Application Form for Gavi NVS support

Submitted by

The Government of

Zambia

Date of submission: **13 October 2017**

Deadline for submission:

i. 8 September 2017

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

Start Year	2017	End Year	2022

Form revised in 2016

(To be used with Guidelines of December 2016)

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	HPV quadrivalent, 1 dose(s) per vial, LIQUID	2018	2022	

[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.

2. Table of Contents

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 role of the Coordination Forum (ICC/HSCC or equivalent) and stakeholders' participation (e.g. government, key donors, partners, key implementers, CSOs) in developing this proposal

Executive summary

The Government of the Republic of Zambia makes an application to Gavi, the Vaccine Alliance, to support the national roll-out of the human papillomavirus vaccine.

Zambia has the second highest incidence and mortality rates from cervical cancer on the African continent, only superseded by Malawi. Cervical cancer accounts for 35% of all cancers registered in the country. In light of the significant epidemiological burden of cervical cancer the 2016-2020 National Cancer Control Strategic Plan (NCCSP) proposes introduction of HPV as one of the central pillars for both prevention and control. The Ministry of Health, and collaborating partners also committed to HPV introduction in the updated cMYP 2011-2016. This commitment has been carried forward into the cMYP 2017-2021 and also incorporated into the National Health Strategic Plan 2017-2021.

The overall program goal is to contribute to the reduction of cervical cancer morbidity and mortality for a healthy and productive population. The primary objective is to expand access to cervical cancer awareness and prevention, with the aim of contributing to a 25% reduction of mortality by 2025. More specifically, objectives include:

1. To establish a national HPV vaccination programme in Zambia by 2021.
2. To increase awareness of cervical cancer and HPV vaccination acceptance in the general population by 60% by 2021.

Zambia has considerable experience in introducing new and underused vaccines in the Expanded Programme on Immunisation (EPI). The country has demonstrated increasing immunisation coverage rates since 2014 achieving a coverage of 95% and 97% for DTP3 and MCV1 in 2016 respectively. The country has also gained significant insights with the roll-out of the HPV demonstration project (2013-2016).

The HPV vaccination introduction will benefit girls aged between 9 to 14 years old in the first year. The routine target population for the vaccination will be 9 year old girls nationwide, with plans to include multi-age cohort of 10 to 14 year olds in year one. The target population for the multi-age cohort for 2018 is 1,278,121 (10-14 year old girls) aged. HPV vaccination roll-out will conducted nationally at one time to all regions of the country. Child Health Week in June will be utilised as the delivery platform for HPV vaccination on an annual basis

and will include a schools based approach, health facility delivery and designated outreach.

The Ministry of Health will be responsible for the execution of the proposed HPV Introduction Plan. The ICC will provide oversight and guidance on implementation progress and coordinate resource mobilisation and advocacy activities. The EPI unit at the Ministry of Health will lead on day-to-day programme management, responding to technical and programmatic issues with the EPI Technical Working Group playing a central role in partner coordination and monitoring. At an operational level, the Ministry of Education will play a vital role in planning and preparation including defining the target populations and ensuring that schools are a conducive environment for vaccination. Concurrently, community based organizations will be key in supporting both for community mobilization as well as identification and reaching of vulnerable out of school girls. Reaching the underserved and special populations especially out of school 10 year olds will require targeted interventions and working through channels like religious leaders and NGOs.

The country has prepared for the introduction by reviewing lessons learned from the demonstration. These lessons include the revision of the target population from a grade based approach to an age based approach, and adoption of the very well institutionalized child health week as a platform for vaccine delivery. In addition, the cold chain capacity has been re-assessed and confirmed to be adequate. Other pre-vaccine introductory efforts will include development of terms of reference for structures for coordination of HPV Vaccination at various levels; and supporting sub-national levels to conduct microplanning processes and engagement with relevant stakeholders to define target populations and identification of strategies for hard to reach populations.

Through the introduction of HPV Vaccine into routine immunisation, it is anticipated that there will be improvements made to the health system. These will include the following:

- Capacity Building for Health Workers: This opportunity will be used to update training tools to include aspects of immunisation that are noted to be weak e.g vaccine management, data management, etc.
- Demand creation: Whilst the target age group for HPV is different from other routine vaccines, it is anticipated that the activities for demand creation for HPV can be leveraged to promote messages for routine immunisation. Communication channels will include print and electronic media as well as interpersonal communication.
- Logistics management: While the program has made significant progress in logistics management, further improvements particularly in the gaps that had been identified through the 2015 Effective Vaccine Management criteria will be strengthened during the training of health workers.
- Monitoring and evaluation: health workers will conduct integrated monitoring activities to strengthen immunisation practices.

Significant improvements were noted at all levels and across all criteria during the 2015 EVMA. The key strengths identified include good cold chain and transport infrastructure at all levels; trained technicians and service providers and the commitment by the government at the various levels to maintain and improve on existing good practices.

The country has recently completed an extensive cold chain scale-up bringing in new cold rooms and vaccine refrigerators across the entire country. Based on the shipment volume received at provinces the average capacity being currently utilised at the provincial level is 23% of the total usable capacity. For the district level, on average there is more than sufficient capacity for HPV vaccine, even in the first year of implementation for the multiage cohort, as the average capacity being utilised is approximately 39%. For any districts operating above their capacity, shipment schedules will be adjusted to accommodate the additional vaccine volume required. The National level plans to increase the frequency of distribution and there are plans to procure two units of 40 m3 walk-in cold room for the national level. Efforts are underway to fast track the procurement of these units ahead of the introduction of the HPV vaccine. The country also has an ongoing cold chain expansion strategy at lower levels to accommodate new vaccines and to address the increased number of health facilities and health posts being constructed. Standard operating procedures for managing vaccine storage have been finalised and standardised vaccine recording templates has been developed and shared with lower levels.

The country intends to use *Gardasil*®; the vaccine used during the demonstration project. The choice has been made based on the vaccines' ability to address a dual burden of cervical cancer and genital warts (high due to HIV burden), hence a vaccine that would target HPV strains that lead to both diseases would be more ideal to introduce.

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 Zambia 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:

HPV quadrivalent, 1 dose(s) per vial, LIQUID routine introduction

The Government of Zambia 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) **6.2.3, 6.2.4** in the Routine New Vaccines Support of this application shows the amount of support in either supply or cash that is required from the Gavi.Table(s) **6.2.3, 6.2.4** 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 **April**.

The payment for the first year of co-financed support will be around **January 2018** for HPV quadrivalent, 1 dose(s) per vial, LIQUID.

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 : 1 and 2 in Section 10. Attachments.

Minister of Health (or delegated authority)		**Minister of Finance (or delegated authority)**	
Name	HON. DR. CHITALU CHILUFYA, MP	**Name**	HON. MR. FELIX MUTATI, MP
Date		**Date**	
Signature		**Signature**	

Proof of involvement of the Ministry of Education will also be required for HPV Routine Support. The Ministry of Education will either have to be involved in the ICC process (preferred option) and, for countries choosing schools as a location for vaccinations, or choosing a school link strategy, the Minister of Education (or delegated authority) must provide its signature. The signature is attached as DOCUMENT NUMBER : 3 in Section 10. Attachments.

Minister of Education (or delegated authority)	
Name	HON. DR. DENNIS WANCHINGA, MP
Date	
Signature	

By signing this application form, we confirm that the requested funding for salaries, salary top-ups/allowances, per diems and incentives does not duplicate funding from other sources (e.g. from other donors).

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. Angel Mwiche	Assistant Director - Reproductive Health - MOH	00961171113	amwiche@yahoo.com
Dr. Francis Dien MWANSA	National EPI Manager - MOH	00964055390	DrFrancis.Mwansa@MOH.gov.zm

Dr. Moses SIMUYEMBA	UNZA –FCE Team Member	00260961880880	msimuyemba@gmail.com
Dr. Ngawa NGOMA	Immunisation Officer - UNICEF	00260967213819	nnngoma@unicef.org
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Dr. Sharon KAPAMBWE	National Coordinator Cancer Prevention - MOH	00260965437619	skapambwe@yahoo.com
Mr. Eddie KASHINKA	UNZA –FCE Team Member	00260979092266	eddiekashinka@yahoo.com
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4.1.2. National Coordination Forum (Interagency Coordinating Committees (ICCs), Health Sector Coordinating Committees (HSCCs), and other equivalent bodies)

To be eligible for support, Gavi asks countries to ensure a *basic* functionality of their Coordination Forum (ICC/HSCC or equivalent body). Countries can demonstrate this by adhering to the requirements listed in section 5.2 of the General Guidelines. The information in this section and a set of documents submitted along with this application will help the Independent Review Committee (IRC) to assess adherence.

Profile of the Coordination Forum

Name of the Forum	Interagency Coordinating Committee
Organisational structure (e.g., sub-committee, stand-alone)	Stand-alone

The Terms of Reference for the Coordination Forum is attached as DOCUMENT NUMBER : 4. The Terms of Reference should include all sections outlined in Section 5.2 of the General Guidelines..

Please describe the role of the Coordination Forum and stakeholders' participation (e.g. government, key donors, partners, key implementers, CSOs) in developing this proposal:

1. Supporting the Ministry of Health in coordinating issues of RMNCAHN
2. Supporting Ministry to mobilise resources for improving RMNCAHN interventions
3. Reinforcing advocacy for RMNCAHN particularly targeted at key political leaders and policy makers
4. Increasing community participation of RMNCAHN interventions through the involvement of CSOs

4.1.3. Signature Table for the Coordination Forum (ICC/HSCC or equivalent body)

We the members of the ICC, HSCC, or equivalent committee *[1]* met on the **05/09/2017** to review this proposal. At that meeting we endorsed this proposal on the basis of the supporting documentation which is attached. The minutes from the meeting endorsing the proposal and of the meetings of the past 12 months 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).

Function	Title / Organisation	Name	Please sign below	Please sign below

			to indicate the attendance at the meeting where the proposal was endorsed	to indicate the endorsement of the minutes where the proposal was discussed
Chair	Minister of Health/MOH	Hon. Dr. Chitalu Chilufya MP		
Secretary	National EPI Manager	Dr Francis Dien Mwansa		
Members	Director, Public Health and Research/MOH	Dr Andrew Silumesii		
	WHO Representative	Dr. Custodia Mandlhate		
	USAID Representative	Dr. Florence Kitabire		
	CIDRZ Country Director Representative	Dr. Roma Chilengi		
	SBH Representative	Dr.Selia .N.Phiri		
	UNICEF Representative	Mr. Paul Ngwakum		
	CHAZ Executive Director	Ms. Karen Sichinga		
	DFID Representative	Ms. Uzo Gilpin		
	SIDA Representative	Ulrika Hertel		

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

The minutes from the meeting endorsing the proposal and of the meetings of the past 12 months are attached 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 **04/09/2017** 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 31.

4.2.1. The NITAG

Profile of the NITAG

Name of the NITAG	Zambia Immunsation Technical Advisory Group (ZITAG)
Year of constitution of the current NITAG	2016
Organisational structure (e.g., sub-committee, stand-alone)	Stand-alone
Frequency of meetings	Quarterly

Function	Title / Organisation	Name
Chair	Consultant Paediatrician/ Ministry of Health	Dr. Musaku MWENECHANYA
Secretary	Chief EPI Officer/ Ministry of Health	Ms. Elicah Kamiji
Members	Researcher/National Institute of Scientific Research	Dr. Henry NJAPAU
	Medical Microbiologist/Ministry of Health	Dr. James MWANSA
	Epidemiologist/ Zambia National Public Health Institute	Dr. Kapin'a MUZALA
	Vaccinologist/Tropical Diseases Research Centre	Dr. Mike CHAPONDA
	Social Scientist	Dr. Oliver MWEEMBA
	Health Care Administrator/General Nursing Council	Mr. David MBEWE
	Health Care Administrator/Health Professions	Mr. Fvatilani CHIRWA

	Council	
	Surveillance Officer/ Ministry of Health	Mr. Wamunyima LUBINDA
	Tutor/Lusaka Schools of Nursing/ZITAG Vice Chairperson	Ms Vine HAMWIBU
	Demographer/ University of Zambia	Ms. Gloria SONGOLO
	Social Scientist/University of Zambia	Ms. Harriet NTALASHA
	Member/University of Zambia Biomedical and Research Ethics Committee (UNZABREC)	Prof. Alfred MWANZA

Major functions and responsibilities of the NITAG

Broadly the main roles of a ZITAG are:

 Offering a credible, transparent, and independent decision-making process regarding immunisations;

 Proposing recommendations to be adapted to suit Zambia; and

 Strengthening of national immunisation programme through synergy.

By strengthening of decision-making legitimacy, it is hoped that the ZITAG's inputs will:

1. Encourage extra financing

2. Encourage vaccine trust and acceptability in the population

The attached ZITAG SOP provides further detail on the functionality of the ZITAG.

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 the most recent data from available sources. Please identify the source of the data, and the date and attach the source document, where possible. The following documents should be referred to and/or attached:

- Comprehensive Multi-Year Plan for Immunisation (cMYP) (or equivalent plan). Please attach as DOCUMENT NUMBER 9.
- New Vaccine Introduction Plan(s) / Plan of Action. Please attach as DOCUMENT NUMBER 12.
- New Vaccine Introduction Checklist, Activity List and Timeline. Please attach as DOCUMENT NUMBER 12.
- Effective Vaccine Management (EVM) assessment. Please attach as DOCUMENT NUMBER 20.
- Two most recent annual WHO/UNICEF Joint Reporting Forms (JRF) on Vaccine Preventable Diseases.
- Health Sector Strategy documents, budgetary documents, and other reports, surveys etc, as appropriate.
- In the case of Yellow Fever and Meningitis A mass preventive campaigns, the relevant risk assessments. Please attach as DOCUMENT NUMBER 24 and DOCUMENT NUMBER 25.

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

	Figure	Year	Source
Total population	15,933,883	2016	Central Statistics Office
Birth cohort	637,353	2016	Central Statistics Office
Infant mortality rate (per 1000)	73	2016	Central Statistics Office
Surviving infants*[1]*	608,672	2016	Central Statistics Office
GNI per capita (US$)	1,490	2016	World Bank

Total Health Expenditure (THE) as a percentage of GDP	4	2016	Draft National Health Accounts 2016
General government expenditure on health (GGHE) as % of General government expenditure	8	2016	Draft National Health Accounts 2016

[1] 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
Central Statistical Office (CSO) populations estimates differ from headcount of target population	The Ministry of Health is engaged in high-level discussions with the Central Statistics Office to explore options that would allow for more accurate quantification of the population. This could include a triangulated approach to determine the estimates using both census and also head-count data. The Government is also piloting different initiatives to establish electronic immunisation registers and improve data quality (e.g. PATH-supported Better Immunisation Data (BID initiative) and UNICEF-supported Mobile Vaccination (MVac). WHO through MR Post campaign survey included an objective to estimate provincial population estimates of SIA targets. Findings provided an estimate of the population estimates in the provinces. These were higher than the official estimates.
Poor capacity in vaccine management at provincial level.	To address capacity constraints in vaccine management, one logisticians (pharmacists) from each of the eleven vaccine hubs received training in effective vaccine management in 2015. The logisticians were also trained in Logistimo and computers were provided for each hub.
Poor stock visibility at the provincial level	As of end of 2015, a new web-based system (Logistimo) enabling real time stock monitoring and transactions became operational in all provinces.
Poor vaccine management at the central level due to absence of a logistician specifically designated to the EPI	Two logisticians were recruited to Central level in 2013.
Infrequent and inadequate training of health workers	A routine training schedule for new vaccines and surveillance has been established and rolled-out.
Procured cold chain equipment was not installed in a timely manner.	Capacity building for installation and maintenance of cold chain equipment has been done at all levels. This was followed by installation of all procured cold chain equipment.
Lack of standard operating procedures (SOP) on effective vaccine management	SOPs were developed and distributed to all levels.
Procured cold chain equipment was not installed in a timely manner.	Capacity building for installation and maintenance of cold chain equipment has been done at all levels. This was followed by installation of all procured cold chain equipment.
Lack of standard operating procedures (SOP) on effective vaccine management	SOPs were developed and distributed to all levels.

5.1.2 Health planning and budgeting

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

The planning cycle for the health sector starts in May each year and ends in September. Feeding into the

planning process involves engagement from Central down to Facility level.

The MoH HQ gives Provincial Health Offices, CSOs and cooperating partners information on financial ceilings, technical planning guidelines and HMIS analysed data from the previous year. The Provincial Health Office coordinates engagement with District Health Offices and hospitals to review programme performance and provide updates. The District Health Offices then gives guidance to health facilities that fall under the jurisdiction of the district on programme priorities, and budgeting ceilings.

Health Centres (primary health care, PHC) meet with community representatives to review achievements and challenges. Based on achievements and challenges the Community representatives and members determine priorities and agree on community health interventions and a Community Action Plan.

Health facilities submit their plans to the District Health Offices. A multi-stakeholder meeting is used as a platform to consolidate district health plans. Health Centres meet with community representatives to provide feedback on the projected budget and final community action plans while the Departmental Heads review the projected departmental allocations and plans.

2nd and 3rd level hospitals present their plans to the Hospital Advisory Committee; and first level hospitals submit completed plans to District Health Offices. The District Health Offices then drafts the district plan focusing on training, supervision, advisory committee expenses, epidemic preparedness, etc. and consolidates the District Action Plan and Budget. The consolidated Plan and Budget is presented through the Health Advisory Committee and District Development Committee. The District Health Offices then submits the District Action Plan to the District Commissioner and to the Provincial Health Office.

The Provincial Health Office with cooperating partners reviews all institutional plans in the province. Once the plans are approved by the province they are submitted to MoH HQ for consolidation into a Health Sector Plan and Budget which is then submitted to the Ministry of Finance.

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

Planning Handbook for The Ministry of Health: Health Centres, Health Posts – May, 2011

Action Planning for Hospitals- April, 2009

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

Yes, the 2017-2021 cMYP reflects the HPV introduction date, target population and financial plan for HPV vaccination national roll-out.

Please indicate the national planning budgeting cycle for health

May to September, annually

Please indicate the national planning cycle for immunisation

The planning cycle for Immunisation follows the national planning cycle which takes place between May and September annually

5.1.3 Coverage and equity

Please describe any health systems bottlenecks or barriers to access, utilisation and delivery of immunisation services at district level (or equivalent), for example geographic, socio-economic and/or gender-related barriers. Please indicated if there are specific populations of concern. If available, please provide subnational coverage and equity data highlighting geographic, socio-economic, gender-related, or other barriers and any other relevant categories of vulnerable or high-risk populations.

According to the Demographic and Health Survey conducted in 2013-14, the difference in DTP3 (DTP-HepB-Hib 3) coverage by child sex is insignificant (86.4% for boys and 85.3% for girls). There are more significant equity related considerations related to geographical location and also education of the mother. Ninety-two percent of urban children received DTP3, as compared with 82.6 percent of rural children. DTP3 coverage ranges from a low of 79 percent in Luapula to a high of 94 percent in Copperbelt. The percentage of children

having received the 3rd dose of DTP rises with increasing mother's education, from 75 percent among children of mothers with no education to 96 percent among children of mothers with more than secondary education. Similarly, children in households in the highest wealth quintile are much more likely to be fully immunised (95 percent) than those in the lower three wealth quintiles (less than 85 percent).

According to the Living Conditions Monitoring Survey (LCMS) conducted in 2015, school attendance rates for primary school age females (7-13 years) increased from 79 per cent in 2006 to 84.8 percent in 2015. Urban areas tend to have higher net attendance rates compared to rural areas. Central Government still remains the main provider of education at all levels: 83.5% of primary school attendants are in Government schools. The LCMS also shows that poverty in Zambia remains predominantly a rural phenomenon with poverty levels at 76.6 percent compared to 23.4 percent in urban areas. In 2015, Western Province had the highest proportion of the population in poverty (82.2%) while Lusaka Province had the lowest at 20.2%.

A household survey was conducted in Zambia in 2015 as a component of the Full Country Evaluation, providing estimates of Immunisation coverage and other indicators related to Immunisation, such as knowledge, attitudes, practices and demand-side constraints to Immunisation coverage. The study population consisted of heads of household, mothers and/or primary caregivers of children 0-59 months, and the children themselves. Coverage levels were highest for BCG (91% of under-5 children), Pentavalent 1 (87%) and Polio 1 (79%) across all ages and sexes. Expectedly, new vaccines recently introduced had lower coverage: 49% coverage for Rotavirus 1, 40% coverage for Rotavirus 2; 55% coverage for PCV1, 52% coverage for PCV2 and 41% coverage for PCV3. While 6 out of the 10 provinces had over 80% of caregivers who had heard of pneumonia, only 3 out the 10 provinces had over 20% of caregivers who had heard of PCV. Coverage levels for under-5 females and under-5 males were fairly similar. Coverage levels for BCG remained high between age groups. Coverage for Polio 0 and Polio 1 remain uniformly high between 12 – 59 months. Conversely, coverage levels for all PCV doses tended to be higher for the younger age categories compared to the older ones, while Measles coverage was much lower at 0-11 months compared to the other age categories. Across all ages, Rotavirus 1 and Rotavirus 2 remained at low levels of coverage. Travel time to the last health facility visited was the highest in the Northern province (286 minutes). All other provinces reported travel time below 85 minutes, with the most urbanized Lusaka and Copperbelt showing the lowest (33 and 19 minutes respectively). According to the 2014 Description of Action by MoH and EU-funded MDGi Program, some communities have to walk as much as an hour to reach the closest health facility (30% of the population in Chingola district and 14% in Kafue district).

Please explain how the proposed NVS support (activities and budget) will be used to improve coverage and equity of routine immunisation with reference to specifically identified health systems bottlenecks and/or specific populations of concern. For countries that will be receiving Gavi HSS and/or CCEOP funding concurrently with NVS funds, please also highlight how NVS funds will support/complement/leverage specific activities or investments included in those other grants.

Some actions are noteworthy, for addressing barriers to access and equity in Immunisation. The most significant are listed below.

- Creation of 31 new districts allowing for more rapid urbanization of previously rural areas. New education and health facilities have been established, and the road network improved throughout the country.
- In 2014, the Government introduced a budget line earmarked to support outreach activities in all districts, and improve Immunisation coverage in hard-to-reach areas. In collaboration with partners, the Government has also procured motorbikes for integrated outreach in newly created districts.
- With EU-funded MDGi Program, the numbers of outreach sites in 11 MDGi districts in Lusaka and Copperbelt provinces have been increased with the specific goal of reaching underserved communities.
- With support from partners, the Government has made efforts to revitalize the Reach Every District strategy, through training of health workers, and community engagement.
- EPI has been included in the curriculum for health training institutions (e.g. nursing schools and clinical officer schools) in order to enhance EPI competences among graduates.
- A new health worker cadre, called Community Health Assistant (CHA), has been created. CHAs receive a one-year training course to serve local populations. The CHAs are expected to spend 80% of their time in communities conducting PHC activities
- The Ministry of Health with partners have been supporting continued airing of immunisation messages on local radio stations across the country to improve knowledge and promote demand.

Please describe what national surveys take place routinely in country to assess gender and equity related

barriers. Highlight whether this application includes any activities to assess gender and equity related barriers.

The most recent household survey conducted to assess Immunisation coverage and equity among other indicators was the 2013/2014 Zambia Demographic and Health Survey and the 2015 Living Conditions and Monitoring Survey. The ZDHS has been the only household survey consistently providing information on Immunisation coverage over the years. The next ZDHS is planned to be conducted by the year 2018. Results of the 2018 ZDHS will be used to provide an independent report on progress of Immunisation coverage. In 2015, the country also conducted a Household Survey that measured coverage for all antigens.

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

Immunisation data disaggregated by sex, can only be obtained from the paper-based immunisation registers at facility level. However, facilities are required to aggregate this information before submission to the District: therefore, data entered in the District Health Information System 2 (DHIS2) is not disaggregated by sex.

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.

Seasonal flooding is experienced in certain parts of the country. In these areas, populations are cut off from the main land and are inaccessible during that period that may last 5 months. Their medical and other related supplies including vaccines are supplied prior to the onset of the rains to cover this duration. In some areas appropriate water transport has been provided for use in the delivery of these supplies. In addition, motorcycles have been provided for facilities cut off to conduct their local outreach.

In case of influx of refugees and/or displaced persons, health officials in affected areas are tasked with informing the central level for additional resources required.

5.1.4 Data quality

To support country efforts to strengthen the availability, quality and use of vaccination coverage data for strengthened programme management, Gavi requires that countries applying for all types of Gavi support to undertake routine monitoring of vaccination coverage data through an annual desk review; conduct periodic (once every five years or more frequently where appropriate) in-depth assessments of routine administrative vaccination coverage data; conduct periodic (at least once every five years) nationally representative vaccination coverage surveys; and develop and monitor plans for improving vaccination coverage data quality as a part of their own core work plans.

5.1.5 HPV specific facts

Countries applying for HPV that have already conducted a demonstration or pilot programme, should include details on specific lessons learned for HPV vaccine delivery.

Key programmatic areas	Lessons Learned	How these areas have been addressed in a National Plan
Preparation & planning	The involvement of District Health Directors, District Education Board Secretaries, Provincial Health Directors and Provincial Education Officers in the training phase led to their active involvement in coordinating the pre-, intra- and post-HPV vaccination activities. The involvement of policy makers at all levels, increases their participation and understanding of the roles and responsibilities in execution of activities. This guides the entire process of planning and implementation. Review meetings after implementation of	Members of the Ministry of General Education have been actively involved in the proposal development and will be a key stakeholder during micro-planning and preparations phase. Dissemination of findings from pilot demonstration project conducted for policy makers at all levels from both Ministry of Health and Ministry of Education including the Zambian First Lady's Office. At every stage the two authorities are kept abreast. Review meetings have been introduced after

	each round contributed to improved coordination between health and education officials. Knowledge of the target population is critical in effective planning and implementation. Collaboration with teachers at schools and district education boards assisted in identifying the eligible populations and reaching the targeted girls for the services that were planned. Delayed release of funds led to delayed development of micro-plans in districts and health facilities vaccination sites and affected the national level in planning for HPV effective planning and implementation.	each round of the Child Health week. These would continue when HPV is introduced. The EPI team is working with the Ministry of Education to review enrolment data from school registers to determine target populations. One of the central activities during mirco-planning will be enumeration of eligible girls both within and outside of school. This was agreed during the HPV stakeholders' consensus meeting held in Lusaka on 3rd August 2017 (minutes attached). Ensure timely (at least 6 months prior) planning and budgeting, including all levels to appropriately fund HPV vaccination.
Communication & social mobilization	• Involvement of district heads in health and education in the review meetings strengthen their understanding of their roles and responsibilities in social mobilisation and supervision of HPV vaccination resulted in less refusals at schools. • Use of community members as community mobilisers was one good strategy that was used to reach more girls that were targeted for the HPV vaccination. • The involvement of community members promoted community ownership of the campaign, since local people saw the participation of community members in the exercise. • Ongoing of community sensitisation which educates and involves community leaders, religious leaders and women's group is important for community sensitisation and also gaining support for the vaccine delivery. • Continuous community sensitisation to demystify rumors is necessary to reduce the number of refusals and improve acceptance; Ensuring that media is accurately informed and are disseminating correct information is vital to keeping rumors under control. Widespread accurate media campaign is critical to sensitising the community. Continuous media engagement with accurate information is vital to keeping rumours under control.	Routine review meetings between the Ministries of Health and Education at all levels. These meetings are to ensure social mobilisation activities are well coordinated and relevant to the needs. Continued engagement of community groups and individuals will take place through existing sociocultural channels. e.g. Religious, traditional, etc. There will also be active involvement of relevant CSOs to support community engagement and mobilisation. • Continued media orientation in immunisation activities with a focus on HPV immunisation.
Delivery strategies	Lack of strategy for identification for hard to reach girls prior to commencing the vaccination exercise led to low access and utilisation of HPV vaccination.	For national roll-out, hard to reach girls and girls in unregistered schools will be identified for vaccination using existing sociocultural structures e.g. churches, community schools, traditional ceremonies, etc.
Coverage	All data ought to be discussed for both relevance and cleanliness	Data review meetings at all levels have been

		planned and encouraged
Reporting & monitoring	Early orientation and understanding of the monitoring tools by vaccination supervisors led to improved data quality.	All relevant monitoring tools will be adapted and distributed ahead of the national launch. Orientation of supervisors will be done at least two to four weeks prior to implementation
Sustainability	The demonstration was very expensive because it was conducted in a campaign mode	National rollout will be done during the biannual Child Health Week to leverage on the institutionalised resources.

For each district in which the demonstration/ pilot programme was implemented, please complete the following:

District Information	
Name of the district	Lusaka
Size of target population of the district	2,426,898
Describe how the district is divided into rural and urban areas:	The district is 100% urban
Delivery strategy(ies) used (e.g. school based, health centre based, campaign)	School based, health centre based, community based Outreach. It was in a campaign mode for 10 working days in each round.
District Information	
Name of the district	Chongwe
Size of target population of the district	177,491
Describe how the district is divided into rural and urban areas:	The district is 100% rural
Delivery strategy(ies) used (e.g. school based, health centre based, campaign)	School based, Health Centre based, community based Outreach. It was in a campaign mode for 10 working days in each round.
District Information	
Name of the district	Kafue
Size of target population of the district	160,853
Describe how the district is divided into rural and urban areas:	The district is 33% rural and 67% urban
Delivery strategy(ies) used (e.g. school based, health centre based, campaign)	School based, Health Centre based, community based Outreach. It was in a campaign mode for 10 working days in each round.

5.2. Baseline and Annual Targets for Routine Vaccines

For HPV, Gavi supports the vaccination of girls aged 9-14 years, based on the following cohorts:

- Routine cohort – countries are required to identify a single year cohort of girls to be immunised on a routine basis. (e.g. 9 years old)
- Additional multi-age cohort – in the first year of introduction (or initial year of each phase, if country choose phased introduction), countries also have the option to immunise additional girls within the recommended age groups (e.g. 10-14 years), that are older than the routine cohort.

Note: Countries may choose proxy age of girls based on a school grade (e.g. grade 5 corresponds to approximately 10 year olds). However, grades usually have a range of different aged girls so it is important to keep in mind that girls under 9 years should not be vaccinated, and doses for girls older than 14 years are not provided by Gavi.

Please specify the chosen age for the routine cohort HPV vaccination: e.g. 9 years

9 years

If relevant, please specify the chosen age range for the additional multi-age cohort in the year of introduction: e.g. 10, 11, 12, 13, 14 years
From :

10 years

To :

14 years

Will a phased introduction approach be adopted?

No

If a phased approach will be adopted, please provide an explanation for this approach.

The country will introduce HPV at once throughout the country.

The chosen age for the routine cohort HPV vaccination is 9 years. The majority of the 9 year olds are in grade 4, but all 9 year olds regardless of the grade will be vaccinated when the vaccination team visits the school. Through social mobilisation activities guardians will be reminded to take their 9 year old girl children to health facilities for vaccination. The country also notes that girls under 9 years should not be vaccinated, and doses for girls older than 14 years are not provided by Gavi.

The 10-14 year olds form the multi-age cohort

Please refer to cMYP pages to assist in filling-in this section. For HPV, please also refer to Annex 3 of the HPV Guidelines.
The Base year information should be completed for the year in which the application is being completed.

Table 5.2: Baseline NVS routine figures

Number	Base Year	Baseline and Targets			
	2016	2018	2019	2020	2021
Total births	669,889	819,950	843,728	868,197	893,374
Total infants' deaths	27,861	34,438	32,905	32,124	31,268
Total surviving infants	642,028	785,512	810,823	836,073	862,106
Total pregnant women	860,430	819,950	843,728	868,197	893,374
Target population (routine cohort) vaccinated with OPV3*[1]*	583,551	722,677	754,076	785,900	827,520
OPV3 coverage*[2]*	91 %	92 %	93 %	94 %	96 %

Target population (routine cohort) vaccinated with DTP1*[1]*	662,016	754,091	778,390	786,666	836,242
Target population (routine cohort) vaccinated with DTP3*[1]*	610,057	723,927	755,038	775,700	811,154
DTP3 coverage*[2]*	95 %	92 %	93 %	93 %	94 %
Wastage*[3]* rate in base-year and planned thereafter (%) for DTP	5	5	5	5	5
Wastage*[3]* factor in base-year and planned thereafter for DTP	1.05	1.05	1.05	1.05	1.05
Routine Cohort					
Number of girls in the routine cohort	0	246,859	254,018	261,177	268,336
Target population (routine cohort) vaccinated with 1st dose of HPV	0	234,516	241,317	248,118	254,919
Target population (routine cohort) vaccinated with 2nd dose of HPV	0	222,790	229,251	235,712	242,173
HPV quadrivalent coverage 1st dose	0 %	95 %	95 %	95 %	95 %
HPV quadrivalent coverage 2nd dose	0 %	90 %	90 %	90 %	90 %
Additional multi-age cohort					
Number of girls in the additional multi-age cohort	0	1,278,122			
Target population (additional multi-age cohort) vaccinated with 1st dose of HPV quadrivalent	0	1,226,997			
Target population (additional multi-age cohort) vaccinated with 2nd dose of HPV	0	1,150,310			
HPV quadrivalent coverage*[2]*	0%	96%	0%	0%	0%
HPV quadrivalent coverage 2nd dose	0%	90%	0%	0%	0%
First Presentation: HPV quadrivalent, 1 dose(s) per vial, LIQUID ROUTINE COHORT + ADDITIONAL MULTI_AGE COHORT					
Wastage*[3]* rate in base-year and planned thereafter (%)	5	5	5	5	5
Wastage*[3]* factor in base-year and planned thereafter (%)	1.05	1.05	1.05	1.05	1.05
Maximum wastage rate value for HPV quadrivalent, 1 dose(s) per vial, LIQUID	5 %	5 %	5 %	5 %	5 %
Target population (routine cohort) vaccinated with 1st dose of MCV	621,742	761,947	786,498	810,990	836,242
MCV coverage*[2]*	97 %	97 %	97 %	97 %	97 %
Annual DTP Drop out rate [(DTP1 – DTP3) / DTP1] x 100	8 %	4 %	3 %	1 %	3 %

[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.

Number	Baseline and Targets
	2022
Total births	947,947
Total infants' deaths	29,292
Total surviving infants	918,655
Total pregnant women	947,947
Target population (routine cohort) vaccinated with OPV3*[1]*	891,095
OPV3 coverage*[2]*	97 %
Target population (routine cohort) vaccinated with DTP1*[1]*	881,909
Target population (routine cohort) vaccinated with DTP3*[1]*	846,632
DTP3 coverage*[2]*	92 %
Wastage*[3]* rate in base-year and planned thereafter (%) for DTP	5
Wastage*[3]* factor in base-year and planned thereafter for DTP	1.05
Number of girls in the routine cohort	298,298
Target population (routine cohort) vaccinated with 1st dose of HPV	283,383
	268,468
HPV quadrivalent coverage 1st dose	95 %
HPV quadrivalent coverage 2nd dose	90 %
Additional multi-age cohort	
Number of girls in the additional multi-age cohort	
Target population (additional multi-age cohort) vaccinated with 1st dose of HPV quadrivalent	
Target population (additional multi-age cohort) vaccinated with 2nd dose of HPV	
HPV quadrivalent coverage*[2]*	0
HPV quadrivalent coverage 2nd dose	0
First Presentation: HPV quadrivalent, 1 dose(s) per vial, LIQUID ROUTINE COHORT + ADDITIONAL MULTI_AGE COHORT	
Wastage*[3]* rate in base-year and planned thereafter (%)	5
Wastage*[3]* factor in base-year and planned thereafter (%)	1.05
Maximum wastage rate value for HPV quadrivalent, 1 dose(s) per vial, LIQUID	5 %
Target population (routine cohort) vaccinated with 1st dose of MCV	888,869
MCV coverage*[2]*	97 %
Annual DTP Drop out rate [(DTP1 – DTP3) / DTP1] x 100	4 %

[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.

5.2.1 Description of routine and additional multi-age cohorts

Provide the percentage of primary school enrolment

The gross primary intake school rate in 2015 was 114.8%, while the gross enrollment rate was 45.5% in the same year. The net primary enrollment rate was 89%.

Provide the percentage of secondary school enrolment

The net secondary enrollment was 28.1%[1]

Provide the average age of entry for secondary school

The average age of entry for secondary school is 14 years (world data on education 6th edition UNESCO)

Please provide a source for the enrolment data (e.g., national statistics office, MOE, recent census, school registers, etc.)

Ministry of Education 2015 Educational Statistical Bulletin (Zambia)

Please provide a source for the enrolment data (e.g., national statistics office, MOE, recent census, school registers, etc.)

Ministry of Education 2015 Educational Statistical Bulletin (Zambia)

5.2.2 HPV specific targets

Girls to be vaccinated with HPV should be within the WHO-recommended target population of 9-14 years old girls

Please specify the source of data that was used to estimate the number of girls in the routine and, if relevant, additional multi-age cohorts and reported in the above table under "Target population (routine cohort) vaccinated with HPV" and "Target population (additional multi-age cohort) vaccinated with HPV"

MOE Static bulletin 2015,

World data on education 6th edition UNESCO,

World data atlas – Education 2013

UNDP

5.3. Targets for Preventive Campaign(s)

No NVS Prevention Campaign Support this year

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

No One time mini-catchup campaign this year

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

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
Cervical cancer	Zambia national cancer control strategy situation analysis	2015/16	Zambia's estimated agestandardised incidence and mortality rates from cervical cancer are at 58.0 and 36.2 per 100,000 women, respectively. Cervical cancer is the most common cancer seen at Cancer Disease Hospital (CDH) in Lusaka, comprising approximately 35% of all cancers managed at CDH.

6.1.1 HPV burden specific information

Has the country undertaken an assessment of the burden of cervical cancer? If so, describe the burden, and when and how the assessment was done. If not, countries may report on Globocan data (available on the WHO HPV information Centre website at http://www.who.int/hpvcentre/en).

Zambia has the fourth highest incidence and mortality rates from cervical cancer on the African continent, only superseded by Malawi. The incidence rate for cervical cancer is 58.0/100,000 women per year with a mortality rate of 36.2/100,000 women per year. Current estimates indicate that every year 2,330 women in Zambia are diagnosed with cervical cancer and 1,380 die from the disease (http://www.hpvcentre.net/statistics/reports/ZMB_FS.pdf). The high mortality rates highlights the low survival rates among women diagnosed with cervical cancer. Cervical cancer ranks as the most frequent cancer in the adult population in Zambia. In 2015, cervical cancer contributed 30% of all cancer cases seen at the Cancer Diseases Hospital (Cancer Diseases Hospital 2015 Annual Report).

Describe the existing cervical cancer prevention and control activities.

The Zambia cervical cancer screening programme started in 2006. Cervical cancer screening services are available in all 10 provinces. The country uses the "See and Treat" Approach with Visual Inspection with Acetic Acid. Currently the country has 62 cervical cancer screening sites and 25 referral clinics for women with complex cervical lesions. The screening age interval is 25 years to 59 years old. To date close to 400,000 women have been screened for cervical cancer. For women in hard to reach areas the government operates mobile hospital vans. Zambia has one chemoradiation centre for treatment of women with invasive cervical cancer.

HPV vaccination and screening have enormous potential to improve cervical cancer prevention in developing countries, where specialists are most limited and the unmet need is greatest. Practical, cost-effective models to integrate these technologies on a public health scale need to be developed. The country proposes strategies for integrating cervical cancer screening and vaccination in a large public health cervical cancer prevention program in Zambia. The "mother-daughter" approach will integrate cervical cancer screening for women attending the already existing facilities for single-visit see-and-treat cervical cancer prevention program, and offer HPV vaccination to their daughters. The Cervical Cancer Screening Program started in 2006 with over 400,000 women screened since inception. The program provides a potential vaccination facility point. Women coming for screening can come with the adolescent daughters eligible for screening as well. The cervical cancer screening has well developed social mobilization strategy. It has support from influential figures in society including the First Lady of The Republic of Zambia, Parliamentarians, Religious

leaders, Traditional leaders and local celebrities. The key messages given through these existing can be used to disseminate the inclusion of HPV vaccination at screening clinics. The children will equally be informed on the availability of HPV vaccination at the static cervical cancer screening clinics. They will be encouraged to come with their mothers to the screening clinics for HPV vaccination. They will be informed on the importance of cervical cancer screening for their mothers as another way of preventing cervical cancer. Nurses in screening clinics will be trained in HPV vaccination and the vaccine will be available in the screening clinics around the country.

In line with the mission statement of providing equitable access to cost effective, quality health services as close to the family as possible, the Ministry of Health procured mobile hospitals (vans). Each province has one mobile hospital/ van which has a scheduled plan. The mobile hospital offers Outpatient Department (OPD) services including reproductive health services (Family Planning, cervical cancer screening, child health services (growth monitoring, vaccination, nutrition demonstration), theatre services, laboratory and pharmacy. The mobile hospitals have a fixed regular schedule to different districts with poor access. They visit one location of a district on average one in two years. Use of mobile vans in HPV is possible but very difficult with a fixed schedule of the child health week window. It will also be difficult to administer the second dose to the same population at the opportune time as only one van exists per province. This will bring challenges in effective overage for HPV vaccination. It will require very high collaboration with the mobile health unit in the ministry and might lead to incurring more costs. That notwithstanding, information about the significance of HPV vaccination will be shared. IEC material containing HPV key messages will be shared during each session of the mobile hospital visits.

Has the country developed a strategy for establishing or strengthening a national comprehensive approach to cervical cancer prevention and control? **Yes**

If Yes, please attach and refer to section 10. Attachments. (Document N°**15,16**)

If No, are there plans for the country to develop such a roadmap or strategy in the future? Please describe- when, who will be leading the development of the plan, and which agencies will be involved.

N/A

6.1.2 Description of province/ region profile

Countries are required to attach a description of the profile for each province/ region, using the template provided by Gavi

Please attach the relevant documents "HPV Region/ Province profile " template provided by Gavi and attach as a mandatory document in the Attachment section. Document number **16**)

6.1.3 Delivery strategies for HPV vaccine

Please provide information on each of the following **delivery strategies** that will be:

- Using outreach to schools as a location for vaccinations
- Using health facilities as a location for vaccinations
- Using community outreach as locations for vaccinations
- Campaign

Using schools as a location for vaccinations

Please describe why this delivery strategy has been chosen for the selection region/ district(s). Will this delivery strategy be used for every year? If so, please describe how this strategy will be financed in future years.

Child health Week (CHWk) has been in existence since 1999. It was initiated as a platform of providing intensified routine immunisation in an effort to maintain the polio free status that the country had attained. Over time additional child survival interventions such as deworming were added. It is conducted every six months in June (the first round) and in November (the second round).

Based on almost two decades of implementation, CHWk has become a household name in Zambia. As such it has been deemed the best platform to support HPV roll-out, as it provides a solid structure onto which the importance of the HPV vaccine can be built. Funding is made available at the District level for CHWk activities in addition given its importance staff are encouraged to be available during that week to support

implementation of key activities. Line Ministries have in the past also supported the MoH with transport services during CHWk, this has again been a key consideration in utilising this platform for the roll-out of HPV.

Partners, CSOs and Community Based Organisations have also actively supported CHWk in Zambia. It has been an important platform for social mobilisation and community engagement on public health related interventions.

Zambia will deliver HPV vaccination through schools, health facilities and designated outreach posts; both private and public.

In the first year of implementation, all eligible girls between age 9-14 years will be identified from the various classes and will be vaccinated in a schools based approach. Health facilities and designated health posts will also offer HPV vaccination for girls who present at these locations. The scheduled vaccinations will be conducted once a year utlising the Child Health Week platform. The eligible girls will receive their second dose in year two of implementation. Nurses from nearest health facilities will be deployed to the schools to administer the vaccines. It is estimated that 3 vaccinators will be deployed per school visit, and one vaccinator deployed per outreach. Further details can be found in the Consensus Meeting Notes.

In the second year and subsequent years of implementation, girls who have received their first dose in year one will be given their second dose. Simultaneously, the routine cohort (9 year olds) will be given their first dose during the same round.

This will ensure extensive coverage of the service countrywide and provide the service to as many Zambians as possible without competition with other services. Private facilities/practitioners will also receive messages, orientations and vaccines to offer at their facilities as they do for other vaccines, while submitting information to the respective district health offices. These, like all other vaccines the private institutions get from get facilities, will be free except that the accompanying services at these facilities such as labour, the ambience, et cetera are charged differently.

The Child Health Week is funded by the government through the health centre outreach services budget line in the Yellow Book. The Yellow Book is the Budget Master copy for Ministry of Finance on all government sectors. The outreach budget covers transport and some allowances. Districts do plan for it annually and funds are received as part of the month reccurent departmental charges to each district from the ministry of finance. These funds however are not adequate and will need supplementation with or without HPV. Partners do complement government resources through provision financial resources or resources related to a particular intervention for child health week.

Vaccination will be available at the health facility for initial period of two weeks with possibility of extension for another two weeks in case of poor uptake for that round. The time will need to be limited for purposes of effective monitoring and understanding the coverage for a particular round of vaccination. Remainder of the vaccines will not be withdrawn from the facilities. They will be clearly labeled for use in the next round. During the period of no HPV vaccination, stock taking will be an important excersie that will inform forecasting.

Please specify whether girls will be vaccinated by selection of a specific age or a specific school grade

Girls will be vaccinated by **age specific strategy**

Please complete table 6.1.3a vaccination by specific age or table 6.1.3b by specific school grade, depending on above choice

Table 6.1.3 a: Vaccination by specific age

Routine Cohort	
Specific age chosen	9 years
Target population of girls in chosen age	246859
Girls of chosen age enrolled in schools	246859

Aditional multi-age cohort	
Specific age-range chosen	Start 10 years End 14 years
Target population of girls in chosen age	1278121
Girls of chosen age range enrolled in schools	1278121

Table 6.1.3 b: Vaccination by specific school grade

Routine Cohort		
School grade	**Average age of girls on school grade**	**Number of girls in grade**
	9 years	

Aditional multi-age cohort		
School grade	**Average age of girls on school grade**	**Average age of girls on school grade**
	9 years	

If you are vaccinating by grade, provide information on how you will ensure girls under 9 or over 14-years will not be vaccinated

N/A

Please describe when vaccinations will be scheduled (school year, holidays, examinations), where vaccinations will be administered, who will do vaccinations, how will the vaccine logistics be assured when using schools as a location for vaccination.

Details of the delivery strateg(ies) is well described in the (attached) report/minutes of the HPV national rollout consensus meeting held in Lusaka on 3rd August 2017. Below is the summary.

Vaccinations will be scheduled during the school calendar (far from examination time) and will be conducted in schools, health facilities and designated outreach posts. Vaccinations will be administered by trained health personnel. The forecasting of vaccines per school, facility and outreach post will be undertaken during microplanning and vaccinators will collect the determined allocation using vaccine carriers.

In the first year of implementation, all eligible girls between age 9-14 years will be identified from the various classes and will be vaccinated in a schools based approach. Health facilities and designated health posts will also offer HPV vaccination for girls who present at these locations. The scheduled vaccinations will be conducted once a year utlising the Child Health Week platform. The eligible girls will receive their second dose in year two of implementation. Nurses from nearest health facilities will be deployed to the schools to administer the vaccines. It is estimated that 3 vaccinators will be deployed per school visit, and one vaccinator deployed per outreach. Further details can be found in the Consensus Meeting Notes.

In the second year and subsequent years of implementation, girls who have received their first dose in year one will be given their second dose. Simultaneously, the routine cohort (9 year olds) will be given their first dose during the same round.

Vaccine logistics will be assured through integrated vaccine forecasting, procurement through the UNICEF Supply Division and shipment to the country. From the National Vaccine Store, allocation of vaccines to the subnational levels will be based on vaccine returns, and distributed through the push (to provincial level) and pull (from provincial though the district to health facilities). Monitoring and tracking of stock transactions will be conducted through the web-based vaccine stock management tool (Logistimo). Routine physical stock checks will be conducted at all levels.

Health facilities and outreach posts will remain open for vaccinating girls who were absent from school on the scheduled day(s) of HPV vaccination, for up to two weeks after the end of Child Health Week. Absent girls will

be referred from their respective schools to the nearest health facility. Through social mobilisation activities communities will receive necessary information to support access for out of school girls.

Each girl vaccinated will be provided with a vaccination card, which will have provision for recording TT vaccination, the cards need to be presented at subsequent vaccination one year later. Tallying will be done in the appropriate tally sheets which will in turn be summarised and aggregated at the district, provincial and national level. All vaccinated girls will be recorded in HPV registers which will be updated for use at the subsequent round to ensure missed girls are tracked and there are appropriate interventions for follow up.

Will additional personnel need to be hired in order to vaccinate the introduction year multi-age cohorts? If so, how will this be financed?

There will be no additional personnel need for the multi-age cohort however we may need to consider a redistribution of staff from facilities, districts health offices and district hospitals.

Please describe the strategy to capture girls who may miss the initial vaccination session or any of the remaining doses

The girls who may miss the initial vaccination session or any of the remaining doses would be able to visit a health facility or designated outreach post, the vaccine will be available for two weeks following the end of CHWk in the health facilities are outreach posts. Absent girls will be referred from their respective schools to the nearest health facility and communities while social mobilisation activities will continue to ensure that the out of school girls get the same information.

A detailed explanation is well reflected in the minutes/report as agreed during the HPV stakeholders' consensus meeting held in Lusaka on 3rd August 2017 (minutes attached).

Some girls eligible may even miss the whole three-week period but on prescription, such may still receive otherwise for programmatic reasons, HPV vaccinations would not be given throughout the year unless at review such a decision would be made.

Will the vaccination strategy need to be adapted for at private or religious schools? If so, please elaborate.

The vaccination strategy may be adapted for private or religious schools. During microplanning, the health facility and district health offices will discuss with the management of such institutions so that a known time would be allocated as these tend to differ in many ways from the public schools. The dates when these schools and other private communities would be agreed between the respective health management team and the management of such an institution.

Using health facilities as a location for vaccination

Please describe why this approach has been chosen for the selection region/ district(s). Will this approach be used every year?

Health facilities will be used during CHWK-1; the two-week period post CHWk-1 and for vaccination by prescription. Health Facility based delivery is the most convenient and cost effective way of delivering the vaccine. However, should pockets of unvaccinated girls be identified, locations outside the health facilities would be considered for use to access missed girls.

Will additional personnel need to be hired in order to vaccinate the introduction year multi-age cohorts? If so, how will this be financed?

In the majority of the country, there will be no additional personnel needed for the MAC but instead staff would be redistributed from facilities of higher concentration to those with limited qualified staff.

Please provide details of demand generation activities to encourage girls to come to the health facility?

The design of the communications plan will utilise a 3-pronged approach that includes social mobilisation, advocacy and behavior change communications (BCC). A more detailed description has been provided in the minutes of the HPV stakeholders' consensus meeting held in Lusaka on 3rd August 2017 (minutes

attached).The following demand generation activities will be conducted:

Advocacy

- Development of Press kits: The media will be trained to sensitise the community on the importance the HPV vaccine.
- The use of champions such as medical doctors with their daughter will be utilised. Others will include cervical cancer survivors.
- Strategic meetings with various CSOs/stakeholders such as Parents Teachers Association, Traditional Leader House of Chiefs, Inter-Ministerial meetings, Faith Based Organisation, Interest groups, etc.

Social Mobilisation

- Community meetings with traditional leaders
- Meetings with young people
- Meetings with schools (teachers & girls, school clubs)
- Social media
- Church groupings e.g. girls brigade
- YWCA

Behaviour Change Communication

This will inform girls and caretakers about HPV Vaccination and its benefits and will encourage girls to come to the health facility. A KAP study will be conducted.

IEC

Information, Education and Communication will also be provided in the form of:

- Posters
- Leaflets
- Brochures
- Press Releases

Media adverts and programmes

Please provide details on how the country plans to link with schools. Some examples of how schools can be leveraged to increase HPV vaccine uptake include facilitating sensitization and mobilization of parents/communities, identification/validation of the target population (i.e. use of school enrolment lists), and assisting with vaccination call/recall mechanisms. If the country does not plan to link with schools please provide a justification for this decision (i.e. low school enrolment).

The Ministry of Education agreed during the HPV stakeholders' consensus (and before) to be actively involved in coordinating the pre-, intra- and post-HPV vaccination activities. They will facilitate sensitisation and mobilisation of parents/communities through the Parent Teacher Association. They will also be key in the identification/validation of the target population by use of school registers.

School registers will not only serve as primary sources of verifying numbers during both microplanning and implementation but also means of verifying the age of the eligible school going girls as well. Post implementation, school records such as the registers would be key in verifying the numbers of girls who would have been missed per school so that where possible in the two week period, appropriate follow up actions can be undertaken.

Describe if/how this delivery strategy will increase coverage, particularly amongst "hard to reach"/ vulnerable girls.

The health centre based strategy will be used to vaccinate the girls during the CHWk-1 as well as provide an opportunity to the girls who would have missed opportunities to be captured in schools by the vaccination teams. The existing community structures that work with adolescents such as the Neighbourhood Health Committees (NHCs) would be useful in tracing the out of school girls who too would be reached at the health facilities and designated outreach points. If geographical and other sociocultural barriers exist to an identified group of missed girls, health centre staff would have to visit such areas for HPV vaccinations on appointment. Where access through facility is not proving successful further intervention will be sought like more outreach

visits.

Describe what follow-up mechanism will be used to ensure girls receive their second dose.

The HPV Register will be the key tool to track and monitor the girls that need to receive the second dose. Follow-up meetings will be conducted after the end of CHWk and the additional two-week period where vaccinations are offered at facilities. These meetings will allow the registers to be fully updated and reconciled after the year one activities. In the second year the registers will be utilised to track girls for the second dose and missing girls will be identified.

The MoE and the teachers will be actively engaged throughout the process of both vaccine delivery and also follow-up action. Lists of missing girls will be shared with teachers to ascertain whether they have transferred from the school or they were just absent on the day of vaccination. Teachers will also play a role in referring absent girls to the nearest facility.

Social mobilisation will be an on-going activity during preparation, vaccine roll-out and in the follow-up period. Community sensitisation and awareness raising will be critical to the successful roll-out of the vaccine. Social Mobilisation will focus on intensive messaging and community engagement activities highlighting the benefits of HPV vaccine, safety, and its availability.

Using community venues as locations for vaccinations

Please describe why this approach has been chosen for the selection region/ district(s).

The country has over 8,000 designated outreach posts for routine immunisation. These are well known unofficial spots where HPV vaccination will be offered particularly to those who may not find themselves at school or at the health facilities for various reasons.

No community venues have been deliberately planned outside those that are routinely used as designated vaccination points. New community venues as suggested by community members through their leaders would be considered also bearing in mind the potential population to be reached otherwise schools and health facilities would remain the primary points of vaccination

Will this approach be used for every year? If so, please describe how this strategy will be financed in future years.

Yes.

This is already part of the routine immunisation system of structures as well as the child health week.

Please describe how your community health care workers/ volunteers will be involved with this strategy

The community health workers would have roles that extend from pre-, intra- and post vaccination period activities. They will also be social mobilisation agents. During the vaccinations, they would support crowd control and oversight on safety and waste boxes and waste movement to the point of storage before disposal by the environmental health officers in collaboration with the Zambia Environment Management Agency.

Will additional personnel need to be hired in order to vaccinate the introduction year multi-age cohorts? If so, how will this be financed?

Some rural facilities with limited or no qualified staff will require staff during the CHWk-1. Most districts have enough to redistribute the existing staff. Where the district may not have enough staff, nearby districts would be able to provide the required staff.

Microplanning would inform this to the best detail enough to determine how many health workers would be require in each area and therefore how many more to add to the already existing would be required.

Given this, no facility would be expected to hire staff but a number of rural facilities will receive additional staff

from nearby districts.

Where in the community will the girls be vaccinated? E.g. schools, fixed outreach sites, streets, parks, malls, markets

Health facilities, schools and designated outreach posts.

What interventions will be established to increase community based acceptance and increase community support?

Early and timely engagement of the communities at several fronts would be the mainstay but direct contact through the community based volunteer would be expected to strengthen that task.

Community engagement activities were described above.

Please provide details of demand generation activities e.g. awareness building and information dissemination via community or education sector and/or mass media, including through youth clubs and street theatre

Communication, advocacy and social mobilisation activities have been discussed in detail in the HPV national rollout consensus meeting report as well as in this proposal. The HPV introduction plan further explains how this will be done.

The design of the communications plan will utilise a 3-pronged approach that includes social mobilisation, advocacy and behavior change communications (BCC). A more detailed description has been provided in the minutes of the HPV stakeholders' consensus meeting held in Lusaka on 3rd August 2017 (minutes attached).The following demand generation activities will be conducted:

Advocacy

- Development of Press kits: The media will be trained to sensitise the community on the importance the HPV vaccine.
- The use of champions such as medical doctors with their daughter will be utilised. Others will include cervical cancer survivors.
- Strategic meetings with various CSOs/stakeholders such as Parents Teachers Association, Traditional Leader House of Chiefs, Inter-Ministerial meetings, Faith Based Organisation, Interest groups, etc.

Social Mobilisation

- Community meetings with traditional leaders
- Meetings with young people
- Meetings with schools (teachers & girls, school clubs)
- Social media
- Church groupings e.g. girls brigade
- YWCA

Behaviour Change Communication

This will inform girls and caretakers about HPV Vaccination and its benefits and will encourage girls to come to the health facility. A KAP study will be conducted.

IEC

Information, Education and Communication will also be provided in the form of:

- Posters
- Leaflets
- Brochures
- Press Releases

Media adverts and programmes

Describe if/how this delivery strategy will increase coverage, particularly amongst “hard to reach”/ vulnerable girls?

By using the age based as opposed to the grade based, the uniformity of the messages would ensure girls are prompted to come for HPV vaccination because they are eligible by age and not because the activity would be happening at a school where they would not be attending school. Uniformity of the message would also imply the moderately educated community volunteers would have one message to carry to the community.

This strategy also provides designated outreach points as closest points for the out-of-school girls to receive the service within their communities as most of these pre-determined outreach points follow clusters of settlements.

Describe what follow-up mechanism will be used to ensure girls receive their second dose.

The HPV Register will be the key tool to track and monitor the girls that need to receive the second dose. Follow-up meetings will be conducted after the end of CHWk and the additional two-week period where vaccinations are offered at facilities. These meetings will allow the registers to be fully updated and reconciled after the year one activities. In the second year the registers will be utilised to track girls for the second dose and missing girls will be identified.

The MoE and the teachers will be actively engaged throughout the process of both vaccine delivery and also follow-up action. Lists of missing girls will be shared with teachers to ascertain whether they have transferred from the school or they were just absent on the day of vaccination. Teachers will also play a role in referring absent girls to the nearest facility.

Social mobilisation will be an on-going activity during preparation, vaccine roll-out and in the follow-up period. Community sensitisation and awareness raising will be critical to the successful roll-out of the vaccine. Social Mobilisation will focus on intensive messaging and community engagement activities highlighting the benefits of HPV vaccine, safety, and its availability.

Using campaigns to deliver HPV vaccines

Please describe why this approach has been chosen for the selection region/ district(s).

The beginning of the national rollout of HPV would have to capture a multi-age cohort and the best way to handle such would be through a campaign style. Zambia recently introduced rubella vaccine in routine immunisation through a very successful one off campaign.

Given that HPV vaccination would not be a one off activity, the country had to find an appropriate platform that would not be entirely new but again robust enough to sustain the programme annually until such a time, if necessary, when HPV vaccination would be demanded as measles vaccine is even with minimum social mobilsation activities and would therefore be necessary that it be delivered like other routine vaccine.

What type of campaign will be used for HPV vaccine delivery e.g. Child Health Days/ Weeks, Measles Rubella or tetanus containing vaccines, supplementary immunisation activities, health education activities? If the campaign is planned to be standalone, please explain why?

HPV Vaccination will be integrated with the Routine Child Health Week particularly the first round with takes place in June.

How will this campaign impact routine service delivery? For example, will health facility personnel be used for this campaign?

The campaign mode will not impact routine service delivery in the negative way particularly as the delivery will be building on the established platform of CHWk.

Will additional personnel need to be hired in order to vaccinate the introduction year multi-age cohorts? If so, how will this be financed?

Experiences from the CHWk and the 2016 MR Campaign indicate that urban facilities will not require additional staff, instead these would be able have enough staff to lend to rural facilities who are short on health care workers more. The Ministry of Health can call upon the services of the retired health workers. These have increasingly not been required with recent expansions of the Zambian health work force.

What location(s) will be used to deliver vaccinations during the campaign?

Health facilities

Schools

Designated outreach points

Will this delivery strategy be used for every year? If so, please describe how this strategy will be financed in future years.

The initial introduction will be financed through the Gavi grant.

As the vaccine will be delivered through one of the CHWk activities, most of the costs will be absorbed through the already existing establishment and financing which mainly is through government grants to the districts with additional support from many partners in the country.

Describe if/how this delivery strategy will increase coverage, particularly amongst “hard to reach”/ vulnerable girls?

Involvement of the community structures to look for and sensitise the out of school and/or vulnerable girls will be the biggest tool. Experiences from the demonstration showed us that direct engagement with the community, however far or otherwise hard to reach, supplemented by generic means like radio announcements and radio station messages

6.1.4 Social Mobilisation

Please complete the table below to provide details on the types of information and/ or materials that will be used/ disseminated, to which audience, by which mechanism and the frequency of each.

Types of information or materials	**Audience receiving material**	**Method of delivery**	**Who delivers**	**Frequency & Timing**
e.g., leaflet, poster, banner, handbook, radio announcement, etc.	**e.g., girls, parents, teachers, health workers, district officials, community groups, etc.**	**e.g., parent meetings, radio, info session at school, house visit, etc.**	**e.g., teachers, health workers, district official, etc.**	**e.g., daily, weekly, twice before programme starts; day of vaccination, two weeks before programme begins, etc.**
Brochures, Leaflets Banners Pop-Banners HPV field guides Radio/TV announcement Poster HPV Power point presentation Bulletins to Church/Other	girls, parents/ caretakers, teachers, health workers, district officials, community groups, CSO, Media, Interest groups Health workers Mass media General public CSO/Stakeholders General public Girls, Parents/ Caretakers General public	Door to door, School meetings, community meetings, Parents Teachers Association meetings (PTAs), District Development Coordinating Committee meetings(DDCC), District launch Line Ministries, Health Facilities, Selected Public Places During H/W orientations	Community volunteers, teachers, PTAs, Health Workers National EPI Officers National, Provincial and District Health Officers EPI facillitators Journalists -Minister of Health, Minister of Education Health workers and	Most of these would be done from at least a month before the CHWk-1 and frequencies depend on the nature of the activity, for instance, launches can only be done once at each level.

Places of Worship School Circulars Public Address Systems		Public and private Radio/TV -District launch Display in health facilities, schools and other public places -During meetings -Media advocacy meeting Announcement Girls delivery information to parents/cartakers	community volunteers National EPI team Religious Leader Teachers Districts Private health practitioners are involved in the current Child Health Week. Parents unable to take their children to the government health facilities or already attending private health facilities access the available Child Health Week interventions at the private health facilities. Government supplies these facilities with the necessary commodities for the Child Health Week.	

Please describe a crisis communication plan to response to rumors and misconceptions to HPV vaccination.

Proper communication is important in managing rumors and misconceptions about the HPV vaccination**.** According to the EPI communication strategy, proper channels and focal persons are assigned to speak to the media in case of rumors and misconceptions.

The Social mobilisation committee will be responsible for supporting the Ministry of Health Spokesperson to deliver prepared communication messages, manage the media conferences and press releases. Guidelines will be prepared on how to communicate during and after rumors and misconceptions. Past experience has shown that if any media reports about introduction of new vaccines and potential side effects, many media channels pick it up and disseminate the news through print media or radio stations, the consequence can be disastrous and parents will not take their children for vaccination, which will affect coverage.

In case of any AEFI or any reported case of AEFI, even if it may be false reporting, the IEC/Social mobilisation communication committee will meet immediately. To avoid this situation, certain preparedness will be done beforehand:

The communication group for AEFI at national level includes:

- MoH-Spokesperson
- EPI focal person
- Members of social mobilisation committee
- Pharmacovigilance (AEFI) committee

A letter will be prepared to be sent to the Provincial Medical Officers and District Medical Officers and health facilities to report possible AEFI. In case of an AEFI, the MoH Spokesperson will give a statement.

The crisis communication plan for HPV is part of the overall HPV communication plan as stated in the HPV proposal. The aim is to prevent an HPV crisis before it starts. The specific objectives are to:

- understand and manage the cause of the crisis so there are no further risks to people’s health, the immunisation programme or the health system,
- maintain and restore trust and confidence in immunisation,

This plan will be implemented by a committee of the following members:

1. Director Epidemiology & Disease Control
2. Deputy Director Community Nursing
3. EPI Manager
4. Deputy Director Health Promotion
5. WHO focal Person

6. UNICEF focal person
7. NITAG Chairperson
8. ICC Chairperson
9. Public Relations Officer
10. Health Promotion Manager

The Committee's Terms of Reference are:

- Analyse the situation if a crisis occurs
- Investigate the crisis if required, ensure it occurs rapidly and report the results.
- Communicate quickly, transparently, and regularly.
- Tell people what actions they should take.
- Listen to public concerns and respond to them compassionately.
- Announce when the crisis is over.
- Analyse the impact on the programme, and make adjustments in the future.

This committee will meet to plan before, monitor progress during the crisis and review and map way forward after a crisis.

6.1.5 Adolescent health integration

Irrespective of the strategies, provide a description of existing health services and/or health education currently being provided to young adolescents (both girls and/or boys) within the 9-14 year old age group and indicate and potential synergy by integrating with HPV vaccination:

a. For health services (this can include: what health services are provided, to which age/sex group, whether it's mandatory or voluntary, regularly or ad-hoc, in school or out of school, who provides these (government, NGOs), how often, what is the uptake in the community, how is it perceived by the community.)

Currently Zambia does not have a platform that captures young adolescents, or the 9 to14 age group. However, there are services that are offered at the health facilities targeting the youth in general through the Youth Friendly corners and donor-funded adolescent's specific safe spaces. Services provided include family planning, counseling, sexual and reproductive health including STIs, HIV prevention, gender-based violence, early marriages, abortion. The Ministry of Health with support from UNFPA has established 7 Centres of Excellence in 3 Provinces; these are health facilities that serve as model for Youth Friendly services.

The Ministry of Health with the Ministry of Education are partnering on an initiative to introduce schools to the Youth Friendly corners in health facilities in the area. The goal is to have a focal point person in each public school (both primary and secondary) who will refer pupils to health centres when a problem that is beyond the school counseling unit.

Another MoH initiative is training out of school adolescents within communities to be peer-educators and provide education on health-related issues through drama and interpersonal interactions in communities and schools.

Every public school (both primary and secondary) has a school health programme, providing services such as personal hygiene, sanitary hygiene and disposal, washing hands after using the toilet, feeding programme for disadvantaged children, eyes, throat, ear, nose and dental checks, etc. This programme is not yet operating an optimal level and there have been concerns with consistency and quality of the interventions. The roll-out of the HPV vaccine through a schools based approach provide a critical platform to support the strengthening of the schools health programme in Zambia. The HPV vaccine provides an opportunity for improved education sexual reproductive health, on hygiene and WASH facilities; more support in schools for children with disabilities to reduce stigma and enhance participation; and more support in schools for children living with HIV, sickle cell disease and other chronic conditions.

Inadequate funding has been identified as the biggest barrier to the successful roll-out of a comprehensive school health programme focused on adolescents. There will be on-going discussions with key partners in the country to seek supplemental support to reinvigorate the school health programme. The increase in teenage pregnancies in Zambia highlights the critical need for an improved sexual health programme targeting adolescents and the HPV vaccine roll-out provides an entry to strengthen this platform.

b. For health education (this can include: the topic, whether it is national, sub-national, in school or out of

school, who provides the education, how often, is it in the school curriculum, are there NGOs providing these? How is it perceived by the community? Has there been an evaluation and if so, how was it evaluated and what were the findings?)

Zambia has included health education in the school curriculum beginning in grade 5, which is examinable. Subjects include sexual and reproductive health, puberty, pregnancy, etc.

For girls in the communities, there are several non-governmental, community and faith-based organisations that conduct health educations sessions with adolescents. For instance, Tikambe (“Let’s talk”) radio programme airing on ZNBC on Sunday afternoon talks about adolescent sexual reproductive health issues and is very popular amongst this age group. Another initiative for in and out of school youth, implemented by Family Health Trust in 5 Provinces is called Dance for Life, it builds life skills such as self-esteem, leadership, and assertiveness. With funding from the Global Fund to Fight malaria, TB and HIV, CHAZ is implementing countrywide an adolescent prevention programme aimed at building capacity on livehood, financial literacy, HIV prevention and testing, etc. This programme started in 2015 and is currently training adolescents, peer-leaders, and health workers who will be serving as community linkages between the health facilities and the youth for programme implementation.

A UNICEF -supported adolescent programme called Ureport, running on a mobile application at no charge to the user, educates on reproductive health rights. Between 2012 and 2016, this application has reached 64,313 males and 40,646 females. Of those, 533 are between 10 and 14 years of age, and 16,903 are between 15 and 19 years. It is more widespread in predominantly-urban provinces.

The country has health education targeting 9 - 13 years providing guidance and counselling life skills. Sexuality and HIV and AIDS education is offered from grade 4 (i.e 9 years onwards. School health programs are mandatory, and are provided regularly at both primary and secondary levels. The content is examinable in the final primary examinations (grade seven examinations). The content is also examinable in science subjects in secondary school examinations (GCE ordinary level examination). However the program has not been formally evaluated.

To complement the school health education Non-Governmental Organisations like CAMFED, CAPENUM TRUST and World Vision, provide health education. CAMFED has Mother Support Groups (MSG) that offer health education and give supplementary feeding to the girl children in the communities and also provide safety nets in the form of sanitary pads. CAPENUM TRUST and World Vision supply food packs (honey, cooking oil, beans and mealie-meal) and also empower the girl children through the funding of projects meant to improve their nutritional status.

A school healthy policy has been developed to provide the framework for implementation of a comprehensive health program with support from UNICEF, UNESCO and others. From the situation analysis conducted, the areas being considered are menstrual hygiene/puberty education, nutrition, oral health, mental health, and age-appropriate sexuality messages. Agreed health topics are included in school curriculum on health, taught by teachers and school nurses where available or by clinic staff if there no school nurse.

c. For improving adolescent immunization platform (this can include integration with: other vaccines provided to adolescents (e.g. measles-rubella, tetanus containing vaccines or Dengue), broader health education services)

The Measles Rubella Supplemental Immunisation Activity (SIA) in 2016 was used as a platform to improving adolescent Immunisation as this is currently the only Vaccination which includes the age group, 9 – 14 years. The HPV platform is expected

6.1.6 CSO engagement

Please describe how and which CSOs will be included in the delivery of HPV vaccines e.g. demand generation activities, increase coverage of "hard to reach" girls.

Zambia has a number of Civil Society Organisations that can be involved in demand generation and increased coverage of “hard to reach girls” as was evidenced during the HPV demonstration. One such platform has been the Zambia Civil Society Immunisation Platform (ZCSIP) which aims to increase demand for Immunisation services and advocacv for Immunisation and child health. Churches Health Association of

Zambia (CHAZ), the lead CSO of the ZCSIP will support community mobilisation to increase uptake of HPV. During the HPV Demonstration particularly the third dose in 2016, their interventions contributed to reaching 371,881 people (61% females and 39% males) in messaging and overall the demonstration reached 72% of the girls who were vaccinated in Lusaka district. This achievement provides critical evidence that combined efforts between government and civil society lead to improved health service uptake. ZCSIP also trained 19 civil society organisations in good governance, resource mobilisation, and communication for Immunisation. Their interventions will take place in sixteen districts.

Other CSOs beyond the ZCSIP platform will be engaged at all levels to create demand generating activities and increase coverage of “hard to reach” girls.

6.1.7 Key stakeholder and technical partner roles and responsibilities

Please complete the Gavi provided template, to define the respective roles and responsibilities of all in-country stakeholders and technical partners.

Please attach the relevant documents and refer to section 10. Attachments. (Document N°**17**)

6.2. Requested vaccine (HPV quadrivalent, 1 dose(s) per vial, LIQUID)

As reported in the cMYP, the country plans to introduce HPV quadrivalent, using HPV quadrivalent, 1 dose(s) per vial, LIQUID.

When is the country planning to introduce this vaccine? **June 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.

The country has recently completed an extensive cold chain scale-up bringing in new cold rooms and vaccine refrigerators across the entire country. Hence cold chain supplemental costs have not been included in the budget. Based on the shipment volume received at provinces the average capacity being utilised at the provincial level in 23%. For the district level, on average there is more than sufficient capacity for HPV vaccine, even in the first years of the multiage cohort, as the average capacity being utilised is approximately 39%. For any districts operating above their capacity, shipment schedules will be adjusted to accommodate the additional vaccine volume required. For example in Lusaka District will pick up twice in a month verses one in a month if necessary. The current vaccine shipment schedule to the provinces is quarterly, but to handle the increased volume to accommodate the HPV vaccine, the central level will increase delivery frequency to the Provinces as required. This will create the capacity for the central level to hold stock pending distribution to the provinces and districts. In addition, there are plans to procure two units of 40 m3 walk-in cold room for the national level, efforts are underway to fast track the procurement of these units ahead of the introduction of the HPV vaccines. The country also has an ongoing cold chain expansion strategy at lower levels to accommodate new vaccines and to address the increased number of health facilities and health posts being constructed.

The country conducted an Effective Vaccine Manangement Assessment (EVMA) in 2011 where cold chain capacity gaps were noted especially with the planned 2012 introduction of new vaccine in the country.. The asssement highlighted a number of gaps that needed immediate attention and these included:

- Functional cold chain equipment which were over 10 years old and required replacement;
- Non- functioning or obsolete equipment that required replacement;
- New equipment required because of population growth and the opening of new health facilities; and,
- Additional capacity required due to the introduction of new vaccines.

This culminated into the development of a country vaccine cold chain expansion strategy, which was implemented and completed in 2016 through the Government and support from partners such as WHO, UNICEF, JICA, World Bank, CIDRZ and CIDA. Trainings in installation, repair and maintenance of cold chain

equipment was conducted at provincial and district levels to ensure consistent cold chain maintenance and repairs.

At National level 40m3 x 5 cold rooms were installed to expand vaccine storage capacity. At provincial level, all provinces have one cold room each installed with varying capacities ranging from 30-40m3. District and health facility levels cold chain expansion has also been conducted across the country with 1680 vaccine refrigerators installed. About 660 cold boxes and vaccine carriers were procured and distributed across the country. At service delivery points, mainly three types of refrigerators for vaccine storage exist– gas/electric, electric and solar direct drive. A few kerosene and gas fridges exist but are on the verge of being decommissioned.

To respond to some of the challenges the country experienced with cold chain, the ministry is implementing a replacement plan for all kerosene and gas refrigerators and shifting to the solar direct drive, which have larger capacity with less maintenance costs..

With these efforts made towards expanding and strengthening cold chain capacity in the country, the capacity is sufficient for the introduction of the HPV vaccine. The ministry through the fixed Government budget and with support from partners will continue to procure of cold chain to cater for anticipated or newly opened health facilities and to replace broken down and obsolete equipment.

The vaccine supply chain of the country is made up of four levels which are the Central, provincial, district and service delivery. All vaccines in the immunisation programme are imported and their entry point into the country is the Central Vaccine Stores (CVS) located at the Child Health Unit (CHU), the primary store. The CVS distributes vaccines to Provincial Vaccine Stores quarterly. Districts collect vaccines from the Provinces monthly and in turn districts to service delivery facilities collect from district stores monthly as well. Zambia therefore has a combined push and pull system of vaccine supply.

Vaccine and dry supplies delivery between levels is mainly provided through government funding to all the four levels with partner support coming in on a few occasions especially between district to health facility level. The CVS delivers vaccines to provinces, provinces to districts and districts to service delivery.

6.2.1. Vaccine Prices

Vaccine	Presentation	2017	2018	2019	2020	2021	2022
HPV quadrivalent, 1 dose(s) per vial, LIQUID	1	4.500	4.500	4.500	4.500	4.500	4.500

6.2.2. Co-financing information

The co-financing requirement applies to vaccines for the **routine cohort** (i.e. the cohort that will be routinely vaccinated on an annual basis for the routine immunisation programme). However, Gavi will fully finance vaccines for the **additional multi-age cohort** during the introduction year.

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

Country group	Preparatory transition phase

	2018	2019	2020
minimum co-financing per dose	0.68	0.78	0.90
your co-financing per dose (please change if higher)	0.80	0.90	1.30

	2021	2022
minimum co-financing per dose	1.04	1.19
your co-financing per dose (please change if higher)	1.50	2.00

6.2.2.1.Specifications of vaccinations with new vaccine for routine cohort

	Source		2018	2019	2020	2021
Number of girls in routine cohort to be vaccinated with the first dose	Table 5.2	#	234,516	241,317	248,118	254,919
Number of girls in routine cohort to	Table 5.2	#	222,790	229,251	235,712	242,173

be vaccinated with the second dose						
Immunisation coverage with the second dose	Table 5.2	%	90%	90%	90%	90%
Country co-financing per dose	Table 6.2.2	$	0.8	0.9	1.3	1.5
Number of girls in the additional multi-age cohort to be vaccinated with the first dose	Table 5.2	#	1,226,997	0	0	0
Number of girls in the additional multi-age cohort to be vaccinated with the second dose	Table 5.2	#	1,150,310	0	0	0
Immunisation coverage with the second dose	Table 5.2	%	90.00%	0	0	0

	Source		**2022**
Number of girls in routine cohort to be vaccinated with the first dose	Table 5.2	#	283,383
Number of girls in routine cohort to be vaccinated with the second dose	Table 5.2	#	268,468
Immunisation coverage with the second dose	Table 5.2	%	90%
Country co-financing per dose	Table 6.2.2	$	2
Number of girls in the additional multi-age cohort to be vaccinated with the first dose	Table 5.2	#	0
Number of girls in the additional multi-age cohort to be vaccinated with the second dose	Table 5.2	#	0
Immunisation coverage with the second dose	Table 5.2	%	0

6.2.2.2.Specifications of vaccinations with new vaccine for additional multi-age cohort

	Source		**2018**	**2019**	**2020**	**2021**
Number of girls in the additional multi-age cohort to be vaccinated with the first dose	Table 5.2	#	1,226,997	0	0	0
Number of girls in the additional multi-age cohort to be vaccinated with the second dose	Table 5.2	#	1,150,310	0	0	0
Immunisation coverage with the second dose	Table 5.2	%	90.00%	0	0	0

	Source		**2022**
Number of girls in the additional multi-age cohort to be vaccinated with the first dose	Table 5.2	#	0
Number of girls in the additional multi-age cohort to be vaccinated with the second dose	Table 5.2	#	0
Immunisation coverage with the second dose	Table 5.2	%	0

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

		2018	2019	2020
Number of vaccine doses	#	79,779	92,362	137,172
Number of AD syringes	#	110,793	102,351	151,976
Number of re-constitution syringes	#	0	0	0
Number of safety boxes	#	1,219	1,127	1,672
Total value to be co-financed by the Country ***[1]***	**$**	480,241	447,841	665,082

[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.

		2021	2022
Number of vaccine doses	#	162,614	240,701
Number of AD syringes	#	180,129	271,668
Number of re-constitution syringes	#	0	0
Number of safety boxes	#	1,982	2,989
Total value to be co-financed by the Country ***[1]***	**$**	788,252	1,187,802

[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.

6.2.3.1 Portion of supply for routine cohort to be procured by Gavi (and cost estimate, US$)

		2018	2019	2020
Number of vaccine doses	#	377,527	378,206	346,658
Number of AD syringes	#	524,291	419,105	384,068
Number of re-constitution syringes	#	0	0	0
Number of safety boxes	#	5,767	4,610	4,225
Total value to be co-financed by Gavi	**$**	2,272,586	1,833,825	1,680,775

		2021	2022
Number of vaccine doses	#	334,478	311,150
Number of AD syringes	#	370,503	351,181
Number of re-constitution syringes	#	0	0
Number of safety boxes	#	4,075	3,863
Total value to be co-financed by Gavi	**$**	1,621,342	1,535,451

6.2.3.2 Portion of supply for additional multi-age cohort to be procured by Gavi (and cost estimate, US$)

		2018	2019	2020
Number of vaccine doses	#	2,496,173	0	0
Number of AD syringes	#	2,745,791	0	0
Number of re-constitution syringes	#	0	0	0
Number of safety boxes	#	30,204	0	0

		2021	2022
Number of vaccine doses	#	0	0
Number of AD syringes	#	0	0
Number of re-constitution syringes	#	0	0
Number of safety boxes	#	0	0

6.2.4 New and Under-Used Vaccine Introduction Grant

Calculation of Vaccine Introduction Grant for the HPV quadrivalent, 1 dose(s) per vial, LIQUID

Year of New Vaccine Introduction	Girls in routine cohort (From Table 5.2)	Share per Girls in routine cohort in US$	Total in US$
2018	246,859	2.40	592,462

The Grant will be based on a maximum award of $2.4 per girl in the routine 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 VIG will be utilised on the following areas of operation:

- Programme management and coordination: The funds will be used towards Technical support during implementation and further for all coordination activities at National, Provincial and District levels.
- Planning and preparations: The funds will be used for Provincial and District as well as health facility micro planning meetings.
- Social mobilisation, IEC and advocacy: The funds will be channelled towards Social mobilisation and IEC for National and District rollout.
- Trainings and meetings: The grant will be utilised for Provincial and District Training of the Trainers by the Central level. Planning and training at district level for health workers and planning and training for community volunteers.
- Document production: The funds will be used for printing of field guides and monitoring tools.
- Human resources management and incentives: The funds will be used for Personnel and fuel costs for HPV implementation, including volunteers to assist in community mobilisation and documentation.
- Cold chain equipment: The funds will be utilised for Cold chain assessment, repairs, spares and equipment (cold boxes, vaccine carriers and fridges).
- Transport for implementation and supervision: The resources will be channelled towards the distribution of HPV vaccines and injection materials from Central level to districts, as well as procurement of fuel for vaccine distribution from Districts to Health Facilities. This will include maintenance of vehicles and maintenance of cold chain equipment
- Epidemiological surveillance, including data management: Central level monitoring of HPV pre-launch assessment; central level monitoring of HPV implementation; provincial level monitoring of HPV implementation, district level monitoring of the HPV implementation; development of HPV data collection tools; revision of DHIS 2 module to include HPV; and training of provincial/district health information officers on HPV tools.
- Waste management: Fuel for incinerators.
- Monitoring and evaluation: Post introduction evaluation and coverage survey.

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 EPI programme is currently taking part in the overall MOH planning cycle, of which the launch will take place in July 2017 and HPV budget will be reflected in the 2018 plan. The government of the republic of Zambia will foot most of the budget that would not be captured under Gavi, the Vaccine Alliance.
- The Interagency Coordinating Committee who must approve this budget and application, will also be used as a platform to advocate and mobilise for any additional resources required for HPV vaccine introduction.
- In addition, the country hopes to get financial support for introduction from partners like WHO, UNICEF, CHAZ, CIDRZ, Catholic Medical Missions Board, World Vision Zambia, Lions Club, World Bank an SIDA. It is also anticipated that the government will fund new vaccine introduction over and above the existing expenditure toward health delivery in the country.

6.2.5.New and Under-Used Operational support

Calculation of Operational Support for the HPV quadrivalent, 1 dose(s) per vial, LIQUID

Year of New Vaccine Introduction	Girls in additional multi-age cohort (From Table 5.2)	Share per Girls in additional multi-age cohort in US$	Total in US$
2018	1,278,122	0.55	702,967

Please describe how the Gavi Operational support will be used to reach the additional multi-age cohorts? How will these funds be used to strengthen routine activities e.g. reinforcing routine outreach activities, additional personnel, additional demand generation activities?

Note: These funds can be used over a longer period than the introduction year in order to strengthen routine immunisation. For example to reinforce routine outreach activities in difficult to access districts.

In the first year, this grant will target ages 9-14 throughout all targeted schools. In subsequent years, the vaccination target will only focus on 9 year olds. This support will be utilised to reach these target populations.

In Zambia, the introduction of new vaccines is used as an opportunity to strengthen routine EPI. For instance, during introduction trainings, we also reinforce skills for routine immunisations. In addition, this is a comprehensive package, meaning all supportive supervision for the introduction of HPV vaccination, will also be used for routine EPI.

Additional demand generation activities will take place during the introduction campaign, these activities will also include traditional vaccines.

HPV Operational funds utilisation:

While VIG funds will mainly target interventions for the routine cohort, in this case 9 year olds, the operational funds will be used to fund activities for the multi age cohort (10-14 year olds). During the catch up phase, in the third year, there will be additional teams that will require to be trained, mobilised for vaccinations services in the schools, outreach posts, additional requirement to distribute vaccines, monitoring activities for the additional teams during the catch-up. In addition activities will include community mobilisation, and printing of additional monitoring tools.

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 ICC will be used as a forum to mobilise additional required resources not covered by Gavi support.

The government of the republic of Zambia will foot most of the budget that would not be captured under Gavi, the Vaccine Alliance. In the attached budget, an amount of $648,339 has been allocated under Government support and $1,251,819 will be funded by partners. Since the HPV national roll budget was prepared at the

end of the national medium term expenditure framework health sector budgeting, the government submitted to parliament an increased a sector budget through the minister of finance, an increase immunisation budget allocation from an annual $4,400,000 to about $6,800,000. This was also for government to take up a number of items in an attached document submitted for the programme to the ministry of finance labelled "Automated Costing - Child Health and Nutrition FINAL" which had amongst many other items to be supported by "other" as can be seen in worksheet "DCosts". This immunisation allocation includes funds for co-financing obligations, procurement of traditional vaccine, procurement of under five cards and cold chain equipment and general programme management. It is expected that the actual breakdown will be clearer once parliament approves the budget. The aforemntioned increases clearly shows that the amounts being allocated to the Government are well within what has been set aside in the budget. It is therefore anticipated that the government will fund new vaccine introduction over and above the existing expenditure toward health delivery in the country.

The country hopes to get financial support for introduction from partners like WHO, UNICEF, CHAZ, CIDRZ, Catholic Medical Missions Board, World Vision Zambia, Lions Club, World Bank, DFID, USAID and SIDA. At the last ICC, tgovernment commitment towards the national HPV roll out was well discussed before the proposal was endorsed and recommendation to follow up with the circulation budget for the mobilisation of resources to bridge the gap passed, as reflected in the attached ICC minutes for Q3 in 2017. Most partners listed above have guided during the post ICC follow up that their contribution towards this lay in government hands as most of them were supporting government with RMNCAHN projects which included significant amounts for which government submits end of year budgets for the donors approval and subsequent implementation the following year. The programme will therefore ensure that the HPV national roll out budget would be well cattered for across all these projects.

CHAZ has had an excellent support demonstrated from the Pink Ribbon Red Ribbon (PRRR) during the HPV demonstration, supporting social mobilisation activities in Lusaka City. It is hoped futher that PRRR and CHAZ would still come on board for the national roll out.

6.2.6.Technical assistance

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

Technical support will be offered from the level of EPI sub-committee and external support. The expertise of the TWG includes Epidemiology, Logistics, external monitoring, laboratory support, social mobilisation and pharmacovigilance.

External support will required for the monitoring vaccine introduction processes and Post Introduction Evaluation as detailed below:

The country requests technical support from WHO with regards to Coordination; planning; logistic support; school health program, operational research; monitoring and evaluation, PIE and coverage survey.

From UNICEF technical assistance is requested for social mobilisation,

Technical support for conducting the costing and exploring cost-sharing options has been secured from US CDC and they will team up with WHO. Help on documentation of best practices, lessons learned advocacy, communication and social mobilisation is expected from UNICEF. Training assistance is needed from WHO and UNICEF. Evaluation support is desired from PATH for the PIE and for a coverage survey

Collaboration was CHAZ during the demonstration was very vital to continued and effective community engagement, the ministry therefore requests and would support CHAZ efforts to extend that support to the national rollout of HPV.

7. NVS Preventive Campaigns

No NVS Prevention Campaign Support this year

8. NVS Follow-up Campaigns

No NVS Follow-up Campaign Support this year

9. Procurement and Management

9.1 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):

Government will conduct quantification and forecasting and while procurement will be done through UNICEF.

All vaccines used in the country are imported and procured through UNICEF Supply Division. Vaccine and supplies estimates are calculated annually at national level with input from technical partners, UNICEF and WHO. Purchase orders and deliveries to the country are made on a quarterly basis. Distribution down the ladder is by pull system, done quarterly at provincial and monthly at district levels. Stock management has is computerized at central, provincial and district levels.

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.

There is no alternative mechanism

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.

Funds will be transferred to the Ministry of Health since it has the capacity to manage after PCA was conducted by GAVI. This will be managed according to guidelines.

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

The Ministry of Health is responsible for co-financing arrangements. Ministry of Health receives funds from the Ministry of Finance. Cost estimates will be obtained from UNICEF for forecasted quantities of vaccines and funds will be released to UNICEF from MoH.

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

The Government of the Republic of Zambia Public Finance Act and related financial regulations, as well as generally accepted accounting principles, will be used to account for the resources which will be received under the grant. While the Zambia Public Procurement Act will apply to all Procurements under the grant.

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

Coverage of the HPV Vaccine will be reported using administrative reporting structures put in place (HMIS). Monitoring of performance will be conducted through data review of administrative reports including number of girls vaccinated, fully vaccinated and drop out rate. Data collecting tools will include: registers, tally sheets. Supervisory visits will be done using standard checklists. Evaluation of the HPV introduction will be done

through Coverage surveys and PIE

The HPV vaccination program will be integrated into the existing immunisation program and monitoring of vaccination coverage will follow the existing routine reporting system. Tally sheets will be used to capture daily vaccinations and reported at the end of each day to the district, province, and national command centres. Tallies will be consolidated at district level at the end of the vaccination round, and entered in the DHIS2. Once in the DHIS2, data is accessible to all levels for analysis and action. Each district/province will have own target populations against which coverage will be calculated.

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

9.2 Procurement and Management for NVS Preventive Campaign(s)

No NVS Prevention Campaign Support this year

9.3 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.

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

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.

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.

9.4 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).

9.5 Procurement and Management for Follow up Campaign(s)

No NVS Follow-up Campaign Support this year

10. 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	MOH Q3 ICC SIGNATURES PART 2..pdf **File desc:** **Date/time :** 07/09/2017 06:32:20 **Size:** 510 KB
2	MoF Signature (or delegated authority) of Proposal	4.1.1	MOF SIGNATURE EXPLANATION.docx **File desc:** **Date/time :** 08/09/2017 09:09:43 **Size:** 32 KB
3	MoE signature (or delegated authority) of HPV Proposal	4.1.1	MOE Q3 ICC Signatures Part 3.pdf **File desc:** **Date/time :** 07/09/2017 06:31:14 **Size:** 1 MB
4	Terms of Reference for the Coordination Forum (ICC/HSCC or equivalent) including all sections outlined in Section 5.2 of the General Application Guidelines (Note: countries applying before May 2017 can submit their existing Terms of Reference)	4.1.2	ToRs for ICC For Zambia.pdf **File desc:** **Date/time :** 07/09/2017 06:33:27 **Size:** 293 KB
5	Minutes of Coordination Forum meeting endorsing Proposal	4.1.3	2017_Q3 ICC Minutes (Unsigned).pdf **File desc:** **Date/time :** 08/09/2017 01:34:02 **Size:** 177 KB
6	Signatures of Coordination Forum members in Proposal	4.1.3	Attendance List for the ICC Q3,_2017.pdf **File desc:** **Date/time :** 08/09/2017 04:31:05 **Size:** 1 MB
7	Minutes of the Coordination Forum meetings from the past 12 months before the proposal	4.1.3	FINAL ICC MINUTES 2017 2ND Q0001.pdf **File desc:** **Date/time :** 07/09/2017 06:38:56 **Size:** 3 MB
8	Role and functioning of the advisory group, description of plans to establish a NITAG	4.2.1	ZITAG SOP.docx **File desc:** **Date/time :** 07/09/2017 06:39:34 **Size:** 145 KB
31	Minutes of NITAG meeting with specific recommendations on the NVS introduction or campaign	4.2	Minutes for the ZITAG Ad hoc Meeting.pdf **File desc:** **Date/time :** 08/09/2017 02:20:04 **Size:** 114 KB
Planning, financing and vaccine management			

9	Comprehensive Multi Year Plan - cMYP	5.1	Zambia cMYP Narrative_2017.03.31.Final.pdf **File desc:** **Date/time :** 07/09/2017 06:41:05 **Size:** 2 MB
10	cMYP Costing tool for financial analysis	5.1	Zambia_cMYP_Costing_Tool_V3.9.3.Master31 March 2017.xlsx **File desc:** **Date/time :** 07/09/2017 06:42:14 **Size:** 3 MB
11	M&E and surveillance plan within the country's existing monitoring plan	5.1.4	Integrated SURVEILLANCE PLAN _Zambia.doc **File desc:** **Date/time :** 08/09/2017 11:58:10 **Size:** 572 KB
12	New vaccine introduction plan (NVIP), New Vaccine Introduction Checklist and Activity List & Timeline for routine vaccines or Plan of Action (PoA) for campaign vaccines	5.1,7.2.3	Worksheet in Zambian Human Papillovirus Vaccine Intro Plan_Checklist.xlsx **File desc:** **Date/time :** 08/09/2017 02:21:47 **Size:** 38 KB
15	HPV Region/ Province profile	6.1.1	Zambia_HPV Application_Region Profile 21.03 2017.xlsx **File desc:** **Date/time :** 11/10/2017 02:18:30 **Size:** 40 KB
16	HPV Key Stakeholder Roles and Responsibilities	6.1.1,6.1.2	HPV Application_Stakeholder roles 2019.xlsx **File desc:** **Date/time :** 08/09/2017 04:30:03 **Size:** 24 KB
19	EVM report	9.3	Zambia_2015_EVM_report_Final.pdf **File desc:** **Date/time :** 11/10/2017 02:20:42 **Size:** 1 MB
20	Improvement plan based on EVM	9.3	EVM_improvement_plan_template_v2_Rev_18102015.xls **File desc:** **Date/time :** 07/09/2017 06:49:57 **Size:** 261 KB
21	EVM improvement plan progress report	9.3	Status of 2015 EVM Improvement Plan 08.09.2017.docx **File desc:** **Date/time :** 08/09/2017 11:59:28 **Size:** 54 KB
22	Detailed budget template for VIG / Operational Costs	6.x,7.x.2,6.x.2,8.2.3	2017_7_Sept_NEW_Zambia_HPV.xlsm **File desc:** **Date/time :** 08/09/2017 04:46:30 **Size:** 2 MB
32	Data quality assessment (DQA) report	5.1.4	Zambia - DQS report, 2012, Final.doc **File desc:** **Date/time :** 07/09/2017 06:46:44 **Size:** 1 MB

Table 2: Checklist of optional attachments

Document Number	Document	Section	File

14	Annual EPI Plan with 4 year forward view for measles and rubella		No file loaded
17	Evidence of commitment to fund purchase of RCV (in place of the first dose of MCV) / for use in the routine system	5.1.6, 6.1.7	No file loaded
18	Campaign target population documentation	8.x.1, 6.x.1	No file loaded
24	Risk assessment and consensus meeting report for Yellow Fever, including information required Section 5.3.2 in the General Guidelines on YF Risk Assessment process	5.1	No file loaded
25	Post Introduction Evaluation report from any recent NVS introduction	5.1	Final Zambia HPV PIE Report.pdf **File desc:** **Date/time :** 11/10/2017 02:22:26 **Size:** 594 KB
26	List of areas/districts/regions and targets to be supported for meningitis A mini catch up campaigns		No file loaded
27	National Measles (& Rubella) elimination plan if available		No file loaded
28	A description of partner participation in preparing the application	4.1.3	HPV Stakeholders Meeting_Report 13.08.2017.docx **File desc:** **Date/time :** 08/09/2017 04:24:32 **Size:** 168 KB
30	For countries applying for measles/rubella support that are not yet financing the measles monovalent component of MCV1, ICC minutes committing to finance from 2018 onwards.		No file loaded
33	DQA improvement plan	5.1.4	No file loaded
34	Plan of Action for campaigns	8.1, 8.x.4	No file loaded
35	Other		HPV Stakeholders Meeting_Report 13.08.2017.docx **File desc:** **Date/time :** 08/09/2017 12:16:53 **Size:** 168 KB

			Zambian Human Papillomavirus Vaccine Intro Plan_04.09.2017.docx **File desc:** **Date/time :** 08/09/2017 02:38:19 **Size:** 522 KB Q3 ICC Signatures Part 1.pdf **File desc:** **Date/time :** 08/09/2017 02:41:20 **Size:** 522 KB Q3 ICC SIGNATURES.Part 2.pdf **File desc:** **Date/time :** 08/09/2017 02:41:52 **Size:** 542 KB HPV DEMONSTRATION SECOND YEAR REPORT 2014.pdf **File desc:** **Date/time :** 11/10/2017 02:27:17 **Size:** 857 KB C4P Zambia Nationa Scale Up HPV 9_14 Years.xlsx **File desc:** **Date/time :** 11/10/2017 03:19:25 **Size:** 2 MB
36	Strategy for establishing or strengthening a national comprehensive approach to cervical cancer prevention and control		NCCSP Final Version.pdf **File desc:** **Date/time :** 08/09/2017 12:17:31 **Size:** 1 MB
37	Evidence of self-financing MCV1	5.1.5	No file loaded
38	For countries applying for measles/rubella support that are not yet financing the measles monovalent component of MCV1, a signed letter from the Minister of Health and the Minister of Finance committing to finance from 2018 onwards.		No file loaded
39	Epidemiological analysis/evidence	8.3.1	No file loaded
40	Post Campaign Coverage Survey report for MR catch-up applications	5.1.x	Final Zambia MR coverage Survey__report 19 March 2017.pdf **File desc:** **Date/time :** 07/09/2017 06:44:24 **Size:** 1 MB
41	cMYP addendum on measles and rubella		No file loaded

42	Offline cofinancing calculator for this campaign	5.5, 8.2.3	No file loaded

11. Annexes

Annex 1 - NVS Routine Support

Annex 1.1 HPV quadrivalent, 1 dose(s) per vial, LIQUID

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

		2018	2019	2020	2021
Number of vaccine doses	#	79,779	92,362	137,172	162,614
Number of AD syringes	#	110,793	102,351	151,976	180,129
Number of re-constitution syringes	#	0	0	0	0
Number of safety boxes	#	1,219	1,127	1,672	1,982
Total value to be co-financed by the Country *[1]*	$	480,241	447,841	665,082	788,252

		2022
Number of vaccine doses	#	240,701
Number of AD syringes	#	271,668
Number of re-constitution syringes	#	0
Number of safety boxes	#	2,989
Total value to be co-financed by the Country *[1]*	$	1,187,802

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

Portion of supply for routine cohort to be procured by Gavi (and cost estimate, US$)

		2018	2019	2020	2021
Number of vaccine doses	#	377,527	378,206	346,658	334,478
Number of AD syringes	#	524,291	419,105	384,068	370,503
Number of re-constitution syringes	#	0	0	0	0
Number of safety boxes	#	5,767	4,610	4,225	4,075
Total value to be co-financed by Gavi	$	2,272,586	1,833,825	1,680,775	1,621,342

		2022
Number of vaccine doses	#	311,150
Number of AD syringes	#	351,181
Number of re-constitution syringes	#	0
Number of safety boxes	#	3,863
Total value to be co-financed by Gavi	$	1,535,451

Portion of supply for additional multi-age cohort to be procured by Gavi (and cost estimate, US$)

		2018	2019	2020	2021
Number of vaccine doses	#	2,496,173	0	0	0
Number of AD syringes	#	2,745,791	0	0	0
Number of re-constitution syringes	#	0	0	0	0
Number of safety boxes	#	30,204	0	0	0

		2022

Number of vaccine doses	#	0
Number of AD syringes	#	0
Number of re-constitution syringes	#	0
Number of safety boxes	#	0

Table Annex 1.1 C: Summary table for vaccine HPV quadrivalent, 1 dose(s) per vial, LIQUID

	Source		2018	2019	2020	2021
Number of girls in the additional multi-age cohort to be vaccinated with the first dose	Table 5.2	#	1,226,997	0	0	0
Number of girls in the additional multi-age cohort to be vaccinated with the second dose	Table 5.2	#	1,150,310	0	0	0
Immunisation coverage with the second dose	Table 5.2	%	90.00%	0	0	0

	Source		2022
Number of girls in the additional multi-age cohort to be vaccinated with the first dose	Table 5.2	#	0
Number of girls in the additional multi-age cohort to be vaccinated with the second dose	Table 5.2	#	0
Immunisation coverage with the second dose	Table 5.2	%	0

Table Annex 1.1 D: Estimated numbers for HPV quadrivalent, 1 dose(s) per vial, LIQUID, associated injection safety material and related co-financing budget (page 1)

		Formula	2018		
			Total	Government	Gavi
A	Country co-finance	*V*	17.45 %		
B	Number of children to be vaccinated with the first dose	*Table 5.2*	234,516	40,913	193,603
B1	Number of children to be vaccinated with the second dose	*Table 5.2*	1,150,310		
C	Number of doses per child	*Vaccine parameter (schedule)*	1		
D	Number of doses needed	*B + B1*	457,306	79,779	377,527
E	Estimated vaccine wastage factor	*Table 5.2*	1.05		
F	Number of doses needed including wastage	*D x E*	480,172	83,768	396,404
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]*	120,043	20,942	99,101
I	Total vaccine doses needed	*Round up((F + G) / Vaccine package size) * Vaccine package size*	600,300	104,725	495,575
J	Number of doses per vial	*Vaccine parameter*	1		
K	Number of AD syringes (+ 10% wastage) needed	*(D + G) x 1.10*	635,084	110,793	524,291
L	Reconstitution syringes (+ 10% wastage) needed	*(I / J) x 1.10*	0	0	0
M	Total of safety boxes (+ 10% of extra need) needed	*(K + L) / 100 x 1.10*	6,986	1,219	5,767
N	Cost of vaccines needed	*I x vaccine price per dose (g)*	2,701,350	471,260	2,230,090
O	Cost of AD syringes needed	*K x AD syringe price per unit (ca)*	22,864	3,989	18,875
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)*	3,220	562	2,658
R	Freight cost for vaccines needed	*N x freight cost as of % of vaccines value (fv)*	25,393	4,430	20,963
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)*	2,752,827	480,241	2,272,586
U	Total country co-financing	*I x country co-financing per dose (cc)*	480,240		
V	Country co-financing % of Gavi supported proportion	*U / T*	17.45 %		

Table Annex 1.1 D: Estimated numbers for HPV quadrivalent, 1 dose(s) per vial, LIQUID, associated injection safety material and related co-financing budget (page 2)

		Formula	2019		
			Total	Government	Gavi
A	Country co-finance	*V*	19.63 %		
B	Number of children to be vaccinated with the first dose	*Table 5.2*	241,317	47,366	193,951
B1	Number of children to be vaccinated with the second dose	*Table 5.2*	0		
C	Number of doses per child	*Vaccine parameter (schedule)*	1		
D	Number of doses needed	*B + B1*	470,568	92,362	378,206
E	Estimated vaccine wastage factor	*Table 5.2*	1.05		
F	Number of doses needed including wastage	*D x E*	494,097	96,981	397,116
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]*	3,482	684	2,798
I	Total vaccine doses needed	*Round up((F + G) / Vaccine package size) * Vaccine package size*	497,600	97,668	399,932
J	Number of doses per vial	*Vaccine parameter*	1		
K	Number of AD syringes (+ 10% wastage) needed	*(D + G) x 1.10*	521,456	102,351	419,105
L	Reconstitution syringes (+ 10% wastage) needed	*(I / J) x 1.10*	0	0	0
M	Total of safety boxes (+ 10% of extra need) needed	*(K + L) / 100 x 1.10*	5,737	1,127	4,610
N	Cost of vaccines needed	*I x vaccine price per dose (g)*	2,239,200	439,505	1,799,695
O	Cost of AD syringes needed	*K x AD syringe price per unit (ca)*	18,773	3,685	15,088
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)*	2,644	519	2,125
R	Freight cost for vaccines needed	*N x freight cost as of % of vaccines value (fv)*	21,049	4,132	16,917
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)*	2,281,666	447,841	1,833,825
U	Total country co-financing	*I x country co-financing per dose (cc)*	447,840		
V	Country co-financing % of Gavi supported proportion	*U / T*	19.63 %		

Table Annex 1.1 D: Estimated numbers for HPV quadrivalent, 1 dose(s) per vial, LIQUID, associated injection safety material and related co-financing budget (page 3)

		Formula	2020		
			Total	Government	Gavi
A	Country co-finance	*V*	28.35 %		
B	Number of children to be vaccinated with the first dose	*Table 5.2*	248,118	70,345	177,773
B1	Number of children to be vaccinated with the second dose	*Table 5.2*	0		
C	Number of doses per child	*Vaccine parameter (schedule)*	1		
D	Number of doses needed	*B + B1*	483,830	137,172	346,658
E	Estimated vaccine wastage factor	*Table 5.2*	1.05		
F	Number of doses needed including wastage	*D x E*	508,022	144,031	363,991
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]*	3,482	988	2,494
I	Total vaccine doses needed	*Round up((F + G) / Vaccine package size) * Vaccine package size*	511,600	145,046	366,554
J	Number of doses per vial	*Vaccine parameter*	1		
K	Number of AD syringes (+ 10% wastage) needed	*(D + G) x 1.10*	536,044	151,976	384,068
L	Reconstitution syringes (+ 10% wastage) needed	*(I / J) x 1.10*	0	0	0
M	Total of safety boxes (+ 10% of extra need) needed	*(K + L) / 100 x 1.10*	5,897	1,672	4,225
N	Cost of vaccines needed	*I x vaccine price per dose (g)*	2,302,200	652,703	1,649,497
O	Cost of AD syringes needed	*K x AD syringe price per unit (ca)*	19,298	5,472	13,826
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)*	2,718	771	1,947
R	Freight cost for vaccines needed	*N x freight cost as of % of vaccines value (fv)*	21,641	6,136	15,505
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)*	2,345,857	665,082	1,680,775
U	Total country co-financing	*I x country co-financing per dose (cc)*	665,080		
V	Country co-financing % of Gavi supported proportion	*U / T*	28.35 %		

Table Annex 1.1 D: Estimated numbers for HPV quadrivalent, 1 dose(s) per vial, LIQUID, associated injection safety material and related co-financing budget (page 4)

		Formula	2021		
			Total	Government	Gavi
A	Country co-finance	*V*	32.71 %		
B	Number of children to be vaccinated with the first dose	*Table 5.2*	254,919	83,392	171,527
B1	Number of children to be vaccinated with the second dose	*Table 5.2*	0		
C	Number of doses per child	*Vaccine parameter (schedule)*	1		
D	Number of doses needed	*B + B1*	497,092	162,614	334,478
E	Estimated vaccine wastage factor	*Table 5.2*	1.05		
F	Number of doses needed including wastage	*D x E*	521,947	170,745	351,202
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]*	3,482	1,140	2,342
I	Total vaccine doses needed	*Round up((F + G) / Vaccine package size) * Vaccine package size*	525,500	171,907	353,593
J	Number of doses per vial	*Vaccine parameter*	1		
K	Number of AD syringes (+ 10% wastage) needed	*(D + G) x 1.10*	550,632	180,129	370,503
L	Reconstitution syringes (+ 10% wastage) needed	*(I / J) x 1.10*	0	0	0
M	Total of safety boxes (+ 10% of extra need) needed	*(K + L) / 100 x 1.10*	6,057	1,982	4,075
N	Cost of vaccines needed	*I x vaccine price per dose (g)*	2,364,750	773,581	1,591,169
O	Cost of AD syringes needed	*K x AD syringe price per unit (ca)*	19,823	6,485	13,338
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)*	2,792	914	1,878
R	Freight cost for vaccines needed	*N x freight cost as of % of vaccines value (fv)*	22,229	7,272	14,957
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)*	2,409,594	788,252	1,621,342
U	Total country co-financing	*I x country co-financing per dose (cc)*	788,250		
V	Country co-financing % of Gavi supported proportion	*U / T*	32.71 %		

Table Annex 1.1 D: Estimated numbers for HPV quadrivalent, 1 dose(s) per vial, LIQUID, associated injection safety material and related co-financing budget (page 5)

		Formula	2022		
			Total	Government	Gavi
A	Country co-finance	*V*	43.62 %		
B	Number of children to be vaccinated with the first dose	*Table 5.2*	283,383	123,604	159,779
B1	Number of children to be vaccinated with the second dose	*Table 5.2*	0		
C	Number of doses per child	*Vaccine parameter (schedule)*	1		
D	Number of doses needed	*B + B1*	551,851	240,701	311,150
E	Estimated vaccine wastage factor	*Table 5.2*	1.05		
F	Number of doses needed including wastage	*D x E*	579,444	252,736	326,708
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]*	14,375	6,270	8,105
I	Total vaccine doses needed	*Round up((F + G) / Vaccine package size) * Vaccine package size*	593,900	259,042	334,858
J	Number of doses per vial	*Vaccine parameter*	1		
K	Number of AD syringes (+ 10% wastage) needed	*(D + G) x 1.10*	622,849	271,668	351,181
L	Reconstitution syringes (+ 10% wastage) needed	*(I / J) x 1.10*	0	0	0
M	Total of safety boxes (+ 10% of extra need) needed	*(K + L) / 100 x 1.10*	6,852	2,989	3,863
N	Cost of vaccines needed	*I x vaccine price per dose (g)*	2,672,550	1,165,685	1,506,865
O	Cost of AD syringes needed	*K x AD syringe price per unit (ca)*	22,423	9,781	12,642
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)*	3,158	1,378	1,780
R	Freight cost for vaccines needed	*N x freight cost as of % of vaccines value (fv)*	25,122	10,958	14,164
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)*	2,723,253	1,187,802	1,535,451
U	Total country co-financing	*I x country co-financing per dose (cc)*	1,187,800		
V	Country co-financing % of Gavi supported proportion	*U / T*	43.62 %		

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 costs

Estimated prices of supply are not disclosed

Vaccine	Presentation	2017	2018	2019	2020
HPV quadrivalent, 1 dose(s) per vial, LIQUID	1	4.500	4.500	4.500	4.500

Vaccine	Presentation	2021	2022
HPV quadrivalent, 1 dose(s) per vial, LIQUID	1	4.500	4.500

Supply	Form

Note: WAP - weighted average price (to be used for any presentation: For DTP-HepB-Hib, it applies to 1 dose liquid, 2 dose lyophilised and 10 dose liquid. For Yellow Fever, it applies to 5 dose lyophilised and 10 dose lyophilised)

Table Annex 4B: Freight cost as percentage of value

Vaccine Antigen	Vaccine Type	2018	2019	2020
HPV quadrivalent, 1 dose(s) per vial, LIQUID	HPV	0.94 %	0.94 %	0.94 %

Vaccine Antigen	Vaccine Type	2021	2022
HPV quadrivalent, 1 dose(s) per vial, LIQUID	HPV	0.94 %	0.94 %

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

Vaccine	2018	2019	2020
HPV quadrivalent, 1 dose(s) per vial, LIQUID	0.68	0.78	0.9

Vaccine	2021	2022
HPV quadrivalent, 1 dose(s) per vial, LIQUID	1.04	1.19

12. Banking Form

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

Name of Institution (Account Holder):	Ministry of Health
Address:	Ndeke House, 4th Floor, PO BOX 30205, Lusaka
City Country:	Zambia
Telephone no.:	+260211253344 **Fax no.:**
Currency of the bank account:	United States Dollar
For credit to:	
Bank account's title:	MOH-GAVI Project Account
Bank account no.:	5374972300166
Bank's name:	Zambia National Commercial Bank

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

By who is the account audited? Office of the Auditor General of the Republic of Zambia

Signature of Government's authorizing official

		Seal
Name:		
Title:		
Signature:		
Date:		

FINANCIAL INSTITUTION		**CORRESPONDENT BANK (In the United States)**	
Bank Name:	Zambia National Commercial Bank PLC		
Branch Name:	Acacia Park		
Address:	Thabo Mbeki Road, Lusaka		
City Country:	Lusaka, Zambia		
Swift Code:	ZNCOZMLU		
Sort Code:	010086		
ABA No.:			
Telephone No.:	+260211201375		
FAX No.:	+260211201318		

I certify that the account No 5374972300166 is held by Ministry of Health at this banking institution

The account is to be signed jointly by at least 4 (number of signatories) of the following authorized signatories:

1		
	Name:	Caroline Phiri
	Title:	Director, Mother and Child Health
2		
	Name:	Angel Mwiche
	Title:	Deputy Director, Child Health
3		
	Name:	Nancy Mwamba
	Title:	Chief Accountant

Name of bank's authorizing official	
Mbololwa W Zimba	
Signature:	
Date:	9/8/2017
Seal:	