



Gavi NVS Application Form

Submitted by
The Government of
Mauritania

Date of submission: **13 May 2017**

Deadline for submission:

- i. **3 May 2017**
- ii. 3 May 2017
- iii. 1 September 2017

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

Start Year

2016

End year

2020

Form revised in 2016

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

RETURN OF FUNDS

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

SUSPENSION/ TERMINATION

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

ANTI-CORRUPTION

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

The Country confirms that it is familiar with 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 Gavi arising out of or relating to this application that is not settled amicably within a reasonable period of time, will be submitted to arbitration at the request of either 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 Gavi. For any dispute for which the amount at issue is greater than US \$100,000 there will be three arbitrators appointed as follows: 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.

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

Type of Support	Vaccine	Start Year	End year	Preferred second presentation[1]
Routine New Vaccines Support	HPV quadrivalent, 1 dose(s) per vial, LIQUID	2018	2020	HPV bivalent, 2 dose(s) per vial, LIQUID

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

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3. Executive Summary

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

- For each specific request, NVS routine support or NVS campaign:
 - Duration of support
 - The total amount of funds requested
 - Characteristics of vaccine(s), if necessary, and the reason for presentation choice
 - Month and year planned for vaccine introduction (including campaigns and routine immunisations)
- Relevant baseline data, including:
 - DTP3 and measles coverage data (as reported on the WHO/UNICEF Joint Reporting Form)
 - Target population determined based on the evaluation of yellow fever and meningitis A risk
 - Birth cohort, targets and immunisation coverage by vaccines
- Country preparedness
 - Summary of planned activities to prepare vaccine launch, including EVM assessments, progress regarding EVM improvement plans, communication plans, etc.
 - Summary of the EVM assessment report and progress report on the implementation of improvement plan
- How stakeholders participated in developing this proposal

Cervical cancer is the second most common cancer in Mauritania and a true public health problem with significant socio-economic repercussions. The country has therefore made the fight against cervical cancer one of the priorities of its National Health Development Programme (NHDP).

Drawing on the wealth of experience introducing the vaccine in countries around the world, Mauritania decided to include the HPV vaccine in routine immunisation at the national level beginning in 2018. The vaccine will be introduced in two phases; the first phase will target 5 regions in 2018 and the second will target the remaining 10 regions of the country in 2020. For the routine cohort the vaccine will be introduced for all 9 year-old girls (both those enrolled in school and those who are not), while for the multi-age cohort it will be introduced to girls aged 10 to 14 years in the first year. The country chose the quadrivalent HPV vaccine for its protection against both HPV 16 and 18, which are the primary causes of cancers (70%) and HPV 6 and 11, which are associated with genital warts.

The vaccine will be administered in two doses given six months apart. November and May were selected so that girls would be vaccinated during a single school year and to reduce the number lost to follow-up. The traditional immunisation strategies (fixed, outreach and mobile) will be used to maximise the chances of reaching all the target girls. Rigorous micro-planning will be done at the national, wilaya (regional) and moughataas (district) levels before any immunisation activity is performed. To reach the in-school target, schools will be used as service provision points: an annual schedule for rounds in schools and mahadras (Koranic schools) will be developed in close collaboration with school authorities. To reach those who are not in school, community-level surveys will be used to locate and determine the number of girls concerned before immunisation activities. They will be offered the vaccine at both health facilities and community sites as well as through the mobile strategy. In all, the target includes 295,169 girls aged 9-14 years with an immunisation coverage goal of 85%.

All members of the technical and steering committees were involved in drafting this document. They include the EPI, the National Programme for Reproductive Health PNSR, the Ministry of Education, civil society, WHO, UNICEF, UNFPA and PATH, as well as the national consultant hired by Gavi. These committees are responsible for coordinating the technical and logistical preparation, implementation and follow-up of the HPV vaccine introduction, and for the surveillance, pharmacovigilance, communication and social mobilisation aspects as well. The timeline for carrying out activities up to and after the introduction has already been created.

The budget for the HPV vaccine introduction is estimated at 130,229,600 Ouguiyas, or US\$ 372,085, not including the cost of vaccines and supplies. Support is requested for a three-year period, from 2018 to 2020. Activities will be funded from the introduction package allocated by Gavi and will be supplemented by the contributions from the Government and from partners (WHO, UNICEF). Thus Gavi will contribute 67,150,600 Ouguiyas (US\$ 191,859) or 52% of the budget , and the remainder will be provided as follows: 23% by the Government (29,529,000 Ouguiyas / US\$84,369); 8% by UNICEF (11,000,000 Ouguiyas US\$ 31,429); and 17% by WHO (22,550,000 Ouguiyas / US\$ 64,429). Partner funds will be taken from monies previously allocated to the EPI for routine activities

Mauritania's EPI has proven its ability to successfully introduce a new vaccine. The country has successfully introduced several new vaccines into routine EPI (PCV13, Rotarix, IPV) and Gavi recently approved the introduction of the measles, rubella and rotavirus vaccines, which are scheduled for introduction in November 2017. The 2016 coverage rates for Penta3 and measles were 86% and 83%, respectively. Experience acquired during the introduction of these various new vaccines will undoubtedly contribute to a smooth introduction of the HPV vaccine. In addition, storage capacities were analysed using WHO's logistics planning tool (Epi-Log Forecasting Tool) and no significant gaps were found.

A 2014 EVM report is available, and there will be a 2017 improvement plan as well. Mauritania was planning to update the report again in April 2017 but due to budget constraints this was delayed until June 2017.

Multiple innovative communication strategies that fit the Mauritanian context will be implemented to maximize programme success. Extending the EPI target to adolescents is a major challenge in terms of both acceptability and achieving immunisation coverage objectives. Implementing the communication plan that incorporates specific socio-economic and behavioural factors will help strengthen the support of various stakeholders on a nationwide scale. The emphasis will be on interpersonal communication and on appropriate messaging about cancer prevention using local radio stations. Traditional communicators, youth networks and professional and community associations will all be involved as well. VIPs and opinion leaders will be identified for the launch to be champions for the HPV vaccine and the fight against cervical cancer.

Immunisation staff and personnel from the education sector will be trained using the "train the trainer" technique: the national level will educate immunisation teams in wilayas and moughataas, which will in turn provide training to vaccine unit service providers, community liaisons and health workers, and school teachers and directors. Guideline implementation will be checked through post-introduction supervision and strengthening of supportive supervision at all levels.

Finally, a surveillance plan tailored to the HPV vaccine, rapid and effective AEFI management and a crisis communication plan will help improve implementation and minimise rumours. There is also a plan to assess the first year of the vaccine through a coverage survey, post-introduction evaluation and cost analysis.

4. Signatures

4.1. Signatures of the Government and national coordinating bodies

4.1.1 The Government and the Interagency Coordination Committee (ICC) for immunisation

The Government of Mauritania wishes to consolidate the existing partnership with Gavi to strengthen its national routine childhood immunisation programme and is specifically requesting Gavi support for:

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

The Government of Mauritania agrees to develop national immunisation services on a sustainable basis in accordance with the comprehensive multi-year plan presented with this document. The Government requests that Gavi and its partners contribute financial and technical assistance to support immunising children as outlined in this application.

Tables 6.2.3 and 6.2.4 in the New Vaccine Support section (routine immunisation) of this application show the amount of support (in kind or in cash) that is requested of Gavi. Tables 6.2.3 and 6.2.4 also show the Government's financial commitment for procuring this new vaccine (NVS support only).

In accordance with internal budgeting and financing cycles, the Government will release its portion of the funds in the month of **June**.

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

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

Minister of Health (or authorised representative)		Minister of Finance (or authorised representative)	
Name	Prof. KANE BOUBACAR	Name	EL MOCTAR OULD DIAY
Date:		Date:	
Signature		Signature	

Documentation of the Ministry of Education's involvement must be produced for support in introducing the HPV vaccine into routine EPI. The Ministry of Education will have to be involved in the ICC process (preferred option) and/or the Minister of Education (or delegated authority) must provide its signature (Document No.: 3) in Section 10. Attachments

Minister of Education (or delegated authority)	
Name	ISSELMOU OULD SID ELMOCTAR OULD LEHBIB
Date:	
Signature	

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

Full name	Position	Telephone	Email
Dr M'barek HEMEID	EPI Coordinator	00222 22 24 37 95	mbarekohoumeid@yahoo.fr
Dr Nacerddine Ould Zeidoune	EPI / WHO focal point	00222 22 84 40 58	ouldzeidounen@who.int
Dr Sidi Med Ould Ely Salem	UNICEF Immunization Leader	+ 222 22 44 67 36	ssalem@unicef.org
Moctar Ould Memah	Gavi Consultant	+ 222 46 45 62 75	mocarm2005@yahoo.fr

4.1.2 National Coordinating Body/Interagency Coordination Committee for immunisation

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

Profile of the ICC, HSCC, or equivalent committee

Name of the committee	EPI Interagency Coordination Committee (ICC)
Organisational structure (e.g., sub-committee, stand-alone)	Stand-alone committee

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

Major functions and responsibilities of the ICC/HSCC:

Primary functions of the ICC:

1. Monitor implementation of programme activities using annual action plans, in particular routine immunisation and campaigns.
2. Determine appropriate guidelines, strategies and measures for the programme.
3. Approve action plans and the coverage [sic] multi-year plan (cMYP).
4. Increase awareness among national and international partners who could support the programme.
5. Monitor technical and financial partner commitments.
6. Approve budgets and plans related to health system strengthening (HSS).
7. Ensure proper execution of the programme.

4.1.3 Signature Table for the Coordination Committee on Immunisation

We, the undersigned members of the ICC, HSCC or equivalent committee [1] met on **05/09/2017** to review this proposal. At that meeting, we approved this proposal on the basis of the attached supporting documentation. The minutes of this meeting are attached as document number 5. The signatures confirming the request appear in document 7 (please use the list of signatures in the section below).

Position	Title/Organisation	Name	Please sign below to indicate your attendance at the meeting during which the proposal was discussed.	Please sign below to indicate your endorsement of the minutes of the meeting during which the proposal was discussed.
Chair	Boueye OULD ABEIDI	Chairman of the ICC		
Secretary	Dr M'barek Ould HEMEID	EPI Coordinator		
Members	Dr Abderahmane Ould JIDDOU	DSBN		

By submitting the proposal, we confirm that a quorum was present. **Yes**

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

4.2. National Immunisation Technical Advisory Group (NITAG)

Has a NITAG been established in your country? **No**

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

5. Data on the immunisation programme

5.1 Reference material

Please fill out the table below using the most recent data from available sources. Indicate the data source and date, and attach the source document if possible. The following documents must be [cut off]

- Comprehensive Multi-Year Plan for Immunisation (cMYP, or equivalent plan) Please attach as DOCUMENT NO. 9.
- New vaccine introduction plan(s) / Action plan. Please attach as DOCUMENT NO. 12.
- Verification list, activities list and new vaccine introduction schedule. Please attach as DOCUMENT NO. 12.
- Effective vaccine management (EVM) assessment. Please attach as DOCUMENT NO. 20.
- Two most recent WHO/UNICEF Joint Reporting Forms on Vaccine Preventable Diseases.
- Health Sector Strategy documents, budgetary documents, and other reports, surveys etc, as appropriate.
- Risk assessments for mass preventive campaigns against yellow fever and meningitis A. Please attach as DOCUMENT NO. 24 and document no. 25.

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

	Figure	Year	Source
Total population	3,893,775	2017	ONS/DPCIS
Birth cohort	143,994	2017	ONS/DPCIS
Infant Mortality Rate	58	2017	MICS 2015
Surviving infants [1]	135,662	2017	ONS/DPCIS
GNI per capita (US\$)	1,193	2015	2017 Health Account Report
Total Health Expenditure (THE)	237,672,916	2015	2017 Health Account Report
General government expenditure on health (GGHE) as % of general government expenditure	6	2015	2017 Health Account Report

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

5.1.1 Lessons learned

Support for new routine vaccines

If new or underused vaccines have already been introduced in your country, please complete in detail the lessons learned from previous introduction(s), specifically for: storage capacity, protection against accidental freezing, personnel training, cold chain, logistics, coverage and decrease in rates, wastage rates, etc. and propose areas of action or indicate the measures taken to address them. Please refer to the previous post-introduction evaluation (PIE) report, if necessary. If they are included in the introduction plan, please cite the section only. If this information is already included in the NVIP/AP, please refer to the document and the section/page where this information can be found.

Lessons learned	Actions
Mauritania has successfully introduced several vaccines into its routine EPI: the pneumococcal vaccine (PCV13) in 2013, the HepB monovalent at birth in 2013, the rotavirus vaccine in 2014, and the inactivated polio virus (IPV) in 2015. Experience acquired during the introduction of these various new vaccines will undoubtedly contribute to a smooth introduction of the HPV	<ul style="list-style-type: none"> Strengthen the experience acquired in developing and implementing introduction plans Follow up deployed efforts with a situation analysis to help address any deficits in logistics Continue to revise tools to better adapt them to the programme's data requirements

<p>vaccine.</p> <p>Storage capacities have been analysed using WHO's logistics planning tool (Epi-Log Forecasting Tool). No gaps were found at any of the supply chain levels due to Government-funded purchases of cold chain equipment.</p> <p>The evaluations for these vaccine introductions were positive and did not indicate any particular inadequacies. The wastage rate was within norms (<10%). The post-introduction evaluation report for PCV-13 and rotavirus highlighted the following strengths and weaknesses:</p> <ul style="list-style-type: none"> • Vaccine introduction plans in Mauritania were well prepared and implemented, with a description of the new vaccine schedule that includes the new vaccines• • Gaps in the cold chain were identified and addressed before the vaccines were introduced following a situation analysis • EPI management tools were revised in a timely manner to incorporate the new vaccines. These included: immunisation records, tally sheets, immunisation cards, stock management records/forms, monthly report forms set up before vaccine introduction. • The introduction was preceded by a country-wide media campaign • The official launch by the Ministry of Health involved major social mobilisation and communication, which received extensive media coverage • The lack of a study on the true disease burden and circulating serotypes • The period between the PCV-13 vaccine introduction and its post-introduction evaluation was relatively long (2 years) compared to the WHO recommendation of 6 to 12 months.. • 39% of health posts had tools that did not incorporate the new vaccines • The most common method for training and supervision was the cascade “train-the-trainer” method. Rigorous monitoring of training and capacity-building of supervisors were essential to preparing immunisation teams • The most common method for training and supervision was the cascade “train-the-trainer” method. Rigorous monitoring of training and capacity-building of supervisors were essential to preparing immunisation teams. 	<ul style="list-style-type: none"> • Promote communication and social mobilisation activities prior to every national-level event • Plan a launch ceremony for every new activity with a high-level government official and broad media coverage • Reinvigorate public health research through targeted studies funded as part of health programmes • Conduct the post-introduction evaluation within six months of the introduction • Distribute revised tools to all immunisation facilities and systematically remove the old tools • Strengthen the training methods used in the country for introductions and campaigns (supervisor training and train-the-trainer for all stakeholders involved in immunisation) • Highlight the importance of rigorous supervision of training activities
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5.1.2- Planning and budgeting of health services

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

Mauritania has an annual budget planning cycle that runs from January to December. The budget is planned during the last quarter of the current year.

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

The planning document for health is the National Health Development Plan (2012-2020 NHDP), which was developed in 2011 and evaluated and updated in 2015.

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

Yes, the proposed document is based on the updated cMYP.

Please indicate the national planning and budgeting cycle for health

The health planning cycle is the same as the Government's planning cycle, running every year from January to December.

Please indicate the national planning cycle for immunisation

The immunisation programme is developed every year based on the cMYP and an annual action plan every January.

5.1.3 Gender and equity

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

There are many disparities in Mauritania: socio-economic, cultural and geographic (poverty, illiteracy and isolation of certain communities, particularly during the winter months).

Socio-economic: populations living in urban areas, who are more well-off and better educated, have greater access to immunisation services than populations in rural areas do, where people have to travel long distances to receive such services.

Geographic: Mauritania is a large desert nation, with a very low population density and long distances between villages, which can be difficult to reach. The lowest performing zones are generally in regions with small populations with a denominator problem.

Cultural: the country hosts a number of diverse ethnicities and traditions. Some populations are nomadic, with regular transhumance, moving from one location to another. This can make it difficult to locate them.

However, available data show that these disparities do not affect immunisation coverage. Various assessments of immunisation coverage (the most recent was in April 2014) have not shown any significant differences related to culture or socio-economics (poverty quintiles).

All of the obstacles the EPI is accustomed to can be overcome with rigorous micro-planning to locate the target girls and plan for additional costs in the budget for the long distances that will need to be covered, the movement of immunisation teams to the target populations and the implementation of innovative, high-quality social mobilisation activities.

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

A multidimensional, diversified strategy is needed to address the socio-economic and geographic equity issues. In particular, we plan to use innovative communication strategies that fit the Mauritanian context (community theatre, education through traditional communicators and town criers, strategic selection of immunisation sites, etc.) to boost the involvement of community liaisons and health workers and to strengthen the participation of local community associations (parents of students, women's groups, youth networks, etc.). These issues were addressed in both the introduction plan and the communication plan.

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

There are no studies on male-female equality in Mauritania, but current trends do not highlight any problems in this area. The equity problems we are expecting with the HPV vaccine introduction are primarily related to finding and fully immunising girls who are not in school. Our micro-planning and implementation activities will be opportunities to assess these barriers and guide interventions to get around them.

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

Sex-disaggregated data were not included in the immunisation data. However a recent revision of tools took this dimension into account, and it will be available in Mauritania's immunisation data beginning in 2018.

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 immunisation or campaigns and funding of these activities.

The south-east zone near the border with Mali is home to a refugee camp for Malians that is managed by the Government and international organisations (HCR, UNICEF, Terre des hommes, MSF, etc.). It has all of the vital social services for health and education.

These refugees are taken into account for all immunisation activities and are considered as an entity in all immunisation activity planning. They are not difficult to reach because they are limited to the camps and are under the control of security forces. This allows our teams to safely conduct immunisation activities.

5.1.4 Data quality

Please attach a data quality assessment (DQA) report that was completed during the preceding 48 months using the most recent national survey including immunity coverage indicators (DOCUMENT NUMBER: 11) and an immunisation data quality improvement plan (DOCUMENT NUMBER 33). Subject to availability, a report on progress of implementing the improvement plan must also be presented (DOCUMENT NUMBER: 32, DOCUMENT NUMBER: 33).

5.1.5 HPV-specific data

Countries that are applying for HPV support and that have previously conducted a pilot or demonstration programme must include details on the lessons learned for HPV vaccine administration.

Primary programme zones	Lessons learned	How these zones were managed in a national plan
Preparation and planning	<ul style="list-style-type: none"> • Political commitment at the highest level has allowed us to implement effective national programmes • Collaboration between the Ministry of Health and the Ministry of Education improved the projects' chances for success • One source of efficacy was the use of existing models for routine immunisation programme operations and resources 	<ul style="list-style-type: none"> • Organising advocacy so that the HPV vaccine introduction launch is chaired by the First Lady along with Ministers, members of parliament and community and religious leaders
Communication and social mobilisation	<ul style="list-style-type: none"> • Highly effective community mobilisation activities were conducted by health workers and leaders of groups and communities. These activities were performed using a variety of methods, at least one month prior to immunisation. • The most effective messages were that the HPV vaccine prevents cervical cancer, is safe, does not harm future fertility, and was approved by the Government and by WHO • Direct communication with parents and communities boosted confidence and limited the spread of rumours • Using the "opt out" strategy of implied consent with the possibility of refusal was more effective than the "opt in" strategy of explicit consent, which resulted in some parents refusing the vaccine and community distrust. 	<ul style="list-style-type: none"> • Social mobilisation activities involving all potential stakeholders will be identified in the micro-planning stage, which will take place at least two months prior to the introduction and will be implemented at least one month before the introduction date (scheduled for November 2018) • The messages that will be communicated include that the HPV vaccine prevents cervical cancer, does not harm future fertility, has been introduced in more than 50 countries including most of Africa and that it was approved by the Government and by WHO • All identified stakeholders (teachers, parents, opinion leaders, village chiefs) will be trained in interpersonal communication and will form a network to prevent or limit the spread of rumours • Consent in Mauritania has always been implicit, because explicit consent may lead to doubts about the safety of the vaccine.
Delivery strategies	<ul style="list-style-type: none"> • Including schools in the delivery strategy allows us to achieve the greatest immunisation coverage • Although it will be difficult, getting a head count of the population prior to vaccination 	<ul style="list-style-type: none"> • Schools will be used as immunisation posts and teachers will be involved in all activities, including as immunisation team members • Surveying girls will be a fundamental activity in the micro-planning process and will improve

	<p>will make it easier to create records</p> <ul style="list-style-type: none"> • In the school environment, selecting by class year was easier logistically than selecting by age • Delivering all doses during a single school year reduced the drop-out rate and helped improve immunisation coverage • Using community health workers helped identify girls who are not in school as well as those that missed a dose • Offering a second immunisation opportunity helped reach girls and their parents who had initially refused the vaccine 	<p>planning for immunisation activity implementation and help determine the proper denominator</p> <ul style="list-style-type: none"> • All children enrolled in school have civil records used as a condition for registration. These documents are used to determine the target age for immunisation. • For girls who are not in school, if a birth certificate is not available, a significant event that coincided with their date of birth will be used to determine their age • Mauritania recently began using a community strategy that trains community agents and liaisons at the village level. These trained agents will help strengthen immunisation at the community level.
Coverage	<ul style="list-style-type: none"> • The data reported by 49 demonstration projects showed coverage of at least 50%, and in 41 of them the coverage was at least 70%. 	<ul style="list-style-type: none"> • Our goal is an 85% coverage rate of fully immunised girls for both the routine and multi-age cohorts. Specific efforts will be made to reach girls not in school and to achieve a high coverage rate.
Reporting and surveillance	<ul style="list-style-type: none"> • Reported data are sometimes underestimated and cases are not routinely notified. 	<ul style="list-style-type: none"> • Plan a training segment that focuses on the quality of reporting and on complete case notification
Sustainability	<ul style="list-style-type: none"> • Recurring administrative financial costs (outside vaccines) have risen to US\$ 2.1 per dose. Annualised start-up costs have represented up to 50% of all financial and economic costs. • The costs of vaccines and delivery are essential data points for countries to estimate the financial resources necessary to sustain the actions 	<ul style="list-style-type: none"> • After the first phase of the introduction, recurring administrative financial costs (outside vaccines) will be assessed and strategies will be adopted to reduce costs if necessary. • Vaccine and supply costs have always been scheduled in the Government budget, including co-financing for new and underused vaccines.

Please provide the following information for each district where the demonstration / pilot programme was implemented:

District Information	
Name of the district	Not applicable; the country did not conduct a pilot project
Size of the target population in the region	
Describe how the district is divided into rural and urban areas:	
Administrative strategy (strategies) used (eg in schools, health centres, campaign)	

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

To combat HPV, Gavi supports the immunisation of girls aged 9-14 in accordance with the following cohorts:

- Routine cohort - the country must identify a cohort of girls the same age for routine vaccination

Specify the age selected for the routine cohort for the HPV vaccine (eg, 9 years)

9 years

If relevant, specify the ages selected for the supplementary multi-age cohort during the introduction year: eg., age 10, 11, 12, 13, 14 years

From:

10 years

Note:

14 years

Will a phased introduction be used?

Yes

If a phased approach will be used, explain the rationale.

Mauritania decided to phase in the HPV vaccine introduction for the following reasons:

- The country did not have the chance to conduct a demonstration project, which would have involved a small-scale introduction from which lessons could have been learned. There are 15 regions in the country; 5 of them will be targeted in the first phase and the remaining 10 will be targeted in the second phase. We are planning a buffer year between the two phases to conduct a coverage survey, PIE and costs analysis, so that we can identify areas for improvement before scaling up to the national level.
- The phased approach was also chosen because Mauritania is a large country with a low population density and long distances between towns. It is preferable to divide the country into zones and mobilise immunisation teams at the central and regional levels to cover these zones. This helps overcome various obstacles related to the dispersed population, the lack of sufficient vehicles for vaccinator transport, and the mobile activities needed to reach hard-to-access populations and migrant populations (nomad transhumance)
- One of the important EPI activities is surveying and locating girls who are not in school; this will require time and human resources. This will be difficult to do across the country's entire territory in the first year. This activity is, however, essential for determining the correct denominator to assess immunisation coverage and to locate target girls, especially those who are not in school.
- Mauritania is highly committed to introducing the vaccine and achieving good immunisation coverage for all girls, those who are in school and those who are not, in the best conditions. We feel that this phased approach is the best fit for the Mauritanian context.

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

Table 5.2: baseline numbers for NVS routine immunisation

Number	Base Year	Baseline and Targets		
	2016	2018	2019	2020
Total number of births	140,724	147,350	150,805	154,357
Total number of infant deaths	8,114	8,555	8,786	9,024
Total surviving infants	132,610	138,795	142,019	145,333
Total number of pregnant women	168,851	176,801	180,957	185,209

Target population vaccinated with OV3[1]	108,165	123,527	129,327	135,160
OPV3 coverage [2]	82%	89%	91%	93%
Target population vaccinated with DTP1[1]				
Target population vaccinated with DTP1[1]	131,950	137,252	140,468	143,783
Target population vaccinated with DTP3[1]	113,288	123,527	129,237	135,160
DTP3 coverage [2]	85%	89%	91%	93%
Wastage [3] rate in the base-year and planned thereafter (%) for DTP	10	8	7	6
Wastage [3] factor in base-year and planned thereafter for DTP	1.11	1.09	1.08	1.06
Routine cohort				
Number of girls in the target cohort		17,337	17,923	45,009
Target population vaccinated with the 1st dose(s) of HPV vaccine	0	15,603	16,131	40,508
Target population vaccinated with the 2nd dose(s) of HPV vaccine	0	14,736	15,235	38,257
HPV quadrivalent coverage with the 1st dose	0%	90%	90%	90%
HPV quadrivalent coverage with the 2nd dose	0%	85%	85%	85%
Supplementary multi-age cohort				
No. of girls in the supplementary multi-age cohort	0	107,810	0	147,027
Target population (supplementary multi-age cohort) vaccinated with 1st dose of HPV quadrivalent	0	97,029	0	132,324
Target population (supplementary multi-age cohort) vaccinated with 2nd dose of HPV quadrivalent	0	91,639	0	124,973
HPV quadrivalent coverage [2]	0%	90%	0%	90%
HPV quadrivalent coverage with the 2nd dose	0%	85%	0%	85%
First Presentation: HPV quadrivalent, 1 dose(s) per vial, LIQUID, ROUTINE COHORT + SUPPLEMENTARY MULTI-AGE COHORT				
Wastage rate [3] in base-year and planned thereafter (%)	0	5	5	5
Wastage rate [3] in base-year and planned thereafter (%)	1.00	1.05	1.05	1.05
Maximum wastage rate for HPV quadrivalent, 1 dose(s) per vial, LIQUID	5%	5%	5%	5%
Second Presentation: HPV quadrivalent, 2 doses(s) per vial, LIQUID, ROUTINE COHORT + SUPPLEMENTARY MULTI-AGE COHORT				
Wastage rate [3] in base-year and planned thereafter (%)	0	5	5	5
Wastage rate [3] in base-year and planned thereafter (%)	1.00	1.05	1.05	1.05
Maximum wastage rate for HPV quadrivalent, 2 dose(s) per vial, LIQUID	10 %	10 %	10 %	10 %
Target population vaccinated with the 1st dose(s) of RCV vaccine				
RCV coverage [2]	0 %	0 %	0 %	0 %
Annual DTP dropout rate [(DTP1 - DTP3) / DTP1] x 100				
	14 %	10 %	8 %	6 %

[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): $[(A - B) / A] \times 100$, where A = stock balance at the end of the supply period; B = the number of immunisations with the same vaccine in the same period.

5.2.1 Description of additional routine and multi-age cohorts

Indicate primary school enrolment percentage

88%

Indicate secondary school enrolment percentage

12%

Indicate the average age of entry into secondary school

13 years

Please provide a source for enrolment data (eg National Statistics Office, Ministry of Education, recent census, school records, etc.)

School enrolment data are provided by the Ministry of Education, which maintains a database with reliable data that is updated regularly. The data used in this application were for the 2016-2017 school year.

Please provide a source for enrolment data (eg National Statistics Office, Ministry of Education, recent census, school records, etc.)

School enrolment data are provided by the Ministry of Education, which maintains a database with reliable data that is updated regularly. The data used in this application were for the 2016-2017 school year.

5.2.2 HPV-specific objectives

The cohorts of girls from a single year to be vaccinated for HPV must be in the WHO-recommended target population of girls 9 to 13 years of age.

Please specify the source of data that was used to estimate the number of girls in target and reported in the above table under "Target population vaccinated with HPV"

The size of the target population, girls aged 9-14 years, was estimated by two bodies: the National Statistics Office (ONS) estimated the total target population and the Ministry of Education estimated the portion of that target population that is in school. By using these two source we were able to triangulate the data and obtain better estimates. We have not obtained other data on girls in this age range from UNESCO or UNFPA.

5.3. Target for the preventive campaign(s)

No NVS Prevention Campaign Support this year

5.4. Targets for the one-time mini catch-up campaign(s)

No one-time mini catch-up campaign this year

6. New and underused vaccines (routine NVS)

6.1. Calculation of the disease burden for corresponding diseases (if available)

If it is already included in detail in the Introduction Plan or Action Plan, please simply cite the section.

Disease	Title of the assessment	Date:	Results
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6.1.1 Specific information on HPV disease burden

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

Epidemiological data on cancers in Mauritania show that the most common (both sexes combined) are breast cancer (18%), cervical cancer (11%) and skin cancer (9%). Among women, the most frequent cancers are breast (37%), cervical (22.8%) and endometrial (7%) (Prof. N.E BABA et al., 2013).

According to Globocan, HPV prevalence is 28.4% in the general population in Mauritania (2012). We estimate there are approximately 839 new cases of cervical cancer every year, with a related mortality of 25.6 per thousand.

Describe existing prevention and control activities for cervical cancer.

The National Cancer Centre (CNO) treats confirmed cases of cancer with chemotherapy and radiation therapy. However secondary prevention, ie early screening of precancerous lesions, is quite limited. In addition there is a lack of awareness about risk factors like obesity, tobacco use, physical inactivity, early marriage and cultural barriers.

Has the country developed a roadmap or strategy for establishing or strengthening a national comprehensive approach to cervical cancer prevention and control? **No**

If Yes, please attach the relevant document and refer to Section [10. Attachments](#). (Document No. **15.16**)

If No, are there plans for the country to develop such a roadmap or strategy in the future? Please specify when and by whom the project will be carried out, and what agencies will be involved.

The strategic plan for the National Programme for Reproductive Health (PNSR) includes a component for the prevention and treatment of genital cancers. This component is made up of four primary arms: (i) prevention through education of women and men; (ii) introduction of the HPV vaccine into health programmes; (iii) screening for women to be introduced in all health centres, hospitals and private clinics; and (iv) case treatment at the National Cancer Centre (CNO).

6.1.2 Profile descriptions of provinces/regions

Countries must provide a profile description of each province/region using the model provided by Gavi.

Please attach the necessary "HPV profile in a region/province" documents provided by Gavi along with the mandatory documents in the Attachments section. Document number (**16**)

6.1.3 Delivery strategy for HPV vaccine

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

- Using schools to deliver HPV vaccines
- Using health centres to deliver HPV vaccines
- Using local communities to deliver HPV vaccines
- Campaigns

Using schools to deliver HPV vaccines

Explain why this delivery strategy was chosen for this region / district Will this administration strategy be used every year? If yes, explain how this strategy will be funded in the coming years.

A significant portion of the target population attends school, which represent an organised framework and which can be used to achieve satisfactory results when teachers and parent organisations are involved and trained. Schools will be used to as immunisation posts in all regions in order to reach girls who attend school. All primary schools will be surveyed for the routine cohort and junior high/middle schools will be surveyed for the multi-age cohort.

This strategy will be financed using Gavi-allocated funds and contributions from partners and the Government. The Ministry of Education may also participate indirectly by making its staff members available and by helping to organise the vaccination.

Please specify if girls will be selected for immunisation by a specific age or by a specific class year.

The target will be determined by a specific age. All children registered for school have civil records as a condition for enrolment. These documents are used to determine the target age for immunisation. For girls who are not in school, if a birth certificate is not available, significant events from the past will be used to determine their date of birth. Community staff will conduct this work before the immunisation teams arrive. Villages will be subdivided and a community liaison will be responsible for locating girls three to four months before the immunisation campaign.

Please fill out Table 6.1.3a if you are using age-specific immunisation or Table 6.1.3b if you are using class year-specific immunisation.

Table 6.1.3 a: Vaccination by specific age

Routine cohort	
Specific age selected	9 years
Target population of girls in selected age	43,817
Girls the selected age enrolled in school	40,333

Supplementary multi-age cohort	
Specific age range selected	Start: 10 years End: 14 years
Target population of girls in selected age	54,837
Girls the selected age range enrolled in school	168,440

Table 6.1.3 b: Vaccination by specific class year

Routine cohort		
Class year	Average age of girls in the class year	Number of girls in the class year
	9 years	

Supplementary multi-age cohort		
Class year	Average age of girls in the class year	Average age of girls in the class year
	9 years	

If you are immunising by class year, provide information on how you will ensure girls under age 9 and over age 15 will not be immunised.

N/A

Describe how vaccination will be organised (during the school year, vacation time, exams), where vaccines will be administered, who will administer the vaccines, and how vaccine logistics will be managed if [cut off].

Immunisation will be organised in classrooms in target schools. Girls will be immunised during a single school year to reduce the number of those lost to follow-up. The first dose will be given in November and the second in May. This vaccine schedule was developed jointly with the Ministry of Education, and accounts for a potential late start (ordinarily in October) and immunisation before the end-of-year exams.

Mobile teams will use ground transportation that will include Government vehicles with rental vehicles in districts that do not have any administrative vehicles. Vaccination teams will have at least two members, including one health professional (vaccination) and one teacher (recording data in the vaccination records).

Will additional staff need to be hired to immunise the multi-age cohort during the introduction year? If yes, how will this be funded?

The additional staff to be hired will primarily consist of teachers, who are also civil servants and who will be paid as symbolic DSA health personnel (approximately \$12 per day for 7 days).

Describe the strategy to reach girls who may miss the first immunisation session or catch-up sessions.

Girls who miss the first immunisation session will be recorded by the teacher, who will alert the health staff; depending on the number of girls involved, another immunisation session may be organised at the school.

Does the immunisation strategy need to be adjusted or private or religious schools? If yes, please explain.

In Mauritania, private schools and Mahadras are dependent on the Ministry of Education and organised the same as public schools.

However, experience in other countries has shown that there may be hesitancy in this cohort. Local Ministry of Education authorities will be responsible for conducting specific awareness-raising activities to make sure all girls in the vaccination age range are reached.

Using health centres to deliver HPV vaccines

Explain why this approach was chosen for this region / district Will this administration strategy be used every year?

The health centres and posts will be used to delivery routine vaccines in all regions, since these are major immunisation sites for girls who are not in school and who live nearby. This fixed strategy was selected for programme sustainability, and will be further supported by outreach and mobile activities for girls who live more than 5 km from these health facilities. Vaccines will be available year-round.

Will additional staff need to be hired to immunise the multi-age cohort during the introduction year? If yes, how will this be funded?

The country will not need to hire additional staff other than the health staff for the first year of immunisation. The vaccine will be offered as part of routine services; because a majority of girls will be immunised in schools and other public locations, crowds at health centres will be manageable. However community liaison support will be needed to get information to parents and mobilise girls who are not in school.

This strategy will be financed using Gavi-allocated funds and contributions from the Government and its partners (WHO and UNICEF).

Provide details about activities to create demand to encourage girls to come to the health centre.

Demand will be created through interpersonal communications, which will use all channels, networks and associations that could help increase awareness about the importance of immunisation and mobilise girls and their parents. Planned activities include community theatres, public gatherings such as markets organised by traditional communicators, opinion leaders and youth networks. Radio is an important tool with a large audience in Mauritania, so messages will be broadcast over the radio to inform communities of immunisation dates and locations. Journalists will be approached and asked to publicise information and immunisation, and will receive a press file during events organised just for them.

Provide details on how the country plans to establish relationships with schools. Promoting HPV vaccine delivery and mobilising schools, eg by encouraging education and mobilisation of parents and [cut off]

The Ministry of Education is involved in all steps of the process, from submitting the application to implementing vaccination activities. It is represented in all of the planning and coordination bodies (ICC, steering committee, technical committee) and operational-level implementation bodies (regional directors and provincial inspectors). The Ministry of Education also works closely with health services, actively participating in organising immunisation and supervision activities.

Local MoE authorities will be responsible for sending out information in parent meetings and by distributing flyers to children for their parents. These authorities also play an important role in finding girls who missed an immunisation and bringing them to a nearby health facilities or alerting a health agent about organising an immunisation session during a mobile strategy.

If applicable please explain how this delivery strategy will improve coverage, especially of “hard-to-reach / vulnerable” girls.

Vulnerable and hard-to-reach girls certainly exist in Mauritania, sometimes in difficult areas. However despite such issues these girls have always been taken into consideration during various immunisation campaigns, which have achieved high coverage levels (>80%), including the measles catch-up campaign (which targeted 42% of the population) and the meningitis campaign (which involved 70% of the total population). Adolescents the same age as the HPV vaccine target (9-14 years old) were reached.

Although cervical cancer is not as well known among populations as other childhood diseases (measles, meningitis, polio), people are still aware of the severity of cancer and will certainly be interested in strategies to prevent the disease.

This strategy will improve coverage because it does not occur at one time only; girls can be located and referred to the nearest health centre all year long. The mobile strategy will be a part of routine activities for health centres and posts, and will help vaccinate girls in the most remote villages.

Describe the monitoring mechanisms that will be used to ensure that girls receive the second dose of the vaccine.

A set of measures will be used to ensure that the maximum number of girls who received the first dose will also receive the second:

- The date of the second dose will be communicated to teachers, community liaisons, community associations and the girls' parents when the first dose is administered. The date will be scheduled in relation to important social and religious events in the country. For example, we are planning to start vaccination when classes begin in November 2018 and therefore the second dose is scheduled for early May 2019, at the beginning of the month of Ramadan.
- Education and reminder sessions will be organised for at least one week prior to the schedule second dose date and will be conducted by community liaisons and workers in rural, urban and semi-urban areas.

Using community areas to deliver HPV vaccines

Explain why this approach was chosen for this region / district

Girls not in school who live in villages that do not have a health facility will be vaccinated by mobile teams in a public place in the village (school, mosque, village chief property, etc.). This is the best way of assembling and reaching these girls. Weekly markets are another target, because there is a high probability that these girls and their parents will be there.

Will this approach be used every year? If yes, explain how this strategy will be funded in the coming years.

Will this approach be used every year? If yes, explain how this strategy will be funded in the coming years.

This approach will be used in outreach and mobile activities, which are conducted on a regular basis as part of the routine programme and for Supplementary Immunisation Activities (SIA).

The operational costs of these activities will be funded with Gavi support..

Describe how local health centre workers/volunteers will be involved in this strategy.

Health facility workers and volunteers will be included in both education and immunisation teams, in the fixed strategy as well as in outreach and mobile strategies. In addition, they will help survey for girls who are not in school in their district to support community liaisons.

Will additional staff need to be hired to immunise the multi-age cohort during the introduction year? If yes, how will this be funded?

Yes, the additional staff to be hired will primarily consist of teachers, who are also civil servants and who will be paid as symbolic DSA health personnel (approximately \$12 per day for 7 days). Because this outreach immunisation strategy will occur a single time and only in the first year of introduction, teachers will be able to participate by scheduling activities during school vacations or on weekends. This is an opportunity to educate the parents of girls who are not in school about the importance of enrolling them in school.

These activities will be funded by Gavi support for operational costs.

Where in the community will girls be vaccinated? For example, schools, permanent education sites, streets, parks, commercial centres, markets.

Vaccinations will be organised in schools for girls who attend school, and in health facilities in villages with such facilities (health centres and/or posts) for girls who do not attend school. Girls not in school who live in villages that do not have a health facility will be vaccinated by mobile teams in a public place in the village (school, mosque, village chief property, weekly market, etc.).

Mobile teams will use ground transportation made available for the campaign, either Government vehicles or rental vehicles in districts that do not have any administrative vehicles. Vaccination teams will have at least two members, including one health professional (vaccination) and one teacher (recording data), and will be supported by town criers and community staff who will comb through communities to gather the girls.

What types of interventions will be used to improve community acceptance and support?

Social mobilisation activities that involve all potential stakeholders will be identified during the micro-planning process, which will take place at least two months prior to the introduction and will be implemented at least one month prior to the introduction date (November 2018).

The messages that will be delivered are: the HPV vaccine prevents cervical cancer, does not harm future fertility, has been introduced in over 50 countries including most of Africa, and was approved by the Government and by WHO.

All identified stakeholders (teachers, parents of students, community liaisons, opinion leaders, village chiefs)

will be trained in interpersonal communication, and will represent an information and surveillance network to prevent or limit rumours.

Consent in Mauritania has always been implicit, because explicit consent may cast doubts about the safety of the vaccine.

Please provide details on activities to create demand, eg raising awareness and broadcasting information through the community or the education sector, mass media, youth clubs and [cut off]

Demand will be created through interpersonal communications, which will use all channels, networks and associations that could help increase awareness about the importance of immunisation and mobilise girls and their parents.

Planned activities include community theatres, public gatherings such as markets organised by traditional communicators, opinion leaders and youth networks. Radio is an important tool, with a large audience in Mauritania, so messages will be broadcast over the radio to inform communities of immunisation dates and locations. Journalists will be approached and asked to publicise information and immunisation, and will receive a press file during events organised just for them.

Community champions that have been identified include the First Lady, female members of parliament, heads of women's groups, and VACNET, which is the largest network of CSOs and works closely with the EPI.

If applicable please explain how this delivery strategy will improve coverage, especially of "hard-to-reach / vulnerable" girls.

This strategy will improve immunisation coverage because we can go to the target population by choosing significant community gathering places.

Describe the monitoring mechanisms that will be used to ensure that girls receive the second dose of the vaccine.

A set of measures will be used to ensure that the maximum number of girls who received the first dose will also receive the second:

- The date of the second dose will be communicated to teachers, community liaisons, community associations and the girls' parents when the first dose is administered. The date will be scheduled in relation to important social and religious events in the country. For example, we are planned to start vaccination when classes begin in November 2018 and therefore the second dose is scheduled for early May 2019, at the beginning of the month of Ramadan.

Education and reminder sessions will be organised for at least one week prior to the schedule second dose date and will be conducted by community liaisons and workers in rural, urban and semi-urban areas.

Using campaigns to administer HPV vaccines

Explain why this approach was chosen for this region / district

N/A

What kind of campaign will be used to administer the HPV vaccine, eg child health days/weeks, measles, rubella or tetanus vaccines, supplementary immunisation activities and health education activities

N/A

How will this campaign affect the administration of routine vaccines? For example, will health centre staff be working for this campaign?

N/A

Will additional staff need to be hired to immunise the multi-age cohort during the introduction year? If yes, how will this be funded?

N/A

What site(s) will be used to administer the vaccines during the campaign?

N/A

Will this administration strategy be used every year? If yes, explain how this strategy will be funded in the coming years.

N/A

If applicable please explain how this administration strategy will improve coverage, especially of "hard-to-reach / vulnerable" girls.

N/A

6.1.4 Social mobilisation

Please fill out the table below with details indicating the type of information and/or materials that will be used/distributed, the intended public, and the mechanism and frequency of each.

Type of information or materials/b>	Public receiving the materials/b>	Administration method	Persons administering the product	Frequency and date
Eg brochures, posters, banners, booklets, radio spots, etc.	Eg girls, parents, teachers, health workers, district officials, community groups, etc.	Eg, parent meetings, radio, information session at school, house visit, etc.	Eg., teachers, health workers, district official, etc.	Eg., daily, weekly, twice before programme starts; day of vaccination, two weeks before programme begins, etc.
The extent and gravity of cervical cancer worldwide and in Mauritania, The benefits of immunisation in	Network of NGOs, that support immunisation and fight cancer, Association of parents of students, Associations of paediatricians,	Communicate with the Council of Ministers Meet with the members of parliament network for reproductive health Send letters to the	National EPI team and technical committee in charge of the HPV vaccine introduction National EPI team and regional teams (MS, MEN<	At least 2 months before the launch of the HPV introduction

<p>cervical cancer prevention HPV immunisation accessibility, cost, effectiveness, side effects and schedule, People's roles and contributions to the successful introduction of the HPV vaccine;</p> <p>The goal of introducing the HPV vaccine into the EPI, challenges, expectations, immunisation targets, advantages and strategies. The extent and gravity of cervical cancer worldwide and in Mauritania, and how this is related to HPV; The problems associated with cervical cancer treatment The advantages of preventing cervical cancer through HPV immunisation, The importance of the immunisation campaign targeting girls aged 9-14 combining the HPV vaccine into the routine immunisation schedule for 9-year-old girls; Each actor's expected role; The goal of introducing the HPV vaccine into the EPI, Vaccine methods of administration, immunisation schedule and required number of doses for protection; Advantages, side effects and what to do for AEFIs, Keeping the immunisation card ICP techniques;</p>	<p>gynaecologists, health professionals, journalists; youth associations and networks; Associations of Imams, Associations of elementary education teachers</p> <p>Health professionals (supervisors, District Management Team and vaccination agents), teachers in elementary education and Mahadras, community liaisons</p>	<p>Ministries involved Organise an ICC meeting to share and validate the plan Organise meetings of the CRD/CDD/CLD Organise visits with religious and traditional leaders Organise an exchange meeting about the HPV vaccine introduction with cancer organisations Integrate the focus on primary prevention of cervical cancer in revised curricula for elementary teachers; Organise social mobilisation days with each target group; Implement activities (life lesson) Organise micro-programmes for the radio, round tables Phone messaging (SMS) Develop a training module for vaccination agents and teachers in elementary schools and Mahadras; Organise training workshops for trainers; Organise training workshops for vaccination agents, teachers in elementary schools and Mahadras in the target wilayas (regions);</p>	<p>MASEF, MJS) National EPI team and regional teams (MS, MEN< MASEF, MJS)</p>	<p>At least 1 month before immunisation with the 1st dose and a reminder 2 weeks before the 2nd dose At least 6 months before the start of vaccination</p>
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Please describe a crisis communication plan to respond to rumours and misconceptions about HPV vaccination.

The crisis committee for the HPV vaccine introduction, composed of the EPI and immunisation focal points from WHO and UNICEF, will be responsible for implementing the following crisis communication plan:

- Analysing the crisis situation and defining the geographic location, extent of the problem and repercussions on the health of vaccinated girls and on the immunisation programme;
- Conducting a rapid survey and sharing the results with the authorities and the community;
- Quickly communicating in a transparent and frequent manner with the community about actions to be taken;
- Ensuring that the community's concerns are taken into account;
- Informing the community when the crisis has ended;
- Analysing the impact on the immunisation programme and making adjustments for future activities;
- Integrating surveillance of communication and rumours with broader surveillance of the HPV immunisation programme;
- Assigning tasks to specific individuals and giving deadlines for post-immunisation monitoring;
- Designating focal points in schools (one teacher per school) and in the community (one community liaison per group of girls);
- Determining and securing a budget for activities related to a crisis.

6.1.5 Adolescent health integration

Independent of strategies used, please provide a description of the health services and/or education currently provided to young adolescents and/or adolescents aged 9-14 years, and describe any potential synergy with integrating [cut off]

a. For health services (in particular: the type of services provided, the age group/gender, if mandatory or optional, regular or occasional, in school or outside of school, who are the providers (government, NGO), frequency, to what extent the community uses these services, and how they are perceived by the community.)

A description of the primary health services that are available for adolescents follows.

- National Network of Youth Associations (RENAJ)

In 2005, the Ministry of Culture, Youth and Sport supported organising youth associations into networks at the local, regional and national level (in accordance with the African Youth Charter ratified by Mauritania in 2010, and following the AFRYAN movement (African Youth Network on Population and Development): 67 youth networks formed around 500 associations. With technical and financial support from UNFPA and UNICEF, the Ministry of Youth strengthened the capacities of youth networks through training, equipment, support for social and educational activities and support for their participation in international meetings.

- Counselling and information centres for youth

The Ministry of Youth and Sports (MJS) for the Islamic Republic of Mauritania has worked with the support of partners that include UNFPA to experiment with Centres for Counselling, Information and Guidance for Adolescents and Young People (CEIO/AJ) The Centre for youth counselling is a friendly environment where young people can find answers to various questions and their specific needs, including those related to health in general and reproductive health in particular, including STI/HIV/AIDS, through sports and leisure activities.

- Project to support adolescent health and development (MJS/UNFPA)

Since 2003 the Ministry of Youth has been partnering with UNFPA to provide adolescents and young people in the five wilayas where the programme is working with integrated sexual and reproductive health services and specific programmes to promote their skills, leadership and engage their full participation. The main activities are: supporting implementation of the National Strategy for Youth and Sports; supporting the two adolescent and youth initiatives to promote FP/RH in Counselling Centres and Teaching Centres; raising young people's awareness of gender-based violence and female genital mutilation (VBG/FGM); all through the Centres for youth counselling and information and monitoring and supervision missions.

Integrating sexual and reproductive health services into HPV immunisation could be fruitful and help improve access to reproductive health for girls. However, precautions are necessary precisely to avoid this integration becoming a barrier and leading to resistance. If parents initially see the introduction as a pretext for promoting

family planning or starting sexual activity. Sexuality remains a taboo subject in Mauritania, a country with a predominantly Islamic and traditional culture. Therefore at each stage the most socially acceptable and least controversial package of sexual and reproductive health activities should be chosen and integrated into immunisation.

To be integrated into adolescent health, a set of activities should be conducted for the short- and long-term based primarily on a participative approach that considers adolescents' sexual health needs at all levels and that involves the Government, NGOs and technical and financial partners.

- * Integration into IEC sessions at centres that offer routine reproductive health activities
- * Training health staff on communication and service provision techniques
- * Training NGOs and CHWs in interpersonal communication and service provision

b. For health education (especially: the topic, whether it is national, sub-national, in school or outside school, who does the teaching, with what frequency, is it part of the school curriculum, are NGOs providers? How is this education perceived by the community? Is there an evaluation, and if so, how is it done and what have been the results?)

Health education has not yet achieve the objective in school or community environments. Vaccination teams, teachers and community liaisons will be trained to provide information about adolescent health during social mobilisation activities and when the girls are gathered prior to immunisation

Topics relating to sexual health remain taboo. There are, however, some NGOs that conduct activities on that topic, but these should receive more training in communication techniques. New guidelines should be provided to education personnel and community liaisons to better address sexual and reproductive health for young people. The most important topics for girls 9-14 are early pregnancy, family planning, female genital mutilation and gender-based violence.

c. To improve the vaccination platform for adolescents (may include integration with: other vaccines for adolescents (eg, measles, rubella, tetanus or dengue) [cut off]

To improve this vaccination platform a new communication strategy for behaviour change using interpersonal communication and the youth voice must be adopted to show the advantages of immunisation in adolescents to prevent sexually transmitted diseases. The HPV vaccine may be combined with tetanus immunisation, which remains a challenge in some communities. Because it is so important, this topic was selected for the African Immunisation Week in Mauritania this year.

A study of barriers that young people face in accessing reproductive health services, funded by UNICEF in 2015, revealed that attitudes about the HPV vaccine introduction are generally positive and favourable in the community. For example, in the cities of Nouakchott and Boghé, most of the women interviewed thought that cervical cancer was a real problem that affected girls and women and that it was relatively "well-known as a health problem". "This vaccine is very important and women will accept it and use it" Focus group of women in Boghé. "All women are prepared to have their girls vaccinated against this kind of disease. We know families that have suffered from it." Focus group of women in Nouakchott.

6.1.6 CSO commitment

Describe the CSOs and how they will be included in delivery of the HPV vaccine, eg, demand-creation activities, improving coverage of girls that are "hard-to reach".

The EPI works with the largest network of NGOs and community-based organisations, which is called VACNET. VACNET is an active member of the steering committee for this submission, and will be part of the implementation committee for immunisation. This network will be called on to education communities, find girls who are not in school and those who live in remote areas, and will also help train and deploy community liaisons in the field. Their proximity to parents and girls in the target population is a true asset for the EPI.

During micro-planning, a work plan will be defined with the various organisations to divide tasks and to avoid overlaps or duplication of activities in the field. It is important for members of civil society to work together to achieve the best results.

6.1.7 Roles and responsibilities of primary stakeholders and technical partners

Please fill in the model provided by Gavi to define the respective roles and responsibilities of all national stakeholders and technical partners.

Please attach the necessary documents and refer to Section 10. [Attachments](#). (Document N°17)

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

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

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

It should be noted that because of various factors, the launch date may vary compared to the date stipulated in the application. Gavi will work in close collaboration with the country and its partners to correct this problem.

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 logistics 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 the proposals that include Gavi funding for the cold chain intended for storing vaccines must provide equipment that is WHO-prequalified for its performance, quality and programme safety (PQS). The purchase of non-PQS equipment will only be considered in special cases, with documentation and prior approval from Gavi.

The national level has four cold rooms and one of these is a negative cold room with a gross capacity of 10,000 litres and three positive cold rooms with a gross capacity of 85,000 litres, six freezers with a gross total capacity of 1,075 litres. Of these freezers, four are TFW 800 models each with a net capacity of 145 litres, one is an MF 314 model with a capacity of 271 litres and one is a HBD 286 with a capacity of 224 litres. These are used for freezing ice packs.

To ensure energy source continuity if there is an electrical outage, the national level has two generators with a total capacity of 119 KVA (75 and 44 KVA each).

A 10m³-cold room has been installed at the Nouakchott health facility. Ouest and another positive cold room of 30 m³ will be installed in Kiffa while waiting for construction of the local cold chain to be complete. It is currently under way in Kiffa [sic].

The Ministry of Health is committed to acquiring appropriate equipment to satisfy the cold chain requirements and begin the process of replacing fuel-based equipment with solar equipment that has been pre-qualified by WHO. Within this framework, the country has already installed 260 refrigerators, 153 which are solar and 107 of which are electric.

6.2.1 Vaccine costs

Vaccine	Presentation	2017	2018	2019	2020
HPV quadrivalent, 1 dose(s) per vial, LIQUID	1	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** (ie, the cohort that will be routinely vaccinated every year as part of the routine immunisation programme). Gavi will finance in full.

If you wish to co-finance a larger amount, please indicate it on your co-financing line.

Country group	Preparatory transition phase		
	2018	2019	2020
Minimum co-financing	0.46	0.53	0.61
Your co-financing (please change if higher)			

6.2.2.1 Specific information for new vaccine immunisations with a routine cohort

	Source		2018	2019	2020
No. of girls in the routine cohort to vaccine with the 1st dose	Table 5.2	#	15,603	16,131	40,508
No. of girls in the routine cohort to vaccine with the 2nd dose	Table 5.2	#	14,736	15,235	38,257
Immunisation coverage with the second dose	Table 5.2	%	85%	85%	85%
Country co-financing per dose	Table 6.2.2	\$	0.46	0.53	0.61

6.2.2.2 Specific information for new vaccine immunisations with a multi-age cohort

	Source		2018	2019	2020
No. of girls in the supplementary multi-age cohort to vaccine with the 1st dose	Table 5.2	#	97,029	0	132,324
No. of girls in the supplementary multi-age cohort to vaccine with the 2nd dose	Table 5.2	#	91,639	0	124,973
Immunisation coverage with the second dose	Table 5.2	%	85.00%	0	85.00%

6.2.3 Share of the routine cohort supply to be provided by Gavi (and estimated cost in USD)

		2018	2019	2020
Number of vaccine doses	#	3,044	3,626	10,478
Number of AD syringes	#	4,227	4,023	13,347
Number of reconstitution syringes	#	0	0	0
Number of safety boxes	#	47	45	147
Total value to be co-financed by the Country [1]	\$	18,357	17,650	58,074

[1] The co-financing amount for intermediate countries and graduating countries shows the cost of vaccines, associated safety materials and transport costs. The total co-financing amount does not include supply agency costs and fees, such as handling costs. Information on these additional costs and fees will be provided by the supply agency involved, as part of the cost estimates required by the country.

6.2.3.1 Share of the routine cohort supply to be provided by Gavi (and estimated cost in USD)

		2018	2019	2020
Number of vaccine doses	#	27,295	27,740	68,287
Number of AD syringes	#	37,907	30,777	86,982
Number of reconstitution syringes	#	0	0	0
Number of safety boxes	#	417	338	957
Total value to be co-financed by Gavi	\$	164,612	135,039	378,474

6.2.3.2 Share of the supplemental multi-age cohort supply to be provided by Gavi (and estimated cost in USD)

		2018	2019	2020
Number of vaccine doses	#	111,765	15,235	170,581
Number of AD syringes	#	122,942	16,759	187,640
Number of reconstitution syringes	#	0	0	0
Number of safety boxes	#	1,353	185	2,065

6.2.4 New and Underused Vaccine Introduction Grant

Calculation of the vaccine introduction grant for HPV quadrivalent, 1 dose(s) per vial, LIQUID

Year of New Vaccine Introduction	Girls in the cohort (from table 5.2)	Share per Birth in US\$	Total in US\$
2018	17,337	2.40	100,000

The grant will be based on a maximum award of \$2.40 per girl in the birth cohort with a minimum starting grant award of \$100,000

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

The introduction grant provided by Gavi will be used as described in the introduction plan and budget forecasting model. Planned activities include: developing training materials, immunisation cards and management tools; training workshops for vaccination teams at the national and regional levels, training for education inspectors, training for service providers and community liaisons, training for school teachers and directors; producing communication materials, producing and distributing trailers including for community radio stations, organising community theatre productions, the national launch ceremony, copying documents, and supervision activities.

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.

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

The deficit to cover requirements will primarily be covered by the Government's 2018 budget, which will be planned in 2017. Technical and financial partners like WHO and UNICEF will also provide support.

6.2.5 New and underused operational support

Calculation of operational support for HPV quadrivalent, 1 dose(s) per vial, LIQUID

Year of New Vaccine Introduction	Girls in the supplementary multi-age cohort (per Table 5.2)	Share per girl in the supplementary multi-age cohort in USD	Total in US\$
2018	107,810	0.55	100,000

Describe how Gavi operational support will be used to reach multi-age cohorts. How will these funds be used to strengthen routine activities, eg, strengthen awareness-raising activities.

The multi-age cohort will be reached through major social mobilisation efforts and the fixed and mobile

strategies, which will criss-cross all villages in the country in order to immunise all girls who were previously identified during micro-planning. All of these activities will be assets for the programme, particularly those related to adolescent health communication and capacity-building for health providers and community liaisons, which will be used for the routine programme.

Detailed budget attached as Document No. 22.

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

The budget for the HPV vaccine introduction is estimated at 130,229,600 Ouguiyas, or US\$ 372,085, not including the cost of vaccines and supplies. Support is requested for a three-year period, from 2018 to 2020. Activities will be funded from the introduction package allocated by Gavi and will be supplemented by the contributions from the Government and from partners (WHO, UNICEF). Thus Gavi will contribute 67,150,600 Ouguiyas (US\$ 191,859) or 52% of the budget, and the remainder will be provided as follows: 23% by the Government (29,529,000 Ouguiyas / US\$84,369); 8% by UNICEF (11,000,000 Ouguiyas / US\$ 31,429); and 17% by WHO (22,550,000 Ouguiyas / US\$ 64,429). Partner funds will be taken from funds previously allocated to the EPI for routine activities.

Technical assistance

Please describe any specific area for which the Ministry will need technical assistance in order to support the introduction of **quadrivalent HPV**

The Ministry of Health will need technical and financial assistance for:

- hiring a national consultant to manage implementation;
- hiring a national consultant for social mobilisation activities;
- planning and implementing a coverage survey, post-introduction evaluation (PIE) and cost analysis (costing).

Support from partners such as PATH, WHO, UNICEF, UNFAP, and so forth.

7. NVS Preventive campaigns

No NVS Prevention Campaign Support this year

8. Follow-up campaigns for new and underused vaccines

No support for the NVS follow-up campaign this year.

9. Procurement and management

9.1 Procurement and management of routine vaccination with new or underused vaccines

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

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

Mauritania procures all vaccine (traditional, new and under-used) through UNICEF. Funds for the purchase of vaccines and injection supplies are transferred directly by the Ministry of Finance to UNICEF accounts that were opened for this purpose in Copenhagen for both co-financing and for traditional vaccine procurement, both of which are 100% funded by the Government.

b) If an alternative mechanism for procurement and delivery of vaccine (financed by the country or 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 purchase of locally-produced vaccines directly from a supplier which may not have been pre-qualified by WHO, assurance should also be provided that the vaccines purchased comply with WHO's definition of quality vaccines, for which there are no unresolved quality problems reported to WHO, and for which compliance with standards is assured by a National Regulatory Authority (NRA) with jurisdiction, as assessed by WHO in the countries of production and purchase.

N/A

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.

Just as for other vaccines, Gavi funds should be transferred to the EPI account in the Banque pour le Commerce et l'Industrie (BCI).

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

Funds for the purchase of vaccines and injection supplies will be transferred directly by the Ministry of Finance to UNICEF accounts that were opened for this purpose in Copenhagen for both co-financing and for traditional vaccine procurement.

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

Funds are kept in the Gavi/NVS account opened by the Ministry of Health in the Banque pour le Commerce International [sic] (BCI). The co-signers for the account are the Programme Coordinator and his financial and administrative manager. Disbursement of funds is based on a request, in accordance with the resource utilisation plan. The management procedures used are those of the Ministry of Health.

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

To evaluate coverage for this vaccine we are planning to conduct a rigorous coverage survey after the first year of introduction, in addition to administrative data that will be available after each round.

g) For support request related to the measles vaccine second dose, does the country wish to receive donations in kind or in cash? **N/A**

9.2 Procurement and management for NVS preventive campaigns

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 pre-qualification and, if so, describe the procedure and its duration. In addition, state whether the country accepts the expedited procedure for national registration of WHO-pre-qualified vaccines.

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

All of the vaccines introduced in recent years in Mauritania have followed the same registration procedure that has always been used for vaccine licensure. The Department of Pharmacy and Laboratories (DPL) oversees vaccine registration. At this time the HPV vaccine has not yet been registered. However the registration process is fast: the programme writes a letter and sends it to the overseeing department, who then sends it to the Secretary General at the Ministry of Health, which instructs service units.

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

All of the vaccines introduced in recent years in Mauritania have followed the same registration procedure that has always been used for vaccine licensure. The Department of Pharmacy and Laboratories (DPL) oversees vaccine registration. At this time the HPV vaccine has not yet been registered. However the registration process is fast: the programme writes a letter and sends it to the overseeing department, who then sends it to the Secretary General at the Ministry of Health, which instructs service units.

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

The Vaccine Independence Initiative (VII) between the Ministry of Health, the Ministry of Finance and UNICEF excludes such requirements for pre-delivery inspection. If any such delays occur, the Minister of Health will directly contact the Minister of Finance to resolve the issue.

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

The Department of Pharmacy and Laboratories (DPL) is the NRA in Mauritania. It is certified by WHO and is a member of the current NITAG and operational ICC.

Director: HAMOUD FADEL Email: directionpharmacie@yahoo.fr

Tel: +222 44 07 44 44

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), of equipment enabling the safe handling of immunisation materials, storage capacity, transportation and disposal of immunisation waste. Please describe the country's waste management plan for immunisation activities (including campaigns).

All wilaya hospitals have incinerators as do some moughataas. Existing incinerators can be used to manage waste from the HPV vaccine introduction. They were used for the 2014 meningitis and measles campaign with satisfactory results.

During training, the Ministry of Health will emphasize injection safety and will provide equipment to transport and dispose of vaccine waste, such as safety containers for fixed and mobile strategies. Waste collected during school and other public site immunisation activities will be safely transported to health centres for

incineration.

9.5 Procurement and management for follow-up campaigns

No support for the NVS follow-up campaign this year.

10. List of documents attached to this proposal

10.1. List of documents attached to this proposal

Table 1: Checklist of mandatory attachments

Document Number	Document	Section	File
Endorsements			
1	MoH Signature (or delegated authority) of Proposal	4.1.1	Signatures Ministres.PDF File desc: Signature Ministre de la Santé Date/time : 12/05/2017 10:50:11 Size: 144 KB
2	MoF Signature (or delegated authority) of Proposal	4.1.1	Signatures Ministres.PDF File desc: Signature Ministre de l'Économie et des Finances Date/time : 12/05/2017 10:44:13 Size: 144 KB
3	MoE signature (or delegated authority) of HPV Proposal	4.1.1	Signatures Ministres.PDF File desc: Signature Ministre de l'Éducation Nationale Date/time : 12/05/2017 10:42:31 Size: 144 KB
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	Arrêté PEV.PDF File desc: Arrêté créant comité de pilotage du PEV Date/time : 11/05/2017 05:47:06 Size: 2 MB
5	Minutes of Coordination Forum meeting endorsing Proposal	4.1.3	PV CCIA Validation HPV.PDF File desc: Compte rendu Réunion validation soumission HPV Date/time : 11/05/2017 11:16:32 Size: 3 MB
6	Signatures of Coordination Forum members in Proposal	4.1.3	Signatures CCIA.PDF File desc: Signatures CCIA Date/time : 11/05/2017 11:18:30 Size: 1 MB
7	Minutes of the Coordination Forum meetings from the past 12 months before the proposal	4.1.3	PV CCIA.rar File desc: Compte rendu des 3 dernières réunions du CCIA Date/time : 11/05/2017 11:21:33 Size: 5 MB
8	Role and functioning of the advisory group, description of plans to establish a NITAG	4.2.1	Note Conceptuelle GTCV finale Fff Mb.docx File desc: Termes de référence du GTCV n nous de création Date/time : 07/05/2017 05:34:15 Size: 53 KB

31	Minutes of NITAG meeting with specific recommendations on the NVS introduction or campaign	4.2	GTCV.docx File desc: GTCV Date/time : 11/05/2017 11:43:14 Size: 11 KB
Planning, financing and vaccine management			
9	Comprehensive Multi Year Plan - cMYP	5.1	PPAC 2016 - 2020 Mauritanie vf adapté.docx File desc: PPAC adapté Date/time : 07/05/2017 05:36:28 Size: 1 MB
10	cMYP Costing tool for financial analysis	5.1	Costing Tool 14.06.15.xlsx File desc: Outil d'analyse financière du PPAC Date/time : 07/05/2017 05:48:37 Size: 1 MB
11	M&E and surveillance plan within the country's existing monitoring plan	5.1.4	Plan de suivi Evaluation HPV.docx File desc: Plan suivi evaluation Date/time : 12/05/2017 09:50:55 Size: 15 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	Plan Introduction HPV Mauritanie, Mai 2017.docx File desc: Plan d'introduction HPV Date/time : 11/05/2017 11:59:00 Size: 284 KB
15	HPV Region/ Province profile	6.1.1	Feuille de route pour le vaccin anti HPV.docx File desc: Stratégies HPV Date/time : 11/05/2017 11:57:20 Size: 43 KB
16	HPV Key Stakeholder Roles and Responsibilities	6.1.1,6.1.2	Stratégie Suivi evaluation HPV.docx File desc: Résumé de la méthodologie de suivi évaluation Date/time : 08/05/2017 06:56:54 Size: 13 KB
19	EVM report	9.3	Rapport final GEV Mauritanie 2014 .doc File desc: Rapport de l'évaluation de la GEV 2014 Date/time : 07/05/2017 05:41:00 Size: 4 MB
20	Improvement plan based on EVM	9.3	Plan d'amélioration de la GEV Mauritanie 2014 actualisé.xlsx File desc: Plan d'amélioration de la gestion efficace des vaccins Date/time : 07/05/2017 05:42:21 Size: 94 KB
21	EVM improvement plan progress report	9.3	Rapport de revue PA GEV Nov. 2016.doc File desc: Rapport de revue du plan d'amélioration de la GEV Date/time : 07/05/2017 05:43:58 Size: 3 MB

22	Detailed budget template for VIG / Operational Costs	6.x,7.x.2,6.x.2,8.2.3	MODELE DE PREVISIONS BUDGETAIRE HPV.xlsm File desc: Modèle de prévision budgétaire HPV Date/time : 07/05/2017 05:45:42 Size: 1 MB
32	Data quality assessment (DQA) report	5.1.4	Plan amelioration qualite donnees PEV-RIM-DRAFT 18-04-2017.docx File desc: Rapport évaluation qualité des données Date/time : 11/05/2017 11:26:14 Size: 335 KB

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	Risk assessment and consensus meeting report for Yellow Fever, including information required in the NVS guidelines on YF Risk Assessment process	5.1	No file loaded
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	No file loaded

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	Plan amelioration qualite donnees PEV-Mauritanie 2017.docx File desc: Plan d'amélioration de la qualité des données Date/time : 08/05/2017 07:02:19 Size: 344 KB
34	Plan of Action for campaigns	8.1, 8.x.4	No file loaded
35	Other		Autres Documents.zip File desc: Profil des régions Rôles et Responsabilités des parties prenantes Plan de communication Formulaire bancaire Date/time : 12/05/2017 09:55:01 Size: 1 MB
36	Strategy for establishing or strengthening a national comprehensive approach to cervical cancer prevention and control		PLAN CANCER MAURITANIE VF.docx File desc: Plan de lutte contre les cancers Date/time : 08/05/2017 07:05:41 Size: 164 KB
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	No file loaded
41	cMYP addendum on measles and rubella		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
Number of vaccine doses	#	3,044	3,626	10,478
Number of AD syringes	#	4,227	4,023	13,347
Number of re-constitution syringes	#	0	0	0
Number of safety boxes	#	47	45	147
Total value to be co-financed by the Country [1]	\$	18,357	17,650	58,074

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
Number of vaccine doses	#	27,295	27,740	68,287
Number of AD syringes	#	37,907	30,777	86,982
Number of re-constitution syringes	#	0	0	0
Number of safety boxes	#	417	338	957
Total value to be co-financed by Gavi	\$	164,612	135,039	378,474

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

		2018	2019	2020
Number of vaccine doses	#	111,765	15,235	170,581
Number of AD syringes	#	122,942	16,759	187,640
Number of re-constitution syringes	#	0	0	0
Number of safety boxes	#	1,353	185	2,065

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

	Source		2018	2019	2020
Number of girls in the additional multi-age cohort to be vaccinated with the first dose	Table 5.2	#	97,029	0	132,324
Number of girls in the additional multi-age cohort to be vaccinated with the second dose	Table 5.2	#	91,639	0	124,973
Immunisation coverage with the second dose	Table 5.2	%	85.00%	0	85.00%

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	10.03 %		
B	Number of children to be vaccinated with the first dose	Table 5.2	15,603	1,566	14,037
B1	Number of children to be vaccinated with the second dose	Table 5.2	14,736		
C	Number of doses per child	Vaccine parameter (schedule)	1		
D	Number of doses needed	B + B1	30,339	3,044	27,295
E	Estimated vaccine wastage factor	Table 5.2	1.05		
F	Number of doses needed including wastage	D x E	31,856	3,196	28,660
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]	7,964	799	7,165
I	Total vaccine doses needed	Round up((F + G) / Vaccine package size) * Vaccine package size	39,900	4,003	35,897
J	Number of doses per vial	Vaccine parameter	1		
K	Number of AD syringes (+ 10% wastage) needed	(D + G) x 1.10	42,134	4,227	37,907
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	464	47	417
N	Cost of vaccines needed	I x vaccine price per dose (g)	179,550	18,012	161,538
O	Cost of AD syringes needed	K x AD syringe price per unit (ca)	1,517	153	1,364
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)	214	22	192
R	Freight cost for vaccines needed	N x freight cost as of % of vaccines value (fv)	1,688	170	1,518
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)	182,969	18,357	164,612
U	Total country co-financing	I x country co-financing per dose (cc)	18,354		
V	Country co-financing % of Gavi supported proportion	U / T	10.03 %		

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	11.56 %		
B	Number of children to be vaccinated with the first dose	Table 5.2	16,131	1,865	14,266
B1	Number of children to be vaccinated with the second dose	Table 5.2	15,235		
C	Number of doses per child	Vaccine parameter (schedule)	1		
D	Number of doses needed	B + B1	31,366	3,626	27,740
E	Estimated vaccine wastage factor	Table 5.2	1.05		
F	Number of doses needed including wastage	D x E	32,935	3,807	29,128
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]	270	32	238
I	Total vaccine doses needed	Round up((F + G) / Vaccine package size) * Vaccine package size	33,300	3,850	29,450
J	Number of doses per vial	Vaccine parameter	1		
K	Number of AD syringes (+ 10% wastage) needed	(D + G) x 1.10	34,800	4,023	30,777
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	383	45	338
N	Cost of vaccines needed	I x vaccine price per dose (g)	149,850	17,321	132,529
O	Cost of AD syringes needed	K x AD syringe price per unit (ca)	1,253	145	1,108
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)	177	21	156
R	Freight cost for vaccines needed	N x freight cost as of % of vaccines value (fv)	1,409	163	1,246
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)	152,689	17,650	135,039
U	Total country co-financing	I x country co-financing per dose (cc)	17,649		
V	Country co-financing % of Gavi supported proportion	U / T	11.56 %		

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	13.30 %		
B	Number of children to be vaccinated with the first dose	Table 5.2	40,508	5,389	35,119
B1	Number of children to be vaccinated with the second dose	Table 5.2	38,257		
C	Number of doses per child	Vaccine parameter (schedule)	1		
D	Number of doses needed	B + B1	78,765	10,478	68,287
E	Estimated vaccine wastage factor	Table 5.2	1.05		
F	Number of doses needed including wastage	D x E	82,704	11,002	71,702
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]	12,443	1,656	10,787
I	Total vaccine doses needed	Round up((F + G) / Vaccine package size) * Vaccine package size	95,200	12,665	82,535
J	Number of doses per vial	Vaccine parameter	1		
K	Number of AD syringes (+ 10% wastage) needed	(D + G) x 1.10	100,329	13,347	86,982
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	1,104	147	957
N	Cost of vaccines needed	I x vaccine price per dose (g)	428,400	56,989	371,411
O	Cost of AD syringes needed	K x AD syringe price per unit (ca)	3,612	481	3,131
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)	509	68	441
R	Freight cost for vaccines needed	N x freight cost as of % of vaccines value (fv)	4,027	536	3,491
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)	436,548	58,074	378,474
U	Total country co-financing	I x country co-financing per dose (cc)	58,072		
V	Country co-financing % of Gavi supported proportion	U / T	13.30 %		

Annex 2 - NVS Routine – Preferred Second Presentation

Annex 2.1 - NVS Routine Support (HPV bivalent, 2 dose(s) per vial, LIQUID)

Table Annex 2.1 A: Rounded up portion of supply that is procured by the country and estimate of relative costs in US\$

		2018	2019	2020
Number of vaccine doses	#	2,978	3,548	10,253
Number of AD syringes	#	4,136	3,936	13,059
Number of re-constitution syringes	#	0	0	0
Number of safety boxes	#	46	44	144
Total value to be co-financed by the Country [1]	\$	18,356	17,651	58,074

Table Annex 2.1 B: Rounded up portion of supply that is procured by Gavi and estimate of relative costs in US\$

Rounded up portion of supply for the additional cohort that is procured by Gavi and estimate of relative costs in US\$

		2018	2019	2020
Number of vaccine doses	#	27,361	27,818	68,512
Number of AD syringes	#	37,998	30,864	87,270
Number of re-constitution syringes	#	0	0	0
Number of safety boxes	#	418	339	960
Total value to be co-financed by Gavi	\$	168,641	138,399	388,084

Table Annex 2.1 B: Rounded up portion of supply that is procured by Gavi and estimate of relative costs in US\$ ADDITIONAL COHORTS

		2018	2019	2020
Number of vaccine doses	#	14,736	15,235	38,257
Number of AD syringes	#	16,210	16,759	42,083
Number of re-constitution syringes	#	0	0	0
Number of safety boxes	#	179	185	463

Table Annex 2.1 C: Summary table for vaccine HPV bivalent, 2 dose(s) per vial, LIQUID

	Source		2018	2019	2020
Number of girls in the additional multi-age cohort to be vaccinated with the first dose	Table 5.2	#	0	0	0
Number of girls in the additional multi-age cohort to be vaccinated with the second dose	Table 5.2	#	0	0	0
Immunisation coverage with the second dose	Table 5.2	%	0	0	0

Table Annex 2.1 D: Estimated numbers for HPV bivalent, 2 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	9.82 %		
B	Number of children to be vaccinated with the first dose	Table 5.2	15,603	1,532	14,071
B1	Number of children to be vaccinated with the second dose	Table 5.2	14,736		
C	Number of doses per child	Vaccine parameter (schedule)	1		
D	Number of doses needed	B + B1	30,339	2,978	27,361
E	Estimated vaccine wastage factor	Table 5.2	1.05		
F	Number of doses needed including wastage	D x E	31,856	3,127	28,729
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]	7,964	782	7,182
I	Total vaccine doses needed	Round up((F + G) / Vaccine package size) * Vaccine package size	39,900	3,917	35,983
J	Number of doses per vial	Vaccine parameter	2		
K	Number of AD syringes (+ 10% wastage) needed	(D + G) x 1.10	42,134	4,136	37,998
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	464	46	418
N	Cost of vaccines needed	I x vaccine price per dose (g)	183,540	18,015	165,525
O	Cost of AD syringes needed	K x AD syringe price per unit (ca)	1,517	149	1,368
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)	214	22	192
R	Freight cost for vaccines needed	N x freight cost as of % of vaccines value (fv)	1,726	170	1,556
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)	186,997	18,356	168,641
U	Total country co-financing	I x country co-financing per dose (cc)	18,354		
V	Country co-financing % of Gavi supported proportion	U / T	9.82 %		

Table Annex 2.1 D: Estimated numbers for HPV bivalent, 2 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	9.82 %		
B	Number of children to be vaccinated with the first dose	Table 5.2	15,603	1,532	14,071
B1	Number of children to be vaccinated with the second dose	Table 5.2	14,736		
C	Number of doses per child	Vaccine parameter (schedule)	1		
D	Number of doses needed	B + B1	30,339	2,978	27,361
E	Estimated vaccine wastage factor	Table 5.2	1.05		
F	Number of doses needed including wastage	D x E	31,856	3,127	28,729
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]	7,964	782	7,182
I	Total vaccine doses needed	Round up((F + G) / Vaccine package size) * Vaccine package size	39,900	3,917	35,983
J	Number of doses per vial	Vaccine parameter	2		
K	Number of AD syringes (+ 10% wastage) needed	(D + G) x 1.10	42,134	4,136	37,998
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	464	46	418
N	Cost of vaccines needed	I x vaccine price per dose (g)	183,540	18,015	165,525
O	Cost of AD syringes needed	K x AD syringe price per unit (ca)	1,517	149	1,368
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)	214	22	192
R	Freight cost for vaccines needed	N x freight cost as of % of vaccines value (fv)	1,726	170	1,556
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)	186,997	18,356	168,641
U	Total country co-financing	I x country co-financing per dose (cc)	18,354		
V	Country co-financing % of Gavi supported proportion	U / T	9.82 %		

Table Annex 2.1 D: Estimated numbers for HPV bivalent, 2 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	11.31 %		
B	Number of children to be vaccinated with the first dose	Table 5.2	16,131	1,825	14,306
B1	Number of children to be vaccinated with the second dose	Table 5.2	15,235		
C	Number of doses per child	Vaccine parameter (schedule)	1		
D	Number of doses needed	B + B1	31,366	3,548	27,818
E	Estimated vaccine wastage factor	Table 5.2	1.05		
F	Number of doses needed including wastage	D x E	32,935	3,725	29,210
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]	270	31	239
I	Total vaccine doses needed	Round up((F + G) / Vaccine package size) * Vaccine package size	33,300	3,767	29,533
J	Number of doses per vial	Vaccine parameter	2		
K	Number of AD syringes (+ 10% wastage) needed	(D + G) x 1.10	34,800	3,936	30,864
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	383	44	339
N	Cost of vaccines needed	I x vaccine price per dose (g)	153,180	17,325	135,855
O	Cost of AD syringes needed	K x AD syringe price per unit (ca)	1,253	142	1,111
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)	177	21	156
R	Freight cost for vaccines needed	N x freight cost as of % of vaccines value (fv)	1,440	163	1,277
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)	156,050	17,651	138,399
U	Total country co-financing	I x country co-financing per dose (cc)	17,649		
V	Country co-financing % of Gavi supported proportion	U / T	11.31 %		

Table Annex 2.1 D: Estimated numbers for HPV bivalent, 2 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	13.02 %		
B	Number of children to be vaccinated with the first dose	Table 5.2	40,508	5,273	35,235
B1	Number of children to be vaccinated with the second dose	Table 5.2	38,257		
C	Number of doses per child	Vaccine parameter (schedule)	1		
D	Number of doses needed	B + B1	78,765	10,253	68,512
E	Estimated vaccine wastage factor	Table 5.2	1.05		
F	Number of doses needed including wastage	D x E	82,704	10,765	71,939
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]	12,443	1,620	10,823
I	Total vaccine doses needed	Round up((F + G) / Vaccine package size) * Vaccine package size	95,200	12,392	82,808
J	Number of doses per vial	Vaccine parameter	2		
K	Number of AD syringes (+ 10% wastage) needed	(D + G) x 1.10	100,329	13,059	87,270
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	1,104	144	960
N	Cost of vaccines needed	I x vaccine price per dose (g)	437,920	57,000	380,920
O	Cost of AD syringes needed	K x AD syringe price per unit (ca)	3,612	471	3,141
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)	509	67	442
R	Freight cost for vaccines needed	N x freight cost as of % of vaccines value (fv)	4,117	536	3,581
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)	446,158	58,074	388,084
U	Total country co-financing	I x country co-financing per dose (cc)	58,072		
V	Country co-financing % of Gavi supported proportion	U / T	13.02 %		

Annex 3 - NVS Preventive campaign(s)

No NVS Prevention Campaign Support this year

Annex 3 - NVS Preventive campaign(s)

No NVS Prevention Campaign Support this year

Annex 4

Table Annex 4A: Commodities Cost

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

Supply	Form
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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)

Estimated prices of supply are not disclosed

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	2.10 %	2.10 %	1.87 %

**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	0.46	0.53	0.61

12. Banking Form

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

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

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

By who is the account audited?

Signature of Government's authorizing official

		Seal
Name:		
Title:		
Signature:		
Date:		

FINANCIAL INSTITUTION		CORRESPONDENT BANK (In the United States)	
Bank Name:			
Branch Name:			
Address:			
City Country:			
Swift Code:			
Sort Code:			
ABA No.:			
Telephone No.:			
FAX No.:			

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

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

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

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