Joint Appraisal Report (JA) 2019

Country	**Chad**
Full JA or JA[1]update	☑ **Full** **JA** ☐ JA update
Date and location of Joint Appraisal meeting	**19 to 21 November 2019 in N'Djaména**
Participants / affiliation[2]	**MSP, MFB, AN, WHO, UNICEF, GAVI, CRT, CSO/ see attendance list**
Reporting period	**Annual**
Fiscal period[3]	**From 01 January to 31 December**
Comprehensive Multi-Year Plan (cMYP) duration	**5 years (2018 - 2022)**
Gavi transition/Co-financing	*Initial self-financing*

1. RENEWAL AND EXTENSION REQUESTS

Renewal requests were submitted on the country portal.

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

2. GAVI'S GRANT PORTFOLIO

Existing vaccine support *(to be pre-filled by Gavi secretariat)*

Introduced / Campaign	Date	2017 Coverage (WUENIC) by dose	2018 Target		Approx. value USD	Comment
			%	Children		
Penta		*41%*	*75*	*541,210*		
IPV		*41%*	*90*	*541,210*		
MenA		*n.a*	*90*	*649,112*		
YF		*29%*	*90*	*649,112*		

Existing financial support *(to be pre-filled by the Gavi secretariat)*

Grant	Channel	Period	First disbursement	Cumulative funding status @ June 2018				Compliance	
				Engage.	Appr.	Disb.	Util.	Fin.	Audit
HSS	*UNICEF*	*2008-2017*	*NA*	*5,727,209*	*5,727,209*	*5,727,209*	*100 %*		*Yes*
CCEOP	*UNICEF*	*2019-2020*	*NA*	*4,484,610*	*4,484,610*	*0*	*0%*		
PAHO MenA	*UNICEF*	*2017*		*2,883,500*	*2,883,500*	*2,778,797*	*90%*		
VIG MR 1&2	*UNICEF*	*2017*	*2019*	*669,283*	*669,283*	*0*	*0%*		
Comments									

[1] Information on the difference between full JA and updated JA is available in the document *Guidelines on Reporting and Renewal of Gavi Support*, https://www.gavi.org/support/process/apply/report-renew/.
[2] If the list of participants is too long, it can be provided as an annex.
[3] If the frequency of reporting differs from the fiscal period, please provide a brief explanation.

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

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

Grant Performance Framework - latest reporting, for period 2018 *(to be pre-filled by Gavi secretariat)*

Intermediate results indicator	Target	Actual
Insert	n.a	n.a
Insert		
Comments		

PEF Targeted Country Assistance: Core and Expanded Partners at [insert date] *(to be pre-filled by Gavi Secretariat)*

	Year	Financing (US$m)			Staff in-post	Milestones met	Comments
		Appr.	Versé	Useful.			
UNICEF	2018	257,565	321,956	319,327			
	2019	1,586,396	1,189,797	342,358			
WHO	2018	-	-	-			
	2019	1,018,296	763,722	529,524			
CDC	2018	-	-	-			
	2019	68,000	51,000	0			
AEDES	2018	128,034	78,977	n.a			
	2019	-	-	-			
CREDES	2018	238,034	596,901	n.a			
	2019	-238,034	-248,831	n.a			
DALBERG	2018	341,800	341,750	n.a			
	2019	-	-2,484				
University of Oslo	2019	17,427	15,418	n.a			

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

The new Constitution of 4 May 2018, consecrating the 4th Republic, emphasizes community leadership.

In March 2018, the country held a National Forum on Immunisation leading to the adoption of an accountability framework stemming from the N'Djamena Declaration.

[4] The provision of this information is not an obligation on the part of the country or Gavi; it is provided primarily for informational purposes.
Countries are encouraged to highlight in the following sections, including in the Action Plan in section 7, the main activities and technical assistance potentially required, preparation of investment applications, vaccine applications and introductions, as appropriate.

The country has a polio transition plan that integrates Global Polio Eradication Initiative (GPEI) resources to strengthen the health system.

Sub-provincial instability (CAR, Sudan, Libya) exacerbated by the incursions in Boko Haram leads to the displacement of populations (more than 700,000 refugees and IDPs).

The decline in oil revenues from 2015 onwards has created a budget deficit leading to a reduction in allocations to the social sectors.

Since 2018, the country has been facing a measles epidemic, which is currently continuing despite the response. This has had an impact on the stock of vaccine for routine immunisation.

Following the high-level visit of Sieurs Bill Gates and Aliko Dangote, the country received co-financing for the revitalization of routine immunisation in the Lake Chad basin.

The development of the PHPD including the CCEOP and submissions for new vaccines took into account the above situations (forum, macroeconomic framework, epidemics and displacement of populations).

Potential future issues (risks)

Also provide a forward-looking perspective on what else may happen over the next year (given current conditions, vulnerabilities, dependencies, trends and planned changes) and needs to be anticipated. E.g. potential security challenges due to upcoming elections, risks of vaccine hesitancy, stock-outs or vaccine expiry, or risks to a sustainable transition out of Gavi support.

Drawing on existing country risk assessments, please list a maximum of five most important risks (i.e. with a high likelihood to happen and / or a high potential impact if it did happen). Consider the need for proactive actions to prevent them from happening or to timely detect and effectively respond once they will happen. Also clarify whether these risk mitigation actions are being prioritised in the action plan (section 7 below).

1. **Electoral issues**: Parliamentary elections are being prepared to be held by the beginning of the first quarter of 2020. Talks have been initiated between the various stakeholders through the National Framework for Political Dialogue (CNDP) with a view to reaching a consensus on the organizational framework of these elections with the establishment of the INEC.
2. **Resumption of strikes and other social movements**: difficult economic and social contexts can lead to mood swings related to categorical demands. The dialogue initiated around the national framework for social dialogue (CNDS) led to the signing of a social truce. The creation of CNDS branches in the social departments whose health is the focus of this dialogue.
3. **Epidemics and disasters**: given the low vaccination coverage, the country remains exposed to epidemics of vaccine-preventable diseases. Similarly, climatic hazards expose to floods or drought that can lead to infrastructure destruction or population displacement. The country has a contingency plan to combat epidemics and natural disasters.
4. **Availability of financial resources for the purchase of vaccines still remains an uncertainty**: this situation leads to the persistence of antigen breakdowns. However, the priority given by the highest authorities to securing vaccine purchases is an asset. Also, the advocacy of the reinvigorated CFIC is helping to raise funds.
5. **Weak accountability at all levels of the health system**: the implementation of the roadmap resulting from the immunisation forum coupled with the accountability framework at all levels will help to mitigate this weakness.

4. PERFORMANCE OF THE IMMUNISATION PROGRAMME

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

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

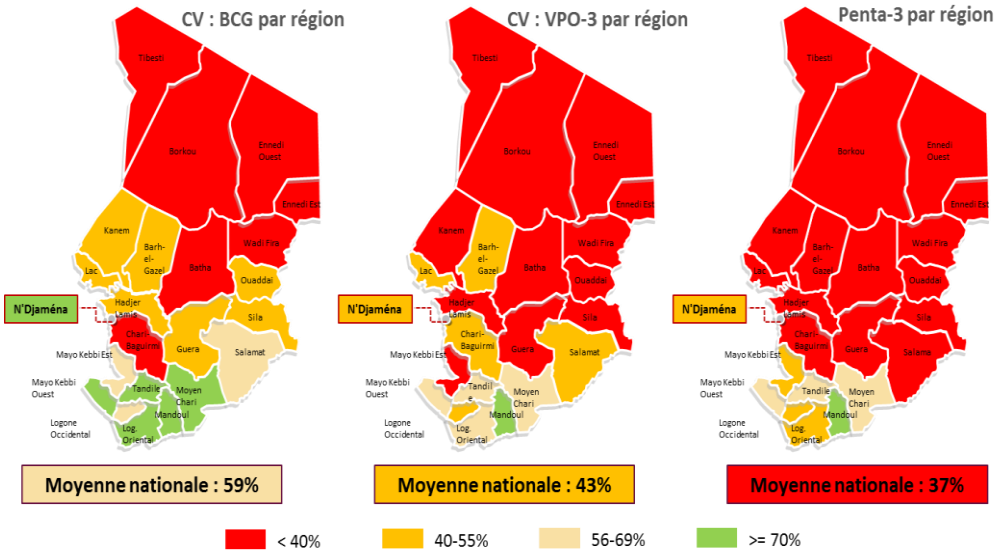
Countries are encouraged to present the information in tables, graphs and maps, and to reference the source of data.

4.1. Coverage and equity of Immunisation

*Please provide **national and sub-national analysis** of the situation related to coverage and equity of immunisation in the country, **focusing on newly available data & analysis, trends and changes, including outbreaks and details on outbreak responses observed since the last Joint Appraisal** was conducted.*

- *Provide a summary of the trends in **coverage and equity**, across geographical areas, socio-economic status including gender-related barriers, populations and communities, including **urban slums, remote rural settings and conflict settings** (consider population groups under-served by health systems, such as slum dwellers, nomads, ethnic or religious minorities, refugees, internally displaced populations or other mobile and migrant groups).*
- *Relevant information includes: overview of districts/communities which have the lowest coverage rates, the highest number of under-vaccinated children, highest dropout rate, disease burden: number and incidence of vaccine preventable diseases (VPD) cases as reported in surveillance systems in regions/ districts, etc.*
- ***Achievements against agreed targets**, within the country monitoring and evaluation (M&E) framework (and captured in the grant performance framework (GPF). If applicable, reasons why targets have not been achieved, identifying areas of underperformance, bottlenecks and risks.*

Coverage : DTP3, MCV2, etc.	The analysis of immunisation coverage and equity at the national and provincial levels from the 2017 Immunisation Coverage Survey (ECV 2017) highlighted the low immunisation coverage. Raw data are low with BCG at 59%, Penta1 at 55%, Penta3 at 37%, VAR at 37%, and 26% of the evaluated cohort received no antigen (zero dose). Only 22% of children are Completely Immunized (CVI), i.e. 78% of children are partially or not at all immunized. The dropout rate of 37 points contributes to the low full immunisation coverage. This rate rises to 15 points between the first and last dose of OPV and 18 points between the first and last dose of Penta, reflecting the large number of children lost to follow-up. These low immunisation coverage rates are observed in most provinces, including the capital N'Djamena, as shown in the following maps. Nevertheless, the provinces in the extreme south are better vaccinated (56% in Penta3) than those in the north (19%) for the same antigen (Cf. 2017 coverage survey).



Figures 1, 2 and 3: BCG, OPV3 and Penta 3 immunisation coverage by region (ECV 2017)

(Source: 2017 Immunisation Coverage Survey : ECV 2017 results)

Figure 4 below shows that administrative coverage over the past five years has consistently been very high compared to survey data and WHO/UNICEF estimates. Coverage estimates are very low and have never reached 50%.

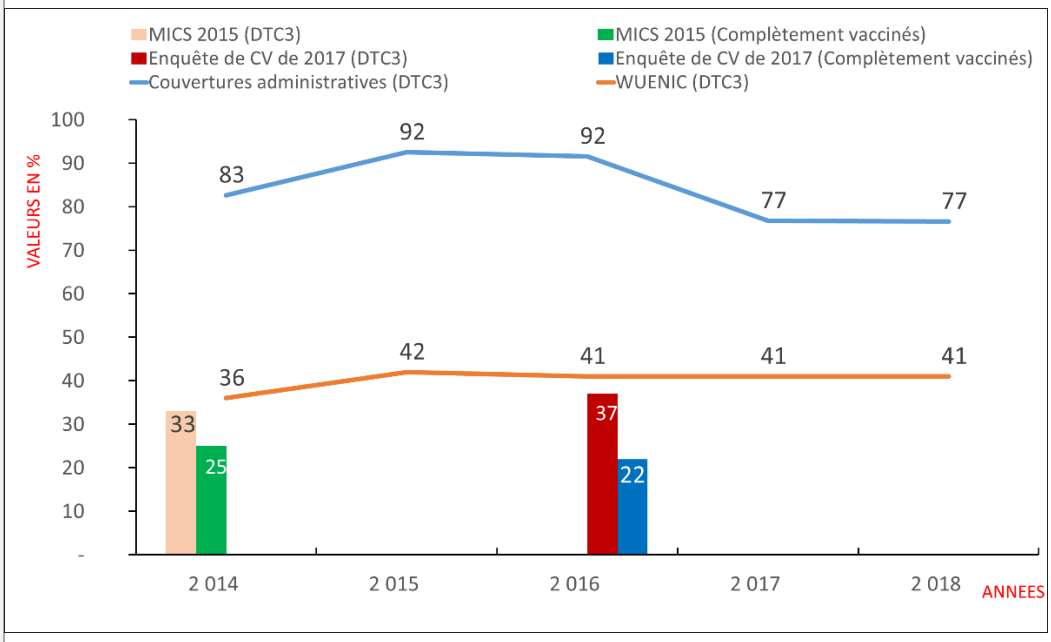


Figure 4: Administrative coverage compared to survey coverage from 2014 to 2018

According to this analysis, the challenge is initially in terms of increasing overall immunisation coverage. In Chad, most children still need to be vaccinated. In addition, the problem of inequity in immunisation is also evident in Chad:

Penta3 is at 37% (gross dose) of which 46% in urban areas and 33% in rural areas;

27% immunisation coverage among children whose caregivers are out of school and 61% among those whose caregivers have secondary/upgraduate education;

28% of children fully vaccinated in urban areas, compared to 20% in rural areas;

16% of children fully vaccinated among out-of-school caregivers compared to 38% among CEPs with secondary/higher education;

Populations with difficult access to immunisation services (islanders, flood-prone areas, deserts) and special populations (nomads, refugees, returnees and displaced persons).

- The nomadic populations represent 571,573 inhabitants or 3.5% of the total population in 2018.
- Islanders represent 379,206 inhabitants (Task Team data in 2018).
- Refugees represent 446,326 and IDPs 126,755 (UNHCR sources 31/08/2018).

Coverage:
Absolute numbers of un- or under-immunised children

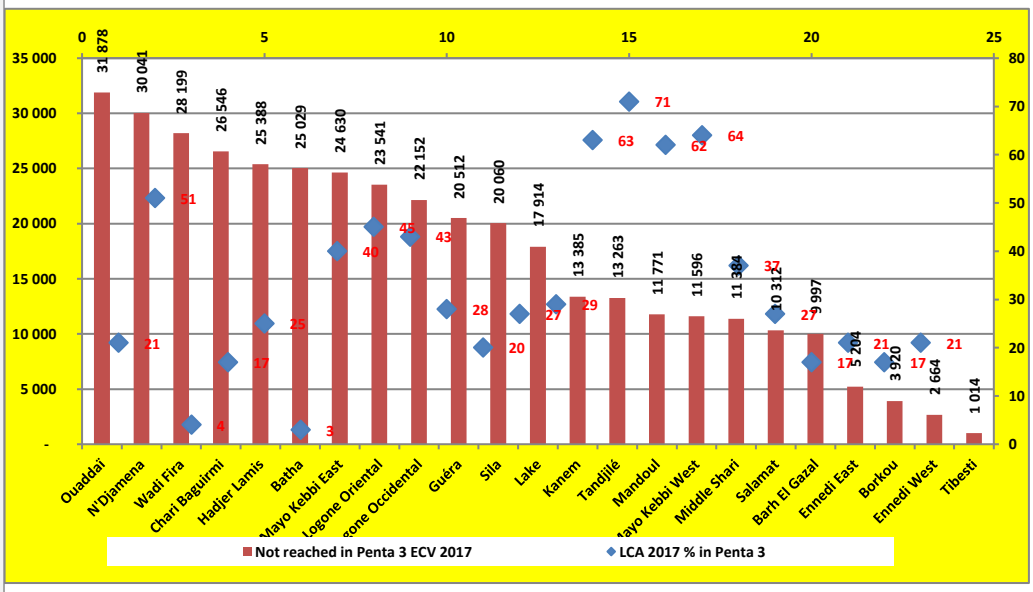


Figure 5: Number of unimmunized children by province in 2017,

Table 1: The 20 health districts with the highest number of unvaccinated children in PENTA 3 from January to August 2019.

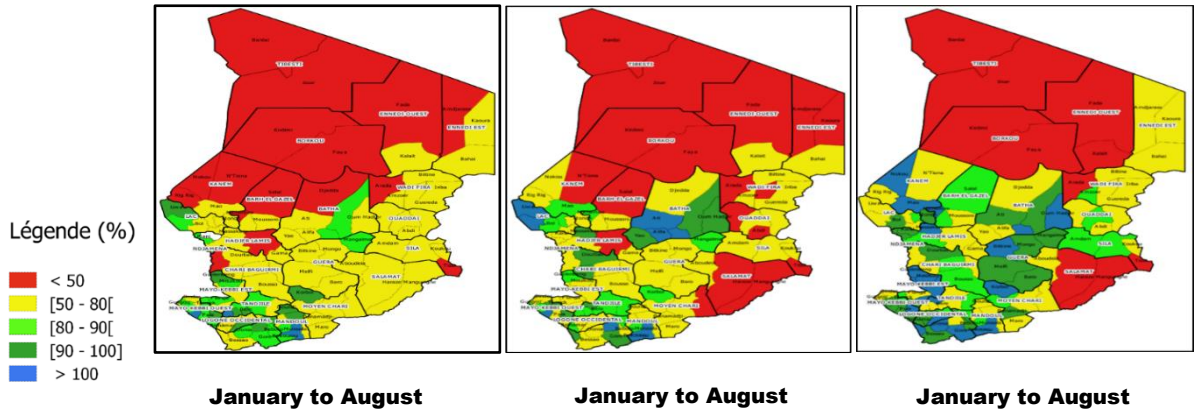
N°	DSP	DS	Non vaccinés Penta 3
1	SALAMAT	Am timan	5 864
2	N'Djamena	Ndjamena Centre	4 388
3	Ouaddai	Adre	3 992
4	Ouaddai	Abeche	3 784
5	SALAMAT	Haraze Mangueigne	2 595
6	Lac	Bagassola	2 553
7	Wadi Fira	Guereda	2 530
8	Wadi Fira	Iriba	2 418
9	N'Djamena	Ndjamena Est	2 342
10	MANDOUL	Bedjondo	2 156
11	MANDOUL	Goundi	2 154
12	TANDJILE	Lai	2 126
13	MAYO KEBBI EST	Fianga	1 872
14	Wadi Fira	Biltine	1 852
15	Dar Sila	Tissi	1 837
16	Hadjer Lamis	Bokoro	1 709
17	Batha	Alifa	1 611
18	TANDJILE	Kelo	1 563
19	Dar Sila	Abdi	1 520
20	Borkou	Kouba Olanga	1 496

	Source: ***National immunisation database from January to August 2019***
Equity: • Wealth (e.g. high/low quintiles) • Education (e.g. un/educated) • Gender • Urban-rural • Cultural, other systematically marginalised groups or communities e.g. from ethnic religious minorities, children of female caretakers with low socioeconomic status, etc.	In Chad, child immunisation coverage is influenced by certain socio-demographic and economic characteristics according to the results of the 2014-2015 Chad Demographic and Health Survey (EDST) and the 2017 Immunisation Coverage Survey (ECV), as well as other determinants according to the 2017 equity analysis. Apart from gender, residence, birth rank, maternal education and economic well-being quintile create disparities in immunisation coverage. In general, national coverage masks disparities between provinces and districts, with the more densely populated southern provinces and more available health facilities being better immunized than those in the north for the same antigen. According to the results of the 2017 immunisation coverage survey, there is a large gap between the best vaccinated province (Mandoul 71%) and the least vaccinated province (Batha 3%). Analysis of the data also shows that in 2/3 of the provinces (15/23) immunisation coverage is influenced by at least one determining factor, with the most favoured groups being children in urban areas, those whose mothers have a secondary education level or higher and those whose heads of household are salaried. Furthermore, according to the 2014/2015 EDS/MICS, there is no difference in DTP3 coverage according to the child's gender, but differences exist according to the place of residence (39.8% in urban areas and 31.7% in rural areas), the welfare quintile (44.7% in the richest quintile versus 27.2% in the poorest) and the mother's level of education (53.8% for children whose mother has a secondary level or higher and 26.5% for children whose mother has no level). Based on the equity analysis conducted in Chad in 2017 in the 11 main districts that have been poorly immunized in Chad in recent years, the bottlenecks varied from one district to another. Overall, for the Penta intervention the main bottlenecks were insufficient Human Resources (66%), poor accessibility (45%), low continuous use (55%) and low quality (42%). For the VAR intervention the main bottlenecks were poor accessibility (45%) and low quality (42%). No significant differences were found with respect to the gender of the children.

Briefly indicate whether programme targets, according to the country's multiyear plan (such as the cMYP) have been met in the year under review. To elaborate on the data provided, countries are strongly encouraged to include ***heat maps*** *or similar to show immunisation coverage trends over time. Examples of such analysis are available in the Joint Appraisal Analysis Guidance (available via http://www.gavi.org/support/process/apply/report-renew/)*

The cMYP immunisation coverage targets set out in the annual operational plans have not been met in recent years. The main reason is the non-implementation of all cMYP activities due to the lack of available resources (qualified staff, supervision, cold chain, vaccination card, vaccination register...). Indeed, most activities are not carried out because they are related to the funding of the PHP.

The following maps show us the immunisation coverage in penta 3 according to administrative data for the last three years (January to August) :



Figures 6, 7 and 8: Number of unimmunized children by province in 2017
Source: *National immunisation database from January to August 2019*

4.2. Key drivers of sustainable coverage and equity

*Briefly summarize the health system and programmatic drivers of the levels of coverage and equity based on the key areas listed below, **focusing on the evolution and changes since the last Joint Appraisal**. For those districts/communities identified as lower performing, explain the evolution of key barriers to improving coverage and improving programmatic sustainability.[5] If there are no updates, please indicate and provide rationale.*

- ***Health Work Force**: availability, skill set and distribution of health work force*
- ***Supply chain**: integration, procurement planning and forecasting, key insights from latest EVMs and implementation of the EVM improvement plan, and progress on the five supply chain strategy fundamentals.[6]This subsection might be informed by available dashboards and tools, for example the Immunisation Supply Chain Management Dashboard that links EVM, Maturity Scorecard and DISC (Dashboards for immunisation Supply Chain) indicators.*
- ***Service delivery and demand generation[7]**: key insights related to service quality improvement and community engagement strategies; access, availability and readiness of primary health care/immunisation services; integration and cost-effectiveness strategies; strategies on demand generation for immunisation services; immunisation schedules, etc.*
- ***Gender-related barriers faced by caregivers[8]**: Please comment on what barriers caregivers currently face in bringing children to get vaccinated and interventions planned or implemented (through Gavi or other funds) to facilitate access to immunisation services by women for their children. (For example: flexibility of immunisation services to accommodate women's working schedules, health education for women on the importance of vaccination and social mobilisation targeting fathers, increasing the number of female health workers etc.)*
- ***Data / Information system:** Strengths and challenges related to the immunisation data (routine data collection and reporting system, integration within the health information system, regular surveys, targeted surveys, quality of data, use of data. Links with the surveillance system). At national and at sub-national levels.*
- ***Leadership, management and coordination**: leveraging the outcomes of the Programme Capacity Assessment and/or other assessments, please describe the key bottlenecks associated with management of the immunisation programme. This includes the performance of the national/regional/district EPI teams/health teams managing immunisation (e.g. challenges related to structure, staffing and capabilities); use of data for analysis, management and supervision of immunisation services; coordination of planning,*

[5] Relevant discussion questions on a number of the strategic areas here can be found in the programming guidance available on the Gavi website: http://www.gavi.org/support/process/apply/additional-guidance/
[6] More information can be found here: http://www.gavi.org/support/hss/immunisation-supply-chain/
[7] Programmatic guidance on demand generation https://www.gavi.org/library/gavi-documents/guidelines-and-forms/programming-guidance---demand-generation/
[8] For additional programmatic guidance refer to http://www.gavi.org/support/process/apply/additional-guidance/#gender. Gender-related barriers are obstacles (for access and use of health services) that are related to social and cultural norms about men's and women's roles. Women often have limited access to health services and are unable to take their children to get vaccinated. Barriers include lack of education, lack of decision-making power, low socio-economic status, women unable to move freely outside their homes, inaccessibility of health facilities, negative interaction with health workers, lack of father's involvement in healthcare etc.

forecasting and budgeting, coordination related to regulatory aspects; and broader sectoral governance issues.

- ***Other critical aspects**: any other aspect identified, for example based on the cMYP, EPI review, C&E assessment, PIE, EVM or other country plans, or key findings from available independent evaluations reports[9].*

- ***Health personnel***

The density of health personnel at the national level is estimated at 0.39 per thousand inhabitants in 2018, compared to the recommended 4.45 for the ODDs (SARA 2018 Survey). This density actually hides situations that do not allow easy access to health care for populations, including the inequitable distribution of personnel in urban and rural areas (PNDS3 page 24-25). The vast size of the country with long distances between different localities, the scattered nature of the population and the imbalance in the distribution of health workers greatly reduces the availability of qualified health workers. The N'Djamena region has 52% of the country's doctors, 36% of its nurses and 40% of its midwives (Cf. table 4 of PNDS 3 page 25).

Moreover, due to the lack of qualified personnel in most rural health centres, immunisation activities are carried out in more than half of the cases by unqualified personnel. This has repercussions on the use of management tools and interpersonal communication with the parents of children, as these staff have a low level and are not always trained. There is also insufficient formative supervision and motivation of providers at all levels.

As part of the implementation of the community health strategy, approximately 3,000 community health workers have been trained throughout the national territory to effectively involve communities in solving their health problems.

In general, the staff situation has not changed too much compared to 2017 due to the freeze on recruitment to the Civil Service. However, 49 SFDEs were recruited on a contractual basis, including 45 in the Provinces of intervention of the SWEDD project (World Bank) for the benefit of deficit areas and 4 in the Province of Sila, intervention area of the NGO Concern Worldwide.

However, from 2014 to 2018, there are 2189 health workers (all categories) in the process of being recruited to the Civil Service, including 335 paramedical staff to be recruited and deployed in the 10 GAVI-supported Provinces (except N'Djaména). In September 2019, 472 doctors were recruited and distributed throughout the country to strengthen the health districts.

The national certification examination for public and private school graduates scheduled for the 2017-2018 academic year was conducted in March 2019 for the private sector. With regard to the training of specialties, more than 260 health workers from all sectors, including 102 doctors, have been authorized for external training.

Also, a series of in-service training sessions have been conducted to strengthen the capacities of providers and managers of the health system, including training of young general practitioners in district management, training of providers and district management teams in UONU, FP, IMCI, EPI in practice, etc.

- ***Supply chain***

Chad's Expanded Programme on Immunisation (EPI) has made significant progress in recent years, with the introduction of new vaccines (MenA and IPV), and the strengthening of the supply chain with the creation of four subnational depots.

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

The structuring of the vaccine supply chain is made up of three levels: The central, sub-national and district levels.

In terms of supply, the Push system should be observed by the national depot to the sub-national depots and by the sub-national depots to the Health Districts. On the other hand, the health districts, not having the means to supply the Health Centres, apply the PULL system because it is the HCs who come to collect their monthly allocations at the district level.

However, the Push system is not fully functional between sub-national structures and districts due to a lack of logistical and financial resources. This situation has resulted in breaks in vaccines and consumables.

Indeed, in the context of strengthening the supply chain, many actions have been carried out by the MSP/EPI and its partners (WHO, UNICEF, GAVI and BMGF).

One of the major objectives of the MSP in relation to the vaccination of all target populations is to increase the coverage of health centres with Cold Chain Equipment (CCE).

Indeed, the inventory conducted in 2017 and updated in 2018 shows that CCEs run on oil, i.e. 37% and 214 CCEs run on electricity, i.e. 16%, 13 CCEs run on gas, i.e. 1%, and only 616 appliances, i.e. 46% solar. The inventory also showed that 825 CS have no refrigerator for vaccine storage.

In order to strengthen and improve the coverage and quality of CCEs, it is planned to gradually replace all broken down and non-approved equipment with solar refrigerators.
The MSP/EPI with the support of its partners has invested in improving the quality of its equipment through the purchase of solar refrigerators and submission to the cold chain optimization platform, but also in strengthening the CCE and rolling stock through the acquisition in 2018 of:

- a truck for the national level;
- 03 4X4 vehicles for subnational depots (Abeché, Moundou and Sarh) ;
- 410 solar refrigerators and ;
- 456 motorcycles at the district and health centre levels.

These acquisitions have improved the availability of ECFs, transport logistics and the implementation of supervision of immunisation activities.

The solarization project of the sub-national deposits of Moundou and Sarh, starting with the one in Abeche, will be an asset for the good functioning of the cold chain at these levels.

Despite these efforts, certain problems still remain, in particular the financing of vaccine distribution. The availability of the HSS budget and the support of partners will make it possible to add to these efforts to improve the EPI supply chain.

Two evaluations were conducted in 2010 and 2015. The scores recorded by criterion during these different evaluations are shown in the graph below:

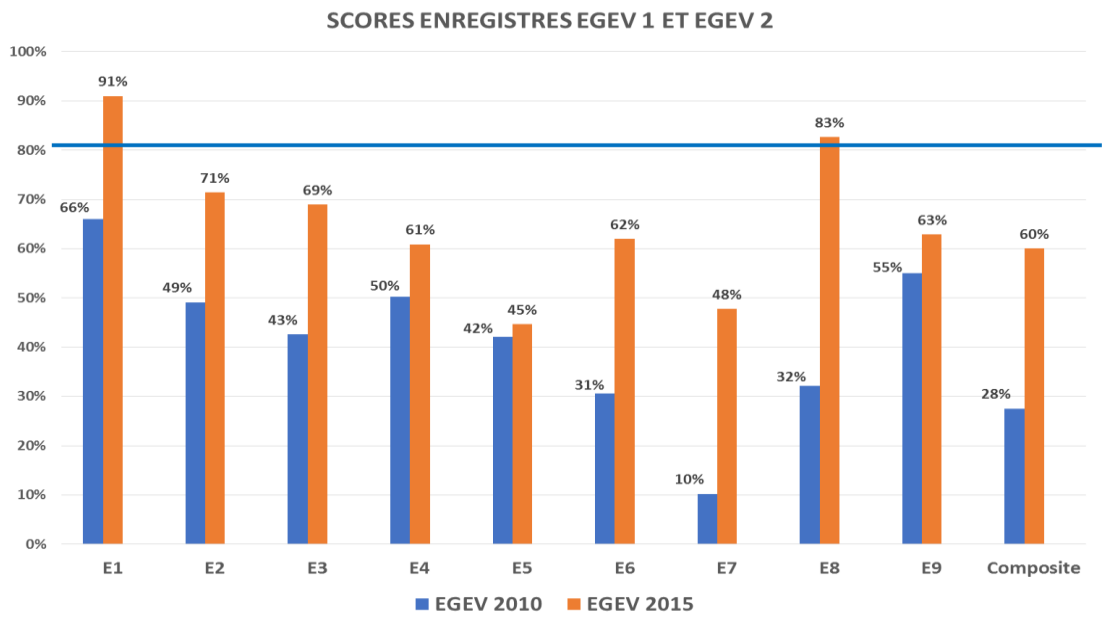


Figure 9: GEV Scores 2010 and 2015

In view of these results, we can see that the supply chain has improved significantly in all criteria with a composite score ranging from 28% in 2010 to 60% in 2015.

The results of EPI 2015 showed the following strengths and weaknesses:

Strengths:

- 99% of the cold chain equipment in the structures visited complies with the specifications set by WHO - UNICEF (PQS Catalogue) with continuous temperature recorders (Fridge tag) or dial thermometers;
- the acquisition of new solarized cold chain equipment to strengthen storage capacity in anticipation of the introduction of new vaccines;
- the use of computerized tools for the management and monitoring of stocks of vaccines and consumables (SMT and DVD-MT) at the central, provincial and district levels;
- training on immunisation for the majority of EPI managers at all levels and their experience in the field of vaccine management in the different health structures evaluated.

Weaknesses:

- Lack of standard operating procedures for acting and responding to emergencies;
- Insufficient planning and formalization of preventive maintenance of equipment at all levels (some cold chain equipment is out of order);
- absence of planned and formalized preventive maintenance of buildings at all levels;

- Total absence of programmes for the distribution of vaccines and other inputs not systematically applied at the level of RSDs and HDs;
- temperature readings and alarms not formally evaluated at least once a month in order to identify temperature deviations and their causes;
- Absence of parts to record alarms on the temperature log sheets;
- the non-use of freeze indicators during deliveries of freeze-sensitive vaccines throughout the review period at the level of Provinces, HDs and HCs;
- Absence of delivery slips at the provincial, health district and Area of Responsibility level during the review period (year 2014);
- lack of a computer backup system for archiving and protecting SMT data from computer viruses at the central, provincial and SD levels; and
- failure to secure archives/documents in protected areas.

The improvement plan resulting from GEV 2015 has been implemented.

The evaluation of the implementation of the improvement plan resulting from the EPI 2015 showed: 78% of the general activities related to supply chain improvement have been completed;

- 88% of the activities related to the operation of the sub-depositories have been completed: the necessary construction or completion of the planned vaccine stores, the acquisition and installation of the necessary cold rooms and vehicle, the implementation of the necessary human resources management system (logisticians, maintenance technician, accountant, drivers)
- 69% of the recommendations related to equipment have been implemented: Purchase, installation, maintenance;
- 24% of the recommendations related to training have been implemented: training on stock management tools, the immunisation logistics refresher programme and standard operating procedures. This low rate is mainly due to the non-disbursement of the budget for these activities.

The implementation of the HSS budget will contribute to improving the level of implementation of the GEV recommendations.

- ***Service Delivery and Demand Generation***

With regard to service delivery, the main bottleneck is related to the insufficient supply of immunisation services. This is due to i) the weakness of fixed, advanced and mobile strategies (only 38% of the health centres carry out at least 80% of the planned advances, see ACD 2017 follow-up,

Annex 07), ii) the non-systematisation of adapted and sustainable strategies that make it possible to reach populations with difficult access (nomads, islanders, desert), iii) the poor geographical and physical accessibility (80% of the population lives beyond 5 km from the health centres, see Annex 07), iv) the lack of a systematic and sustainable strategy to reach populations with difficult access (nomads, islanders, desert), v) the lack of a strategy to reach populations with difficult access (nomads, islanders, desert), vi) the poor geographical and physical accessibility (80% of the population lives beyond 5 km from the health centres, see Annex 07). PNDS 3, annex 08), iv) the poor quality of service (absent vaccinator, poor reception, unsuitable time of vaccination, too long a wait, Cf. report of the 2017 vaccination coverage survey P. 34), v) the missed opportunities for vaccination (42% in N'Djaména). This frequent absence of health workers further disrupts the delivery of immunisation services in the context of an overall lack of human resources.

In addition, the vaccination fee is paid in some places, although national policy advocates free vaccination (6% of mothers claim to have paid the fee according to the vaccination coverage survey in 2017).

In 2018, 64 health districts are implementing the RED approach, representing 55% of the country's districts, an increase of 2.4% over 2017.

The communication component of the CDA has been strengthened by the Community Based Approach to Promote Immunisation (CBAPI). This new approach has been implemented in 15 pilot districts and will be extended to 31 districts in 2017. However, in 2018, only 28 health districts will continue to be funded for the implementation of this approach.

Due to a lack of funding, the implementation of the CDA and the CVPA was not effective in all the ROs concerned. That's why:

- micro planning is not systematic;
- Formative supervision is irregular, poorly documented and recommendations are poorly followed;
- the strategies put forward are not sufficiently planned and therefore not sufficiently implemented ;
- the holding of action monitoring meetings is still weak;
- the quality of the data is low and poorly monitored.

Two polio SIAs (local vaccination days) were conducted in five districts in response to VDPV2 cases registered in Mada locality (a locality in Cameroon that shares its border with the Lake and Hadjer-Lamis). A case of cVDPV2 was discovered on 9 September 2019 in Mandelia RO. Faced with this notification, the country has planned to organize 3 visits in 5 districts.

In response to the measles epidemic that has been raging in the country since April 2018, 14 districts have benefited from a response in 2019. Compared to Meningitis A, only one SIA was organized in the district of Goundi.

Given this situation, Chad has aligned itself with the other countries of the Lake Chad basin in order to conduct these SIAs in a synchronized manner.

The measles follow-up campaign planned for 2018 was not conducted because the submission to Gavi Alliance was not approved. In contrast, a response was organized in 56 health districts that were in epidemic.

Demand generation:

The 2017 immunisation coverage survey revealed a lack of information (41%) and parental motivation for immunisation (20%). Similarly, the Strategic Communication Plan (2018-2022) for Chad's routine EPI has shown socio-cultural barriers. This would partly explain the low ownership/involvement of communities in immunisation activities.

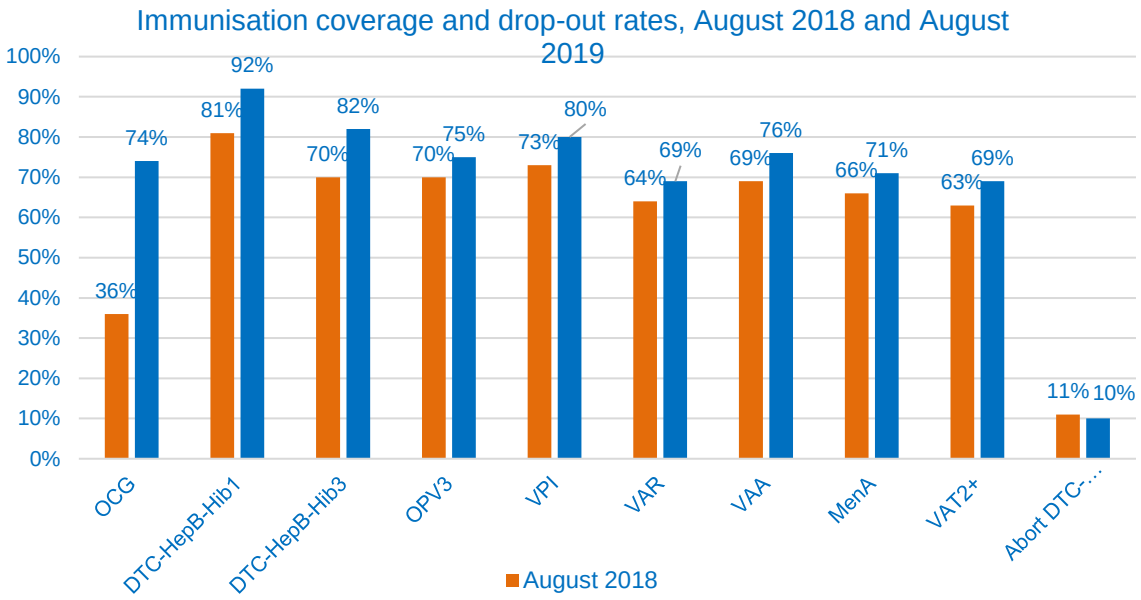
According to the Coverage Vaccine Survey 2017, 41% of the reasons why children are not vaccinated are related to a lack of information for parents. In addition, ignorance of the need for vaccination (11%) and poor knowledge of the target population (8%) are the main problems in relation to informing parents.

However, there is a strategic communication plan for immunisation, validated by the ICC in February 2019. Its implementation is insufficient. The SIAs have always benefited from follow-up communication with the technical and financial support of partners. On the other hand, communication activities for routine EPI are not monitored and supervised. To resolve this deficiency, a supervision mission is planned by the end of 2019 to collect data on IEC activities and develop a communication plan capable of meeting the communication challenge for immunisation.

The PHD and the National Strategic Plan evcfor Immunisation Communication have identified priority activities, but these activities are in the early stages of implementation. In addition, advocacy activities in the Lake, kanem and Hadjer Lamiss are ongoing. The Communication section of the VDS foresees the elaboration in a short time frame of the ToRs, seeking funding and starting the implementation of the activity package (see details on pages 20 to 23).

The performance of the immunisation programme deteriorated gradually and steadily from 2016 to 2018 due to successive strikes in the public administration, including the Ministry of Public Health and the immunisation services. These strikes lasted at least three months in 2016 and 2017 and almost six months in 2018. During the first nine months of 2019, the country experienced central level disruptions in BCG (76 days), MCV (34 days) and Tetanus vaccine (34 days) in 2018, and during the first nine months of 2019, the country experienced central level disruptions in BCG (11 days), VAR (33 days), Tetanus vaccine (77 days) and YF (7 days). The commitments made at the immunisation forum in March 2018, the efforts made to improve immunisation activities in 2019 have made it possible to increase immunisation coverage of all antigens and to decrease the specific

DTP-HepB-Hib dropout rate: 1/3 during the first eight months of the year compared to the 2018 coverage for the same period according to administrative data (see graph below).



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

The main barriers faced by providers in getting children vaccinated are the lack of and insufficient information to parents on the benefits of immunisation and the immunisation schedule. Surveys conducted in recent years do not identify a barrier related to gender inequality in Chad.

To facilitate women's access to immunisation services for the benefit of their children, some health centre managers agree with the community on immunisation schedules and days. These include vaccinations in the evening, on weekly market days, ...

- ***Data/information system***

In Chad, the quality and timeliness of health data are still relevant despite the implementation of numerous interventions to modernize the SNIS.

At the health facility level (health centers and hospitals), primary data are routinely collected from source documents and then aggregated according to programmatic needs. Aggregated data are transcribed in the monthly activity report (RMA) of the health facility. The RMA data are then verified and validated during a one-day meeting organized in the health facility (health facility) and transmitted to the health district (HD) no later than the 5th day from the end of the month concerned. These data are transmitted to the HD who in turn transmits them to the Provincial Health Delegation (PHD) no later than the 10th day of the month, which transmits them to the national level five (5) days later.

As for data entry, it is done either at the district, provincial or national level, depending on the capacity of each structure.

After analysis, the national level disseminates information products to actors at different levels (administration, partners, religious denominations, NGOs, etc.). It assesses the completeness and timeliness of data and prepares periodic reports, including the yearbook of health statistics and the annual activity report. In addition, a monthly feedback bulletin on EPI performance is also shared.

The various reviews and surveys carried out have revealed qualitative weaknesses in the data which are a consequence of the weakness of the health information system which is suffering from the general weakness of the health system.

As an illustration, Figure 4 of this document shows a difference of 41 points between the administrative immunisation coverage and that of the WHO/UNICEF estimates in 2018.

Table xx below shows the comparison between the children vaccinated and the doses used for the selected antigens.

Délégation sanitaire provinciale	BCG			DTC-HepB-Hib			VPI			VAR			Men A			VAA		
	DOSES utilisées	Enfants vaccinés (y compris les plus d'un an)	Taux de perte (%)	DOSES utilisées	Enfants vaccinés (y compris les plus d'un an)	Taux de perte (%)	DOSES utilisées	Enfants vaccinés (y compris les plus d'un an)	Taux de perte (%)	DOSES utilisées	Enfants vaccinés (y compris les plus d'un an)	Taux de perte (%)	DOSES utilisées	Enfants vaccinés (y compris les plus d'un an)	Taux de perte (%)	DOSES utilisées	Enfants vaccinés (y compris les plus d'un an)	Taux de perte (%)
Bahr Elghazal	15930	10289	35,4	36350	31631	13,0	12645	10043	20,6	14210	10883	23,4	12760	9681	24,1	14510	10871	25,1
Batha	28660	20104	29,9	73714	66703	9,5	22957	19771	13,9	28190	21893	22,3	22400	16587	26,0	27420	20855	23,9
Borkou	2300	1586	31,0	5150	4342	15,7	1690	1243	26,4	3000	2303	23,2	2750	2012	26,8	2800	2109	24,7
Chari Baguirmi	31890	20819	34,7	80360	73139	9,0	26760	23231	13,2	25018	18883	24,5	24420	18614	23,8	28060	21134	24,7
Dar Sila	18550	14874	19,8	54880	51362	6,4	28795	16225	43,7	19740	16780	15,0	18150	15171	16,4	27890	17875	35,9
Ennedi Est	5640	4015	28,8	11250	10366	7,9	3960	3448	12,9	4260	3457	18,8	4280	3353	21,7	4270	3469	18,8
Ennedi Ouest	40	399	-897,5	60	1524	-2440,0	15	288	-1820,0	20	1086	-5330,0	0	8		0	81	
Guera	44180	25173	43,0	83400	76523	8,2	28800	24316	15,6	34355	21891	36,3	32260	21586	33,1	33250	22312	32,9
Hadjer Lamis	46620	29671	36,4	91870	85120	7,3	33130	26822	19,0	33970	25607	24,6	33860	25333	25,2	35420	26977	23,8
Kanem	32920	17828	45,8	57720	52541	9,0	19940	16656	16,5	21750	15848	27,1	21270	15571	26,8	22070	16014	27,4
Lac	31170	16843	46,0	71410	65002	9,0	23707	20233	14,7	22760	14580	35,9	19980	12834	35,8	25800	16255	37,0
Logone Occidental	37480	28191	24,8	107810	100921	6,4	35875	30753	14,3	21270	17037	19,9	36400	28384	22,0	37700	29113	22,8
Logone Oriental	54600	34697	36,5	130900	117392	10,3	42655	35561	16,6	43975	31535	28,3	50200	35065	30,1	47430	34800	26,6
Mandoul	45020	31363	30,3	96620	89986	6,9	30430	27416	9,9	33455	24911	25,5	33370	22816	31,6	32250	23379	27,5
Mayo Kebbi Est	42028	29682	29,4	115110	108151	6,0	37347	33063	11,5	32170	25616	20,4	35429	28981	18,2	37190	29641	20,3
Mayo Kebbi Ouest	32640	23268	28,7	78120	71628	8,3	29357	25249	14,0	24280	18511	23,8	28185	21348	24,3	29680	24974	15,9
Moyen Chari	36380	24270	33,3	77800	70095	9,9	24750	21232	14,2	25980	18351	29,4	23835	17266	27,6	26340	18782	28,7
N'Djamena	82674	50734	38,6	142800	133346	6,6	59631	43097	27,7	53960	42890	20,5	51060	42099	17,5	55010	43715	20,5
Ouaddai	40750	27150	33,4	89400	80449	10,0	28168	24250	13,9	33630	24485	27,2	26990	21143	21,7	30830	23559	23,6
Salamat	15420	9562	38,0	29120	26779	8,0	9395	7677	18,3	9300	7016	24,6	8930	6954	22,1	9560	7339	23,2
Tandjile	43790	29272	33,2	91440	84725	7,3	30628	26706	12,8	31330	23128	26,2	28920	22332	22,8	30960	23752	23,3
Tibesti	120	101	15,8	660	273	58,6	80	81	-1,3	280	68	75,7	80	74	7,5	280	68	75,7
Wadi Fira	26870	17780	33,8	58030	53992	7,0	19540	16626	14,9	20650	15570	24,6	18885	14198	24,8	20414	15624	23,5
TCHAD	715672	467671	34,7	1583974	1455990	8,1	550255	453987	17,5	537553	402329	25,2	534414	401410	24,9	579134	432698	25,3

Figure xx: Comparison of children vaccinated with the doses used from January to September 2019

In contrast to previous years, the figure above shows that in almost all provinces, the number of vaccine doses used is higher than the number of children vaccinated in 2019. However, the situation in Ennedi West province, where the number of children vaccinated is higher than the doses used, indicates that much more work remains to be done.

The same analysis was carried out at the district level using the five (05) antigens above, it was found that there are still problem districts including : Fada, Kalait, Ounianga Kebir, Am Dam and Zouar who reported more children vaccinated than doses of VAR used.

However, the country is engaged in a process of strengthening the information system with, in particular, the adoption of a single, harmonized monthly reporting framework for health structures (RMA) and DHIS 2 as an integrated data management system with the support of its partners, including Gavi, Global Fund, WHO, Unicef, Swiss Cooperation, Expertise France... The strengths and limitations of the SNIS have been identified and corrective measures proposed.

The following paragraphs will give the strengths and weaknesses of the SIS.

Among these forces we have:

- An in-depth data quality review was developed in 2017. This document has enabled the MSP to adopt a National Strategic Plan (NSP) for the strengthening of the SNIS covering the period 2018-2022, a Comprehensive Pluri-Annual Plan (cMYP), an Operational Action Plan (OAP) and a Data Improvement Plan (DIP).

- Clear guidelines for the collection, processing and reporting of immunisation data developed by the VBD and validated by the Department are disseminated at all levels. It should also be noted that there is an EPI manager at the district and provincial levels, and that a national team has been set up to review the quality of the data.

- For effective management of the health system to achieve a certain level of performance, new staff in charge of Monitoring and Evaluation (PMU/EPI) have been recruited to strengthen the central team.

- A review of data management tools, including EPI tools, is underway.

- Regular feedback from the central level through monthly bulletins on immunisation performance and weekly status reports on Vaccine Preventable Disease surveillance are made.

  Elaboration of the DHIS 2 implementation plan that the country intends to introduce in 2020

- Elaboration of a unique and integrated monthly activity report (RMA) framework.

- No major difference between antigens administered at the same time

- Chad has met all data quality requirements in 2019.

Limitations are noted among others:

- Significant gap between EPI administrative immunisation coverage and survey coverage;
- Weak functionality of the National Data Quality Team
- Weak implementation of Data Improvement Plan activities
- Low availability of qualified human resources
- Staff inadequately trained in reporting or data analysis
- Frequent breakdowns of collection tools and use of non-harmonized tools in some health centers (HCs)
- Use of parallel systems (DVD MT, RIM, GESIS 2014)
- Low use of ICTs in data transmission (DVD
- Multiple entries at central level
- Lack of monitoring of the completeness of the health facilities (lack of analysis of the completeness of the information)
- Absence/insufficiency of data validation meetings (at all levels)
- Weak feedback on data quality from the district level to the health centers.
- Absence of an annual comparative factor to validate immunisation coverages
- Weak analysis and use of immunisation data for action especially at intermediate and operational levels.

- ***Leadership, management and coordination***

The conclusions of several evaluations/reviews and audits of the EPI have revealed shortcomings at the different levels of the pyramid (central, provincial and operational levels) of its governance.

Indeed, the ICC and the CTA/EPI (coordinating bodies of the immunisation system) are not very functional and not very effective. This is manifested by the non-organisation of all its statutory meetings (only one meeting held out of the four planned for 2017) and by the failure to follow up on the recommendations resulting from them. Specifically, with regard to the ICC, the National Forum on Immunisation of March 2018 recommended revising its terms of reference to make it more effective with the signature of the country's high authorities. This review is ongoing

The Technical Advisory Group for Immunisation (NITAG) and the Health Sector Coordinating Committee planned in the framework of the implementation of the PNDS3 and the cMYP 2018-2022 have not been created.

It is all these situations, supported by the low level (22% of children fully vaccinated in 2017) of immunisation coverage at the country level that led the Ministry of Public Health to organize the national forum on immunisation in March 2018. During this meeting, a strong plea was made in favour of routine immunisation, which has since been given a new impetus to improve immunisation coverage.

In the dynamic of the implementation of the roadmap resulting from this Forum, which is also followed up through the Monthly Meeting on Health under the chairmanship of the President of the Republic, efforts are being made to accelerate the strengthening of the EPI's capacities to enable it to fully accomplish its mission. In March and June 2018, high-level missions including Bill Gates and Aliko Dangoté and the GAVI Executive Director, who met with all of the country's highest authorities, made high-level advocacy for greater national commitment and investment in immunisation and the health system.

The direct and regular involvement of the President of the Republic through monthly monitoring of the health situation in general, and the vaccination situation in particular, makes it possible to provide guidance and take decisions in resolving the problems identified. Also, the involvement of the First Lady of Chad in supporting the Government's actions in the health sector through the implementation of its 2019-2023 Action AGENDA, in which the improvement of the health of the mother-child couple occupies an important place, allows her to contribute to the improvement of immunisation coverage at the country level.

The increasing involvement of other sectors, including at the decentralized level (e.g. the revitalization of provincial/departmental dialogue bodies, especially the Provincial and Departmental Health Councils, including the regular holding of monthly meetings on health at the provincial level under the leadership of the Governors of the Provinces) could improve the situation in this area.

The restructuring in 2018 of the EPI Organisation Chart by the Dalberg firm, recruited by GAVI, is part of these efforts. The various posts provided for in the new Organizational Chart were filled in

September 2019 by competent staff recruited through a transparent process involving all stakeholders (TFPs and Government).

In addition, since 2018, special emphasis has been placed on strengthening governance, multi-sectorality and accountability at all levels. This aspect stems from the NSDP3, the cMYP 2018-2022 as well as the roadmap resulting from the National Forum on Immunisation in March 2018.

The setting up of the Project Management Unit of the Ministry of Public Health supports the improvement of EPI management on various aspects, including financial aspects, in order to improve its performance.

4.3. Immunisation financing[10]

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

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

The process of quantifying the needs for the next year begins in August of the current year. The country estimates the needs for vaccines and injection consumables for routine immunisation and planned campaigns and proposes a delivery plan and quantities (by donor) using the forecasting tool. This exercise is carried out on the basis of the programme antigens, the coverage targets and the quantities confirmed for co-financing by GAVI while taking into account the stocks available at the country's central warehouse at the end of the year.

The forecast is transmitted to UNICEF Supply Division in Copenhagen through the UNICEF country office. The Supply Division, after receipt, makes the analysis and observations for the country in question. Thus, on the basis of the exchanges, the forecast is finalized, and a supply plan is sent to the country.

After validation of the forecast, the EPI sends requests for the purchase of vaccines and injection materials during the year to the Supply Division via the UNICEF country office, specifying the products and quantities. Following each request, the SD issues an estimate. Upon receipt and acceptance of the cost estimate, the country requests that the cost be charged against the funding ceiling of the Vaccine Independence Initiative. The Supply Division then places the purchase order with the suppliers.

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

The national health budget cycle which runs from February of year n-1 to January of year n by the Promulgation of the Finance Act. The Ministry of Health allocates an amount to the EPI programme in accordance with the immunisation independence initiative, taking into account the budgetary constraints described in the macroeconomic framework letter for the current year.
In view of the current difficulties in mobilizing State resources, the MSP prepares the budget on the basis of data provided by the deconcentrated services and submits it to the budget conference (July - August).
It should be noted that the general State budget has been affected since 2015 by the fall in the price of a barrel of oil, leading to a reduction in the budget allocated to the Ministry of Public Health. Thus, the MSP budget excluding external financing was reduced by 60% from 2014 to 2018 and consequently the immunisation budget by 50% over the same period.

To this end, the subsidy for the purchase of vaccines increased from 2,900,000,000 FCFA in 2013 to 1,100,000,000 FCFA in 2014, 692,000,000 FCFA in 2015, 575,000,000 FCFA in 2016, 650,000,000 FCFA in 2017 and 550,000,000 FCFA in 2018.

However, since immunisation is one of the MSP's main priorities , the reduction in its budget is not proportional to the overall reduction in the MSP's budget. The budget implementation rate for immunisation varies from 78% to 100% over the period 2013 - 2017. (See Annex 9. PPAC 2018-2022, page 39). Although there are delays in disbursements, it should be stressed that the resources made available are allocated by level and disbursements are also made using local resources.

The main bottlenecks in the implementation of immunisation expenditures include the following:

(i) delays in disbursement at all levels due to administrative burdens (commitment, payment),

(ii) the low rate of execution of the national budget and the Technical and Financial Partners and the random availability of financing resulting in an irregular order of vaccines;

(iii) insufficient monitoring of the implementation of the action plan,

(iv) weak mobilization of local resources,

(v) poor command of administrative and financial procedures, despite the fact that the SPS has a manual of procedures.

Immunisation financing in Chad is still too dependent on partners who provide about 83% according to the cMYP 2018-2022. However, efforts have been made to mobilize government resources for the current year despite the ongoing financial crisis.

To this end, during the monthly health meeting with the Head of State on 24 July 2018, the President of the Republic announced an opportunity for the additional financing of immunisation in the amount of CFAF 3 billion. This announced amount has been included for the 2019 fiscal year after discussions with the Ministry of Finance and Budget. Of the $3 billion budgeted, approximately 1,930,000,000 has been disbursed to date.

Status of implementation 2017

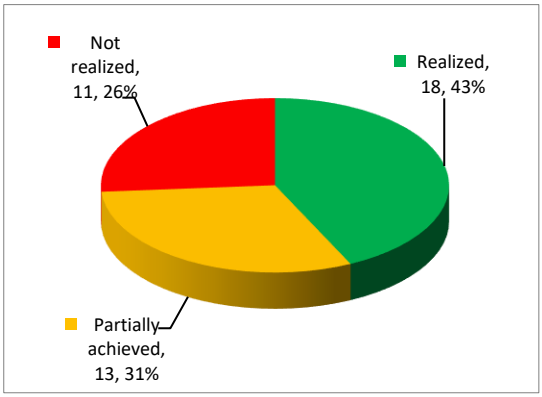
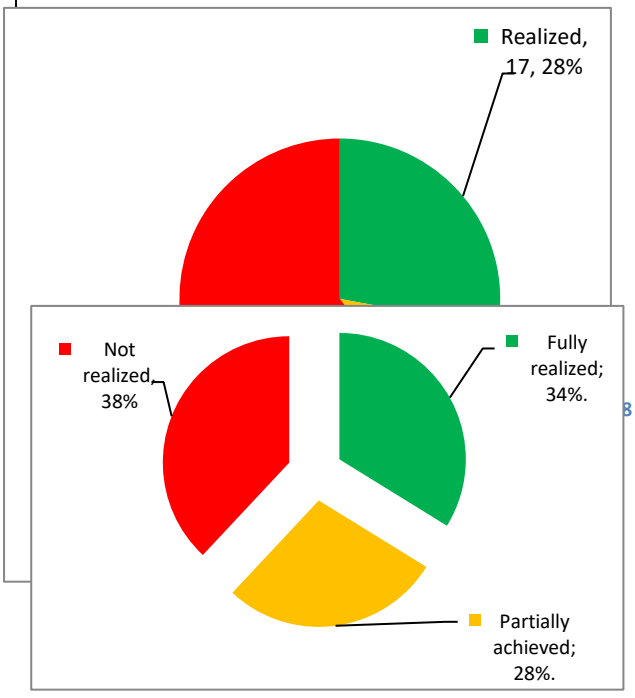


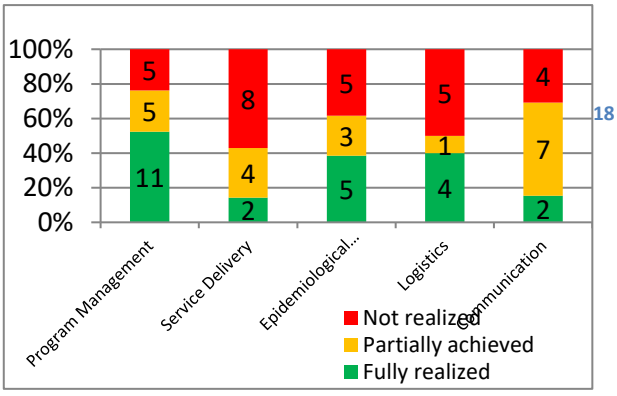
Figure 1: level of implementation of activities

Status of implementation 2018

The programme carried out 24 activities out of 71 planned, i.e. 34%, 27 activities, i.e. 38% were not carried out and 20 activities, i.e. 28% were partially carried out. This poor performance is mainly due to low resource mobilization (14 activities, i.e. 20% unfunded). Lack of monitoring of the implementation of the plan and strikes by public service staff are also the causes of this poor performance. The two figures below show the level of implementation of activities in 2018. Services and communication are the areas most affected by constraints.

Status of implementation of the EPI/CHAD POA 2019 as at 31 July 2019





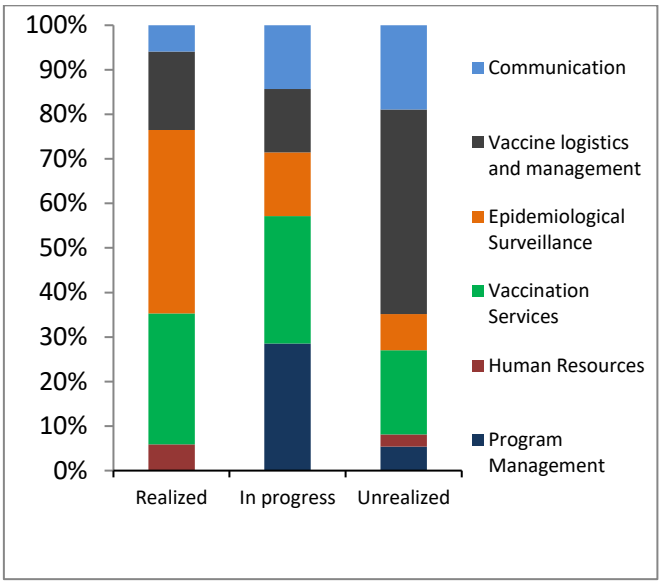


Figure 4: Level of achievement of programme activities in 2019

Figure 5: Level of implementation of activities by component in 2019

5. PERFORMANCE OF GAVI SUPPORT

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

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

- ***Progress of the HSS grant implementation*** *against objectives, budget and workplan, and significant deviations from plans (e.g. implementation delays, low expenditure rates, etc.),* ***using the below table****.*

Objective 1	
Objective of the HSS grant (as per the HSS proposal or PSR)	**Improve program management and accountability mechanisms at all levels by 2023.**
Priority geographies / population groups or constraints to C&E addressed by the objective	The whole country
% activities conducted / budget utilisation	• Initial Interim Funding Planning: 174,488.56 • Amount Used: 138,327.72 • Utilization rate: 79%.
Major activities implemented & Review of implementation progress including key successes & outcomes / activities not implemented or delayed / financial absorption	**With GAVI funds** : • GAVI support mission-Follow-up on recommendations Audit • Elaboration of PNDS III • Development of the CHP 2018-2022 • Elaboration of the Country Engagement Framework (CEP) document • Mission of the General Inspection Department • Mission to monitor the implementation of the recommendations of the EPI financial audit by GAVI (PMU) carried out by the PMU at the EPI structures • Organize periodic meetings of the ICC for the follow-up and validation of strategic documents (PNDSIII, CEP, PPAC, Strategic Communication Plan, etc...). **Other financing** :

	• Organisation of joint formative supervisions ; • Joint decisions (Minister of Public Health and Parties ; • Monitoring meetings
Major activities planned for upcoming period (mention significant changes / budget reallocations and associated **changes in technical assistance**[11]	• Strengthen governance and accountability in the health sector by : - Making the accountability bodies (CNS, CRS, CSD, CSZR) as defined in the MSP organisation chart functional; - Improving the functionality and coordination of the CFIC ; - Setting up the NITAG ; - Developing/implementing and monitoring/evaluating annual action plans at all levels; - Organizing regular EPI performance evaluation meetings at the different levels (central, provincial and district); - Organising regular inspection/control in monitoring the implementation of activities at all levels. - Putting in place an accountability framework involving governors, prefects and canton chiefs, community leaders, following well-defined immunisation action plans at all levels. • Hold quarterly immunisation review meetings at the regional and district levels. • Strengthen monitoring, formative supervision and evaluation at all levels (central, intermediate and peripheral): • Strengthen the functionality of the coordination fora: by improving the governance of the ICC, CTA-PEV with an annual work plan and by organising regularly scheduled meetings; by ensuring the implementation of recommendations, performance evaluation and by setting up the NITAG. • Develop a framework for consultation with the Ministry of Livestock for the implementation of One Heath (Health for All). • Update the Mapping of transhumance corridors and pastoralists' crossing points for coupling livestock vaccination with human vaccination (integrating other service packages)
Objective 2 :	
Objective of the HSS grant (as per the HSS proposal or PSR)	**Improve the quality and use of data to support decision making by 2023**
Priority geographies / population groups or constraints to C&E addressed by the objective	The whole country in complementarity with other priority partners (Global Fund, World Bank, AFD and Swiss Cooperation)
% activities conducted / budget utilisation	• Amount received: $44,642.85 • Amount Utilized: $26,785.71 • Utilization rate: 60%.
Major activities implemented & Review of implementation progress including key successes & outcomes / activities not implemented or delayed / financial absorption	**With GAVI funds** : • Elaboration of the health map (60% of the Amount) **Other financing** :

	• Elaboration of the health map (40% of the Amount) • Monthly monitoring and data validation in priority districts in 3 Year 1 provinces • Briefing of EDCs in the conduct of DQS • Implementation of the DQS in the priority provinces and districts (N'Djamena, Batha and Ouaddaï) • Reproduction of vaccination tools • Revision of immunisation management tools • Conduct of rapid assessments in priority provinces (Abéché) • Elaboration of the roadmap for the operationalization of DHIS2 • Health mapping activities are underway and preliminary deliverables will be available in November 2019. • Carrying out population estimates with the help of satellite imagery in 3 districts (Benoyé, East N'Djamena and Yao)
Major activities planned for upcoming period (mention significant changes / budget reallocations and associated **changes in technical assistance**[11]	• Train 95 agents at all levels (health centres/immunisation posts, health districts and provinces, central level through the relevant directorates and sub-directorates on the Health Information System (new tools and data analysis). • Integrate data quality control into supervision at all levels. • Establish a mechanism for monthly monitoring and validation of immunisation data and surveillance in 16 districts and 3 provinces including DQS and rapid assessments (LQAS). • Review and make available data management tools at all levels. • Use New Information and Communication Technologies (NICT) for data management at all levels. To this end, the tablets will be acquired in the framework of this PSR to help solve the problem of data timeliness and facilitate interoperability between DHIS2 and SIGL relating to the monitoring of stock management in real time. • Equip the VDS and priority DS/DSRs with computer and communication tools (telephone, modem) for data processing, analysis and transmission. • Install DHIS2 throughout the country integrating all EPI management data • Collect, in all health facilities and through DHIS-2, information on the following aspects: (i) the number of days the different antigens and other vaccination inputs were out of stock; (ii) the quantities consumed during the month; (iii) the levels of stocks available at the end of each month. • Collect stock information at the level of the depots and Health Districts, Provincial Health Delegations and at the Central level through the SIGL* (OSP Santé). * SGGL : information System of logistic gestion. • Contribute to the revision and digitalization of the health map in partnership with the Global Fund and other partners
Objective 3 :	

Objective of the HSS grant (as per the HSS proposal or PSR)	**By the end of 2023, achieve immunisation coverage of at least 80% in each District and at least 90% for all antigens at the national level.**
Priority geographies / population groups or constraints to C&E addressed by the objective	Children under one year of age and pregnant women at the national level with a special focus on the 3 priority provinces.
% activities conducted / budget utilisation	• Initial Interim Funding Planning: $306,745.64 • Amount Used: 131,198.15 • Utilization rate: 43%.
Major activities implemented & Review of implementation progress including key successes & outcomes / activities not implemented or delayed / financial absorption	**With GAVI funds** : • Distribution of vaccines and consumables from the central depot to the SN depots and from the DSNs to the DSs for 2 quarters • Fuel supply for generating sets • Supervision for preventive maintenance at the intermediate level carried out by sub-national depot managers • Conduct of supervision, programmatic and financial monitoring missions including internal audits PMU • Strengthening CDA implementation in 10 districts **Other financing** : • Elaboration of microplans in the 17 districts of the Lake Chad Basin region, • Implementation of fixed, advanced and mobile immunisation activities • Implementation of the Missed Opportunities Strategy • Elaboration of the plan for the revitalization of vaccination in N'Djamena (urban strategy)
Major activities planned for upcoming period (mention significant changes / budget reallocations and associated **changes in technical assistance**[11]	**Routine EPI** • Provide planning support to the 16 target districts in 3 priority 1 provinces and 4 priority 2 provinces (OAP and micro plan according to the revised ACD guide). • Training/retraining all centre managers and immunisation officers on practical immunisation • Integrate/reinforce vaccination in social centres, army and private health structures (equipment, training, reporting; monitoring; supervision, etc.). • Implement fixed, advanced, mobile strategies (the revised ACD, AVI and ACPV community-based approaches, child-friendly communities with real-time monitoring (CFC/RTM) and innovative strategies (Missed Vaccination Opportunities,

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	coupled livestock/child vaccination, African Vaccination Week (AVW), vaccination of special and urban populations) • Equip HDs and areas of responsibility with rolling stock (Vehicles for mobile teams and supervision and motorcycles for advanced strategies) • Recruit 335 nurses for the strengthening of the health system in the priority provinces except N'Djaména • Redeploy staff from the central level to the peripheral health facilities by granting them transport allowances with terms of reference. • Organize the active search for lost children in priority 1, 2 health districts and the rest of the country (use of timetables, involvement of health committees and other opinion leaders); • Provide support for the development of micro plans according to the revised ACD guide in all the country's Health Centres and health districts; • Conduct at least a biannual formative supervision from the central level to the provinces/districts/health centres, quarterly from the province to the district/health centre and monthly from the district level to the health centres/community (monitoring and coaching) in each of the 7 priority 1 and 2 provinces in order to strengthen the capacities of human resources (micro-planning, monitoring, vaccine management, compliance with the EPI vaccination calendar, communication in favour of the EPI, etc.); **Epidemiological Surveillance** • Ensure formative supervision visits to the epidemiological surveillance sites according to the required periodicity (1 day/week for P1; 1 day/2 weeks for P2; 1 day/month for P3). • Reinforced active search for AFP and other SRMs in the 17 priority districts. • Integrate the surveillance of other vaccine-preventable diseases (measles, MNT, yellow fever...) into AFP surveillance. • Organize training sessions for personnel at the operational level in the surveillance of vaccine-preventable diseases and in AEFI. • Monitor (evaluate) the impact of routine immunisation, SIAs and measles response through measles surveillance. • Equip the laboratory with a measles kit • Ensure the transport of measles and other EPI target diseases samples from the sampling site to the laboratory. • Organise integrated EPI/SURVEILLANCE/AEFI monitoring meetings at all levels (same funding as above) • Ensure funding for the investigation of overweight cases of measles and other vaccine-preventable diseases.
Objective 4 :	

<table>
<tr><td>Objective of the HSS grant (as per the HSS proposal or PSR)</td><td>Bring at least 90% of parents/caregivers of children under one year of age, including those in hard-to-reach areas, to use immunisation services by the end of 2023.</td></tr>
<tr><td>Priority geographies / population groups or constraints to C&E addressed by the objective</td><td>The whole country with a special focus on the 3 priority provinces selected.</td></tr>
<tr><td>% activities conducted / budget utilisation</td><td>• Initial planning of interim financing: 7,705.41
• Amount Used: 7,487.82
• Utilization rate: 97%.</td></tr>
<tr><td>Major activities implemented & Review of implementation progress
including key successes & outcomes / activities not implemented or delayed / financial absorption</td><td>With GAVI funds :
• Development of the strategic communication plan for the routine EPI 2018-2022: the national strategic plan for immunisation for the routine EPI has been developed and validated by the ICC since February 2019.

Other financing :

• Mobilization of religious, administrative and customary leaders for vaccination, particularly in the Lake region
• advocacy with administrative, traditional, religious and civil society authorities in the three provinces.
The summary table on the categories of people who participated in the various meetings.

<table>
<tr><td>Participants</td><td>Bowl</td><td>Ngouri</td><td>Mao</td><td>Massakory</td><td>Total</td></tr>
<tr><td>Governor/SG</td><td>1</td><td>0</td><td>1</td><td>1</td><td>3</td></tr>
<tr><td>Prefect</td><td>3</td><td>1</td><td>1</td><td>2</td><td>7</td></tr>
<tr><td>Sub-Prefect</td><td>7</td><td>6</td><td>3</td><td>3</td><td>19</td></tr>
<tr><td>Mayors</td><td>3</td><td>3</td><td>1</td><td>1</td><td>8</td></tr>
<tr><td>Canton chiefs</td><td>13</td><td>10</td><td>7</td><td>20</td><td>50</td></tr>
<tr><td>Religious Leaders</td><td>2</td><td>1</td><td>4</td><td>5</td><td>12</td></tr>
<tr><td>Deconcentrated heads of department</td><td>5</td><td>0</td><td>4</td><td>5</td><td>14</td></tr>
<tr><td>EDC/PMS</td><td>13</td><td>8</td><td>13</td><td>19</td><td>53</td></tr>
<tr><td>Associations</td><td>5</td><td>0</td><td>0</td><td>1</td><td>6</td></tr>
<tr><td>WHO</td><td>5</td><td>2</td><td>3</td><td>3</td><td>13</td></tr>
<tr><td>UNICEF</td><td>15</td><td>10</td><td>10</td><td>8</td><td>43</td></tr>
</table>
• Training of 11 members of the ECDSPs, 16 of the ECDSs, 149 RCSs and 149 vaccinators from the Lake, Hadjer Lamis and Kanem on the EPI in practice</td></tr>
</table>

	• Advocacy and training of 3,582 village chiefs and 3,582 community relays on the use of the community register for the promotion of immunisation (see next page). • Identification and registration of children aged 0-59 months in community registers by village chiefs or their secretaries. Production of communication materials (posters, stickers on the immunisation schedule and community-based surveillance of AFP cases and timetables) in support of the promotion of routine immunisation in the provinces of Lac, Hadjer Lamis and Kanem.
Major activities planned for upcoming period (mention significant changes / budget reallocations and associated **changes in technical assistance**[12]	• Elaboration of communication plans in priority districts: workshops for the elaboration of communication plans have been programmed for the 3 priority provinces as follows: BATHA province, and OUADDAÏ and Ndjamena by the end of the year. • Strengthen the capacities of all key actors, particularly CSOs, through training/briefings on immunisation, the importance and advantages of this service, the roles and responsibilities of actors at all levels, communication techniques, monitoring and supervision of communication activities (IEC focal points in communication techniques, community relays, health workers, peer educators, journalists, etc.). • Strengthen the technical and operational capacities of CSOs to enable them to carry out demand-driven activities • Develop communication tools: Design, pre-test and produce communication modules and materials on immunisation (partly completed). • Support the implementation of communication activities in accordance with the Strategic Plan for Immunisation Communication 2018 - 2022 o Ensure the promotion of immunisation through the activities of the First Lady as champion of immunisation, the different actors and community networks, the media, the use of NICTs, schools and health centers, and ensure their follow-up, supervision and documentation. o Ensure the implementation of CSO behaviour change communication, social mobilisation, advocacy and citizen watch activities. o In relation to capacity building of CSOs and the design of communication tools, the Communication and

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	Advocacy Section of the VDS will work on the development of ToRs. • Evaluating communication interventions for immunisation: ○ Organize a baseline (baseline) and a final CAP survey on immunisation uptake to measure progress, change or adoption of individual and group behaviours favourable to immunisation. ○ Restitution and dissemination of the CAP survey • Plan and carry out the evaluation of activities after the actual implementation.
Objective 5 :	
Objective of the HSS grant (as per the HSS proposal or PSR)	***Increase the average score for effective vaccine management by 60-80%.***
Priority geographies / population groups or constraints to C&E addressed by the objective	The whole country
% activities conducted / budget utilisation	• Initial planning of interim funding: 233,173.93 • Amount Used: 383,511.99 • Utilization rate: 164%. • Observation: The cost of solarization equipment in Abéché is higher than planned.
Major activities implemented & Review of implementation progress including key successes & outcomes / activities not implemented or delayed / financial absorption	**With GAVI funds** : • Logivac training of 7 logisticians in Benin at the Regional Institute of Public Health (IRSP) Ouidah, for a period of seven months. • Physical inventory of the Cold Chain and all DVSE equipment in 2017 • Purchase of 17 fire extinguishers for the national EPI depot • Subscription to an all-risk insurance for the national and sub-national deposits for a period of 01 year. • Sizing of the Moundou Sarh and Abéché NSRs • Reshaping the Supply Chain • Solarization of Abeché deposits in progress • Installation of solarisation equipment at the Abéché Sub-National depot is underway from 8 October for a period of 2 months. • Reinforcement of the operation of sub-national depots by providing staff and supervisory vehicles. • Training of District Focal Points in the management of vaccines and consumables • Train national and sub-national logisticians in vaccine management and cold chain logistics in 2019. • purchase of fuel for the operation of the DSN and DC generators. **Other financing** :

	• Installation of solarisation equipment at the Abéché Sub-National depot is underway from 8 October for a period of 2 months. • Reinforcement of the operation of sub-national depots by providing staff and supervisory vehicles. • Training of District Focal Points in the management of vaccines and consumables • Train national and sub-national logisticians in vaccine management and cold chain logistics in 2019.
Major activities planned for upcoming period (mention significant changes / budget reallocations and associated **changes in technical assistance**[13]	• Follow up on the recommendations from the Effective Vaccine Management Assessment (EVMA) conducted in 2015 and updates • Conducting an External Evaluation of the GEV in 2020 • Establish a reliable management system for EPI vaccines and inputs. • Ensuring the collection and destruction of biomedical waste • Conduct a temperature monitoring study • Reinvigorate the logistics sub-committee at the central level and set up a remote temperature monitoring system for all cold rooms. • Organize training for all other personnel involved in vaccine management at all levels of the health system • Computerize the management of stocks of vaccines and consumables (SMT/DVD-MT tool) up to the level of the health districts. • Train supply chain managers at central and sub-national levels in health logistics • Mobilize the resources needed to implement the plan for a cold chain ladder transition to approved solar energy. • Train district focal points and health centre managers on vaccine management and maintenance • Organize regular formative supervision of personnel involved in immunisation at all levels. • Finalize the Cold Chain Equipment Operational Deployment Plan (ODP) • Conduct a physical inventory of vaccines, consumables and stock history since 2017 in national and sub-national depots • Acquire and install a remote monitoring system for cold rooms • Reproduce and make EPI management tools available at the health centre level. • Mapping of cold rooms

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	• Organize quarterly supervision for the preventive maintenance and management of vaccines from the central level to the DSN and from the DSN to the DS. • Contractualization for the curative maintenance of cold rooms
Objective 6 :	
Objective of the HSS grant (as per the HSS proposal or PSR)	**Improving the management and coordination of the Program grant**
Priority geographies / population groups or constraints to C&E addressed by the objective	The whole country
% activities conducted / budget utilisation	• Initial Interim Funding Planning: $27,085.45 • Amount Used: 66,667.48 • Utilization rate: 246%. Observation: Reprogramming has brought more funds back into the PMU's operations.
Major activities implemented & Review of implementation progress including key successes & outcomes / activities not implemented or delayed / financial absorption	**GAVI Fund** • Salary and emolument of PMU staff for 5 months (Program Manager, Accountant, RAF) • PMU/EVC operating costs **Other financing :** • Elaboration of a manual of procedures for the administrative and financial management of the PMU/PEV
Major activities planned for upcoming period (mention significant changes / budget reallocations and associated **changes in technical assistance** [14]	• Organizing internal and external audits of the Programme • Training staff involved in financial and accounting management • Revise the manual of administrative and financial management procedures • Install the Tom2Pro software in the PMU, the EPI Directorate and in the Health Districts.

In the text box below, briefly describe:

- ***Achievements against agreed targets*** *as specified in the grant performance framework (GPF), and key outcomes. E.g. how does the number of additional children vaccinated and under-immunised children in districts supported by the HSS grant compare to other non-supported districts/national targets. Which indicators in the GPF were achieved / impacted by the activities conducted?*
- *How Gavi support is* ***contributing to address the key drivers of low immunisation*** *outcomes?*
- *Whether the* ***selection of activities is still relevant****, realistic and well prioritised in light of the situation analysis conducted, as well as financial absorption and implementation rates.*
- *Planned* ***budget reallocations*** *(please attach the revised budget, using the Gavi budget template).*
- *If applicable, briefly describe the usage and results achieved with the* ***performance based funding*** *(PBF) the country received. What grant performance framework (GPF) metrics will be used to track progress?*
- ***Complementarity and synergies with other donor support*** *(e.g. the Global Fund, Global Financing Facility)*

[14] Where technical assistance needs are specified, there is no need to include elements relating to resource requests. These will be discussed as part of the planning of Targeted Country Assistance (TCA). The planning of the CAW will be documented by the requirements indicated in the JA. Technical assistance needs should, however, describe, to the extent then known, the type of assistance required (staff, consultants, training, etc.), the provider of the technical assistance (main/extended partner), a measure of the assistance required in terms of quantity/duration, its modalities (integrated, sub-national, management, etc.) and any relevant timeframe or schedule. JA teams are reminded to take a retrospective approach (technical assistance that was not provided in full or was ineffective in the past) and a prospective approach (upcoming vaccine introductions, campaigns, major HSS activities, etc.), informing technical assistance priorities for the coming year. The menu for technical assistance support is available for reference.

- ***Private Sector and INFUSE partnerships*** *and key outcomes (e.g. increasing capacity building and demand, improving service delivery and data management). Please outline the sources (e.g. Private sector contributions, Gavi matching Fund and Gavi core funding – HSS/PEF) and amount of funding.*
- ***Civil Society Organisation (CSO) participation*** *in service delivery and the funding modality (i.e. whether support provided through Gavi's HSS or other donor funding).*

Between January and August 2019, 417,888 children were vaccinated at the Penta3 , an increase of 78,565 children compared to the same period in 2018.
By financing critical activities for the relaunch of the EPI (improving coordination and financial management, improving data management, improving the supply of immunisation services targeting unreached children, improving the GEV and stimulating demand) GAVI support will make it possible to remove the bottlenecks to the immunisation of children.
The selection of activities remains relevant. Funding for the PSA will allow us to implement these activities to achieve the objectives.
The country has an amount of 271,000,000 FCFA, the reallocation of which has been planned as an advance on the HSS grant1.
As Year 1 could not be implemented it will just be a matter of carrying these activities forward into the new planning and still maintain the phased approach.
Some planned activities were implemented with resources from other partners (WHO, UNICEF, MSP).

5.2. Performance of vaccine support

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

- ***Vaccine-related issues which may have been highlighted for the vaccine renewals****, such as challenges on stock management (overstock, stock-outs, significant consumption variations etc.), wastage rates, target assumptions, annual consumption trend, quantification data triangulation, etc., and* ***plans to address them****.*
- ***NVS introductions and switches:*** *If country has recently introduced or switched the product or presentation of an existing vaccine, then the country is requested to highlight the performance (coverage) and lessons learned from the introduction/switch, key implementation challenges and the next steps to address them.*
- ***Campaigns/SIA:*** *Provide information on recent campaigns (since last JA) and key results of the post-campaign survey, including the coverage achieved. If achieved coverage was low, provide reasons. Provide other key lessons learned and the next steps to address them. If post-campaign survey has not been conducted, highlight reasons for the delay and the expected timelines. Are there any key observations concerning how the operational cost support was spent? Explain how the campaign contributed to strengthening routine immunisation e.g. by identifying zero-dose children and lessons learned.*

The measles epidemic required a response that targeted 56 health districts in 2018 and resulted in the vaccination of 2,421,067 children aged 6 months to 9 years, representing 100% administrative immunisation coverage. However, the immunisation coverage survey conducted showed an immunisation coverage of 90.7% with only 2 of the 8 provinces having reached the 95% target. In response to the continuing epidemic, responses were conducted in 16 additional districts in 2019.

Table I : 2018 epidemic response post-campaign coverage survey results

Province	District	6-11 months	12-59 months	5-9 years old	Total
Bar El Gazal	Chadra	54,5%	61,2%	75,4%	66,1%
	Salal	100,0%	83,1%	72,9%	79,5%
	Total Bar El Gazal	64,2%	64,9%	74,8%	68,7%
Batha	Assinet	100,0%	100,0%	100,0%	100,0%

	koundjourou	80,0%	88,4%	92,3%	89,5%
	Umm Hadjer	90,0%	99,1%	100,0%	99,2%
	Yao	86,7%	94,2%	98,5%	95,1%
	Alifa & Jeddah	91,2%	88,9%	91,7%	90,1%
	Total Batha	89,1%	94,0%	96,9%	95,0%
Hadjer Lamis	Massaguet	89,5%	91,9%	90,8%	91,2%
	Massakory	100,0%	98,1%	99,2%	98,8%
	Karal & Mani	88,4%	96,5%	95,1%	93,7%
	Total HL	91,4%	96,1%	95,7%	95,1%
kanem	Mao	100,0%	98,9%	100,0%	99,5%
	Mondo & rig-rig	100,0%	100,0%	100,0%	100,0%
	Nokou & Ntiona	100,0%	99,2%	100,0%	99,5%
	Total Kanem	100,0%	99,4%	100,0%	99,7%
Lake	Bagassola	97,0%	98,7%	100,0%	99,0%
	Bowl	93,1%	97,8%	98,3%	97,2%
	Ngouri	77,8%	86,4%	70,0%	82,0%
	Kouloudia & Isseirom	80,0%	90,0%	92,4%	90,0%
	Total Lake	85,8%	91,8%	90,8%	90,7%
Ndjamena	NDJ CENTRE	79,5%	88,1%	89,3%	87,6%
	NDJ EST	64,8%	80,7%	79,1%	77,9%
	NDJ NORTH	64,3%	78,6%	81,0%	76,6%
	NDJ SUD & 9th	67,9%	88,8%	87,7%	85,6%
	TOTAL NDJ	68,7%	85,1%	84,9%	82,8%
Ouaddai	Abougoudam & Adre	84,8%	93,9%	95,0%	93,9%
Wadi Fira	Amzoer	60,0%	90,2%	81,3%	86,9%
	Biltine	71,4%	85,6%	70,6%	80,3%
	Guereda	75,0%	96,3%	91,8%	93,7%
	Iriba	96,3%	100,0%	100,0%	99,7%
	Total Wadi Fira	74,9%	91,4%	86,9%	88,7%
All provinces		79,9%	91,1%	92,1%	90,3%

The main reasons for low vaccination coverage are poor preparation and implementation (micro-planning, local supervision, evaluation, etc.), insufficient information and motivation of parents, and multiple obstacles to vaccination (distance from the vaccination site, inappropriate vaccination time, poor reception, mother too busy, too long a wait).

To correct these shortcomings, micro planning tools will be revised and disseminated in time at the provincial and district levels to enable them to carry out micro planning at the grassroots level with the involvement of communities and other local partners to take into account the specificities of each zone. To improve local supervision, the actions undertaken will concern the supervisor's profile and their timely deployment in the field.

In addition, a communication will be made to women's associations and groups, the use of these women as community relays, the involvement of opinion leaders (religious, traditional chiefs, managers of private health structures, religious denominations, etc.). Furthermore, the commitment made by the administrative, traditional and religious authorities at the national forum will be used to strengthen communication and social mobilization during the campaigns.

In addition, the campaign readiness assessment tool developed by WHO will be used with good coordination at the central level, which will provide the authorities with regular updates on the state of preparations. These are all initiatives to improve the quality of campaigns, especially in low-performing districts with the involvement of NGOs and CSOs at the local level.

The main lessons learned and the next steps to address them are in the table below:

Lessons Learned	**Proposed Solutions / Measures**
The last campaign in 2 phases gave a better chance to improve quality but the results of the vaccine coverage survey showed a sub-optimal performance.	Close monitoring of planning activities
Micro-planning is an essential element of successful immunisation campaigns to identify specific activities for hard-to-reach populations.	Place particular emphasis on micro planning at the grassroots level with the involvement of other sectors (Ministry of the Interior, Education, Communication, Livestock, Social Action, etc.), starting at least 6 months beforehand, with the involvement of communities and with the support of central, provincial and district teams, and also the identification of zero doses.
Insufficient qualified human resources at the health centre level	Recruitment of health workers who have graduated from public and private schools and are in the process of being integrated, NGO workers (Red Cross, MSF...) will make up for the lack of resources at the health centre level and facilitate the implementation of the campaign.
Political commitment at the highest level helps to mobilize the resources required for co-financing as well as the mobilization of the population.	Mobilization of Government resources for the implementation of the campaign activities in accordance with the commitments made by the Head of State
The need to combine mass communication with increased and continuous outreach communication and communication for risk/risk management and advocacy at all levels.	Develop a risk communication plan and social mobilization to ensure and prevent rumors amongst the population and manage crises; Ensure outreach communication so that people have more accurate knowledge about vaccines. Train providers on how to manage rumours; Develop MSP advocacy within Government to facilitate/strengthen the involvement of other Ministerial Departments in the campaign.
The existence of a dynamic organizing committee (central, provincial and district) is fundamental to the campaign.	Draw up a campaign organisation plan with a work programme in a participatory manner with regular meetings that make all MSP stakeholders and EPI partners accountable. Minutes of these meetings are to be shared with ICC members who follow up on them.
The choice and training of actors in the field to have an impact on the quality of the campaign	Particular emphasis will be placed on training field workers (vaccinators, hygiene and sanitation technicians, supervisors), training

	focusing on MCV2 in particular and routine immunisation in general.
The need for local follow-up after training of providers	Ensure a close follow-up of the providers' competence after the training through supervision and discussion of difficulties during the daily review meetings to find solutions as necessary.
The regular monitoring of the Dashboard during the 2018 response has allowed the level of preparedness at the central, provincial and district levels to be assessed. This allowed the campaign to be postponed by four days in view of the overall level of preparations for the 2018 response.	To train the actors in the systematic use of the Dashboard, to enable corrective actions to be taken in time to improve the quality of preparation and avoid postponing campaigns.
The development or revision of a logistics plan (cold chain and rolling stock) and a detailed waste management plan down to the operational level is essential for the success of the campaign.	Need to strengthen the logistical capacities of the actors and structures and to provide cold chain equipment, rolling stock and carry out any necessary repairs
Reaching hard-to-reach populations (nomads, Lake Chad islanders, desert areas...) is subject to the implementation of innovative strategies adapted to each situation.	Develop and implement district/provincially appropriate approaches to reach communities not yet reached by immunisation and provide them with other highly effective child survival interventions. For this purpose, representatives of these communities will be recruited as community relays or volunteers to help reach these populations. For the sparsely populated Far North Provinces, mobile teams will be used and a package with the other routine EPI antigens will be offered to them. In the island areas, the use of off-boarders and pirogues will make it possible to wait for the islands.
The Importance of Implementing a AEFI Case Management System	The timely establishment of AEFI management committees at all levels (central, provincial and district) trained and equipped with substantial resources.
Rapid surveys will make it possible to correct certain shortcomings (non/immunized areas) and resume vaccination	Realize early from D2
Insufficient management of financial resources	The need to take into account activities that contribute to the improvement of the managerial and financial management capacities of the various aefi stakeholders at all levels. Development of secure payments (mobile telephony, express Union...)
	The need to develop internal control mechanisms and the monitoring of supporting documents.

- *Update the **situation analysis for measles and rubella** (using the most recent surveillance and immunisation coverage data for measles, rubella and congenital rubella syndrome at the national and sub-national levels[15]) and update the 5-year measles and rubella plan (e.g., indicating the next introduction dates for RR and VVR2, monitoring campaigns, etc.).*

Measles surveillance:

Chad started 2019 with a number of confirmed and pending outbreaks despite the November 2018 vaccination campaign. Thus, by H1 2019, a total of 178 suspected cases were registered in 22 districts.

The number of districts reporting cases trended upwards from S1 to reach a peak in week 13 with 79 districts before starting a gradual sawtooth decline until week 37 with only 17 districts and 18 districts in week 40.

In terms of the number of suspect cases notified, the first peak was observed at S16 with 1369 cases; the recent peak was observed in week 21 with 1374 suspect cases notified. A clear break was observed from week 22 to week 33. Bodo district has the highest number of cases with 91 cases last week and 99 cases this week.

A total of 24,911 suspicious cases with 242 deaths have been reported from January 2019 to date.

Seven districts have passed the 1,000 suspicious cases mark to date: Bousso (2,306 cases), N'Djamena East (1,698 cases), Am Timan (1,671 cases), N'Djamena South (1,512 cases), Moundou (1,367 cases), N'Djamena Centre (1,341 cases) and Bongor (1,327 cases). These districts have a total of 11,222 suspected cases or 45.05% of the country's measles cases.

Table II: Number of suspicious cases reported from the beginning of the year to week 40

Number of cases	Death	Lethality rate	Sampled / documented cases	IgM+ cases
24 911	242	0,97	1 716	178

Table III: Age distribution of cases among investigated cases

Number	Age range					Total
	<1 year	1-4 years old	5-9 years old	10-14 years old	15 years old + and unknown	
Number	**214**	**803**	**313**	**145**	**241**	**1 716**
%	**12%**	**47%**	**18%**	**8%**	**14%**	**100%**

We note that 78% of the cases are under 9 years old.

Table IV: Vaccination status of investigated cases by age group

[15] For more information on the expected measles and rubella analyses, please refer to the JA Guidance and Analysis document.

Age range	Not vaccinated		Vaccinated		Total	%
	Number of cases	%	Number of cases	%		
Less than one year	172	80,37%	42	19,63%	214	12%
1-4 years old	609	75,84%	194	24,16%	803	59%
5-9 years old	248	79,23%	65	20,77%	313	77%
10-14 years old	127	87,59%	18	12,41%	145	85%
15 years and older	233	96,68%	8	3,32%	241	100%
Total	1 389	80,94%	327	19,06%	1716	

81% of the subjects were not vaccinated against measles.

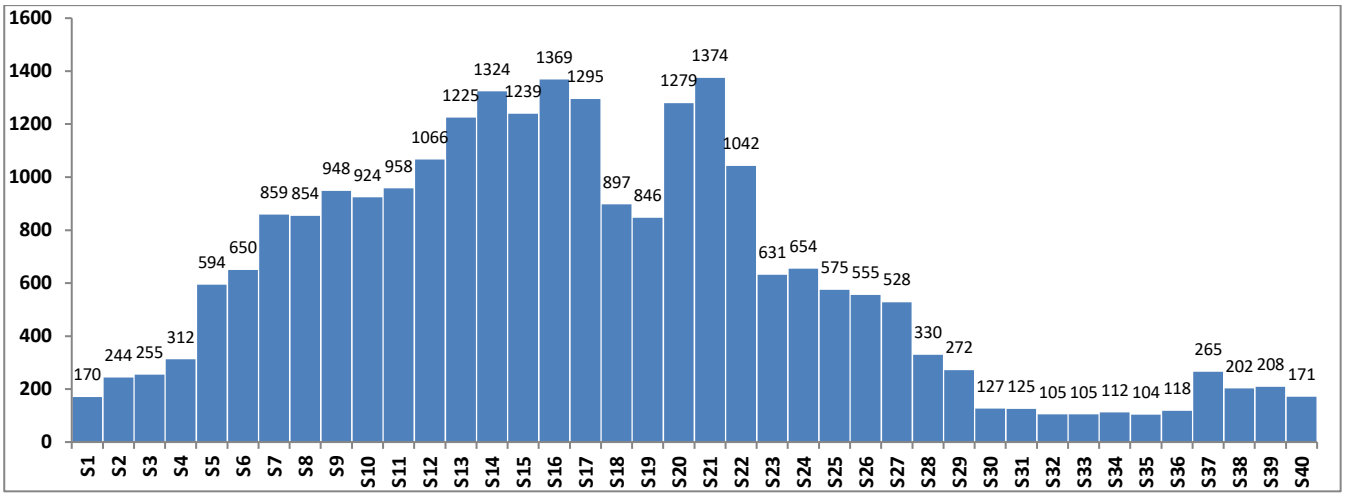


Figure 1: Weekly follow-up of suspected measles cases from week 1 to 40

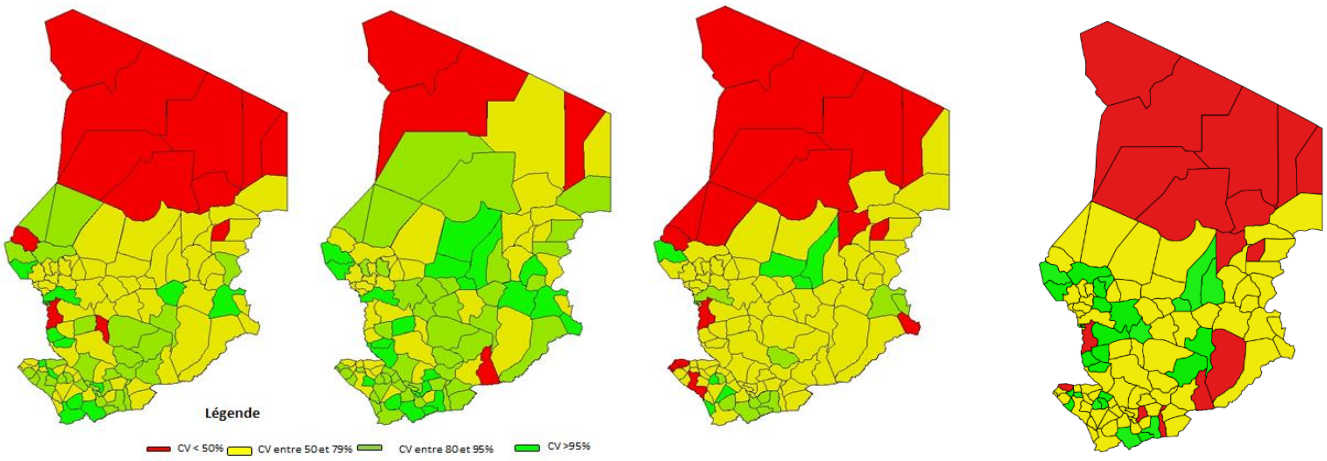
The trend in recent weeks was downward from the last peak in week 21 to week 36. Then there has been a slight increase in recent weeks.

Routine vaccination,

The external review of the EPI, the immunisation coverage survey and the equity analysis conducted in 2017 as well as the various MICS-EDS surveys have shown the low quality of immunisation.

Indeed, many children are not vaccinated during routine immunisation activities until they are one year old. According to the results of the 2017 immunisation coverage survey, VAR coverage varies from 2 to 63% with a national average of 37%. There is also great disparity in immunisation coverage between provinces, districts and health centres. This low immunisation coverage is due to the poor implementation of advanced strategies, low cold chain coverage, frequent vaccine breaks, low community involvement in immunisation, insufficient or even lack of information for parents, as well as the strike by government employees that began in the second half of 2016 and continued in 2017 and 2018.

Measles immunisation coverage has not improved in recent years and remains far below the target of at least 90% nationally.



Figures 2-5: Change in VAR coverage from 2015 to 2018 according to administrative data

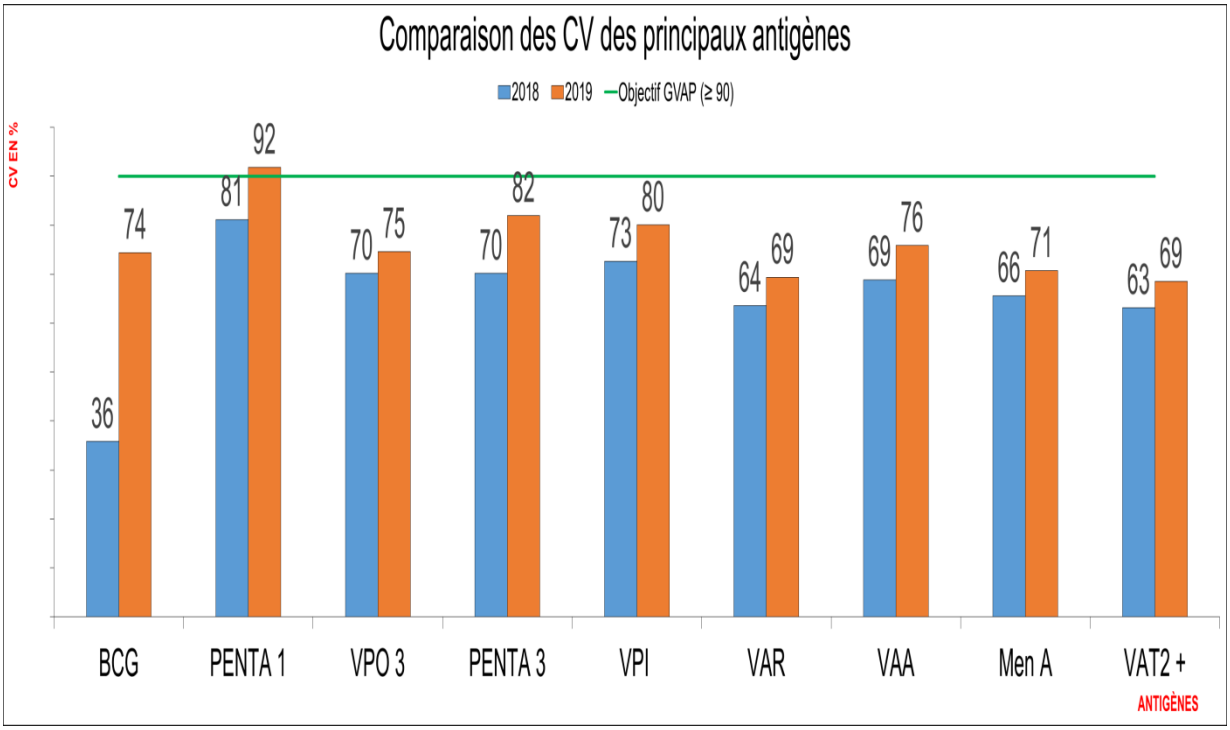


Figure 6: Comparison of vaccination coverage from January to August 2018-2019

In 2019 the situation improved slightly (+5%) as shown in the figure below:

In order to address these low immunisation coverage levels, the country is taking the opportunity offered by the Gavi Alliance to strengthen its CDF through the CCEOP, implement the CDA as part of the programme support rationale (PSR) by adopting the gradual approach, missed opportunities for vaccination, strengthening human resources, community approach for the promotion of

vaccination, develop and implement the vaccination strategy in urban areas, mixed vaccination (man/livestock) in collaboration with the Ministry of Livestock, conduct intensified vaccination activities by offering a package to special populations and those in areas of difficult access (nomadic, islanders, populations in desert areas). The BMGF and Aliko Dangote foundations are supporting the strengthening of routine immunisation activities in the provinces of the Lake Chad basin.

To address these measles epidemics, the country plans to organize a monitoring campaign in 2020 as well as the introduction of MCV2. During these two activities a synergy of action will be made in terms of advocacy, communication and training. Another monitoring campaign is planned for 2022 in accordance with the Measles Strategic Plan 2019-2022. The aim is to help increase the immunity of target groups against measles and end these recurrent measles epidemics.

- ***Describe key actions related to Gavi vaccine support in the coming year*** *(e.g. decision-making on vaccine introduction, future application, planning and implementation of introduction/ campaigns or decisions to switch vaccine product, presentation or schedule)* ***and associated changes in technical assistance[11].***

During vaccine renewals, it was noted that stockouts are linked to weak vaccine management, inadequate monitoring of vaccine use, late disbursement of country funds and immunisation of off-target children.

It is these weaknesses that have led Gavi not to grant doses for the co-financing of certain antigens (Penta and MenA) for the year 2019. However, during the GAVI mission in May 2019, additional doses were granted to the country.

Following this observation, the country carried out an evaluation on the use of vaccines, in which the bottlenecks in the system were mentioned, leading to the recommendations below, which are regularly monitored.

- Carry out a systematic physical inventory of vaccines and immunisation materials at the central, sub-national, district and health centre levels.
- Produce an analysis report of MTS data at the end of each month and take corrective actions as required at the central and sub-national repositories.
- Train national, provincial, district and health centre officials in charge of immunisation on the management of vaccines and consumables and the quality of data.
- Conduct formative supervisions in sub-national repositories and ROs
- Ensure the systematic and regular use and transmission of MTS and MT DVDs by all depots and health districts.

In addition to these recommendations, a series of training sessions were organized for EPI managers from the health districts and logistics specialists on vaccine and cold chain management.
An orientation meeting on the new specific Gavi measures for Chad was organized by the Directorate General of Public Health with all the people in charge of logistics. These specific measures include a nationwide physical inventory, an assessment of vaccine management and use, and a summary of the events leading up to the recent stock-outs.

Chad introduced meningococcal type A vaccine into the routine EPI in July 2017 in order to reduce meningitis epidemics and expand the number of vaccine-preventable diseases for the benefit of children.

ANTIGENES	OBJECT. DE CV (%) 2018	ADM. DATA 2018	OBJECT. DE CV (%) 2019	ADM. DATA August 2019	PERFORMANCE
MenA	90	66	90	71	5
VAT	90	63	90	69	6
VAR	90	64	90	69	5

This table shows that the coverage targets were not met. The results obtained are due to:

- The immunisation service offer is not very effective, with vaccine stock-outs in the field, poor geographical accessibility to immunisation services and poor organization of this offer. Indeed, there are many barriers to immunisation perceived by the communities served that are not sufficiently informed.
- There is little support for immunisation demand promotion activities. There is, however, the Community Approach for the Promotion of Immunisation (CAPI), which is more focused on the recovery of children lost to follow-up and does not take into account the need to strengthen activities at the peripheral level.
- Immunisation data are not well analyzed and are generally inconsistent from one document to another; there is a shortfall at all levels in the effective use of these data.
- The country's health programming is still very weak; the operationalisation of the health structures created (HD and HC) is not totally controlled by the national level in charge of this programming.

To solve all these problems, the following activities are necessary:

- Conducting DQS in SDs
- DHIS2 deployment
- Capacity building for data managers
- Health mapping in progress
- Implementation of the recommendations of the national immunisation forums
- Triangulation of vaccination data
- Strengthening programme governance and accountability
- The holding of strategic and technical meetings (CTAPEV; CCIA; Task force)
- Implementation of the N'Djamena revitalization plan
- The holding of technical committee meetings and steering for the coordination and monitoring of the implementation of the RSS
- Acquisition of rolling stock and cold chain equipment
- Improving the quality of the service offer
- Improving the quality of the supply chain

To avoid diphtheria outbreaks and to comply with WHO recommendations, the country is preparing to replace TT with Td from 2020 for the vaccination of pregnant women to improve protection against diphtheria.

In order to eliminate measles epidemics, the country plans to introduce the second dose of MCV (MCV 2) for children aged 9 to 15 months from the 2nd quarter of 2020.

ESTIMATION DU COUT DES VACCINS ET DES CONSOMMABLES POUR L'ANNEE 2020

Produits: activités de ROUTINE	Qté totale de doses annuelle du pays	Qté de doses à acheter par le pays	Cout à financer par le pays	Qté de doses à acheter par Gavi	Cout à financer par Gavi
IPV	640,200			640,200	$ 1,737,500
Mening A Conj-	647,900	302,000	$ 170,000	345,900	$ 195,000
DTP-HepB-Hib-	1,942,000	395,000	$ 285,000	1,547,000	$ 1,117,000
Yellow Fever	825,300	175,000	$ 216,000	650,300	$ 802,000
BCG	1,872,189	1,872,000	$ 292,000		
bOPV	4,134,935	4,135,000	$ 625,000		
Measles	1,136,430	1,136,000	$ 412,000		
Td	2,671,290	2,671,000	$ 348,000		
Measles 2nd doses	371,352	371,000	$ 135,000		
AD-Syringe, 0.5 ml	8,066,839	4,290,000	$ 281,000	3,777,500	
RUP-5.0 ml w ndl	205,500	43,400	$ 69,000	162,100	$ 180,500
Safety Box, 5 Litre	84,734	41,000	$ 68,000	43,400	
BCG AD Syringe, 0.05 ml	1,094,937	1,095,000	$ 122,000		
COUT DU COFINANCEMENT EN USD			**$ 671,000**		**$ 4,032,000**
COUTS DES VACCINS TRADITIONNELS EN USD			**$ 2,352,000**		
COUT TOTAL EN USD			**$ 3,023,000**		
COUT TOTAL EN XAF			**XAF 1,813,800,000**		**XAF 2,419,200,000**

The total amount of country co-financing for the year 2020 amounts to US$ 671,000. A regular payment mechanism will be put in place to honour the State's commitments and avoid any stock shortages resulting from late purchases of the doses financed by the country.

In addition to the existing technical assistance from WHO, UNICEF, PMU, the SDV benefited from additional assistance from GAVI to strengthen capacities in qualitative and quantitative terms. As a result, eight new managers were recruited to the VDS.

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

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

- ***Performance** on five mandatory CCEOP indicators and other related intermediate results – achievement against agreed targets as specified in the grant performance framework (GPF) with discussion on successes, challenges and solutions for reaching targets;*
- ***Implementation status** (number of equipment installed / waiting installation, user feedback on preventive maintenance training, refrigerator performance, etc.), including any challenges / lessons learned;*
- ***Contribution** of CCEOP to immunisation performance (i.e. how CCEOP is contributing to improving coverage and equity);*
- ***Changes in technical assistance** in implementing CCEOP support.[11]*

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

Chad successfully submitted to the CCEOP cold chain optimization platform in December 2018. CCEOP will acquire and install 970 solar-powered cold chain equipment, 750 temperature control devices and 62 spare parts throughout the country. This acquisition will allow :

- replace 414 obsolete, non-functional or unapproved equipment
- equipping 563 sites with Cold Chain Equipment (CCE); and
- to expand the offer of vaccination in the sites.

All this will contribute to improving immunisation coverage and equity.

Given the constraints of the country, the implementation of this project requires a rigorous organization. The country has therefore set up a technical and coordination committee, one of whose roles is to ensure the implementation of this project by drawing up an operational deployment plan.

Given the context, the country is planning a deployment plan over two (2) years, 2020 - 2021: (597 pieces of equipment will be installed in 2020 and 373 in 2021). This deployment plan must integrate all the features for each installation site. To date, thanks to the support of the National

Logistics Committee (EPI, UNICEF, WHO) 66% of the data have been collected. The finalization of its processes has been delayed due to lack of funding for this activity and insufficient communication between the central and peripheral levels.

The Technical and Coordination Committee of CCEOP has put in place new strategies, namely:

- Advocacy with provincial delegates to monitor data collections
- Involvement of the Director General of Public Health
- Support from Stop Teams, consultants and Unicef zone offices in the collection of district data
- Support to sub-repository logisticians in monitoring data collection in their areas of responsibility.

With the implementation of these new measures, the country plans to submit its operational deployment plan by December 2019 with the aim of acquiring ECFs by June 2020. In order to make the budget to finalize the data collection and compilation will be developed and submitted by the end of November 2019.

5.4. Financial management performance

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

- *Financial **absorption** and utilisation rates on all Gavi cash support listed separately[16];*
- ***Compliance** with financial reporting and audit requirements noting each grant (listing the compliance with each cash support grant separately, as above);*
- *Status of high-priority "show stopper" actions from the Grant Management Requirements (GMRs) and other issues (such as misuse of funds and reimbursement status) arising from review engagements (e.g. Gavi cash programme audits, annual external audits, internal audits, etc.);*
- *Financial management **systems**[17].*

[16] If in your country Gavi funds are managed by partners (i.e. UNICEF and WHO), fund utilisation by these agencies should also be reviewed.

[17] In case any modifications have been made or are planned to the financial management arrangements please indicate them in this section.

Financial absorption and utilization rate

Measles campaign: The funds mobilized by GAVI for the 2016/2017 measles immunisation campaign were fully utilized and the campaign reports were submitted including the post-campaign immunisation survey.

Interim funding: Following two successive rejections of Chad's proposal to GAVI for Health System Strengthening (HSS) by the Independent Expert Committee (IEC) in 2015 and 2016, the GAVI Alliance and the Government of Chad agreed in 2017 on interim funding to ensure the continuity of key activities and to lead the development of the Programme Support rationale (PSR) including the Cold Chain Equipment Optimisation Platform (CCEOP). A tripartite agreement was signed between the Government, GAVI and UNICEF in 2017 in which UNICEF was asked to manage the funds to carry out the agreed activities. At the end of this funding, out of a total of US$ 749,199, an amount of US$ 729,514.79 had been used (including US$ 12,190.02 committed), i.e. 97% utilization, leaving a balance of US$ 19,684.21.

MenA vaccine introduction fund: Following a tripartite agreement signed in 2017 between the Government, GAVI and UNICEF, the latter was asked to manage the funds granted to Chad for a total amount of US$ 2,766,760.20 to support the introduction of the MenA vaccine into the Expanded Programme on Immunisation (EPI) (US$ 487,963.00) and the operational costs for a mass immunisation campaign in MenA (US$ 2,278,797.20). Of the total sum of this contribution, as of 26 December 2018, an amount of US$ 2,394,046.75 has been spent, i.e. 86.5%.
The utilization rate is 95.6% for the amount dedicated to the introduction of the Men A in routine and 84.5% for the catch-up campaign.

Type	Allocation	Use	Remainder
MenA EPI support	487.963,00	466.750,68	21.212,32
MenA Support Campaign	2.278.797,20	1.927.295,67	351.501,53
Total	2.766.760,20	2.394.046,35	372.713,85

Compliance with financial reporting and progress in responding to audit requirements

A preparatory mission for the audit of GAVI grants took place in May 2017 with requirements to improve the archiving of accounting documents at the DVSE level in order to prepare the ground for an actual audit (financial, fiduciary and vaccine management). As part of the preparation for the audit mission, the country has made a remarkable effort in collecting and archiving accounting documents with a strengthening of accounting staff, reorganization of services in terms of organization chart,

	improvement of financial management and the ongoing revision of the financial and administrative procedures manual, strengthening the capacities of managers of provincial health delegations and health districts in financial management and HACT. The actual audit was conducted from September to November 2017 and the Inspectorate General and the DVSE ensured good cooperation and transparency with the GAVI audit mission. A first debriefing on the preliminary findings and recommendations of the audit took place in October 2017 and the audit report was shared with the country in March 2018. The audit identified shortcomings such as the absence of bank reconciliation statements and accounting journals, insufficient systematic monitoring of cash flows and discrepancies with the budget monitoring provided. (See draft audit report 2018 and country responses 30 April 2018). As of July 2018, bank reconciliation and accounting journal statements are available at SDV level. The PMU's Accounting and Financial Procedures Manual provides for a cash flow and budget monitoring system.
Status of high priority "show stopper" actions arising from the Grant Management Imperatives and other issues (such as misuse of funds and reimbursement status) arising from review missions (e.g. Gavi cash programme audits, annual external audits, internal audits, etc.);	The HSS budget includes lines for the acquisition of accounting software for the 58 districts, a line for the training of these managers in the use of the software and the procedures manual which describes the accounting methods in accordance with OHADA standards.
Financial management systems	The accounting and financial procedure manual developed by the PMU has been validated: the acquisition of the Tompro software for the central VDS level and for the provinces is underway (GAVI and TOMATE negotiations). The continuous training of accountants at the operational and central level provided for in the HSS budget, the involvement of the Inspectorate General and the PMU through quarterly formative supervisions and monitoring will make it possible to achieve the results recommended by the Gavi audit.

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

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

- *If a transition plan is in place, please provide a brief overview on the following:*
  - *Implementation progress of planned activities;*
  - *Implementation bottlenecks and corrective actions;*
  - *Adherence to deadlines: are activities on time or delayed and, if delayed, the revised expected timeline for completion;*

- *Transition grant: specify and explain any significant changes proposed to activities funded by Gavi through the transition grant (e.g., dropping an activity, adding a new activity or changing the content/budget of an activity);*
- *If any changes are requested, please submit a consolidated revised version of the transition plan.*

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

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

In the absence of a recent joint appraisal (the last one dating from 2016) the country team organized two TCA 2018-2019 development workshops on 3 and 8 August 2018 respectively in the UNICEF meeting room. The objective of these two workshops was to conduct the situation analysis of immunisation and the 2017 TCA (see background), to learn about the "Guidelines for the process of targeted assistance to 2017-2018 countries under the PEF and to define the priorities for the 2018-2019 PEF.

The objective of the technical assistance is to provide support to the Ministry of Public Health in strategic and operational planning, resource mobilization and management, capacity building including skills transfer, organization of services and implementation of activities, data management, monitoring and evaluation.
As a result, the emphasis has been placed on:

- Strategic and operational planning ;
- The mobilization of communities and political-administrative actors with the strengthening of governance and accountability;
- The mobilization and transparent management of resources;
- Strengthening national capacities, including at the decentralized level, with the transfer of competences;
- Organization of services and implementation of activities;
- Data management for monitoring and evaluation at central, intermediate and district levels in complementarity with the Technical Assistance profiles already available at these different levels.

The approach emphasized the distribution of responsibilities and tasks among partners within the framework of the TCA and the search for complementarity in their support. Thus, in the distribution of these responsibilities, the statutory mandate of each of the partners in the implementation of immunisation has been privileged. However, for certain support activities such as management, programme coordination and planning, the combined expertise of the various partners is useful in strengthening the programme. The process therefore took into account the Technical Assistance already existing in the country through the different partners.

Although the Programme Support Rationale (PSR) targets 10 priority provinces in Chad, including 3 for the first year (Batha, Ouaddaï and N'Djamena) which have the highest number of

unvaccinated children, with a view to strengthening equity in the provision of immunisation services and also to support cross-cutting activities, other health districts are supported by partners.

The WHO and UNICEF TA, despite the late funding of the 2019 TCA, have benefited from the support of the Management of their organizations for the continuation of activities and their coverage from alternative sources of funding. The TCA report due in June 2019 has been posted on the portal for the three active indicators which are:

- Mid-term evaluation of POA 2019 (national and N'Djamena) carried out and reports available (WHO);
    - The program performance report with data analysis and data quality review including triangulation has been developed for 2018 data (This report is available on the Gavi portal);
    - The elaboration of various documents (national immunization programme (NIP), Plans for measles monitoring campaigns and 2nd dose of MCV, Measles epidemic response plan, JRF, Pacte); Support for the realization of the health map;
    - In terms of improving data quality, the VDS has benefited from technical assistance in the development of guidelines for the transmission of data from the area of responsibility level to the central level, the revision of the monthly activity report, data analysis and feedback through the Routine Immunisation Bulletins and Weekly Polio Updates;
    - Numerous missions to supervise and conduct DQS in certain health districts;
    - Support for the development of the data improvement plan;
    - DHIS2 deployment plan updated.
    - Decentralized support to the 3 priority Provinces of year 1 in the implementation of the ACD (planning, formative supervision, monitoring, follow-up of vaccine management);
    - Realization of the feasibility study for the solarization of the sub-national deposits of Sarh and Moundou;
    - Training of subnational depot managers and central level logisticians on vaccine management and the SMT tool;
    - Support for supply chain redesign;
- Stock report and request for renewal of vaccines completed on time (31 March and 15 May). Triangulation report of vaccine dose distribution and use data :
    - The stock report was drawn up and transmitted on time as well as the 2020 vaccine renewal which was validated by the ICC on 10 May 2019, then transmitted to GAVI.
    - A data triangulation tool has been proposed and presented to the EPI Technical Support Committee (CTA-EPI) before its implementation, which will be done first in the province of N'Djamena.
- Solarisation report of the Abéché hub available:
    - The equipment for the solarisation of the Abéché sub national depot has been received and has been stored in Abéché since the end of 2018. Three processes to recruit a firm to install the equipment were unsuccessful due to a lack of qualified local expertise for the job. The GAVI grant, part of which was to be used for this facility, expired without the facility being installed. A new call for tenders has resulted in the recruitment of an international firm and will be financed by UNICEF's own funds. The installation started on October 10, for a duration of 2 months.

Recruitment of staff on TCA is partially completed and activities are supported by Technical Assistance at national, intermediate and district levels.
The main difficulties encountered are related to:

- The late approval and duration of TCA funding that does not allow sufficient time to complete the recruitment for the agreed one-year duration;
- The non-existence in the field of certain profiles that the GAVI Secretariat requested to be included in the TCA (Example: national CCEOP specialist) and the lack of attractiveness for certain short-term consultations in Chad;
- Delay in the finalization of the recruitment of the PIRI International Consultant (for 6 months).

Amendments/proposals :

- Discuss between the Secretariat and UNICEF the changes to be made for posts for which candidates could not be found;
- Re-evaluate financial requirements in light of the changes that will be retained;
- Extend the expiry date of the TCA by at least six (06) months to allow for a year's coverage for staff whose recruitment has not yet been completed;
- Renew funding for existing technical support;
- Modify the contract of the Data Improvement Officer from UNV to P3;
- Recruit a P3 International Logistics Officer for WHO;
- Provide funding for the second WHO EPI NOC;

6. UPDATE OF FINDINGS FROM PREVIOUS JOINT APPRAISAL

Provide the status of the prioritised strategic actions identified in the previous Joint Appraisal[18] and any additional significant Independent Review Committee (IRC) or High Level Review Panel (HLRP) recommendations (if applicable).

Prioritised actions from previous Joint Appraisal	**Current Status**
1. External review of the EPI	EPI review carried out in 2017
2. Evaluation of the cMYP 2013/2017 and development of the new cMYP 2018 - 2022	The cMYP 2013/2017 has been evaluated and the cMYP 2018-2022 has been developed.
3. Support for the coordination of HSS/EPI programmes	WHO and Unicef staff support the coordination of HSS/EPI programmes
4. Elaborate the administrative documents for the start of HSS2	Technical support has been provided and HSS2 has been developed.
5. Improved management and coordination of HSS/EPI programmes	A new organizational chart has been developed by the Dalberg Cabinet and the staffing process is under way (7 out of 8 planned managers have been recruited and have taken up their positions).
6. Implementation of the data quality improvement plan (from the evaluation planned for 2016)	A quality assessment has been conducted and the 2018-2022 strategic plan for data quality improvement has been developed. Data quality improvement activities are supported by an international team of staff.

[18] Refer to the section “Prioritised Country Needs” in last year’s Joint Appraisal report

7. Equip 25 DS and 23 remaining DSRs with tools and equipment (modems, computers, smartphone tablet) to improve data collection and transmission	
8. Development of micro-plans by the HDs targeted in the HSS2 proposal	Technical support was provided for the development of micro plans in the target districts for the 1st year of the plan.
9. Implementation of innovative immunisation strategies for nomadic, island and hard-to-reach populations within the framework of HSS2	Innovative activities to strengthen immunisation for nomadic and hard-to-reach populations are under way through the national nomadic programme and within the framework of polio eradication.
10. Extend the Missed Opportunities for Immunisation intervention to priority HDs (from 6 HDs to 56 HDs) ✓ Support the scaling up of the intervention in additional ROs ✓ Documenting intervention on Missed Opportunities for Vaccination	
11. 8	MenA was introduced into the routine EPI from July 2017. The follow-up campaign with MenA was carried out in November and December 2018 in 20 of the country's 23 provinces.
12. Post-Introduction Evaluation (IPV and MenA)	The post-introduction evaluation was conducted
13. Elaboration of the application for introduction of the pneumococcal vaccine (PCV) into the EPI	Pneumococcal vaccine is scheduled to be introduced in the PSR in 2021.
14. Improvement of the disbursement of funds from the central level to the periphery (Evaluation of the procedure, Quarterly budget, transfer to the provinces, etc.).	
15. Creation of a budget line with an adequate amount for the purchase of vaccines and consumables related to immunisation.	
16. Securing the budget line and creating mechanisms for facilitated procurement and disbursement.	
17. Conducting a desk review and analysis of all available evidence on social and behavioural components and a mapping of partners (CSOs in the country, local radio stations, associations, etc.) that will help in the preparation and	

orientation of the 2018/2022 communications strategy.	
18. Development of a strategic and operational communication plan 2018-2022 with the participation of partners World vision, POSVIT, CSSI, etc.	The 2018-2022 strategic communications plan has been developed and validated by the CFIC.
19. Involvement of communities in the scaling up of the promotion of demand for immunisation services at the community level in all districts: ACD strategy = "atteindre chaque district" = reach each district" (new approaches, media innovations, technological/portable).	
20. Vaccine Distribution and Monitoring of Vaccine Utilization.	
21. Train operational level managers in preventive maintenance of the solar cold chain.	
22. Cold rooms at all levels are calibrated and schematized according to the WHO protocol.	
23. Supporting the MOH in the revitalization of health structures at all levels	
24. Implementing the improvement plan resulting from the EPI.	
Additional significant IRC / HLRP recommendations (if applicable)	**Current Status**

If findings have not been addressed and/or related actions have not taken place, provide a brief explanation and clarify whether this is being prioritised in the new action plan (section 7 below).

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

Briefly summarise the key activities to be implemented next year with Gavi grant support, including if relevant any introductions for vaccine applications already approved; preparation of new applications, preparation of investment cases for additional vaccines, and/ or plans related to HSS / CCEOP grants, etc.
In the context of these planned activities and based on the analyses provided in the above sections, describe the five highest priority findings and actions to be undertaken to enhance the impact of Gavi support or to mitigate potential future risks to programme and grant performance.
Please indicate if any modifications to Gavi support are being requested (indicating the rationale and main changes), such as:

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

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

- Follow up on the recommendations from the Effective Vaccine Management Assessment (EVMA) conducted in 2015 and updates
- Conducting an External Evaluation of the EPI in 2020
- Establish a reliable management system for EPI vaccines and inputs.
- Conduct a temperature monitoring study
- Reinvigorate the logistics sub-committee at the central level and set up a remote temperature monitoring system for all cold rooms.
- Organize training for all other personnel involved in vaccine management at all levels of the health system
- Computerize the management of stocks of vaccines and consumables (SMT/DVD-MT tool) up to the level of the health districts.
- Train supply chain managers at central and sub-national levels in health logistics
- Mobilize the resources needed to implement the plan for a cold chain ladder transition to approved solar energy.
- Train district focal points and health centre managers on vaccine management and maintenance
- Organize regular formative supervision of personnel involved in immunisation at all levels.
- Finalize the Cold Chain Equipment Operational Deployment Plan (ODP)
- Conduct a physical inventory of vaccines, consumables and stock history since 2017 in the national and sub-national depots**.**
- Acquire and install a remote monitoring system for cold rooms
- Reproduce and make EPI management tools available at the health centre level.
- Mapping the cold room
- Organize quarterly supervision for the preventive maintenance and management of vaccines from the central level to the DSN and from the DSN to the DS.
- Contractualization for the curative maintenance of cold rooms

This table builds on the previous sections of the Joint Assessment and summarises the main findings and agreed actions, as well as the resources and support required, such as technical assistance needs[19].

Key finding / Action 1	**The fight against the disease, including the control of the measles epidemic that has been ongoing since April 2018, is being accelerated.**
Current response	
Agreed country actions	- Finalization, in a workshop with the various partners, of the strategy to control measles epidemics with a view to its elimination - Submission of a funding request for the response plan to the Measles & Rubella Initiative

Based on the action plan above, please fill in any request for a specific innovation or technology that can be met by private sector entities or innovative new entrepreneurs.

[19] The needs identified in the joint assessment will inform the planning of targeted assistance to the country. However, where technical assistance needs are specified, there is no need to include elements relating to resource requests. These will be discussed as part of the planning of Targeted Country Assistance (TCA). Technical assistance needs should, however, describe, to the extent then known, the type of assistance required (staff, consultants, training, etc.), the provider of the technical assistance (main/extended partner), a measure of the assistance required in terms of quantity/duration, its modalities (integrated, sub-national, management, etc.) and any relevant timeframe or schedule. The menu for technical assistance support is available for reference.

	- Organizing responses to measles, neonatal tetanus and polio - Organization of a national measles monitoring campaign - Organization of 2 Polio AHVs - Finalization and implementation of the plan to maintain neonatal tetanus elimination - Organization of a follow-up campaign against Men A in 3 provinces - Introduction of the 2nd dose of measles vaccine in the routine EPI - Strengthening epidemiological surveillance
Expected outputs / results	- Measles outbreak control strategy document available and implemented - Measles, Tetanus and Polio Responses Delivered on Time - National measles monitoring campaign carried out - Follow-up campaign against Men A carried out in 3 provinces - 2nd dose of measles vaccine introduced in the routine EPI
Associated timeline	2020
Required resources / support and TA	1 international P4 staff (WHO) 1 international P4 staff (Unicef) 1 international consultant, 3 months (WHO) 1 international TA staff measles (Unicef) IST and WCARO point and remote support
Key finding / Action 2	**Coordination and strategic planning are strengthened at the programme level**
Current response	
Agreed country actions	- Planning, implementation of activities and monitoring/evaluation - Elaboration/revision of strategic documents - National (CCIA, CTA-PEV...) and sub-regional consultations - Staff capacity building - Monitoring Progress
Expected outputs / results	- POA available, implemented and evaluated - At least 50% of CTA-PEV meetings held and documented - At least 4 ICC meetings held, 2 of which included an analysis of immunisation performance. - Strategic documents drawn up and adopted (measles epidemic control strategy document, national measles monitoring campaign plan, maternal and neonatal tetanus maintenance plan, epidemic response plan, etc.). - Evaluation documents prepared (JRF, Joint Evaluation, mid-term and annual POA...)
Associated timeline	2020
Required resources / support and TA	1 international P4 staff (WHO) 1 international P4 staff (Unicef) 2 national staff (WHO) 1 national staff (Unicef) 1 ACASUS team
Key finding / Action 3	**Strengthened health information system and improved availability, quality and use of health sector data, including EPI data.**
Current response	
Agreed country actions	- Strengthening Data Governance

	- Strengthening human resources for the implementation of DHIS2 - Permanent availability of harmonised and validated tools at all levels - Integration of the health information system and use of MIS - Improvement of processing processes and data quality assurance - Strengthening the use of data for evidence-based decision-making
Expected outputs / results	- Strengthened health information system and improved availability, quality and use of health sector data, including EPI data: - DHIS2 implemented and functional with integrated EPI data - Computer-based supervision support tool - Use of data for improved decision making
Associated timeline	**2020**
Required resources / support and TA	1 international P3 TA staff (WHO) 1 data Manager (OMS) 1 ad hoc support (University of Oslo) 1 ACASUS team
Key finding / Action 4	**Service delivery and immunisation coverage are strengthened**
Current response	
Agreed country actions	- Planning, monitoring and evaluation in 16 target districts in 3 priority 1 provinces and 22 districts in 3 priority 2 provinces (OAP and micro plan according to the revised ACD guide). - MLM training of centre managers and immunisation officers - Implementation of fixed, advanced, mobile strategies (the revised ACD, AVI and ACPV community-based approaches, child-friendly communities with real-time monitoring (CFC/RTM) and innovative strategies (Missed Vaccination Opportunities, coupled livestock/child vaccination, African Vaccination Week (AVW), vaccination of special and urban populations) - Semi-annual formative supervision from the central level to the provinces/districts/Health Centre, quarterly from the provinces to the district/health centre and monthly from the district level to the health/community centres (monitoring and coaching) in each of the 6 priority 1 and 2 provinces in order to strengthen the capacities of human resources (micro-planning, monitoring, vaccine management, compliance with the EPI immunisation schedule, communication in favour of the EPI, etc.). - Monitoring data validation missions - Use of new technologies (ODK) in supervision and active case finding - Training of provincial and district surveillance focal points on EPI target diseases - Monitor (evaluate) the impact of routine immunisation, SIAs and
Expected outputs / results	- District POAs developed, implemented and evaluated - Field actors (district and areas of responsibility) trained on practical EPI, MLM - Evaluated field activities (DQS, monthly meetings, data triangulation...) - Support for vaccine management monitoring
Associated timeline	

Required resources / support and TA	2 national staff (WHO) 1 national staff (Unicef) 3 national consultants (WHO) 1 ACASUS team
Key finding / Action 5	**Demand promotion and community participation are strengthened.**
Current response	
Agreed country actions	- KAP (knowledge, skills and practice) survey / situational analysis in SDs - Development of an urban immunisation strategy - Development and implementation of communication plans at the level of the HDs - Development and implementation of an advocacy strategy for the mobilization of financial resources for the purchase of vaccines - Media campaign (including social media) and influencer involvement - Revision and implementation of the N'Djamena recovery plan
Expected outputs / results	- Specific strategy document for vulnerable, under-vaccinated and/or missed groups including an available and implemented urban strategy - District communication plans developed and implemented - Advocacy strategy for the mobilization of financial resources for vaccine procurement developed and implemented - Media campaign carried out - N'Djamena recovery plan implemented
Associated timeline	2020
Required resources / support and TA	1 international consultant P4 (Unicef) 3 national C4D consultants (Unicef) 1 national staff (Unicef) 1 national staff (WHO) 1 communication consultant (Speak up Africa)
Key finding / Action 6	**The cold chain, rolling logistics and vaccine management are strengthened**
Current response	
Agreed country actions	- Countrywide vaccine inventory - Study on loss rates - Procurement, distribution and management of vaccines and other EPI inputs. - Finalization of the Cold Chain Equipment Operational Deployment Plan (ODP) - Implementation of the CCEOP (purchase and installation of equipment) - Monitoring of cold chain equipment - Conducting the GEV assessment - Acquisition and installation of a remote monitoring system for cold rooms - Conducting a temperature monitoring study - Mapping of cold rooms

	- Supply Chain Redesign
Expected outputs / results	- Vaccine inventory report available - Monthly GTS analysis report available - Regular supply of vaccines and monitoring of the management of vaccines and other EPI inputs - Stock situation available as at 31 March - Plan for the renewal of vaccines available as of May 15 - Finalization of the Cold Chain Equipment Operational Deployment Plan (ODP) - Installation and monitoring of the cold chain equipment carried out - Evaluation of the GEV carried out with an improvement plan - Temperature monitoring study carried out - Mapping of cold rooms carried out - Vaccine supply chain document available
Associated timeline	2020
Required resources / support and TA	1 international P3 staff (Unicef) 1 national NOC staff for vaccine management (Unicef) 1 national staff (Unicef) 1 national staff (WHO) 1 international consultant CCEOP (Unicef) 1 international consultant 3 months for GEV (WHO) IST and WCARO point and remote support

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 ICC is being revised in line with the recommendations of the 2018 national immunisation forum to improve its functioning.
The 2019 Joint Assessment was conducted by the Public Health Ministry with the involvement of key immunisation partners. The evaluation document was prepared by a small group in several working sessions and then presented to a larger group in a 3-day workshop. The discussions during this workshop helped to enrich and improve it.
The workshop itself was held from 19 to 21 November 2019 at the Ledger Plaza Hotel in N'Djamena with the participation of executives from the Ministry of Health, representatives of the GAVI Secretariat and immunisation partners in the country.

9. ANNEX: Compliance with Gavi reporting requirements

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

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

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