Joint Appraisal (JA) 2019 Report

Country	MADAGASCAR
Full JA or updated JA[1]	☑ **Full JA** ☐ JA update
Date and venue of the joint evaluation meeting	July 23-25, 2019 at the Carlton Hotel
Participants / affiliation[2]	See Annex 1
Frequency of results reporting	Annual
Tax period[3]	July 2018 - June 2019
Duration of the Comprehensive Multi-Year Plan for Immunization (cMYP)	2018 à 2020
Gavi/Co-financing Transition Group	Initial self-financing

1. RENEWAL AND EXTENSION REQUESTS

Renewal requests have been submitted on the country portal

Vaccine Renewal Application (NVS) (By May 15)	Yes X☐	No ☐	
Does the vaccine renewal application contain a change request?	Yes ☐X	No ☐	N/A N/A ☐
Request for renewal of HSS support	Yes ☐	No ☐X	N/A N/A ☐
Application for renewal of support to the POECF	Yes ☐	No ☐X	N/A N/A ☐

2. GAVI GRANT PORTFOLIO

Support for existing vaccines *(to be pre-filled by the Gavi secretariat)*

Introduced / Campaign	Date	Coverage 2017 (WUENIC) per dose	Target 2018		Approx. value USD	Observation
			%	Children		
Insert						
Insert						

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

Subsidy	Canal	Period of time	First payment	Status of cumulative funding as of June 2018				Compliance	
				Engag.	Appr.	Paid up	Use.	End.	Auditing
Insert									
Insert									
Observations									

Indicative interest for the introduction of new vaccines or for the request for HSS support in Gavi in the future[4]

[1] Information on the difference between full and updated JA is available in the document *Guidelines on reporting and renewals 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 in an appendix.

[3] If the frequency of results reporting differs from the fiscal period, please provide a brief explanation.

[4] The fact of providing this information does not constitute an obligation for the country or Gavi; it is mainly provided for information purposes.

Joint evaluation (full JA)

Indicative interest for the introduction of new vaccines or for the request for HSS support in Gavi	Program	Planned year of application	Planned year of introduction
	2nd measles dose	2018	2020

Grant Performance Framework - recent reports for 2018 *(to be pre-filled by the Gavi Secretariat)*

Intermediate Results Indicator	Target	Actual
Insert		
Insert		
Observations		

Targeted assistance by EFP country: Main partners and extended partners as of[insert date]
(to be pre-filled by the Gavi secretariat)

	Year	Financing (USD x 1000)			Existing staff	Milestones achieved	Observations
		Appr.	Paid up	Use.			
Insert							
Insert							
Insert							
Insert							

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

- Presidential and legislative elections: took place in a calm atmosphere during the last quarters (7 November and 19 December 2018 for the presidential elections, 27 May 2019 for the legislative elections). These elections led to a change in the government and consequently in the officials in the different departments of the Ministries. Changes have been made to the organization chart of the Ministry of Health, which is divided into three general departments: the General Department in charge of Preventive Diseases, the General Department in charge of Care Supplies and the General Department in charge of Resources. As part of programme integration, this structure is also applied at the operational level.
- Measles outbreak: The country experienced a measles outbreak that began at week 35 of 2018 in the Antananarivo-Renivohitra district. This epidemic has gradually affected all 114 districts. In total, since the beginning of the epidemic in week S24 of 2019, the number of reported cases was 147,608, including 20,914 complicated cases and 910 deaths. The outbreak of this epidemic reflects the low immunity of the population. As part of the response to this epidemic, the country carried out a three-phase measles vaccination campaign covering 114 districts in 22 regions. The country is in the process of declaring the end of the epidemic. This epidemic led the country to review the immunization system, which led to the development of the roadmap for the revitalization of routine immunization and surveillance of vaccine-preventable diseases.
- Security: Insecurity persists in some districts, particularly in rural areas, limiting the implementation of advanced strategies despite the efforts of the Ministry of Defence,

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, the preparation of investment applications, vaccine applications and introductions, as appropriate.

- Natural disaster: the 2018-2019 hurricane season did not have major devastating effects. Nevertheless, the passage of cyclones disrupted the implementation of vaccination activities at the beginning of the year due to the rise in water levels making some villages inaccessible.
- The lifting of the suspension of GAVI funding in July 2018 enabled the country to implement the priority activities planned in the HSS2 project and the CCOEP. Thus, the 54 districts were able to benefit from GAVI funding for the implementation of the advanced strategies.
- Madagascar was awarded the polio-free country label in June 2018. To this end, a transition plan is being developed.

It should be noted that potential risks could hinder the smooth running of vaccination activities, namely:

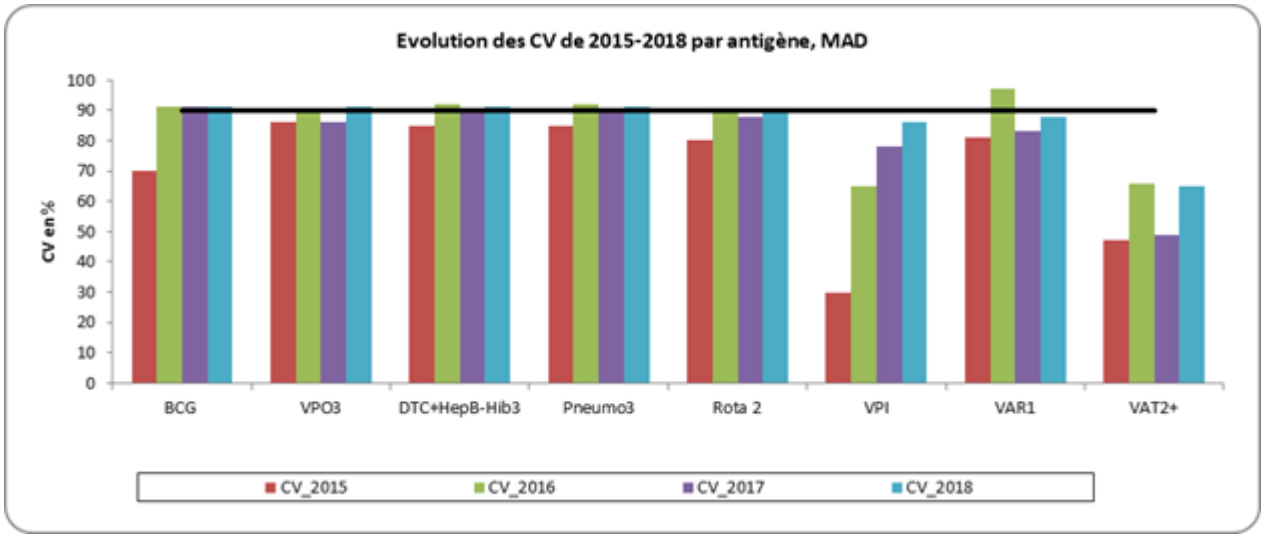
1. Persistence and spread of rural insecurity through the resurgence of large-scale banditry causing population displacements and the abandonment of health posts;
2. Difficulty for health workers to carry out advanced and mobile strategy activities; and reduced attendance at health facilities during the rainy seasons from November to April making it difficult to implement health activities;
3. Communal election that may divert the interest of community agents for personal purposes for financial reasons;
4. TNN outbreak linked to low VAT2 coverage among pregnant women.
5. The likely changes in government following the establishment of the new parliamentary majority in the National Assembly could have an impact on the implementation of activities.

4. PERFORMANCE OF THE VACCINATION PROGRAM

4.1. Immunization coverage and equity

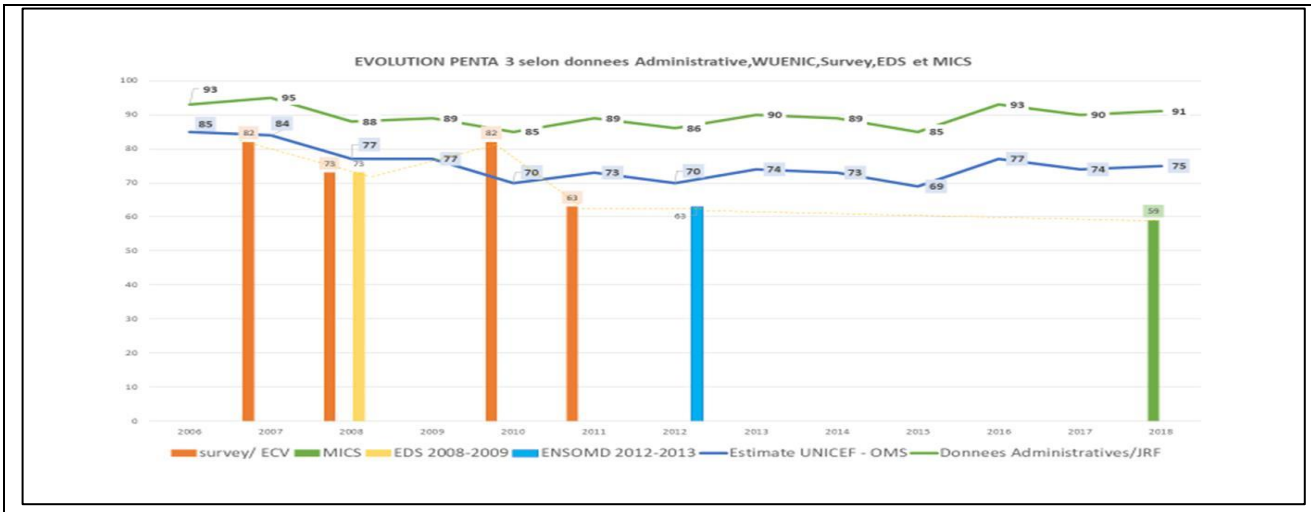
4.1.1 Routine vaccination performance

From 2015 to 2018, administrative vaccine coverage in Penta3 ranged from 85% to 91%. VARs ranged from 81% to 85%.
WHO/UNICEF 2018 estimates show low immunization coverage in contrast to administrative data. This observation reflects data quality problems, particularly at the operational level.
Administrative data are slightly higher in 2019 for Penta 3 (90% to 91%) and VAR1 (83% to 85%).



Source: Routine EPI/EDPI reports

Graph 1: Evolution of vaccination coverage of all antigens from 2015 to 2018.



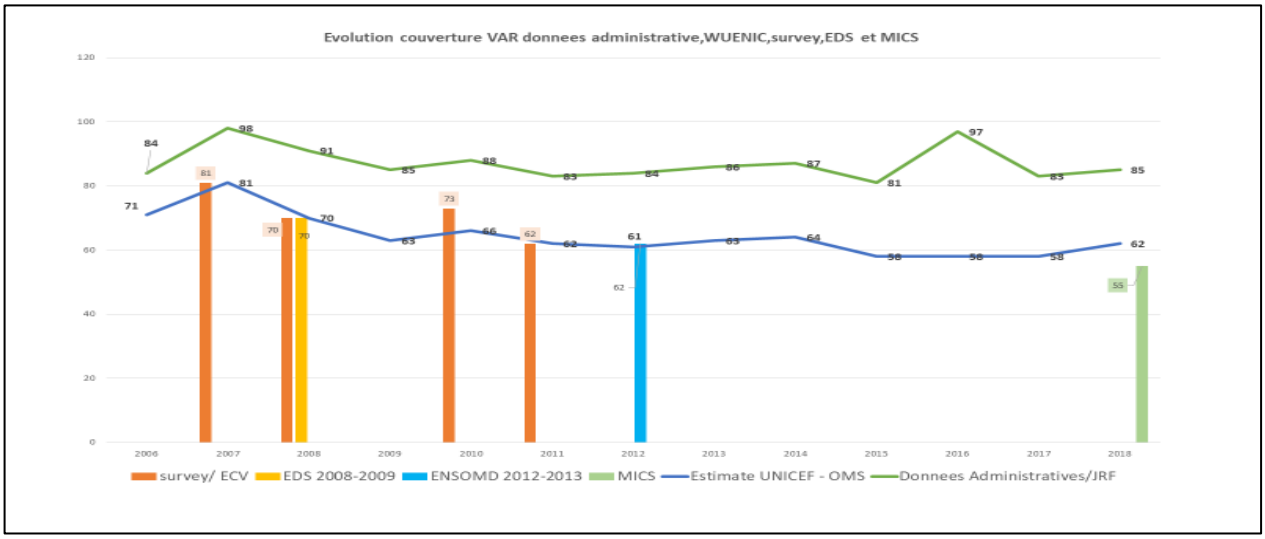
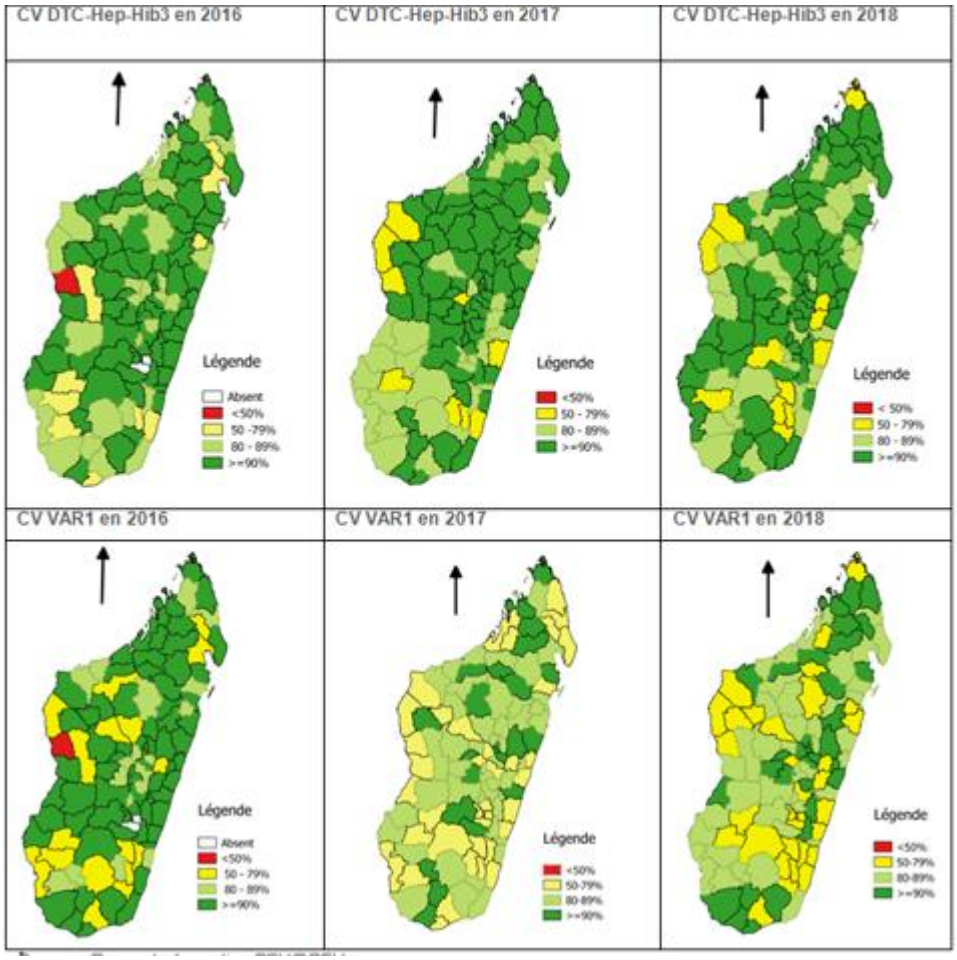


Figure 2: Lag between administrative data and WHO/UNICEF and MICS estimates.

Status of coverage in DTP+ HepB-Hib3 and VAR1 at district level



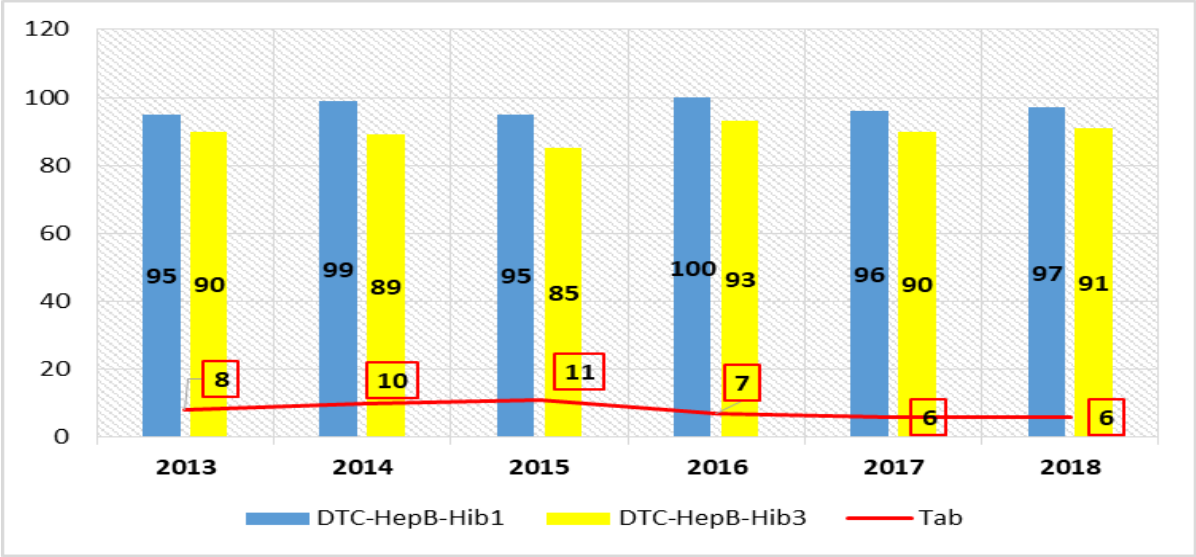
Source: EPI/DPEV routine reports

Graph 3: Situation of low-performing districts for Penta 3 and VAR from 2016 to 2018.

Administrative data increased slightly in 2018 for Penta 3 and VAR1, as confirmed by WUENIC 74% to 75% for Penta3 and 60% to 62% for VAR1.

This improvement is also observed for the first 5 months of 2019.

Demand improved in 2017 and 2018, however, there is a disparity in the attrition rate in the districts.



Source: JRF

Figure 4: Trend in immunization coverage in DTP-HepB-Hib1 and DTP-HepB-Hib3 and in drop-out rates from 2013 to 2018 at the national level.

Ranking of regions/districts where infants are not or insufficiently vaccinated with DTP-HepB-Hib 3

More than 75,000 children not vaccinated with DTP-HepB-Hib3 have been registered in fifteen (15) health districts according to the expected targets.

Table 1: 15 health districts with the highest number of infants not vaccinated with DTP-Hep-Hib3 in 2018.

Region	District	CV in Penta3	Number of children not vaccinated	% of unvaccinated people	Completeness rate of CSB reports
ANALAMANGA	ANTANANARIVO-RENIVOHITRA	78%	10 320	13,7%	100%
VATOVAVY FITOVINANY	MANANJARY	75%	3 502	4,7%	100%
SOUTH-EAST	VANGAINDRANO	80%	2 661	3,5%	100%
VATOVAVY FITOVINANY	MANAKARA-ATSIMO	82%	2 540	3,4%	100%
SOUTH-WEST	AMPANIHY	82%	2 235	3,0%	100%
VATOVAVY FITOVINANY	NOSY-VARIKA	83%	2 011	2,7%	92%
ATSINANANANA	MAROLAMBO	74%	1 846	2,5%	93%
MELAKY	MAINTIRANO	60%	1 831	2,4%	100%
ALAOTRA MANGORO	ANOSIBE AN-ALA	72%	1 829	2,4%	72%
ANALANJIROFO	MAROANTSETRA	83%	1 744	2,3%	93%
SOFIA	MANDRITSARA	87%	1 574	2,1%	90%
HIGH-MATSIATRA	Vohibato	81%	1 548	2,1%	96%
ATSINANANANA	Toamasina I	85%	1 499	2,0%	100%
BOENI	AMBATO-BOINA	81%	1 462	1,9%	100%
IHOROMBE	IHOSY	86%	1 462	1,9%	88%
Total of the 15 districts			**38 064**	**50,6%**	
TOTAL COUNTRIES			**75 187**		

Source: Administrative data/ MWED 2018

According to the table above, the 50.6% of unvaccinated children are found in 15 districts.

	ANALAMNG	ANALJRF	SUD-OUEST	SUD-EST	SAVA	VATVAV7V	SOFIA	MELK	MENB	ATSINN	ALATRMNG	IHORMB	HM	BETSK	BOENI	BONGLV	DIANA	ANOSY	AMM	ANDROY	VAKNANKRTR	ITASY
NonVac 2017	6 881	3 856	2 625	3 093	2 843	2 255	1 016	2 134	1 533	2 789	865	560	1 365	712	1 196	876	1 131	1 591	1 066	1 088	1 399	200
NonVac 2018	4 256	2 382	3 817	3 308	3 819	5 721	6 323	2 554	1 830	5 036	2 597	2 382	2 090	-10	2 020	896	1 576	1 141	424	2 577	2 861	1 334
NonVac 2019	6 729	4 306	4 110	3 762	3 735	3 211	3 014	2 461	2 369	2 192	2 081	1 869	1 716	1 388	1 212	903	876	859	841	379	301	150

Figure 5: Number of children not vaccinated with DTP-HepB-Hib3 by region in the same period from January to May 2017 to 2019.

There are disparities in the number of children not immunized in the different regions. During the same period, this number decreased by 7% at the national level from 58,935 in 2018 to 33,479 in 2019.

A survey on missed immunization opportunities will be conducted in 2 health regions in 2019 to estimate its prevalence and propose appropriate solutions to revitalize routine immunization.

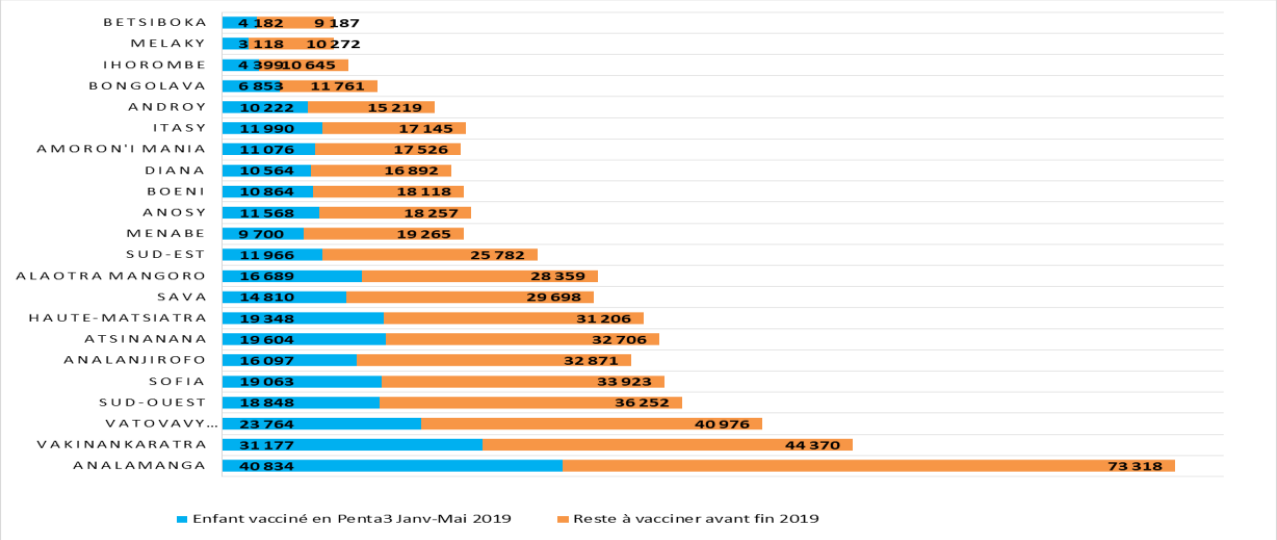


Figure 6: Number of children to be vaccinated with DTP-HepB-hib3 by region before the end of 2019**.**

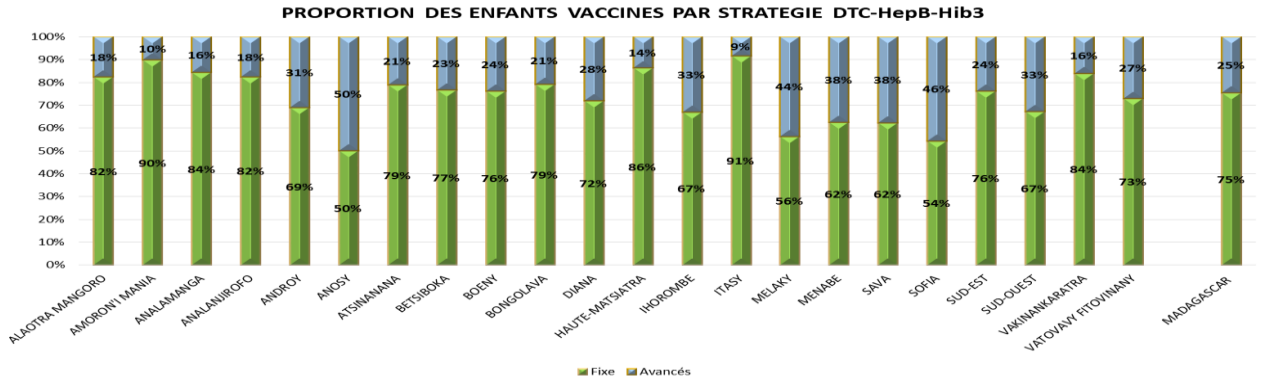


Figure 7: Proportion of children vaccinated in Penta 3 at the regional level according to strategies.

Equity :

Vaccination in Madagascar is free of charge. In addition, from 2015 to 2018 there was a slight increase in the number of health centres offering vaccination activities.

According to the Multiple Indicator Cluster Survey (MICS) in 2018, the proportion of 12-23 month-old children who received all antigens varies by residence (39% in rural areas compared to 52% in urban areas). The level of child immunization coverage increases with the socio-economic status of households, from 26% among children whose households are classified in the "very poor" quintile to 59% among those whose households are very rich. It can be seen that vaccination coverage also increases with the mother's level of education: 24% of children whose mothers have no level of education are fully vaccinated against 57% of those whose mothers have a secondary level or higher.

Efforts are needed to reach these target children. The implementation of the ACE approach, particularly in urban areas, isolated areas and insecure areas, would be innovative actions and good practices to achieve this.

Difference and/or inequality ratio

Figure 8: Percentage of children aged 12-23 months currently vaccinated with basic vaccines by selected socio-demographic characteristics (* Basic vaccines: BCG, Polio3, DTP3, measles).

Source: MICS results

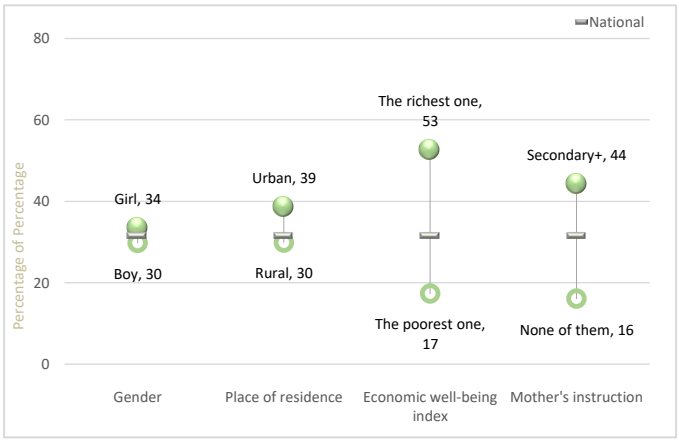


Figure 9: Percentage of children aged 12-23 months currently fully immunized according to selected socio-demographic characteristics.

Source: MICS results

Geographic equity

Table 2: Categorization of districts by DTC-HepB-Hib3 and VAR coverage in 2018.

DTC-HepB-Hib3	Couverture <50 %	Couverture 50–79 %	Couverture 80–89 %	Couverture 90-94%	Couverture ≥ 95%	Nombre de districts qui ne notifient pas
Nb de districts dans chaque catégorie	0	13	33	24	44	0
Nb de nourrissons ayant survécu dans ces districts	0	102 621	238 568	180 910	354 711	0
Nb de districts ayant rapporté un taux d'abandon du DTC supérieur à 10 %	0	5	15	1	5	0
Rougeole	**<50%**	**50–79%**	**80–89%**	**90-94%**	**≥ 95%**	
Nb de districts avec la rougeole (MCV1) dans chaque catégorie	0	34	43	21	16	0
Nb de nourrissons ayant survécu dans ces districts	0	256 940	328 410	170 474	120 986	0

The GVAP target is far from being met because only 68 out of 114 Districts have a DTP-HepB-Hib3 coverage rate above 80% and 88 districts have a drop-out rate < 10%. A total of 102,621 children (12%) live in districts with a coverage rate of less than 80% in DTP-HepB-Hib3.

Although the country achieved 85% VAR immunization coverage and 70% of districts achieved coverage above 80%, all (100%) of the districts were in a measles epidemic situation. There are 256,940 children (29%) living in districts with a coverage rate of less than 80% in VAR.

4.1.2 Surveillance of vaccine-preventable diseases

- **AFP Monitoring**

The 2014-2016 cVDPV epidemic was interrupted thanks to the country's response activities: vaccination response (14 SIAs), strengthening routine vaccination, strengthening surveillance.

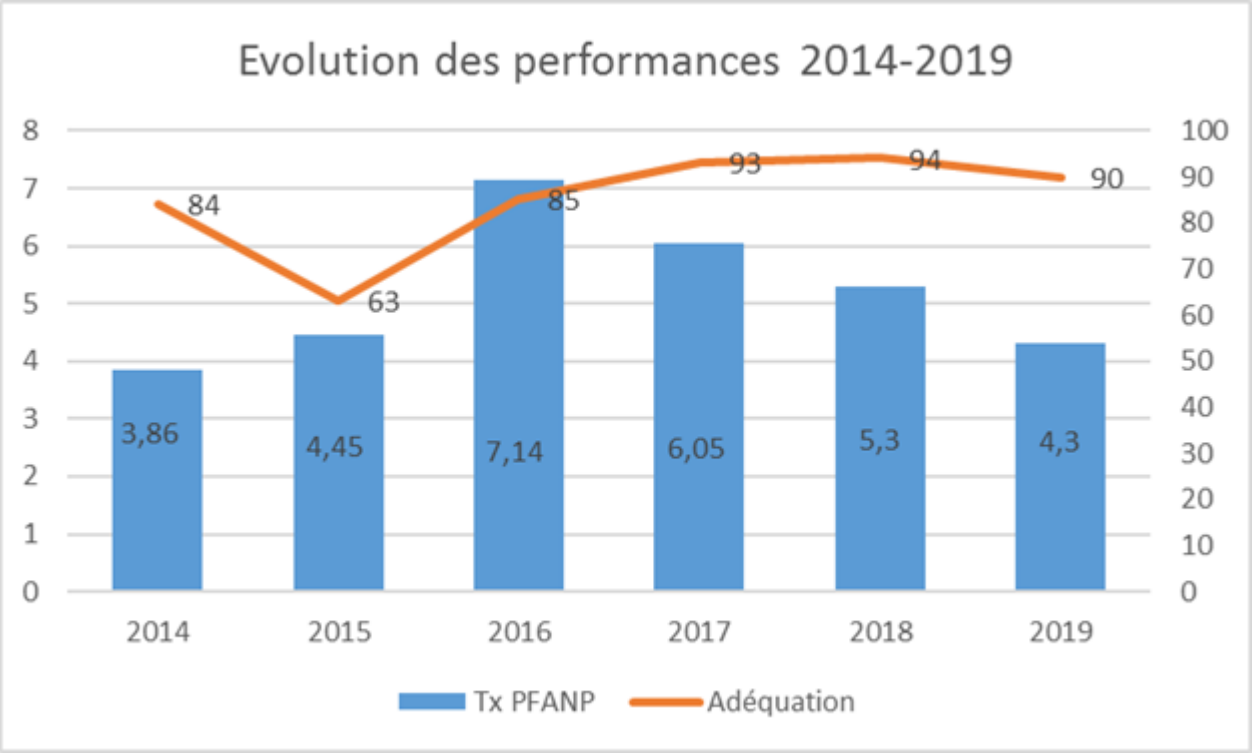
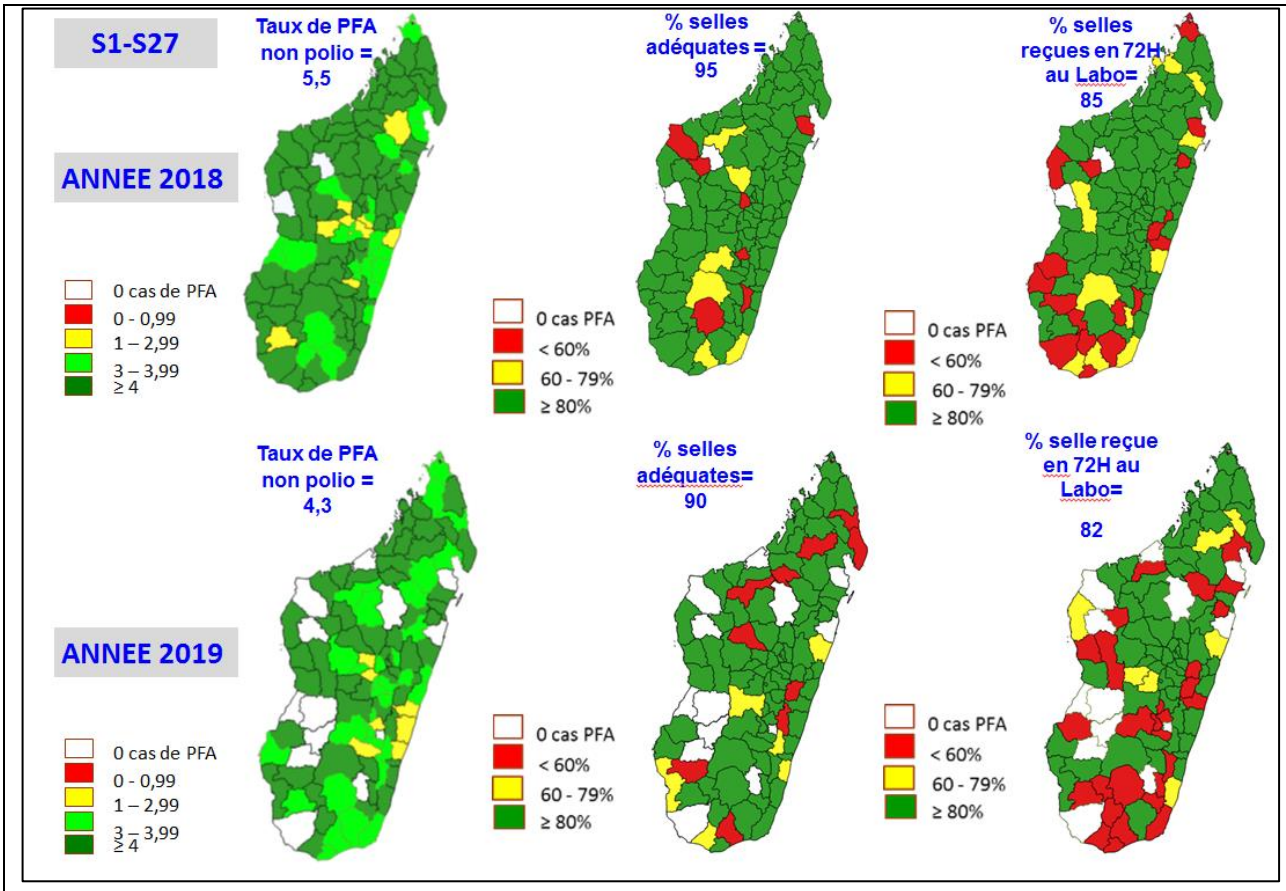
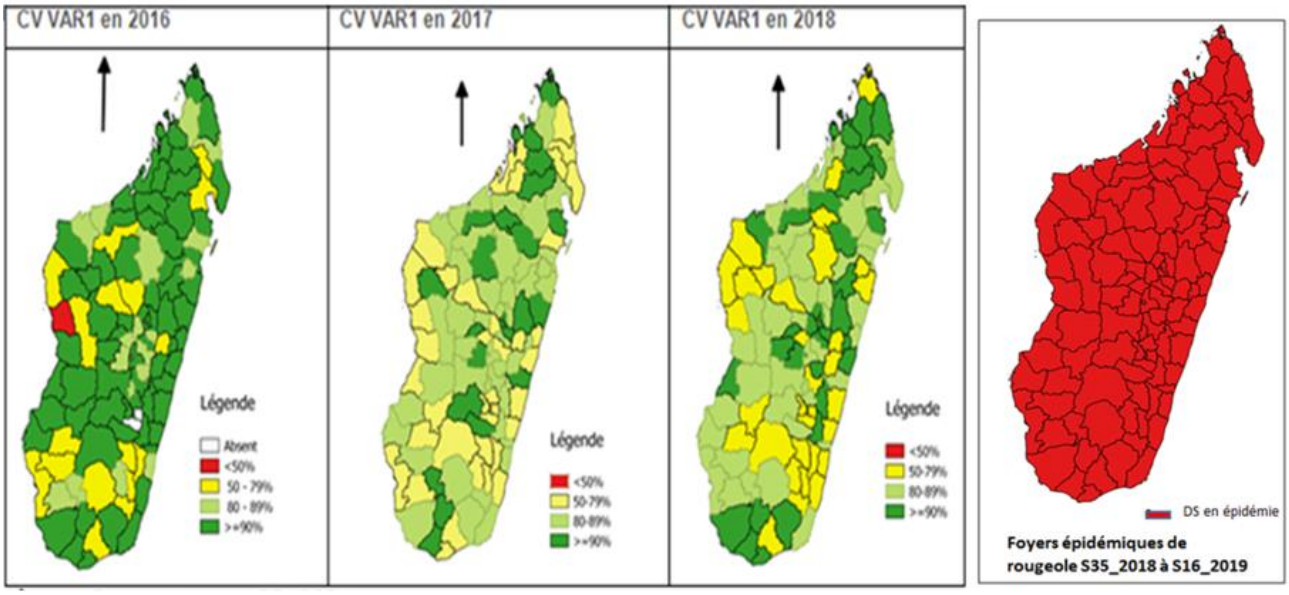


Figure 10: Evolution of AFP surveillance performance indicators from 2014 to 2019.



Graph 11: Performance of the two PFA indicators at week 27 in 2018 and 2019.

- **Measles and rubella surveillance**



Source: EPI/DPEV routine report

Figure 12: Measles surveillance performance status from 2016 to 2018 and measles epidemiological profile from S35_2018 to S16_2019.

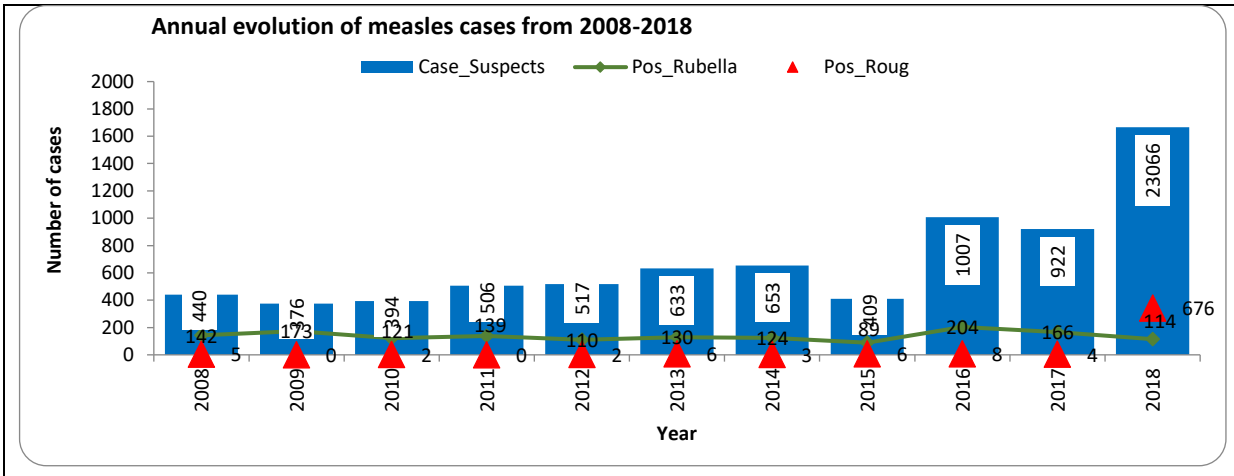


Figure 13: Annual distribution of measles and rubella IgM+ cases over the last 11 years (2008-2018).

In terms of SRM monitoring, the main shortcomings observed are:

- Low completion rate for visits to high, medium and low priority sites;
- Low stool adequacy rate in 17 of the 114 districts with a rate of less than 80%;
- Timeliness of delivery of stool samples from some districts greater than the required 72 hours;
- Absence of non-polio enterovirus in samples from many regions.

Measles outbreaks:

Madagascar has had a measles outbreak since week 35 of 2018. This epidemic, which began in Antananarivo, the capital, in the Analamanga region, then spread to all 22 regions of the country and now affects all 114 health districts. According to time:

The index case of this epidemic dates back to August 28, 2018 (S35, 2018). As of 7 July 2019, a total of 153,972 cases had been reported, including 1459 confirmed IgM+ cases by the Institut Pasteur de Madagascar; 910 deaths with linear list (719 deaths at FS level and 191 community deaths verified by community agents), 340 unqualified community deaths without linear list. Lethality is 0.6%.

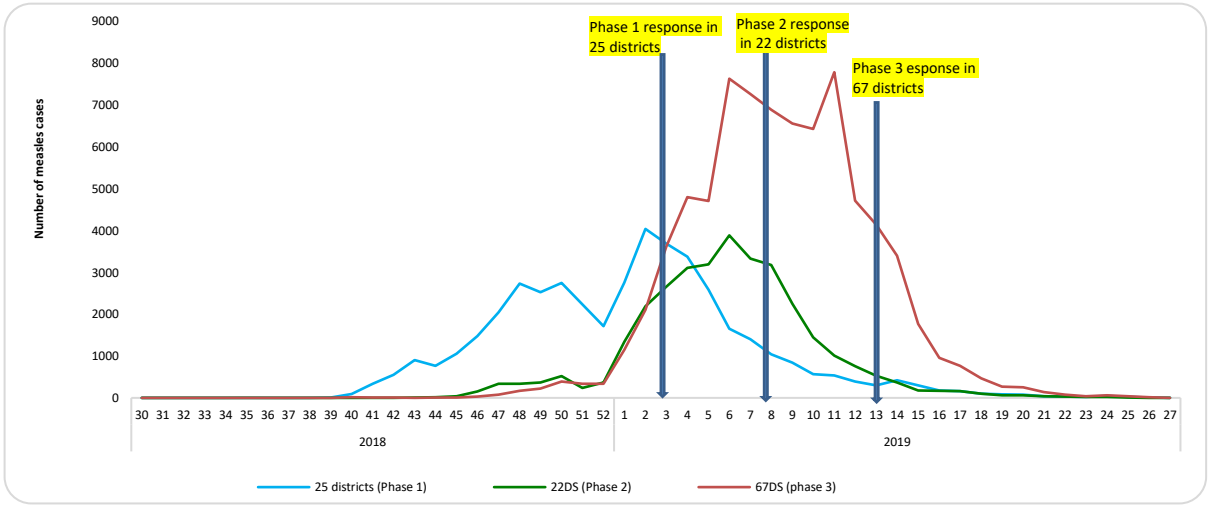


Figure 14: Comparative weekly evolution of measles attack rates in districts by vaccination response phase, Madagascar, S35 2018 to S27 2019.

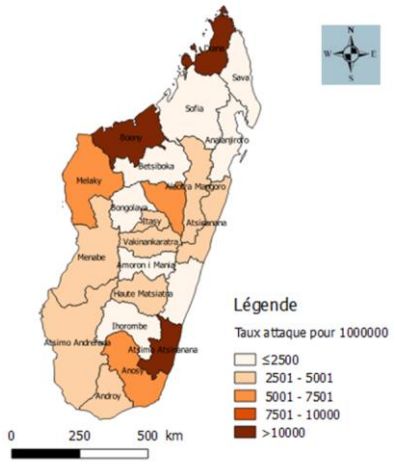
In total, all 114 districts were affected and distributed in all 22 regions of the country.

Table 3: Measles status by health region at week 27 of 2019.

Measles situation by health region in S27_2019

Régions	Nombre total de DS	Nombre de DS touchés	% District touché	Pop Total	IgM positif	Lien épid.	Total cas	Décès	Taux_Att/ 1000000	Létalité %
ALAOTRA MANGORO	5	5	100	1317238	72	5571	5643	27	4284	0,48
AMORON'I MANIA	4	4	100	836327	40	2384	2424	0	2898	0,00
ANALAMANGA	8	8	100	3337877	140	19058	19198	260	5752	1,35
ANALANJIROFO	6	6	100	1431851	60	2411	2471	3	1726	0,12
ANDROY	4	4	100	743921	41	2736	2777	2	3733	0,07
ANOSY	3	3	100	872097	41	6409	6450	12	7396	0,19
ATSINANANA	7	7	100	1529559	79	10011	10090	17	6597	0,17
BETSIBOKA	3	3	100	390916	14	241	255	6	652	2,35
BOENY	6	6	100	847450	68	18356	18424	206	21741	1,12
BONGOLAVA	2	2	100	544294	20	1176	1196	2	2197	0,17
DIANA	5	5	100	802841	96	15658	15754	81	19623	0,51
HAUTE MATSIATRA	7	7	100	1478214	100	4737	4837	2	3272	0,04
IHOROMBE	3	3	100	439893	43	1287	1330	7	3023	0,53
ITASY	3	3	100	851924	21	3412	3433	6	4030	0,17
MELAKY	5	5	100	391525	88	3346	3434	11	8771	0,32
MENABE	5	5	100	846939	26	2805	2831	22	3343	0,78
SAVA	4	4	100	1301452	25	6646	6671	67	5126	1,00
SOFIA	7	7	100	1549335	53	3614	3667	22	2367	0,60
SUD-EST	5	5	100	1103764	117	16363	16480	72	14931	0,44
SUD-OUEST	9	9	100	1611163	98	10267	10365	72	6433	0,69
VAKINANKARATRA	7	7	100	2209023	119	10780	10899	10	4934	0,09
VATOVAVY FITOVINANY	6	6	100	1893034	98	5245	5343	2	2822	0,04
Madagascar	114	114	100	26330637	1459	152513	153972	910	5848	0,59

Attack rates by region



The overall attack rate was 5848 per 1,000,000 inhabitants. The most affected regions were Analamanga, Boeny, Southeast and Diana.

Table 4: Vaccination status of measles cases registered up to week 27 of 2019.

Tranche Age	Vacciné		Non vacciné		Inconnu		Total
	n	%	n	%	n	%	
<6 mois	259	15	1220	70	261	15	**1 740**
6-9 mois	2906	27	6111	56	1872	17	**10 889**
10-11 mois	996	31	1776	55	432	13	**3 204**
12-23 mois	4067	35	5362	46	2224	19	**11 653**
2-5 ans	11041	34	15386	47	6177	19	**32 604**
6-14 ans	19444	33	25398	43	14415	24	**59 257**
15-24 ans	7681	33	8386	36	7447	32	**23 514**
>24 ans	2901	27	3911	36	3996	37	**10 808**
nr	115	38	148	49	40	13	**303**
Total	**49 410**	**32**	**67 698**	**44**	**36 864**	**24**	**153 972**

Children under 15 years of age are the most affected by the measles epidemic, which accounts for 78% of cases. It should be noted that 44% of cases are unvaccinated.

The response to this epidemic has used the following strategies:

1. Vaccination campaign against the measles epidemic (3 phases);
2. Effective case management;
3. Strengthening the surveillance of vaccine-preventable diseases, particularly measles: active case finding in the community and in health facilities;
4. Strengthening social mobilization/public awareness;
5. Strengthening routine immunization;
6. Coordination of the response.

- **TNN Surveillance**

Table 4: Distribution of NTD cases by region in 2018.

REGIONS	DISTRICTS	Naissance Vivantes	Incidence pour 1000 NV	Investigués (DPEV)	Avec Riposte		VAT à jour		Accouchement assisté		Cordon coupe avec instrument		Enfant décédé/Létalité	
				cas TNN/DS	Nbre	%	Nbre	%	Nbre	%	Nbre	%	Nbre	%
BOENY	AMBATO-BOINA	8 215	0,122	1	1	100	0	0	0	0	0	0	1	100
ALAOTRA MANGORO	AMBATONDRAZAKA	13 125	0,076	1	1	100	0	0	0	0	0	0	0	0
	MORAMANGA	11 557	0,087	1	1	100	0	0	0	0	0	0	0	0
ANALAMANGA	ANTANANARIVO - RENI	49 729	0,020	1	1	100	1	100	0	0	0	0	1	100
	TANA NORD	325467	0,003	1	1	100	0	0	0	0	0	0	0	0
ITASY	ARIVONIMAMO	12 348	0,081	1	1	100	0	0	1	100	1	100	0	0
HAUTE MATSIATRA	FIANARANTSOA I	7 677	0,130	1	1	100	0	0	1	100	1	100	0	0
	LALANGINA	6 306	0,159	1	1	100	1	100	1	100	1	100	0	0
SOFIA	MANDRITSARA	12 422	0,081	1	1	100	0	0	0	0	0	0	1	100
MENABE	MORONDAVA	6 820	0,147	1	1	100	0	0	0	0	0	0	1	100
ANALANJIROFO	SOANIERANA IVONGO	5 932	0,169	1	1	100	1	100	1	100	0	0	0	0
	FENERIVE EST	15 290	0,065	1	1	100	0	0	0	0	0	0	0	0
	FENERIVE EST		0,065	1	1	100	0	0	1	100	1	100	1	100
ANOSY	AMBOASARY	10 617	0,094	1	1	100	0	0	1	100	1	100	0	0
	TAOLAGNARO	12 697	0,158	2	2	100	0	0	1	50	1	50	2	100
ATSINANANA	MAHANORO	9 804	0,102	1	1	100	0	0	0	0	0	0	1	100
	TOAMASINA I	10 654	0,188	2	2	100	2	100	0	0	0	0	1	50
	TOAMASINA II	9 465	0,211	2	2	100	1	50	0	0	0	0	1	50
DIANA	ANTSIRANA 1	127965	0,008	1	1	100	0	0	1	100	1	100	0	0
	AMBANJA	7681	0,260	2	2	100	0	0	0	0	0	0	2	100
SUD EST	Vondrozo	5242	0,191	1	1	100	0	0	0	0	0	0	1	100
SUD OUEST	Sakaraha	4691	0,213	1	1	100	0	0	0	0	0	0	1	100
	Toliara II	10661	0,281	3	3,0	100	1	33	0	0	0	0	1	33
SAVA	Antalaha	11693	0,180	1	1	100	0	0	0	0	0	0	1	100
TOTAL		696 058	0,03	30	30	100	7	23	8	27	7	23	16	53,333

In 2018, 24 districts in 14 regions reported cases of NTDs. The case-fatality rate was 53.3. All notified cases were responded to.

Table 5: Distribution of NTD cases by region in 2019.

REGIONS	DISTRICTS	Naissance vivante (NV)	Incidence pour 1000 NV	cas TNN/DS investi	Avec Riposte		VAT à jour		Accouchement assisté		Cordon coupe avec		Enfant décédé/Létalité	
					Nbre	%	Nbre	%	Nbre	%	Nbre	%	Nbre	%
ANALAMANGA	ANTANANARIVO-	49729	0,12	6	3	50	0	0	0	0	0	0	2	33
ANALANJIROF	SOANIRA IVONGO	5 932	0,17	1	1	100	2	200	0	0	0	0	0	0
ANDROY	TSIHOMBE	4443	0,23	1	1	100	0	0	0	0	0	0	1	100
	AMBOVOMBE	11036	0,09	1	1	100	0	0	0	0	0	0	0	0
BOENY	AMBATO-BOINA	8215	0,24	2	2	100	0	0	0	0	0	0	1	50
DIANA	ANTSIRANANA 1	4517	0,44	2	1	50	2	100	0	0	0	0	1	50
	ANTSIRANANA 2	4597	0,22	1	0	0	1	100	1	100	1	100	0	0
	AMBILOBE	8954	0,11	1	0	0	0	0	0	0	0	0	0	0
HAUTE-	AMBOHIMAHASOA	9704	0,1	1	0	0	0	0	0	0	0	0	1	100
MELAKY	MAINTIRANO	4896	0,2	1	0	0	0	0	1	100	0	0	1	100
SAVA	ANTALAHA	11693	0,09	1	1	100	0	0	0	0	0	0	0	0
SUD-OUEST	TOLIARY 1	6315	0,32	2	2	100	0	0	0	0	0	0	1	50
TOTAL		130 030	0,15	20	12	60	5	25	2	10	0	0	8	40

Since the beginning of the year, twenty cases of NTD have been reported in 11/22 Regions. All were investigated and only 42% were retaliated. The incidence rate is 0.15/1000 live births, with a lethality of 42.11%.

- **Surveillance of Rotavirus diarrhoea**

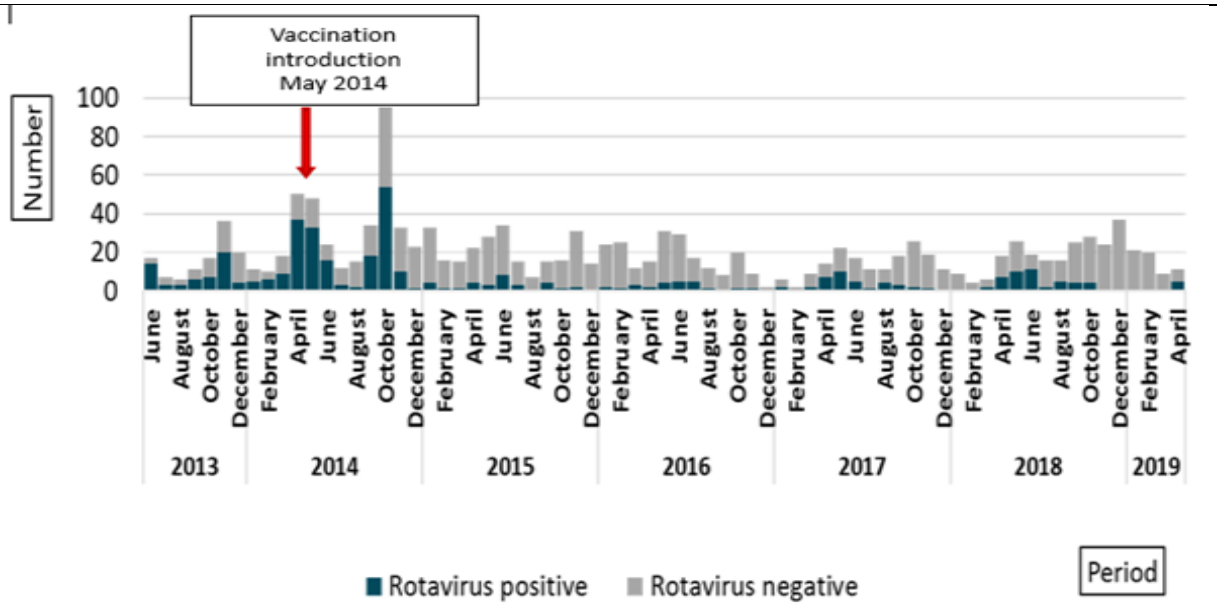
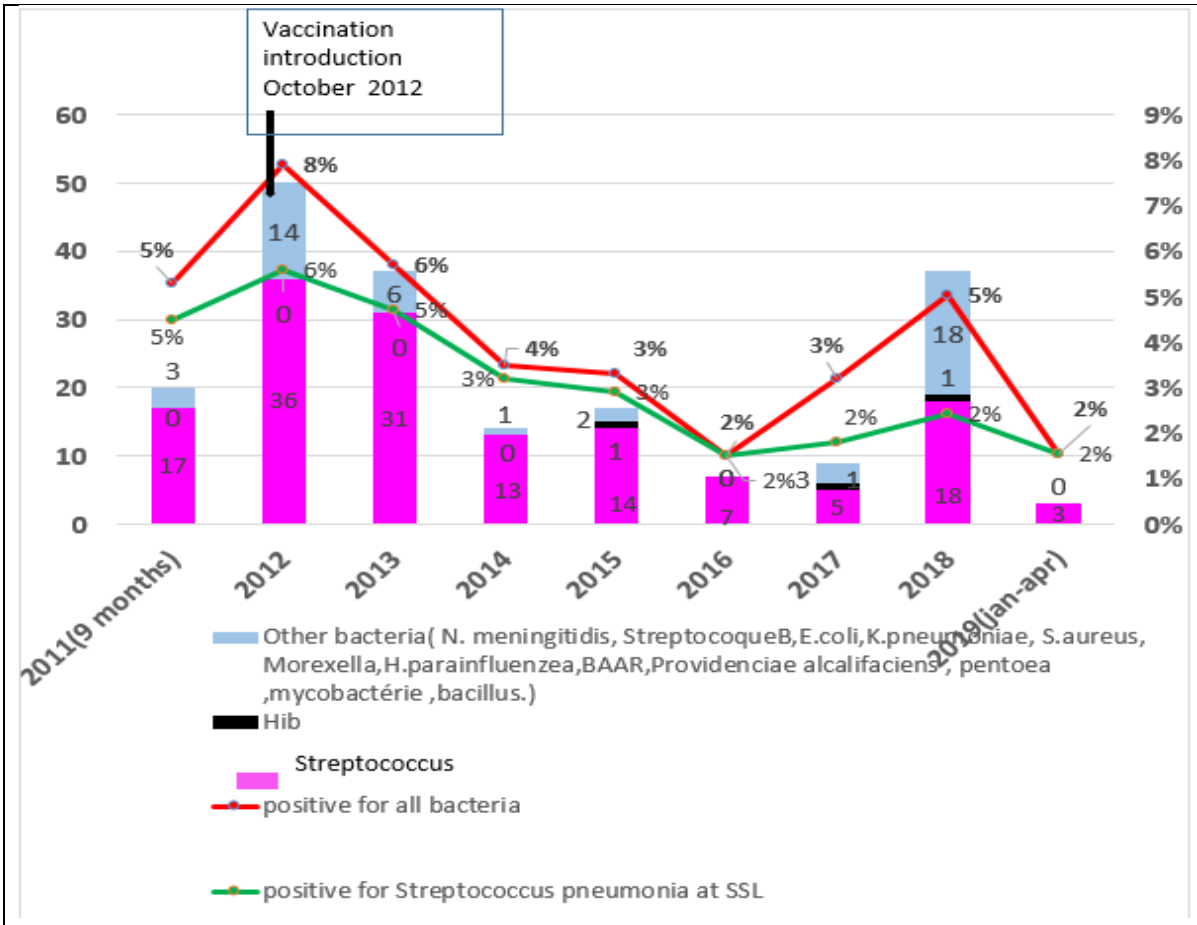


Figure 15: Evolution of rotavirus diarrhoea from 2013-2019 at the CHU-MET Hospital (Tsaralalana mother and child university hospital)

In general, the number of Rotavirus positive cases during the post-vaccination period decreased: 49% and 47% in 2013 and 2014 and 17.6% between 2015 and 2019.

It has been found that the seasons for Rotavirus diarrhoea are between April and June and around October and November for each year.

- **Surveillance of Streptococcus pneumonia diseases and other bacteria detected**



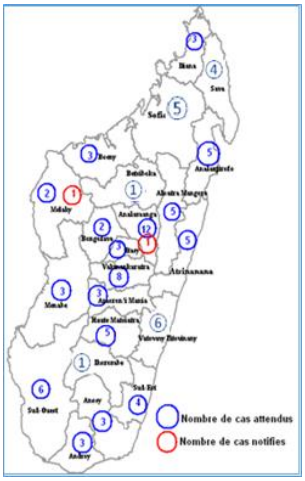
Graph 16: Evolution of Streptococcus pneumonia diseases and other bacteria detected from 2011-2019 at the CHU-MET Hospital (Tsaralalana mother and child university hospital).

There was a decrease in the number of cases from 75% to 67% respectively from 2018 to 2019.

- **MAPI Monitoring**

Cartographie des cas de MAPI attendus par rapport aux cas notifiés de Janvier à Mars 2019

In 2019, 90 cases of MAPI are expected in Madagascar on the basis of 10 cases per 100,000 children under one year of age.



In the first quarter of 2019, 2 cases of MAPI were reported by the districts of Antananarivo-Atsimondrano and Maintirano and then the cases were processed by the National Technical Committee of MAPI (COTECH).

The overall notification rate in the first quarter of 0.22 cases per 100,000 survivors aged 0-11 months is low, which is a major challenge for the country. Therefore, capacity building of health workers on MAPI and active case surveillance is required. The dissemination of the national manual of guidelines on MAPI surveillance, the posting of MAPI case lists and collaboration with community agents should help to strengthen surveillance.

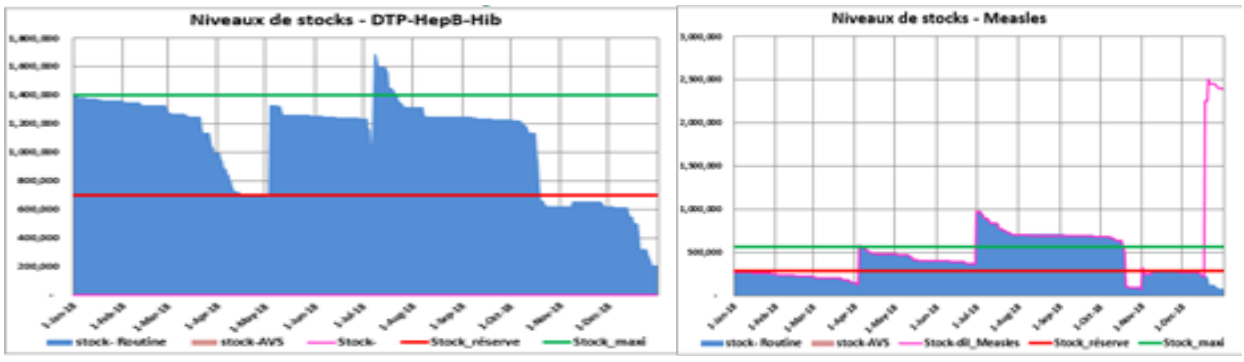
The measles response campaign has strengthened surveillance of MAPI cases. A total of 310 cases were reported and investigated by the districts during the campaign, including 303 minor and 7 serious MAPI cases.

Introduction of new vaccines:

A plan for the introduction of the second dose of measles vaccine is developed. The plan includes the introduction of the second dose of measles vaccine in January 2020. The VAR type used will be the same as the one used for the first dose: the lyophilized vaccine, in a 10-dose vial. This vaccine will target children from 15-18 months of age and throughout the second year and throughout Madagascar. Delivery will be based on the usual routine immunization strategies such as: fixed, advanced and mobile strategies. The planning and implementation of the introduction is carried out by the Directorate of the Expanded Programme on Immunization. Performance monitoring will be carried out by the Inter-Agency Coordination Committee (ICC) at central level, by the Regional Management Team (EMAR) at regional level and by the District Management Team (EMAD) at operational level. The main activities related to the introduction are capacity building of health personnel, social mobilization to reach hard-to-reach populations, improvement of logistics management in this case the cold chain, monitoring and evaluation.

- **Availability of vaccines:**

Figure 17: National stock levels of DTP-HepB-Hib and VAR antigen at national level in 2018.



During 2018, the country did not experience a break in DTP-HepB-Hib at the national level. Nevertheless, the stock level was below the reserve stock from November onwards. On the other hand, the country experienced a shortage of VAR stock during the months of March, April and November. These various disruptions are due to delays in the supply of the international supply system for the months of March and April, for the month of November. The use of routine stocks for the response to the measles epidemic has created a temporary disruption in the national depot for VAR.

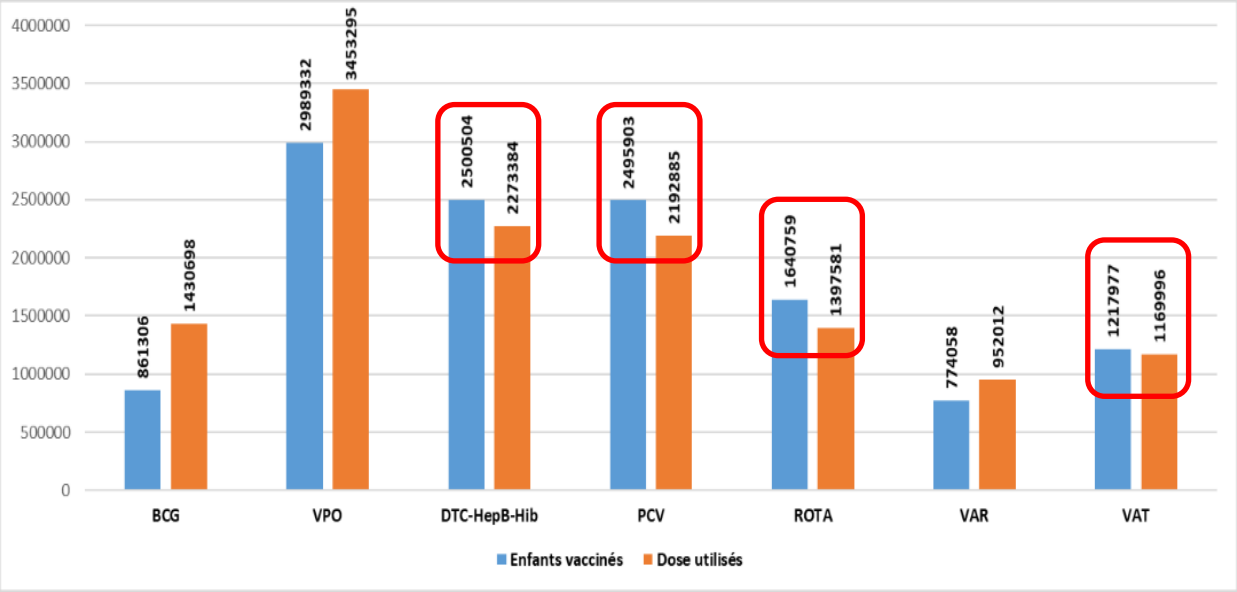


Figure 18: Comparison between vaccine doses used and doses administered in 2018.

For DTP-HepB-Hib, PCV10 and Rota, the number of doses administered is higher than the number of doses used. This indicates a vaccine management problem.

- **The data**

Reliability of the data:

There is a significant gap between administrative data and WHO/UNICEF estimates. The reliability of the data is also threatened by the unavailability of management tools at the CSB level, insufficient staff, insufficient staff training and a target population based on a 2003 census.
Thus, different sources are used for live birth and pregnant women leading to inconsistent data. This problem of target population is exacerbated by the failure of community agents to carry out the enumeration at the level of health facilities.

Data quality :

- Completeness and timeliness of reports

Reporting of districts at the national level:

- ✓ The completeness rate of district reports achieved at the national level is 100%,
- ✓ The national rate of promptness of district reports is 88%, of which 16 districts have not reached the threshold (80%).

Reporting of health centres at district level:

- ✓ The national rate of completeness of CSB reports reached district level is 97.8%, of which six districts, or 5.3%, did not reach the threshold,
- ✓ the national rate of promptness of CSB reports is 85.8%. 32 districts have not reached the 80% threshold.

- Internal consistency

- ✓ Outliers

For OPV3 and DTC-HepB-Hib3 no districts have outliers. However, 02 districts have outliers (Antsiranana I and Morondava) for the VAR with a score of 0.1%.

The inconsistencies observed are: the negative drop-out rate, coverage of more than 100%, different coverage for antigens administered at the same time, a number of children vaccinated greater than the number of doses available.

The main efforts/innovations/good practices focused on :

- Development of a data quality improvement plan 2019-2022 ;
- Training of EPI managers on LOGIVAC and supply chain optimization;
- Formative supervision of actors (DS and DRS) on vaccination and SEM surveillance;
- Monthly harmonisation of data at central level.

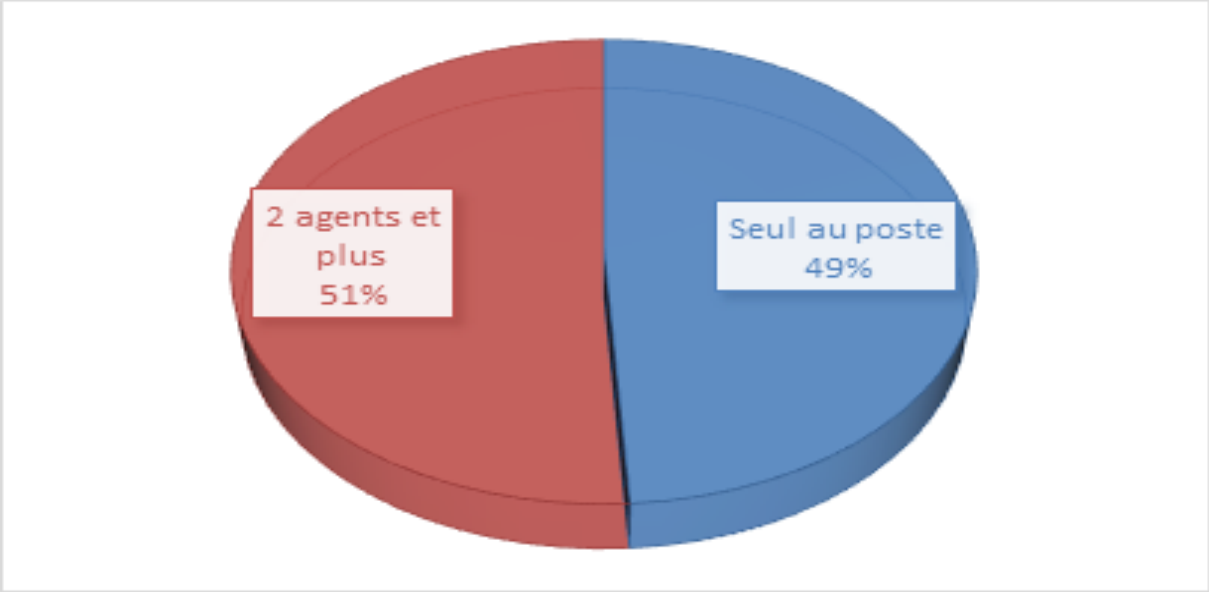
4.2. Main factors for sustainable coverage and equity

- **Health personnel at the level of the Basic Health Centres:**

Source: *monograph of the Ministry of Public Health.*

Figure 19: Distribution of health professionals by number in position in 2018.

Almost half of the country's CSBs are run by a single health worker. This affects the quality of services, including vaccination sessions. The lack of staff is felt most acutely at the paramedical level (1 nurse per



8,400 inhabitants and 1 midwife per 15,000 inhabitants) but this observation is also true at the level of specialist doctors. A poor distribution of staff is also observed in favour of urban areas to the detriment of rural areas. In addition, staff are insufficiently trained in EPI management.

- **Supply chain:**

Vaccines and consumables are supplied through UNICEF channels. To do this, the forecast basis was met last year, allowing us to have the country's annual needs.

A distribution plan is developed at the central level to make inputs available at the district level. In general, a distribution is scheduled quarterly for each district. For the year 2019, the 114 districts will be supplied twice by the MWED.

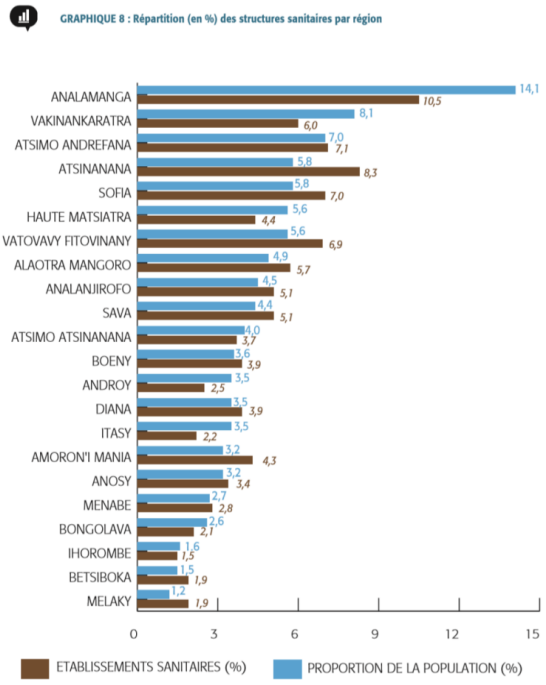
The GEV self-assessment conducted in December 2018 revealed deficiencies in the vaccine supply chain in Madagascar. To correct its deficiencies, 50 activities were planned. Of these activities, 19 have been fully implemented, 14 are in progress and 17 have not been implemented.

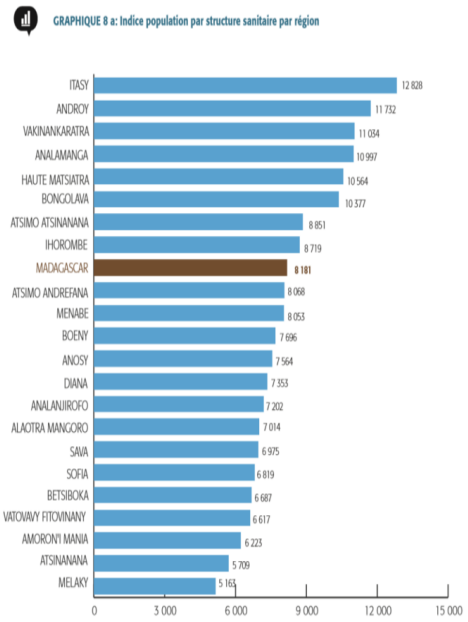
The main activities carried out are: training of national and regional actors in EPI logistics (Logivac), acquisition of fire extinguishers and repair kits for technicians. For the relocation of the MWED, the process is very advanced (identified and delimited site, estimated project budget, etc.)
The workshop for the study of the DESIGN SYSTEM for the most efficient and effective supply chain is carried out. The quantitative and qualitative report of the evaluation and study with recommendations, budget and resources is expected by the end of 2019.
The activities not carried out in the GEV are essentially the drafting of Standard Operating Procedures, the training of district actors and CSBs on vaccine logistics management. The filling of the GTS and input management at the national level has improved thanks to the involvement of the management team. The inventories are regular and do not suffer from any insufficiency.
For cold chain equipment, the park is improved by receiving 404 solar refrigerators under the CCEOP. Regional depots are not functional. Despite this reception, the problem of cold chain failure still exists in the CSBs due to the obsolescence of the large number of petroleum refrigerators. The absence of temperature monitoring devices at all levels does not ensure the proper storage of vaccines. In addition, there is a lack of rolling logistics to implement the advanced strategy.

- **Service delivery and demand generation:**

According to the results of the RGPH-3, there is a disproportion between the proportion of health facilities and the proportion of the population. The Analamanga, Vakinankaratra, Haute-Matsiatra, Atsimo-Atsinanana, Bongolava, Androy and Itasy regions have a low proportion of health facilities compared to their population. These regions also have a population index per health facility above the national average of 8181 inhabitants.
Some shortcomings are noted:

- Insufficient awareness of the health system and especially vaccination, with little knowledge of the diseases covered by vaccination
- Insufficient advanced strategy immunization activities
- Persistence of unvaccinated children due to low coverage in specific areas (urban areas, hard-to-reach areas and insecure areas, etc.)
- Inadequate organization and tracking of children absent during vaccination sessions,





Sources: Provisional results RGPH3, INSTAT-CCER, 2018

Figure 20: Proportion of health facilities in relation to population/ Population index by health facility by region.

Concerning, the proportion of children vaccinated by vaccination strategy, the proportion of children vaccinated with DTP-HepB-Hib3 by the advanced/mobile strategy varies from 9% to 50%, respectively in the tasy and Anosy regions. At the national level, 25% of vaccinated children are reached by the advanced/mobile strategy and 75% by the fixed strategy.

- **Data/information system:**

In the Strategic Plan for the Strengthening of the Health Information System (PSRSIS) 2018-2022, Madagascar's Ministry of Health (MSANP) has planned to set up a computerized, efficient, integrated and centralized National Health Information System (SNIS). The establishment of a data warehouse via DHIS-2 is therefore the priority activity of the health information system reform. At the national level, each central directorate will have an authentication account to access dashboards during production.
At the MWED level, a program has been developed to export DVD-MT data to the RIM3 under the ACCESS database in order to reduce transcription errors. The SMT tool is used for vaccine management at the central level but needs to be extended to regional and district levels.
There is an updated SIS Strategic Plan in December 2017, and standard operating procedures for managing SIS data, but it does not include the specificities related to vaccination data. There is one SIS Committee and four Subcommittees composed of all Partners, including one on data improvement. However, there is a weak functionality of the Sub-Committee in 2018, as the official text establishing the Sub-Committee has not yet been signed.

Data Improvement Plan :

Two workshops were organised as part of the preparation of the EPI data improvement plan. The first to carry out an in-depth review of the quality of immunization data with a first draft of the ADP and the second for the validation of the ADP. Both workshops saw the active participation of the relevant departments: MWED, DEPSI, DVSSER and DSSB, DGMP, SG etc. as well as technical and financial partners WHO, UNICEF, USAID, etc. and also, were supported by WHO AFRO and GAVI.

Denominator :

Since 2017, more precisely in August, a health sectorization has been carried out and each district has sent the target population reflecting the reality on the ground. The population used for the years 2018 and 2019 is an estimate based on the 2017 sectorization projection. It should be noted that the preliminary result of the general population and housing census (RGPH-3) is available.

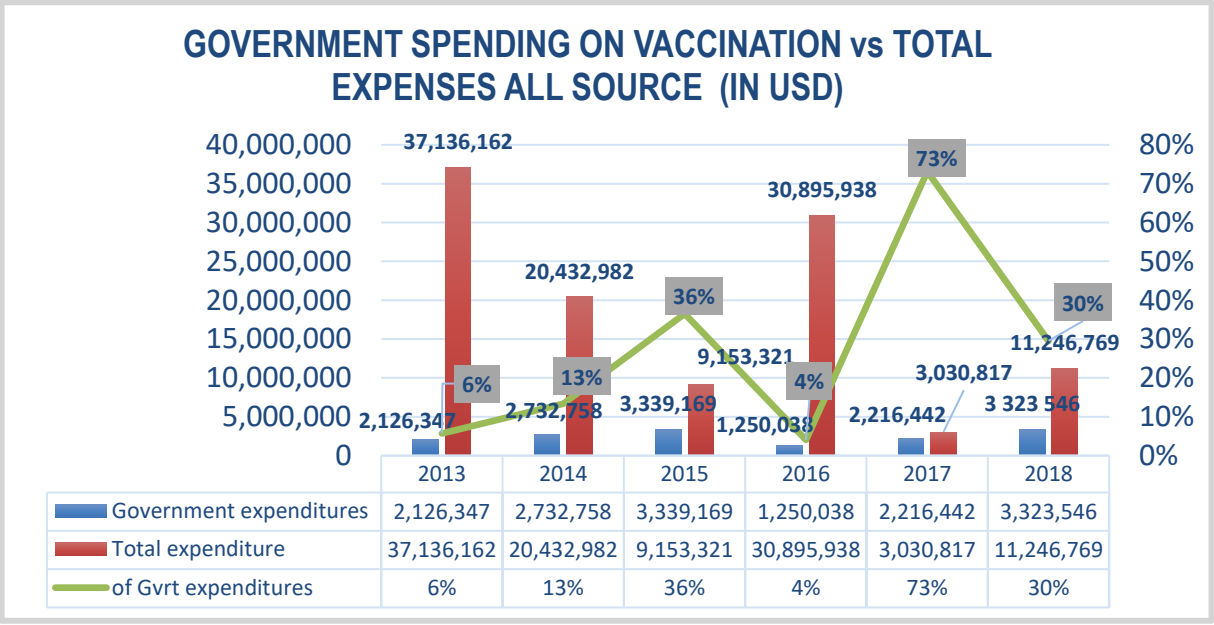
Management tools and data processing:
All management tools have been validated by the EPI in accordance with national guidelines. It should be noted that some of these tools are out of stock at the level of health facilities (health booklet, child card). The development of the vaccination register following the recommendation of the previous joint evaluation is ongoing and will be available at the operational level this year. There is a discrepancy in the data between the scorecard and the RMA; some essential equipment is missing at the CSB level, such as the calculator. For the other levels, the computer equipment is either missing or obsolete.

- Leadership, management and coordination

There is a low managerial capacity of health facility and district managers. Indeed, the regulatory functions and managerial activities (supervision, staff, holding of consultation meetings, team briefing, etc.) are insufficiently implemented.
Training of District Management Teams and CSB Chiefs in health facility management is insufficient or non-existent.

4.3. Financing of immunisation[5]

One of the main commitments made by the Ministry of Health focuses on financing immunization to protect children from several diseases. For the past 5 years, the share of the Ministry of Health's budget in the national budget has been around 4 - 7% and remains below the 15% standard adopted at the Abuja conference. (Source LFI 2014, LFI 2015, LFI 2016, LFI 2017, LFI 2018).
The proportion of the Ministry of Public Health budget allocated to the Expanded Programme on Immunization has gradually increased from 1.46% in 2015 to 3.96% in 2018 and is mainly devoted to the purchase of vaccines, cold equipment and materials, spare parts and oil.
However, the health sector is handicapped by the persistence of external funding that is not included in the budget. The financing of the EPI is largely supported by external aid during the last decade, while the country is committed to setting up mechanisms to ensure the sustainability of immunisation financing.
In 2018, the Government and its Technical and Financial Partners mobilized a total amount of USD 11,246,769 for the implementation of immunization activities. This fund is distributed as follows: 30% for the Malagasy Government and 70% for partners (WHO, UNICEF, GAVI and others).

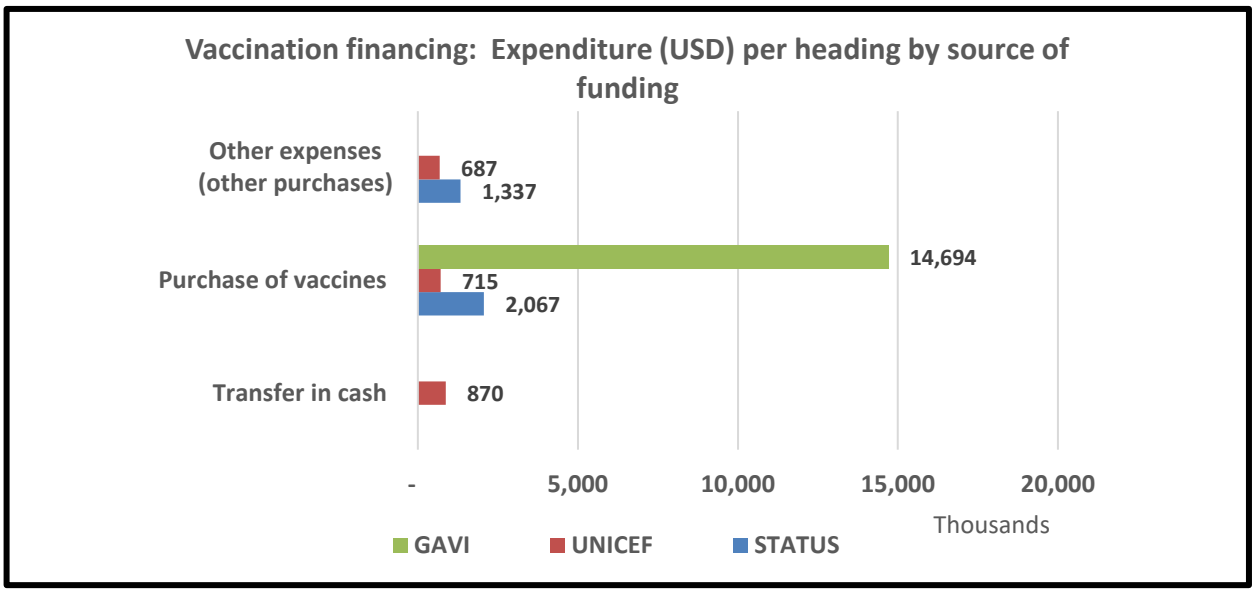


	2013	2014	2015	2016	2017	2018
Government expenditures	2,126,347	2,732,758	3,339,169	1,250,038	2,216,442	3,323,546
Total expenditure	37,136,162	20,432,982	9,153,321	30,895,938	3,030,817	11,246,769
of Gvrt expenditures	6%	13%	36%	4%	73%	30%

Sources: JRF, State C3
Graph 21: EPI expenditure of the Government and partners from 2013 to 2018.

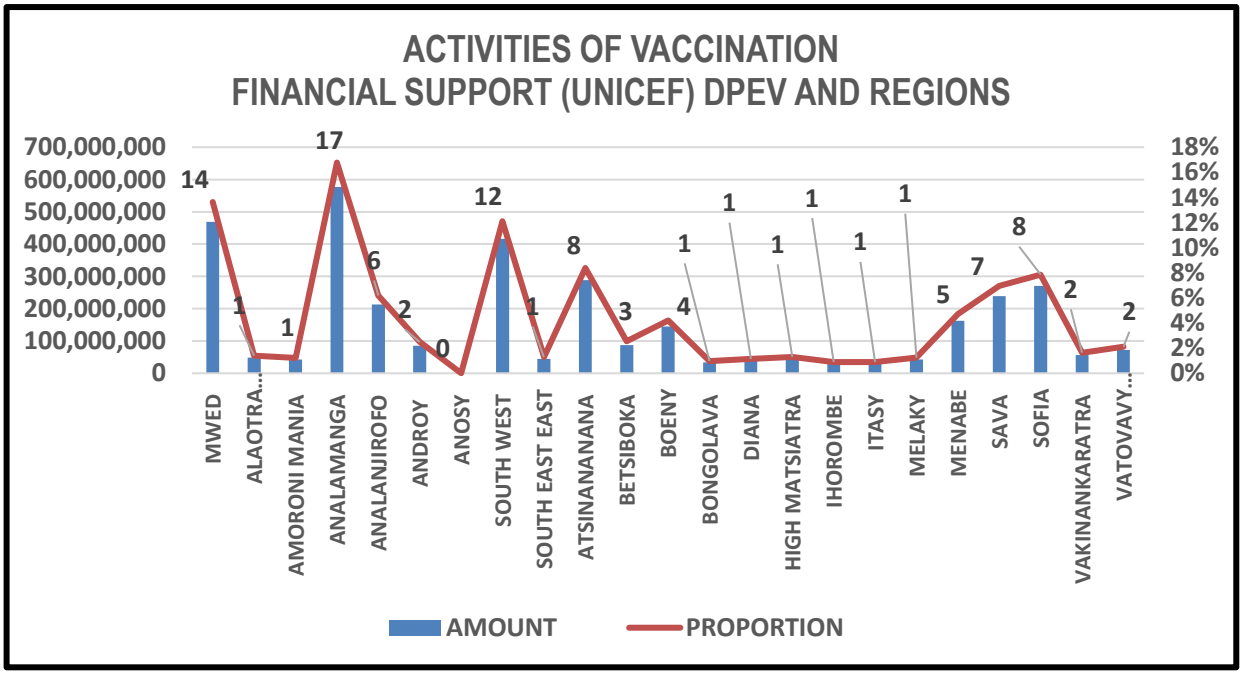
[5] Further information and advice on immunisation financing is available on the Gavi website: https://www.gavi.org/support/process/apply/additional-guidance/#financing

These expenses relate to operations and investment. As shown in the figure below, the purchase of vaccines accounts for a large part of this expenditure.



Sources: C3 State, UNICEF data

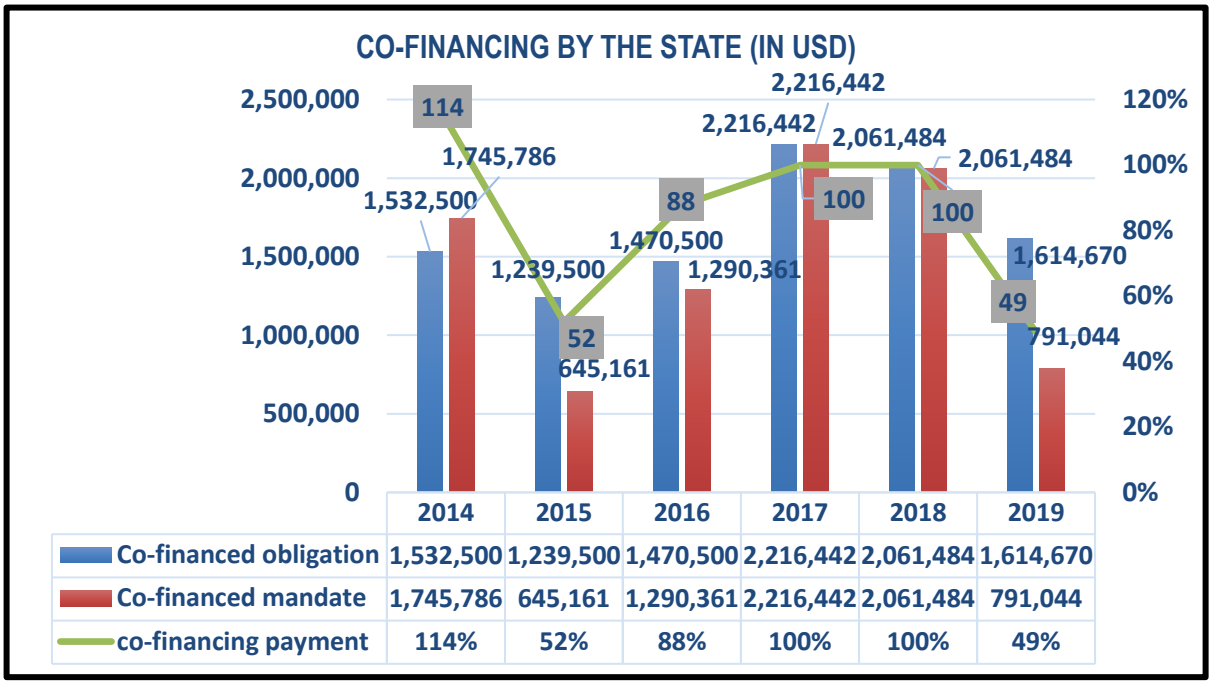
Figure 22: Distribution of funds by category of expenditure in 2018.



Source: UNICEF data

Graph 23: Distribution of financial support at the regional level - MWED in 2018.

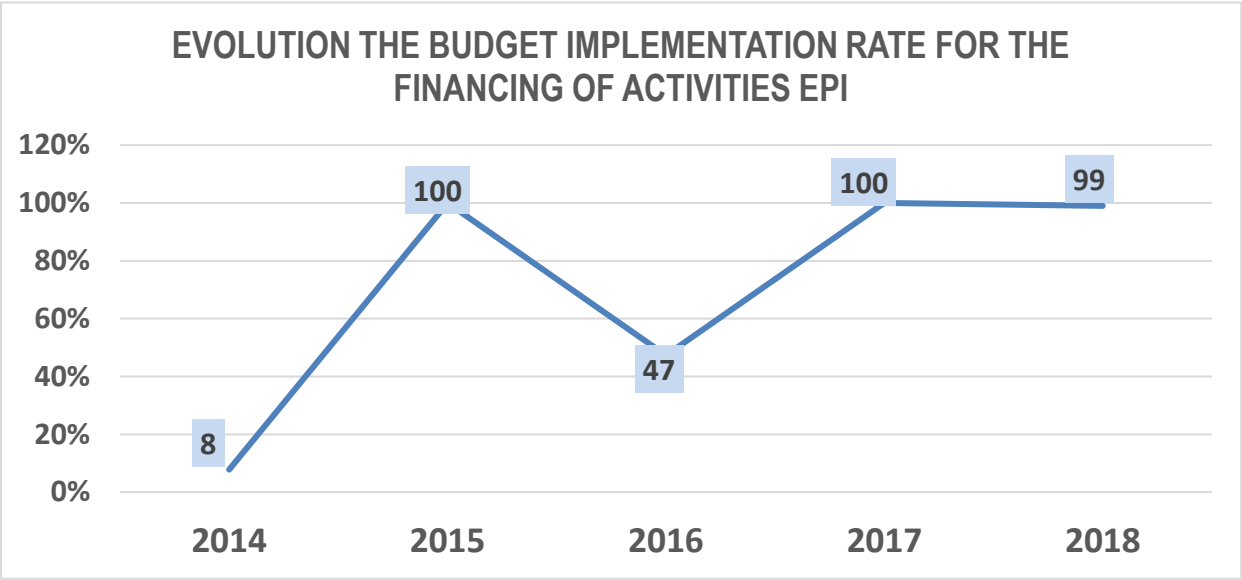
The partners support the country in the implementation of the EPI. Their financial and technical support was almost visible in all 22 regions.



Source: C3 State

Graph 24: Co-financing of the EPI Madagascar by the State from 2014 to 2019.

From 2014 to 2018, the country assumed its annual co-financing obligations on vaccine procurement. The amount for the year 2019 is available in the Initial Finance Act, of which an amount of MGA 2,768,655,600 is already committed as payment of the first tranche. It should be noted that after the Amending Finance Act, the budget allocated for the purchase of vaccines is MGA 5,651,344,000.



Source: C3 Reports, Accounting Centralization Records (FCC)

Graph 25: Budgetary execution of EPI financing from 2014 to 2018.

The budgetary execution of the EPI has improved since last year. It rose from 47% in 2015 to 99% in 2018.

5. GAVI SUPPORT PERFORMANCE

5.1. Performance of Gavi's HSS support (for the countries concerned)

Objective 1	
Objective of the HSS grant (in accordance with HSS proposals or JSP)	**Increase the coverage of quality primary health care services and vaccination in health facilities.**
Priority geographical/population groups or coverage and equity constraints addressed by the objective	**54 Districts in the 20 regions**
of activities carried out/ budget usage	
Main activities implemented and review of progress in implementation, including key successes and results/activities not implemented or delayed/financial absorption	**Activity 1.1.1 Build 4 CSBs and rehabilitate 12 CSBs in districts with high unvaccinated populations, more than 20 km from a health centre and with a total population of more than 10,000 inhabitants** The construction of the 4 CSBs will be postponed to 2021 with RSS3, Cost to be incurred in the construction of the Central and Regional Depots. The 12 CSBs to be rehabilitated have already been identified but their current status is not yet available. A request from the DSSB has been received and is being processed for a mission by the SMGSSE heads of the 6 PRSPs concerned to carry out an inventory of the CSBs to be rehabilitated. Rehabilitation will begin in 2020. **Activity 1.2: Organize a workshop on the consolidation of the bottom-up PTAs of CSBs (Public and Private) and Districts :** The 2020 PTA consolidation workshop for the 114 districts was carried out in 4 phases with the support of the central level (DEPSI/DPEV/WHO). Financial absorption rate: 100%. **Activity 1.2.2.4.3.2 Cold chain operation, Oil supply (3 months)** Oil supply activities cover 52 districts. With 2 SDSPs that did not send oil requests (SDSP Antananarivo Renivohitra and SDSP Manakara) and cases of transfers returned for bank account closure (SDSP Farafangana and SDSP Ikongo) **Activity 1.2.2.4.4.4: Achieving targets by advanced strategy (ACE implementation)** The first wave planned for Q4 2018 could not be held due to the delay in submitting requests from the SDSPs and especially the non-regularization of priority activities, with only 15 districts out of 54 in good standing compared to their last release. This last fact motivated the decision of the Technical ICC of 21 December 2018 to suspend the transfer of funds to the SDSPs: given the low impact if only these 15 districts were to be involved. The regularisations that followed in the meantime made it possible at the beginning of May 2019 to disburse ACE and oil supplies. ACE's activities are currently underway, started at the end of May and will continue until July 2019. They cover 53 districts. **Activity 1.2.2.4.5.1: Conduct formative supervision at the DRS level by the Central level:** Central level supervision began with briefing to harmonize the objectives and purpose of supervision. 9 out of 22 regions were supervised. The supervision of the other 13 regions is already scheduled for August.

	Financial absorption rate: 21%. **Activity 1.2.2.4.5.2: Conduct formative supervision at the SDSP level by EMAR** Supervision of the 54 districts in the 20 regions is being carried out. The financial commitment is ongoing. **Activity 1.2.2.4.5.3: Conduct formative supervision at the CSB level by EMAD:** Supervision of the 540 CSBs in the 54 priority districts is being carried out. The financial commitment is ongoing. **Activity 1.2.2.4.7.1: Conduct an annual data analysis review** The workshop to develop the data improvement plan began with a data analysis workshop. The funds from the 2 activities were used in a complementary way during this workshop. Financial absorption rate: 39%. **Activity 1.2.2.4.7.4. Meeting to develop a data quality improvement plan:** Two workshops were held to develop the data improvement plan in Antsirabe and Antananarivo for validation. The country currently has a data improvement plan 2018-2022 aligned with the Strategic Plan for Strengthening the Health Information System 2018-2022. Financial absorption rate: 99%. **Activity 1.2.8: Contribute to the organisation of periodic reviews between the Community and the Heads of CSBs (Public and Private):** these activities consisting of periodic data analysis meetings will take place after the ACE waves and will therefore occur in Q3 and Q4 2019. **Activity 1.2.9: Multiply BSD and CSB standards documents:** the multiplication of BSD standards is no longer relevant for other technical and financial partners who supported the implementation of this activity before 2017. The multiplication of CSB standards is planned for Q3 2019. **Activity 1.4.1 Rehabilitate incinerators in 40 Hospitals in targeted Districts** Working session already done with DHRD and SSEnv following the discussion with GAVI to review the number of incinerators to have infrastructure in standards with unit cost at 7500 USD instead of 1000 USD. CHDs have already been identified, with a total of five incinerators to be built, two in the first year and three in the second year. Tender dossier being prepared with the SSEnv. **Activity 1.4.2 Build secure pits in all target health facilities** Working session already done with DHRD and SSEnv following the discussion with GAVI to review the number of secure pits to be built to have infrastructure in standards with unit cost at 330 USD instead of 150 USD. The CSBs were identified taking into account the presence of the other partners (example: PARN). Tender dossier being prepared with the SSEnv. **Activity 1.5.1 Contribute to the provision of loyalty kits for health workers working in isolated CSBs by motorcycles, solar panels and telephone devices** ***Motorcycles*, *solar panels and telephone sets:*** Activity to be cancelled cost to engage the construction Central and regional depots. **Activity 1.5.2: Contractualize a second Agent at the level of CSBs with only one Agent at the station and a large population**: in Q1 2019 with the HRD, for this activity of contracting 150 paramedics, a first list of CSBs to be contracted was proposed by the HRD, and the recruitment process discussed and reviewed with the HRD, PCU and FA with notably preparation of documents for DANO. This activity of contracting 150 paramedics was put on hold due to the decision to review the

	performance of the districts to propose an update of the list of priority districts.
Main activities planned for the coming period (indicate significant changes/reallocations of the budget and related **changes in technical assistance**)[6]	**Activity 1.2.2.4.3.2 : Cold chain operation, oil supply (3 months) and Activity 1.2.4.4.4 : Reaching targets by advanced strategy (ACE implementation) :** The second wave for these 2 activities is planned in Q3/Q4 2019 **Activity 1.2.8: Contribute to the organisation of periodic reviews between the Community and the Heads of CSBs (Public and Private):** these activities consisting of periodic data analysis meetings are planned after the ACE waves, i.e. in Q3 and Q4 2019 - with planning coordination according to the priorities of the DQS planned for the second half of 2019. **Activity 1.2.9: Multiply CSB standards documents:** the multiplication of CSB standards is planned for Q3 2019. **Activity 1.5.2: Contractualize a second Agent at the level of the CSBs with only one Agent at the station and a high population density**: the contractualization of 150 paramedics has been rescheduled to take place from Q3 2019. **Activity 5.2.1: Multiply and share advocacy documents: draft law (decree implementing the law on vaccination)**: rescheduled in Q3 2019 ***Need for technical assistance for:*** MLM Training Elaboration of EPI norms and standards Introduction 2nd dose of VAR Practical EPI training for health workers Implementation of the ACE approach, in particular the urban ACE approach Implementation of the PSA
Objective 2 :	
Objective of the HSS grant (in accordance with HSS proposals or JSP)	**Strengthen the capacity of the cold chain and storage of EPI inputs at national, regional, district and CSB levels**
Priority geographic/population groups or coverage and equity constraints addressed by the objective	**114 districts in the 22 regions**
of activities carried out/ budget usage	**3 activities out of 6 carried out, i.e. 50% of activities carried out** **1, 027,434 spent on 3, 040,123 $, or 34% of the budget use**
Main activities implemented and review of progress in implementation, including key successes and results/activities not implemented or delayed/financial absorption	**Activity 2.1.2: Contribute to the functionality of the cold chain at all levels** 20% contribution to the CCEOP Financial absorption rate: 38%. **Activity 2.2.5: Ensure the quality of vaccines when they are delivered to beneficiaries** Train maintenance technicians - Training Financial absorption rate: 74%. **Activity 2.2.6: Ensure the quality of vaccines when they are delivered to beneficiaries** Acquire temperature controllers Financial absorption rate: 28%.
Main activities planned for the coming period (indicate significant changes/reallocations of the budget and related **changes in technical assistance**)[6]	**Activity 2.1.3: Support the quarterly maintenance of cold chain equipment by the districts** Indemnity for district maintenance manager + Travel for district maintenance manager

	Activity 2.1.6: Build or extend national repositories, at the level of 5 regions **Extension of EPI health input stores (to be included in activity 1.1.2)** **Activity 2.2.1: Equipping the MWED with a 4X4 consumable truck** **Activity 1.1.2: Rehabilitate the MWED office (extension), replaced by a new activity 1.7.1: Relocation of the MWED: Construction of a new office (Office and Storage Store)**
Objective 3:	
Objective of the HSS grant (in accordance with HSS proposals or JSP)	**Strengthen the health information system for the production of quality data and their use at all levels to facilitate monitoring / evaluation**
Priority geographic/population groups or coverage and equity constraints addressed by the objective	
of activities carried out/ budget usage	
Main activities implemented and review of progress in implementation, including key successes and results/ activities not implemented or delayed/financial absorption	**Activity 3.1.2 Provide targeted districts with computer kits and training materials for data management**. 54 Computers are in the process of being purchased **Activity 3.1.2 Provide targeted districts with computer kits and training materials for data management.** 54 projectors are being purchased **Activity 3.1.3 Provide EPI managers and service providers at all levels with a Management Tool; the** management tools that are being multiplied for the 114 SDSPs are the CSB child and woman vaccination registers, infant cards, maternal cards, vaccination coverage monitoring curves, stock sheets, temperature sheets. Community immunization registers, time registers, immunization diplomas and child health records, which are also being multiplied, will be used for the 54 priority SDSPs **Activity 3.1.4 Provide all CSBs with 3 plug-in bins in** progress with 3 plug-in bins for the CSBs of the 114 SDSPs **Activity 3.2.2.2 Contribute to the provision of Community Agents Management Tools/Community Immunization Registry** Multiplication in progress for the 54 SDSP
Main activities planned for the coming period (indicate significant changes/reallocations of the budget and related **changes in technical assistance**)[6]	
Objective 4:	
Objective of the HSS grant (in accordance with HSS proposals or JSP)	**Strengthen the use of health care services through demand stimulation**

[6] When technical assistance needs are specified, it is not necessary to include elements related to requests in terms of resources. These will be discussed as part of the planning for targeted country assistance (TCA). The planning of the TCA will be documented by the needs identified in the JA. However, technical assistance needs should describe, to the extent then known, the type of assistance required (staff, consultants, training, etc.), the technical assistance provider (main/extended partner), a measure of the assistance required in quantity/duration, its modalities (integrated, subnational, management, etc.) and any relevant deadlines or time frames. JA teams are reminded to adopt a retrospective (technical assistance that has not been provided in full or was ineffective in the past) and prospective (upcoming vaccine introductions, campaigns, major HSS activities, etc.) approach, informing technical assistance priorities for the coming year. The Technical Assistance Support menu is available for reference.

Priority geographic/population groups or coverage and equity constraints addressed by the objective	- 22 PRSPs for sub-activities 4.1.1, 4.1.4, 4.1.6 - 8 large cities for sub-activities 4.1.2 Urban approach: Antananarivo Renivohitra, Toamasina 1, Toliara 1, Antsiranana 1, Fianarantsoa 1, Mahajanga 1, Antsirabe 1, Ambositra - 20 COMARESS intervention districts for activity 4.2 : Tolagnaro, Ambovombe, Beloha, Toliara II, West Ampanihy, South Ankazoabo, Iakora, Ivohibe, Ikalamavony, Fandriana, Ambatofinandrahana, Manandriana, Farafangana, Vangaindrano, Vondrozo, South Midongy, Befotaka, Nosy Varika, Antananarivo Renivohitra, Manjakandriana, Fenoarivobe, Tanambao Manampotsy
of activities carried out/ budget usage	5% of the budget used
Main activities implemented and review of progress in implementation, including key successes and results/ activities not implemented or delayed/financial absorption	**Activity 4.1. Implement the EPI communication plan to reach the hard-to-reach population** **Under Activity 4.1.1.1** Support the performances of local artists in terms of traditional folklore for mass communication in priority areas: Six PRSPs (Anosy, Atsimo Andrefana, Diana, Sava, Vakinankaratra, Amoron'I Mania) out of 22 were able to carry out the activity in Q4 2018-T1 2019 due to the measles epidemic from October 2018 to April 2019, and then the change of many regional public health directors in May 2019. **Under Activity 4.1.2** Carry out operational research at the level of the 8 major cities to know the reason for non-vaccination (Mapping of non-vaccinated people through a Study of the location and reasons) The implementation of operational research in the 8 major cities is planned for Q3 2019 in RSS2. However, the Action Plan for the search for social data on vaccination was drawn up in December 2018. **Under Activity 4.1.6** - Adapt communication strategies and tools taking into account regional specificities - Development of the implementation monitoring mechanism and performance review of community activities: The workshop to develop the monitoring mechanism was held in December 2018. The monitoring tools were validated by the MWED Director in May 2019. Field monitoring and the multiplication of advocacy documents were postponed to Q3-T4 2019 due to the measles epidemic. **Activity 4.2. Provide technical and financial support to CSOs/Associations working at the community level in public awareness activities** UNICEF-COMARESS partnership agreement signed in May 2019 **Under Activity 4.2.7** Conduct innovative community awareness strategies: C4D, Social Mobilization (ACV, ACE Community Dialogue, active research of PdV, identification of ENV...) : Request for the first quarter of activity in the amount of $46,000 committed at the end of June for the effective start of activities in July 2019. **Sub Activity 4.2.10 Contribute to the availability of management tools required for the implementation of CSO activities:** Effective implementation end of June-early July 2019
Main activities planned for the coming period (indicate significant changes/reallocations of the	**Activity 4.1. Implement the EPI communication plan to reach the hard-to-reach population**

budget and related **changes in technical assistance**)[6]	**Under Activity 4.1.1.1** Support the performance of local artists in terms of traditional folklore for mass communication in priority areas: Sixteen PRSPs will implement the activity during Q3 2019. **Under Activity 4.1.2** Carry out operational research at the level of the 8 major cities to find out the reason for non-vaccination (Mapping of non-vaccinated people through a Study of location and reasons): Implementation is scheduled for Q3 2019. **Under Activity 4.1.2** Produce and distribute spots in the form of calls by paediatricians and other influential people: Production initially planned in Q2 but postponed to Q3 2019 due to the measles epidemic **Under Activity 4.1.2** Produce self-adhesive printed materials to be displayed for urban transporters: Production initially planned in T2 but postponed to Q3 2019 due to the measles epidemic. The model is currently being finalized. **Under Activity 4.1.4** Broadcast immunization radio/television awareness programs: Production initially planned for Q2 but postponed to Q3-T4 2019 due to the measles epidemic **Under Activity 4.1.6** Adapt communication strategies and tools taking into account regional specificities Development of the implementation monitoring mechanism and performance review of community activities: Field monitoring and the multiplication of advocacy documents are planned in Q3-T4 2019. **Activity 4.2. Provide technical and financial support to CSOs/Associations working at the community level in public awareness activities** **Under Activity 4.2.7** Conduct innovative community awareness strategies: C4D, Social Mobilization (ACV, ACE Community Dialogue, active research of PdV, identification of ENV...) : Effective implementation since July 2019, scheduled until December 2019**.** **Sub Activity 4.2.8** Conduct supervision and monitoring/evaluation activities of CSO interventions at all levels: activity planned for Q4 2019-T1 2020 **Under Activity 4.2.11** Capitalize and document CSO and Community good practices in stimulating requests - Organize Focus groups at the district level that have been the subject of SLA implementation (4 focus groups per District): activity planned in Q1-T2 2020
Objective 5 :	
Objective of the HSS grant (in accordance with HSS proposals or JSP)	**Strengthening the sustainability of immunisation financing**
Priority geographic/population groups or coverage and equity constraints addressed by the objective	
of activities carried out/ budget usage	
Main activities implemented and review of progress in implementation, including key successes and results/ activities	**Activity 5.2.1: Multiply and share advocacy documents: draft law (decree implementing the law on vaccination)**: planned for Q2 2019, changes in the persons in charge of the file within the Ministry have caused the delay in this activity

not implemented or delayed/financial absorption	**Activity 5.2.2: Hold advocacy meetings with the various entities concerned to facilitate the adoption of the draft law (primacy, parliament, government, etc.) and the implementation of the law (implementing decree):** planned for Q2 2019, but rescheduled following the strong events in the field of vaccination that occurred during this period **Activity 5.3.2: Support the institutionalization of the financial monitoring of activities for the two programmes (HSS and EPI) external financial audit firm:** audit of the financial statements of the GAVI grant N°1519-MDG-10a-Y managed by the PCU for the period from 1 July 2017 to 31 December 2018 carried out in T2 2019 **Activity 5.5.1: Support the Ministry in updating and multiplying a harmonized procedure manual document** and **Activity 5.5.2: Train managers, staff and beneficiaries on the updated financial management procedure manual** These activities were carried out during Q1 2019
Main activities planned for the coming period (indicate significant changes/reallocations of the budget and related **changes in technical assistance**)[7]	**Activity 5.3.2: Provide technical support to the ICC for a better coordination, monitoring and financial analysis framework according to their updated TOR:** planned for Q2 2019, but rescheduled following the strong vaccination events that occurred during this period **Activity 5.4.2: Organize Programme ownership meetings: technical and financial performance of the EPI:** this activity has been removed from the final version of the HSS2 2019 PMO
Main activities planned for the coming period (indicate significant changes/reallocations of the budget and related **changes in technical assistance**)	

5.2. Vaccine support performance

- Vaccine-related problems that could be identified during vaccine renewals: All antigens were available at all levels except VAT, VAR and OPV, which experienced 3, 2 and 1.5 months of national rupture respectively in 2018.
  These various disruptions are due to the delay in making the state's contribution available for the acquisition of vaccines and consumables.
  National loss rates remained within the standards set by the cMYP for each antigen.
  The delay in the supply of VAT has created an overstock which has delayed the replacement of VAT by Td.
- For the operation of ECFs, the country experienced a breakdown in oil and refrigerator spare parts during 2018. This situation has prompted the country to accelerate the solarization of the cold chain. The country's current solar ECF coverage is 18%. In addition, the TFPs provided the country with oil during the last quarter, so that routine vaccination and campaigns against polio and measles can be carried out. The objectives were achieved according to administrative data.

- ***Campaigns/ AVS: As part of the*** measles response campaign, Gavi contributed $2.2 million to the initial Measles and Rubella Initiative (MRI) response. And subsequently, an exceptional procedure made it

[6] When technical assistance needs are specified, it is not necessary to include elements related to requests in terms of resources. These will be discussed as part of the planning for targeted country assistance (TCA). The planning of the TCA will be documented by the needs identified in the JA. However, technical assistance needs should describe, to the extent then known, the type of assistance required (staff, consultants, training, etc.), the technical assistance provider (main/extended partner), a measure of the assistance required in quantity/duration, its modalities (integrated, subnational, management, etc.) and any relevant deadlines or time frames. JA teams are reminded to adopt a retrospective (technical assistance that has not been provided in full or was ineffective in the past) and prospective (upcoming vaccine introductions, campaigns, major HSS activities, etc.) approach, informing technical assistance priorities for the coming year. The Technical Assistance Support menu is available for reference.

possible to reallocate an additional $1,048,896 from the HSS2 grant to contribute to the operational costs of Phases 2 and 3 of the response. The administrative results of the 3 phases are presented in the following tables:

PHASE 1	**Children 9 months to 9 years old vaccinated**			**Children 9 months to 9 years old vaccinated**					
	(Having already received)			**(Zero dose)**					
Total target	**Vaccinated children**	**Vaccinated children**	**Vaccinated children**	**Vaccinated children**	**Vaccinated children**	**Vaccinated children**	**Total vaccinated**	**Overall coverage rate**	**Reporting rate**
9 months to 9 years old	**9-11 months**	**1 - 9 years**	**9 months to 9 years old**	**9 -11 months**	**1 - 9years**	**9 months to 9 years old**			
2 083 784	74 589	1 891 437	1 966 026	65 742	85 951	151 693	2 117 719	101,63%	100%

PHASE 2	**Children 6 months to 9 years old vaccinated**			**Children 6 months to 9 years old vaccinated**					
	(Having already received)			**(Zero dose)**					
Total target	**Vaccinated children**	**Vaccinated children**	**Vaccinated children 6 months to 9 years old**	**Vaccinated children**	**Vaccinated children**	**Vaccinated children 6 months to 9 years old**	**Total vaccinated**	**Overall coverage rate**	**Reporting rate**
6 months to 9 years old	**6-11 months**	**1 - 9years**		**6-11 months**	**1 - 9years**				
1 160 767	61 085	969 335	1 030 420	42 254	130 110	172 364	1 202 784	103,62%	100%

PHASE 3	**Children 6 months to 9 years old vaccinated**			**Children 6 months to 9 years old vaccinated**					
	(Having already received)			**(Zero dose)**					
Total target	**Vaccinated children**	**Vaccinated children**	**Vaccinated children**	**Vaccinated children**	**Vaccinated children**	**Vaccinated children 6 months to 9 years old**	**Total vaccinated**	**Overall coverage rate**	**Reporting rate**
6 months to 9 years old	**6-11 months**	**1 - 9 years**	**6 months to 9 years old**	**6-11 months**	**1 - 9years**				
3 940 501	179 225	3 392 740	3 571 965	117 531	254 736	372 267	3 944 232	100,09%	99,94%

Independent monitoring has shown that more than 95% of the children surveyed have been vaccinated. The post-campaign survey is being carried out in collaboration with INSTAT. Currently, the enumeration and collection of field data has been carried out during the month of June 2019. Data analysis will begin in July and results will be expected in the last week of July 2019. A total of 696,324 children aged 6 months to 9 years were vaccinated at zero doses during the campaign, representing about 10% of the target population. There has been an improvement in vaccination coverage for other antigens during the implementation period of the campaign.

- ***Situation analysis for measles and rubella:*** Measles vaccination coverage is 85% (JRF) in 2018. For this year, from January to the end of April, measles vaccination coverage is 93%. Since the beginning of the epidemic in week S24 of 2019, the number of reported cases was 147,608, including 20,914

complicated cases and 910 deaths. At week 24, the number of cases reported by 22 districts was 85. Since week 15 of 2019, no deaths have been reported. There are still 2 districts with high attack rates, namely Soavinandriana (0.6 per 100,000 inhabitants) and Amparafaravola (3.9 per 100,000 inhabitants). The country has scheduled the introduction of VAR 2 in January 2020, which will be preceded by a VAR campaign in October 2019.

Regarding rubella, two studies are underway, the study on the extent of congenital rubella syndrome (CRS) and the study on the economic impact of CRS. RSC surveillance has been implemented in the CHUMET sentinel site.

- ***The main actions in support of Gavi's vaccines in the coming year:*** Madagascar has planned to introduce the second dose of VARs in its programme at 15-18 month targets estimated at 3.33%.
  When applying for support, this introduction of VAR2 was planned and requested with other GAVI-supported vaccines.

5.3. Performance of support to the POECF in Gavi (for the countries concerned)

The country submitted to the GAVI CCEOP platform and was approved in 2016. This submission, which is spread over 02 years, takes into account **894** pieces of equipment: **544** for the first year and **354** for the second year.

- The country has received **404** solar equipment that are being installed.
- The number of establishments previously without equipment and now equipped is **188**
- The proportion of functional equipment in the country is **73.90%.**

The 404 solar equipment being installed in remote and hard-to-reach areas will allow targets to access quality antigens without interruption in an equitable way, as in large cities.

This proportion of the state of functionality is flattering because more than **1000** ECF are petroleum-based and obsolete, regularly causing failure problems and not always guaranteeing continuity of the cold chain despite the effort to acquire spare parts and technicians. This large number of oil equipment is a burden for the visibility of the effort of the modern equipment received.

The second submission to cover the whole country in PQS equipment is necessary to ensure adequate storage of vaccines under the right conditions at all points of storage and delivery of vaccine acts.

Table 5: Functionality of cold chain equipment in June 2019.

NIVEAU	NOMBRE DES SITES EQUIPES	ELECTRIQUE			PETROLE			SOLAIRE			OBSERV	
		NBRE	FNL	N FNL	NBRE	FNL	N FNL	NBRE	FNL	N FNL	S ECDF	PNE
CENTRAL	22	CHAMBRES FROIDES	07	0			0			0		
REGIONS	38	14 CHAMBRES FROIDES	10	4			0			0		
DISTRICTS	417	316	235	81	50	28	22	55	52	3		
	100%	75,77	74,37	25,63	11,99	56,00	44,00	13,19	94,55	5,45		
CSB	2665	222	192	65	1244	808	436	919	789	130	188,00	631,00
	100%	8,33	74,71	25,29		65,08	35,05		85,85	14,15		

Source: REGIONAL RESPEV data JUNE 2019

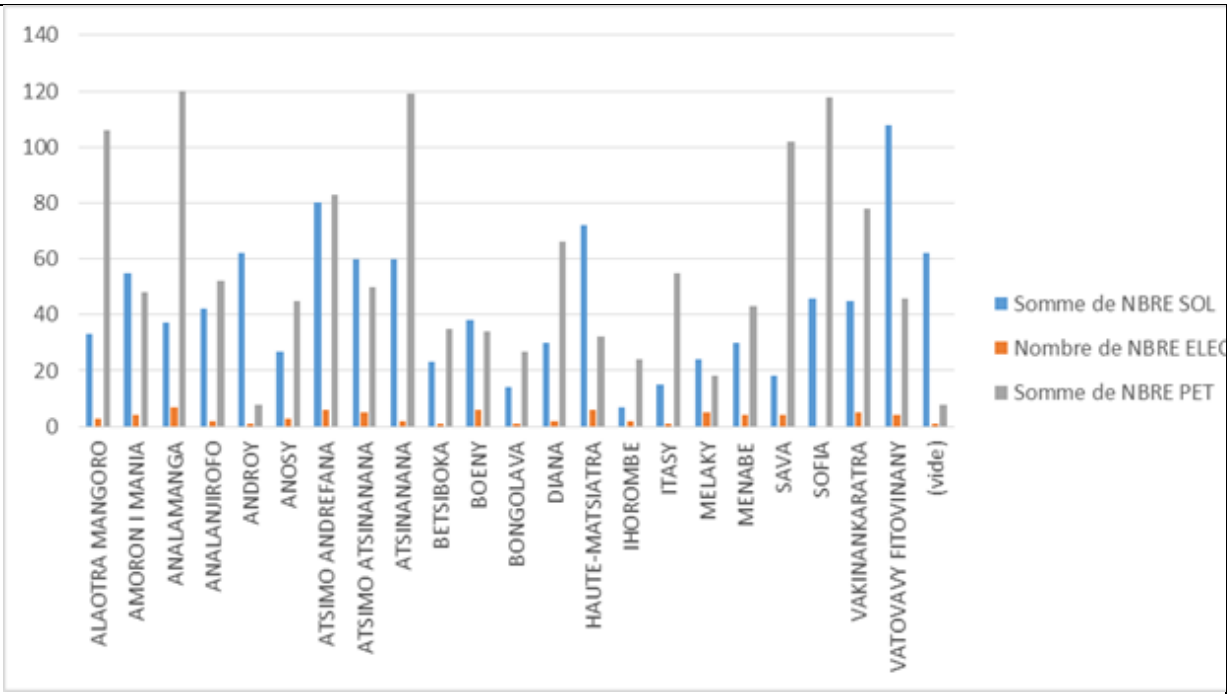


Figure 26: Proportion of cold chain equipment by energy source and region.

According to the table above, oil refrigerators still occupy almost half of the EPI's CDF park in Madagascar.

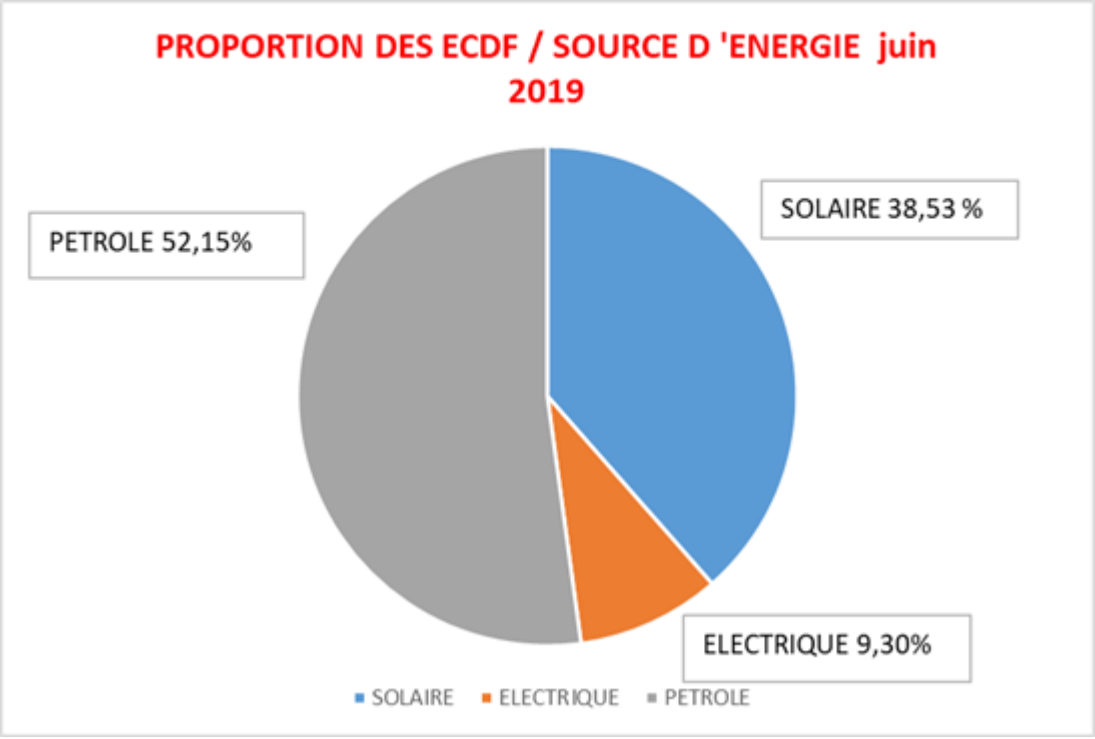
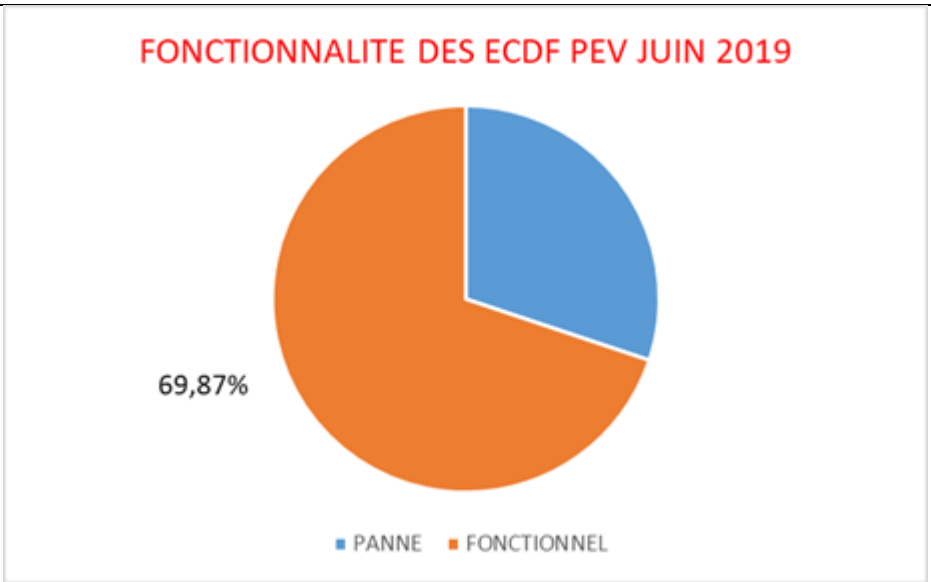
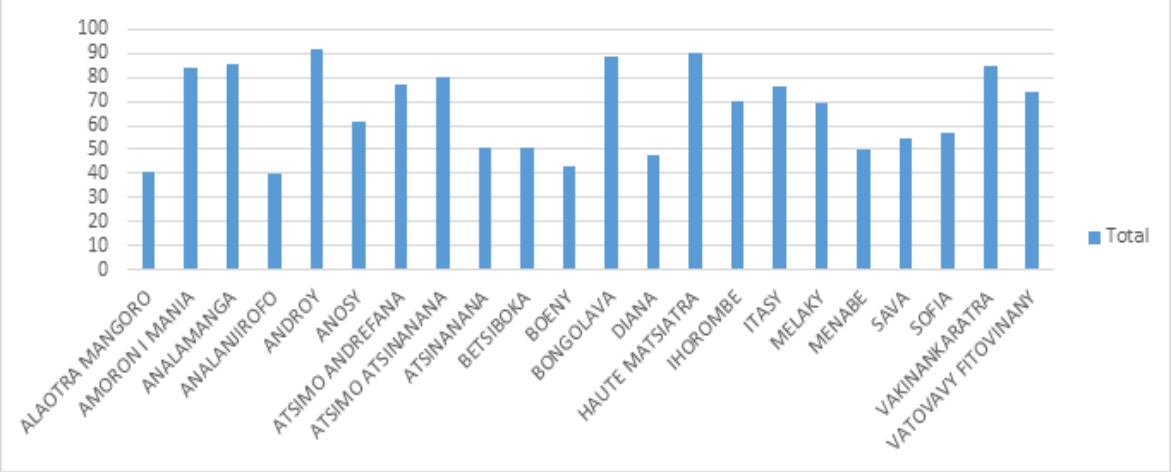


Figure 27: Distribution of cold chain equipment by energy source in 2019.



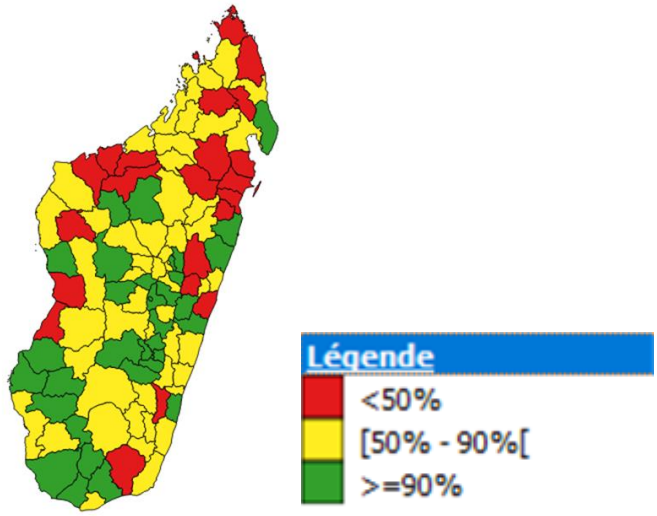
Graph 28: Proportion of cold chain equipment in operation in 2019.



Graph 29: Proportion of functional cold chain equipment by region.

The solarization of the cold chain has improved the functionality rate at the CSB level. Indeed, the total number of solar refrigerators installed up to June 2019 is 919, including 52 in CSBs that did not have CDFs. The replacement rate is 32.39% (867/2685) and the rate of newly equipped CSBs in July 2019: 27.65% (52/188).

The number of districts with a functionality rate of more than 90% (see map)

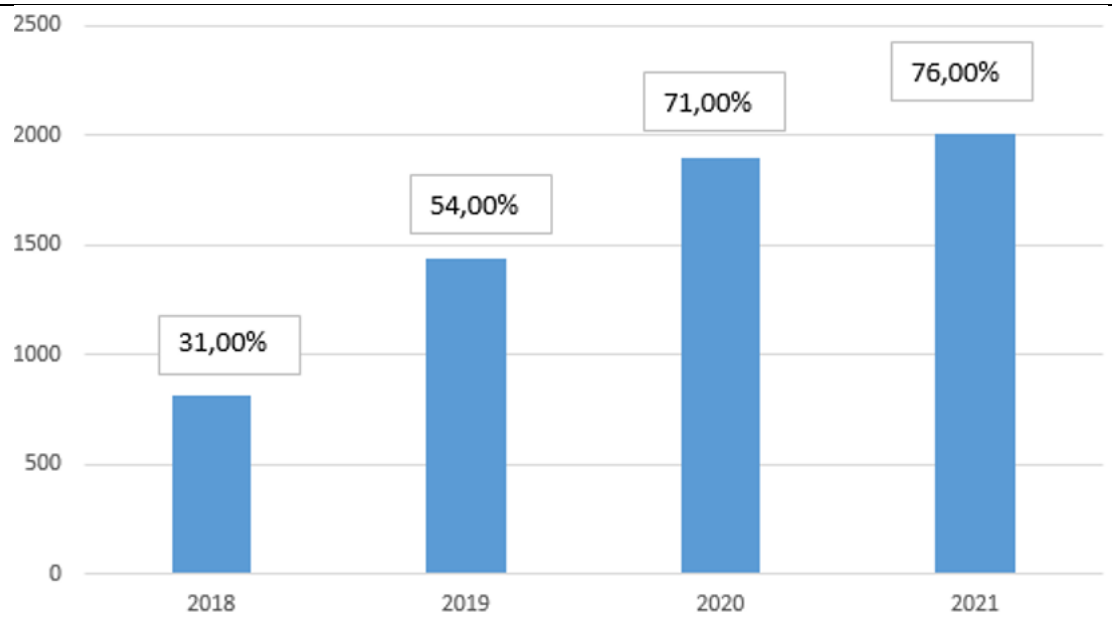


Attached documents: CCEOP Inventory and PDO

Table 6: CDF equipment acquisitions since 2018

FINANCEMENT	ACQUISITIONS 2010-2018		ACQUISITION 2019	ACQUISITION 2020	ACQUISITION 2021	TOTAL EN 2021	OBSERVATIONS
	BSD	CSB					
ETAT	31	27	30	30	30	117	STOCK juin 2019 MAGASIN SILO 32 FRIGOS EN COURS D'IDENTIFICATION DES SITES
OMS		104				100	
UNICEF		229	8			230	
GAVI	24	158				192	
CCEOP			500	354 Si la 2ème CCEOP sera approuvé par GAVI		500	EN COURS D'ACHEMINEMENT ET D'INSTALLATION DEPUIS 20 JUIN 2019
BANQUE MONDIALE		296	82	82	82	542	2019: 82 FRIGOS EN COURS D'ACHEMINEMENT SUR SITE
TOTAL	**55**	814	620	466	112	2012	
NBRE CSB DOTE DE FRIGO SOLAIRE		**814**	**1434**	**1900**	**2012**	**2012**	**2685**
NIVEAU DE SOLARISATION DANS LES CSB		**30,31%**	**53,40%**	**70,76%**	**74,93%**	**74,93%**	
			2018	2019	2020	2021	

With the arrival of CCEOP equipment, more than 80 from the World Bank and those from the state, solar equipment will surpass oil-fired equipment by the end of 2019. If Gavi gives the green light for the continuation of the CCEOP project in 2020, more than 70% of the refrigerators will be solarized



Graph 30: Forecast of the solarization of cold chain equipment from 2018 to 2021.

After the installation of CCEOP's CDF equipment, 54.00% of the park will be solar refrigerators. It is expected that by 2021, this rate will be 76.00%.

5.4. Financial management performance

The total grants allocated by the GAVI Alliance for a three-year period amount to USD 16,639,762 for the HSS 2 programme, and following the audit conducted by the GAVI Alliance, it was agreed that the funds are jointly managed (hybrid model) by the PCU, UNICEF and WHO, including USD 5,842,780 for the PCU, USD 3,032,539 for WHO and USD 7,764,443 for UNICEF.

As at 30 June 2019, the amount disbursed by GAVI was USD 8,643,937, of which:

- 3,424,444 USD for UCP of which only 27% was disbursed, i.e. 926,816 USD,
- 2,640,065 USD for UNICEF, 69% of which was disbursed, or USD 1,824,634,
- 2,579,428 USD for WHO, 45% of which was disbursed, or USD 1,149,786.

Overall, the financial absorption rate for GAVI grants is 23%, of which 16% for the PCU, 34% for WHO and 23% for UNICEF. A low absorption rate for these three main implementing bodies is noted.

It was found that the period for the implementation of the activities provided for in the PMO is insufficient given several obstacles to their implementation, in particular with:

- ➔ The measles epidemic that struck the Big Island has become a national priority. The acute phase of this epidemic extended from October 2018 to March 2019.
- ➔ The problem of regularizing advances, with delays in the submission of supporting documents, thus having an impact on the release of funds to be allocated subsequently to the various beneficiaries (MWEDs, DRS, SDSP, CSB)
- ➔ Delay in the start of HSS2 activities. In 2017, only the priority activities were granted. Then the lifting of the RSS2 suspension occurred only in July 2018, with an effective start: October 2018,
- ➔ The plague, measles, polio and presidential election campaigns had a major impact on pre-established planning,

The main causes identified are (i) insufficient competence of the actors, (ii) insufficient field monitoring, (iii) poor and/or non-compliance with plans for the implementation of activities and procedures, (iv) lack

of information, (v) insufficient financial management capacity resulting in low financial absorption capacity at all levels and justification of non-systematic expenditure, (vi) lack of planning control and insufficient monitoring and evaluation culture at all levels.

Audit :

The audit of GAVI grants managed by the UCP was carried out by Ernst & Young. This audit covered the 2017-2018 financial years for a period of 18 months and ended on 31 December 2018. The report was submitted to the GAVI secretariat on 30 June 2019. The audit opinions are summarized below:

- The financial statements for the 18-month financial year ended 31 December 2018 have been prepared in all material respects in accordance with the GAVI Alliance financial guidelines and procedures
- The grant funds were used in all material respects, in accordance with the provisions of the Partnership Framework Agreement, including the approved budget and work plan
- The summary statement of assets financed by this grant as at 31 December 2018, together with the notes thereto, has been prepared in all material respects in accordance with the GAVI Alliance financial guidelines and procedures

Financial management system:

The manual of procedures for ADMINISTRATIVE, FINANCIAL, ACCOUNTING AND MARKETING of GAVI grants has been updated. Training workshops on the guide for the use of funds received from GAVI were conducted for beneficiary entities.

The objectives of these training sessions were to provide the various stakeholders in the funds management system with a summary of the operational guide in order to familiarize themselves with its content, but also to explain the main important points to remember, namely the relationships between the various stakeholders in the system, the different obligations of each stakeholder, the different tools to be used and the supporting documents to be provided for each type of expenditure

5.5. Monitoring of the transition plan (applies if the country is in an accelerated transition phase)

Madagascar's polio transition plan, which is currently being developed, recommends strategies to maintain technical assistance through Perrens means until the declaration of global polio eradication. These are mainly:

- Ensure that experienced polio staff at different levels are gradually involved and finally converted so that they can handle emergency and outbreak interventions,
- Redeploy personnel qualified in AFP surveillance into Integrated Disease Surveillance and Response (IDSR),
- Advocate for secure public financing of routine EPI and surveillance activities through the adoption of a national immunisation law to ensure the sustainability of funding.

Human resources: Since the country depends on funding from GPEI partners during these years, taking into account the weakness of the health system and compromised safety zones in the country, maintaining WHO staff and consultants in charge of field surveillance will be essential and highly recommended until polio eradication is declared. In addition, these experienced staff are a valuable resource of actors who can be deployed in other disease control initiatives such as the elimination of measles, MNT, etc. They will also be able to strengthen their capacities in emergency management, natural disasters and epidemic response. National surveillance personnel already involved at regional and district levels will be integrated into the RWIS and Emergency programmes.

Physical assets: Physical assets resulting from the GPEI, including the national polio laboratory, will continue to be used for the measles elimination initiative. Similarly, the regional reference laboratory, the National Institute of Communicable Diseases (NICD) in South Africa, will continue to be used for confirmatory testing of polio, measles and other genotypes. In addition, the cost of purchasing reagents and sampling kits for polio and measles laboratories, usually borne by the WHO country office, will have to be borne by the Malagasy government from 2020.

Financing the Transition: WHO and other GAVI Alliance partners should intensify advocacy for the signing of a decree implementing the national immunisation law, which is an essential step towards the effective establishment of a secure financing mechanism for immunisation and surveillance activities in Madagascar.

5.6. Technical Assistance (TA) (Progress made in the current targeted country assistance plan)

- **Strategic approach to the provision of technical assistance**

In 2018, the targeted country assistance plan will cover both the central and operational levels. It will conform to the vision of the Ministry of Public Health and will focus on the transfer of competence, the integration of programmes and the complementarity of all TFPs.

Despite some difficulties encountered in implementing the targeted assistance plan in the country, improvements have been noted in the areas affected by technical assistance. Currently, WHO, UNICEF, JSI, CARDNO, CARDNO and CRS have provided support for (i) programme implementation/coverage and equity, (ii) funding, (iii) data quality, (iv) supply chain, (v) vaccine specific support and (vi) demand promotion.

In addition to the partners of the GAVI Alliance, extended partners such as the World Bank, the EU and USAID are active in the field of immunisation.

Table 1: Distribution of technical support by institution and field

	WHO	UNICEF	JSI
Program implementation / coverage and equity	**Central office** - 01 International - 01 National **Regions** - 10 national	**Central office** - 02 International - 02 National **Regions** - 08 national	**Central office** - 01 National **Regions** 01 national
The financing	1 national/ **central**	- 01 National **/ Central**	
Data quality	- 01 National **/ Central**	-	- 01 National/ **Central**
The supply chain	01 International **/ Central**	- 01 International **/ Central**	
Vaccine-specific support			
Demand promotion	- 1 National / **Central**	- 01 National **/ Central**	- 01 National central

- **Partners' progress in providing technical assistance**

Programme coordination and implementation:

- Holding of the monthly meeting of the Technical ICC;
- Elaboration of the concept note and draft decree for the implementation of NITAG;
- Regular monthly analysis meetings to review program progress and teleconferences;
- Development of strategic documents such as the PTA, the application for the second dose of measles and the 2019 measles campaign;
- Capacity building of EMAR/EMADs on the conduct and technique of formative supervision, preparation of periodic reviews;
- Implementation of the urban approach in the Antananarivo Renivohitra district.

Data quality

- Development of the data improvement plan

- Harmonisation of SRM monitoring data between the EPI, DVSSER and IPM
- Monthly analysis and sharing of coverage data;
- Implementation Post-campaign measles coverage survey
- Elaboration of the document of the vaccination coverage survey (routine)
- Capacity building of EMAR/EMADs on the conduct of DQS
- Capacity building of EMAR/EMADs on data analysis

The financing

- Preparation of the draft decree implementing the law on vaccination;
- The balance of the liabilities on the co-financing of new vaccines and the gradual increase in the government's contribution for the acquisition of traditional vaccines
- Hybrid management of Gavi funding according to the activities allocated to each of the WHO agencies UNICEF and UCP
- Implementation of priority activities
- Update of the manual of procedures for administrative, financial, accounting and procurement management of GAVI grants
- Training workshop on the guide for district actors on how to use the funds received from GAVI

The supply chain

- Implementation of the CCEOP platform:
- LogiVac training for 30 EPI managers (22 from the regional level + 8 from the central office) and 30 maintenance managers (22 from the regions and 8 from the central office)
- Evaluation & Study of the DESIGN SYSTEM available,
- Realization of the supply chain optimization workshop

Demand promotion

- Development of risk communication plan;
- Integration of demand promotion activities into the operational plan of evidence-based activities;
- Development of implementation tools and monitoring of demand promotion
- Implementation of the social data research plan

Planning support

- Elaboration of the PTA 2018/2019 ;
- Support for the development of the bottom-up PTA from CSBs to districts;
- Training and development of micro-plans;
- Training on updating the DVDMT and using the data for action;

- Some difficulties related to the implementation of the targeted assistance plan in the country are identified, including:
- the measles epidemic that has been raging in the country since week 35 of 2019, freezing almost all routine immunization activities,
- Lack of coordination and communication between stakeholders in grant implementation: Directions-UCP-AF-OMS-UNICEF-DRS-Districts, following various emergencies;
- Failure to comply with pre-established activity schedules, resulting in a high frequency of treatment in emergency mode,
- Non-compliance and delay in the submission of supporting documents from implementing entities: districts and CSBs,
- Harmonization of compensation processing between entities and donors.

- According to the new vision of the Ministry of Health in Madagascar, a transversal approach should be provided by the technical and financial partners according to their new organizational chart. Thus, the terms of reference for technical assistance should be reviewed jointly with the national party in order to properly frame support according to the country's needs. To avoid duplication and to respect equity in technical and financial support, a regional approach has been adopted, supported by the integration of programmes within the framework of rational use of resources.

6. UPDATE OF THE RESULTS OF THE PREVIOUS JOINT EVALUATION

Joint evaluation (full JA)

Prioritized actions from the previous joint evaluation	Current status
Anticipate to ensure funding for the 2019 EPI annual action plan (including advanced/mobile strategies; formative supervision; equipment maintenance, vaccine transport costs, etc.)	All activities have been included in the 2019 ATP
Elaborate by mid-2019 a national plan for training and updating health facility workers on the management of the routine EPI;	The national training policy is available from 2011. Logivac training for 22 regional and 8 central respevs in Logivac
Develop the EPI's 2019 Annual Action Plan with emphasis on the implementation of high-impact interventions on immunisation outcomes: strategies for improving equity including urban strategies (revisit the targeting of priority districts);	The EPI 2019 ATP has been developed. Implementation of the ACE in 54 districts, an urban strategy has been implemented in the city of Antananarivo
Review and update of EPI management tools and their accessibility to all regions, districts and health centres in the country.	Updated EPI OG, BAT available. Multiplication of GPs by UNICEF according to GAVI funding through hybrid management
Review of the tools used to provide supervision and systematize formative supervision.	The country is currently using ISS of the ODK system for formative supervision.
Address deficiencies in the management of vaccine and input stocks in existing facilities (redesign of the supply chain with operationalization of regional depots).	The involvement of regional managers in the supply chain is effective as well as the use of existing regional depots. A design study is currently underway by JSI and activities are already planned in the supplementary budget.
Build and equip a suitable room for vaccine storage and EPI offices	Ongoing, land in Ivato is being acquired for the construction of the new MWED premises. The relocation of the MWED is adopted (construction and equipment of suitable premises for vaccine storage and EPI offices). The administrative formality for the acquisition of the land is in progress.
Develop an equipment maintenance plan by the end of September 2018 (so that its cost is integrated into the EPI's annual action plan).	Realized. Maintenance plan already developed and available
Identify strategies to improve data quality (significant differences between administrative data and WUENIC estimates), as part of an overall SIS approach	As a result of this activity, a data improvement plan for 2019-2022 was developed and aligned with PSRSIS 2018-2022.
Systematise the sharing of the GTS with the analysis of the tool for monitoring vaccine stocks and status	Monthly sharing
Train district officers in DVD-MT production	Realized. The 114 EPI officers at district level have been trained on the use of DVD-MT
Set up a quarterly mechanism to monitor the performance of the routine EPI, the Grant Performance Framework (Technical ICC)	Completed, A monthly meeting of the Technical ICC has been established to monitor routine EPI performance and the GAVI grant performance framework
Set up a monthly monitoring committee for the implementation and coordination of TA under the aegis of the EPI Director	The evaluation of consultants and ATRs is currently being implemented. An evaluation framework is being developed.

Carry out a mapping of partner support for Health System Strengthening and Immunization and Technical Assistance (lead partner of TFPs /BCC/UCP)	
Use the opportunity of GAVI funds allocated to Madagascar to demonstrate their impact on the achievement of C&E objectives during the mid-term review of the Gavi strategy in mid-December 2018	Specific activities to reach each target in landlocked districts were carried out, as well as city approaches.
Accelerate the implementation and effective functioning of NITAG;	The new Minister was informed by the MWED about the NITAG
Carry out joint formative supervision at the central and decentralized levels;	Joint supervision was planned but postponed due to the measles epidemic
Ensure the availability of the necessary resources for the management of the EPI at the CSB level (Wicks, oils, fuel for the implementation of advanced strategies)	Wicks available and supported by RSS1, The engagement procedure for oil procurement has been modified to facilitate direct purchase at the pump by the district manager. For fuels are managed by the districts.
Expand the study on the cost of transporting vaccines to the study on the supply system	The study was carried out by JSI: the result is not conclusive.
Carry out the vaccination coverage survey	The protocol and all documents, questionnaires... are available at the MWED level
Accelerate the signing of the decree implementing the law on vaccination and the operationalization of the special fund for vaccination, including the surveillance of vaccine-preventable diseases and sentinel surveillance;	Updating of the implementing decree and insertion of amendments. Next step: sending the decree to the SLRC for validation.
Strengthen the management of the Expanded Programme on Immunization by setting up mechanisms to stabilize EPI staff and updating the programme's organizational chart	The organizational chart is updated and available
Establish accountability mechanisms and timely reporting of supporting documents for GAVI and partner funding at the decentralized level;	Mechanism put in place, presence of a GAVI financial manager for monitoring financing at the MWED level
Strengthen the technical and financial management capacities of staff at all levels	Training of regional and district leaders on the PCU procedure manual was conducted
Develop a measles/rubella elimination plan and ensure adequate funding	The development of the disposal plan is planned for this year and is included in the 2019 ATP
Ensure the transfer of competence from Technical Assistance to clearly identified Ministry staff	RTAs working in some regions provide technical support to Ministry officials
Develop and implement the polio transition plan to ensure sustainability of achievements	The development of the transition plan is planned for this year and is included in the 2019 ATP
Include in the budget the statement of lines intended to finance monitoring activities	This line is not included in the BIA
Develop plans to maintain the elimination of TNN	The development of this plan is planned for this year and is included in the 2019 ATP.
Establish surveillance of congenital Rubella syndrome to provide evidence to support the introduction of MR vaccine after 2018;	A surveillance sentinel site is operational at the CHUMET

If the results have not been addressed and/or actions following these results have not been implemented, please provide a brief explanation and clarify whether they will be considered as priorities in the new action plan (see section 7 below).

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

The main activities for 2020 concern the improvement of coverage and equity through the implementation of the roadmap for the revitalization of routine immunization, including the effective implementation of the ACE approach according to the contexts of each district, namely the urban approach, intensive immunization activities in insecure and isolated areas, strategies to reduce VOMs. It should be noted that the introduction of the second dose of VAR is planned for 2020 and has already been approved by the Gavi Secretariat. The implementation of the MAP is also required in order to make appropriate decisions based on quality data. In addition, the improvement of logistics through CCEOP and the functionalization of depots at the regional level are important. In this perspective, the relocation of the EPI management is essential for both the warehouse and the offices. In terms of governance, the signing of the decree implementing the law on vaccination needs to be accelerated, and it is essential to strengthen the management of the EPI. The time is right to operationalize the NITAG. In terms of communication, the implementation of the communication plan, focusing on the hard-to-reach population and taking into account regional specificities, would improve demand. In addition, CSO activities in support at the community level need to be improved by capitalizing on good practices and improving indicators for monitoring their activities.
A reallocation of HSS2 funds was carried out following the identification of new districts. Considering the coverage and equity, the complementarity of TFPs, the integration of programmes in accordance with the country's policy, 33 districts have been selected for GAVI support.

Main result/action 1	**Improved coverage and equity**
Current reaction	GAVI support in 33 districts for the implementation of the ACE approach
Agreed country actions	Develop the EPI 2020 Annual Action Plan with a focus on implementing high-impact interventions on immunisation outcomes: strategies for improving equity including urban strategies (revisit the targeting of priority districts) and strategies to reduce VOMs; Prepare the EPI norms and standards document integrating the systematic catch-up of children who have not been fully vaccinated even after 1 year; - Train EPI actors at central, regional and district level in MLM; -Strengthen the capacity of health workers in health facilities, both public and private, in practical EPI; - Improve the implementation of the VAC approach with the input of all stakeholders including the private sectors to guide the development of context-specific strategies; -Introduce the second dose of VAR; - Make available to the 114 Districts the updated EPI management tools including supervision tools; - Continue monthly and quarterly monitoring of the performance of the routine EPI, the Grant Performance Framework (Technical ICC); - Use the opportunity of the Gavi funds allocated to Madagascar to show their impact on the achievement of coverage and equity objectives during the mid-term review of the Gavi strategy in mid-December 2019; - Accelerate the implementation and effective functioning of NITAG.
Expected outputs/results	- PTA 2020 developed before the end of 2019; - Document of EPI norms and standards available at all levels; -EPIctors trained in MLM; - Health workers trained in practical EPI;

	- Availability of ACE microplans at the level of health facilities; - Availability of management tools in all health facilities in 114 districts and 22 regions
Associated calendar	July 2019 - July 2020
Resources/support and technical assistance required	-Technical assistance for the preparation of the various documents -Technical assistance for the operationalization of the NITAG -Decentralized technical assistance in the regions supported for the implementation of the ACE approach
Main result/action 2	**Improved logistics and cold chain**
Current reaction	Implementation of the CCEOP, Acquisition of spare parts, freeze tag, fridge tag Availability of quality vaccines Availability of maintenance kits
Agreed country actions	- Build and equip a suitable room for vaccine storage and EPI offices; - Construction of 2 decentralized depots in Antsohihy and Fianarantsoa; - Ensure the availability of the necessary resources for the management of the EPI at the CSB level (Wicks, oils, fuel for the implementation of advanced strategies); -Implement a new supply chain scheme (supply model, regional depots, etc.); -Strengthen capacities (HR; maintenance, transport, IT, etc.); -Improve the quality of logistics data at regional and district level; -Develop guidelines for the disposal of absorption refrigerators; - Implement the equipment maintenance plan; Include the follow-up of GEV recommendations in the Logistics Sub-Committee's ToR.
Expected outputs/results	-Continuous availability of quality vaccines at all levels -Effective start of construction work on the storage and local warehouse for the MWED and new regional depots; -Quality logistical data available; -Implementation of the maintenance plan for cold chain equipment; -Functional regional repositories; - National coverage in solar refrigerator at 70.76%.
Associated calendar	July 2019-July 2020
Resources/support and technical assistance required	Technical assistance for capacity building in logistics management
Main result/action 3	**Improved data management and quality**
Current reaction	-Significant gap between administrative coverage and WUENIC estimate -Availability of the data improvement plan
Agreed country actions	- Finalize the PSA and submit it for validation by the decision-making ICC; - Strengthen the coordination of all partners involved in DHIS2 on the basis of the Tripartite Technical Assistance Agreement signed between the Ministry of Health, WHO and the World Bank; - Update the integrated RMA form to take into account the data elements necessary for the calculation of some indicators of the different programs in DHIS2 in order to avoid the persistence of parallel reporting systems; - Harmonize electronic surveillance data collection tools taking into account the agreement signed for technical assistance between MSANP, WB and WHO at hospital and community level (SEIE, DHIS 2, botoolbox, CommCare) with the involvement of all stakeholders (USAID, PSI, COMARESS); - Finalize the DHIS2 interoperability process with other software (CHANEL, SEIE, GESRESS, etc.); - Train the managers of the various programmes at central, regional and district level on the use of DHIS2; -Develop a guide for validating EPI data (in accordance with the SIS guide) to be disseminated at the peripheral level according to the SIS standards and procedures document;

	-Establish and/or make functional the data validation committee at all levels; - Train EPI managers on the conduct of DQS/LQAS; - Carry out DQS/LQAS in the districts.
Expected outputs/results	-Data improvement; -EPI data validation guide available; -Functional data validation committee at all levels.
Associated calendar	July 2019-July 2020
Resources/support and technical assistance required	Technical assistance for the implementation of the MAP
Main result/action 4	**Improved governance, management, coordination, coordination, financing of HSS2**
Current reaction	Insufficient EPI steering capacity
Agreed country actions	- Accelerate the signing of the decree implementing the law on vaccination and the operationalization of the special fund for vaccination, including the surveillance of vaccine-preventable diseases and sentinel surveillance; -Appoint the heads of the various MWED departments according to the new organizational chart; Accelerate the transfer of co-financing funds; -Operationalize the HSS2 monitoring committee; -Appoint the members of NITAG and validate their terms of reference; -Develop and make available to health workers a procedure manual for managing the funds allocated to health activities to guide stakeholders in the resource justification process; -Develop a marshal plan for a better absorption of HSS2 funds; - Strengthen the technical and financial management capacities of staff at all levels.
Expected outputs/results	-Decree implementing the law on vaccination ratified; -NITAG functional; -HSS2 monitoring committee operational; - Manual of procedure for managing funds allocated to health activities available.
Associated calendar	July 2019-July 2020
Resources/support and technical assistance required	Technical assistance for the management of the EPI
Main result/action 5	**SRM and MAPI surveillance strengthened to maintain the status of "TNN Elimination" and "Polio Free Country".**
Current reaction	Obtaining polio free status for the country MAPI Committee functional at central level
Agreed country actions	- Develop a measles/rubella elimination plan and ensure adequate funding; - Develop an annual work plan for the MAPI committee; - Form MAPI committees at the regional level; -Develop an annual work plan for sentinel sites monitoring new vaccines; - Finalize the polio transition plan to sustain the gains made; - Finalize the plan to maintain the elimination of MNT; - Implement strategies to strengthen the ownership of active surveillance activities by surveillance focal points, particularly through the use of new technologies (ISS); - Establish surveillance of congenital Rubella syndrome to provide evidence to support the introduction of the RR vaccine; - Include in the budget the statement of lines intended to finance monitoring activities; -Establish a plan for scaling up the electronic data collection and connectivity system of regions/districts.
Expected outputs/results	Plan to maintain the status of Madagascar as a polio-free country and to eliminate the TNNN developed and implemented; -MAPI committee functional at all levels.
Associated calendar	July 2019-July 2020

Resources/support and technical assistance required	-Technical support for studies on congenital rubella syndrome

8. JOINT ASSESSMENT PROCESS, APPROVAL BY THE NATIONAL COORDINATION FORUM (CCIA, CCSS OR EQUIVALENT) AND ADDITIONAL COMMENTS

The national coordination forums are functional, namely the HSCC and the Technical ICC, which meet on a quarterly and monthly basis respectively. Concerning the GCTV, a select committee has been created to finalize the concept note and the implementation decree. The next steps are the validation of the concept note and decree, the appointment of members and their orientation.

A meeting of the Technical ICC defined the methodology to be adopted to prepare the joint assessment.

- ***Preparatory phase :***

A committee has been set up to prepare the review of the joint evaluation and includes the MWED team, the GAVI focal point, representatives of civil society and technical and financial partners, including those of the Alliance. A teleconference was held between the country's preparatory committee and the coordinating committee on the status of preparations. All relevant data and documents were made available to the members of the team involved in conducting the joint assessment one week before the joint assessment began, so that they could be reviewed and analyzed to inform the discussions. The draft of the report was shared.
An introductory meeting, to frame the mission's work with the Alliance's technical partners and a meeting with HEM the Minister of Public Health was held.

- ***Joint evaluation:***

The workshop itself took place from 23 to 25 July 2019 at the Carlton Hotel. The status of implementation of the recommendations of the previous joint evaluation was presented by the managers of the EPI/RSS programmes, followed by the analysis of the situation, at the beginning of the evaluation work. Subsequently, the main and expanded partners updated their targeted technical assistance activities: results of the ATT 2018, status of implementation of the ATT 2019, skills transfers, challenges and solutions. Then, group work followed by plenary feedback was carried out to identify priority activities and technical assistance needs for 2020.
A daily debriefing was carried out by the coordination committee to evaluate the progress of the workshop and prepare for the following day.

- ***After the joint evaluation:***

A meeting was held at the Ministry of Public Health on 26 July 2019 in the presence of the technical and decision-making ICC. The summary of the result and the recommendations resulting from the evaluation were presented during this session. A drafting committee has been appointed to finalize the final report. The preliminary report was submitted to the members of the Technical ICC on 6 September 2019 for approval before being sent to the GAVI Secretariat.

9. APPENDIX: Compliance with Gavi's reporting requirements

	Yes	No	Not applicable	Observation
Year-end stock level report (to be submitted by 31 March)*	Yes			Portal May 15
Grant Performance Framework (GPF)* Reports on all mandatory indicators	Yes			Portal May 15
Financial reports* GAVI				
Periodic financial reports	Yes			Half-yearly report [1] July to 31 December 2018 sent by e-mail UCP on 09 March 2019
Annual financial statement	Yes			Included in the audit report of the accounts as at 31 December 2018
Annual financial audit report	Yes			Sending DCS mail 01 July 2019
Campaign reports*				
Technical report on supplementary immunization activity	Yes			Measles campaign 3 phases.
Report on surveys on campaign coverage			N/A	Ongoing investigation (Measles)
Information on financing and expenditure related to immunisation				To be taken in JRF
Data quality reports and survey reports				
Annual document review of data quality	Yes			
Data Improvement Plan (DIP)	Yes			To be validated by the decision-making ICC (to be included in the agenda of the decision-making ICC)
Progress report on the implementation of data improvement plans			N/A	
In-depth data assessment (conducted over the past five years)			N/A	
Representative national coverage survey (conducted over the past five years)			N/A	
Updating the annual progress report on the plan to improve effective vaccine management (EVM)	YES			
(POECF): updated inventory of ECFs	YES			
Post-introduction evaluation (PPE) (specify vaccines)			N/A	

Joint evaluation (full JA)

Situation analysis and five-year measles-rubella plan				
Operational plan for the vaccination programme				
HSS End-of-Grant Evaluation Report			N/A	
Outcome of the HPV vaccine demonstration program			N/A	
Coverage survey			N/A	
Cost analysis			N/A	
Adolescent Health Assessment Report			N/A	
Partner reports on the functions of the CAW and EFP	YES			Portal portal

LIST OF TABLES

LIST OF GRAPHS

GAVI - RSS2 - CONSOLIDATED SITUATION AS AT 30/06/2019

Description	Budget Initial (1)	Utilisation (2)	Ecart (3) = (1)-(2)	% Absorption (4) = (2)/(1)
A - BUDGET	$16 639 762			
B - RESSOURCES		$8 643 937		
1 - Fonds Reçus		$7 503 872		
2- Paiement Direct par Secrétariat GAVI		$1 140 065		
C- UTILISATION DES FONDS PAR OBJECTIFS	$16 639 762	$3 901 237	$12 738 525	23%
Objectif 1 - Renforcer la couverture des services de soins de santé primaire de qualité et de la vaccination dans les Formations Sanitaires.	$8 359 053	$779 414	$7 579 639	9%
Objectif 2 - Renforcer la capacité de la chaîne de froid et de stockage des intrants PEV aux niveaux national, régional, district et CSB	$3 040 123	$1 027 434	$2 012 689	34%
Objectif 3 - Renforcer le système d'information sanitaire pour la production de données de qualité et leur utilisation à tous les niveaux en vue de faciliter le suivi / évaluation	$1 722 348	$682 916	$1 039 433	40%
Objectif 4 - Renforcer l'utilisation de service de soins à travers la stimulation de la demande	$1 617 210	$48 888	$1 568 322	3%
Objectif 5 - Renforcer la viabilité du financement de la vaccination	$197 633	$38 004	$159 629	19%
Objectif 6 - Management Costs (UCP)	$1 135 270	$83 634	$1 051 636	7%
Coûts additionnelles de gestion (OMS & UNICEF)	$568 125	$86 721	$481 404	15%
Activities liées à la campagne rougeole	$0	$980 025	($980 025)	0%
Formation LOGIVAC	$0	$174 200	($174 200)	0%
D - RELIQUATS par rapport aux Ressources (Fonds Reçus et Paiement Direct) [B-C]		$4 742 700		
% d'implementation par rapport aux Ressources (C) / (B)		45%		

Note :

Direct payments by the GAVI Secretariat break down as follows:

Country co-investment in the CCOP	$965 865
LOGIVAC Training	$174 200
Total Total	**$1 140 065**