Application Form for Gavi NVS support

Submitted by

The Government of

Nigeria

Date of submission: **8 June 2016**

Deadline for submission:

i. **1 May 2016**
ii. 1st May 2015
iii. 9 September 2015

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

Start Year	2016	End Year	2020

Form revised in 2015

(To be used with Guidelines of November 2015)

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

Gavi
GRANT TERMS AND CONDITIONS

FUNDING USED SOLELY FOR APPROVED PROGRAMMES

The applicant country ("Country") confirms that all funding provided by the Gavi 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. All funding decisions for the application are made at the discretion of the Gavi Board and are subject to IRC processes and the availability of funds.

AMENDMENT TO THE APPLICATION

The Country will notify the Gavi in its Annual Progress Report if it wishes to propose any change to the programme(s) description in its application.The Gavi will document any change approved by the Gavi, and the Country's application will be amended.

RETURN OF FUNDS

The Country agrees to reimburse to the Gavi 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, within sixty (60) days after the Country receives the Gavi's request for a reimbursement and be paid to the account or accounts as directed by the Gavi.

SUSPENSION/ TERMINATION

The Gavi may suspend all or part of its funding to the Country if it has reason to suspect that funds have been used for purpose other than for the programmes described in the Country's application, or any Gavi-approved amendment to the application.The Gavi retains the right to terminate its support to the Country for the programmes described in its application if a misuse of Gavi funds is confirmed.

ANTICORRUPTION

The Country confirms that funds provided by the Gavi 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, as requested. The Gavi 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 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 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 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 TRANSPARENCY AND ACCOUNTABILITY POLICY

The Country confirms that it is familiar with the Gavi 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 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 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. 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 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 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. Type of Support requested

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

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	2020	
One-time mini catch-up campaign	Meningococcal A, 10 dose(s) per vial, LYOPHILISED	2017	2017	
Routine New Vaccines Support	Rotavirus, 2-dose schedule	2018	2020	

[1] Gavi may not be in a position to accommodate all countries first product preferences, and in such cases, Gavi will contact the country and 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 :
  - The duration of support
  - The total amount of funds requested
  - Details of the vaccine(s), if applicable, including the reason for the choice of presentation
  - Projected month and year of introduction of the vaccine (including for campaigns and routine)

- Relevant baseline data, including:
  - DTP3 and Measles coverage data (as reported on the WHO/UNICEF Joint Reporting Form)
  - Target population from Risk Assessments from Yellow Fever and Meningitis A
  - Birth cohort, targets and immunisation coverage by vaccines

- Country preparedness
  - Summary of planned activities to prepare for vaccine launch, including EVM assessments, progress on EVM improvement plans, communication plans, etc.
  - Summary of EVM assessment and progress on EVM improvement plan

- The nature of stakeholders' participation in developing this proposal
  - Inter-Agency Coordinating Committee
  - Partners, including CSO involvement

The Government of Nigeria has made tremendous efforts to improve the health status of children, these efforts have translated to improvement in the health indices. The Government of Nigeria with the support of GAVI and other partners introduced new vaccines into the EPI schedule such as Pentavalent Vaccine in 2012-2013, Pneumococcal Conjugate Vaccine in 2014 and Inactivated Polio Vaccine in 2015. The introduction of these new vaccines has strengthened the health systems and has contributed to the decline of illnesses and deaths amongst children.

To further improve the health status of children in the country, the Government of Nigeria is requesting for support from the Global Alliance for Vaccines and Immunization (Gavi) to introduce the Men Avaccine into routine immunization (RI) nationwide in February 2017 and conduct the 2017 phased Men A catch up campaign in May and June, 2017. The GoN is also requesting support from Gavi to introduce Rotavirus Vaccines into the RI schedule by January 2018.

Nigeria has 26 states that fall within the meningitis belt which translates to about 156 million people at risk of meningitis.Annual cases have hovered around 5000, however in 2009, the country experienced a devastating epidemic with over 56,135 cases and 2,489 deaths (CFR 4.4%). Bacteriology information indicated a preponderance of Men A (with 375 positives) followed by W135 (20 cases).Following the outbreak in 2009, mass vaccination with the new conjugate A meningitis vaccine targeting all individuals between 1-29yrs of age in the meningitis belt was carried out, with support from the Meningitis Vaccine Project (MVP). The campaigns were implemented in a phased manner from 2011 to 2014 and covered the 26 high-risk states targeting 82,695,197 of those aged 1-29 years (70% of the total population projected from 2006 national census) in the 26 states of the meningitis belt in Nigeria. Over the four year phased campaign, 89,788,612 people were vaccinated across the States. The administrative data (tally sheet data -100%), though the post campaign survey reported an average coverage of 88%.

After the four-phased immunization activities to control CSM using Men AfriVac from 2011 to 2014, other serotypes apart from Men A have become the predominant cause of outbreaks. In 2015 there was an outbreak due to Men C that affected mainly Kebbi, Sokoto and Zamfara States which share borders with Niger Republic. This is attributable to the success conduct of the menAfrivac campaigns in the States.

The MVP had in their recommendations for the elimination of out breaks in Africa, outlined various strategies

that include rapidly inducing herd immunity through mass campaigns, protection of new birth cohorts through routine and catch up campaigns as well as surveillance and epidemic response. The country having successfully conducted the mass campaigns that targeted the 1 -29 years between 2011 and 2014 in these states with no case of Meningitis sero type A reported, plans to conduct a catch up campaign prior to the introduction of the vaccine into the routine schedule.

The follow up campaign will run in two phases in the country covering a target of 34,941,924 children with 36,689,019 as vaccine requirement. The phasing is guided by the phased schedule of the previous campaigns taking into account the birth cohort introduced into the population after the mass campaigns and phasing allows country to adequately structure supervision of campaigns. The first phase will be for birth cohort after the 2011-2012 campaign and will target 1-6 year olds and the second phase will target 1-4year for the birth cohort following the campaign of 2013-2014.

Men A vaccine will be introduced into the routine immunization programme as a single dose injection to children at the age of 9 months at the same time as Measles and yellow fever. The target is all eligible children nationwide, covering a population of approximately 7,943,321 annually with surviving infant population of 7,530,268. Nigeria would need as estimated 11,747,218 doses during the first year, assuming vaccine costs ($.621 per dose) target coverage of 80%, wastage rate of 30%, and accounting for 50% buffer stock for year 1 with 5% freight a total amount of 7,295,022 USD will be needed for vaccine procurement. The expected FGoN co financing amount is 2,936,805 USD at 25 cents per dose while Gavi is expected to support with 4,358,218 USD.

Total budget for the 2017 MenA catch-up campaign is $ 56,788,344, Operational cost of $ 27,163,691 (Vaccines and Devices). However, expected GAVI contribution through partners is $ 22, 712, 251 (Operational cost of vaccines and devices at 0.65 cents per child) while FGoN contribution (FGoN, State and LGA) is $ 4, 451, 440.

A total of USD 6,011,320.68 is the estimated budget being requested from GAVI as Vaccine Introduction Grant (VIG).

Diarrhoea accounts for 11% of under-5 mortality in Nigeria[1]. On the average, 201,368 children under the age of five die annually from diarrhoea disease. In Nigeria, more than 50% of hospitalizations results from Rotavirus infection[2] and 77% of these rotavirus hospitalizations occurred in infants which is also consistent with the age epidemiology for diarrhoea deaths[3].The introduction of rotavirus vaccines will significantly lead to the reduction in number of rotavirus hospitalizations and diarrhoea deaths and save an additional 79,892 lives by 2025 assuming 90% coverage after introduction[4]. At 87% coverage for GAVI supported vaccine introductions of pentavalent, Pneumococcal Conjugate (PCV), and Rotavirus vaccines combined, 195,161 deaths could be averted by 2025[5].

Rotavirus vaccination is in tune with the Global Action Plan for Pneumonia and Diarrhoea (GAPPD), Global Vaccine Action Plan (GVAP), Sustainable Development Goals (SDGs) and national plans – National Strategic Health Development Plan (NSHDP), country Multi-Year Plan (cMYP), Saving One Million Lives (SOML) Initiatives, Essential Childhood Scale-up Plans, National Routine Immunization Strategic Plan (NRISP), and Harmonized MGD alliance plans. Furthermore the National Health Summit has endorsed Universal Health Coverage for all Nigerians as a policy thrust for the health sector.

Nigeria's goal is to reduce morbidity and mortality due to rotavirus disease amongst infants in line with the universal health coverage policy, SOML initiative of government and the desire to achieve the health related SDGs. Specific objectives are:

- To vaccinate all eligible infants (by age 12 months) with 2 doses of Rotavirus vaccine (80% coverage in 36 states and the FCT within the first twelve months of introduction); contribute to control of diarrhoea as in the GAPPD by attaining 90% coverage for Rotavirus vaccine post 2018
- To strengthen immunization services by improving access for hard to reach communities through regular outreach services
- To strengthen AEFI monitoring systems in Nigeria.

The key strategies outlined to achieve the above goals and objectives include:

- GAVI-supported introduction of the rotavirus vaccine
- Increased access to and utilization of the routine immunization program
- Integration of rotavirus vaccination with other PHC services and diarrhoea prevention strategies (e.g. hand washing, exclusive breast feeding, and provision of quality water and sanitation facilities)

- Capacity building of health staff to deliver immunization including strengthened monitoring and supervision systems and improved program management
- Improved vaccine management (including logistics, cold chain expansion)
- Improved communication and advocacy
- Strengthened surveillance systems

Nigeria is seeking GAVI support for a **phased** introduction of the monovalent 2- dose schedule rotavirus vaccine into the routine immunization schedule starting from January 2018. The phases will be spaced 6 months apart (18 states in phase 1, 19 states in phase 2). The considerations for phasing are to ensure good quality preparations for the introduction in terms of cold chain readiness and health worker training. Lessons learned from previous introductions have shown that these pieces of preparation pose a logistical challenge that must be resolved prior to introduction. Criteria for phasing includes diarrhea disease burden, penta 3 coverage (Dec 2015 NPHCDA administrative coverage and NDHS 2013 coverage), cold chain capacity for rotavirus vaccines, zonal representativeness etc. (see annexures for details).

The vaccine will be administered orally at 6 and 10 weeks of age with pentavalent 1 and 2,and will not be offered to children above 12 months of age. No age restrictions will be imposed for children less than 1 year of age in that children arriving late for their first immunization contact will be eligible for rotavirus vaccine up to 12 months of age. Nigeria would need an estimated 16,354,027.20 doses to vaccinate infants in 2018 and 15,756,190.75 doses during the second year assuming target infants of 7,787,632in 2018, target coverage of 80%, wastage rate of 5%, and accounting for 25% rolling buffer stock. At vaccine cost of $2.215 per dose, and assuming graduating country co-financing proportions, GAVI will pay USD 23,131,136 to cover the Rotavirus vaccine cost in the first year, while Nigeria will pay USD 13,011,264. Over 4 years, GAVI will pay USD 57,953,390 to cover the Rotavirus vaccine cost, while Nigeria will pay USD 88,693,334. The GoN also requests to receive the Vaccine Introduction Grant (VIG) at USD 0.80 per child in birth cohort for a total of USD 6,549,537.These funds, in addition to leveraging on existing resources and partnerships, will be important for rotavirus introduction preparatory activities described in the introduction plan.

The current 2016-2020 cMYPindicated that Men A vaccines will be included in the RI schedule in 2017 while Rotavirus vaccines will be included in the RI schedule in 2018. With the present progress in Polio eradication, the interruption of the transmission of Wild Polio Virus in Nigeria and the ongoing Polio Legacy Planning, more resources are expected to be liberated towards RI and new vaccine introductions. The mechanisms for mobilizing resources from government, development partners, extra-budgetary sources, the private sector etc. to bridge the funding gap are described in the plan.

[1]End preventable deaths: Global Action Plan for Prevention and Control of Pneumonia and Diarrhoea, WHO/UNICEF 2013 http://apps.who.int/iris/bitstream/10665/79200/1/9789241505239_eng.pdf

[2]*Tagbo et al, Epidemiology of Rotavirus Diarrhoea among Children Younger than 5 Years in Enugu, South East, Nigeria. The Pediatric Infectious Disease Journal • Volume 33, Number 1, Supplement 1, January 2014*

[3]Robert F. Ramig et al. Pathogenesis of Intestinal and Systemic Rotavirus Infection, Journal of Virology Oct 2004; 78(19): 10213–10220.

[4]LiST tables annexed to the document

[5]LiST tables annexed to the document

4. Signatures

4.1. Signatures of the Government and National Coordinating Bodies

4.1.1. Government and the Inter-Agency Coordinating Committee for Immunisation

The Government of Nigeria would like to expand the existing partnership with the Gavi for the improvement of the infants routine immunisation programme of the country, and specifically hereby requests Gavi support for:

Meningococcal A, 10 dose(s) per vial, LYOPHILISED; Rotavirus, 2-dose schedule
routine introduction

The Government of Nigeria 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 and its partners contribute financial and technical assistance to support immunisation of children as outlined in this application.

Table(s) 6.2.4, 6.3.4 in the NVS Routine section of this application shows the amount of support in either supply or cash that is required from the Gavi. Table(s) 6.2.3, 6.3.3 of this application shows the Government financial commitment for the procurement of this new vaccine (NVS support 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 **March**.

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

The payment for the first year of co-financed support will be around **January 2018** for Rotavirus, 2-dose schedule.

Please note that this application will not be reviewed or recommended for approval by the Independent Review Committee (IRC) without the signatures of both the Minister of Health and Minister of Finance or their delegated authority. These signatures are attached as DOCUMENT NUMBER : 2 and 1 in Section 10. Attachments.

Minister of Health (or delegated authority)		Minister of Finance (or delegated authority)	
Name	Prof. Isaac Adewole	**Name**	Mrs Kemi Adeosun
Date		**Date**	
Signature		**Signature**	

This report has been compiled by (these persons may be contacted in case the Gavi Secretariat has queries on this document):

Full name	Position	Telephone	Email
Dr Bassey Okposen	CMO/Head RI&ESS	+2348032373794	basenokng@yahoo.com
Dr Nneka Onwu	CSG 1/Head SIAs	+2348023024254	nnekaonwu@yahoo.com

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	Inter agency Coordinating Committee
Year of constitution of the current committee	2004
Organisational structure (e.g., sub-committee, stand-alone)	Stand alone
Frequency of meetings	Bi monthly

The Terms of Reference or Standard Operating Principles for the ICC, including details on the ICC membership, quorum, dispute resolution process and meeting schedules is attached as DOCUMENT NUMBER : 4.

Major functions and responsibilities of the ICC/HSCC:

The ICC remains the coordinating body for immunization activities in Nigeria. It is the forum for regular information sharing and networking amongst major stakeholders so as to ensure synergy and complementarity of programme implementation. It therefore has the main mandate to coordinate decision-making and information sharing around ALL immunization activities/programmes undertaken by the Federal Government of Nigeria. This responsibility extends to coordinating partners' activities at sub-national level, at states and LGAs. The ICC is chaired by the Honorable Minister for Health. The introduction process will be closely monitored by the ICC.

Accordingly, the ICC will undertake to actively coordinate partner inputs and strategies/plans for immunization activities, in the wider context of Primary Health Care. It will continue to strengthen coordination and harmonization of efforts to minimize duplication of donor inputs at sub-national levels.

Please describe how partners have provided support in preparation of the proposal:

The proposal was prepared in consultation with partners and reviewed by all relevant working groups and sub-committees which have representation of partners and government. All comments received were incorporated into the final document before it was submitted to ICC for endorsement

4.1.3. Signature Table for the Coordinating Committee for Immunisation

We the members of the ICC, HSCC, or equivalent committee *[1]* met on the **05/01/2016** to review this proposal. At that meeting we endorsed this proposal on the basis of the supporting documentation which is attached. The minutes of the meeting endorsing this proposal are attached as Document number 5. The signatures endorsing the proposal are attached as Document number 7 (please use the list for signatures in the section below).

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

Function	Title / Organisation	Name	Please sign below to indicate the attendance at the meeting where the proposal was endorsed	Please sign below to indicate the endorsement of the minutes where the proposal was discussed
Chair	Honourable Minister of Health	Prof. Issac Adewole		
Secretary	Executive Director NPHCDA	Dr Ado Muhammad		
Members	HMSH, FMOH	Dr Osagie Ehanire		
	PS, FMOH	Dr Amina M.B Shamaki		
	Country Rep, UNICEF	Jean Gough		
	Rotary International	Dr Tunji Funsho		
	Program Officer, BMGF	E.A Durham		
	Acting Head of Cop., Canada	Emily Alexander		
	Director for Imm., CDC	Lisa K Esapa		

	M&E Co ord., WHO	Sisay Geshu		
	Deputy Director, USAID	Heather Smith-Taylor		
	Director, CHAI	Garba Abdu		
	Health Advisor, DFID	Ebere Anyachukwu		
	Senior Health Specialist, World Bank	Oluwole Odutolu		
	Program Officer, JICA	Omolola Odebiyi		
	Team Lead, IVAC	Chizoba Wonodi		

By submitting the proposal we confirm that the quorum has been met. **Yes**

The minutes from the three most recent ICC meetings are attached as DOCUMENT NUMBER : 6.

4.2. National Immunization Technical Advisory Group (NITAG)

Has a NITAG been established in the country ? **Yes**

We the members of the NITAG met on the to review this proposal. At that meeting we endorsed this proposal on the basis of the supporting documentation describing the decision-making process through which the recommendations were reached, attached as Document number 26.

4.2.1. The NITAG

Profile of the NITAG

Name of the NITAG	The Nigeria Technical Advisory Group on Immunization (NGTAG)
Year of constitution of the current NITAG	2015
Organisational structure (e.g., sub-committee, stand-alone)	Stand alone
Frequency of meetings	Quarterly

Function	Title / Organisation	Name
Chair	Proffessor	Prof. Umaru Shehu
Secretary	Dr	Mustapha Mahmud
Members	Prof	Obehi Okojie
	Dr	Kabir Mustapha
	Dr	Idris Muhammed
	Prof	Fola Tayo
	Prof	Adebeyi Oluwo
	Dr	Dorothy Osawere
	Dr	Mario Hassan
	Prof	Abdullahi Muhammad
	Dr	Geff Atata
	Dr	Dale Ogunbayo
	Dr	Azuogu Ndubueze
	Prof	Uche Ozumba
	Prof	Habib Garba

Major functions and responsibilities of the NITAG

The Nigeria Technical Advisory Group on Immunization (NGTAG) is the technical advisory group that provide guidance for making evidence-based immunization related policy decisions, including choices of new vaccines and technologies and make recommendations towards improvement of existing programs and schedules. The NITAG among other

promote;

- the adoption of policies based on national priorities,
- help resist pressure from interest groups
- reinforce the credibility of national vaccine and immunization policies
- enhance the ability to secure government or donor funding
- encourage a comprehensive approach that considers the health of vulnerable and under-serve populations
- encourage the work of existing committees/ governing structure in the immunization landscape

NITAG with this mandate play a technical advisory role for the development of vaccine recommendations and does not perform an implementing, supervisory, coordinating or regulatory activity.

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 **(Document Number: 8)**

5. Immunisation Programme Data

5.1 Background information

Please complete the table 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 (cMYP) (or equivalent plan) and attach a complete copy (with an Executive Summary) as DOCUMENT NUMBER 9. Please attach the cMYP costing tool as DOCUMENT NUMBER 10.
- Please attach relevant Vaccine Introduction Plan(s) as DOCUMENT NUMBER : 12
- Please refer to the two most recent annual WHO/UNICEF Joint Reporting Forms (JRF) on Vaccine Preventable Diseases
- 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	191,843,201	2016	NPC
Birth cohort	7,697,016	2016	NPC
Infant mortality rate (per 1000)	69	2013	NDHS
Surviving infants*[1]*	6,661,825	2014	NPC
GNI per capita (US$)	2,950	2014	World bank
Total Health Expenditure (THE) as a percentage of GDP	92	2014	cMYP 2011 - 2015
General government expenditure on health (GGHE) as % of General government expenditure	25	2014	cMYP 2011 -2015

[3] Surviving infants = Infants surviving the first 12 months of life

5.1.1 Lessons learned

Routine New Vaccines Support

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 or actions taken to address them. Please refer to previous Post Introduction Evaluations (PIE), if applicable. If they are included in the Introduction Plan, please cite the section only. If this information is already included in NVIP/POA, please reference the document and in which section/page this information can be found.

Lessons Learned	Action Points
Organization and planning a.. Early planning, advocacy and a comprehensive approach and an effective timely communication to states and LGAs is crucial for a successful NVI process	The ED NPHCDA and Partners using the opportunity of the Governors forum and any other avenues should advocate to the State Governors and relevant stake holders 3 months prior to new vaccine introduction for ownership . Timely engagement with States and Stakeholders in planning including development of work plans at least 6 months prior to introduction

Cold chain and vaccine management There was no alignment of new vaccine introduction dates, vaccine arrival dates and in country quarterly distribution plan	Introduction dates should align with in country vaccine distribution plan
Training a. NVI training provided a good opportunity to update HWs knowledge on other EPI program components. b. Use of manuals during training standardized the training	Cascaded training to be encouraged for various levels of supervision
Monitoring and Evaluation: a. Spot checks conducted before and during the introduction ascertained preparedness for NVI. b. Early and frequent supportive supervision immediately post introduction is key to entrenching HWs' knowledge and skills on the new vaccine and for early identification and resolution of challenges with vaccine roll out	Pre and introduction activities at national and state levels should be tracked from the new vaccine operation room at NPHCDA Ensure spot checks are conducted post introduction
Creating awareness on the burden and need for the vaccine being introduced to enhance acceptance. Administration of a new vaccine at the same time with existing traditional vaccine will enhance uptake of the new vaccine	Strong mobilization of caregivers on the need for the new vaccines (Men A and Rota). Men A vaccine will be administered same time with Yellow fever and measles vaccines. There has been an increase in administrative coverage of yellow fever from 49% in 2007 to 97% in 2014.The coverage of Men A vaccine is expected to be high because most of the states are in the meningitis belt (26/37) so the burden of meningitis is easier felt in the population than yellow fever. During the training of health workers there will be an emphasis to ensure that all vaccines administered at the same time (OPV, Rota, Penta and PCV) and (measles, yellow fever and Men A) are available. during sessions. Supportive supervision will be intensified to ensure adherence to this .

5.1.2 Health planning and budgeting

Please provide information on the planning and budgeting cycle in your country

The Country operates an annual budgeting cycle.The Ministry of Finance (MoF) is specifically responsible for the management and execution of the annual budget, collection of taxes, organization and control of public expenditure and payments to the government.

Historically, the Nigerian Government followed the calendar year for preparation of budgets and other financial statements.

The Budget preparation cycle is comprised of following main phases:

1. Preparation of Preliminary Draft Budget or Medium Term Strategic Framework in order to ensure that essential budget policies are sustainable and facilitate in identifying desirable policy changes
2. Preparation of National Budget for detailed budget costing and State allocation in order to ensure that budget is cost effective

Medium Term Strategic Framework (MTSF) allows the Government to plan its expenditures, for both the operating and development budgets, in the medium term and link its financial resources with the benchmarks

it needs to achieve under the National Development Plan of Nigeria and Millennium Development Goals (MDGs). The aim of preparing the MTSF is to estimate available financial resources in the following three years (both from domestic revenue and donor funds), to select most important priorities, based on the Nigeria's National Development Plan (NDP), that can be financed from the available funds and establish budget ceilings. The Ministry of Finance (MoF) is responsible for gathering required information from line ministries. To provide this information, ministries need to do priorities' cost estimation.

Based on the information from MTSF, the MoF requests the ministries including Federal Ministry of Health to prepare detailed budget calculations for selected priorities and within given ceilings. The line ministries and other budgetary units prepare the budgetary requests for both operational and development components. The budgetary allotments, set by MoF, are used as control figures to indicate any discrepancy between allowances and budgetary requests.

Whenever the budgetary requests exceed the allotments specified, the MoF organizes additional consultations for each line ministry on their requested budget in order to bring budget allowances in balance with budget requests. Based on the results of the negotiations, the MoF appears in a position either to increase allotments, by reallocating available funds by budgetary categories and charts of accounts, or to reduce the planned expenditures by reprioritizing them.

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

National Health Plan 2010 to 2015. The current plan has expired and the governement of Nigeria through the Federal Ministry of Health is developing a new plan.

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

Yes the proposal is aligned with the current cMYP 2016 - 2020

Please indicate the national planning budgeting cycle for health

The planning cycle is the MTSS which is every three years, the annual plans are drawn from it

Please indicate the national planning cycle for immunisation

The national planning cycle for immunization is every 5 years; it is aligned to global goals and targets and the cMYP. However the annual work plans and program plans are drawn from cMYP.

5.1.3 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).

Gender (NDHS 2013): There is no noticeable gender disparity in immunization coverage in the country with 37% and 39.7% coverage for females and male children respectively. • Socio-economic (NDHS 2013): - Education: The more the mothers are educated, the more likely they are to attend immunization sessions. Those children of mothers with higher education are almost 7 times more likely to be vaccinated than children of mothers with no education. - Wealth Index quintile: The children of families in the poorest quantile are 5 times less likely to be vaccinated compared to children from families in the higest (richest) quantile. • Geographical (NDHS 2013): - Urban / Rural: Children living in urban areas are 2.5 times more likely to be vaccinated, compared to children living in rural areas. Despite better coverage in the urban areas, children living in slums within the urban areas still have lower immunization coverage rates than in some rural areas. - States: Huge disparities exist between and within States; For example, children in Imo State in the South East geopolitical zone are 32 times more likely to be vaccinated than a child from Sokoto State in the North West zone. - Geopolitical Zones: A child from the SE zone is 5.8 times more likely to be vaccinated than a child from the NW zone. Existing mechanisms of providing health services in the Security challenged areas will be used to reach the at risk communities during the new vaccines introduction (Rota and Men A) and Men A campaign. The Internally Displaced Persons will be targeted using existing structures, some of the structures in place to reaching these communities include the VCMs, CDC management support teams and NTLCs.

These programmes have resulted in a steady increase in immunization coverage and marked reduction in the burden of VPD as well as stopping the transmission of Wild Polio virus. These programmes with the support of the partnership networks will be utilized in this new vaccine introduction and Men A campaign to achieve similar results. These internally displaced camps will be mapped and targeted during the introduction (Men A and Rota) and Men A campaigns as currently being done for the Polio IPDs and the country emergency preparedness and response programme of the Agency

Discuss how equity issues (geographic, socio-economic and/or gender) are being taken into account in the design of social mobilisation and other strategies to increase immunisation coverage. Highlight where these issues are addressed in the vaccine introduction plan(s).

Female vaccinators will be used during the campaign to administer the vaccines like wise female vaccinators will also be used as health workers to administer vaccine during the introduction into routine immunization

Female mobilizers/VCM female mobilizers will be used most especially in the north as they can have access to houses in the community

Community dialogues will be done in settlements this will help build acceptance of the menA vaccine

Radio broadcasts in local languages will also be done in addition to above

Social mobilization would leverage and build upon the existing communication strategies and lessons learnt during MenAfriVac, Measles and Polio immunization activities as well as during the introduction of pentavalent, pneumococcal conjugate and inactivated polio vaccines. It specifies in-depth community engagement as the main approach.

The third and fourth MenAfriVac campaign engaged high level of **Edutainment Programs** and othercommunication approaches. Special mobile teams covering markets, transit parks, schools and religious institutions complimented these approaches. They included road shows, mascots, motorcycle shows, market rallies, drama and theatrical performances in local dialects that attracted lots of crowds and boosted coverage.

The Edutainment activities will be adapted in the follow up campaign together with strong media support in all states including production and airing of audio and visual messages(jingles, PSAs and a half hour documentary), printarticles, radio call in programs, bulk SMS texting, twitter, Facebook and radio programs to ensure that mothers and care givers are well informed and mobilized. Local level entertainers will be deployed near the immunization sites to enhance interest and visibility of the programme to supplement town announcers. Messages will also be relayed through print materials likeposters, FAQs, banners, flyers and parents educated on the introduction of the MenAfriVac vaccine into routine immunization. Educational flip charts will also be used to conduct sensitization at community levels during dialogue sessions and sessions for caregivers specifically on MenAfriVac vaccine into routine immunization.More emphasis will be placed for RI and the campaign on interpersonal communication approaches.

The **National Social Mobilization Working Group** will develop a national communication, manage the production and distribution of all print and electronic materials. The materials will in liaison with the states, be translated into several languages and pretested. National meetings will also be held with stakeholders including a sensitization meeting, media orientation and an Information/Crisis Management workshop for high level key spokes people on how to deal with the media in case of rumors, incident/coincidence, and deaths, before, during and after the campaign.This will also be cascaded to states and LGAs. In addition, a 30 minute documentary is being planned for production and airing as well as short PSAs that will feature messages from people that beneficiaries can identify withStrong emphasis for both RI and the campaign will be placed on expanding household and community engagement approaches, including house-to-house mobilization ahead of the campaign.

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

Routine immunization data is not disaggregated by sex. Data is captured by gender on the register only. However there are plans to update the data tools so that data on gender will be captured in the summary forms

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.

Yes, there is insecurity due to insurgency in the north eastern part of the country, skirmishes due to cattle rustling in the northern part of the country and militancy in the south south, special arrangement will be made to access these areas with services such as the hit and run strategies and outreach services.Special arrangemets will be made for security compromised areas

If available, please provide additional information and documents on subnational coverage data, e.g. comparing urban/rural districts or districts with highest/lowest coverage, etc.

Attached is the NDHS report 2013, Men A coverage survey reports for details

5.1.4 Data quality

Please attach a data quality assessment (DQA), report if one has been completed within the previous 48 months (DOCUMENT NUMBER: 27). If available, an improvement plan and progress report on the implementation of the improvement plan should also be submitted (DOCUMENT NUMBER: 11, DOCUMENT NUMBER: 28).

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

Data Quality Audit was conducted in 2006 plans were on ground to conduct DQA in 2015 by GAVI which was later cancelled. However, the country conducts Data Quality Self assessment Survey on annual basis. Attached is the report of DQS 2013

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.

Data Quality Self Assessment is conducted on annual basis to verify adminitrative data , , National Real Time Routine Immunization Supportive Supervision findings are used to triangulate routine immunization data, the country plan for full transition from DVDMT to DHIS 2. Regular monthly Data Quality Checks in the states is also used to check data quality.

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.

National Immmunization Coverage Survey conducted in 2010

National Demographic Health Survey conducted 2013

SMART survey conducted annually

House hold survey regulary

Lot Quality Assurance Survey conducted post Immunization Plus Days

5.1.6 Meningococcal A Immunisation coverage

Please provide information concerning immunisation coverage related to Meningococcal A vaccine (MenA)

Table 5.1.6: MenA Immunisation coverage

Coverage	2011		2012		2013	
	Administrative*(1)*	WUENIC*(2)*	Administrative*(1)*	WUENIC*(2)*	Administrative*(1)*	WUENIC*(2)*
Meningococcal A	0	0	0	0	0	0

1*st* dose (%)						

Coverage	2014		2015	
	Administrative*(1)*	WUENIC*(2)*	Administrative*(1)*	WUENIC*(2)*
Meningococcal A 1*st* dose (%)	0	0	0	0

Coverage	2011		2012		2013	
	Administrative*(1)*	Coverage survey	Administrative*(1)*	Coverage survey	Administrative*(1)*	Coverage survey
Supplementary Immunisation Activities (SIA) (%)	91	88.5	86	87.8	102	87.5

Coverage	2014		2015	
	Administrative*(1)*	Coverage survey	Administrative*(1)*	Coverage survey
Supplementary Immunisation Activities (SIA) (%)	104	88.6	0	0

Note:

(1) National reported Administrative Coverage

(2) WHO/UNICEF estimates of national immunization coverage

Was the last Meningococcal A Supplementary Immunization Activities (SIA) administrative coverage or results of a survey of acceptable methodology **Results of a survey**

Please describe survey methodology:

Adopted the modified the 30 x 7 cluster survey

5.2. Baseline and Annual Targets (NVS Routine Support)

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

Number	Base Year	Baseline and Targets			
	2015	2017	2018	2019	2020
Total births	7,458,349	7,943,321	8,197,507	8,459,827	8,730,542
Total infants' deaths	269,042	413,053	409,875	406,072	401,605
Total surviving infants	7,189,307	7,530,268	7,787,632	8,053,755	8,328,937
Total pregnant women	9,322,936	8,141,904	8,402,445	8,671,323	8,948,805
Target population vaccinated with OPV3*[1]*	7,383,765	7,530,268	7,787,632	8,053,755	8,328,937
OPV3 coverage*[2]*	103 %	100 %	100 %	100 %	100 %
Target population vaccinated with DTP1*[1]*	6,934,550	7,530,268	7,787,632	8,053,755	8,328,937
Target population vaccinated with DTP3*[1]*	5,973,183	7,078,452	7,320,374	7,570,530	7,912,490
DTP3 coverage*[2]*	83 %	94 %	94 %	94 %	95 %
Wastage*[3]* rate in base-year and planned thereafter (%) for DTP	0	25	25	25	25
Wastage*[3]* factor in base-year and planned thereafter for DTP	1.00	1.33	1.33	1.33	1.33
Target population vaccinated with Meningococcal*[1]*	.0	6024214.0	7008869.0	7570530.0	7912490.0
Meningococcal A coverage*[2]*	0 %	80 %	90 %	94 %	95 %
First Presentation: Meningococcal A, 10 dose(s) per vial, LYOPHILISED					
Wastage*[3]* rate in base-year and planned thereafter (%)	50	50	50	50	50
Wastage*[3]* factor in base-year and planned thereafter (%)	2.00	2.00	2.00	2.00	2.00
Maximum wastage rate value for Meningococcal A, 10 dose(s) per vial, LYOPHILISED	50 %	50 %	50 %	50 %	50 %
Target population vaccinated with 1st dose of Rotavirus	0		6,230,106	7,248,380	7,912,490
Target population vaccinated with 2nd dose of Rotavirus	0		6,230,106	7,248,380	7,912,490
Rotavirus coverage*[2]*	0 %	0 %	80 %	90 %	95 %
First Presentation: Rotavirus, 2-dose schedule					
Wastage*[3]* rate in base-year and planned thereafter (%)	5		5	5	5
Wastage*[3]* factor in base-year and planned thereafter (%)	1.05	1.00	1.05	1.05	1.05
Maximum wastage rate value for Rotavirus, 2-dose schedule	5 %	5 %	5 %	5 %	5 %
Target population vaccinated with 1st dose of Measles	6,581,099	7,153,755	7,398,250	7,651,068	7,912,490
Measles coverage*[2]*	92 %	95 %	95 %	95 %	95 %
Annual DTP Drop out rate [(DTP1 – DTP3) / DTP1] x 100	14 %	6 %	6 %	6 %	5 %

[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 (in percentage): [(A - B) / A] x 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. Targets for Preventive Campaign(s)

No NVS Prevention Campaign Support this year

5.4. Targets for One time mini-catchup campaign(s)

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

Number	Base Year	Baseline and Targets
	2017	2017
Target population vaccinated with Meningococcal*[1]*	10	90
Wastage*[3]* rate in base-year and planned thereafter (%)	10	10
Wastage*[3]* factor in base-year and planned thereafter (%)	1.11	1.11
Maximum wastage rate value for Meningococcal A, 10 dose(s) per vial, LYOPHILISED	10 %	10 %

[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 (in percentage): [(A - B) / A] x 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.

6. New and Under-Used Vaccines (NVS Routine)

6.1. Assessment of burden of relevant diseases (if available)

If already included in detail in the Introduction Plan or Plan of Action, please cite the section only.

Disease	Title of the assessment	Date	Results
Meningitis serotype A	Surveillance	yearly	0
Diarrhoea	Surveillance	Yearly	0

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 this vaccine? **February 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 address these issues.

Please summarise the cold chain capacity (at central and other levels) and readiness to accommodate new vaccines, taking into consideration training, cold chain equipment and other logistical requirements. If cold chain expansion is required, state how it will be financed, and when it will be in place. The Independent Review Committee requires assurance that the cold chain is ready or will be ready for the routine introduction of the new vaccine, and evidence/plans need to be provided. All proposals that include Gavi- financing for cold chain equipment intended for vaccine storage shall need to procure equipment pre-qualified by WHO under their Performance Quality and Safety (PQS) program. The purchase of non-PQS equipment will only be considered on an exceptional basis, with justification and advance agreement from Gavi.

The Cold Chain System

The cold chain system consists of the National Strategic Cold Store (NSCS) in Abuja, six zonal cold stores located in each of the six geo-political zones, 36 States vaccine cold stores plus the Federal Capital territory (FCT) and 774 Local Government Area (LGA) vaccine stores serving about 20,630 health facilities providing immunization services. The NSCS and the zonal cold stores constitute the national level cold storage capacity which operates as a single entity.

National Strategic Cold Store (NSCS) and Zonal Stores

The National Strategic Cold Store is located in Abuja and receives all procured vaccines coming into the country. In addition there are six zonal cold stores for vaccine and dry materials storage located in the six geopolitical zones. Together these stores provide the total nationally available cold storage capacity of 222,600L positive storage and 97,951L of negative storage. Vaccines and dry materials are distributed to the thirty-six States and the Federal Capital Territory from the NSCS and/or zonal stores, coordinated by the NSCS. The routine immunization buffer stock, campaign vaccines and strategic vaccines for emergencies and disease outbreaks are held in national and zonal stores. The distribution of routine vaccines and supplies from the NSCS to state stores are integrated with the ZCS and distribution to state stores occurs quarterly determined by current stock levels in state stores and top ups based on the stock performance dashboard. The six zonal stores with the National Strategic Cold Store re-distribute vaccines at this level to optimize capacity utilization.

Injection devices are received at the SWZCS in Lagos which serves as the strategic store for dry materials for the country due to its strategic location by proximity to the Lagos ports. Injection devices are distributed to zones from this store and this serves also for the distribution of campaign injection devices.

Cold Chain capacity at the National Strategic Cold Store Cold Store (see table attached in the integrated proposal as in table 2)

Additional measures to manage the gap at national level will include:

- Utilizing the negative storage capacity (MenA vaccines can safely be stored at negative temperatures according to WHO guidelines) at national level which has 97,951 of negative storage capacity.
- Cross docking incoming shipments of vaccines to the next delivery point
- Managing shipments of both the RI and campaign vaccines at the national level

It is also important to note that the above assumptions were made with the NUVI plans in mind and that NUVI is phased introduction which will significantly reduce the RI vaccine storage requirements.

The Logistic working group in previous MenAfriVac campaigns had developed a template with various acceptable options for quality implementation to be considered for logistic planning at ward and post level. The options advise on quantities of cold chain equipment that can be used at ward and post level without compromising quality of the campaign. This template will be adopted in this catchup campaign as well. All data tools, field guides and vaccination cards will be printed at national level.

Other options that could be considered to mitigate cold chain challenges especially at the operational level will

be the controlled temperature cold chain to conduct the MenA mini catch up campaign.

State Cold Stores

Each State and the FCT in Nigeria has a functional cold store which is run and maintained by the State Ministry of Health. The State governments, NPHCDA and Development Partners provide cold chain equipment in state cold stores. The cumulative total capacity of the cold chain system in all 36 states and FCT is 269,214 and 135,710 litres for positive and negative volumes respectively.

LGA Cold Stores

Previous capacity gaps at LGAs have been addressed to accommodate new vaccines through GAVI, JICA, EU-SIGN supported cold chain equipment (CCE) procurements and repairs of CCE. LGAs now have adequate cold chain capacity to store routine vaccines and additional capacity for supplemental vaccines requirements. Cold chain equipment at this level are mainly refrigerators and deep freezers. Additionally LGAs are equipped with at least 2 solar refrigerators as backup as frequent power outages are a major challenge. Operational funds provided by LGAs, state and federal government, and for supplemental campaigns by partners, are used to address the challenge of power outages.

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	Preparing transition phase

	2017	2018	2019
Minimum co-financing	0.15	0.12	0.09
Your co-financing (please change if higher)	0.15	0.12	0.09

	2020
Minimum co-financing	0.06
Your co-financing (please change if higher)	0.06

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	#	6,024,214	7,008,869	7,570,530
Immunisation coverage with the first dose	Table 5.2	%	80 %	90 %	94 %
Country co-financing per dose	Table 6.2.1	$	0.15	0.12	0.09

	Data from		Year 1
			2020
Number of children to be vaccinated with the first dose	Table 5.2	#	7,912,490
Immunisation coverage with the first dose	Table 5.2	%	95 %
Country co-financing per dose	Table 6.2.1	$	0.06

6.2.3. Portion of supply to be procured by the country (and cost estimate, US$)

		2017	2018	2019
Number of vaccine doses	#	3,274,698	2,537,820	2,023,975
Number of AD syringes	#	2,180,882	1,456,237	1,143,754
Number of re-constitution syringes	#	363,492	281,699	224,662
Number of safety boxes	#	0	0	0
Total value to be co-financed by the Country *[1]*	$	2,259,151	1,741,262	1,387,983

[1] The co-financing amount for intermediate and graduating countries indicates costs for the vaccines, related injection safety devices and any freight charges. The total co-financing amount does not contain the costs and fees of the relevant Procurement Agency, such as contingency buffer and handling fees. Information on these extra costs and fees will be provided by the relevant Procurement Agency as part of the cost estimate to be requested by the Country.

		2020
Number of vaccine doses	#	1,399,885
Number of AD syringes	#	785,239
Number of re-constitution syringes	#	155,388
Number of safety boxes	#	0
Total value to be co-financed by the Country *[1]*	$	959,762

[1] The co-financing amount for intermediate and graduating countries indicates costs for the vaccines, related injection safety devices and any freight charges. The total co-financing amount does not contain the costs and fees of the relevant Procurement Agency, such as contingency buffer and handling fees. Information on these extra costs and fees will be provided by the relevant Procurement Agency as part of the cost estimate to be requested by the Country.

6.2.4. Portion of supply to be procured by Gavi (and cost estimate, US$)

		2017	2018	2019
Number of vaccine doses	#	11,786,302	11,972,680	13,398,025
Number of AD syringes	#	7,849,435	6,870,092	7,571,257
Number of re-constitution syringes	#	1,308,280	1,328,967	1,487,181
Number of safety boxes	#	0	0	0
Total value to be co-financed by Gavi	$	8,131,138	8,214,747	9,187,953

		2020
Number of vaccine doses	#	14,596,115
Number of AD syringes	#	8,187,413
Number of re-constitution syringes	#	1,620,169
Number of safety boxes	#	0
Total value to be co-financed by Gavi	$	10,007,087

6.2.5. New and Under-Used Vaccine Introduction Grant

Calculation of Vaccine Introduction Grant for the 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	7,943,321	0.80	6,354,657

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

Please describe how the Gavi Vaccine Introduction Grant will be used to facilitate the timely and effective implementation of critical activities in advance of and during the introduction of the new vaccine (refer to the cMYP and the Vaccine Introduction Plan).

The Vaccine Introduction Grant (VIG) will be used to kick start pre implementation activities such as development of guidelines and training manuals, trainings which will be cascaded from National to States and then to LGAs, Advocacy, communication and social mobilization activities will include: development of IEC materials, production and airing of audio and visualmessages, radio features and discussion programs, household and community engagement through existing community structures, and advocacy to medical groups and other key stakeholders.

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. 22.

Where Gavi support is not enough to cover the full needs, please describe other sources of funding and the expected amounts to be contributed, if available, to cover your full needs.

The VIG is expected to be enough to cover all key activities to ensure a successful introduction. Government and other partners are also willing to support to fill gaps as observed during past introduction

6.2.6.Technical assistance

Please describe any particular area(s) the Ministry would require technical assistance to support the introduction of Meningococcal A.

Technical consultants needed to support states and LGAs in the planning and implementation of the campaign

6.3. Requested vaccine (Rotavirus, 2-dose schedule)

As reported in the cMYP, the country plans to introduce Rotavirus, using Rotavirus, 2-dose schedule.

When is the country planning to introduce this vaccine? **January 2018**

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 address these issues.

Please summarise the cold chain capacity (at central and other levels) and readiness to accommodate new vaccines, taking into consideration training, cold chain equipment and other logistical requirements. If cold chain expansion is required, state how it will be financed, and when it will be in place. The Independent Review Committee requires assurance that the cold chain is ready or will be ready for the routine introduction of the new vaccine, and evidence/plans need to be provided. All proposals that include Gavi- financing for cold chain equipment intended for vaccine storage shall need to procure equipment pre-qualified by WHO under their Performance Quality and Safety (PQS) program. The purchase of non-PQS equipment will only be considered on an exceptional basis, with justification and advance agreement from Gavi.

Nigeria currently will have adequate storage capacity at all levels of the immunization supply chain to accommodate the planned introduction of all new vaccines including MenAfriVac and Rotavirus for routine at the national level by January 2018. The cold chain system consists of the National Strategic Cold Store (NSCS) in Abuja, six zonal cold stores located in each of the six geo-political zones, 36 States vaccine cold stores plus the Federal Capital territory (FCT) and 774 Local Government Area (LGA) vaccine stores serving about 20,630 health facilities providing immunization services. The NSCS and the zonal cold stores constitute the national level cold storage capacity which operates as a single entity.[1]

The National Strategic Cold Store is located in Abuja and receives all nationally procured vaccines coming into the country. In addition, there are six zonal cold stores for vaccine and dry materials storage located in the six geopolitical zones (Table 10). Together these stores provide the total nationally available cold storage capacity of 251,773Lpositive storage and 104,950L negative storage. Vaccines and dry materials are distributed to the thirty-six States and the Federal Capital Territory from the zonal stores, coordinated by the NSCS. The routine immunization buffer stock (3months of national supplies), campaign vaccines and strategic vaccines for emergencies and disease outbreaks are held in national and zonal stores. The distribution of routine vaccines and supplies from the NSCS to state stores are integrated with the NSCS and distribution to state stores occurs quarterly based on state requests determined by current stock levels in state stores. The six zonal stores with the National Strategic Cold Store using a highly responsive, effective mechanism for re-distributing vaccines at this level to optimize capacity utilization.Some of the negative storage is flexible in the sense that it can be converted to positive storage anytime the need arises.

State Cold Stores:

Each State and the FCT in Nigeria has a functional cold store which is run and maintained by the State. The cumulative total functional capacity of the cold chain system in all 36 states and FCT is 297,837and 152,348Litres for positive and negative volumes respectively[2].

LGA Cold Stores:

All 774 LGAs have cold chain stores. LGAs are typically equipped with electric refrigerators and deep freezers. In addition, most LGAs have solar refrigerators providing backup where frequent power outage is a major challenge. The LGAs also have back-up electric power generators to provide energy during power outage.

Health Facility Level:

Government policy specifies that at least 1 HF in each of the 9,572 political wards nationwide must be fully equipped to provide regular routine immunization services. As of 2015, 47% of wards had at least one health facility equipped with a refrigerator. This was after the installation of 1,656 solar direct drive refrigerators.

Storage requirements for supplemental activities is also adequate by ensuring RI vaccine shipments are received and distributed in time to provide enough space for receipt of campaign vaccines. Additional measures to mitigate gaps in the storage capacity at individual state level include storage of lyophilized vaccines at negative temperature.

Where capacity may be inadequate due to unforeseen events e.g. breakdowns, supply chain characteristics for these states will be revised to accommodate the new vaccines introduction. Strategies that will be employed include increasing the frequency of supplies to these states and LGAs based on available capacity

and use the zonal cold stores or state stores as reserve depots. This will ensure that the vaccines are available in close proximity to these states or LGAs with inadequate capacities. Additional measures will be using available negative storage capacities for the storage of lyophilized vaccines. This will release more positive storage capacity for the storage of freeze- sensitive vaccines such as Rota and MenAfriVac.

The planned cold chain expansion will provide additional positive cold chain storage capacity of 250,000 L, 83,233 and 336,207 L at national, state and LGA/Ward levels respectively.

Efforts at improving the cold chain maintenance culture are currently ongoing. The development of SOPs, total cost of ownership approach in procurement and a planned preventive maintenance manual are some of the ongoing activities in this regard. Provision of funds for guaranteed cold chain equipment maintenance contracts has been made in the GAVI HSS proposals. The Vaccine Stock Performance Management (VSPM) Dashboard has strengthened the system to monitor stock levels and also guide planning for supportive supervision.The implementation of the physical stock allocation dashboards for a planned graduation to the use of automated stock management systems (Navision Enterprise Resource Planning system) at National, state stores and an enhanced logistics management information system (NLMIS) application compatible with simple stock management system for LGA level stores and the VAN (Visibility Analytics Network) project will provide stock visibility at all levels.

The introduction of Rotavirus vaccine as with other introductions offers an opportunity to close some of the gaps with regard to training of health workers and managers, and to reinforce this by supportive supervision and reporting requirements. The training process will leverage lessons learned during the pentavalent and recent PCV and IPV introduction trainings and use innovative, hands on practical approaches. The NPHCDA will work with SPHCDAs and partners to ensure at least 3 HCWs are trained per site on Rotavirus vaccines administration, vaccine management, exclusive breast feeding and implement strategies to strengthen current mechanisms for supportive supervision.

6.3.1. 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	Preparing transition phase

	2018	**2019**
Minimum co-financing	0.47	0.35
Your co-financing (please change if higher)	0.80	1.15

	2020
Minimum co-financing	0.23
Your co-financing (please change if higher)	1.50

6.3.2. Specifications of vaccinations with new vaccine

	Data from		**Year 1**	**Year 2**
			2018	**2019**
Number of children to be vaccinated with the first dose	Table 5.2	#	6,230,106	7,248,380
Number of children to be vaccinated with the second dose	Table 5.2	#	6,230,106	7,248,380
Immunisation coverage with the second dose	Table 5.2	%	80 %	90 %
Country co-financing per dose	Table 6.2.1	$	0.8	1.15

Data from		**Year 1**
		2020

Number of children to be vaccinated with the first dose	Table 5.2	#	7,912,490
Number of children to be vaccinated with the second dose	Table 5.2	#	7,912,490
Immunisation coverage with the second dose	Table 5.2	%	95 %
Country co-financing per dose	Table 6.2.1	$	1.5

6.3.3. Portion of supply to be procured by the country (and cost estimate, US$)

		2018	2019
Number of vaccine doses	#	6,564,777	9,092,386
Number of AD syringes	#	0	0
Number of re-constitution syringes	#	0	0
Number of safety boxes	#	0	0
Total value to be co-financed by the Country *[1]*	$	13,083,600	18,121,125

[1] The co-financing amount for intermediate and graduating countries indicates costs for the vaccines, related injection safety devices and any freight charges. The total co-financing amount does not contain the costs and fees of the relevant Procurement Agency, such as contingency buffer and handling fees. Information on these extra costs and fees will be provided by the relevant Procurement Agency as part of the cost estimate to be requested by the Country.

		2020
Number of vaccine doses	#	12,768,440
Number of AD syringes	#	0
Number of re-constitution syringes	#	0
Number of safety boxes	#	0
Total value to be co-financed by the Country *[1]*	$	25,447,500

[1] The co-financing amount for intermediate and graduating countries indicates costs for the vaccines, related injection safety devices and any freight charges. The total co-financing amount does not contain the costs and fees of the relevant Procurement Agency, such as contingency buffer and handling fees. Information on these extra costs and fees will be provided by the relevant Procurement Agency as part of the cost estimate to be requested by the Country.

6.3.4. Portion of supply to be procured by Gavi (and cost estimate, US$)

		2018	2019
Number of vaccine doses	#	9,789,723	6,665,114
Number of AD syringes	#	0	0
Number of re-constitution syringes	#	0	0
Number of safety boxes	#	0	0
Total value to be co-financed by Gavi	$	19,510,919	13,283,573

		2020
Number of vaccine doses	#	4,196,560
Number of AD syringes	#	0
Number of re-constitution syringes	#	0
Number of safety boxes	#	0
Total value to be co-financed by Gavi	$	8,363,745

6.3.5. New and Under-Used Vaccine Introduction Grant

Calculation of Vaccine Introduction Grant for the Rotavirus, 2-dose schedule

Year of New Vaccine Introduction	Births (from Table 5.2)	Share per Birth in US$	Total in US$
2018	8,197,507	0.80	6,558,006

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

Please describe how the Gavi Vaccine Introduction Grant will be used to facilitate the timely and effective implementation of critical activities in advance of and during the introduction of the new vaccine (refer to the cMYP and the Vaccine Introduction Plan).

The Vaccine Introduction Grant (VIG) will be used to kick start pre implementation activities such as development of guidelines and training manuals, trainings which will be cascaded from National to States and then to LGAs, Advocacy, communication and social mobilization activities will include: development of IEC materials, production and airing of audio and visualmessages, radio features and discussion programs, household and community engagement through existing community structures, and advocacy to medical groups and other key stakeholders.

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. 22.

Where Gavi support is not enough to cover the full needs, please describe other sources of funding and the expected amounts to be contributed, if available, to cover your full needs.

The VIG is expected to be enough to cover all key activities to ensure a successful introduction. Government and other partners are also willing to support to fill gaps as observed during past introduction

6.3.6.Integrated disease control

a) Please describe **any** existing interventions for **the** prevention and treatment of pneumonia and diarrhoea and the status of implementation.

Existing strategies align with the WHO/UNICEF Integrated Global Action Plan for Pneumonia and Diarrhoea(GAPPD) 1, the GoN encourages strengthening of the use of an integrated approach to protecting, preventing and treating of pneumonia and diarrhoea in all health facilities. The current strategies in use in the country include:

- Promotion of exclusive breastfeeding in the first six months of life
- Vitamin A supplementation
- Hand-washing, sanitation and other key household practices
- Case management including the use of zinc- ORS to prevent dehydration, continued feeding, and treatment services for pneumonia
- Treatment services for pneumonia through the provision of antibiotics via the Essential childhood medicines scale up program
- The country has also introduced PCV in phase 1 and 2 states and currently in the process of introducing in the remaining phase 3 states by July 2016

The country also strengthens outreach and mobile immunization services and will integrate these outreaches with other PHC services and diarrhoea prevention strategies. During these outreaches, health care workers will educate mothers on basic diarrhoea prevention strategies and management using zinc and ORS.

b) Please provide any considerations for how vaccination could strengthen delivery and communication of additional health interventions. Please highlight any barriers that you may foresee with integrating vaccination with other health interventions.

Vaccination particularly new vaccine introductions have always contributed to strengthening the delivery of primary health care services in Nigeria. Strategies for improving vaccine access and coverage such as the Reach Every Community (REC), Immunization Plus Days (IPDs), Local Immunization Days (LIDs) and Integrated Maternal, Neonatal and Child Health (IMNCH) weeks, all focus on delivering integrated services at the health facility level. These strategies have also revived the confidence of the communities in immunization and fostered community ownership and participation in service delivery. The introduction of rotavirus vaccines will be integrated into existing programs and MNCH weeks, IPDs and LIDs will be utilized as an avenue to reach morechildren within the target age with rotavirus vaccines and other wrap around services to prevent and manage diarrhoea.

In consonance with the WHO/UNICEF Integrated Global Action Plan for Pneumonia and Diarrhoea

(GAPPD) 1, the GoN will strengthen the use of an integrated approach to protecting, preventing and treatment of pneumonia and diarrhoea in all health facilities. The training of Health Care Workers (HCWs) inpreparation for Rotavirus vaccine introduction will be utilized as an opportunity to train/ retrain HCWs on

- Promoting exclusive breastfeeding for first six months of life
- Vitamin A supplementation
- Hand-washing, improved water supply and sanitation
- Case management including the use of zinc- ORS to prevent dehydration,continued feeding, and treatment services for pneumonia

While barriers to integration exist, there are mitigating processes in place as described below:

Vertical Program implementation:Verticalization of programs and domestication of programs in different domains is a barrier to integration.

Mitigating strategy: Interventions to promote breastfeeding, handwashing and improved water supply and sanitation services, prevention and management of pneumonia and diarrhoea including the introduction of rotavirus vaccines will be implemented mainly at the Primary Health Care Level. Given the improvements in management and coordination of Primary Health Care activities (including immunization) through the set-up of 27 State Primary Health Care Boards and the implementation of the PHC under one roof the effect of vertical program implementation will be minimized.

Nigeria will strengthen outreach and mobile immunization services and will integrate these outreaches with other PHC services and diarrhoea prevention strategies e.g. hand washing, exclusive breast feeding, and provision of quality water and sanitation facilities. During these outreaches, health care workers will educate mothers on basic diarrhoea prevention strategies and management using zinc and ORS.

Integrated supply chain and data management:Managing PHC product supplies in an integrated manner are a challenge given the specific supply chain requirements of each product.

Mitigating Strategy:A common logistics system for all health commodities in country is in the process of being developed.Efforts have also been made to improve vaccine supply chain data management through the introduction Navision and eLMIS within the vaccine supply chain. These systems provide automation of vaccine supply chain processes.

Limited Health Workers knowledge: An integrated approach to PHC training has been adopted. There are also ongoing projects in country to introduce innovative, hands on training approaches to augment cascade trainings.

6.3.7.Technical assistance

Please describe any particular area(s) the Ministry would require technical assistance to support the introduction of Rotavirus. Please consider the support in the context of developing and implementing an integrated approach to disease prevention and control.

Technical Assistance will be required for the following:

- The development of training materials
- Pre introduction disease burden studies
- Impact monitoring,
- Safety monitoring
- Post licensure surveillance for intussusception
- Communications, advocacy and appropriate messaging

6.4 Request for MenA one-time mini catch-up campaign, Meningococcal A, 10 dose(s) per vial, LYOPHILISED campaign support

6.4.1 Summary for MenA one-time mini catch up campaign support

When is the country planning to conduct this campaign? **May 2017**

Describe the target population and geographical coverage for the Gavi supported MenA one-time mini catch-up campaign. Please provide a rationale for expanding one time mini-catch up campaigns to areas not covered by the preventive mass vaccination campaign. If available please submit relevant documentation to support the estimates of the size of the mini-catch up campaign target population (as DOCUMENT NUMBER : 18).

The follow up campaign will run in two phases in the country covering a target of 34,941,924 children requiring a total of 36,689,019 doses. The first phase (9 states) will address 1-6 years in North Western and North Eastern States with a target population of 16,056,440. These states previously conducted MenAfriVac campaign during phase 1 and 2. They include : Sokoto, Zamfara, Jigawa, Katsina, Yobe, Borno, Kano, Bauchi and Gombe. The second phase (17 states) will involve children also aged 1-4years a target of 18,885,484 from phase 3 and 4 MenAfriVac States (Adamawa, FCT, Kaduna, Kebbi, Nassarawa, Niger, Plateau, Taraba, Anambra, Benue, Ebonyi, Enugu, Cross Rivers, Kogi, Kwara, Imo and Oyo).

Phase 1 campaign is proposed to be conducted in May 2017 and phase 2 campaigns in June 2017.

The rational for the age group as selected is to address children within that age not born during the catch up campaigns in the states.

Target population break down by states is as in the proposal

Please give a summary of the cMYP and/or the [MenA vaccine] introduction plan sections that refer to the introduction of Meningococcal A, 10 dose(s) per vial, LYOPHILISED.

cMYP: Sections 2.3 and Annex 1

Integrated Men A proposal:Sections 2.6, 2.7, 5.1

6.3.2 Grant Support for Operational Costs of the MenA one-time mini catch-up campaigns

Table 6.3.2: calculation of grant to support the operational costs of the campaigns

Year of Men A one time mini catch-up campaigns	Total target population	Gavi contribution per target person in US$	Total in US$
2017	34,941,924	0.65	22,712,251

[1] The Grant will be based on a maximum award of $0.65 per target person

Please describe how the grant will be used to facilitate the preparation and timely and effective delivery of the campaigns to the target population (refer to the cMYP which should include one-time mini catch up campaign and the Vaccine Introduction Plan)

The Grant will used for the implementation of key pre campaign activities such as development of operational guidelines, sensitization meetings and trainings

Where Gavi support is not enough to cover the full needs, please describe other sources of funding and the expected amounts to be contributed, if available, to cover your full needs.

The estimated total cost of the 2017 follow up Campaign is 56,788,334 USD (operational cost of 27,163,690 USD and the cost for vaccine and devices at 29,624,644 USD). GAVI is expected to support with provision of vaccines and devices and 65 cents per child as operational cost 22,712,251 USD while the FGoN is expected contribute 4,451,439 USD as operational cost. The operational cost by FGoN will be used to support national supervision, production of implementation materials, IEC materials and conduct of coverage surveys.

Please complete also the 'Detailed budget for VIG / Operational costs specifically for one time mini catch-up campaigns' template provided by Gavi and attach as a mandatory document in the Attachment section. Detailed budget attached as Document No. 22. (Countries are encouraged to identify synergies across the vaccine introduction grant (VIG) for routine immunizations and operational costs for mini catch-up campaigns).

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 justify Meningococcal A disease burden results:

Epidemiological information on burden of disease:

☐ 1 - Risk assessments

☐ 2 - Other

8. Procurement and Management

8.1 Procurement and Management of New and Under-Used Vaccines Routine

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):

Vaccines and devices are procured through UNICEF

b) If an alternative mechanism for procurement and delivery of vaccine supply (financed by the country or the Gavi) is requested, please document

- 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 prequalified 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.

It is expected that the VIG will be tranfered to the Federal Governement of Nigeria through the National Primary Health Care Development Agency while the operational support for the campaign will be transfered to WHO and UNICEF

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

The Federal Government of Nigeria is resposible for the payment of the required co financing which is captured in the cMYP 2016 - 2020 and also in the annual budget

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

It is expected that the VIG will be tranfered to the Federal Governement of Nigeria through the National Primary Health Care Development Agency while the operational support for the campaign will be transfered to WHO and UNICEF

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

The introduced vaccine will be monitored using data from periodic Demographic and Health Surveys (DHS) and Multiple Indicator Cluster Surveys (MICS) , National Immunization Coverage Surveys and Real Time Supportive Supervisory. In addition to above the DVDMT and DHIS tool will also be used to monitor performance on monthly basis

g) If applying for measles second dose, does the country wish to have the support in cash or in-kind? **Cash**

8.2 Procurement and Management for NVS Preventive Campaign(s)

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 prequalification and, if so, describe the procedure and its duration. In addition, state whether the country accepts the Expedited Procedure for national registration of WHO-prequalified 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 vaccine has been licensed

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 vaccine has been licensed in NIgeria

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 Federal Government of Nigeria through the National Primary Health Care Development Agency has an understanding with the Nigeria Customs which prevents delays in receipt of immunization commodities including vaccines.

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 vaccine is WHO prequalified

8.4 Vaccine Management (EVSM/EVM/VMA)

It is mandatory for countries to conduct an Effective Vaccine Management (EVM) assessment prior to an application for the introduction of a new vaccine. This EVM should have been conducted within the preceding **5 years**.

When was the EVM conducted? **October 2014**

Please attach the most recent EVM assessment report (DOCUMENT NUMBER : 20,19,21), the corresponding EVM improvement plan (DOCUMENT NUMBER : 19) and progress on the EVM improvement plan (DOCUMENT NUMBER : 21). 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? **October 2017**

Reports are vailiable and attached

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 healthcare waste management strategy. Please describe the country's waste management plan for immunisation

activities (including campaigns).

The country has benefited from the MenAfriVac introduction campaigns from 2011-2014 and 41 incinerators received under the MenAfriVac budget have been installed in about 14 states; 32 more are being procured to be installed in nine states that implemented the MenAfriVac campaign in 2014. In addition WHO is has procured 7 additional incinerators to be installed in the 5 MenA phase one states and Akwa Ibom and Taraba States.

The numbers of incinerators proposed and installed werebased on expected injection waste. Lessons learnt from the Implementation of previous Measles and MenAfriVac campaigns reveal increased private sector participation further strengthening public private partnership in waste management. Mapping of existing waste management facilities will be conducted.

The country injection safety plan has been revised and updated in the country strategic framework for making medical Injections safer. Furthermore, Nigeria developed a comprehensive Injection Safety Policy in 2005 which addressed the following key issues

- Increased political commitment to Injection safety practices
- Increasing community awareness about Injection safety practices
- Appropriate procurement, distribution and monitoring of injection equipment and related supplies such as safety boxes
- Capacity building for safe use of injection materials and appropriate waste management as well as supervision and monitoring of health facilities at all level of implementation.
- Development and dissemination of guidelines for infection safety and sharp disposal.
- Development of a system for detection, investigation and management of adverse events following immunization.

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

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

The first ICC meeting of 2016 held on Tuesday 5th January 2016 endorsed the proposal for submission to Gavi

The second ICC meeting held on Friday 29th April 2016 endorsed the Rota plan for submission to Gavi

10. List of documents attached to this proposal

10.1. List of documents attached to this proposal

Table 1: Checklist of mandatory attachments

Document Number	Document	Section	File
Endorsements			
1	MoH Signature (or delegated authority) of Proposal	4.1.1	signature page0001.pdf **File desc:** **Date/time :** 08/01/2016 09:22:36 **Size:** 1 MB
2	MoF Signature (or delegated authority) of Proposal	4.1.1	signature page0001.pdf **File desc:** **Date/time :** 08/01/2016 09:22:00 **Size:** 1 MB
4	Terms of Reference for the ICC	4.1.2	ICC governance structure -NPHCDA .pdf **File desc:** **Date/time :** 08/01/2016 05:41:32 **Size:** 341 KB
5	Minutes of ICC/HSCC meeting endorsing Proposal	4.1.3	Final Minutes 1st ICC Meeting for 2016.docx **File desc:** Minutes of ICC endorsing the integrated Men A proposal **Date/time :** 12/01/2016 09:17:22 **Size:** 92 KB
6	Signatures of ICC or HSCC or equivalent in Proposal	4.1.3	signature page0001.pdf **File desc:** **Date/time :** 08/01/2016 09:24:32 **Size:** 1 MB
7	Minutes of last three ICC/HSCC meetings	4.1.3	4th ICC MINUTES0001.pdf **File desc:** **Date/time :** 08/01/2016 09:26:49 **Size:** 5 MB
8	Role and functioning of the advisory group, description of plans to establish a NITAG	4.2.1	GREEN BOOK (latest Edit).pdf **File desc:** NIGTAG operational guideline **Date/time :** 12/02/2016 11:38:33 **Size:** 841 KB
Planning, financing and vaccine management			
9	comprehensive Multi Year Plan - cMYP	5.1	Final edited cMYP for ICC Members Jan 4th 2016 (3).pdf **File desc:** **Date/time :** 12/02/2016 12:08:00 **Size:** 4 MB
10	cMYP Costing tool for financial analysis	5.1	Nigeria cMYP 2016-2020 31122015.xlsx **File desc:** **Date/time :** 12/02/2016 12:05:28 **Size:** 3 MB

11	M&E and surveillance plan within the country's existing monitoring plan	5.1.5	This is attached to the cMYP 2016.docx **File desc:** **Date/time :** 15/02/2016 09:12:27 **Size:** 9 KB
12	Vaccine introduction plan	5.1	Nigeria Rotavirus Introduction_Plan _final_06062016.docx **File desc:** **Date/time :** 06/06/2016 10:00:12 **Size:** 831 KB
13	Introduction Plan for the introduction of RCV / JE / Men A / YF into the national programme	7.x.4	Integrated proposal MenA_Final 06062016.docx **File desc:** **Date/time :** 06/06/2016 10:01:26 **Size:** 1 MB
19	EVM report	8.3	Nigeria_EVM_Report_edited.pdf **File desc:** **Date/time :** 27/04/2016 05:52:53 **Size:** 2 MB
20	Improvement plan based on EVM	8.3	EVM Improvement plan 2014 Final.xlsx **File desc:** **Date/time :** 12/02/2016 11:14:21 **Size:** 80 KB
21	EVM improvement plan progress report	8.3	EVMA progress report.zip **File desc:** **Date/time :** 27/04/2016 06:44:31 **Size:** 8 MB
22	Detailed budget template for VIG / Operational Costs	6.x,7.x.2, 6.x.2	VIG Men A Final_Revised 06062016 corrected.xls **File desc:** **Date/time :** 06/06/2016 11:40:08 **Size:** 96 KB
27	Data quality assessment (DQA) report	5.1.5	Report 2013_DQS 2014 Final Final.docx **File desc:** **Date/time :** 12/01/2016 09:37:08 **Size:** 2 MB

Table 2: Checklist of optional attachments

Document Number	Document	Section	File
3	MoE signature (or delegated authority) of HPV Proposal	4.1.1	Micro plan population supporting derivation of target population.xlsx **File desc:** Micro plan population supporting derivation of target population **Date/time :** 12/02/2016 11:51:07 **Size:** 173 KB
15	HPV roadmap or strategy	6.1.1	MenA 2017 chronogram.xls **File desc:** Men A Dashboard for tracking of activities **Date/time :** 12/02/2016 11:29:14 **Size:** 45 KB

16	HPV summary of the evaluation methodology	5.1.6	Men A RI work plan Final.xlsx **File desc:** Men A RI activity plan **Date/time :** 12/02/2016 11:32:31 **Size:** 21 KB
17	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	Strategic Plan NPHCDA (Lastet Edit).pdf **File desc:** NIGTAG strategic plan 2015 -2016 **Date/time :** 12/02/2016 11:33:48 **Size:** 786 KB
18	Campaign target population documentation	7.x.1, 6.x.1	Copy of TP Estimates 2013 - 2015.xlsx **File desc:** Target population estimates 2013 - 2015 **Date/time :** 12/02/2016 11:24:28 **Size:** 92 KB
23	Risk assessment and consensus meeting report for MenA. If the DPT was used instead, please include this.	7.1	GREEN BOOK (latest Edit).pdf **File desc:** NIGTAG operational guideline **Date/time :** 12/02/2016 11:36:13 **Size:** 841 KB
25	A description of partner participation in preparing the application	4.1.3	NIE JRF_2012 Final.xls **File desc:** JRF 2012 **Date/time :** 12/02/2016 11:22:09 **Size:** 648 KB
26	Minutes of NITAG meeting with specific recommendations on the NVS introduction or campaign	4.2	NIE JRF 2013 Final (1).xls **File desc:** JRF 2013 **Date/time :** 12/02/2016 11:22:44 **Size:** 958 KB
28	DQA improvement plan	5.1.5	Copy of NIE JRF_data_for_2014 Final 120415.xls **File desc:** JRF 2014 **Date/time :** 12/02/2016 11:23:17 **Size:** 807 KB
29	Plan of Action for campaigns	7.1, 7.x.4	Nigeria Rotavirus Introduction_Plan _final_06062016.docx **File desc:** **Date/time :** 06/06/2016 10:05:02 **Size:** 831 KB
30	Other		Rota signature page.pdf **File desc:** **Date/time :** 01/05/2016 02:17:48 **Size:** 1 MB Rota introduction work plan_22042016.xlsx **File desc:** **Date/time :** 01/05/2016 02:22:39 **Size:** 15 KB Minutes 5th ICC Final.pdf **File desc:** **Date/time :** 24/05/2016 04:28:46 **Size:** 650 KB

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Date/time : 27/05/2016 09:27:39
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VIG Rota Final Revised Final 06062016.xls
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Size: 443 KB

			VIG Men A Final_Revised 06062016 corrected.xls **File desc:** **Date/time :** 06/06/2016 11:38:24 **Size:** 96 KB

11. Annexes

Annex 1 - NVS Routine Support

Annex 1.1 - NVS Routine Support (Meningococcal A, 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	2020
Number of vaccine doses	#	3,274,700	2,537,900	2,024,000	1,399,900
Number of AD syringes	#	2,180,900	1,456,300	1,143,800	785,300
Number of re-constitution syringes	#	363,500	281,700	224,700	155,400
Number of safety boxes	#	0	0	0	0
Total value to be co-financed by the Country ***[1]***	**$**	2,259,500	1,741,500	1,388,000	960,000

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

		2017	2018	2019	2020
Number of vaccine doses	#	11,786,400	11,972,700	13,398,100	14,596,200
Number of AD syringes	#	7,849,500	6,870,100	7,571,300	8,187,500
Number of re-constitution syringes	#	1,308,300	1,329,000	1,487,200	1,620,200
Number of safety boxes	#	0	0	0	0
Total value to be co-financed by Gavi	**$**	8,131,500	8,215,000	9,188,000	10,007,500

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

ID		Data from		2017	2018	2019	2020
	Number of surviving infants	Table 5.2	#	7,530,268	7,787,632	8,053,755	8,328,937
	Immunization coverage	Table 5.2	%	80%	90%	94%	95%
	Number of children to be vaccinated with the first dose	Table 5.2	#	6,024,214	7,008,869	7,570,530	7,912,490
	Number of doses per child	Parameter	#	1	1	1	1
	Estimated vaccine wastage factor	Table 5.2	#	2	2	2	2
	Number of doses per vial	Parameter	#	10	10	10	10
	AD syringes required	Parameter	#	Yes	Yes	Yes	Yes
	Reconstitution syringes required	Parameter	#	Yes	Yes	Yes	Yes
	Safety boxes required	Parameter	#	No	No	No	No
cc	**Country co-financing per dose**	Table 6.4.1	$	0.15	0.12	0.09	0.06
ca	**AD syringe price per unit**	Table Annexes 4A	$	0.041	0.041	0.041	0.041
cr	**Reconstitution syringe price per unit**	Table Annexes 4A	$	0.003	0.003	0.003	0.003
cs	**Safety box price per unit**	Table Annexes 4A	$	0.005	0.005	0.005	0.005
fv	**Freight cost as % of vaccines value**	Table Annexes 4B	%	3.50%	3.50%	3.50%	3.50%
fd	**Freight cost as % of devices value**	Parameter	%	0	0	0	0

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-finance	*V*	21.74 %		
B	Number of children to be vaccinated with the first dose	*Table 5.2*	6,024,214	1,309,839	4,714,375
C	Number of doses per child	*Vaccine parameter (schedule)*	1		
D	Number of doses needed	*B x C*	6,024,214	1,309,839	4,714,375
E	Estimated vaccine wastage factor	*Table 5.2*	2		
F	Number of doses needed including wastage	*D x E*	12,048,428	2,619,678	9,428,750
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]*	3,012,107	654,920	2,357,187
I	Total vaccine doses needed	*Round up((F + G) / Vaccine package size) * Vaccine package size*	15,061,000	3,274,698	11,786,302
J	Number of doses per vial	*Vaccine parameter*	10		
K	Number of AD syringes (+ 10% wastage) needed	*(D + G) x 1.11*	10,030,317	2,180,882	7,849,435
L	Reconstitution syringes (+ 10% wastage) needed	*(I / J) x 1.11*	1,671,772	363,492	1,308,280
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)*	9,639,040	2,095,807	7,543,233
O	Cost of AD syringes needed	*K x AD syringe price per unit (ca)*	408,754	88,875	319,879
P	Cost of reconstitution syringes needed	*L x reconstitution price per unit (cr)*	5,128	1,115	4,013
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 of % of vaccines value (fv)*	337,367	73,354	264,013
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)*	10,390,289	2,259,151	8,131,138
U	Total country co-financing	*I x country co-financing per dose (cc)*	2,259,150		
V	Country co-financing % of Gavi supported proportion	*U / T*	21.74 %		

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 2)

		Formula	2018		
			Total	Government	Gavi
A	Country co-finance	*V*	17.49 %		
B	Number of children to be vaccinated with the first dose	*Table 5.2*	7,008,869	1,225,819	5,783,050
C	Number of doses per child	*Vaccine parameter (schedule)*	1		
D	Number of doses needed	*B x C*	7,008,869	1,225,819	5,783,050
E	Estimated vaccine wastage factor	*Table 5.2*	2		
F	Number of doses needed including wastage	*D x E*	14,017,738	2,451,638	11,566,100
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]*	492,328	86,106	406,222
I	Total vaccine doses needed	*Round up((F + G) / Vaccine package size) * Vaccine package size*	14,510,500	2,537,820	11,972,680
J	Number of doses per vial	*Vaccine parameter*	10		
K	Number of AD syringes (+ 10% wastage) needed	*(D + G) x 1.11*	8,326,329	1,456,237	6,870,092
L	Reconstitution syringes (+ 10% wastage) needed	*(I / J) x 1.11*	1,610,666	281,699	1,328,967
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)*	9,286,720	1,624,205	7,662,515
O	Cost of AD syringes needed	*K x AD syringe price per unit (ca)*	339,313	59,345	279,968
P	Cost of reconstitution syringes needed	*L x reconstitution price per unit (cr)*	4,940	864	4,076
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 of % of vaccines value (fv)*	325,036	56,848	268,188
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)*	9,956,009	1,741,262	8,214,747
U	Total country co-financing	*I x country co-financing per dose (cc)*	1,741,260		
V	Country co-financing % of Gavi supported proportion	*U / T*	17.49 %		

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 3)

		Formula	2019		
			Total	Government	Gavi
A	Country co-finance	*V*	13.12 %		
B	Number of children to be vaccinated with the first dose	*Table 5.2*	7,570,530	993,553	6,576,977
C	Number of doses per child	*Vaccine parameter (schedule)*	1		
D	Number of doses needed	*B x C*	7,570,530	993,553	6,576,977
E	Estimated vaccine wastage factor	*Table 5.2*	2		
F	Number of doses needed including wastage	*D x E*	15,141,060	1,987,105	13,153,955
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]*	280,831	36,857	243,974
I	Total vaccine doses needed	*Round up((F + G) / Vaccine package size) * Vaccine package size*	15,422,000	2,023,975	13,398,025
J	Number of doses per vial	*Vaccine parameter*	10		
K	Number of AD syringes (+ 10% wastage) needed	*(D + G) x 1.11*	8,715,011	1,143,754	7,571,257
L	Reconstitution syringes (+ 10% wastage) needed	*(I / J) x 1.11*	1,711,843	224,662	1,487,181
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)*	9,870,080	1,295,344	8,574,736
O	Cost of AD syringes needed	*K x AD syringe price per unit (ca)*	355,153	46,611	308,542
P	Cost of reconstitution syringes needed	*L x reconstitution price per unit (cr)*	5,250	690	4,560
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 of % of vaccines value (fv)*	345,453	45,338	300,115
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)*	10,575,936	1,387,983	9,187,953
U	Total country co-financing	*I x country co-financing per dose (cc)*	1,387,980		
V	Country co-financing % of Gavi supported proportion	*U / T*	13.12 %		

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 4)

		Formula	2020		
			Total	Government	Gavi
A	Country co-finance	*V*	8.75 %		
B	Number of children to be vaccinated with the first dose	*Table 5.2*	7,912,490	692,459	7,220,031
C	Number of doses per child	*Vaccine parameter (schedule)*	1		
D	Number of doses needed	*B x C*	7,912,490	692,459	7,220,031
E	Estimated vaccine wastage factor	*Table 5.2*	2		
F	Number of doses needed including wastage	*D x E*	15,824,980	1,384,918	14,440,062
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]*	170,980	14,964	156,016
I	Total vaccine doses needed	*Round up((F + G) / Vaccine package size) * Vaccine package size*	15,996,000	1,399,885	14,596,115
J	Number of doses per vial	*Vaccine parameter*	10		
K	Number of AD syringes (+ 10% wastage) needed	*(D + G) x 1.11*	8,972,652	785,239	8,187,413
L	Reconstitution syringes (+ 10% wastage) needed	*(I / J) x 1.11*	1,775,557	155,388	1,620,169
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)*	10,237,440	895,927	9,341,513
O	Cost of AD syringes needed	*K x AD syringe price per unit (ca)*	365,652	32,000	333,652
P	Cost of reconstitution syringes needed	*L x reconstitution price per unit (cr)*	5,446	477	4,969
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 of % of vaccines value (fv)*	358,311	31,358	326,953
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)*	10,966,849	959,762	10,007,087
U	Total country co-financing	*I x country co-financing per dose (cc)*	959,760		
V	Country co-financing % of Gavi supported proportion	*U / T*	8.75 %		

Annex 1.2 - NVS Routine Support (Rotavirus, 2-dose schedule)

Table Annex 1.2 A: Rounded up portion of supply that is procured by the country and estimate of relative costs in US$

		2018	2019	2020
Number of vaccine doses	#	6,564,800	9,092,400	12,768,500
Number of AD syringes	#	0	0	0
Number of re-constitution syringes	#	0	0	0
Number of safety boxes	#	0	0	0
Total value to be co-financed by the Country *[1]*	**$**	13,084,000	18,121,500	25,447,500

Table Annex 1.2 B: Rounded up portion of supply that is procured by Gavi and estimate of relative costs in US$

		2018	2019	2020
Number of vaccine doses	#	9,789,800	6,665,200	4,196,600
Number of AD syringes	#	0	0	0
Number of re-constitution syringes	#	0	0	0
Number of safety boxes	#	0	0	0
Total value to be co-financed by Gavi	**$**	19,511,000	13,284,000	8,364,000

Table Annex 1.2 C: Summary table for vaccine Rotavirus, 2-dose schedule

ID		Data from		2018	2019	2020
	Number of surviving infants	Table 5.2	#	7,787,632	8,053,755	8,328,937
	Number of children to be vaccinated with the first dose	Table 5.2	#	6,230,106	7,248,380	7,912,490
	Number of children to be vaccinated with the second dose	Table 5.2	#	6,230,106	7,248,380	7,912,490
	Immunisation coverage with the second dose	Table 5.2	%	80%	90%	95%
	Number of doses per child	Parameter	#	2	2	2
	Estimated vaccine wastage factor	Table 5.2	#	1.05	1.05	1.05
	Number of doses per vial	Parameter	#	1	1	1
	AD syringes required	Parameter	#	No	No	No
	Reconstitution syringes required	Parameter	#	No	No	No
	Safety boxes required	Parameter	#	No	No	No
cc	**Country co-financing per dose**	Table 6.4.1	$	0.8	1.15	1.5
ca	**AD syringe price per unit**	Table Annexes 4A	$	0.041	0.041	0.041
cr	**Reconstitution syringe price per unit**	Table Annexes 4A	$	0	0	0
cs	**Safety box price per unit**	Table Annexes 4A	$	0.005	0.005	0.005
fv	**Freight cost as % of vaccines value**	Table Annexes 4B	%	0	0	0

Table Annex 1.2 D: Estimated numbers for Rotavirus, 2-dose schedule, associated injection safety material and related co-financing budget (page 1)

		Formula	2018		
			Total	Government	Gavi
A	Country co-finance	*V*	40.14 %		
B	Number of children to be vaccinated with the first dose	*Table 5.2*	6,230,106	2,500,796	3,729,310
C	Number of doses per child	*Vaccine parameter (schedule)*	2		
D	Number of doses needed	*B x C*	12,460,212	5,001,591	7,458,621
E	Estimated vaccine wastage factor	*Table 5.2*	1.05		
F	Number of doses needed including wastage	*D x E*	13,083,223	5,251,670	7,831,553
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]*	3,270,806	1,312,918	1,957,888
I	Total vaccine doses needed	*Round up((F + G) / Vaccine package size) * Vaccine package size*	16,354,500	6,564,777	9,789,723
J	Number of doses per vial	*Vaccine parameter*	1		
K	Number of AD syringes (+ 10% wastage) needed	*(D + G) x 1.11*	0	0	0
L	Reconstitution syringes (+ 10% wastage) needed	*(I / J) x 1.11*	0	0	0
M	Total of safety boxes (+ 10% of extra need) needed	*(I / 100) x 1.11*	0	0	0
N	Cost of vaccines needed	*I x vaccine price per dose (g)*	32,594,519	13,083,600	19,510,919
O	Cost of AD syringes needed	*K x AD syringe price per unit (ca)*	0	0	0
P	Cost of reconstitution syringes needed	*L x reconstitution price per unit (cr)*	0	0	0
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 of % of vaccines value (fv)*	0	0	0
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)*	32,594,519	13,083,600	19,510,919
U	Total country co-financing	*I x country co-financing per dose (cc)*	13,083,600		
V	Country co-financing % of Gavi supported proportion	*U / T*	40.14 %		

Table Annex 1.2 D: Estimated numbers for Rotavirus, 2-dose schedule, associated injection safety material and related co-financing budget (page 2)

		Formula	2019		
			Total	Government	Gavi
A	Country co-finance	*V*	57.70 %		
B	Number of children to be vaccinated with the first dose	*Table 5.2*	7,248,380	4,182,458	3,065,922
C	Number of doses per child	*Vaccine parameter (schedule)*	2		
D	Number of doses needed	*B x C*	14,496,760	8,364,915	6,131,845
E	Estimated vaccine wastage factor	*Table 5.2*	1.05		
F	Number of doses needed including wastage	*D x E*	15,221,598	8,783,160	6,438,438
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]*	534,594	308,472	226,122
I	Total vaccine doses needed	*Round up((F + G) / Vaccine package size) * Vaccine package size*	15,757,500	9,092,386	6,665,114
J	Number of doses per vial	*Vaccine parameter*	1		
K	Number of AD syringes (+ 10% wastage) needed	*(D + G) x 1.11*	0	0	0
L	Reconstitution syringes (+ 10% wastage) needed	*(I / J) x 1.11*	0	0	0
M	Total of safety boxes (+ 10% of extra need) needed	*(I / 100) x 1.11*	0	0	0
N	Cost of vaccines needed	*I x vaccine price per dose (g)*	31,404,698	18,121,125	13,283,573
O	Cost of AD syringes needed	*K x AD syringe price per unit (ca)*	0	0	0
P	Cost of reconstitution syringes needed	*L x reconstitution price per unit (cr)*	0	0	0
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 of % of vaccines value (fv)*	0	0	0
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)*	31,404,698	18,121,125	13,283,573
U	Total country co-financing	*I x country co-financing per dose (cc)*	18,121,125		
V	Country co-financing % of Gavi supported proportion	*U / T*	57.70 %		

Table Annex 1.2 D: Estimated numbers for Rotavirus, 2-dose schedule, associated injection safety material and related co-financing budget (page 3)

		Formula	2020		
			Total	Government	Gavi
A	Country co-finance	*V*	75.26 %		
B	Number of children to be vaccinated with the first dose	*Table 5.2*	7,912,490	5,955,211	1,957,279
C	Number of doses per child	*Vaccine parameter (schedule)*	2		
D	Number of doses needed	*B x C*	15,824,980	11,910,422	3,914,558
E	Estimated vaccine wastage factor	*Table 5.2*	1.05		
F	Number of doses needed including wastage	*D x E*	16,616,229	12,505,943	4,110,286
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]*	348,658	262,412	86,246
I	Total vaccine doses needed	*Round up((F + G) / Vaccine package size) * Vaccine package size*	16,965,000	12,768,440	4,196,560
J	Number of doses per vial	*Vaccine parameter*	1		
K	Number of AD syringes (+ 10% wastage) needed	*(D + G) x 1.11*	0	0	0
L	Reconstitution syringes (+ 10% wastage) needed	*(I / J) x 1.11*	0	0	0
M	Total of safety boxes (+ 10% of extra need) needed	*(I / 100) x 1.11*	0	0	0
N	Cost of vaccines needed	*I x vaccine price per dose (g)*	33,811,245	25,447,500	8,363,745
O	Cost of AD syringes needed	*K x AD syringe price per unit (ca)*	0	0	0
P	Cost of reconstitution syringes needed	*L x reconstitution price per unit (cr)*	0	0	0
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 of % of vaccines value (fv)*	0	0	0
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)*	33,811,245	25,447,500	8,363,745
U	Total country co-financing	*I x country co-financing per dose (cc)*	25,447,500		
V	Country co-financing % of Gavi supported proportion	*U / T*	75.26 %		

Annex 2 - NVS Routine – Preferred Second Presentation

No NVS Routine – Preferred Second Presentation 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	Vaccine Type	2017	2018	2019
Meningococcal A, 10 dose(s) per vial, LYOPHILISED	MENINACONJUGATE	3.50 %	3.50 %	3.50 %
Rotavirus, 2-dose schedule	ROTA		6.00 %	6.00 %

Vaccine Antigen	Vaccine Type	2020
Meningococcal A, 10 dose(s) per vial, LYOPHILISED	MENINACONJUGATE	3.50 %
Rotavirus, 2-dose schedule	ROTA	6.00 %

Table Annex 4C: Preparing transition phase - Minimum country co-payment per dose of co-financed vaccine

Vaccine	2017	2018	2019
Meningococcal A, 10 dose(s) per vial, LYOPHILISED	0.15	0.12	0.09
Rotavirus, 2-dose schedule		0.47	0.35

Vaccine	2020
Meningococcal A, 10 dose(s) per vial, LYOPHILISED	0.06
Rotavirus, 2-dose schedule	0.23

Table Annex 4D: Wastage rates and factors

The following table shows the wastage rates for routine and campaign vaccines, set for 2017.

Vaccine	dose(s) per vial	Maximum Vaccine wastage rate*		Benchmark Wastage Rate**
HPV bivalent, 2 dose(s) per vial, LIQUID	2	10 %	0 %	
HPV quadrivalent, 1 dose(s) per vial, LIQUID	1	5 %	0 %	
JE, 5 dose(s) per vial, LYOPHILISED	5	10 %	10 %	
Measles second dose, 10 dose(s) per vial, LYOPHILISED	10	40 %	0 %	
Meningococcal A, 10 dose(s) per vial, LYOPHILISED	10	50 %	10 %	
MR, 10 dose(s) per vial, LYOPHILISED	10	15 %	0 %	
Pneumococcal (PCV10), 2 dose(s) per vial, LIQUID	2	10 %	0 %	
Pneumococcal (PCV13), 1 dose(s) per vial, LIQUID	1	5 %	0 %	
Rotavirus, 2-dose schedule	1	5 %	0 %	
Rotavirus, 3-dose schedule	1	5 %	0 %	
Yellow Fever, 10 dose(s) per vial, LYOPHILISED	10	40 %	0 %	
Yellow Fever, 5 dose(s) per vial, LYOPHILISED	5	10 %	0 %	

Comments:

* Source - WHO indicative 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 national introduction of the vaccine

Table Annex 4E: Vaccine maximum packed volumes

Kindly note that this table is for reference purposes only and includes Gavi- and non Gavi-supported vaccines.

Vaccine product	Designation	Vaccine formulation	Admin route	No. Of doses in the schedule	Presentation (doses/vial, prefilled)	Packed volume vaccine (cm3/dose)	Packed volume diluents (cm3/dose)
BCG	BCG	lyophilized	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-HepB liquid + Hib freeze-dried	DTP-Hib	liquid	IM	3	10	2.5	
DTP-HepB liquid + Hib freeze-dried	DTP-HepB+Hib	liquid+lyop.	IM	3	1	22	
DTP-HepB-Hib liquid	DTP-	liquid+lyop.	IM	3	2	11	

	HepB+Hib						
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	lyophilized	IM	3	1	13	35
Hib freeze-dried	Hib_lyo	lyophilized	IM	3	2	6	
Hib freeze-dried	Hib_lyo	lyophilized	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 Papilomavirus vaccine	HPV	liquid	IM	3	1	15	
Human Papilomavirus vaccine	HPV	liquid	IM	3	2	5.7	
Japanese Encephalitis	JE_lyo	lyophilized	SC	1	5	2.5	2.9
Measles	Measles	lyophilized	SC	1	1	26.1	20
Measles	Measles	lyophilized	SC	1	2	13.1	13.1
Measles	Measles	lyophilized	SC	1	5	5.2	7
Measles	Measles	lyophilized	SC	1	10	3.5	4
Measles-Mumps-Rubella freeze dried	MMR	lyophilized	SC	1	1	26.1	26.1
Measles-Mumps-Rubella freeze dried	MMR	lyophilized	SC	1	2	13.1	13.1
Measles-Mumps-Rubella freeze dried	MMR	lyophilized	SC	1	5	5.2	7
Measles-Mumps-Rubella freeze dried	MMR	lyophilized	SC	1	10	3	4
Measles-Rubella freeze dried	MR	lyophilized	SC	1	1	26.1	26.1
Measles-Rubella freeze dried	MR	lyophilized	SC	1	2	13.1	13.1
Measles-Rubella freeze dried	MR	lyophilized	SC	1	5	5.2	7
Measles-Rubella freeze dried	MR	lyophilized	SC	1	10	2.5	4
Meningitis A conjugate	Men_A	lyophilized	IM	1	10	2.6	4
Meningitis A/C	MV_A/C	lyophilized	SC	1	10	2.5	4
Meningitis A/C	MV_A/C	lyophilized	SC	1	50	1.5	3
Meningitis W135	MV_W135	lyophilized	SC	1	10	2.5	4
Meningococcal A/C/W/	MV_A/C/W	lyophilized	SC	1	50	1.5	3
Meningococcal	MV_A/C/W/Y	lyophilized	SC	1	10	2.5	4

A/C/W/Y							
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	IPV	liquid	IM	3	PFS	107.4	
Polio inactivated	IPV	liquid	IM	3	10	2.5	
Polio inactivated	IPV	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	lyophilized	SC	1	5	6.5	7
Yellow fever	YF	lyophilized	SC	1	10	2.5	3
Yellow fever	YF	lyophilized	SC	1	20	1.5	2
Yellow fever	YF	lyophilized	SC	1	50	0.7	1

12. Banking Form

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

Name of Institution (Account Holder):	National Primary Health Care Development Agency
Address:	681/682 PORTHARCOURT CRESCENT OFF GIMBIYA STREET AREA ELEVEN
City Country:	Abuja
Telephone no.:	09-670-1778 **Fax no.:**
Currency of the bank account:	USD
For credit to:	
Bank account's title:	CBN NATIONAL PRIMARY HEALTH CARE DEVELOPMENT AGENCY GAVI ISS
Bank account no.:	10302-2-5033-15
Bank's name:	CENTRAL BANK OF NIGERIA

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

By who is the account audited? PWC

Signature of Government's authorizing official

		Seal
Name:	Dr Ado J.G Muhammad	
Title:	Executive Director	
Signature:		
Date:		

FINANCIAL INSTITUTION		CORRESPONDENT BANK (In the United States)	
Bank Name:	CENTRAL BANK OF NIGERIA		GTBANK UK LTD
Branch Name:	ABUJA		
Address:	ABUJA		
City Country:	ABUJA		
Swift Code:	GTB IGB2L		
Sort Code:			
ABA No.:			
Telephone No.:			
FAX No.:			

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

The account is to be signed jointly by at least (number of signatories) of the following authorized signatories:

1		
	Name:	DR ADO J.G MUHAMMED
	Title:	EXECUTIVE DIRECTOR/CEO
2		
	Name:	MR DANIEL ASHOGBON
	Title:	DIRECTOR FINANCE AND ACCOUNTS
3		
	Name:	MR AKITOYE TESLIM
	Title:	DEPUTY DIRECTOR

Name of bank's authorizing official
Signature:
Date:
Seal: