GAVI Alliance

COUNTRY PROPOSAL FORM

for bid purposes:

FOR THE INTRODUCTION OF Vaccine against Hæmophilus influenzae type b infections

ISLAMIC REPUBLIC OF MAURITANIA

April 6, 2008

Please return a signed copy of this document to:
Office of the GAVI Alliance; c/o UNICEF, Palais des Nations, 1211 Geneva 10, Switzerland.

If you have questions, please contact Dr. Ivone Rizzo, irizzo@gavialliance.org or a representative of one of GAVI's partner institutions. All documents and attachments must be sent in English or French.

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Analytical summary

The EIP's Complete Multi-Year Plan for Mauritania 2008-2012 plans for the introduction of the haemophilus influenzae b vaccine in its pentavalent form in 2009. The country introduced the hepatitis B vaccine in 2005 after receiving support from GAVI for vaccination sites and injection safety in 2002. This support enabled an improvement in the effectiveness of the routine EIP in terms of immunization coverage, which went from 31% in 2000 to 75% in 2007 for DTP3. As concerns injection safety, the country built incinerators in 40% of its Moughataas in order to ensure that waste disposal is risk-free for people and the environment. .

Hæmophilus influenzae b infections still constitute one of the major causes of infant and child morbidity and mortality in the sub-region in general and in Mauritania in particular. With an eye toward reducing infant and child mortality in accordance with GIVS' Millenium Development Goal 4 and its strategic points, the country has committed to limiting the impact of preventable child diseases through vaccination by using the opportunity offered by GAVI to protect children with new available vaccines. The experience that was gained during the introduction of the hepatitis B vaccine will be used to successfully introduce later vaccines.

This application to GAVI specifically applies to the introduction of the Hæmophilus influenzae b vaccine into the routine immunization program in Mauritania in January 2009; the pentavalent single-dose form will be used throughout the country This vaccine will be administered according to the current calendar for the DTP-HepB vaccine. The objective is to achieve DTP-HepB-Hib vaccination coverage of at least 90% in 2009.

The logistics necessary for introducing this vaccine were evaluated, and recommendations were taken into account.

Concerning financial viability, the government, which already has a budget line item for purchasing vaccines and disposable supplies, has committed, in the context of GAVI's new co-financing policy, to pay for the specified amount through UNICEF's channels.

The cMYP document and the introduction plan that go along with this application describe all of the strategies and activities that will be implemented in order to ensure the success of the introduction of the Hib vaccine.

2. Government and national coordinating body signatures

Government and the Inter-Agency Coordinating Committee for immunization

The Government of Mauritania wishes to strengthen its existing partnership with the GAVI Alliance in order to improve the national program for systematic vaccination of infants, and thus specifically requests GAVI's support for the introduction of the pentavalent DTP-HepB-Hib.

The Government of Mauritania agrees to develop national vaccination offices on an ongoing and sustainable basis, in accordance with the comprehensive multi-year plan presented along with this document. The Government requests that the GAVI Alliance and its partners give financial and technical assistance to support childhood immunization as it is described in this proposal.

Table no. 6.5 on page 21 of this proposal shows the amount of support (in goods or in cash) that is requested from the GAVI Alliance. Table no. 6.4 on page 20 of this proposal shows the government's financial commitment for the purchase of this new vaccine.

Minister of Health :

Signature : ……

Name : Dr. Mohamed Lemine Ould Raghani

Date : ……

Minister of Finance :

Signature : ……

Name : Mr. Abdrahmane Ould Hamma Vezaz

Date : ……

National coordinating body: Inter-Agency Coordinating Committee for immunization:

We, the undersigned, members of the CCI/HSCC[1],met on April 24, 2008 to review this proposal. During this meeting, we approved this proposal based on the attached supporting documents.

The certified minutes of this meeting are attached as DOCUMENT NUMBER : 07

Name/Title	Institution/Organization	Signature
Dr Lamine Cissé Sarr . WHO	WHO	
Mr Christian Skoog	UNICEF	

[1] Inter-Agency Coordinating Committee or Health sector coordinating committee, depending on the situation

If the GAVI office has questions concerning this proposal, the contact person is:

Name :	Dr. Abderrahmane Ould Jiddou	Title :	Director of Basic Health Services (DSSB)
Tel:	+ 222 642 09 76	Address:	Nouakchott Ministry of Health
Fax :	……		……
E-mail :	Ajiddou@sante.gov.mr		……

The GAVIoffice cannot return the documents and items sent to it by the various countries. Unless the country indicates otherwise, the documents may be sent to GAVI's partners and associates

The Inter-Agency Coordinating Committee for immunization

The institutions and partners (including development partners and non-governmental organizations) which support vaccination programs are coordinated and organized via an inter-agency coordinating body (CCI/HSCC). The CCI/HSCC is responsible for coordinating and correctly using GAVI's support for ISS and NVS. Please supply information about your country's CCI/HSCC in the space provided below.

Description of CCI/HSCC

Name of CCI/CCSS :
Inter-Agency Coordinating Committee for immunization in Mauritania.

Date that current CCI/HSCC was formed:
: January 16, 2002

Structure (for example sub-committee, independent body) :there is a strategic branch and a technical branch. The technical branch is made up of four commissions (logistics, outreach, epidemiologic monitoring and national immunization days).

Frequency of meetings : Quarterly for the strategic ICC and monthly for the commissions.

Structure:

Role	Title/Organization	Name
President	Minister of Health	Dr. Mohamed Lemine Ould Raghani
Secretary	EIP National Coordinator	Dr. Abderrahmane Ould Jiddou P/I
Members	• WHO Representative • UNICEF Representative	• Dr. Lamine Cisse Sarr • Dr. Christian Skoog

Primary roles and responsibilities of the CCI/HSCC:
- Coordination of partner involvement
-Mobilization of resources
- Tracking and evaluation of EIP activities and financial management.

Three major strategies aim to strengthen the CCI/HSCC's role and tasks during the next 12 months:

1. Revision of regulatory texts
2. Expansion of ICC to other partners
3. Implementation of methods for tracking recommendations made by various ICC meetings.

3. Data related to the vaccination program

Please complete the tables below, using data from available sources. Please give the data source and the date. If possible, use the most recent data and attach the document in which they appear.

- Please refer to the comprehensive multi-year plan for immunization (or an equivalent plan) and attach a complete copy (with an analytical summary) as DOCUMENT NUMBER **01**
- Please refer to the two most recent joint WHO/UNICEF statement forms on vaccine-preventable diseases and attach them as DOCUMENT NUMBER **02**
- Please refer to strategic documents for the health sector, budget items and other reports, investigations, etc. as needed.

Table 3.1: Basic information for the year 2007 (the most recent, specify the dates for the data used)

	Number	Date	Source
Total population	2,961,111	2007	RGPH 2000
Infant mortality rate (per 1,000 live births)	78/1000	2003-2004	EMIP 2003-2004
Surviving infants*	129,823	2007	RGPH 2000 and EMIP 2003-2004
Per-capita GNP ($US)	319	2008	CSLP 2006-2010
Percentage of GDP allocated to health	1.72%	2007	CDMT 2006-2008
Percentage of governmental expenditures allocated to health	6.4%	2007	CDMT 2006-2008

* This refers to infants who are still alive at 12 months of age.

Please give additional information on your country's planning and budget context:

Indicate the name and date of the planning document in effect for health:

National Health Policy 2006-2015.

Is the cMYP (or the current multi-year plan) set forth in this document (timetable, content, etc.)?
Yes

Describe the national health planning and budget cycle:

The budget for the health sector is prepared using a participatory process that goes from the Moughataa level up to the level of the Ministry's departments and programs and is based on the CDMT for the month of August. This is then sent to the Ministry of the Economy and Finance for approval in September. Once it has been approved, the budget is discussed in the council of ministers before being brought before parliament's budget session in October. This budget always covers a yearly period that runs from January through December.

Describe the national immunization planning cycle:

The EIP's comprehensive multi-year plan (cMYP) covers the period from 2008-2012; it relates to the national health policy for 2006-2015.

The EIP's action plan results from the cMYP and from microplans prepared in the Moughataas which are then compiled by the Wilayas with the participation of all of the EIP's partners.

Table 3.2: Current vaccination calendar: traditional vaccines, new vaccines and vitamin A supplements *(pages 16-17 of the cMYP)*

Vaccine *(do not use brand names)*	**Age at which administered** *(by routine vaccination programs)*	**Mark with an "x" if it is administered:**		**Comments**
		In the entire country	**Only in part of the country**	
BCG	Birth	x		
OPV	Birth, 6, 10 and 14 weeks	x		
DTP-HepB	6, 10 and 14 weeks	x		Hib will be included in the EIP as of January 2009 and will follow the same schedule as DTP-HepB
Measles	9 months	x		
TT	Pregnant women (1st dose at first visit, 2nd 4 weeks after the 1st)	x		
Vitamin A	1st dose beginning at age 6 months with a 6 month interval for subsequent doses, up to age 59 months.	x		Vitamin A is administered in a mass campaign twice a year and is handled by the national nutrition program.

Table 3.3: Change in vaccination coverage and morbidity rate

(as described in the two most recent joint WHO/UNICEF statement forms on vaccine-preventable diseases)

Change in immunization coverage (percentage)						Vaccine-preventable disease load		
Vaccine		Reported		Study		Illness	Number of declared cases	
		2006	2007	2006	2007		2006	2007
BCG		86	92	NA	NA	Tuberculosis	1,229	1,342
DTP	DTP1	85	92	NA	NA	Diphtheria	0	0
	DTP3	68	75	NA	NA	Whooping cough	167	83
Poliomyelitis 3		68	75	NA	NA	Poliomyelitis	0	0
Measles (first dose)		62	67	NA	NA	Measles	22	11
TT2+ (pregnant women)		38%	34	NA	NA	Neonatal tetanus	0	0
Hib3		NA	NA	NA	NA	Hepatitis B	19	8
Yellow fever		NA	NA	NA	NA			
Hepatitis B3		67	74	NA	NA			
Vitamin A supplementation	Mothers (<6 weeks after delivery)	ND	ND	NA	NA			
	Infants (>6 months)	ND	ND	NA	NA			

* If available.
** Note : the joint statement form requests Hib meningitis.

If study data are supplied in the table above, please give the year that these data were gathered, their complete title and, if applicable, the age group studied.
NA.

Table 3.4: Reference data and annual goals *(pages 56-57 of the cMYP)*

Number	Reference data and goals					
	Reference year 2006	Year 1 2008	Year 2 2009	Year 3 2010	Year 4 2011	Year 5 2012
Births	137,356	144,028	147,485	151,025	154,649	158,361
Infant deaths	10,164	10,658	10,914	11,176	11,444	11,719
Surviving infants	127,192	133,370	136,571	139,849	143,205	146,642
Pregnant women	137,356	144,028	147,485	151,025	154,649	158,361
Target population vaccinated with BCG	118,126	132,506	135,686	143,474	146,917	152,027
BCG coverage*	86%	92%	92%	95%	95%	96%
Target population vaccinated with OPV3	86,490	120,033	122,914	128,661	131,749	139,310
OPV3 coverage**	68%	90%	90%	92%	92%	95%
Target population vaccinated with DTP***	86,490	120,033				
DTP3 coverage**	68%	90%				
Target population vaccinated with DTP1***	108,113	133,370				

Loss rate[2] for reference year and subsequent planning		ND	5%	5%	5%	5%	5%
Target population vaccinated with the **3rd dose** of DTP-HepB-Hib		NA	NA	122,914	128,661	131,749	139,310
…… Coverage**		NA	NA	90%	92%	92%	95%
Target population vaccinated with the **3st dose** of DTP-HepB-Hib		NA	NA	136,571	139,849	143,205	146,642
Wastage rate[1] for reference year and subsequent planning		ND	5%	5%	5%	5%	5%
Target population vaccinated with the **1st dose** of measles vaccine		78,859	120,033	129,743	132,857	136,045	139,310
Target population vaccinated with the **2stdose** of measles vaccine		NA	NA	NA	NA	NA	NA
Measles vaccine coverage**		62%	90%	95%	95%	96%	96%
Pregnant women vaccinated with TT+		52,195	100,820	110,614	120,820	131,452	142,525
TT+ coverage****		38%	70%	75%	80%	85%	90%
Vitamin A supplementation	Mothers	NA	NA	NA	NA	NA	NA
	(<6 weeks after delivery)	NA	NA	NA	NA	NA	NA
Annual drop out rate for DTP [(DTP1-DTP3)/DTP1] x100. Beginning in 2009, this refers to the drop out rate for: DTP-HepB-Hib		19,97%	10%	10%	8%	5%	5%
Annual drop out rate for measles vaccine (for countries requesting yellow fever vaccine)		NA	NA	NA	NA	NA	NA

* Number of infants vaccinated as compared with total births
** Number of infants vaccinated as compared with surviving infants
*** Give the total number of infants vaccinated with simple or combined DTP
**** Number of pregnant women receiving TT+ as compared with total number of pregnant women

Table 3.5: Summary of current and future vaccination budget (*pages 70-72 of cMYP*)

	Estimate of annual costs in thousands of US dollars					
Budget item	**Reference year 2006**	**Year 1 2008**	**Year 2 2009**	**Year 3 2010**	**Year 4 2011**	**Year 5 2012**
Recurring costs for routine immunization						
Vaccines (only for routine vaccination)						
Traditional vaccines	$190	$190	$126	$129	$132	$139
New or underused vaccines	$80	$122	$1,622	$1,375	$1,415	$1,503
Injection supplies	$75	$99	$77	$81	$85	$90
Personnel	0	0	0	0	0	0
Salaries for personnel employed full time by the national vaccination program (and who work exclusively on vaccination)	$89	$92	$96	$99	$102	$106
Support payments to mobile/local vaccination teams	$621	$668	$717	$769	$824	$882
Transportation	$617	$639	$715	$740	$759	$785

[2] The formula for calculating a vaccination wastage rate (by percentage) is as follows: [(A – B) / A] x 100. A is the number of doses distributed according to the supply register, adjusted by the quantity of vaccinations remaining in inventory at the end of the supply period; B is the number of vaccinations with the same vaccine during the same period. For new vaccines, refer to **table α** after table 7.1.

Maintenance and general expenses	$1,852	$2,289	$2,372	$2,791	$1,948	$1,989
Training	$7	$8	$8	$8	$9	$9
Outreach	$3	$7	$4	$4	$4	$4
Epidemiologic monitoring	$66	$71	$79	$77	$86	$84
Program administration	$35	$37	$38	$39	$41	$42
Other	$0	$0	$0	$0	$0	$0
Subtotal of recurring costs	**$3,637**	**$4,221**	**$5,853**	**$6,112**	**$5,403**	**$5,633**
Supply costs for routine immunization						
Vehicles	$0	$0	$194	$0	$0	$0
Cold chain supplies	$0	$56	$4	$46	$152	$0
Other supplies	$0	$22	$0	$0	$25	$0
Subtotal for supply costs	**$0**	**$78**	**$198**	**$46**	**$176**	**$0**
Campaigns						
Poliomyelitis	$0	$0	$0	$0	$0	$0
Measles	$551	$520	$0	$0	$604	$0
Yellow fever	$0	$0	$0	$0	$0	$0
MNT	$251	$362	$0	$0	$0	$0
Other campaigns	$0	$0	$0	$0	$0	$0
Subtotal of campaign costs	**$802**	**$882**	**$0**	**$0**	**$604**	**$0**
OVERALL TOTAL*	**$4,439**	**$5,181**	**$6,051**	**$6,158**	**$6,183**	**$5,633**

**** The overall total does not include shared costs as indicated in table 24, pages 71-73 of the cMYP . For example, basic costs for 2006 are 5,999, of which 1,558 is shared costs, for a difference of 4,439. This difference is the same from 2008 to 2012.***

In the tables below, please list financing sources for each budget item (if known). You must indicate which items are covered by the government's budget and which costs are covered by development partners (or GAVI Alliance) and give the names of the partners.

Table3.6: Summary of current and future financing and funding sources *(pages 75-76 of the cMYP)*

		Estimate of annual financing in thousands of US dollars					
Budget item	**Source of funds**	**Reference year 2006**	**Year 1 2008**	**Year 2 2009**	**Year 3 2010**	**Year 4 2011**	**Year 5 2012**
Recurring costs							
1.	1. Government	626	3,393	1,191	1,819	1,338	2,513
2.	2. WHO	105	123	317	261	284	343
3.	3. UNICEF	2,791	591	2,714	2,656	2,325	1,252
4.	4. GAVI	115	116	1,634	1,425	1,523	1,541
5.	5.						
Supply costs							
1.	1. Government	0	0	194	0	25	0
2.	2. WHO	0	22	0	0	0	0
3.	3. UNICEF	0	56	4	40	152	0
4.	4. GAVI	0	0	0	6	0	0

5.	5.						
Campaigns							
1.	1. Government	121	238	0	0	47	0
2.	2. WHO	0	117	0	0	0	0
3.	3. UNICEF	681	528	0	0	557	0
4.	4. GAVI	0	0	0	0	0	0
5.	5.						
OVERALL TOTAL*		**4,439**	**5,182**	**6,054**	**6,208**	**6,251**	**5,649**

**** The overall total does not take into account shared costs, or the difference between the needs and financial resources and the probable and actual financing, which explains the difference with the previous table, which varies from US $2,835 USD in 2008 to US $135,448 in 2012 (see table 25 pages 75-76 of the cMYP).***

4. Immunization services support (ISS)

Below, please indicate the total amount of funds that you think you will receive from the ISS :

Table 4.1: Estimate of planned funds from ISS

	Reference year 2007	**Year 1 2008**	**Year 2 2009**	**Year3 2010**	**Year4 2011**	**Year5 2012**
DTP3 coverage rate	75	90*	90	92	92	95
Number of infants declared vaccinated/needing to be vaccinated with DTP3 (according to table 3.4)	93,053	120,033	122,914	128,661	131,749	139,310
Number of *additional* infants declared vaccinated/needing to be vaccinated each year with DTP3	10,662	26,980	2,881	5,747	3,088	7,561
Expected funds (US $20 per additional infant)	213,240	539,600	57,620	114,940	61,760	151,220

* Based on the experience acquired during the re-launching of the routine EIP in 2001, the vaccination coverage rate for DTP3 went from 61% in 2001 to 82% in 2002, for an increase of 21 points. During 2008, we are planning to expand the RED strategy to all Moughataas in 2008, including all of the program's components in order to increase the DTP3 vaccination coverage rate by 15 points.

* Projections
** Depending on the duration of the cMYP

If you have already received support from GAVI under ISS, below please describe the lessons you learned from the experience and the effect that it will have on the future use of ISS funds.

Indicate how the funds were used, where they were used and if you feel that flexible funds could have been better used. Describe management and tracking strategies, who was responsible for payments and approval of expenditure programs. Indicate if this system will be used again.

Primary lessons learned from phase 1	**Consequences for phase 2**
1. The flexibility and ongoing nature of GAVI's funds made it possible to respond in an adequate manner to the program's	It is desirable for these funds to continue to be flexible.

needs.	
2. GAVI funds markedly contributed to the improvement of the program's performance	Continued support from GAVI is necessary to continue the program's equilibrium.
3. Simplification of procedures and regularity of funds transfers made it easier to manage and implement activities.	It is desirable for these same procedures to continue.

If you have never received an ISS, please indicate:

a) when the support should begin :

NA.

b) when the first DQA should occur :

The first DQA took place in 2004 with an FV of 69%. The second is going on right now and the results are expected at the end of April 2008.

c) how you plan to transfer GAVI's funds in the country :

NA (the country has already benefited from funds (in terms of vaccination support and injection safety support) and transfer methods have been established).

d) how do you plan to manage funds within the country :

NA (the country has already benefited from funds under ISS and SI under GAVI phase 1 with management mechanisms that have already been prepared and applied).

e) who will be responsible for authorizing and approving expenses :

ICC.

- If necessary, please fill out the bank form (attachment 1).

NA.

1.1 5. Injection safety support

NA : the country has already been receiving injection safety support for three years.

- Please attach the national policy relative to injection safety, which covers medical waste disposal in safe conditions (or indicate the corresponding section of the cMYP for vaccination) and confirm the document's progress status : DOCUMENT NUMBER……
- Please attach a copy of all action plans that aim to improve injection safety and risk-free management of sharps waste in the vaccination system (refer to the cMYP for vaccination). DOCUMENT NUMBER…….

Table 5.1 : Actual cost of supplies related to injection safety for systematic vaccination

Please indicate the actual cost of supplies for injection safety for systematic vaccination.

	Annual needs		*Cost per item ($US)*		*Total cost ($US)*
Year	*Syringes*	*Safety boxes*	*Syringe*	*Safety box*	
20…					

Table 5.2 : Estimate of supplies necessary for injection safety with vaccine ……..,,,,,,,
(Please include a table for each vaccine: BCG (1 dose) DTP (3 doses), TT (2 doses) [1], measles vaccine (1 dose) and yellow fever vaccine (1 dose) and number these from 5.1 to 5.5)

		Formula	Year 1 20…	Year 2 20…	Year 3 20…	Year 4 20…	Year 5 20…
A	Number of children to be vaccinated[2]	#					
B	Percentage of vaccines requested from GAVI[3]	%					
C	Number of doses per child	#					
D	Number of doses	*A x B/100 x C*					
E	Standard vaccine wastage factor[4]	*2.0 or 1.6*					
F	Number of doses (including losses)	*A x B/100 x C x E*					
G	Vaccine buffer stock[5]	*F x 0.25*					
H	Number of doses per vial	#					
I	Total number of vaccine doses	*F + G*					
J	Number of AD syringes (+ 10% wastage) requested	*(D + G) x 1.11*					
K	Number of re-constitution syringes (+ 10% wastage) requested[6]	*I / H x 1.11*					
L	Total number of safety boxes (+ 10% extra) requested	*(J + K) / 100 x 1.11*					

[1] GAVI finances the purchase of AD syringes necessary to administer two doses of TT to pregnant women. If the country's vaccination policy covers all women of childbearing age, GAVI will supply a contribution of a maximum of two doses for pregnant women (the number of which is estimated to be equal to the total number of births).
[2] State the number of infants who will receive all of the planned doses of a given vaccine.
[3] The estimate of 100% of the number of targeted children is adjusted if a progressive reduction of GAVI's support is planned.
[4] A standard loss factor of 2.0 for BCG and 1.6 for DTP, measles vaccine, TT and yellow fever vaccine is used to calculate the ISS.
[5] The vaccines buffer stock and AD syringe stock is set at 25%. This stock is added to the first stock of doses necessary to introduce vaccination into a geographic area. Write zero for the other years. In the case of progressive introduction, the vaccines buffer stock is spread over several years, so the formula is as follows: [F-number of doses (including losses) received for the previous year] * 0,25.
[6] Only for lyophilized vaccines. Write zero for other vaccines.

- If you do not intend to purchase your supplies through UNICEF, please supply proof that the supplier that you are using meets the WHO's requirements by attaching the necessary supporting documents.

6. New and under-used vaccine support (NVS)

Please summarize the sections of the cMYP which relate to the introduction of new or under-used vaccines. List the key points related to the decision-making process (data taken into account, etc.) :

In the context of re-launching the EIP, Mauritania prepared a strategic plan for 2001-2005, the implementation of which made it possible to significantly increase vaccination coverage for all antigens, increasing from 31% in 2000 to 75% in 2007 for DTP3, the introduction of hepatitis B vaccination in 2005 and a strengthening of immunization safety.

In accordance with the strategic context of the fight against poverty, the national health policy for 2006-2015, the new Global Immunization Vision and Strategy (GIVS) and the continuity of the EIP strategic plan for 2001-2005, a complete multi-year plan (cMYP) covering the period 2008-2012, has been prepared.

This cMYP plans for the introduction of new vaccines into the routine immunization program, notably Haemophilus influenzae type b in its pentavalent form in 2009.

Briefly describe the cold chain's capacity and indicate if it would allow storage of new vaccines. Explain how the expansion of the cold chain (if needed) will be financed and when this will be completed. Please use Excel attachment 2a (sheet 6) on the cold chain. Please indicate the additional cost, if the capacity is not sufficient, and the source of funds to make up the deficit.

The central location has a 25,000 liter positive cold room and a 10,000 liter negative cold room. Given a volume factor of 3.5 for the 25,000 liter cold roomand a volume factor of 2.5 for the 10,000 liter negative cold room, the net capacities are, respectively, 7,143 liters of positive and 3,333 liters of negative. Needs for the introduction of the pentavalent vaccine are respectively 4,085 liters of positive and 1,629 liters of negative.

The program's cold chain has at the central location, the necessary capacity to accommodate the introduction of the pentavalent liquid into the vaccination schedule. At the mid-point level (Wilaya), only the Nouakchott Wilaya will have a capacity deficit as of 2009 , the net deficit being approximately 170 liters. This Wilaya's storage facility is located in Nouakchott and the supply schedule from the central storage facility could be set up to compensate for this Wilaya's capacity deficit. However, plans are in place to enhance this Wilaya's storage facility with two MK304 refrigerators.

The majority of the cold chain's equipment was upgraded in 2003, 2004 and 2005 and the average age of the equipment is approximately 4 years. A maintenance team is responsible for monitoring this equipment.

Table 6.1 : Capacity and cost (for positive storage (*Please refer to page 6 of attachment 2a or attachment 2b)*

Positive storage capacity at the central location

		Formulas	2008	2009	2010	2011	2012
A	Annual positive volume needs, including new vaccine(s) (specify : _____) (liters or m3)	*Number obtained by multiplying the total number of vaccine doses by the volume occupied by the packaging for each dose*	4,085 litr	4,208 litr	6,976 litr	7,480 litr	7,810 litr
B	Current net total positive capacity (liters or m3)	*#*	7,143 litr	7,143 litr	7,143 litr	7,143 litr	7,143 litr
C	Estimated number of annual shipments required for the cold chain's actual capacity	*A/B*	0.57	0.59	0.98	1.05	1.09
D	Annual number of shipments	*Based on the national vaccine shipment plan*	2	2	2	2	2
E	Difference (if applicable)	*((A/D) - B)*	**- 5,100 litr**	**- 5,039 litr**	**- 3,655 litr**	**- 3,403 litr**	**- 3,238 litr**
F	Estimate of expansion cost	*US $*	$0	0	0	0	0

Positive storage capacity of regional storage facilities in 2008

		Formulas	HODH ECHARGUI	HODH EL GHARBI	ASSABA	GORGOL	BRAKNA	TRARZA
A	Annual positive volume needs, including new vaccine(s) (specify : _____) (liters or m3)	*Number obtained by multiplying the total number of vaccine doses by the volume occupied by the packaging for each dose*	583 litr	440 litr	501 litr	501 litr	510 litr	548 litr
B	Current net total positive capacity (liters or m3)	*#*	385 litr	277 litr	601 litr	385 litr	385 litr	385 litr
C	Estimated number of annual shipments required for the cold chain's actual capacity	*A/B*	1.52	1.59	0.83	1.30	1.32	1.42
D	Annual number of shipments	*Based on the national vaccine distribution plan*	4	4	4	4	4	4

E	Difference (if applicable)	*((A/D) - B)*	**-239 litr**	**-167 litr**	**- 476 litr**	**- 260 litr**	**- 257 litr**	**- 248 litr**
F	Estimate of expansion cost	*US $*	$0	$0	$0	$0	$0	$0

		Formulas	**DAKHLET NOUADHIBOU**	**TAGANT**	**GUIDIM AKHA**	**TIRIS ZEMMOUR**	**INCHIRI**	**NOUAK CHOTT**
A	Annual positive volume needs, including new vaccine(s) (specify : _____) (liters or m3)	*Number obtained by multiplying the total number of vaccine doses by the volume occupied by the packaging for each dose*	174 litr	162 litr	371 litr	93 litr	30 litr	1,140 litr
B	Current net total positive capacity (liters or m3)	*#*	216 litr	216 litr	385 litr	277 litr	385 litr	[fuzzy] 4,085 litr
C	Estimated number of annual shipments required for the cold chain's actual capacity	*A/B*	0.80	0.75	0.96	0.33	0.08	3.52
D	Annual number of shipments	*Based on the national vaccine distribution plan*	4	4	4	4	4	4
E	Difference (if applicable)	*((A/D) - B)*	**-173 litr**	**-176 litr**	**- 292 litr**	**- 254 litr**	**- 378 litr**	**- 39 litr**
F	Estimate of expansion cost	*US $*	$0	$0	$0	$0	$0	$0

Briefly describe how your country plans to achieve financial viability for the new vaccines that it wants to introduce, the source of the funds used for its co-financing amount and any other issues concerning financial viability that you have examined (refer to the cMYP).

Mauritania has participated in the Vaccine Independence Initiative (VII) since 1996. In this context, the country has a line item in its national budget for the purchase of vaccines and supplies. This budget line item, initially set at 50,000,000 UM (204,918 USD) was substantially increased over the past several years, to a 2006 level of 140,000,000 UM (573,770 USD), for an increase of 280%. This current amount has enabled coverage of the country's co-financing amount for the pentavalent and also the purchase of the other vaccines at the same time (BCG, OPV, VAR and TT). However, out of a concern for sustainability, this line item should also see progressive increases to plan for the introduction of other new vaccines.

To achieve financial viability, the country intends to undertake the following measures and strategies :

Mobilization of internal resources

As the government of Mauritania has placed vaccination at the center of its priorities (CSLP, PNS, CDMT) in the context of reducing maternal and infant mortality, government financing for this will continue and even increase in the following areas :

- Increase in funds allocated for the purchase of vaccines and consumables will enable financing for traditional vaccines and new vaccines.

- Debt relief initiatives targeting bilateral and multilateral debt will allow growth of the portion allocated to social initiatives including health and specifically the EIP.
- Decentralization of the preparation of the government budget, which will begin in 2008 for the health sector, will undoubtedly facilitate financial execution procedures.
- The government's cooperation in organizing supplemental vaccination activities
- The private sector's involvement in vaccination activities, which began in Nouakchott in 2004 will continue, and will be expanded to the country's other Wilayas.

Mobilization of external resources

Partnership programs with the multilateral institutions involved in financing the EIP are subject to short cycles. The government must continue to strengthen cooperation agreements with the EIP's traditional and new partners (UNICEF, WHO, BM, GAVI, MCC) in order to increase mobilization of external resources for the EIP's benefit.

Strategies for improving reliability of available resources

Strategies for improving resource reliability are coming to fruition through :

- Budget preparation and execution procedures, with the decentralization of budget preparation allowing direct allocation of funds to the Moughataas (health districts).
- Current budget procedures, both national ones and those of the development partners, are making the disbursement of funds difficult. Simplification of these would make resource use more reliable.
- Better handling of the procedures of technical and financial partners would enable improvement of performance in the use of allocated funds. The same is true for supporting documents being sent in by the beneficiary bodies in a timely manner.
- Strengthening of human resources, both in quantity and quality, for improved management of the EIP's activities and financing.

Table 6.2: Evaluation of morbidity load *(if available)* :

Illness	Assessment title	Date	Results
Meningitis/pneumonia	**WHO weekly epidemiological bulletin** **No. 47**, **2006**, **81**, 445–452	NOVEMBER 24, 2006, 8th YEAR	At least 3 million cases of serious illness and almost 386,000 deaths occur each year; the majority of morbidity and mortality related to Hib is found in developing countries. The illness rate is highest among infants aged 4-18 months, but Hib pathology is sometimes seen in infants younger than 3 months and children older than 5 years..

If new or under-used vaccines have already been introduced in your country, please indicate, in detail, what was learned from the experience as concerns storage capacity, protection against freezing, personnel training, cold chain logistics, drop out rate, vaccine wastage rate, etc. and suggest solutions to improve these items :

NA (during GAVI phase 2, the Hib vaccine in its pentavalent form is the first that will be introduced in the country).

Lessons learned	Solutions / Provisions

Please give the list of vaccines that you would like to introduce with the GAVI Alliance's support (and their form) :
DTP-HepB-Hib : single-dose in January 2009.

First preferred vaccine

As stated in the cMYP, the country plans to introduce vaccination against haemophilus influenzae type b infections*. (antigen)*, using the pentavalent vaccine (DTP-HepB-Hib), in a single-dose vial *(n° of doses per vial) in a liquid form (lyophilized or liquid).*

Please refer to the Excel sheet in attachment 2a or attachment 2b (for the rotavirus vaccine and the pneumococcus vaccine) and proceed as follows:

- Complete the table on national characteristics in attachment 2a or attachment 2b, using data that are available in other sheets: sheet 3 for the supplier price list, sheet 5 for vaccine wastage rate and sheet 4 for the minimum co-financing shares per dose[3].
- Summarize the list of vaccine characteristics and the related vaccination program in table6.3 below, using the demographic data (which are included in table 3.4 of this form) and the associated price list and financing levels (in tables B, C and D of attachment 2a or attachment 2b).
- Then, copy the data contained in attachment 2a or attachment 2b ("requested support" sheet into tables 6.4 and 6.5 (below to summarize the support requested as well as financing provided by GAVI and the country.
- Pleas submit an electronic version of the Excel spreadsheets (attachment 2a or attachment 2b) with the application form.

Table 6.3: Description of vaccination with the new vaccine

Vaccine : ……	*Use data contained in :*		**Year 1 2008**	**Year 2 2009**	**Year 3 2010**	**Year 4 2011**	**Year5 2012**
Number of children who should receive the third dose of the DTP-HepB-HiB vaccine	*Table 3.4*	#	NA	122,914	128,661	131,749	139,310
Target immunization coverage for the third dose	*Table 3.4*	#	NA	90%	92%	92%	95%
Number of children who should receive the first dose of vaccine	*Table 3.4*	#	NA	136,571	139,849	143,205	146,642
Estimate of vaccine wastage factor	*Attachment 2a or 2b TableE - sheet 5*	#	NA	1.05	1.05	1.05	1.05

[3] *Table D1 must be used for the first vaccine, tables D2 and D3 for the second and third vaccines co-financed by the country.*

Country's co-financing amount per dose *	*Attachment 2a or 2b Table D - sheet 4*	$	NA	0.20	0.20	0.30	0.30

* Total price per dose includes the cost of the vaccine plus costs for transportation, supplies, insurance, general expenses, etc.

Table 6.4: Share of supplies financed by the country (and cost estimate in $US)

		Year 1 2008	Year 2 2009	Year 3 2010	Year 4 2011	Year 5 2012
Number of vaccine doses	#	NA	35,611	24,289	40,708	44,382
Number of AD syringes	#	NA	38,273	25,677	43,034	46,918
Number of re-constitution syringes	#	NA	NA	NA	NA	NA
Number of safety boxes	#	NA	425	285	478	521
Total value of country's co-financing	**$**	NA	129,060	88,105	135,329	138,577

Table 6.5: Share of supplies purchased by GAVI Alliance (and cost estimate in US $)

		Year 1 2008	Year 2 2009	Year 3 2010	Year 4 2011	Year 5 2012
Number of vaccine doses	#	NA	609,687	416,235	410,388	417,540
Number of AD syringes	#	NA	655,269	440,020	433,838	441,400
Number of re-constitution syringes	#	NA	NA	NA	NA	NA
Number of safety boxes	#	NA	7,273	4,884	4,816	4,900
Total amount co-financed by GAVI	**$**	NA	2,209,617	1,509,840	1,364,281	1,303,716

The most recent guide to selecting vaccination products purchased by UNICEF for GAVI is available at (www.unicef.org/french/supply/index_gavi.html). To find the category in which your country is included and the minimum co-financing amount for each vaccine in each group, refer to GAVI Alliance's directives on support for new or under-used vaccines.

Second preferred vaccine

If supplies of the vaccine selected as a priority are limited or if this vaccine is currently unavailable, please list another vaccine below :
NA.

- Please complete tables 6.3 – 6.4 for the new vaccine form.
- Also complete Excel spreadsheets (attachment 2a or attachment 2b) for the new form and attach them to the application form.

Purchase and management of new or under-used vaccines

a) Please indicate the manner in which the funds will be used and managed, including purchases of vaccines (GAVI expects most countries to purchase their vaccines and injection supplies via UNICEF) :

The country has decided that its vaccine purchases will occur through UNICEF. The funds will be regularly paid by the government into UNICEF's bank account for GAVI, as for traditional vaccines in the context of the Vaccine Independence Initiative (VII).

b) If another mechanism is used to purchase and deliver supplies (whether they are financed by the country or by GAVI Alliance), please attach supporting documents :

- *Other vaccines or vaccine supplies purchased by the country, and description of the methods used.*
- *Roles of the national regulatory authority (as assessed by the WHO) in order to show that they are in compliance with the WHO's requirements for purchasing high-quality vaccines and supplies.*

NA.

c) Please describe the introduction of the vaccines (refer to the cMYP)

In 2005, the country introduced the hepatitis B vaccine throughout its territory, so it has a relatively large amount of experience.

In January 2009, the country is going to introduce the Hæmophilus influenzae type b vaccination in its pentavalent form DTP-HepB-Hib single-dose throughout the country.

To accomplish this, preparation activities related to this introduction have been planned. Notably, this involves :

- Providing advocacy at the highest level within the country
- Reviewing the program's management tools
- Strengthening personnel skills
- Raising awareness among health personnel, clinicians and the community
- Implementing an oversight system based on sentinel sites
- Tracking and evaluating the introduction process

This vaccine will follow the same timetable as DTP-HepB.

d) Indicate how the *funds* should be transferred by GAVI Alliance (if applicable)

There is already a functioning funds transfer system between GAVI and the country.

e) Indicate how the co-financing amounts will be paid (and the person responsible for this)

The country's co-financing amounts will be paid through UNICEF on GAVI's behalf by the Ministry of Economy and Finance upon the request of the Minister of Health, from the line item for purchase of vaccines and supplies and according to the agreement which will be signed between the country and UNICEF.

f) Please describe how the coverage of the new vaccine will be monitored and reported (refer to the cMYP)

Vaccination data for the pentavalent will be collected in the health centers using the same standardized tools supplied by the EIP, which are already being used for the other vaccines. These tools will be reviewed in advance in order to include elements related to the pentavalent. This data will be verified by the regional centers before being sent to the central location.
Monitoring will be done monthly in the Moughataas and quarterly reviews will be done in the Wilayas and the central location, to measure progress completed and identify bottlenecks.. At the national level, vaccination data will be regularly verified by the ICC before being shared at the international level.
The DQS will be one of the pillars upon which data quality monitoring will depend.

Support for the introduction of new or under-used vaccines

Table 6.5: calculation of the lump sum

Year of introduction of new vaccine	N° of births (see table 3.4)	Amount per birth in $US	Total in $US
2009	147,485	$ 0.30	44, 355

In the tables below, please indicate how this amount[4] will be used to finance the cost of introducing vaccines, and the essential preparation activities (refer to the cMYP).

Table 6.6: Cost (and financing) to introduce the vaccine of first choice ($US)

Budget item	Total needs for introduction of new vaccine	Needs financed with the support for the introduction of new or under-used vaccines
	US $	US $
Training	40,000	30,000
Outreach, IEC and advocacy	25,000	20,000
Cold chain equipment and maintenance	15,000	10,000
Vehicles and transportation	14,500	14,500
Program management	5,000	5,000
Monitoring and tracking	4,000	0
Human resources	5,000	0
Waste management	30,000	20,500
Technical assistance	10,000	0
Other (please specify)		
Total	**148,500**	**100,000**

The additional amount of US $48,500 will be drawn from the country's budget

- If necessary, please fill out the bank form (attachment 1).

Please complete a table similar to the one above for the second choice vaccine (if applicable) and title it **Table 6.7: Cost (and financing) for introducing the second choice vaccine ($US)**

NA.

[4] Support will be calculated based on an amount of US $0.30 per annual birth, with a minimum amount of $100,000 .

1.2 7. Additional comments and recommendations from the national coordinating body (CCI/HSCC)

8. Documents to submit for each type of support

Type of support	Document	DOCUMENT NUMBER	Duration*
ALL	Joint WHO/UNICEF statement form (last two)	02	
ALL	Comprehensive multi-year plan (cMYP)	01	
ALL	Approved reports from the national coordinating body meetings during which the GAVI support request was approved	07	
ALL	Approved reports of the CCI/HSCC meetings during which the GAVI support requested was discussed	03	
ALL	Reports of the last three meetings of the CCI/HSCC	04	
ALL	CCI/HSCC working plan for the next 12 months	05	
Injection safety	National policy relative to injection safety, covering risk-free disposal of medical waste (if this is separate from the cMYP)		
Injection safety	Action plans aimed at improving injection safety and safe disposal of sharps waste (if these are separate from the cMYP)		
Injection safety	Supporting documents for replacement supplier's compliance with WHO requirements (if the supplies are not purchased using UNICEF as an intermediary)		
New or underused vaccines	Introduction plan for new vaccine (if not already included in the cMYP)	06	

** If applicable, please indicate the duration of the plan, the document or the evaluation.*

ATTACHMENT 1

Bank form

SECTION 1 ***(To be completed by the beneficiary)***

In accordance with the decision regarding financial support made by GAVI Alliance on . . . . . , the Government of . . . . . .
Requests via this document that a payment be made by electronic bank transfer according to the methods below :

Name of institution : *(Account holder)*		
Address:		
City-Country :		
Telephone :	**Fax** :	
Amount in US$:	(To be completed by the GAVI office)	**Bank account currency :**
Credit to : ***Account name***		
Account number :		
In : ***Bank name***		

Must the account be used exclusively by this program? **YES ( ) NO ( )**

Who oversees the account? _____

Signature of authorized government employee :
By signing, the authorized government employee confirms that the bank account mentioned above is known to the Ministry of Finance and that it is under the control of the General Account Auditor .

Name:	**Seal :**
Title:	
Signature :	
Date :	
Address and telephone number:	
Fax :	
E-mail address:	

SECTION 2 ***(To be completed by bank)***

	FINANCIAL INSTITUTION	CORRESPONDING BANK *(in the United States of America)*
Bank name :		
Branch name :		
Address :		
City – Country :		
Swift Code :		
Routing code :		
ABA No. :		
Telephone :		
Fax No.:		
Bank contact person (name and telephone number):		

I certify that account No.. . . . . is established in the name of *(institution name)* . . . . . with this financial institution.

The account must have joint signatures by at least....*(number of signers)* of the authorized persons listed below:	**Name of bank's authorized representative**
1 Name : _____ **Title :**	**Signature :** _____ **Date :** _____
2 Name : _____ **Title :**	**Seal :**
3 Name : _____ **Title :**	
4 Name : _____ **Title :**	

COVER LETTER

(To be completed by the UNICEF representative on letterhead paper)

To: GAVI Alliance Headquarters
Attn: Dr. Julian Lob-Levyt
Executive Director
C/o UNICEF
Palais des Nations
CH 1211 Geneva 10
Switzerland

Today, ... I received the original of the BANK FORM which is attached to this document.

I certify that the said form is signed by the following government employees: :

	Name:	Title :
Authorized government agent		
Authorized bank representative		

UNICEF representative signature :

Name: _____

Signature _____

Date _____