



*Gavi*

# Application Form for Country Proposals

*For Support to:*

*Routine New Vaccines Support*

Submitted by

The Government of

**Chad**

Date of submission: **Not yet submitted**

**Deadline for submission: 8 September 2015**

Select Start and End Year of your Comprehensive Multi-Year Plan (cMYP)

Start Year

2015

End year

2019

Form updated in 2015

(To be used with Guidelines dated October 2014)

**Please submit the Proposal using the online platform**

<https://AppsPortal.gavialliance.org/PDExtranet>

Enquiries to: [proposals@gavi.org](mailto:proposals@gavi.org) or representatives of a Gavi partner agency. Unless otherwise specified, the documents can be shared with Gavi partners, collaborators and the general public. The Proposal and attachments must be submitted in English, French, Spanish, or Russian.

Note: Please ensure that the application has been received by Gavi on or before the day of the deadline.

Gavi is unable to return submitted documents and attachments to the country.

## **Gavi ALLIANCE GRANT TERMS AND CONDITIONS**

### **FUNDING USED SOLELY FOR APPROVED PROGRAMMES**

The applicant country ("Country") confirms that all funding provided by the Gavi Alliance will be used and applied for the sole purpose of fulfilling the programme(s) described in the Country's application. Any significant change from the approved programme(s) must be reviewed and approved in advance by the Gavi Alliance. All funding decisions for the application are made at the discretion of the Gavi Alliance Board and are subject to IRC processes and the availability of funds.

### **AMENDMENT TO THE APPLICATION**

The Country will notify the Gavi Alliance in its Annual Progress Report if it wishes to propose any change to the programme(s) description in its application. Gavi Alliance will provide the necessary documents for the approved change, and the country's request will be duly amended.

### **RETURN OF FUNDS**

The Country agrees to reimburse to the Gavi Alliance all funding amounts that are not used for the programme(s) described in its application. The country's reimbursement must be in US dollars and be provided, unless otherwise decided by the Gavi Alliance, within sixty (60) days after the Country receives the Gavi Alliance's request for a reimbursement and be paid to the account or accounts as directed by the Gavi Alliance.

### **SUSPENSION/ TERMINATION**

The Gavi Alliance may suspend all or part of its funding to the Country if it has reason to suspect that funds have been used for purposes other than for the programmes described in this application, or any Gavi Alliance-approved amendment to this application. Gavi Alliance reserves the right to terminate its support to the Country for the programs described in this proposal if Gavi Alliance receives confirmation of misuse of the funds granted by Gavi Alliance.

### **ANTICORRUPTION**

The Country confirms that funds provided by the Gavi Alliance shall not be offered by the Country to any third person, nor will the Country seek in connection with its application any gift, payment or benefit directly or indirectly that could be construed as an illegal or corrupt practice.

### **AUDITS AND RECORDS**

The Country will conduct annual financial audits, and share these with the Gavi Alliance, as requested. The Gavi Alliance reserves the right, on its own or through an agent, to perform audits or other financial management assessment to ensure the accountability of funds disbursed to the Country.

The Country will maintain accurate accounting records documenting how Gavi Alliance funds are used. The Country will maintain its accounting records in accordance with its government-approved accounting standards for at least three years after the date of last disbursement of Gavi Alliance funds. If there is any claims of misuse of funds, Country will maintain such records until the audit findings are final. The Country agrees not to assert any documentary privilege against the Gavi Alliance in connection with any audit.

### **CONFIRMATION OF LEGAL VALIDITY**

The Country and the signatories for the Country confirm that its application, and Annual Progress Report, are accurate and correct and form legally binding obligations on the Country, under the Country's law, to perform the programmes described in its application, as amended, if applicable, in the APR.

### **CONFIRMATION OF COMPLIANCE WITH THE Gavi ALLIANCE TRANSPARANCY AND ACCOUNTABILITY POLICY**

The Country confirms that it is familiar with the Gavi Alliance Transparency and Accountability Policy (TAP) and complies with the requirements therein.

### **Use of commercial bank accounts**

The Country is responsible for undertaking the necessary due diligence on all commercial banks used to manage Gavi cash-based support. The Country confirms that it will take all responsibility for replenishing Gavi cash support lost due to bank insolvency, fraud or any other unforeseen event.

### **ARBITRATION**

Any dispute between the Country and the Gavi Alliance arising out of or relating to its application that is not settled amicably within a reasonable period of time, will be submitted to arbitration at the request of either the Gavi Alliance or the Country. The arbitration will be conducted in accordance with the then-current UNCITRAL Arbitration Rules. The parties agree to be bound by the arbitration award, as the final adjudication of any such dispute. The place of arbitration will be Geneva, Switzerland.

The languages of the arbitration will be English or French.

For any dispute for which the amount at issue is US\$ 100,000 or less, there will be one arbitrator appointed by the Gavi Alliance. For any dispute for which the amount at issue is greater than US \$100,000 there will be three arbitrators appointed as follows: The Gavi Alliance and the Country will each appoint one arbitrator, and the two arbitrators so appointed will jointly appoint a third arbitrator who shall be the chairperson.

The Gavi Alliance will not be liable to the country for any claim or loss relating to the programmes described in the application, including without limitation, any financial loss, reliance claims, any harm to property, or personal injury or death. Country is solely responsible for all aspects of managing and implementing the programmes described in its application.

# 1 Application specifications

Please specify the type of Gavi support you would like to apply for.

Type of Support	Vaccine	Start Year	End year	Preferred second presentation[1]
Routine New Vaccines Support	Meningococcal A, 10 dose(s) per vial, LYOPHILISED	2017	2019	If the selected vaccine is not your 1st preference, please state your preferred vaccine and presentation
	If the selected vaccine is not your 1st preference, please state your preferred vaccine and presentation			

**[1]** If, [1] For a variety of reasons, the first preferred vaccine is only available in limited quantities or is not available in the short term, Gavi will contact the country and its partners to explore alternative options.. A country will not be obliged to accept its second or third preference; however, Gavi will engage with the country to fully explore a variety of factors (such as implications on introduction timing, cold chain capacity, disease burden, etc.) which may have an implication for the most suitable selection of vaccine. If a country does not indicate a second or third preference, it will be assumed that the country prefers to postpone introduction until the first preference is available. It should be noted that this may delay the introduction in the country.

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### 3 Executive Summary

Please provide a summary of your country's proposal, including the following the information:

- For each specific request, NVS routine support or NVS campaign :
  - Duration of support
  - The total amount of funds requested
  - Characteristics of vaccine(s), if necessary, and the reason for the choice of the format
  - Month and year of planned introduction of the vaccine
- Relevant baseline data, including:
  - DTP3 and Measles coverage data (as reported on the WHO/UNICEF Joint Reporting Form)
  - Birth cohort, targets and immunisation coverage by vaccines
- Country preparedness
  - Summary of the EPI assessment report and progress report on the implementation of the planned improvements
- The nature of stakeholders' participation in developing this proposal
  - Inter-Agency Coordinating Committee
  - Partners, including CSO involvement

Please provide a summary of your country's proposal, including the following the information:

For each specific request, NVS routine support or NVS campaign :

**Duration of support:** 2017-2019

**Total funding amount requested** from Gavi: 490,720 USD for introduction of the vaccine into routine immunisation and 2,283,345 USD for catch-up campaigns.

**Features of the vaccine(s), as applicable, and the reason for choice of presentation**

MenAfriVac 5µg for routine (10 doses) and MenAfriVac 10µg (10 doses) for the campaign based on WHO recommendations based on the efficacy and safety of the vaccine during the previous initial campaigns in Africa and the results of clinical trials for the MenAfriVac µg vaccine.

**Anticipated month and year of introduction of the vaccine**

- Introduction into routine immunisation in **January 2017 for 613,400 children under one year old;**
- Catch-up campaign for 1-7 years old in **March 2017, i.e. an estimated target of 2,448,562**

Relevant baseline data, including:

**Data regarding DTP3 and measles coverage (as appearing on the joint WHO/UNICEF declaration form)**

- According to official national estimates, coverage rates are 83% for DTC3 and 79% for VAR (JRF 2014).

Number	Reference year			Goals with MenAfriVac	
2013	2017	2018	2019		
Total number of births			532,482	613,400	635,483
658,360					
Total number of surviving infants			478,169	550,834	570,664
591,207					
Target receiving Meningococcal A1]			0	495,750	513,598
Meningococcal A coverage[2]			0 %	90 %	90 %
%					90

## **Country preparedness**

Chad has a rather extensive experience with introducing new vaccines; the country introduced the yellow fever vaccine and the pentavalent vaccine (DTC-Hep-Hb) respectively in 2005 and 2008, and recently in 2015 the Inactivated Polio Vaccine (IPV).

With regard to logistics and cold chain, significant improvements and acquisitions have been made since 2014 and are ongoing. They have allowed an improvement in storage capacities at the national and operational levels.

Regarding human resources, health personnel in the regions, districts and health centres have undergone skills refresher training in EPI management between 2013 and 2015 and the country, with international and national staff, from the IEP, deployed throughout the country to support health personnel at the national and the operational level.

## **Summary of the EVM assessment report and the stage report regarding implementation of the improvement plan**

Scores for all assessment criteria for the 2015 EVM increased over those from the 2010 EVM assessment. Of course a lot of work was done and this is very encouraging, though there is still a great deal to be done to attain the satisfactory score of at least 80% for most of the criteria, primarily at the decentralised level.

The corresponding major recommendations are:

- Prepare and monitor the maintenance plan for buildings, vehicles and the cold chain.
- Prepare and implement a distribution programme for vaccines and consumables according to the pace specified at all levels and subcontract if necessary.
- Integrate the analysis of temperature reports, cold chain inventory and monitoring of vaccine wastage during coordination meetings.

An improvement plan was prepared and validated by the ICC in July 2015.

## **Type of stakeholders that participated in the preparation of this application**

Statement of interest for the introduction of MenAfriVac into the routine EPI was expressed by official memo dated May 6, 2015, sent to the Gavi Secretariat.

The EPI Technical Advisory Committee (EPI TAC), including the national coordinators of the EPI and various partners, was charged with developing the plan to introduce MenAfriVac into the routine EPI. This plan was approved by the ICC at its meeting on 4 September 2015.

## 4 Signatures

### 4.1 Signatures of the Government and National Coordinating Body

#### 4.11 The Government and the Inter-Agency Coordinating Committee (ICC) for immunisation

The Government of Chad wishes to consolidate the existing partnership with Gavi to strengthen its national routine infant immunisation program and is specifically requesting Gavi support for:

**Meningococcal A, 10 dose(s) per vial, LYOPHILISED** systematic introduction

The Government of Chad commits itself to developing national immunisation services on a sustainable basis in accordance with the Comprehensive Multi-Year Plan presented with this document. The Government requests that the Gavi Alliance and its partners contribute financial and technical assistance to support immunisation of children as outlined in this application.

Table(s) 6.2.4 in the systematic NVS section of this application shows the amount of support in either supply or cash that is required from the Gavi Alliance. Table(s) 6.2.3 of this application shows the Government financial commitment for the procurement of this new vaccine (NVS funding only).

Following the regulations of the internal budgeting and financing cycles the Government will annually release its portion of the co-financing funds in the month of **January**.

The payment of the first year of co-financed support will be due around **January 2017** for **Meningococcal A, 10 dose(s) per vial, LYOPHILISED**.

It should be noted that any request not signed by the Ministers of Health and Finance, or by their authorised representatives, will not be examined or recommended for approval by the Independent Examination Committee (IEC). These signatures appear in Documents Nos.: 1 and 2 in Section 10. Attachments

Minister of Health (or delegated authority)		Minister of Finance (or delegated authority)	
Name		Name	
Date		Date	
Signature		Signature	

*This report has been compiled by (these persons may be contacted by the Gavi Secretariat if additional information related to this proposal is required):*

Full name	Title	Telephone	E-mail
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#### 4.1 2 National Coordinating Body/Inter-Agency Coordinating Committee for Immunisation

Agencies and partners (including development partners and NGOs) supporting immunisation services are co-ordinated and organised through an inter-agency coordinating mechanism (ICC, Health Sector Coordinating Committee (HSCC), or equivalent committee). The ICC, HSCC, or equivalent committee is responsible for coordinating and guiding the use of the Gavi NVS routine support and/or campaign support. Please provide information about the ICC, HSCC, or equivalent committee in your country in the table below.

##### Profile of the ICC, HSCC, or equivalent committee

Name of the committee	
Year of constitution of the current committee	
Organisational structure (e.g., sub-committee, stand-alone)	



Frequency of meetings	
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The Terms of Reference or Standard Operating Principles for the ICC, including details on the ICC membership, quorum, dispute resolution process and meeting schedules are presented in the attached document (Document No.: 4) .

Major functions and responsibilities of the ICC/HSCC:

Please describe the type of support offered by the different partners in the preparation of this request:

### 4.1 3 Signature Table for the Coordinating Committee for Immunisation

We, the undersigned members of the ICC, HSCC or equivalent committee [1] met on **September 4, 2015** to review this proposal. At that meeting, we approved this proposal on the basis of the supporting documentation attached. The endorsed minutes of this meeting are attached as document number 5. The signatures confirm the request presented in Document 6 (please use the list of signatures in the following section).

Please refer to Annex C of the ‘Gavi HSS and NVS General Guidelines’ for more information on ICCs.

Title	Title / Organisation	Name	Please sign below to indicate your attendance at the meeting during which the proposal was discussed.	Please sign below to indicate your approval of the minutes of the meeting during which the proposal was discussed.
Chair				
Secretary				
Members				

By submitting the proposal we confirm that a quorum was present. **Not selected**

The minutes from the three most recent ICC meetings are attached as DOCUMENT NUMBER: 7) .

### 4.2 National Immunisation Technical Advisory Group NITAG

Has a NITAG been established in your country? **Not selected**

In the absence of a NITAG, countries should clarify the role and functioning of the advisory group and describe plans to establish a NITAG. This document is attached as

## 5. Data on the immunisation program

### 5.1 Reference material

Please complete the tables below, using data from available sources. Please identify the source of the data, and the date. Where possible use the most recent data and attach the source document.

- Please refer to the Comprehensive Multi-Year Plan for Immunisation (or equivalent plan), and attach a complete copy with an executive summary (DOCUMENT NUMBER 11). Please attach the cMYP costing tool (DOCUMENT NUMBER 12).
- Please attach relevant Vaccine Introduction Plan(s) as DOCUMENT NUMBER : 14
- Please refer to the two most recent joint WHO/UNICEF reports on immunisation activities.
- Please refer to Health Sector Strategy documents, budgetary documents, and other reports, surveys etc, as appropriate.
- Please refer to the attached risk assessments in the case of yellow fever and meningitis A mass preventive campaigns.

Please use the most recent data available and specify the source and date.

	Figure	Year	Source
Total population	13,939,290	2015	cMYP 2015-2017 revised (GSHP 2009)
Birth cohort	571,511	2015	cMYP 2015-2017 revised (GSHP 2009)
Infant Mortality Rate	109	2013	NHDP2
Surviving infants <sup>[1]</sup>	513,217	2015	cMYP 2015-2017 revised (GSHP 2009)
GNI per capita (US\$)	2 %	2013	INSEED-MINIST FINANCES
Total Health Expenditure (THE) as a percentage of GDP	260,000,000 %	2013	MINISTRY OF FINANCE/DG BUDGET
General government expenditure on health (GGHE) as % of General government expenditure	10 %	2013	MINISTRY OF FINANCE/DG BUDGET

[3] Surviving infants = infants that survived the first 12 months of life

#### 5.1.1 Lessons learned

##### Support for new routine vaccines

If new or under-used vaccines have already been introduced in your country, please give details of the lessons learned from previous introduction(s) specifically for: storage capacity, protection from accidental freezing, staff training, cold chain, logistics, coverage and drop-out rates, wastage rate, etc., and suggest action points to address them. Please refer to prior post-introduction evaluations, as applicable. If they are included in the Introduction Plan, please cite the section only.

Lessons Learned	Action Points
<p>- Chad, with support from Gavi, introduced the yellow fever vaccine in 2005 and the pentavalent vaccine (DTC-hepatitis B-Hib) in 2008 throughout national territory, and it properly paid its co-financing with Gavi, identifying the following primary problems:</p> <ul style="list-style-type: none"> <li>- a delay in the review and production of training materials and media</li> <li>- insufficient persons trained per health center</li> <li>- late detection of issues related to the introduction, related to management, vaccine storage, schedule management, filling out log sheets.</li> </ul> <p>In August 2015, Chad introduced the Inactivated Polio Vaccine (IPV) taking into account the problems identified during the prior introductions.</p>	<p>The lessons learned from prior introductions have facilitated the following actions:</p> <ul style="list-style-type: none"> <li>- On-time preparation at least 6 months before introduction allows a review of management tools, production of training materials and communication media within deadlines.</li> <li>- Regular, weekly monitoring of the critical preparatory activities related to the introduction by the EPI TAC ensures the correct implementation of the activities of the various committees.</li> <li>- Live supervision of health agents during the month of the introduction allows any discrepancies to be corrected and to ensure compliance with the standards and instructions taught in the trainings.</li> </ul>

### 5.1.2- Planning and budgeting of health services

Please provide some additional information on the planning and budgeting context in your country:

The planning and budgeting cycle in the country is five years (National Plan to Reduce Poverty) and Annual (PAO and annual budget).

Please indicate the name and date of the relevant planning document for health

NATIONAL HEALTH DEVELOPMENT PLAN

Is the cMYP (or updated Multi-Year Plan) aligned with this document (timing, content etc)?

YES, cMYP 2013-2017 Revised and includes the introduction of new vaccines, including MenAfriVac.

Please indicate the national planning budgeting cycle for health

Health planning and budgeting is on a three-year cycle (NHDP 2013-2015) and a one-year cycle.

Please indicate the national planning cycle for immunisation

Health planning and budgeting is on a five-year cycle (cMYP 2013-2017) and a one-year cycle (PAO)

### 5.1.3 Preparatory activities

Please provide a summary of all the **preparatory** activities for the introduction of the vaccine(s) or the campaigns. If they are included in the introduction plan or plan of action, please cite the sections only.

#### **SEE CHAPTER IN THE INTRODUCTION PLAN**

- Coordination and monitoring preparation
- Review of tools and development of materials and training plan
- Development of a communications plan identifying the strategies and activities and primary channels
- Acquisition and distribution of vaccines and consumables
- Implementation of media
- Training of various participants
- Conducting communication activities
- Supervision –Monitoring -Evaluation
- Post introduction evaluation

### 5.1.4 Gender and equity

Please describe any barriers to access, utilisation and delivery of immunisation services at district level (or equivalent) that are related to geographic, socio-economic and/or gender equity. Please describe actions taken to mitigate these barriers and highlight where these issues are addressed in the vaccine introduction plan(s).

- The MICS 2010 survey showed concerns regarding access to immunisation due to socio-economic origin (rich vs. poor, literate vs. illiterate mother), geography (urban vs. rural, certain regions less favored than others). No difference in immunisation of boys vs. girls was observed.

Primary obstacles

Chad is a Saharan country, divided into three distinct geographic zones: the Sahara desert in the North, the arid Sahel zone in the centre and the relatively fertile Sudanese zone in the South. Climate change, the strength of demographic growth and poor governance have created a fragile situation in the country. Nearly one-half of the population lives in poverty, with a high concentration of poor people in rural areas and significant nomadic lifestyle. Distances between the major structures offering services and the populations using those services, in particular in rural areas, are high;

In 2014, financial constraints were heightened: a decline in the barrel price of oil and priority was given to

security;

There are refugee camps on the country's borders (Sudan, Central African Republic, Nigeria, etc.), posing security problems for indigenous populations.

#### ACTION ITEMS

- The RED approach started in 40 districts in 2013 with very significant performance was extended to 10 additional districts in 2014, for a total of 50 Health Districts;
- The program launched a system to actively search for children who dropped out (did not return for immunisation) with the involvement of community liaisons;
- The organisation of periodic special immunisation activities for nomadic peoples together with activities to protect mothers (Prenatal Exams) and to monitor children (deworming, distribution of insecticide-treated mosquito nets).

Please examine whether questions of equity (socio-economic, geographic and gender-specific) factor have been taken into consideration in the process of preparing social mobilisation strategies, among other things, to improve immunisation coverage. Specify whether these issues are addressed in the vaccine introduction plan(s).

As indicated in the plan, a communication plan will be developed, the primary objective of which is to improve compliance with the routine EPI by populations through the introduction of the new vaccine. Strategies that will be developed will take into consideration all the obstacles related to the supply and demand for immunisation services. They will be based on the results of the national vaccine coverage survey planned for 2016 that will analyse reasons for incomplete or non-immunisation.

Please indicate if sex disaggregated data is collected and used in immunisation routine reporting systems.

NO

Is the country currently in a situation of fragility (e.g. insecurity, conflict, post-conflict, refugees/and or displaced persons and recent, current or potential environmental disaster, such as flooding, earthquake or drought or others)? If Yes, please describe how these issues may impact your immunisation programme, planning for introduction of routine vaccines or campaigns and financing of these activities.

The country is politically stable but it has experienced terrorist attacks as well as the influx of refugees coming from bordering countries. In certain border areas of the country, in particular the Lake Chad region, it is very difficult to organise (routine or campaign) immunisation activities and supervision activities. Add to this the decline in the price per barrel of oil, which risks causing a decrease in the funds allocated to immunisation, even though funds for purchasing vaccines and injection materials are guaranteed.

If possible, please provide additional information and documents on the data relative to sub-national coverage, for example comparisons between urban and rural districts, or between districts with the highest and lowest coverage etc.

- MICS 2010 Survey:

- Results of the 2012 Vaccine Coverage Survey (see Document No.);

- According to the 2012 EPI Review, the regions with the high proportions of unvaccinated children are Chari Baguirmi (62%), Hadjerlamis (44%), Lac (40%), MKE (34%) and Ouaddai (32%). These regions have very poor access to vaccination services.
- Immunisations are late, in particular for BCG, OPV zero, VAR and yellow fever, a significant portion of which are administered to children older than 1 year of age. (EPI 2012 Review).

- Vaccine coverage survey in several health districts in 2014;

- Administrative data for 2014: coverage by vaccine (Penta3 and VAR) and by Health District;

- For administrative data for 2014, vaccine coverage is 82% for the 3rd dose of the Pentavalent vaccine and 80% for VAR. According to classification, for Penta3, 15 Health Districts have less than 50% coverage and 37 have greater than 80%.  
Regarding VAR coverage, 12 Health Districts have less than 50% and 31 Health Districts have greater than 80%.

Please describe what national surveys are routinely conducted in the country to assess gender and equity related barriers. Highlight whether this application includes any activities to assess gender and equity related barriers.

- MICS 2010 Survey that evaluated not only vaccine coverage in these regions, obstacles related to immunisation but also inequities in vaccine coverage.

The 2012 Vaccine Coverage Survey evaluated vaccine coverage values between regions and the obstacles related to immunisation, but not those linked to sex

- MICS and EDS 2014 results are pending.

### 5.1.5 Data quality

Please attach a data quality assessment (DQA), report if one has been completed within the previous 48 months (DOCUMENT NUMBER: 13). If available, an improvement plan and progress report on the implementation of the improvement plan should also be submitted (DOCUMENT NUMBER: 16 DOCUMENT NUMBER: 17).

If DQA not available, please briefly describe plans to establish mechanisms for data quality assessment.

- There was no independent evaluation of Data Quality.
- There is no specific plan, but the strategies and mechanisms for evaluating and improving data quality are described in the 2015-2017 cMYP attached (**DOCUMENT No.** )

Please indicate what routine mechanisms to independently assess the quality of administrative data are in place, and if so what these mechanisms are and how they enable the country to track changes in data quality over time.

- Training in DQS/DVDMT and contribution of a computer kit to 50 RED districts;
- DQS application conducted in the priority districts;
- Monthly monitoring of RED implementation indicators, including data quality;
- Organisation of data validation and standardisation meetings at the national level;
- Organisation of monthly monitoring meetings at the Health District level.

Please detail what household surveys have been conducted in recent years to independently assess immunisation coverage and equity, and describe any survey plans for the coming five year period.

- MICS 2010 Survey:

2012 VACCINE COVERAGE SURVEY:

- Vaccine coverage survey in several health districts in 2014.

- MICS and EDS in 2014, the results of which are pending.

- The country is planning to conduct a national vaccine coverage survey in 2016.

## 5.2 Baseline data and annual objectives (NVS routine immunisation)

Please refer to cMYP pages to assist in filling-in this section.

Number	Base Year	Baseline and Targets		
	2013	2017	2018	2019
Total number of births	532,482	613,400	635,483	658,360
Total number of infant deaths	54,313	62,566	64,819	67,153
Total surviving infants	478,169	550,834	570,664	591,207
Total number of pregnant women	532,482	613,400	635,483	658,360
Target population that received the OPV3 vaccine[1]				
OPV3 coverage[2]	86 %	90 %	90 %	90 %
Target population that received the DTC1 vaccine[1]	511,344	539,817	559,251	579,383
Target population that received the DTC3 vaccine[1]	423,721	495,750	513,598	532,086
DTC3 coverage[2]	89 %	90 %	90 %	90 %
Wastage rate[3] during the base year and subsequently estimated (%) for the DTC vaccine	10	5	5	5
	1.11	1.05	1.05	1.05
Target population that received the Meningococcal vaccine[1]	0	495750.0	513598.0	532086.0
Meningococcal A coverage[2]	0 %	90 %	90 %	90 %
First Presentation: Meningococcal A, 10 dose(s) per vial, LYOPHILISED				
Wastage rate[3] during the base year and subsequently estimated (%)	0	30	25	25
Wastage factor[3] during the base year and subsequently estimated (%)	1.00	1.43	1.33	1.33
Maximum wastage rate for the Meningococcal A vaccine, 10 dose(s) per vial, LYOPHILISED	50 %	50 %	50 %	50 %
Target population having received the 1st dose(s) of the Measles vaccine	377,216	495,750	513,598	532,086
Measles vaccine coverage[2]	79 %	90 %	90 %	90 %
Annual DTP Drop out rate [ ( DTP1 – DTP3 ) / DTP1 ] x 100	17 %	8 %	8 %	8 %

**[1]** Indicate total number of children vaccinated with either DTP alone or combined

**[2]** Number of infants vaccinated out of total surviving infants

**[3]** The formula to calculate a vaccine wastage rate (as a percentage):  $[(A - B) / A] \times 100$ . Whereby: A = the number of doses distributed for use according to the supply records with correction for stock balance at the end of the supply period; B = the number of vaccinations with the same vaccine in the same period.

**[1]** Indicate total number of children vaccinated with either DTP alone or combined

**[2]** Number of infants vaccinated out of total surviving infants

**[3]** The formula to calculate a vaccine wastage rate (as a percentage):  $[(A - B) / A] \times 100$ . Whereby: A = the number of doses distributed for use according to the supply records with correction for stock balance at the end of the supply period; B = the number of vaccinations with the same vaccine in the same period.

### 5.3. Target for the preventive campaign(s)

No NVS Prevention Campaign Support this year



## 6. 6 New and underused vaccines (routine NVS)

### 6.1. Calculation of the morbidity load for corresponding diseases (if available)

If they are included in the introduction plan or plan of action, please cite the sections only.

<b>Disease</b>	<b>Title of the assessment</b>	<b>Date</b>	<b>Results</b>
EPI RESULTS	INTRODUCTION PLAN SEE SECTION 1-3		
INTRODUCTION JUSTIFICATION	INTRODUCTION PLAN SEE SECTION 2-3		

## 6.2. Requested vaccine (Meningococcal A, 10 dose(s) per vial, LYOPHILISED)

As reported in the cMYP, the country plans to introduce Meningococcal A, using **Meningococcal A, 10 dose(s) per vial, LYOPHILISED**.

When is the country planning to introduce the vaccine? **January 2017**

Please note that, due to a variety of factors, the launch date may vary compared to the date stipulated in the application. Gavi will work closely with countries and their partners to help address any such situations.

### 6.2 1 Co-financing information

If you would like to co-finance an amount higher than the minimum, please provide information in Your co-financing row.

Country group	Low income		
	Year 1	Year 2	Year 3
	2017	2018	2019
Minimum co-financing	0.20	0.20	0.20
Your co-financing (please change if higher)	0.20	0.20	0.20

### 6.2 2 Specifications of vaccinations with new vaccine

	Data from		Year 1	Year 2	Year 3
			2017	2018	2019
Number of children to be vaccinated with the first dose	Table 5.2	#	495,750	513,598	532,086
Immunisation coverage with the first dose	Table 5.2	#	90 %	90 %	90 %
Country co-financing, per dose	Table 6.2.1	\$	0.2	0.2	0.2

### 6.2 3 Portion of supply to be procured by the country (and cost estimate, US\$)

		2017	2018	2019
Number of vaccine doses	#	267,400	218,500	222,800
Number of AD syringes	#	0	0	0
Number of reconstitution syringes	#	0	0	0
Number of safety boxes	#	0	0	0
<b>Total value to be co-financed by the Country [1]</b>	<b>\$</b>	<b>177,500</b>	<b>138,000</b>	<b>143,000</b>

[1] The co-financing amount for low-income countries indicates the costs of vaccines and delivery. The total co-financing amount does not include the costs and fees of the relevant Procurement Agency, such as handling fees. Information regarding these costs and supplemental expenses will be provided by the Procurement Agency, as part of the required estimate of costs by the country.

### 6.2 4 Portion of supplies to be procured by Gavi (and cost estimate, US\$)

		2017	2018	2019
Number of vaccine doses	#	619,200	469,600	491,300
Number of AD syringes	#	747,100	575,100	597,500
Number of reconstitution syringes	#	98,500	76,400	79,300
Number of safety boxes	#	0	0	0
<b>Total value to be co-financed by Gavi</b>	<b>\$</b>	<b>749,000</b>	<b>556,500</b>	<b>585,500</b>

## 6.2 5 New and Under-Used Vaccine Introduction Grant

### Calculation of the vaccine introduction grant for **Meningococcal A, 10 dose(s) per vial, LYOPHILISED**

Year of New Vaccine Introduction	Births (from Table 5.2)	Share per Birth in US\$	Total in US\$
2017	613,400	0.80	490,720

[1] The Grant will be based on a maximum award of \$0.80 per person in the birth cohort with a minimum starting grant award of \$100,000

Please explain how the introduction grant provided by Gavi will be used to facilitate the timely and effective implementation of the activities before and during the introduction of the new vaccine (refer to the cMYP and to the vaccine introduction plan).

The funding grant will be used to cover essential activities related to the introduction of MenAfriVac into the routine EPI:

- Review: preparation of EPI management tools, communication media, training materials and the reproduction of the same;
- Training of all participants involved from the national level to the operational level;
- Implementation of communication activities: advocacy, dissemination of messages, use of community organisation and media;
- Organisation of the launch ceremony for the introduction of the new vaccine;
- Supervision of health agents before and during the introduction phase.

Please complete the 'Detailed budget for VIG / Operational costs' template provided by Gavi and attach as a mandatory document in the Attachment section.

Detailed budget attached as Document No. 28.

if the Gavi support does not cover all of the requirements, please describe the other sources of funding and the amounts projected, if available, to cover your requirements

Activities not covered by the Gavi award will be included in the EPI 2016 operating plan. They will be financed by the national budget allocated to the EPI and also by other partners, such as UNICEF and WHO.

### 6.2.6. Technical assistance

Please describe any specific area for which the Minister would need technical assistance with the introduction of the **Meningococcal A vaccine**.

RAS

## 7. NVS Preventive Campaigns

No NVS Prevention Campaign Support this year

### 7.1.1 Epidemiology and disease burden for Meningococcal A

Please select at least one of the following information sources to document the results relative to the disease burden of Meningococcus A:

Epidemiological information on the burden of the disease:

1 - Risk assessments

2 - Other

## 8. Procurement and management

### 8.1 Procurement and management of routine vaccination with new or underused vaccines

**Note:** The PCV vaccine must be procured through UNICEF to be able to access the price awarded by the Advance Market Commitment (AMC).

a) Please show how the support will operate and be managed including procurement of vaccines (Gavi expects that most countries will procure vaccine and injection supplies through UNICEF or PAHO's Revolving Fund):

Traditional, under-used and new vaccines are procured through UNICEF. In this regard, a memorandum of understanding has been signed by UNICEF and the Government of Chad which is renewed every year.

b) If another vaccine procurement and administration mechanism (financed by the country or by Gavi) is requested, please provide justification.

- A description of the mechanism and the vaccines or commodities to be procured by the country
- Assurance that vaccines will be procured from the WHO list of pre-qualified vaccines, indicating the specific vaccine from the list of pre-qualification. For the procurement of locally-produced vaccines directly from a manufacturer which may not have been pre-qualified by WHO, assurance should also be provided that the vaccines purchased comply with WHO's definition of quality vaccines, for which there are no unresolved quality problems reported to WHO, and for which compliance is assured by a fully functional National Regulatory Authority (NRA), as assessed by WHO in the countries where they are manufactured and where they are purchased.

NOT APPLICABLE

c) If receiving direct financial support from Gavi (such as operational support for campaigns or VIG activities), please indicate how the funds should be transferred by Gavi.

The funds will be transferred to Chad's EPI account.

e) Please indicate how the co-financing amounts will be paid (and who is responsible for this)

The co-financed amounts will be paid by Chad through the EPI budget line item intended for the procurement of vaccines and consumables.

e) Please describe the financial management procedures that will be applied for the management of the NVS direct financial support, including procurement.

For implementation of activities, Government management procedures will be used. However purchases will be made in accordance with the terms of the checklist signed by Chad and Gavi.

f) Please outline how coverage of the introduced vaccine will be monitored, reported and evaluated (refer to cMYP and Introduction Plan).

- monthly monitoring of vaccine coverage for all antigens in the routine EPI: immunisation data are reported monthly by the health center to the national office, through the District and Regional Health Department.
- Monthly monitoring meeting in all districts
- Monthly monitoring of monthly indicators related to the RED approach in priority Districts
- Analysis of data and production of a monthly bulletin regarding EPI performance indicators (vaccine coverage, dropout rates, vaccine wastage rates, etc.)

A vaccine coverage survey will also be planned, after the one in 2016, in the next cMYP

g) For a grant application regarding the second dose of the measles vaccine, does the country wish to receive its grant in cash or in kind? **N/A**

### 8.2 Procurement and management for NVS preventive campaigns

No NVS Prevention Campaign Support this year

### 8.3. Product licensure

For each of the vaccine(s) requested, please state whether manufacturer registration and/or national vaccine licensure will be needed in addition to WHO pre-qualification and, if so, describe the procedure and its duration. In addition, state whether the country accepts the Expedited Procedure for national registration of WHO-pre-qualified vaccines.

*Note that the necessary time for licensure should be factored into the introduction timeline and reflected in the Vaccine Introduction Plan or Plan of Action.*

The registration of the 5 microgramme MenAfriVac vaccine will be necessary and will comply with the same procedures as for the other new vaccines that Chad introduced, particularly the DTC-Hib-Hepatitis B vaccine and the Inactivated Polio Vaccine (IPV). The request for registration is necessary with the required technical documents sent to the DPML (Department of Pharmacy, Medications and Laboratory) which serves as the National Regulatory Agency. For vaccines pre-qualified by WHO, the term for registration is very short, no more than three months, in particular for vaccines pre-qualified by WHO.

For each of the vaccine(s) requested, please provide the actual licensure status of the preferred presentation and of any alternative presentations, if required.

The 5 microgramme MenAfriVac vaccine has not yet been registered in Chad. The vaccine registration procedure will be initiated as soon as the application is approved. The 10 microgramme MenAfriVac vaccine was registered in 2011 for a term of 5 years and it has already been used during the initial immunisation campaigns.

Please describe local customs regulations, requirements for pre-delivery inspection, special documentation requirements that may potentially cause delays in receiving the vaccine. If such delays are anticipated, explain what steps are planned to handle these.

The vaccines and immunisation supplies are exempted from customs tax in Chad. During receipt of the Pre-alert sent by the vaccine supplier, the documentation is forwarded to the forwarding agent by the Unicef country office.

The forwarding agent, upon receipt of the documents, will contact the Customs Administrative Services for the exemption. The vaccine is received by the forwarding agent in the presence of the Immunisation Division and the vaccines will be forwarded by both to the EPI cold rooms. During the month following arrival of the vaccine, the forwarding agent will send its invoice to Unicef for payment.

Please provide information on NRA in the country, including status (e.g. whether it is WHO-certified). Please include points of contact with phone numbers and e-mail addresses. UNICEF will support the process by communicating licensing requirements to the vaccine manufacturers where relevant.

The National Regulatory Agency duties are assumed by the Department of Pharmacy, Medications and Laboratories. Currently, only two of the five NRA functions are being provided. They are market authorisations (AMM) and inspection of medications, including vaccines. The three other functions are not yet operational (pharmacovigilance, laboratory access and authorisation/approval of clinical trials). The improvement of capacities of the NRA to improve vaccine regulation and the preparation of an institutional development plan for the NRA are in progress, with support from WHO.

**ANRCONTACT:** Director of Pharmacies, Laboratories and Medications (DPLM): Tel.: **+235 66 24 06 10** and email: **alsadick2000@yahoo.fr**.

### 8.4 Vaccine Management (EVSM/EVM/VMA)

It is mandatory for a country to conduct an assessment of effective vaccine management (EVM) before requesting support for the introduction of a new vaccine. The EVM must have been conducted within the preceding 36 months. Please note that this assessment is recommended but not mandatory for requests for operational support to supplemental immunisation campaigns/activities (AVS).

When was the EVM conducted? **May 2015**

Please attach the most recent EVM assessment report (DOCUMENT NUMBER : 25,26, 27) the corresponding EVM improvement plan (DOCUMENT NUMBER : 26) and the progress report on the EVM improvement plan (DOCUMENT NUMBER : 27). The improvement plan should include a timeline, budget of committed resources for these activities and funding gaps, if any, as well as M&E indicators to monitor progress of implementation.

If any of the above mandatory documents (EVM Assessment Report, EVM Improvement Plan, Progress on the EVM Improvement Plan) are not available, please provide justification and reference to additional documents such as PIE and External EPI Reviews.

When is the next Effective Vaccine Management (EVM) Assessment planned? **January Not scheduled**

EVM was conducted from May 15 through June 19, 2015 and the improvement plan in June-July 2015. EVM and the improvement plan were validated at the ICC on July 31, 2015. Related Documents 25 and 26 are attached.

### **Several observations**

The scores for all evaluation criteria for the 2015 EVM analysis were up in relation to those from the 2010 EVM evaluation. Of course a lot of work was done and this is very encouraging, though there is still a great deal to be done to attain the satisfactory score of at least 80% for most of the criteria, primarily at the decentralised level.

### **Key recommendations**

- Prepare and monitor the maintenance plan for buildings, vehicles and the cold chain.
- Prepare and implement a distribution programme for vaccines and consumables according to the pace specified at all levels and subcontract if necessary.
- Integrate the analysis of temperature reports, cold chain inventory and monitoring of vaccine wastage during coordination meetings.

## **8.5 Waste management**

Countries must have a detailed waste management and monitoring plan as appropriate for their immunisation activities. This should include details on sufficient availability of waste management supplies (including safety boxes), the safe handling, storage, transportation and disposal of immunisation waste, as part of a health care waste management strategy. Please describe the country's waste management plan for immunisation activities (including campaigns).

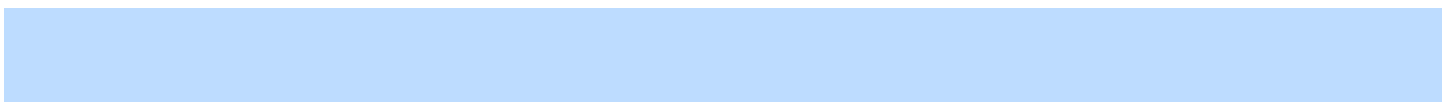
The national policy regarding injection safety recommends the exclusive use of auto-destruct syringes to administer vaccines, and single-use syringes to dilute vaccines. After use, this material must be collected in the appropriate safety containers while awaiting destruction. Waste is eliminated by burying, or by burning or incineration.

So it is helpful to note that it is actually possible to eliminate waste using the waste treatment plant based in Moundou. Consideration is being given to contracting with said plant to dispose of immunisation waste.



## 9. Comments and recommendations from the national coordinating body (ICC/HSCC)

Comments and Recommendations from the National Coordinating Body (ICC/HSCC)






## 10. List of documents attached to this proposal

### 10.1. List of documents attached to this proposal

Document Number	Document	Section	Mandatory	File
1	MoH Signature (or delegated authority) of Proposal	4.1.1	X	No file uploaded
2	MoF Signature (or delegated authority) of Proposal	4.1.1	X	No file uploaded
3	MoH Signature (or delegated authority) of Proposal for assistance to the VPH	4.1.1	X	No file uploaded
4	IACC Terms of Reference	4.1.2	X	No file uploaded
5	Minutes of ICC/HSCC meeting endorsing Proposal	4.1.3	✓	<a href="#">CR CCIA 04 septembre 2015 version 7 sept VF.pdf</a> <b>File desc:</b> <b>Date/time</b> 07/09/2015 8:27:15 AM <b>Size:</b> 342 KB
6	Signatures of ICC or HSCC or equivalent in Proposal	4.1.3	✓	No file uploaded
7	Minutes of the three most recent IACC/HSCC meetings	4.1.3	✓	<a href="#">CR CCIA 13 5 2015.pdf</a> <b>File desc:</b> <b>Date/time</b> 07/09/2015 8:39:53 AM <b>Size:</b> 2 MB
				<a href="#">CR CCIA 31 juillet 201.pdf</a> <b>File desc:</b> <b>Date/time</b> 07/09/2015 8:40:52 AM <b>Size:</b> 354 KB
8	A description of partner participation in preparing the application	4.1.3	X	No file uploaded

9	Minutes of the meeting of the NITAG with specific recommendations on the introduction of the NVS or the campaign	4.2	X	No file uploaded
10	Role and functioning of the advisory group, description of plans to establish a NITAG	4.2.1	X	No file uploaded
11	comprehensive Multi Year Plan - cMYP	5.1	✓	<a href="#">PPAc 2015-2017 validé par le CCIA.pdf</a> <b>File desc:</b> <b>Date/time</b> 03/09/2015 05:37:51 <b>Size:</b> 2 MB
12	cMYP Costing tool for financial analysis	5.1	✓	<a href="#">TCHAD cMYP V3 7-2015-2017 Kone version définitive.xlsx</a> <b>File desc:</b> <b>Date/time</b> 03/09/2015 5:53:24 AM <b>Size:</b> 3 MB
13	Monitoring and evaluation and surveillance (M&E) plan for the support requested, within the context of the country's existing monitoring plan for the EPI programme	5.1.5	X	No file uploaded
14	Vaccine introduction plan	5.1	X	No file uploaded
15	Introduction Plan for the introduction of RCV / JE / Men A into the national programme	7.x.4	X	No file uploaded
16	Data quality assessment (DQA) report	5.1.5	X	No file uploaded
17	DQA improvement plan	5.1.5	X	No file uploaded
19	HPV vaccine roadmap or strategy	6.1.1	X	No file uploaded

20	Introduction Plan for the introduction of RCV into the national programme	7.x.4	X	No file uploaded
21	Summary of the methodology of the assessment of the HPV vaccine	5.1.6	X	No file uploaded
22	Evidence of commitment to fund purchase of RCV for use in the routine system in place of the first dose of MCV	7.x.3	X	No file uploaded
23	Campaign target population documentation	7.x.1	X	No file uploaded
24	Road map or strategy for strengthening a comprehensive approach to pneumonia and/or diarrhea prevention and treatment	6.x.6	X	No file uploaded
25	EVM report	8.3	✓	<a href="#">Rapport Final GEV Tchad Juin 2015 .pdf</a> <b>File desc:</b> <b>Date/time</b> 04/09/2015 03:15:09 <b>Size:</b> 1 MB
26	Improvement plan based on EVM	8.3	X	<a href="#">No file uploaded</a>
27	EVM improvement plan progress report	8.3	X	<a href="#">No file uploaded</a>

28	Detailed model budget for the grant for the introduction of a vaccine / operating costs	6.x,7.x.2		<a href="#">No file uploaded</a>
29	Risk assessment and consensus meeting report for Meningitis / Yellow Fever: (for yellow fever please include information required in the NVS guidelines on YF Risk Assessment process)	7.1		<a href="#">No file uploaded</a>
30	Plan of Action for campaigns	7.1, 7.x.4		<a href="#">No file uploaded</a>
	Other documents			No file uploaded

## 11. Appendices

### Annex 1 - NVS Routine Support

#### Annex 1.1 - NVS Routine Support (Meningococcal A (PCV10), 10 dose(s) per vial, LYOPHILISED)

**Table Annex 1.1 A: Rounded up portion of supply that is procured by the country and estimate of relative costs in US\$**

		2017	2018	2019
Number of vaccine doses	#	267,400	218,500	222,800
Number of AD syringes	#	0	0	0
Number of reconstitution syringes	#	0	0	0
Number of safety boxes	#	0	0	0
Total value to be co-financed by the Country [1]	\$	177,500	138,000	143,000

**Table Annex 1.1 B: Rounded up portion of supply that is supplied by Gavi and estimate of relative costs in US\$**

		2017	2018	2019
Number of vaccine doses	#	619,200	469,600	491,300
Number of AD syringes	#	747,100	575,100	597,500
Number of reconstitution syringes	#	98,500	76,400	79,300
Number of safety boxes	#	0	0	0
Total value to be co-financed by Gavi	\$	749,000	556,500	585,500

**Table Annex 1.1 C: Summary table for the Meningococcal A vaccine, 10 dose(s) per vial, LYOPHILISED**

ID		Data from		2017	2018	2019
	Number of surviving infants	Table 5.2	#	550,834	570,664	591,207
	Vaccine Coverage	Table 5.2	%	90 %	90 %	90 %
	Number of children to be vaccinated with the first dose	Table 5.2	#	495,750	513,598	532,086
	Number of doses per child	Parameter	#	1	1	1
	Estimated vaccine wastage factor	Table 5.2	#	1.43	1.33	1.33
	Number of doses per vial	Parameter	#	10	10	10
	AD syringes required	Parameter	#	Yes	Yes	Yes
	Reconstitution syringes required	Parameter	#	Yes	Yes	Yes
	Safety boxes required	Parameter	#	Non	Non	Non
cc	Country co-financing per dose	Table 6.4.1	\$	0.2	0.2	0.2
ca	AD syringe price per unit	Table Annexes 4A	\$	0.448	0.448	0.448
cr	Reconstitution syringe price per unit	Table Annexes 4A	\$	0.035	0.035	0.035
cs	Safety box price per unit	Table Annexes 4A	\$	0.0054	0.0054	0.0054
fv	Freight cost as a % of vaccines value	Table Annexes 4B	%	6.00 %	6.00 %	6.00 %
fd	Freight cost as a % of devices value	Parameter	%	0	0	0

**Table Annex 1.1 D: Table Annex 1.1 D Estimated numbers for Meningococcal A, 10 dose(s) per vial, LYOPHILISED, associated injection safety material and related co-financing budget (page 1)**

		Formula	2017		
			Total	Government	Gavi
A	Country co-financing	V	30.16 %		
B	Number of children to be vaccinated with the first dose	Table 5.2	495,750	149,511	346,239
C	Number of doses per child	Vaccine parameter (schedule)	1		
D	Number of doses needed	$B \times C$	495,750	149,511	346,239
E	Estimated vaccine wastage factor	Table 5.2	1.43		
F	Number of doses needed including wastage	$D \times E$	708,923	213,800	495,123
G	Vaccines buffer stock	Buffer on doses needed = $(D - D \text{ of previous year}) \times 25\%$ Buffer on wastages = $((F - D) - (F \text{ of previous year} - D \text{ of previous year})) \times 25\%$ , = 0 if negative result $G = [\text{buffer on doses needed}] + [\text{buffer on wastages}]$	177,231	53,451	123,780
I	Total vaccine doses needed	Round up $((F + G) / \text{Vaccine package size}) \times \text{Vaccine package size}$	886,500	267,355	619,145
J	Number of doses per vial	immunisation parameter	10		

<b>K</b>	<b>Number of AD syringes (+ 10% wastage) needed</b>	$(D + G) \times 1.11$	747,009	0	747,009
<b>L</b>	<b>Reconstitution syringes (+ 10% wastage) needed</b>	$(I / J) \times 1.11$	98,402	0	98,402
<b>M</b>	<b>Total of safety boxes (+ 10% of extra need) needed</b>	$(K + L) / 100 \times 1.11$	0	0	0
<b>N</b>	<b>Cost of vaccines needed</b>	$I \times \text{vaccine price per dose (g)}$	556,868	167,943	388,925
<b>Y</b>	<b>Cost of AD syringes needed</b>	$K \times \text{AD syringe price per unit (ca)}$	334,661	0	334,661
<b>P</b>	<b>Cost of reconstitution syringes needed</b>	$L \times \text{reconstitution price per unit (cr)}$	3,445	0	3,445
<b>Q</b>	<b>Cost of safety boxes needed</b>	$M \times \text{safety box price per unit (cs)}$	0	0	0
<b>R</b>	<b>Freight cost for vaccines needed</b>	$N \times \text{freight cost as a \% of vaccines value (fv)}$	31,028	9,358	21,670
<b>S</b>	<b>Freight cost for devices needed</b>	$(O+P+Q) \times \text{freight cost as \% of devices value (fd)}$	0	0	0
<b>T</b>	<b>Total fund needed</b>	$(N+O+P+Q+R+S)$	926,002	177,300	748,702
<b>U</b>	<b>Total country co-financing</b>	$I \times \text{country co-financing per dose (cc)}$	177,300		
<b>V</b>	<b>Country co-financing % of Gavi supported proportion</b>	$U / T$	30.16 %		



**Table Annex 1.1 D: Table Annex 1.1 D Estimated numbers for Meningococcal A, 10 dose(s) per vial, LYOPHILISED, associated injection safety material and related co-financing budget (page 1)**

		Formula	2018		
			Total	Government	Gavi
A	Country co-financing	V	31.75 %		
B	Number of children to be vaccinated with the first dose	Table 5.2	513,598	163,053	350,545
C	Number of doses per child	Vaccine parameter (schedule)	1		
D	Number of doses needed	$B \times C$	513,598	163,053	350,545
E	Estimated vaccine wastage factor	Table 5.2	1.33		
F	Number of doses needed including wastage	$D \times E$	683,086	216,861	466,225
G	Vaccines buffer stock	Buffer on doses needed = $(D - D \text{ of previous year}) \times 25\%$ Buffer on wastages = $((F - D) - (F \text{ of previous year} - D \text{ of previous year})) \times 25\%$ , = 0 if negative result $G = [\text{buffer on doses needed}] + [\text{buffer on wastages}]$	4,462	1,417	3,045
I	Total vaccine doses needed	Round up $((F + G) / \text{Vaccine package size}) \times \text{Vaccine package size}$	688,000	218,421	469,579
J	Number of doses per vial	immunisation parameter	10		
K	Number of AD syringes (+ 10% wastage) needed	$(D + G) \times 1.11$	575,047	0	575,047
L	Reconstitution syringes (+ 10% wastage) needed	$(I / J) \times 1.11$	76,368	0	76,368
M	Total of safety boxes (+ 10% of extra need) needed	$(K + L) / 100 \times 1.11$	0	0	0
N	Cost of vaccines needed	$I \times \text{vaccine price per dose (g)}$	409,344	129,955	279,389
Y	Cost of AD syringes needed	$K \times \text{AD syringe price per unit (ca)}$	257,622	0	257,622
P	Cost of reconstitution syringes needed	$L \times \text{reconstitution price per unit (cr)}$	2,673	0	2,673
Q	Cost of safety boxes needed	$M \times \text{safety box price per unit (cs)}$	0	0	0
R	Freight cost for vaccines needed	$N \times \text{freight cost as a \% of vaccines value (fv)}$	24,081	7,646	16,435
S	Freight cost for devices needed	$(O+P+Q) \times \text{freight cost as \% of devices value (fd)}$	0	0	0
T	Total fund needed	$(N+O+P+Q+R+S)$	693,720	137,600	556,120
U	Total country co-financing	$I \times \text{country co-financing per dose (cc)}$	137,600		
V	Country co-financing % of Gavi supported proportion	$U / T$	31.75 %		

**Table Annex 1.1 D: Table Annex 1.1 D Estimated numbers for Meningococcal A, 10 dose(s) per vial, LYOPHILISED, associated injection safety material and related co-financing budget (page 1)**

		Formula	2019		
			Total	Government	Gavi
A	Country co-financing	V	31.20 %		
B	Number of children to be vaccinated with the first dose	Table 5.2	532,086	166,025	366,061
C	Number of doses per child	Vaccine parameter (schedule)	1		
D	Number of doses needed	B X C	532,086	166,025	366,061
E	Estimated vaccine wastage factor	Table 5.2	1.33		
F	Number of doses needed including wastage	D X E	707,675	220,814	486,861
G	Vaccines buffer stock	Buffer on doses needed = (D - D of previous year) x 25% Buffer on wastages = ((F - D) - (F of previous year - D of previous year)) x 25%, = 0 if negative result G = [buffer on doses needed] + [buffer on wastages]	6,148	1,919	4,229
I	Total vaccine doses needed	Round up((F + G) / Vaccine package size) * Vaccine package size	714,000	222,787	491,213
J	Number of doses per vial	immunisation parameter	10		
K	Number of AD syringes (+ 10% wastage) needed	(D + G) x 1.11	597,440	0	597,440
L	Reconstitution syringes (+ 10% wastage) needed	(I / J) x 1.11	79,254	0	79,254
M	Total of safety boxes (+ 10% of extra need) needed	(K + L) / 100 x 1.11	0	0	0
N	Cost of vaccines needed	I x * vaccine price per dose (g)	432,663	135,003	297,660
Y	Cost of AD syringes needed	K x AD syringe price per unit (ca)	267,654	0	267,654
P	Cost of reconstitution syringes needed	L x reconstitution price per unit (cr)	2,774	0	2,774
Q	Cost of safety boxes needed	M x safety box price per unit (cs)	0	0	0
R	Freight cost for vaccines needed	N x freight cost as a % of vaccines value (fv)	24,991	7,798	17,193
S	Freight cost for devices needed	(O+P+Q) x freight cost as % of devices value (fd)	0	0	0
T	Total fund needed	(N+O+P+Q+R+S)	728,082	142,800	585,282
U	Total country co-financing	I * country co-financing per dose (cc)	142,800		
V	Country co-financing % of Gavi supported proportion	U / T	31.20 %		

## **Annex 2 - NVS Routine – Preferred Second Presentation**

No NVS - routine immunisation - second preferred format requested this year

## **Annex 3 - NVS Preventive campaign(s)**

No NVS Prevention Campaign Support this year

## Annex 4

### Table Annex 4A: Commodities Cost

Estimated prices of supply are not disclosed

### Table Annex 4B: Freight cost as percentage of value

Vaccine Antigen	Type of Vaccine	2017	2018	2019
Meningococcal A, 10 dose(s) per vial, LYOPHILISED	Menin A Conjugate	5.57 %	5.88 %	5.78 %

### Table Annex 4C: Low income - Country's minimum co-payment per dose of co-financed vaccine.

Vaccine	2017	2018	2019
Meningococcal A, 10 dose(s) per vial, LYOPHILISED	0.2	0.2	0.2

## Table Annex 4D: Wastage rates and factors

The table below presents the waste rates for the different vaccines (routine immunisation and campaigns) for 2017.

Vaccine	dose(s) per vial	Maximum Wastage rate*		Benchmark Wastage Rate ***
		Routine	Campaign	
Yellow Fever, 10 dose(s) per vial, LYOPHILISED	10	40 %	40 %	
Yellow Fever, 5 dose(s) per vial, LYOPHILISED	5	10 %	10 %	
Meningococcal A, 10 dose(s) per vial, LYOPHILISED	10	50 %	10 %	
Pneumococcal (PCV10), 2 dose(s) per vial, LIQUID	2	10 %	10 %	
Pneumococcal (PCV13), 1 dose(s) per vial, LIQUID	1	5 %	5 %	
Rotavirus, 2-dose schedule	1	5 %	5 %	
Rotavirus, 3-dose schedule	1	5 %	5 %	
Measles, 2nd dose, 10 dose(s) per vial, LYOPHILISED	10	40 %	40 %	
JE, 5 dose(s) per vial, LYOPHILISED	5	10 %	10 %	
HPV bivalent, 2 dose(s) per vial, LIQUID	2	10 %	10 %	
HPV quadrivalent, 1 dose(s) per vial, LIQUID	1	5 %	5 %	
MR, 10 dose(s) per vial, LYOPHILISED	10	15 %	15 %	

Observations:

Sources WHO recommended wastage rates

\*\* Source: \*\*\* Country APRs and studies, approved by WHO, UNICEF, and the Gavi Secretariat

Note: HPV demonstration project wastage rates are the same as for the vaccine

## Table Annex 4E: Vaccine maximum packed volumes

Please note that this table is used solely for reference and includes both the vaccines supported by Gavi as well as vaccines not supported.

Vaccine product	Designation	Vaccine formulation	Admin route	No. Of doses in the schedule	Presentation (doses/vial, pre-filled)	Packed volume vaccine (cm <sup>3</sup> /dose)	Packed volume diluents (cm <sup>3</sup> /dose)
BCG	BCG	lyophilised	ID	1	20	1.2	0.7
Diphtheria-Tetanus	DT:	liquid	IM	3	10	3	
Diphtheria-Tetanus-Pertussis	DTP	liquid	IM	3	20	2.5	
Diphtheria-Tetanus-Pertussis	DTP	liquid	IM	3	10	3	
DTP liquid + Hib freeze-dried	DTP+Hib	liquid+lyop.	IM	3	1	45	
DTP-HepB combined	DTP-HepB	liquid	IM	3	1	9.7	
DTP-HepB combined	DTP-HepB	liquid	IM	3	2	6	
DTP-HepB combined	DTP-HepB	liquid	IM	3	10	3	
DTP liquid + Hib freeze-dried	DTP+Hib	liquid	IM	3	10	2.5	
DTP liquid + Hib freeze-dried	DTP-HepB-Hib	liquid+lyop.	IM	3	1	22	

DTP-HepB-Hib liquid	DTP-HepB-Hib	liquid+lyop.	IM	3	2	11	
DTP-HepB-Hib liquid	DTP-HepB-Hib	liquid	IM	3	10	4.4	
DTP-HepB-Hib liquid	DTP-HepB-Hib	liquid	IM	3	2	13.1	
DTP-HepB-Hib liquid	DTP-HepB-Hib	liquid	IM	3	1	19.2	
DTP-Hib combined liquid	DTP+Hib	liquid+lyop.	IM	3	10	12	
DTP-Hib combined liquid	DTP+Hib	liquid	IM	3	1	32.3	
Hepatitis B	HepB	liquid	IM	3	1	18	
Hepatitis B	HepB	liquid	IM	3	2	13	
Hepatitis B	HepB	liquid	IM	3	6	4.5	
Hepatitis B	HepB	liquid	IM	3	10	4	
Hepatitis B UniJect	HepB	liquid	IM	3	Uniject	12	
Hib freeze-dried	Hib_lyo	lyophilised	IM	3	1	13	35
Hib freeze-dried	Hib_lyo	lyophilised	IM	3	2	6	
Hib freeze-dried	Hib_lyo	lyophilised	IM	3	10	2.5	3
Hib liquid	Hib_liq	liquid	IM	3	1	15	
Hib liquid	Hib_liq	liquid	IM	3	10	2.5	
Human Papillomavirus vaccine	Anti HPV	liquid	IM	3	1	15	
Human Papillomavirus vaccine	Anti HPV	liquid	IM	3	2	5.7	
Japanese Encephalitis	JE_lyo	lyophilised	SC	1	5	2.5	2.9
Measles	Measles	lyophilised	SC	1	1	26.1	20
Measles	Measles	lyophilised	SC	1	2	13.1	13.1
Measles	Measles	lyophilised	SC	1	5	5.2	7
Measles	Measles	lyophilised	SC	1	10	3.5	4
Measles-Mumps-Rubella lyophilised	MMR	lyophilised	SC	1	1	26.1	26.1
Measles-Mumps-Rubella lyophilised	MMR	lyophilised	SC	1	2	13.1	13.1
Measles-Mumps-Rubella lyophilised	MMR	lyophilised	SC	1	5	5.2	7
Measles-Mumps-Rubella lyophilised	MMR	lyophilised	SC	1	10	3	4
Measles-Rubella lyophilised	RR	lyophilised	SC	1	1	26.1	26.1
Measles-Rubella lyophilised	RR	lyophilised	SC	1	2	13.1	13.1
Measles-Rubella lyophilised	RR	lyophilised	SC	1	5	5.2	7
Measles-Rubella lyophilised	RR	lyophilised	SC	1	10	2.5	4
Meningitis A conjugate	Men_A	lyophilised	IM	1	10	2.6	4
Meningitis A/C	MV_A/C	lyophilised	SC	1	10	2.5	4
Meningitis A/C	MV_A/C	lyophilised	SC	1	50	1.5	3
Meningitis W135	MV_W135	lyophilised	SC	1	10	2.5	4
Meningococcal A/C/W/	MV_A/C/W/Y	lyophilised	SC	1	50	1.5	3

Meningococcal A/C/W/Y	MV_A/C/W/Y	lyophilised	SC	1	10	2.5	4
Monovalent OPV-1	mOPV1	liquid	Oral		20	1.5	
Monovalent OPV-3	mOPV3	liquid	Oral		20	1.5	
Pneumo. conjugate vaccine 10-valent	PCV-10	liquid	IM	3	1	11.5	
Pneumo. conjugate vaccine 10-valent	PCV-10	liquid	IM	3	2	4.8	
Pneumo. conjugate vaccine 13-valent	PCV-13	liquid	IM	3	1	12	
Polio	OPV	liquid	Oral	4	10	2	
Polio	OPV	liquid	Oral	4	20	1	
Polio inactivated	Le VPI	liquid	IM	3	PFS	107.4	
Polio inactivated	Le VPI	liquid	IM	3	10	2.5	
Polio inactivated	Le VPI	liquid	IM	3	1	15.7	
Rota vaccine	Rota_liq	liquid	Oral	2	1	17.1	
Rota vaccine	Rota_liq	liquid	Oral	3	1	45.9	
Tetanus Toxoid	TT	liquid	IM	2	10	3	
Tetanus Toxoid	TT	liquid	IM	2	20	2.5	
Tetanus Toxoid UniJect	TT	liquid	IM	2	Uniject	12	
Tetanus-Diphtheria	Td	liquid	IM	2	10	3	
Yellow fever	YF	lyophilised	SC	1	5	6.5	7
Yellow fever	YF	lyophilised	SC	1	10	2.5	3
Yellow fever	YF	lyophilised	SC	1	20	1.5	2
Yellow fever	YF	lyophilised	SC	1	50	0.7	1

## 12. Banking form

In accordance with the decision on financial support made by the Gavi Alliance, the Government of Chad hereby requests that a payment be made via electronic bank transfer as detailed below:

<b>Name of Institution (Account Holder):</b>			
<b>Address:</b>			
<b>City Country:</b>			
<b>Telephone no.:</b>		<b>Fax no.:</b>	
	<b>Currency of the bank account:</b>		
<b>For credit to:</b>			
<b>Bank account's title:</b>			
<b>Bank account no.:</b>			
<b>Bank's name:</b>			

Is the bank account exclusively to be used by this program?

By who is the account audited?

Signature of Government's authorising official

		<b>Seal</b>
<b>Name:</b>		
<b>Title:</b>		
<b>Signature</b>		
<b>Dated:</b>		

FINANCIAL INSTITUTION		CORRESPONDENT BANK (in the United States)	
<b>Bank's name:</b>			
<b>Branch Name:</b>			
<b>Address:</b>			
<b>City Country:</b>			
<b>Swift Code:</b>			
<b>Sort Code:</b>			
<b>ABA No.:</b>			
<b>Telephone No.:</b>			
<b>FAX No.:</b>			

I certify that account No.        is held by        at this banking institution



The account must be signed jointly by at least (number of signatories) of the following authorised signatories:

1		
	Name:	
	Title:	
2		
	Name:	
	Title:	
3		
	Name:	
	Title:	

<b>Name of bank's authorising official</b>
<b>Signature</b>
<b>Dated:</b>
<b>Seal:</b>

