

Abbreviated form for the request of additional doses

Below are key features to be provided with the request form:

1. The request will be endorsed by an authorised official from Ministry of Health and Ministry of Finance.
2. The completed request must be submitted to Gavi by e-mail (proposals@gavi.org copying the SCM) by **30 January 2019**.
3. Supporting documents as per page 3 of this form.

Rationale

Please explain in the area below the rationale for the request of additional doses, including previous assumptions

As a country in the meningitis belt of sub-Saharan Africa, Chad has long been subjected to frequent outbreaks of type A meningitis, including the large 2011 outbreak that affected 5,960 people. The inaugural immunisation campaign against MenA was organized in 2011-2012 and targeted individuals aged 1-29 years. The MenAfriVac vaccine was introduced into routine immunisation in July 2017. A MenA immunisation campaign was planned in the wake of the MenAfriVac inclusion into routine EPI to strengthen the population's herd immunity, targeting cohorts that had not been born at the time of the inaugural 2011 campaign (children 1-7 years). This campaign, initially scheduled for March 2017 to cover an estimated target of 3,512,839 children aged 1-7 years, could not be conducted even though the vaccines and injection supplies were available, as were Gavi funds for the operational costs at the country level, and even though campaign management tools and microplans had been produced and created. There are a variety of reasons for the multiple delays, including:

- Budget revision discussions, which needed considerable time in order for this budget to meet Gavi requirements;
- The month of Ramadan, which took place from mid-May to mid-June 2018 and was not a favourable time for conducting widespread activities among the population;
- The rainy season, which began in June and is the time populations are working in the fields;
- The measles outbreak that was reported in May 2018 and required urgent actions to treat cases and conduct a vaccine response.

The provinces were divided into two groups to conduct this campaign, with 12 in the first group and 11 in the second. A decision was made to experiment with combining the measles response campaign with the MenA campaign in N'Djaména.

However, after immunisations were given in the first group of provinces there were insufficient

vaccines to cover the remainder of the country, due to an increase in the population and immunisation of non-target individuals. The remaining provinces were therefore divided into two subgroups: subgroup A consisted of 7 provinces and subgroup B of 4 provinces. The decision was made to administer the remaining vaccines in subgroup A and to seek additional vaccines for subgroup B.

When immunisation in the 7 subgroup A provinces was complete, 175,000 doses of MenAfriVac remained. To avoid wasting these remaining doses, the Ministry of Health (MoH) decided to administer them in Salamat, one of the subgroup B provinces, which was selected based on the size of its target population, which matched the number of remaining vaccines. The MenA immunisation campaign in Salamat province was conducted from 26 January 2019 to 02 February 2019. Preliminary results indicate that only 1 of the 18 regions reached the 95% immunisation coverage (IC) goal (see annexes). Three provinces have not yet been immunised: Sila, Moyen-Chari and Mandoul. They require 783,404 doses of the vaccine for a target population estimated at 681,221. An IC survey will be conducted in the other regions once their campaigns are completed.

Context

The section briefly captures relevant information on the context including some of the following:

(i) Country context

• Country situation

Chad, a large country in central Africa, has an area of 1,284,000 km² with a 2019 estimated population of 16,918,566 and an annual growth rate of 3.6%. Its population is young (50.6% are under age 15 and 18.2% of children are under 5). An estimated 22.8% of women are of child-bearing age (15-49 years) and the annual birth rate is 44.5 per 1,000; the expected number of births each year is therefore estimated at 752,876 (source: INSEED projection). Chad is one of the poorest countries in the world, ranking 186th out of 188 according to the UNDP's Human Development Index (HDI) in 2014. Life expectancy at birth is 54.5 years for women and 51.7 years for men (Wikipedia, 2016 data).

Despite various constraints, including a weak health system, insecurity in several health districts due to conflicts in some neighbouring countries, and limited access to health services, Chad has made progress in reducing infant and child mortality rates. A comparison of newborn, infant, and child mortality rates shows that between the 2004 DHS and the 2014-2015 DHS/MICS, these rates declined from 39 to 34 per 1000 live births (newborns), 102 to 72 per 1000 live births (infants), and 191 to 133 per 1000 live births (children). The leading causes of death for children under five are problems at birth, infectious diseases (including vaccine-preventable diseases (VPD)), malnutrition, and HIV, all of which occur in a context of poor access to health services.

• Epidemiological context

Chad lies in Africa's meningitis belt, a region that extends from Senegal in the west to Somalia in the east. This region is known for frequent, deadly outbreaks of meningitis, whose most dangerous form is meningococcal type A. With support from Gavi and other partners, Chad organized an inaugural immunisation campaign in 2011 and 2012 providing MenA vaccine coverage across the entire country and immunising 8,686,026 individuals between the ages of 1 and 29. The number of meningitis cases fell dramatically after this mass campaign, as shown in Table 1 below. The country recorded 5,960 suspected cases of meningitis in 2011; of the 405 samples tested in a laboratory, 111 were positive and 105 were positive for MenA. Following the mass immunisation campaign with the conjugated MenA

vaccine conducted in 2011 and 2012, Chad has not recorded a single case of type A meningitis since 2013.

Table 1: Change in meningitis cases from 2010 to 2019

Year	Total no. of cases	Total samples taken	Positive samples						
			Total	NmA	Pneumo	NmW135	Hib	NmX	Indeterminate
2010	3,058	272	27	22	5	0	0	0	0
2011	5,960	405	111	105	3	1	0	2	0
2012	3,795	345	70	57	6	4	0	3	0
2013	349	141	32	1	24	3	4	0	0
2014	217	85	16	0	12	2	2	0	0
2015	225	32	9	0	6	1	2	0	0
2016	206	22	28	0	21	1	5	1	0
2017	454	395	121	0	53	7	18	39	4
2018	401	365	118	0	65	14	15	19	4
2019*		68	14	0	6	5	2	1	0

*W1 to W5 of 2019

Source: Integrated disease surveillance and HGRN Laboratory.

These positive results encouraged Chad to introduce the new MenA vaccine into routine EPI with support from its partners, including the Gavi Alliance, and to plan a campaign against meningitis targeting children aged 1-7 years, the cohort born after the inaugural 2011 and 2012 mass MenA immunisation campaign.

(ii) Programme context

When the 2013-2017 cMYP was revised in 2014 to adapt to Global Vaccine Action Plan (GVAP) and Regional Strategic Plan for Immunisation (RSPI) guidelines, the MoH and its main immunisation partners developed the comprehensive Multi-Year Plan (cMYP) for 2018-2022. The primary goals of that plan for controlling meningitis and other VPDs are given below.

a. What are the objectives, key indicators, and expected outcomes? ;

- By the end of 2022, the IC for all antigens will be at least 80% in all districts and at least 90% at the national level.
- By 2022, accelerate progress against polio, measles, meningitis, and tetanus by organising high-quality SIAs.
- By 2022, 80% of health districts/regions will have achieved the major performance indicators for surveillance of measles, meningitis, MNT, and yellow fever.

Key indicators

- Percentage of districts with IC \geq 80% for all antigens
- National IC \geq 95% for all antigens
- Percentage of reported meningitis cases investigated with a specimen

- Number of AEFI cases reported

b. What are the specific additional target population (specific number of people) to be reached? ;

A total of 681,221 target children (1-7 years) need to be immunised against MenA in the remaining three regions (Sila, Mandoul and Moyen-Chari).

c. Specific districts/regions/states to be reached;

The districts that need immunisation in the three remaining districts are given below.

Health Province	Health District	Total Population in 2019	Target Population 1-7 years (26% of TP)	Vaccine Needs	Sharps Boxes Needs
MOYEN CHARI	Danamadji	196,981	51,216	58,898	1,708
	Maro	110,201	28,652	32,950	908
	Korbol	42,070	10,938	12,579	322
	Kyabé	151,930	39,502	45,427	1,337
	Biobé	93,168	24,224	27,858	770
	Sarh	257,277	66,892	76,926	2,270
Subtotal Moyen Chari		851,627	221,424	234,658	7,315
MANDOUL	Koumra	186,497	48,489	55,762	1,542
	Moïssala	179,063	46,556	53,539	1,591
	Bouna	100,791	26,206	30,137	819
	Bédjondo	263,675	68,556	78,839	2,290
	Goundi	219,511	57,073	65,634	1,871
	Bedaya	86,143	22,397	25,757	640
	Bekourou	57,501	14,950	17,193	465
Subtotal Mandoul		1,093,181	284,227	326,861	9,219
SILA	Goz-Béïda	288,407	74,986	86,234	2,408
	Am-Dam	116,889	30,391	34,950	881

Koukou	170,033	44,209	50,840	1,371
Tissi	99,940	25,984	29,882	809
Subtotal Sila	675,269	175,570	201,906	5,469
Total for 3 provinces	2,620,077	681,221	783,404	22,003

d. What are the actions to be taken?

The campaign will be organised for November 2019 due to the delay in approving the grant and ordering vaccines (4-6 months) and the difficulty accessing the regions of Sila and Moyen Chari during the rainy season (May to September). Five polio immunisation campaigns are planned for this year: the first three in February, March and April, and the last two in the final quarter of 2019.

The success of any campaign depends on the quality of the preparations and on the lessons learned from previous campaigns. Some preparations were completed when preparing for the group 1 and subgroup A MenA campaign. These include producing and copying management tools and communication materials, and developing training modules. No specific support is needed.

In terms of logistics, vaccines and other supplies needed for a quality campaign will need to be sent to the regions and districts, then on to the responsibility zones one week before the start of the campaign at the latest.

A briefing will be organised to update the knowledge of central level supervisors, who will be chosen on the basis of their demonstrated performance in two previous campaigns. These supervisors will be responsible for training regional and district supervisors, and together will conduct advance supervision visits to assess the preparation level of the regions, districts, and responsibility zones. Nationally, the status of preparations will be monitored by the national coordination committee, using the "SIAs Readiness Dashboard" tool created by WHO.

Vaccinators will be hired at the local level and trained by district supervisors, with support from central and provincial supervisors.

The population will be informed of the campaign through a variety of channels: radio advertisements and programmes, as well as messages delivered by religious organisations, community-based organisations, in schools, by community mobilisers and by public criers. The public information component will be supported by advocacy to political, traditional, and religious leaders to boost their commitment to the immunisation campaign.

Providers will receive electronic payments (Tigo Cash, Express Union), a lesson learned from payments in the Moundou district.

e. What has changed since the original approval? What are the challenges resulting from these changes? What would be the interventions necessary to address these changes?

Since funding for the MenA campaign was approved in 2016, and through a national multisectoral coordination body (composed of the ministries of education, agriculture, communication, and security, and an association of traditional leaders and CSOs), the Ministry has followed the daily progress of campaigns and the operational problems they encountered, and promptly offered solutions. For example, in the provinces of Lac, Ennedi Ouest and Borkou where campaign progress was slow, a letter signed by the Director General of the Ministry of Health was sent to the provincial health leaders asking for plausible explanations and urgent action, which resolved the problems.

Following a directive by the MoH to ensure transparency in fund management, providers in Moundou were paid through electronic funds transfers on an experimental basis, with the intention of scaling up to the national level. Although this system ensured transparency and made it easier to justify funding, the district management team resisted this method of payment because they felt they had been circumvented and disobeyed. To address this problem, specifications will be created between providers, the peripheral level and the central level.

Two years passed between the campaign planning (2016) and its execution (late 2018). During that time there was an influx of nomadic populations from Nigeria and refugees fleeing insecurity in Sudan and the Central African Republic. This influx, combined with the under-estimation of requirements in 2016 (which used 22% as the percentage of the target population rather than 26%) and the natural increase in the population over two years, plus the immunisation of children outside the target group, all led to the gap in vaccines that prevented all provinces from getting immunised in 2016 as planned.

To make sure this problem does not recur, the target in the three provinces to be immunised was calculated taking all of these factors into account (nomad and refugee populations and 26% as the percentage of children aged 1-7 years).

f. If applicable, indicate how these additional doses were provided prior to “this request” along with the previous source of funding (i.e. other donor, government, etc.)

(iii) How does this request integrate with other ongoing programmes?

The meningitis immunisation campaign will be an opportunity to combine vitamin supplementation and mebendazole deworming activities for children.

It will also be a chance to strengthen routine EPI by identifying (through mothers who come to the sites) children under one year who are under-immunised and referring them to health centres to receive the missed vaccines.

(iv) Please discuss if this request would address any coverage and equity issues

Particular emphasis will be given to reaching hard-to-access populations, including nomads, island populations and those living in insecure areas, to ensure eligible children receive a meningitis vaccine during this campaign. To do that, the progress of the campaign will be assessed daily by the national, regional and district committees to identify areas that are not reached or are insufficiently covered, and to decide on appropriate actions to ensure effective immunisation.

***(v) Brief summary of engagement with other key stakeholders
(Maximum 1000 words)***

During the March 2018 National Forum on Immunisation, several key actors committed to supporting activities to allow everyone to exercise their right to immunisation, including:

- Provincial governors: to ensure the commitment to and participation of all actors involved in promoting health and immunisation.
- Traditional leaders (sultans, canton leaders) and neighbourhood heads: to ensure daily management of villages/neighbourhoods to promote health, social cohesion, and development.
- Religious organisations: to participate in social mobilisation of populations.

The advocacy meetings mentioned above will be an opportunity to revive these commitments during the campaign preparation period.

It should also be noted that the Government of Chad is committed at the highest level to supporting immunisation. The head of state ordered the government to budget an envelope of 3 billion CFA francs to support immunisation, and chaired a monthly meeting on health with the various actors involved.

The participation of other sectors (education, agriculture, security, communication, associations of traditional leaders, civil society, etc.) in meetings with the national multisectoral body is concrete evidence of their commitment to immunisation. Representatives from these sectors used their specific skills to resolve several of the operational problems from two earlier campaigns (school refusal, refusal in specific locations, participation in mobilising the population, etc.).

Past implementation challenges and lessons learned from Gavi/other partner support in your country as applicable.

Give an update on Men A SIA, the outcomes, the issues; Explain how these challenges and lessons learned are taken into account in this request

(Maximum 800 words)

The meningitis immunisation campaign in the 12 provinces of Group 1 and the 7 in subgroup A was able to immunise 3,179,944 children aged 1-7 out of the expected 2,948,944.

Some problems were observed during the group 1 campaign, however, including:

- Immunisation of non-target children, either due to confusion with the measles response target population in areas where the two activities were combined (N'Djamena), or due to pressure from parents on vaccinators in some areas to administer the MenA vaccine to all of their children regardless of age.
- Delayed resupply of ice packs to teams at some sites.
- Hesitation by some supervisors to travel to hard-to-reach areas.
- The Moundou district management team interpreted the direct transfer of bonuses to immunisation team members as a loss of power.
- Vaccine refusal in one area of the Ennedi Ouest province.
- Shortage of vaccines to immunise the rest of the country after the Group 1 campaign. This shortage was due to needs estimates that date back to 2016, under-estimated initial target population calculations (using 22% instead of 26%), and to non-target children being immunised.

The problem of delayed resupplies of ice packs to immunisation teams was resolved during the Group 1 campaign, by instructing chief district physicians to create a resupply plan to get ice packs to teams every 3-4 hours throughout the day.

During preparations for the campaign in subgroup A, supervisors were selected on the basis of demonstrated performance during the Group 1 campaign; those who did not meet expectations were not reassigned.

To address the issue of directly transferring bonuses to immunisation teams, the central level will provide additional information to district management teams about the benefits of this payment method, and will establish specifications between providers, district management teams, and the central level. These measures should resolve the frustrations.

Participation by the representatives from the traditional leaders association and the education sector in the daily campaign monitoring sessions was key to resolving the issue of mass refusal of the MenA vaccine that had been observed in one location in the Ennedi Ouest province and in several schools in N'Djamena. Cross-sector involvement [sic]

Current calculations of vaccine requirements take into account the population growth since 2016, the percentage of target children in the population, and population movements. Training for immunisation teams and supervisors will stress the importance of adhering to the target population.

Vaccine-related specifics:

Year	Vaccine name and presentation	Wastage	Target age	Population in target age cohort	Target population to be vaccinated according to coverage rate
2019	MenA 10 doses	15%	1 to 7 years	681,221	681,221

Source of data:

National Forum on Immunisation in Chad, March 2018
 2018-2022 cMYP (comprehensive Multi-Year Programme)
 PSN
 Wikipedia, 2016 data
 INSEED
 DSIS/MoH

Other comments/recommendations (optional)

Provide any additional contextual information relevant to the request (any explanations that further clarify any possible linkages, routine monitoring, any considerations, or data that informed the request or updates of the request).

Most of the supplies needed (dilution syringes, auto-disable syringes) are available, but there is a need for 22,003 sharps boxes.

A 15% wastage rate is used here, because despite instructions and monitoring, field teams often immunise children outside the age range.

The wastage rate is higher to account for non-target immunisation. Children outside the target age are older (over 7, not under 1 year); sometimes parents insist on immunising their children, even if they are not the target age, and refuse to have target children immunised if older ones are not also. These non-target children were in theory immunised during the 2012 campaign, although some were not due to population movements from other countries (refugees) or due to incorrect denominators. This is a recurring problem in Chad, despite training and supervision.