Percentage of districts that submit vaccine-preventable disease surveillance data	100%	0%
Percentage of functioning cold chain equipment	90%	89%
Percentage of facilities that have provided comprehensive reports with respect to the number of reports expected during the reporting period (completeness)	100%	98%

[4] Providing this information does not constitute any obligation for either the country or Gavi, it merely serves for informational purposes.

Percentage of facilities presenting their reports by the deadline according to national guidelines (timeliness)	95%	65%
Number of cases of acute flaccid paralysis detected and analysed in a timely manner	7	0
Percentage of districts with a functional cold chain and adequate +reporting (facilities conserving vaccines within the required temperature range)	100%	90%
Percentage of health centres/posts with a vaccine stockout during the last three months	0%	100% (IPV because of a global shortage)
Percentage of functioning cold chain equipment	80%	89%
Percentage of health centres with a health worker trained in immunisation	25%	75%
Ratio between current usage and forecast for vaccine requirements	85%	80%
Percentage of vaccine doses that are spoiled	10%	2%
Percentage of days during which alarms were observed for the cold room at the national level during a 30-day period	15%	11%
Percentage of visits made by functional mobile teams compared with all planned visits	90%	92%
Percentage of health posts providing outreach strategy immunisation services according to microplanning	70%	67%
Percentage of district management teams trained in health system management at the district level (action plan, activity report, NHIS)	100%	100%
Comments		
The old grant performance framework was revised in 2018 to include HSS and CCEOP indicators.		

Targeted assistance by country for PEF: Main partners and expanded partners as of 30 June 2019

	Year	Funding (US$ thousands)			Staff in post	Milestones met	Comments
		Appr.	Disb.	Util.			
Main partners	2017	461	461	454	1 out of 2	21 out of 36	
	2018	460	460	458	3 out of 4	41 out of 41	
	2019	686	686	28	2 out of 4	7 out of 9	
WHO	2017	332	332	326	0 out of 1	15 out of 30	
	2018	260	260	258	1 out of 2	45 out of 46	
	2019	294	294	0	1 out of 2	5 out of 5	
UNICEF	2017	128	128	128	1 out of 1	6 out of 6	
	2018	200	200	199	2 out of 3	14 out of 16	

	2019	192	192	28	1 out of 2	2 out of 4	
World Bank	**2019**	200	200	--	--	--	Q1 - Q2 2020 Report
Expanded partners	2018	186	99	99	--	14 out of 17	
	2019	172	127	127	--	15 out of 16	
PwC	2018	27	26	26	--	11 out of 11	Expenditure analyses for the 3rd and 4th years have been completed. The work plan for year 5 has been finalised. PWC and the Ministry of Health (MoH) have begun to address some GMRs in compliance with the 2018 PCA.
	2019	46	--	--	--	2 out of 2	
Expertise France	2018	69	29	29	--	2 out of 5	The work to strengthen the ICC has been completed. The MoH must officially approve the revitalisation of the ICC (ministerial decree or any other official form submitted to the Djibouti administrative procedure)
	2019	1	--	--	--	8 out of 9	
GDS	2018	90	44	44	--	1 out of 1	GDS's work with immunisation is finished. The MoH has submitted a work plan and a budget for US$ 350,000 to implement priority activities
	2019	109	127	127	--	5 out of 5	

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

Population flows are still significant, with considerable pressures on health services generally and on immunisation in particular. The floating population in Djibouti is estimated at between 120,000 and 150,000 people, including migrants and other displaced persons. The refugee population totals 29,915 persons.

This population, which is not accounted for in immunisation activity microplanning, influences reported immunisation coverage as well as vaccine requirements.

Movements of nomad populations inside the country are an additional factor influencing immunisation coverage. Climate change – with rainfall scarce – observed in the past few years has resulted in an exodus from rural areas to urban areas initially, and from interior regions towards the capital. This population arriving from difficult-to-access areas with the possibility of zero dose cases is gradually moving into peri-urban areas of Djibouti City and could be at the root of target diseases for immunisation such as measles or polio. In addition, recent inter-community clashes in Ethiopia have resulted in a massive influx of Ethiopians into Djibouti, further increasing the risk of importing immunisation target diseases.

The circulation of strains of vaccine-derived poliovirus cases in bordering countries and the weakness of the surveillance system expose the country to a very high risk of importing cases of polio and measles.

In 2019, a total of 259 measles cases were reported in the country in the epidemiological time period of Week 1-Week 38. All ages were affected, in particular the 0-15 age group. According to investigations led by the surveillance team, the index cases originated from Somalia and had never been immunised for the most part. The majority of cases were reported in the capital.

Moreover, the recent rains coupled with violent winds that occurred in Djibouti in 2019 resulted in a disruption of immunisation activities in some regions, for example Tadjourah, for three days in October.

During the same period, flooding in Djibouti City caused a halt to health/immunisation services for about one week in some very affected health centres that were made inaccessible, such as the Arhiba centre for one week.

One positive factor that could influence immunisation coverage is the new road linking Tadjourah to Balho (at the Ethiopian border). The economic development that will result from this new infrastructure could attract isolated rural populations to settle near health facilities and have better access to immunisation services.

With regards to Gavi funding, there is still a concern that Djibouti will eventually no longer be able to benefit from Gavi support because of its economic growth. Djibouti's gross domestic product (GDP) is forecast to grow by 7.5% in 2019 following an average increase in GDP per capita of 3% and real GDP growth of 6%. Yet the country's encouraging economic outlook does not necessarily reflect its economic situation, especially in social sectors such as health.

Djibouti's strong economic performance owes a great deal to massive public investments in infrastructure, financed by loans that bring the debt to over 70% of GDP. However, the strengthening of port infrastructure in adjacent countries could result in a decline in Djibouti's economic growth.

These factors will have to be considered for the country and its partners in order to assess what avenues should be explored to alleviate the consequences of such an immunisation exit in Djibouti.

Finally, a change is to be noted in EPI coordination and an internal reorganisation in progress to strengthen programme activities and performance.

4. PERFORMANCE OF THE IMMUNISATION PROGRAMME

4.1. Coverage and equity of immunisation

Given its geographic placement, Djibouti is located in an area with a high risk of introduction of the poliomyelitis virus. Indeed, neighbouring countries continue to report cases of vaccine-derived polio strains and borders are completely open to population movements. Moreover, the weakness of the surveillance system for target diseases for immunisation, a routine administrative coverage rate of below 90% for OPV3 for the past two years in the regions, and in particular in rural and cross-border areas, expose the country to a significant risk of polio virus introduction.

For this reason, Djibouti is forced to strengthen its vigilance in order to prevent the introduction of poliovirus. One of the main strategic focus areas to reach this goal is organisation of a mass immunisation campaign for OPVb targeting children under 5 years of age.

The last national campaign conducted against polio was in October 2018.

In addition, several neighbouring countries have declared measles epidemics (Somalia and Ethiopia) and measles cases have also been reported in Djibouti for years.

Measles immunisation coverage in Djibouti over the past two years has remained low in interior regions. Moreover, the increased mobility of populations who are gradually settling in peri-urban areas whose immunisation status is unknown, represent a real risk.

One of the actions aiming to ensure equity was a joint effort conducted by the MoH, WHO, OIM and the UNHCR to map vulnerable target populations who should be immunised in order to prevent vaccine

preventable diseases. Cross-border zones and migrant corridors have been taken into account. An immunisation plan (polio) prioritising target populations in refugee camps was developed by the Expanded. Programme on Immunisation (EPI) with technical assistance from the partners. Floating vulnerable populations who are mainly foreigners living in unstable situations in peri-urban areas or in makeshift shelters in the capital were mapped during the situation analysis phase of the urban immunisation project. Strategies to facilitate access were prepared as part of creating demand through awareness-raising activities and active search in cooperation with community relays. Moreover, access to immunisation services in public sector health facilities remains free.

In rural areas, special mobile teams are assigned to deliver a package of essential and integrated services, including immunisation, to benefit populations living in difficult-to-access areas. Transhumance corridors as well as water points for resupplying, identified by livestock agriculture services and assisted by the FAO, are used by health services to catch up with nomadic populations or internally displaced persons because of harsh economic or climate conditions. However, routine administrative data do not provide sufficient information on immunisation acts for special populations; one of the recommendations was to take into consideration during the revision of tools for data collection, analysis and management the specificity of vulnerable and special populations. Pending the next EDS/MICS 2019, the immunisation coverage survey planned for January will help to take stock of immunisation coverage and access in difficult areas.

Given its strategic geographic position and booming economy, Djibouti has become a preferred destination for job seekers as well as one of the largest worldwide platforms with numerous military bases. As the majority of these populations are not registered for universal health insurance, they more often visit private hospitals or clinics. Based on this observation, the EPI set about systematically dropping off vaccines in these clinics for their administration free of charge. Moreover, as part of the urban immunisation project, the staff of some private health facilities will receive updates as part of immunisation in practice, supervised by the EPI.

Taking into consideration this context and with the objective of reducing morbidity and mortality attributable to measles in children, the MoH, in collaboration with its technical and financial partners WHO/UNICEF, has decided to conduct a national measles campaign targeting children aged 6 months to 15 years. This campaign will take place in December 2019 and the package of activities offered to the population will include vitamin A supplementation and deworming with mebendazole, in addition to the measles vaccine.

Coverage: DTP3, MCV, etc.	

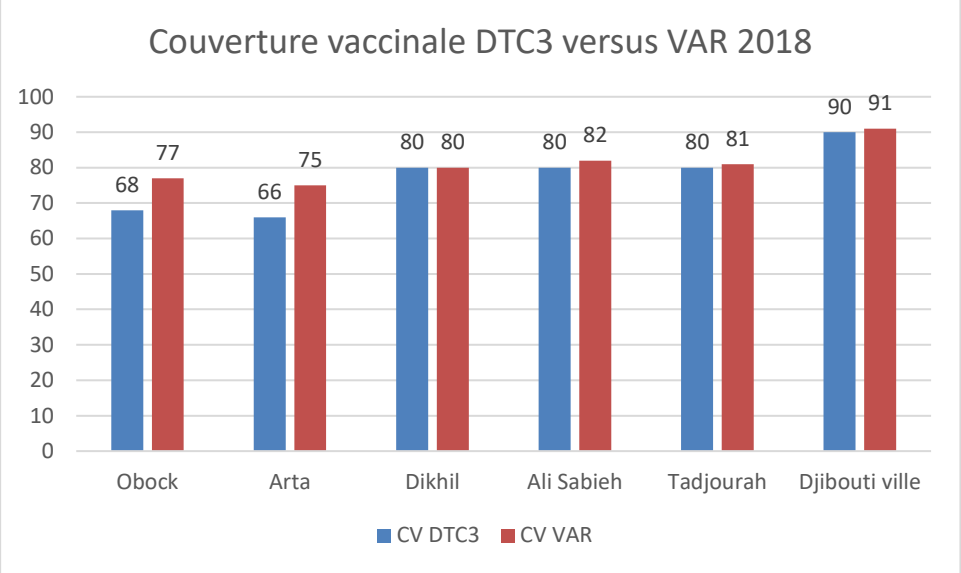


Figure 1: DTP3 vs. MCV1 immunisation coverage, 2018

Arta District has a coverage of 66%
Obock District has a coverage of 68%

Coverage: Absolute numbers of un- or under-immunised children	***Obock District: 359*** ***Arta District: 414*** ***Dikhil District: 514*** ***Ali Sabieh District: 504*** ***Tadjourah District: 502*** ***Djibouti City District: 1,353*** ***Total number of under-immunised children: 3,646***
Equity: ● Wealth (eg high/low quintiles) ● Education (eg un/educated) ● Gender ● Urban-rural ● Cultural, other systematically marginalised groups or communities, eg from ethnic religious minorities, children of female caretakers with low socioeconomic status, etc.	An equity analysis of Djibouti's immunisation services was performed while the urban immunisation strategy was being developed. The results of this analysis are shown below. The most detailed surveys, planned as part of HSS and technical assistance, will make it possible to obtain more detailed information on equity. No proof of discrimination based on gender, national origin or socio-economic status was observed during the situation analysis. The programme coordinator stated that the poverty of slum populations was given particular attention in order to ensure that children from poor families would be included. It is important to remind that one of the essential components of the national immunisation programme's vision is to guarantee each child, adolescent and adult the same access to immunisation as that provided for in the national level plan. In the view of the EPI authorities, immunisation equity is one of the major objectives and successes of the programme in Djibouti. Routine immunisation services are free nationwide however they are provided (in health centres or via outreach or mobile strategies). To prevent any potential stigmatisation, immunisation services do not ask the recipients' nationality. To this end, although this is not explained in the programmatic documents analysed, the country's EPI follows the Reach Every District (RED) strategy, as formulated in the third strategic objective of the global vaccine action plan (GVAP) 2011-2020. The RED approach specifically targets inequalities in immunisation coverage since many children in not-yet immunised neighbourhoods live in communities that are marginalised and underserved. However, this requires the immunisation programmes to adopt a new approach centred on an understanding of these marginalised children and the challenges faced by their community. In Djibouti, particular emphasis is placed on effective care and management of these children. Most of them come from families originating from neighbouring countries who seek employment and settle in the two working-class communes of

	Balbala and Boulaos. As the urban strategy was being developed, immunisation centre staff did not behave in any way that could be interpreted as discriminatory. Some immunisation centre staff members went as far as not asking the parent bringing the child where they came from, their address or other information that could make a foreigner feel uncomfortable and less likely to come back. This is not to say that there are no obstacles. Linguistic differences, in particular for persons coming from Ethiopia, make it difficult to communicate important messages and ensure compliance with the comprehensive EPI plan. The number of families affected by the language barrier is unknown. Better assessment of the extent of the language barrier would be useful to decide where and how to recruit volunteer translators and invest in documents written in different languages. Different aspects of equity formulated as the urban strategy was being developed will be addressed during implementation of the urban immunisation programme improvement plan.

In 2019, the EPI continued to improve, with the coverage rate for DTP3 increasing from 79% to 84% and for measles from 79% to 86% according to JRF 2018. This improvement is mainly due to cold chain strengthening, outreach and mobile strategies and improvements in the monitoring and evaluation system.

Communication and mobilisation interventions also contributed to the improved use of immunisation services and thus the reduction of the dropout rate in four out of six districts.

Immunisation campaigns against polio and measles also made it possible to boost the routine immunisation programme thanks to mobilisation of social strategies using all media channels, including social media.

In addition, thanks to the immunisation campaigns, children living in difficult-to-access areas were able to receive other antigens from the immunisation schedule. The reporting system was strengthened thanks to different trainings on DHIS2 (the MoH's preferred digital solution), D4A and monitoring and data quality. In addition, a DQA was completed and recommendations from this assessment were translated into an action plan with implementation beginning in the third quarter.

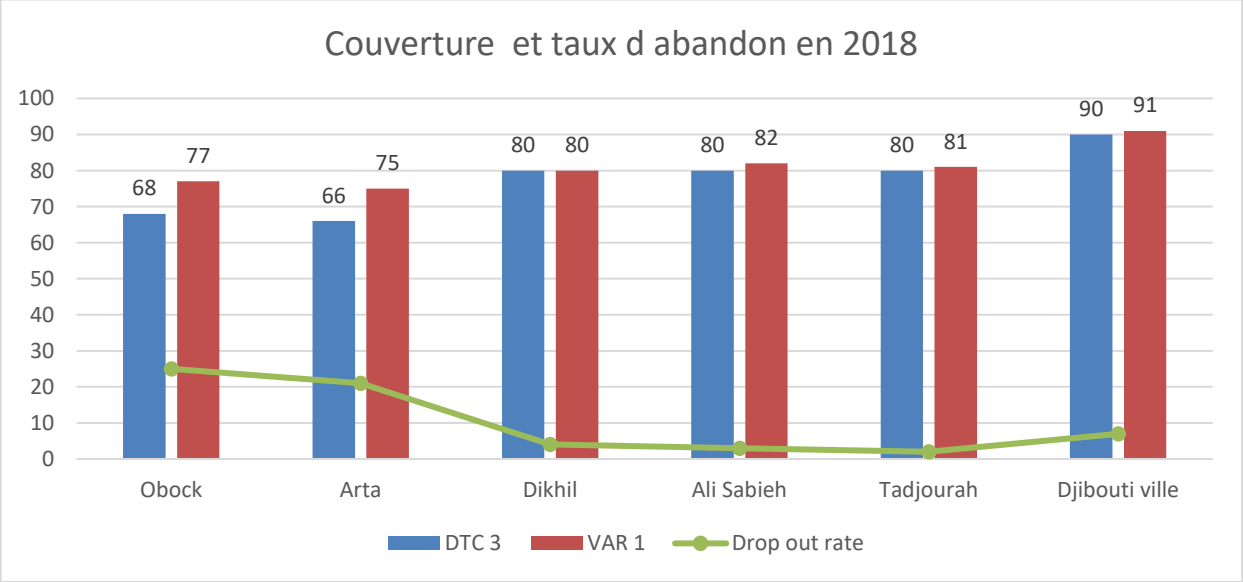


Figure 2: Immunisation coverage (DTP3 and MCV1) and dropout rates in 2018

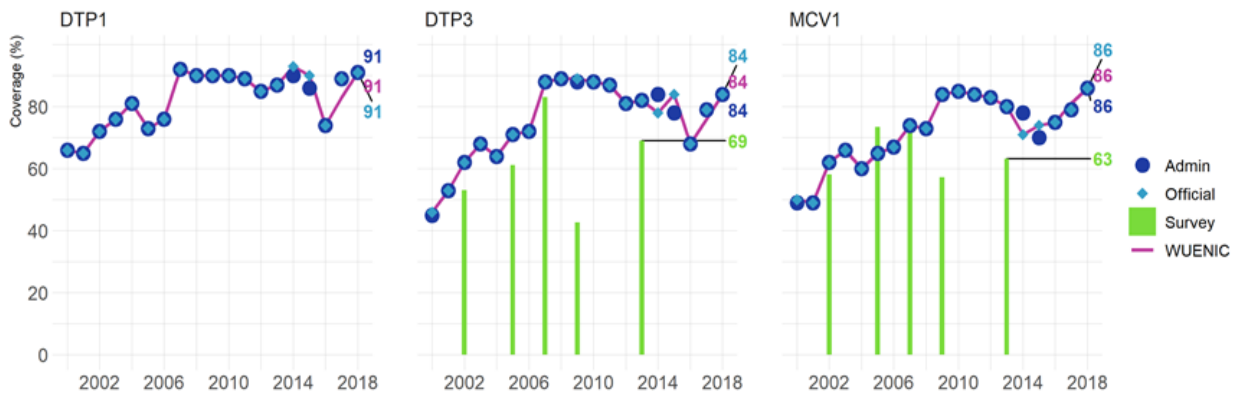


Figure 3: Immunisation coverage, 2002 - 2018

Immunisation coverage in Djibouti for both antigens (DTP3 and MCV) improved between 2016 and 2018. Coverage increased from 74% in 2016 to 84% in 2018 for DTP3 and from 68% in 2016 to 81% in 2018 for MCV. Generally, however, we have noted a disparity from one region to another, explained by the following factors:

- poor geographical accessibility, especially in Obock;
- transhumance;
- displacement of populations on both sides of the border and inside the country
- insufficient interpersonal communication on immunisation;
- insufficient reporting of data for mobile and outreach strategies;
- poor data quality;
- inadequate data analysis; and
- poor mechanism to search for those lost to follow-up;

To address this situation, a plan to strengthen immunisation data quality performance was developed and will be implemented.

To reach populations living in difficult-to-access or underserved areas, various strategies are used, for example, mobile teams and outreach strategies in rural and peri-urban environments.

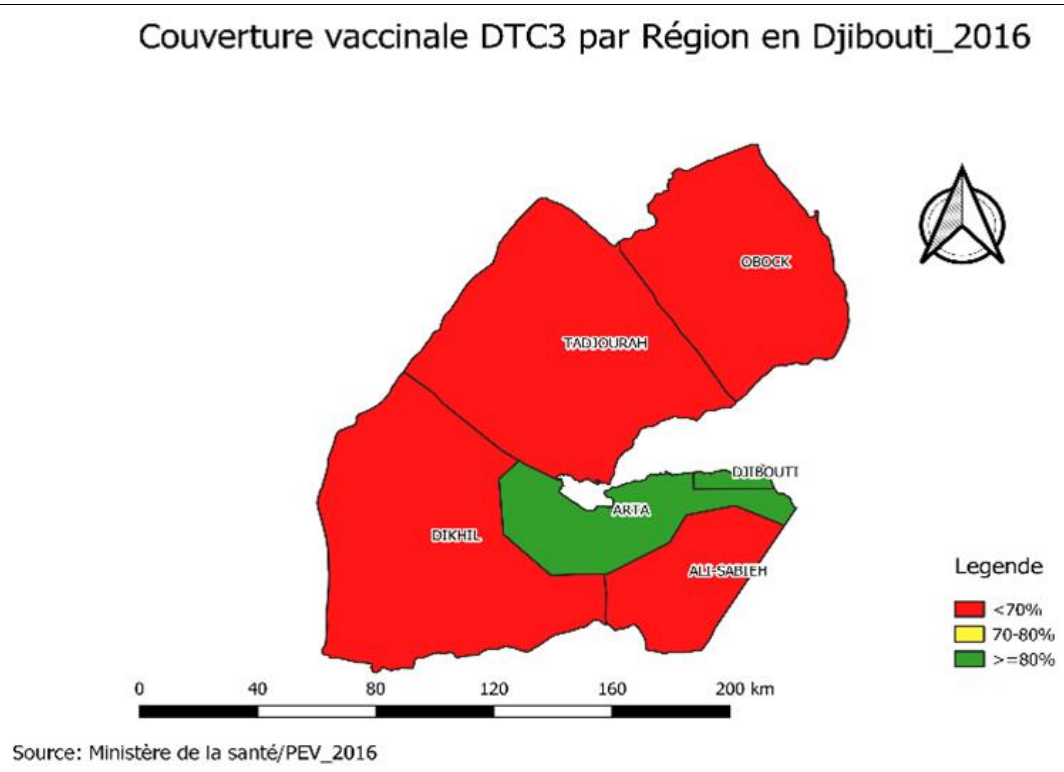


Figure 4: DTP3 immunisation coverage by region in Djibouti, 2016

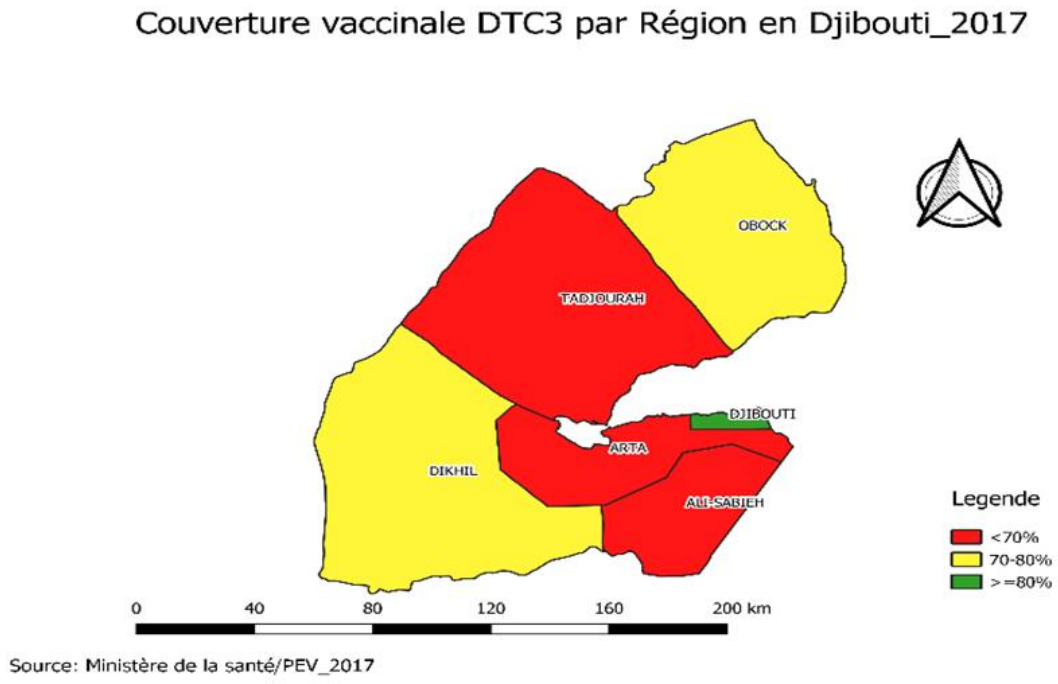


Figure 5: DTP3 immunisation coverage by region in Djibouti, 2017

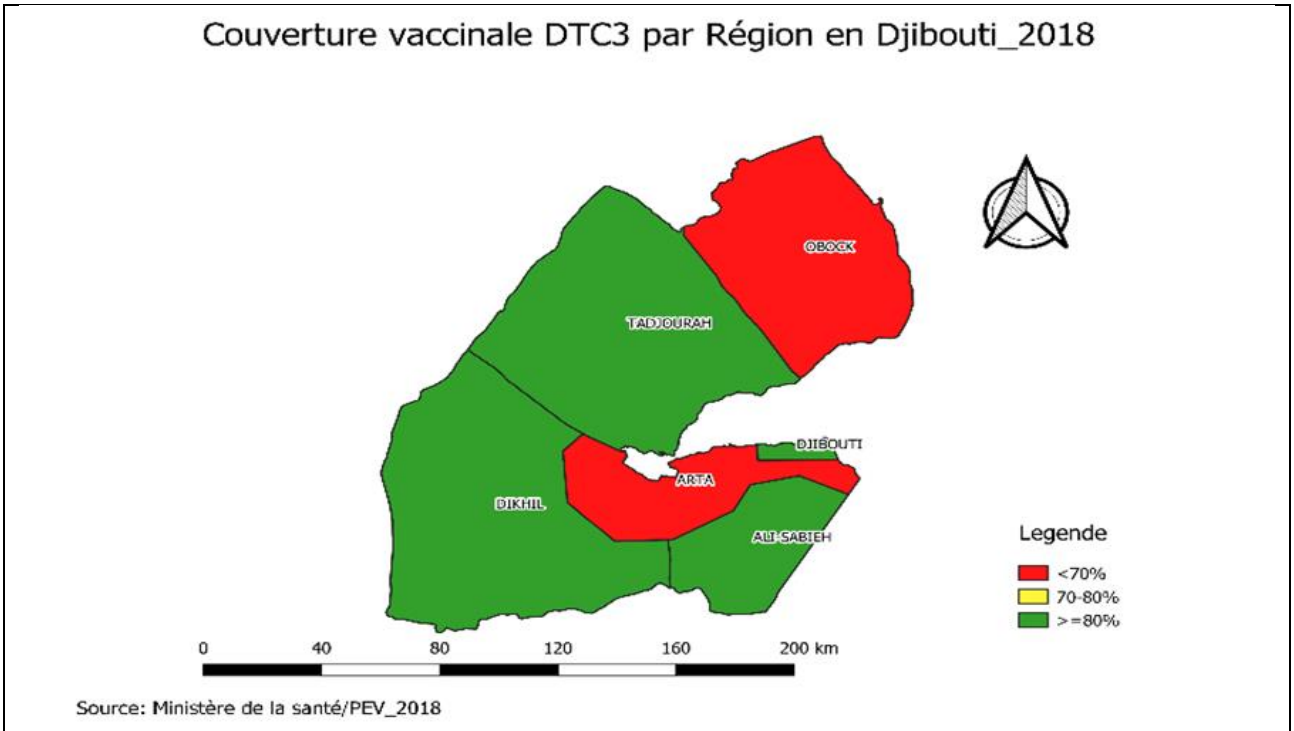
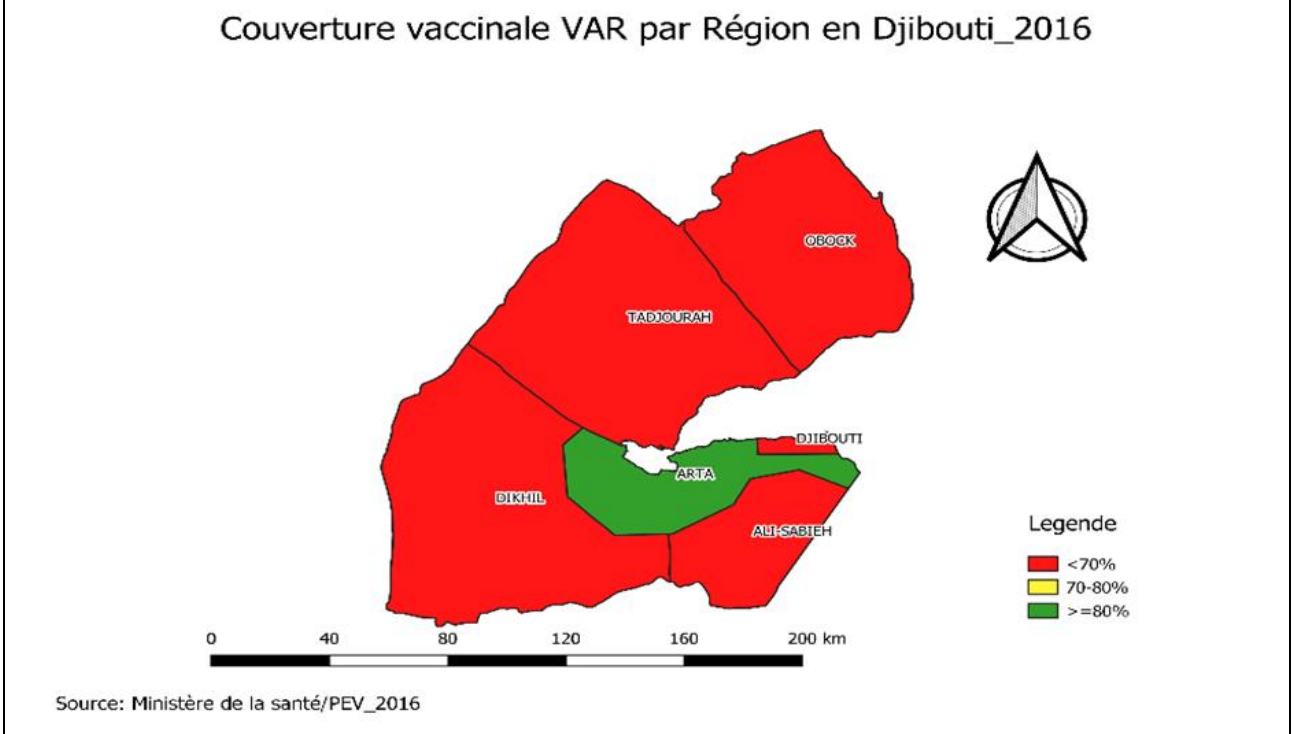
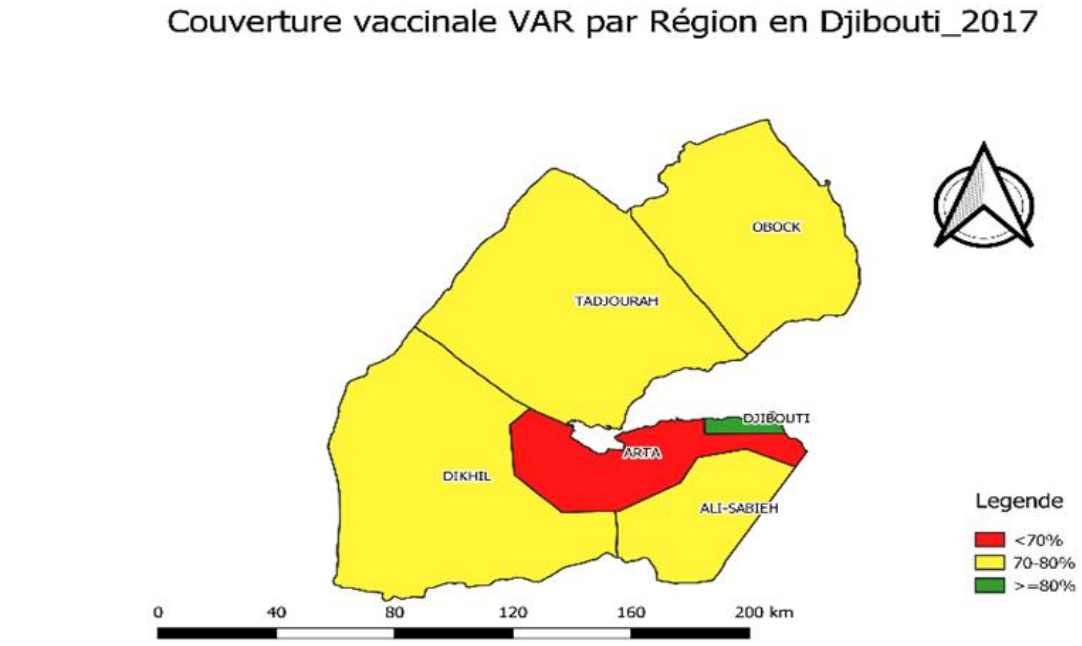


Figure 6 (above): DTP3 immunisation coverage by region in Djibouti, 2018

Figure 7 (below): MCV1 immunisation coverage by region in Djibouti, 2016





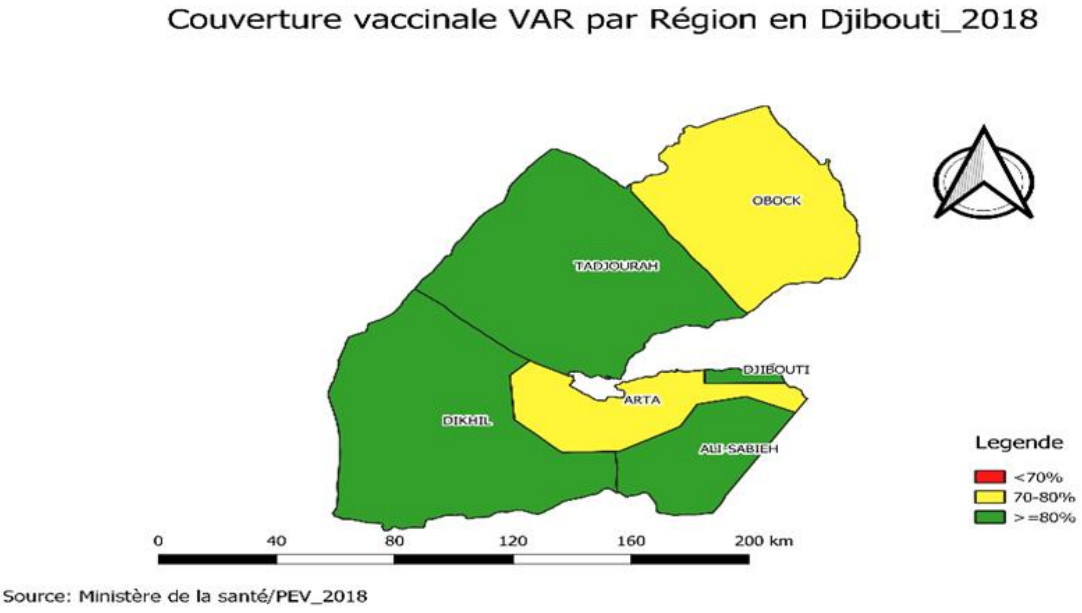


Figure 8 (top of page): **MCV1 immunisation coverage by region in Djibouti, 2017**

Figure 9: MCV1 immunisation coverage by region in Djibouti, 2018

4.2. Key drivers of sustainable coverage and equity

In 2019, the EPI strengthened its human resources at the national level, with an epidemiologist, a project manager and four persons dedicated to cold chain equipment maintenance. In addition, EPI staff were strengthened in the different components of immunisation. Thus, 21 people were trained in data quality, 88 immunisation workers in immunisation safety, 30 people in D4A and 36 people in population surveillance.

Supply chain

As part of efforts to improve the supply chain, several pieces of cold chain equipment were installed and the team's human resources were strengthened. As part of cold chain strengthening through the Gavi optimisation platform (CCEOP), 26 SDD and 9 freezers were received and installed according to the year 1 deployment plan. These installations made it possible to increase coverage for health facilities with a functional cold chain and thus enable children to access immunisation services, particularly in rural areas.

A cold chain equipment assessment and inventory took place in June 2019. This made it possible to confirm new installations and to propose redeployment of obsolete equipment to the Ministry of Education's professional training centres. The new Gavi cold chain equipment (CCEOP) has devices to monitor temperatures in real time, enabling equipment temperatures to be tracked (see attached monitoring report).

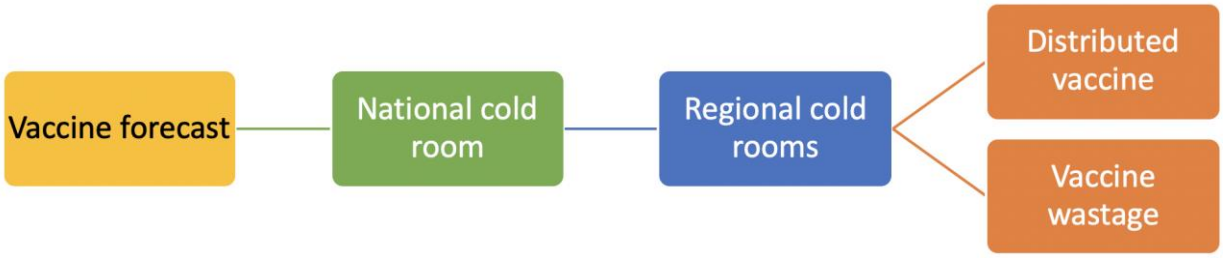
Moreover, in the last quarter of 2019, use of an application similar to D4A is planned to complete inventories of cold chain equipment in real time. This will allow the EPI to have regular updates of cold chain equipment inventory and thus show the impact of cold chain strengthening and the return on investment for the Gavi CCEOP plan.

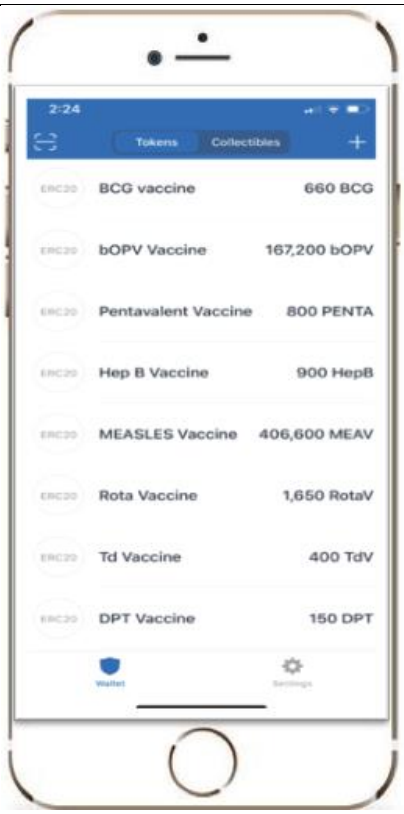
Nevertheless, despite these efforts, vaccine management represents a challenge and improving it has been the subject of several discussions and initiatives. Vaccine distribution occurs monthly for Djibouti City and on a quarterly basis for the regions, with the report on usage of preceding doses and an inventory of existing vaccines submitted beforehand. However, the different evaluations and supervisions show that stock management needs to be improved.

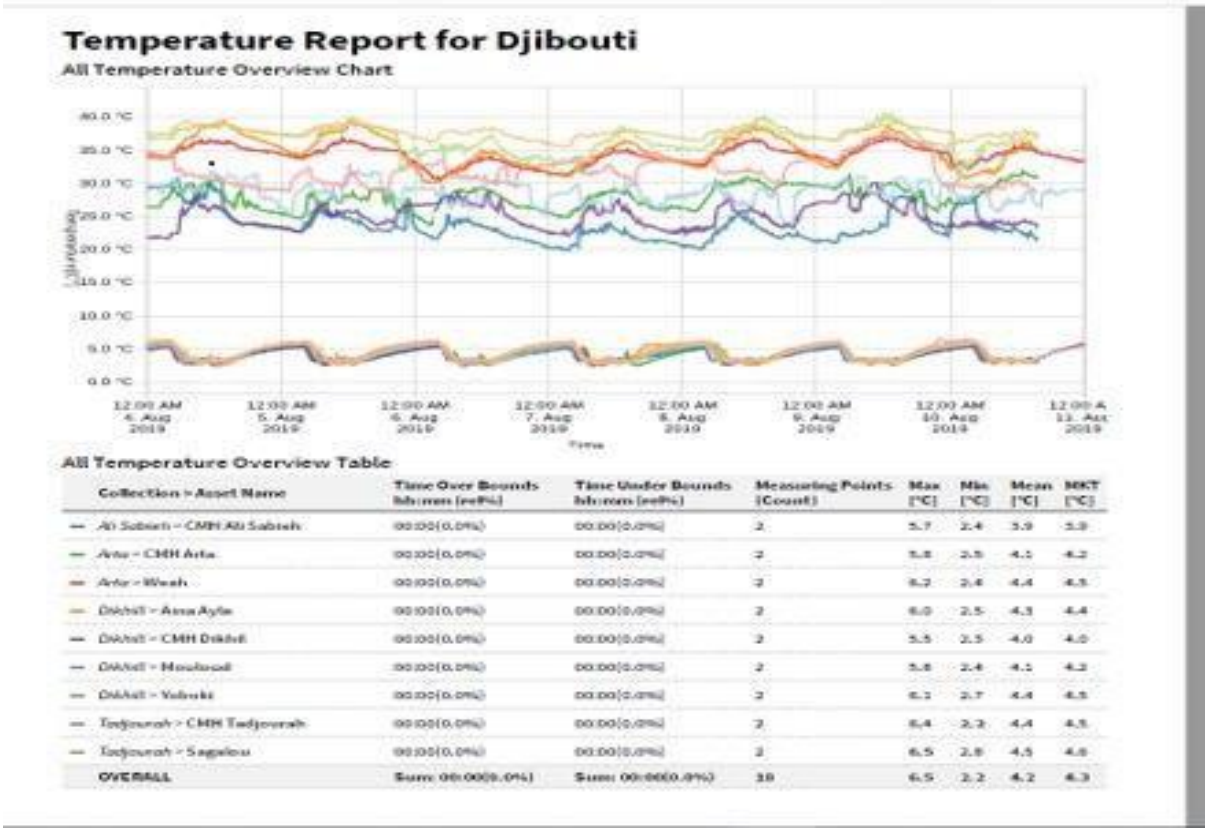
During trainings in the D4A application, and with a view to improving the cold chain and the vaccine management system using Data4Action, the decision was made to implement the **SMART CHILD initiative** in Djibouti.

The SMART CHILD initiative enables the monitoring of the entire vaccine supply chain from the factories to the distribution and use of vaccines by utilising Blockchain technology. This initiative will make it possible to **monitor vaccine management in real time at all levels and thus avoid stockouts and reduce the vaccine wastage rate.** This application will be implemented gradually with the objective of managing and monitoring supplies and the flow of vaccines at the two central storage depots in Djibouti City first and subsequently at the regional level. The EPI logistics experts from the two central depots were trained in vaccine management through the SMART CHILD application in Blockchain.

SMART CHILD does not require using a server set up beforehand or a service agreement when a public blockchain is used.







The team has improved in terms of planning, competently handling the different orders of vaccines and injection and safety supplies. No stockouts were reported in 2019. Forecasts for vaccine procurement are done jointly with UNICEF at the end of the third quarter of the previous year. Orders are planned based on

this forecast and are placed during the first quarter of the current year. As soon as they arrive at the airport, the vaccines are immediately routed, checked and stored in central EPI cold rooms.

Vaccine distribution occurs monthly in Djibouti City and on a quarterly basis in the regions. The regional Centre Médico-Hospitalières (medical centres/hospitals, or CMH) act as central depots at the regional level and distribute vaccines for health posts on a monthly basis according to a predetermined schedule.

Moreover, the EPI makes the vaccines available for the private and para-public sectors on a monthly basis although it has no visibility on vaccine management in this regard. When vaccines are ordered, the private and para-public sectors are required to provide monthly usage reports, but these are often incomplete and sometimes not submitted. Despite the various discussions about the public-private partnership (NHDP, ICC and Joint Appraisal 2018), no agreement has been laid out to date. Vaccine management and collection tools are available and logistics experts have been trained in using these tools. Yet, management software such as the DVD-MT and SMT are not available although training on this software is planned in the EPI's Annual Work Plan for 2019.

The Effective Vaccine Management Assessment, currently in progress, could provide information on vaccine management, and its improvement plan will be implemented as quickly as possible next week. This assessment will begin with creation of a pool of people from the EPI (logistics and monitoring), the Health Information Department (DIS) and the maintenance departments of the MoH and the DEPCI (*Direction des Etudes, de la Planification et de la Coopération internationale*). These personnel, who will be trained, will familiarise themselves with the tool/application and be responsible for putting health facility data in the tool (number of health facilities, human resources, available cold chain equipment). They will also perform vaccine management assessments. The improvement plan will be interactive and systematically implemented with real-time monitoring by the EPI and the relevant departments.

Service delivery and demand generation

As regards communication and advocacy, the EPI and the Department of Health Promotion have continued to implement the communication strategy plan. Thus, activities to promote, raise awareness on and actively search for those lost to follow-up for children who are unimmunised or not fully immunised in urban areas were completed by the relays and social mobilisers with 3,611 children referred to complete their immunisation. Moreover, educational talks on the importance of immunisation and adhering to the vaccine schedule were organised at four community development centres and at 10 headquarters for community-based organisations.

In addition, and to boost demand for and use of immunisation services, the EPI and DPS, with the support of national artists, created skits and songs in local languages on the impact of vaccine preventable diseases and the importance of immunisation as an effective means of preventing these diseases.

To increase visibility, posters and leaflets were designed and copies made. Given the awareness about the importance of involving the media in communication on immunisation, a two-day multimedia creative workshop with 20 artists and producers was planned for the fourth quarter. This workshop will be followed by a panel discussion on the theme of immunisation.

The lack of communication channels in rural and difficult-to-access areas continues to be a considerable challenge. The communication plan for the next polio and measles campaigns takes these areas into account and includes ways of reaching these populations. Nonetheless, a specific communication strategy for hard-to-access populations must be developed.

Data and information system

The health information circuit has generally remained the same. The DIS collects data through regional and Djibouti City focal points as well as during supervisions/field visits. It checks, compiles and shares the data with the relevant departments and programmes. The DIS is in the process of switching to digital through DHIS2 and other applications used by the different programmes (D4A/EPI; ESOPE/PLSS; etc). However, technical, financial and institutional capacities require strengthening and guidance.

The lack of recent health and demographic data continues to weigh on the health system and thus impact planning for major health interventions. It has henceforth become imperative to plan an EDS/MICS type demographic and health survey in order to address the challenges encountered.

The monitoring and evaluation and reporting system continues to improve with planning and integrated supportive supervision visits that are increasingly regular (three supervisions out of four to date). Monitoring

and data collection tools are more fully completed and up to date. Completeness of monthly reports has improved; however, timeliness remains a challenge. **In the first quarter 2019, a DQA was completed** and showed the strengths and weaknesses of the data management system. According to the DQA, the assessment indicated that the basic elements of planning, implementation and monitoring of activities are missing or insufficient. In addition, some practices, while they are positive, have not been formalised. The assessment noted a poor level of availability of standards and guidelines or procedures. Also, the lack of a good filing/storage mechanism for reports and data prevented stakeholders from providing proof of completion for some activities in some health facilities.

DQA activity completed in December 2018:

There was follow-up on a number of comments from preceding assessments where the problem of data quality came up repeatedly, specifically focusing on reliability, consistency and cohesiveness coupled with a duplication of sources for data feedback. There was an urgency to take corrective actions, beginning with the status analysis and preparation of a data improvement plan. The method adopted for the status report was the Data Quality Audit/Review (DQA) in three methodological steps: The first step, using the system assessment, reviewed tools and described the entire data production system in order to determine the flow. The second part consisted of a desk review of data with an assessment of completeness, timeliness, internal consistency, analysis of trends and triangulation with several other data sources. The third step was the training of 17 national survey takers who had been deployed in the field, namely the six regions, the five medical centre hospitals and 23 health facilities. The objective was to conduct quantitative verifications of data with the different collection tools at the operational level concerning Penta1 and MCV1 (tally sheet, immunisation register, monthly activity report, etc) and to simultaneously conduct a qualitative assessment of the components of immunisation through a questionnaire administered to health facility managers and immunisation and/or data management focal points.

The key results made it possible to confirm the multitude of sources for data feedback and to assess the completeness of acceptable data and the need to improve timeliness.

As part of the system review: We note that there are focal points responsible for data collection. Nevertheless, there is a lack of:

- a description of roles and duties;
- a clear outline of the data circuit, guidelines and instructions on reporting data and a document defining operational-level indicators;
- accounting for refugees and asylum seekers in the denominator;
- the position of data manager at the central EPI;
- terms of reference for the DIS focal points;
- a monitoring and evaluation mechanism, with some private sector data not considered.

  Moreover, the regional focal points for strengthening and decentralising data were redeployed in the capital.

Review of data using data from the statistics yearbook for 2012 - 2018 presents an acceptable change in data completeness from 94% to 97%; however, very low levels of timeliness from 29% to 51% were found. A good description of integrating data from the mobile strategy carried out by the DRS cannot be clearly found in the flow.

Data review in the form of a survey conducted in the field with five CMH and 23 health facilities sites made it possible to evaluate the following quantitative and qualitative elements:

From the quantitative side: At the regional level: verification of Penta1 and MCV1 coverage rates made it possible to observe that four regions (Obock, Tadjourah, Dikhil and Djibouti City) out of six had data agreements for at least two of four supporting materials identified (report at the national level, report at the regional level, immunisation monitoring table and electric tabulation tools for regions)

For the 23 health facilities: Data archiving is insufficient and the tools below were seen in the following percentages: Tally sheet (62%), immunisation register (95%), monthly report (66%) and immunisation tracking table (19%). The verification factor for accuracy between recounted data and data transmitted to

the higher level show that only two health facilities out of 21 visited presented accurate and reliable data of between 95% and 105% of the verification factor. There were eight facilities that overreported and 11 that underreported.

Qualitative aspect: Measurements were made by administering a questionnaire on the six components of immunisation.

At the regional level: None of the six regions achieved the acceptable level of 80% of the global quality index. Values varied from 44% to 65%. The data use and monitoring for action component has the lowest score with 23%. The logistics and cold chain and vaccines component has the best rate at 78%.

At the health facilities level: None of the 21 facilities visited has a score of 80% of the global quality index: The rate varies between 20% and 75%. The data use and monitoring for action component with a score of 16% remains the weakest component.

In summary the field visit made it possible to note that the accuracy of data reported by the health facilities is not very good. In fact, only two out of the 21 health facilities visited had a good verification factor. There were eight health facilities overreporting and 11 underreporting. Accuracy depended on the quality of the monitoring system in place. The assessment indicates that basic elements of planning, implementation and monitoring of activities are lacking or insufficient. In addition, some practices, though positive, have not been formalised. The assessment noted a poor level of availability of standards, guidelines and procedures. In addition, the lack of a good archiving/storage mechanism for reports and data prevented stakeholders from providing proof that certain activities had been completed.

After analysing the situation and defining problems and potential causes, a data improvement plan was prepared with a vision of improving the immunisation data management system, including surveillance and cold chain logistics, so it is capable of providing to all users information in real time for decision-making.

The structure of this improvement plan is organised around five strategic focus areas: **1) Strengthening governance of data management** for the EPI, broken down into two major objectives and nine activities; **2) Improving technical capacities of human resources on data quality and management,** organised into two objectives and eight activities; **3) Enhancing the availability of immunisation data management and collection tools including logistics and surveillance**, organised into three objectives and nine activities; **4) Improving access to immunisation data and usage** with two objectives and 11 activities; and **5) Strengthening mechanisms to verify and validate data at all levels of the health pyramid,** broken down into one objective and five activities.

Implementation of the improvement plan for this DQA will help to improve this system in the coming years.

In addition, the implementation of the D4A tool will make it possible to strengthen the reporting system. Djibouti has been working on the implementation of DHIS2 for two years but operationalising and using this platform to scale requires capacity building in configuring the server, installing and maintaining the platform, and training service providers in usage. In the meantime, the EPI is still dependent on a paper-based system and continues to be confronted with issues of delays in receiving data from the field, in compiling and analysing data and the occasional activation of measures to be taken.

The EPI has just received support from UNICEF for training in the Data4Action mobile data collection tool (EPI workers were trained at all levels and the programme has a manager and administrator for this tool), which was personalised and adapted to the Djibouti context for collection of data in the field.

UNICEF will continue to support strengthening of the EPI team as regards data collection and data cleansing and analysis in order to take action, taking data from the immunisation logistics chain as an entry point.

The tool has already been personalised and tested with the same data entry and sample analysis and UNICEF will continue to use real data gathered in the field for rapid collection, analysis and viewing of data.

Implementation of Data4Action will help the EPI to identify important indicators during the development of the immunisation module in DHIS2 and to improve data quality during this implementation.

Djibouti currently does not have the capability to adapt the DHIS2 tool for use at the sub-national level. Thus, data collected via Data4Action will be entered manually in the DHIS2 cold chain surveillance module. The MoH, based on the adequacy of data generated by D4A, will be able to directly link the Data4Action application to DHIS2 via an API. This decision will be made as soon as DHIS2 is entirely operational and scaled up. In the meantime, important **indicators regarding cold chain functionality and vaccine availability** in the facilities will be collected regularly by **Data4Action.** The EPI team will regularly compile, analyse and share with stakeholders data required for decision-making in real time on the programme at different levels of the health pyramid.

UNICEF will also support the EPI team with regards to data management (cleansing, analysis and viewing of data, etc) when Data4Action is implemented, which will help the MoH to apply knowledge and principles when DHIS2 is implemented in the country.

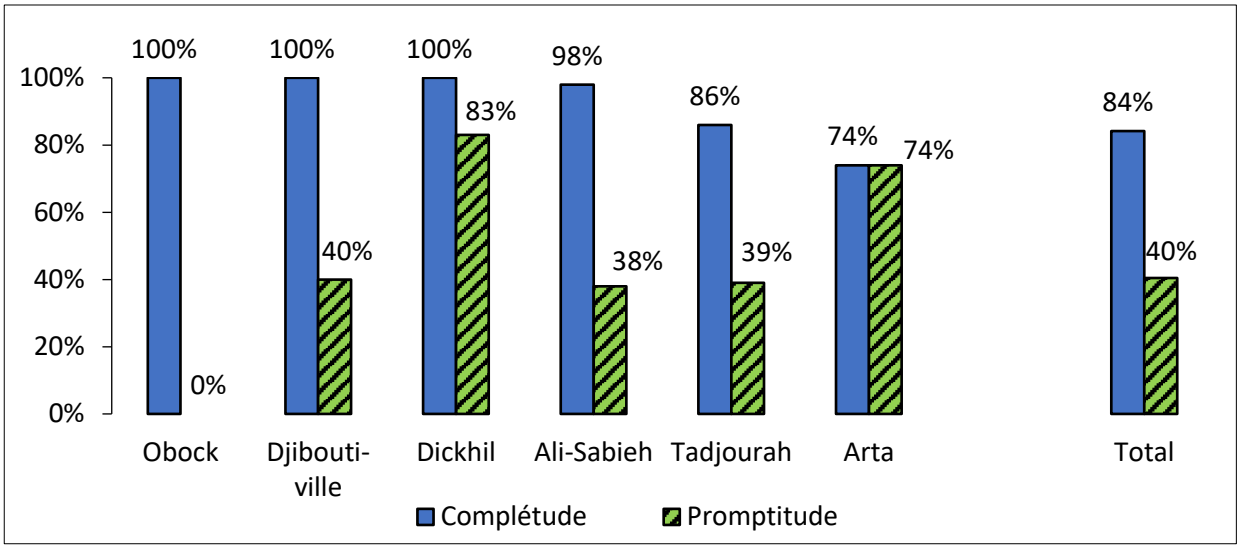


Figure 10: Completeness and timeliness of reports from health facilities received by the regions, from January to June 2018 (DQA)

Blue: Completeness; Green stripes: Timeliness

The country's high degree of involvement in complying with the international health regulation (IHR) was shown during the workshop organised on IHR with the different stakeholders.

Surveillance of diseases with epidemic potential is beginning to improve, with strengthened reporting of cases of target diseases for immunisation (three cases of AFP reported during the third quarter of the year). Revising the handbook and training the trainers on surveillance of polio will make it possible to strengthen detection, reporting and control of diseases targeted by immunisation. A major advance is the current development of an electronic early alert system and the building of surveillance workers' capacities. Training on EWARN planned for the first week of November could also contribute to strengthening the surveillance system.

Gender-related barriers faced by caregivers

Since the administrative schedule change of 1 January 2017, parents have the option of using immunisation services until practically 5 p.m. This schedule change enables parents to adapt and find the necessary time to immunise their children. In addition, private clinics offer immunisation services in the morning from 8 a.m. to 12 p.m. and in the evening from 4 p.m. to 9 p.m. Awareness-raising and promotional activities for immunisation through communication channels including social media offer an opportunity for people to become better-informed on the importance on immunisation.

Leadership, management and coordination

In 2019, the EPI was the beneficiary of human resources strengthening at the national level, including an epidemiologist, a project manager and four dedicated maintenance people to maintain cold chain equipment. Coordination of the immunisation programme was improved through revitalisation of the national coordination committees (ICC) and technical committees (NITAG, CNC, CNEC, NLWG, etc). The latest report on certification for polio was sent in 2016, and in 2019, the EPI polio team sent the 2018 report approved by the WHO regional certification committee. During the September 2019 ICC meeting, the organisation of immunisation campaigns against polio and measles was discussed and endorsed.

4.3. Immunisation financing[5]

The share of the national budget allocated to the health sector has increased in the past few years, from 5% in 2017 to 7% in 2019. Unfortunately, only 12% of state funding is allocated to preventive services such as immunisation, supported mostly by international partners.

The Government does not participate in procurement of traditional vaccines purchased by UNICEF. However, it participates in funding new vaccines with Gavi. This situation represents a risk for the long-term viability of immunisation should partners withdraw and as part of the transition already announced by Gavi.

The MoH is currently conducting **a brainstorming session to define a strategy for healthcare financing with the support of Gavi and the World Bank**, which would make it possible to improve funding for health services, in particular immunisation, with an impact on immunisation coverage. Indeed, the World Bank received funding from Gavi to support the MoH to evaluate the system for funding the health sector with a view towards evolvement to universal health coverage. The initial discussions took place with the MoH and the National Social Security Office to conduct this assessment, which will inform future strategy. A World Bank mission will take place before the end of 2019 to begin collecting data to conduct this evaluation.

5. PERFORMANCE OF GAVI SUPPORT

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

[5] Additional information and guidance on immunisation financing is available on the Gavi website: https://www.gavi.org/support/process/apply/additional-guidance/#financing

Objective 1	
Objective of the HSS grant (as per the HSS proposal or PSR)	By 2019, people living in difficult-to-access areas will have access to high-quality basic health and immunisation services.
Priority geographies / population groups or constraints to C&E addressed by the objective	Urban zone and interior regions
% activities conducted / budget utilisation	Utilisation 81% (31 October 2019)
Major activities implemented & review of implementation progress including key successes & outcomes / activities not implemented or delayed / financial absorption	**1. Activities implemented**: - Training of community stakeholders (500 people) in the regions was completed for Djibouti City and Balbala (1,100 persons). - Supervision of activities began on schedule. - The activity "Provide fuel for the transportation means used by the mobile teams and perform maintenance on the 7 vehicles purchased" was completed. However, strengthening of the mobile teams with regards to financials in the regions is necessary. - Supplementary immunisation activities to cover children who are not completely or not at all immunised in difficult-to-access areas were completed in full. The activity will be carried out continually in year 5. Remote areas that are difficult to access remain difficult to reach because of a lack of transportation means. - Revitalise surveillance of vaccine-preventable diseases: 58 immunisation workers benefited from capacity building. The challenges that we have encountered are common for all of the regions; - Very low education level of some health workers with regards to immunisation; - Procuring motorcycles is in progress to strengthen outreach strategy. **2. Activities not implemented:** Activities related to developing incentive measures for motivation will take place in HSS year 5 as long as immunisation activities for children in urban and peri-urban zones have not been completed and have been transferred to urban immunisation. Some activities were not completed and were rescheduled to year 5.

Major activities planned for upcoming period (mention significant changes / budget reallocations and associated **changes in technical assistance**)	Monitoring and supervision support activities were added for HSS1 and are planned for year 5.
Objective 2:	
Objective of the HSS grant (as per the HSS proposal or PSR)	By 2019, health information management will be improved at all levels of the health pyramid.
Priority geographies / population groups or constraints to C&E addressed by the objective	Urban zone and interior regions
% activities conducted / budget utilisation	Funds were transferred to complete the immunisation coverage survey planned for 2020.
Major activities implemented & review of implementation progress including key successes & outcomes / activities not implemented or delayed / financial absorption	All these activities were subject to savings and were planned for year 5. Preparations for implementing supervision activities were delayed because of excess work (activities related to verifying status of computer tools necessary to implement DHIS2) to carry out the necessary activities. However, preparatory activities took place and activities were rescheduled for year 5. The team was strengthened so that planned activities could be implemented.
Major activities planned for upcoming period (mention significant changes / budget reallocations and associated **changes in technical assistance**)	Supervision is planned for year 5. Preparatory activities conducted in year 4 will enable better implementation of activities related to improving the computer base (procurement of computer equipment). US$ 50,000 dedicated for this objective will be reprogrammed to cover costs of the immunisation coverage survey.
Objective 3:	

Objective of the HSS grant (as per the HSS proposal or PSR)	Leadership and managerial capacities of health system managers will be strengthened by 2019.
Priority geographies / population groups or constraints to C&E addressed by the objective	Urban zone and interior regions
% activities conducted / budget utilisation	Utilisation 84% (31 October 2019)
Major activities implemented & review of implementation progress including key successes & outcomes / activities not implemented or delayed / financial absorption	Staff trainings were conducted as planned. At the regional level, approximately 40 persons received training in human resources management. A computer tool for managing human resources was developed by a consultant. Currently, the software is functional. This software enables better visibility in terms of staff profiles and areas where they are posted.
Major activities planned for upcoming period (mention significant changes / budget reallocations and associated **changes in technical assistance**)	No new activities were planned. The same activity was rescheduled in year 5.
Objective 4:	
Objective of the HSS grant (as per the HSS proposal or PSR)	By 2019, inventory management and methods of storing vaccines and essential supplies will be improved.
Priority geographies / population groups or constraints to C&E addressed by the objective	Urban zone and interior regions
% activities conducted / budget utilisation	Utilisation 77% (31 October 2019)
Major activities implemented & review of implementation progress including key successes & outcomes / activities not implemented or delayed / financial absorption	Computer equipment has been procured. Maintenance of the refrigerated truck was rescheduled to year 5 for maintenance of the EPI vehicle. Cold rooms and central storage depots have been rehabilitated.

Major activities planned for upcoming period (mention significant changes / budget reallocations and associated **changes in technical assistance**)	Improvement in overall vaccine and cold chain equipment management was planned for year 5.
Objective 5:	
Objective of the HSS grant (as per the HSS proposal or PSR)	Programme management
Priority geographies / population groups or constraints to C&E addressed by the objective	Strengthen ministry staff
% activities conducted /budget utilisation	Utilisation 70% (31 October 2019)
Major activities implemented & review of implementation progress including key successes & outcomes / activities not implemented or delayed / financial absorption	This activity includes support from management staff: that is, salary, training on procurement, supplies and purchase of fuel that were completed. The EDS immunisation coverage survey (US$ 75,000) was rescheduled to year 5 and (US$ 35,000) transferred to urban immunisation.
Key activities planned for the upcoming period (mention significant changes / budget reallocations and associated **changes** in **technical assistance**)	Support for managing project funding will continue throughout the current year.
Savings on some activities totalling US$ 192,315.53 have been reprogrammed for completing urban strategy activities. This amount, and an additional US$ 150,000 PBF 2019 Djibouti, will be allocated to priority urban immunisation interventions.	

Human resources are the cornerstone for health system strengthening. Training and empowerment of human resources will enable an improved performance of the health system. However, decentralisation of human resources management and the lack of coordination in this area between different departments responsible for health programmes in general and for immunisation in particular result in delays in implementing some activities.

During discussions with the different departments responsible for implementing different immunisation and surveillance activities, it was noted that there might be difficulties in mobilising transportation means. However, different types of transportation have been procured as part of HSS. Better internal organisation for the car fleet could solve the problem. It was suggested that an inventory of all available transportation means should be undertaken along with drafting of a schedule for vehicle use in order to allow different departments to complete their activities in the planned time period.

5.2. Performance of vaccine support

Vaccine stock management continues to be a challenge. Inventories of vaccine stocks are carried out sporadically. During D4A training, this issue was raised and solutions such as strengthening vaccine management using the DVDMT and SMART CHILD applications were proposed.

The last vaccine to be introduced into the routine EPI was in 2016 – for IPV. For the introduction of new vaccines such as MR and HPV, there needs to be technical support for the NITAG to prepare the advocacy brief that includes social mobilisation, financial and technical aspects.

Circulating cases of strains of vaccine-derived poliovirus in bordering countries exposes Djibouti to a high risk of the virus being imported. In addition, population movements on both sides of the border and inside the country as well as increasing flows of migrants and poor immunisation coverage in rural and cross-border areas intensify the risk of importation. The outbreak of measles cases in neighbouring countries and cases of measles regularly reported in Djibouti (258 cases between W1 and W38) expose children to the risk of contracting measles. Faced with these threats, the country decided to strengthen routine EPI in particular in rural areas and to organise immunisation campaigns against these two diseases. The measles campaign will target children aged 6 months to 15 years and the polio campaign children aged 0 - 59 months. These campaigns are planned for November and December 2019.

The recent stockout of IPV in the period from 2017 to July 2018 resulted in an accumulation of susceptible cohorts not protected by the type 2 vaccine. Given the cVDPV2 epidemic in the horn of Africa, especially Somalia and Ethiopia, the threat and risk of exposure of these cohorts and the circulation of vaccine-derived poliovirus is becoming very great. In order to strengthen the immunity of this population of vulnerable children, the country plans to conduct an IPV catch-up campaign for children who have not been immunised with IPV during the first quarter of 2020. Internal discussions are in progress in the national certification committee for polio and the EPI in order to define the best possible strategy for identifying cohorts, planning, advocacy/mass communication, mobilising funds and conducting this campaign.

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

In the third quarter of 2018, the country received cold chain equipment as part of cold chain strengthening through the Gavi optimisation platform (CCEOP). Thus, 26 SDDs and 9 freezers were received and installed according to the year 1 deployment plan. These installations have made it possible to increase coverage for health facilities with a functional cold chain (40% in 2016, 60% in 2017, 85% in 2018 and 90% in 2019) and thus allow children access to immunisation services, in particular in rural areas.

An assessment and inventory of cold chain equipment took place in June 2019, enabling confirmation of new installations and proposals for redeployment of obsolete equipment to the Ministry of Education's professional training centres.

The year 2 deployment plan has been finalised and sent to the Supply Division of UNICEF. The year 2 development plan underwent a technical review and a financial analysis of this plan is in progress. When the financial analysis concludes, the Supply Division will send the country a budgeted deployment plan for approval. According to forecasts, the **deployment plan process will be finalised at the beginning of the second quarter of 2020.**

The new cold chain equipment (Gavi/CCEOP) is equipped with devices to monitor temperatures in real time, which makes it possible to track equipment temperature (see attached follow-up report).

In the last quarter of 2019, there is a plan to use the D4A application to carry out an inventory of cold chain equipment in real time. This will allow the EPI to have regular inventory updates for cold chain equipment and thus show the impact of strengthening the cold chain and the return on investment for the CCEOP plan. Moreover, the regional office recruited a consultant who is working on the **impact of CCEOP equipment** and the report of this evaluation will be shared with Gavi when finalised.

5.4. Financial management performance

Since the last disbursement in August 2019 (US$ 793,000), Gavi has disbursed most of the HSS amount committed to in Djibouti. The final amount of US$ 386,000 will be paid to the MoH when acceleration of the implementation of HSS activities continues.

The country has a current balance from the IPV VIG of US$ 29,000. The MoH can ask Gavi to reinvest these activities in HSS priority activities to accelerate immunisation of the target population.

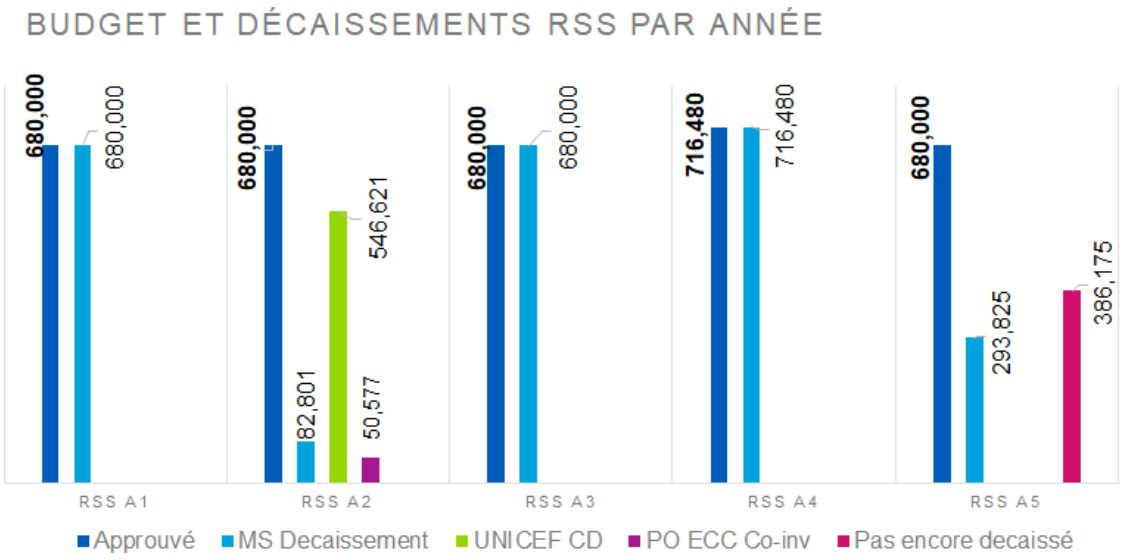


Figure 11: HSS budget and disbursements per year

Dark blue: Approved; Light blue: MoH disbursement; Green: UNICEF Supply Division; Purple: CCEOP Co-inv; Red: Not yet disbursed

Gavi has disbursed 89% of the total grant amount. However, the total amount spent (US$ 2.2 million) with respect to the total amount committed (US$ 3.4 million) is 66%. As a result, the country needs a one-year no-cost extension for HSS that will change the completion deadline from July 2020 to July 2021.

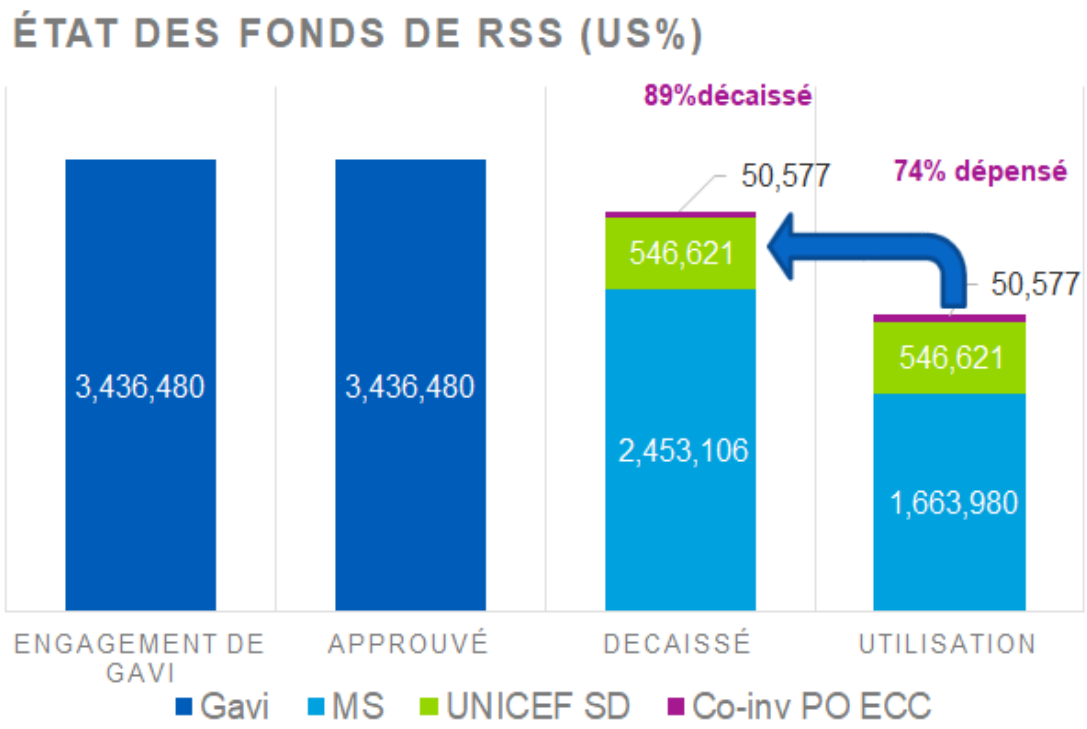


Figure 12: HSS funds status (US$)

Dark blue: Gavi; Light blue: MoH; Green: UNICEF Supply Division; Purple: CCEOP Co-inv

5.5. Transition plan monitoring (applicable if country is in accelerated transition phase)

Not applicable

5.6. Technical Assistance (TA) (progress on ongoing TCA plan)

PEFTCA WHO and UNICEF 2018:

As part of technical assistance to the country to improve immunisation performance, WHO and UNICEF received Gavi support funds that should contribute to completion of activities deemed as priority during the 2017 Joint Appraisal. Completion of these activities made it possible to strengthen immunisation coverage as a whole with value added in mapping special internal and external and difficult-to-access populations.

The main technical assistance actions were directed towards improving the **data management** system; strengthening creation of **demand** within vulnerable target populations; strengthening staff expertise in **cold chain and immunisation management;** strengthening cold chain logistics by introducing innovative applications and methods for tracking stocks in real time and monitoring key indicators; and updating tools and **handbooks** for integrated **surveillance** and response.

Specifically, the activities selected by WHO, implementation and guidance, made it possible to: have an interim review of the cMYP; develop the handbook for integrated **surveillance** and response for diseases with epidemic potential; and implement immunisation campaigns against polio and measles coupled with independent monitoring and completion of a **data quality assessment** resulting in a validated data improvement plan. The plan's selected activities will make it possible, after prioritisation, to considerably improve the whole chain of production of epidemiological and immunisation coverage data. Some activities related to the implementation of introduction plans for **new vaccines, in particular MR and HPV, were deferred to the following year pending continued advocacy by NITAG with authorities** and the outlook for sustainable funding for these vaccines with regards to Djibouti's status of being classified as a country in the accelerated transition phase of Gavi funding.

Regarding UNICEF, the focus was on strengthening **cold chain and vaccine management** as well as the use of services by boosting **demand** in order to reduce the dropout rate.

As regards vaccine management, an assessment of the 2014 **EVM Improvement Plan** was completed with some criteria seeing improvement. A preparation plan for assessing vaccine management was implemented. A monitoring committee comprised of the EPI, DIS, the planning department and WHO/UNICEF partners was formed with the **EVM 2.0** tool and has begun an assessment simulation. This group continues to familiarise itself with the tool and will perform assessment exercises. The final evaluation will be conducted in the first quarter of 2020. An improvement plan will be prepared after this assessment.

Moreover, UNICEF has supported the MoH in using the **D4A** application to strengthen management with real-time monitoring of vaccine management data. Around 30 immunisation staff were trained on tool usage, and support for implementing this application is planned for mid-November with the support of an international expert. UNICEF has built the capacities of EPI logistics experts and the EPI director in monitoring vaccines in real time for the central storage depots on the **SMART CHILD application.** This application makes it possible to track vaccines from the factory to delivery at the last level (health facilities). It will allow the director and logistics experts to track in real time the flow of incoming vaccines available in central storage depots as well as the number of doses distributed, enabling better planning to meet needs and avoid stockouts and overstocking. **This application is presently limited to the central/national level and will be scaled up after a three- to five-month pilot phase to study its impact.**

Promotion and awareness-raising activities have been conducted such as focus groups in community development centres and at the headquarters of community-based organisations.

6. UPDATE OF FINDINGS FROM PREVIOUS JOINT APPRAISAL

Provide the status of strategic actions identified in the previous joint appraisal ranked in order of importance[6] and any other significant Independent Review Committee (IRC) or High Level Review Panel (HLRP) recommendations (if applicable).

Prioritised actions from previous Joint Appraisal	Current status
Improve immunisation coverage and wastage rate	
● Regular supportive supervisions of immunisation workers at all levels (public, para-public and private). ● Motivate and build capacities by training workers and community relays. (At the peripheral level) ● Perform active searches of those lost to follow-up (health workers & community relays). ● Update the microplan and mapping at the national level (urban, peri-urban and rural areas) ● Organise information and awareness-raising sessions by quarter and by region in community-based organisations (CBOs) ● Intensify mobile strategy for remote regions and difficult to reach regions,	● The reporting and monitoring/evaluation system continues to improve with planning and integrated and supportive supervision visits that are increasingly regular (three supervisions out of four to date). Data monitoring and collection tools are more fully completed and more up to date. ● Relays and social mobilisers completed promotion, awareness-raising and active searches for those lost to follow-up for unimmunised or not fully immunised children in urban areas, with 3,611 children referred to complete their immunisations. ● Preparation activities related to the microplan are in progress, discussions with the administrative authorities have been initiated. The team comprised of the EPI, DISED, DIS, and DRS has been identified and a timeline for activities has been established. The mapping expert has been recruited.

[6] Refer to the section "Prioritised Country Needs" in last year's Joint Appraisal report

● Develop a specific strategy for the special populations (nomads, refugees, migrants, street children)	● Informal educational talks on the importance of immunisation and complying with the vaccine schedule have been organised in the four community development centres and at the headquarters of 10 community-based organisations. ● Mobile teams have been strengthened by the MoH and visits are more frequent, with integration of very isolated regions that had not been covered. ● The special population strategy is available. It includes nomads, refugees, migrants and street children. This strategy needs to be updated based on the changing context.
Anti-measles campaign. Ensure that the planned campaign is implemented with high quality standards ● Review of the strategic plan including the communication plan ● Review of the microplan ● Identify and cover the budget deficit ● Ensure that there are sufficient vaccines ● Include the readiness assessment ● Post-campaign assessment	● The national campaign against measles took place from 31 October to 5 November 2018, targeting children 6 months to 5 years of age. The campaign made it possible to immunise 113,780 out of 106,380 children planned. The communication plan has been reviewed and updated. ● The microplan has been reviewed and validated in a meeting with the partners. ● The budget deficit was covered by UNICEF. ● Campaign preparations began in July 2018 and continued up to the campaign launch in the field. ● Unfortunately, there was no post-campaign evaluation, unlike the polio campaign where independent monitoring was completed.
Improve effective vaccine management Carry out effective vaccine management ● Prepare an EVM preparation plan ● Set up a task force ● Endorse the EVM report	● An EVM preparation plan has been prepared. Discussions centred on which version the country would choose to adopt. Version 2.0 was selected. ● A team comprised of the EPI, DIS, maintenance and the partners was established. This team was trained on the EVM 2.0 tool. An EVM assessment was simulated and the final assessment is planned for the first quarter of 2020. The improvement plan will be prepared after the final assessment. ● The EVM report will be validated following the final assessment.
Build political engagement for immunisation funding. ● The MoH will submit a HSS2 proposal at the latest in the 4th quarter of 2019 in order to make it possible to continue current HSS1 activities and receive a five-year HSS2 schedule. ● Considering the planned co-financing responsibility, the MoH must decide if it wishes to present a new vaccines introduction request (HPV and MR) before beginning the accelerated transition phase (1 January 2023).	● The country will receive technical support from Gavi and will submit a new proposal in 2020. ● Discussions between the MoH and Ministry of Budget technical teams took place. Both Ministers also discussed the subject and the Ministry of Budget promised to speak with the World Bank to re-examine the country's classification. The decisions will depend on the final outcome of this discussion. ● The country understands the importance of introducing the HPV and MR vaccines, but the decision will fall to the politicians. However, the technical team will prepare a

● Advocacy by Gavi and the MoH and Ministry of Finance and Budget technical partners for a gradual increase in the national budget allocation for immunisation.	brief allowing for advocacy with decision-makers. This brief will include budgetary implications for the country.
Improve immunisation data quality ● Review of the improvement plan following the DQS exercise ● Prioritise and budget for improvement plan activities ● Mobilise financial resources to implement activities through support from partners or with HSS funds.	● DQS is finalised with an improvement plan for budgeted data. The plan was reviewed and activities are being prioritised. ● Part of the HSS savings will be used to fund data improvement plan activities and the gap will be studied by the partners.
Improve cold chain capacity and management ● Retake inventory of cold chain equipment ● Set up the D4Action application ○ Train immunisation workers on the application ○ Do a simulation at the national level ○ Workers coached by the national level	● Inventory completed in June 2019. ● Implementation of D4A (D4Action) application ● Two trainings for immunisation staff as well as departments involved in immunisation interventions (30) ● Install D4A application on smartphones of trained staff and incorporate in the application necessary data such as the different indicators. ● Demonstrations and simulation exercise. ● Cascaded trainings planned in the second part of November with the support of an international expert (coaching the team + transfer of expertise). ● The D4A tool will also be used to inventory cold chain equipment (regular update of cold chain equipment inventory). ● During training on the D4A application and with a view to improving the cold chain and the vaccine management system using Data4Action, it was decided that the SMART CHILD initiative would be implemented in Djibouti. ● The SMART CHILD initiative makes it possible to track the entire supply chain for vaccines from the factories to distribution and use of vaccines by using Blockchain technology. ● EPI logistics experts from the two central storage depots were trained in vaccine management through the SMART CHILD application in Blockchain. ● This initial phase will last three months and will be documented and reviewed in Q1 of 2020 and the next phases will depend on the results of the first phase.
Epidemiological surveillance: Preparation and response to epidemics	

• Update the list of surveillance focal points at the hospital and community level for Djibouti and the regions • Prioritise active surveillance sites including points of entry • Update handbooks for integrated disease surveillance and response • Support for developing specific contingency plans for AEFI • Update and produce tools for strengthening surveillance • Support for implementing an early alert and response system • Strengthen expertise for INSPD staff on field epidemiology and interventions	• The list of focal points for hospitals has been updated. Not yet done for the community level. • Site prioritisation done. • The integral surveillance handbook for diseases and response has been updated. It still needs to be copied and made accessible. • Contingency plans have been developed and are available. • Tools have been updated and should be duplicated to be made available to relevant stakeholders. • The early alert system is in its pre-operational phase. Actions are in progress with the support of WHO. • Trainings to build capacity of INSPD, EPI and health staff on surveillance have been held. But there has not been a focus on field epidemiology and interventions.
Additional significant IRC/HLRP recommendations (if applicable)	**Current status**
Not applicable	

7. ACTION PLAN SUMMARY OF FINDINGS, ACTIONS AND RESOURCES/SUPPORT NEEDS IDENTIFIED AND AGREED DURING THE JOINT APPRAISAL

Overview of key activities planned for the next year and necessary modifications to Gavi support:

The country is in its fifth year of fulfilling the HSS grant. As has already been mentioned in this report, **the country will request an extension for the implementation period of HSS activities up to July 2021.** As part of planning for the new HSS programme and the activities of the new grant cycle, it was decided to begin the **grant portfolio planning** process for the second quarter of 2020. Given Gavi's open dates for submitting new applications, it was decided to aim for the new HSS application and the submission of the programme support rationale for January 2021. The table below shows the planning schedule:

Activity	**Dates proposed**	
Step 1	January - March 2020	
Coordination calls, preparation meetings, recruiting a consultant (via TA)	January - February 2020	
Prior study and analysis of all existing documents to define strategic support areas	February - March 2020	
Identification of strategic objectives and key activities	February - March 2020	
Step 2	April - July 2020	
Joint mission of Gavi Alliance partners in the country for the first workshop. Mission objective – come to an agreement on strategic objectives and key activities	April 2020	
Identify necessary interventions and activities in more detail, which must solve the bottlenecks identified during the workshop	Draft the preliminary	April - June 2020

Budgetise activities and identify technical assistance partners to implement activities and funding sources	version of the PSR.
Develop M&E component: Grant performance framework, indicators, levels of reference, etc.	
Step 3	June - August 2020
Joint mission of Gavi Alliance partners in the country for the second workshop. Mission objective – agree on activities, budget and CPS indicators	June - July 2020
Draft final PSR, final adjustment of budget, CPS indicators, etc.	August 2020
Step 4	September - April 2021
PSR submission	8 September 2020
Independent Review Committee (IRC) review	November 2020
Revision by country and response to clarifications if necessary	December 2020
Approval by Gavi and decision letter	March 2021
Disbursement	March - April 2021
Beginning of HSS2 implementation	May - June 2021

The beginning of the process in March 2020 will allow Djibouti to finish preparatory surveys and analyses (ie the **immunisation coverage survey** planned for 2020) in order to improve preparation and planning for HSS2.

Key finding / Action 1	**Improve management and forecast of vaccine stocks: Deployment of new technologies: Smart Child initiative**
Current response	The SMART CHILD application was introduced in Djibouti in October 2019 at the national level and in the central storage depots. **Vaccine management at these levels is tracked in real time** thanks to this innovative tool. Central EPI logistics experts and the EPI coordinator were trained in stock management and vaccine movements in real time using this tool.
Agreed country actions	This programme is in the pilot phase for the next three to six months. As this is a new technology, UNICEF will provide the country with more appropriate support. **Physical stocks of the different vaccines at each level, stocks in the paper system and stocks in the Blockchain-based system will be checked every month.** If a conflict between these different levels appears, the cause of the error will be identified and appropriate corrective measures taken. **After three to six months, depending on the results, the country will decide if the tool should be used continuously or not.** If the country is satisfied with the tool, additional improvements will be introduced to make it a more practical application.

Expected outputs / results	Programme managers and EPI logistics experts will be able to track in real time: 1. The exact quantity of vaccine arriving according to forecasts 2. How many different vaccines are at each level 3. The quantity of vaccine that was distributed 4. The quantity of vaccine wasted at the lower distribution level (only wastage of open vials) 5. History of vaccine movements by antigen at all levels Given the vaccine stock, lost vaccines and the history of all vaccines' movements, the use of **this innovative tool will help improve vaccine management and establish accurate forecasts to avoid wastage and overstocking of vaccines at all levels.**
Associated timeline	Q1 - Q4 2020
Required resources / support and TA	UNICEF funds
Key finding / Action 2	**Improve data quality based on DQS 2018 results**
Current response	The issues with data quality have been repeatedly included in the agenda for discussions during the last three joint appraisals. The vision agreed on was to have good quality reliable data that match at all levels of the health pyramid, produced in real time and that serve as supporting materials for stakeholders and decision-makers in making decisions. A data quality assessment was performed in December 2018 and the methodology used for it was the Data quality review or audit (DQA). The analysis of causes of problems identified made it possible to develop a data improvement plan that was validated at the national level. The structure of this improvement plan is organised around five strategic focus areas: **1) Strengthening governance of data management** for the EPI, broken down into two major objectives and nine activities; **2) improving technical capacities of human resources on data quality and management,** organised into two objectives and eight activities; **3) Enhancing the availability of immunisation data management and collection tools including logistics and surveillance**, organised into three objectives and nine activities; **4) Improving access to immunisation data and usage**, with two objectives and 11 activities; and **5) Strengthening data validation and verification mechanisms at all levels of the health pyramid**, broken down into one objective and five activities. A prioritisation exercise made it possible to decide on the activities below, which will be implemented as part of PEFTCA 2020, and even HSS.
Agreed country actions	• Define a standards and organisational framework for data management • Establish a national committee for vaccine data quality (CNQD)

	◆ Train 20 people from the national level, two people per region and two per health facility on using vaccine management tools ◆ Train 5 national managers and 12 regional ones in charge of data on WHO application tools: District vaccine management tool (DVDMT) and "case-based surveillance" ◆ Train five national managers in charge of input stock management (for immunisation) on the "stock management tool" (SMT) software ◆ Train 10 people from the national level and 12 from the regions on self-evaluation methodologies for data quality (DQS) ◆ Complete a quarterly joint supervision DIS-EPI including a DQS towards the regions ◆ Complete a bi-monthly supervision of regions to health facilities including an assessment of the accuracy of reported data (simplified DQS) ◆ Equip regions and health facilities with ways to store and archive tools (collection and reporting) and digital data ◆ Provide technical support for the DHIS2 deployment process through integrating key EPI indicators ◆ Organise a monthly immunisation data analysis meeting (including surveillance and logistics) at the national level ◆ Each month, organise a meeting to validate immunisation data (including surveillance and logistics) at the regional level with the health facilities ◆ Every six months, complete one DQS by peers (coupled with LQAS) in each of the regions ◆ On a quarterly basis, organise a meeting for harmonising surveillance and immunisation data between the national level facilities ◆ Every year, organise a national desk review for immunisation and surveillance
Expected outputs / results	◆ The standards and organisational framework for quality data production have been reviewed and updated ◆ The roles and responsibilities of the stakeholders involved in managing immunisation and health data have been clearly defined and made accessible. ➢ The EPI has a data manager. ➢ The country has a functional formal national committee for immunisation data quality issues. ◆ The workers in charge of immunisation have been trained in immunisation management tools, analysis of indicators and data quality assessment. ◆ The workers responsible for data management (national and regional) are trained to use DVDMT, SMT, case-based surveillance and DHIS2 applications ◆ Assessment of the accuracy of reported data is an integral part of supervision ◆ Reporting and management tools (paper and digital) are stored in a place sheltered from bad weather and where they can be easily consulted at any time ◆ Immunisation data and the denominators (target populations) are available and easily accessible for planning activities. ◆ Verification and validation of data is part of health workers' routine activities
Associated timeline	Q1 - Q4 2020
Required resources / support and TA	PEF TCA 2020 WHO/UNICEF and HSS *Once the DQS plan has been calculated, savings made in HSS flow can be reassigned to recommendations on data quality.*
Key finding / Action 3	**Improve cold chain monitoring in the field and analyse its impact on immunisation coverage**
Current response	Since 2017, Djibouti has received as part of HSS and CCEOP, several pieces of cold chain equipment deployed in different districts and regions of the country.

Agreed country actions	**Perform mapping of cold chain equipment** using the D4A application that will make it possible to update inventories for the chain and post-installation follow-up (PIE) of cold chain equipment. **Cold chain impact study** (How is this monitoring improving coverage rates in targeted provinces and reducing waste)
Expected outputs / results	Mapping will also make it possible to do regular monitoring (monthly) of maintenance, functionality and availability and will help improve usage of immunisation services.
Associated timeline	Q1-Q2 2020
Required resources / support and TA	UNICEF technical support
Key finding / Action 4	**Build NITAG capacities for technical decision-making**
Current response	The primary driving principle of the global immunisation action plan 2011-2020 addresses the idea of countries' ownership for implementing good governance and providing effective and good quality immunisation services to all. This driving principle is translated into specific objectives according to countries' commitment to immunisation as a priority. Thus, the key indicators to follow progress towards this strategic objective are: Having a legal framework or legislation at the national level guaranteeing funding for immunisation and having an independent immunisation technical advisory group (NITAG) that meets clearly defined criteria. This technical advisory group for immunisation, an independent body, should help to guide the country's policies and strategies based on epidemiological data and the cost/effectiveness ratio to make informed evidence-based decisions. The NITAG will play an essential role in launching baseline surveys on researching the burden of morbidity and mortality of some vaccine-preventable diseases and could, moreover, order supplementary scientific studies to facilitate and guide certain decisions. Along these lines, in Djibouti in 2018 the appointment of a NITAG chairperson was formalised. The appointment marked an important step in constituting a group of experts that for the time being consists solely of the chairperson, who has assumed the role and initiated activities. The next step envisaged is the consolidation of knowledge according to standards required by WHO and ensuring effective functioning of the group's activities. The country already has a national immunisation policy that is in the process of being endorsed and that will request to be legislated in parliament. This policy will be a foundation to feed policy updates and major focus areas of immunisation based on new evidence and WHO recommendations and positions; this NITAG will help to better define immunisation policy beyond the routine, notably regarding private health facilities, pharmacies and immunisation opportunities throughout life, with targets over 2 years of age outside the EPI. In addition, in response to the activities written in the comprehensive Multi-Year Plan for immunisation 2016-2020, the introduction programme for two new vaccines, namely MR and HPV, should be done at the latest in 2020. One of the essential steps remains the position of the NITAG, which will help on factual and scientific bases to better organise advocacy with politicians and the beneficiary community.

Agreed country actions	➔ Ensure structural and functional implementation of the NITAG according to WHO-required standards. ➔ Support for scientific research and access to international scientific publications ➔ Provide financial support for NITAG participation in international and sub-regional conferences with their peers ➔ Support NITAG advocacy activities
Expected outputs / results	❖ The NITAG will support with scientific evidence the introduction initiative in Djibouti for new vaccines: HPV and measles/rubella ❖ Validate the national immunisation policy ❖ Launch additional scientific studies in the local context of Djibouti to support decisions.
Associated timeline	Q1 - Q4
Required resources / support and TA	WHO regional Bureau (SFA) and WHO country office (PEF)
Key finding / Action 5	**Strengthen the EPI team with a public health and/or vaccinology specialist** (Activity related to 2018 PCA (section g) GMR recommendations)
Current response	Since 6 October, the EPI programme has been provided with a new team made up of a new coordinator and several **new** staff members at the national level. EPI gaps need to be filled at the national and regional levels, with administrative and technical strengthening.
Agreed country actions	The SCM will examine the possibility of obtaining funds from the LMC to strengthen the EPI team with an integrated TA to assist the EPI coordinator with: (i) technical coordination of immunisation activities; (ii) coordination with the other departments involved in implementing HSS (DIS, UGP, etc); and (iii) internal coordination between the national and district/regional levels.
Expected outputs / results	1. Improve coordination with the MoH departments; 2. Appropriate prioritisation of immunisation activities (also urban immunisation), good quality/technical implementation of immunisation-related activities; and 3. A mechanism for monitoring and constant “feedback” set up between the national and provincial EPI.
Associated timeline	Q1 2020
Required resources / support and TA	PBF, HSS Leadership Management and Coordination (LMC)
Key finding / Action 6	**Disease surveillance**
Current response	- The country faced numerous epidemic outbreaks in 2018; in particular, the influenza flu virus, measles, malaria, severe watery diarrhoea and dengue. These epidemics were declared through the INSPD epidemiological surveillance system, based on 20 mandatory reporting diseases and surveillance of EPI target diseases. A targeted response was organised after investigations conducted by the teams of epidemiologists of the National Institute of Public Health. - Gavi support through WHO PEFTCA made it possible to strengthen the integrated disease and response surveillance system by updating the handbook, the epidemic intervention and alert thresholds and sentinel sites. Moreover, implementation of an early warning system (EWARN) is in its final phase of being made operational based on the 10 diseases with the highest attack rate. DHIS2, which is being finalised, will help with reporting and declaring cases in routine surveillance. - One of the priority actions identified is strengthening active and case-based surveillance of diseases targeted for eradication and/or elimination with an

	emphasis on special populations, to handle threats of imported cases from neighbouring countries experiencing epidemics (polio and measles). - Recurring measles epidemics in recent years and the lack of reporting of cases and confirmation in real time justify actions to strengthen the surveillance activities of the INSPD national reference laboratory.
Agreed country actions	- Mission to assess reference laboratory capacities by a team of experts from the WHO regional office - Build capacities of laboratory technicians in diagnostic techniques using ELISA for measles and rubella. - Build capacities of epidemiologists and other health staff in quality epidemiological surveillance of measles. - Support in the production of epidemiological surveillance data centred on measles, rubella and congenital rubella syndrome.
Expected outputs / results	- Strengthen laboratory and epidemiological surveillance of measles, rubella and congenital rubella syndrome, targets for global elimination.
Associated timeline	Q2 - Q4 2020
Required resources / support and TA	PEFTCA 2020
Key finding / Action 7	**Improving demand for and use of immunisation services**
Current response	The current EPI communication strategy will end in 2019 and a new communication strategy is needed. Special populations (migrants, nomads and difficult-to-access communities) are not easily reached and are not aware of the importance of immunisation.
Agreed country actions	Update the communication strategy by placing a particular focus on special populations (nomads, migrants, difficult to access and slum). The recommendations originating from this strategy will be translated into an action plan and implemented. They will enable vulnerable populations to learn about the importance of immunisation.
Expected outputs / results	Increased use of immunisation services and decreased dropout rates
Associated timeline	Q4 2019 - Q2 2020
Required resources / support and TA	UNICEF

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

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

The joint appraisal for 2019 took place between 3 and 7 November 2019 in Djibouti City under the direction of the MoH and with the participation of UNICEF, WHO (regional and country offices) and the Gavi Secretariat. GDS staff also participated in discussions related to immunisation in an urban environment. Several MoH departments, including the polio team, participated in discussions.

Plenary sessions were organised, followed by work group sessions in order to identify specific actions that should result in improving immunisation coverage.

Formal feedback was organised on 7 November in plenary by the EPI coordinator with all MoH stakeholders and the partners present.

It was followed by a more limited meeting with the Minister of Health who, in turn, was updated on the key points discussed during this joint appraisal. The agreed actions mentioned above in this report were

presented and the situation of Djibouti as a country in transition with regards to Gavi funding was mentioned.

9. APPENDIX: Compliance with Gavi reporting requirements

	Yes	No	Not applicable
End of year stock level report (due 31 March) *	x		
Grant Performance Framework (GPF) * reporting against all due indicators	x		
Financial Reports *			
Periodic financial reports	x		
Annual financial statement	x (not certified)		
Annual financial audit report		x	
Campaign reports *			x
Supplementary Immunisation Activity technical report			x
Campaign coverage survey report			x
Immunisation financing and expenditure information	x		
Data quality and survey reporting			
Annual data quality desk review	x		
Data improvement plan (DIP)	x		
Progress report on data improvement plan implementation		x	
In-depth data assessment (conducted in the last five years)		x	
Nationally representative coverage survey (conducted in the last five years)		x (planned 2020)	
Annual progress update on the Effective Vaccine Management (EVM) improvement plan		x	
CCEOP: updated CCE inventory		x	
Post Introduction Evaluation (PIE) (specify vaccines):			x
Measles & rubella situation analysis and 5 year plan		x	
Operational plan for the immunisation programme			x
HSS end of grant evaluation report			x
HPV demonstration programme evaluations			x
Coverage Survey			x
Costing Analysis			x
Adolescent Health Assessment report			x
Reporting by partners on TCA and PEF	x (June 2019)		

Immunisation coverage survey and EVM are planned for the beginning of 2020.

Preliminary financial reports have been presented. We are awaiting the certified final reports.

The audit report will be sent shortly.