Global Alliance for Vaccines and Immunisation (GAVI)

APPLICATION FORM

New and Under-Used Vaccines -
Introduction of Pentavalent DTP+HepB+Hib Vaccine

Kyrgyz Republic

28 April 2008

CONTENTS

Executive Summary

Kyrgyzstan has long standing traditions in the control of vaccine-preventable diseases. High immunization coverage with good quality vaccines resulted in effective control of diphtheria, pertussis, and measles; and eradication of polio (polio free status obtained in 2002) and neonatal tetanus control (no cases for more than 20 years).

Good immunization reporting and disease surveillance systems in place and reliable public statistics allowed monitoring coverage, measuring major VPDs' burden, drawing trends, and adequate planning for vaccine supplies. Since 1995, the planning of immunization activities is done in five-year cycles, and the latest National Immunization Program covers period of 2006-2010. A Comprehensive Multi-Year Immunization Plan for 2006-2010, which has been developed with technical assistance from WHO and approved by the Kyrgyz Government, focuses at strengthening strategic planning at country level; streamlining immunization planning processes and requirements, improving fundraising at country level, and optimizing the links with broader health sector planning for rationalization of immunization programme and services. The NIP and cMYP are aligned with major strategic planning documents in the health sector. The cMYP was revised in January-April 2008 to include provision for introduction of new vaccines.

The country has a positive experience with introduction of new vaccines with GAVI support – Hepatitis B vaccine was introduced into national calendar in 2001. In 2002, the Measles-Mumps-Rubella vaccine was included in routine immunization with stae funding and support from JICA. The Government of Kyrgyzstan is, therefore, requesting support for introduction of Hib vaccine in its pentavalent presentation : DTP-HepB-Hib.

Infections due to Haemophilus influenzae are a major cause of morbidity and mortality in young children throughout the world. Hib related diseases represent important public health problems in the Kyrgyz Republic as well. Intense circulation of the Hib infection among children in the Kyrgyzstan was testified in several separate studies. The Hib burden estimates released by WHO Head Quarters in 2007 allowed estimate annually in Kyrgyz Republic occur from 2252 to 4168 severe cases of Hib diseases and from 185 to 493 cases of deaths following Hib. Implementation of the Hib vaccination associated with high vaccination coverage rates would prevent most of the above mentioned cases of disease and death. Current Hib vaccine is safe and highly effective - 90-99% of children develop antibodies after three doses. WHO strongly recommends universal infant immunization against Hib even if little disease burden data exists in country but there is a regional prevalence – which is a case for Kyrgyzstan, the country considered medium-high risk for Hib.

The Introduction of the pentavalent vaccine is expected to start in January 2009 and end in December 2010 according to the lifetime of the current cMYP (2006-2010) and NIP 5-year plan. Vaccine will be administered three times exactly on the current schedule of DTP, i.e. 2-3.5-5 months.

The total amount of funds the Government of Kyrgyz Republic is requesting from the GAVI for the pentavalent vaccine (fully liquid formulation in one-dose vial presentation) is US$ 2,481,000 for two years (2009-2010). In addition the Ministry of Health is requesting U$ 100,000 to facilitate the introduction of the vaccine. At the same time, the Government is committing payment of US$229,500 for the same two- -year period, as its share of co-financing of the new vaccine.

This proposal has been developed through an interactive and inclusive process of the ICC partners, with technical support of WHO, in April 2008.

2. Signatures of the Government and National Coordinating Bodies

Government and the Inter-Agency Coordinating Committee for Immunisation

The Government of **Kyrgyz Republic** would like to expand the existing partnership with the GAVI Alliance for the improvement of the infants routine immunisation programme of the country, and specifically hereby requests for GAVI support for introduction of **DTP+HepB+Hib (pentavalent vaccine)**

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

Table N°6.5 of page 16 of this application shows the amount of support in either supply or cash that is required from the GAVI Alliance. Table N° 6.4 of page 16 of this application shows the Government financial commitment for the procurement of this new vaccine (NVS support only).

Following the regulations of the internal budgeting and financing cycles the Government will annually release its portion of the co-financing funds in the month of March The payment for the first year of co-financed support will be around April 2009 (specify month and year)."

Minister of Health: Mambetov M.

Signature: ……

Name**:** Minister of Health

Date: ……

Minister of Finance: Kalimbetova T.

Signature: ……

Name: Minister of Economy and Finance

Date: ……

National Coordinating Body - Inter-Agency Coordinating Committee for Immunisation:

We the members of the ICC/HSCC[1] met on the 29 April 2008 to review this proposal. At that meeting we endorsed this proposal on the basis of the supporting documentation which is attached.

- The endorsed minutes of this meeting are attached as DOCUMENT NUMBER: ……

Name/Title	Agency/Organisation	Signature
• Abdikarimov S. – Deputy Minister of Health	**Ministry of Health**	
• Koshmuratov A.- Head of Department of Strategic Planning, Management and Reforms Promotion	**Ministry of Health**	
• Saginbaeva D. – Head of Department of Curative Care and Licensing	**Ministry of Health**	
• Kenjeeva G. - Head of Economics and Finance Policy Department	**Ministry of Health**	
• Sydykanov A.- Chief of Public Health Unit	**Ministry of Health**	
• Isakov T.- General Director of State Sanitary	**Ministry of Health**	

[1] Inter-agency coordinating committee or Health sector coordinating committee, whichever is applicable.

and Epidemiological Department		
• Kurmanov R. - General Director of Department of medical supplies and equipment	**Ministry of Health**	
• Kadirova N. – First Deputy Director General of MHIF	**Ministry of Health**	
• Kalilov J. - Head of the Republican Center of Immunoprophylaxis	**Ministry of Health**	
• Aitmurzaeva G. – Director of the Republican Center of strengthening of health	**Ministry of Health**	
• Safonova O.- Deputy Head of the Republican Center for Immunoprophylaxis	**Ministry of Health**	
• Adjaparova A. – Technical coordinator of GAVI HSS	**Ministry of Health**	
• Chernova I. – Epidemiologist of the Republican Center for Immunoprophylaxis	**Ministry of Health**	
• Moldokulov O.- Head of WHO Country Office in Kyrgyzstan	**WHO**	
• Imanalieva Ch. – Health Officer UNICEF	**UNICEF**	
• Kojobergenova G. - Project Coordinator	**ADB**	
• Sargaldakova A. – Project Specialist	**World Bank**	
• Biybosunova D. – Project Coordinator	**USAID**	
• Bolotbaeva A. –Project Coordinator	**«Soros - Kyrgyzstan» Foundation**	
• Musabekova Ch. – Chairperson of Association	**Health Promotion Association**	
• Jamangulova T. – Project Coordinator	**Kyrgyz/Swiss/Swedish Health Project**	
• Sulaymanova A. – Program Specialist	**ZdravPlus**	
• Mukeeva S. - Head of Family Group Practitioners Association	**Family Physician Groups**	

In case the GAVI Secretariat has queries on this submission, please contact:

Name: KALILOV J.S.

Title: Head of Republican Center for Immunoprophylaxis

Tel No.: + 996312 66 11 43

Address: Kyrgyz Republic, Bishkek, 535 Frunze St.

Fax No.: + 996312 66 02 24 ……

Email: olgarci@elcat.kg ……

The GAVI Secretariat is unable to return documents and attachments to individual countries. Unless otherwise specified, documents may be shared with the GAVI partners and collaborators.

The Inter-Agency Coordinating Committee for Immunisation

Agencies and partners (including development partners and CSOs) supporting immunisation services are co-ordinated and organised through an inter-agency coordinating mechanism (ICC/HSCC). The ICC/HSCC are responsible for coordinating and guiding the use of the GAVI ISS and NVS support. Please provide information about the ICC/HSCC in your country in the spaces below.

Profile of the ICC/HSCC

Name of the ICC/HSCC: **The Inter-Agency Coordinating Committee for Immunization**

Date of constitution of the current ICC/HSCC: **17 December 2000**

Organisational structure (e.g., sub-committee, stand-alone): **stand-alone committee**

Frequency of meetings: **quarterly**

Composition:

Function	Title / Organization	Name
Chair	Deputy Minister of Health	Abdikarimov S.
Secretary	Deputy Head of the Republican Center for Immunoprophylaxis	Safonova O.
Members	• Head of Department of Strategic Planning, Management and Reforms Promotion	Koshmuratov A.
	• Head of Department of Curative Care and Licensing	Saginbaeva D.
	• Head of Economics and Finance Policy Department	Kenjeeva G.
	• Chief of Public Health Unit	Sydykanov A.
	• General Director of State Sanitary and Epidemiological Department	Isakov T.
	• General Director of Department of medical supplies and equipment	Kurmanov R
	• First Deputy Director General of MHIF	Kadirova N
	• Head of the Republican Center of Immunoprophylaxis	Kalilov J.
	• Director of the Republican Center of strengthening of health	Aitmurzaeva G.
	• Technical coordinator of GAVI HSS	Adjaparova A.
	• Epidemiologist of the Republican Center for Immunoprophylaxis	Chernova I.
	• Head of WHO Country Office in Kyrgyzstan	Moldokulov O.
	• Health Officer UNICEF	Imanalieva Ch
	• Project Coordinator ADB	Kojobergenova G.
	• Project Specialist World Bank	Sargaldakova A.
	• Project Coordinator USAID	Biybosunova D.
	• Project Coordinator «Soros - Kyrgyzstan» Foundation	Bolotbaeva A.
	• Chairperson of Association Health Promotion Association	Musabekova Ch.
	• Project Coordinator Kyrgyz/Swiss/Swedish Health Project	Jamangulova T.
	• Program Specialist ZdravPlus	Sulaymanova A.
	• Head of Family Group Practitioners Association	Mukeeva S.

Major functions and responsibilities of the ICC/HSCC:
1. Integration of government and international structures for strong partnership through coordination of contributions and resources provided from internal and external sources; 2. Assistance in development and approval of the national immunization policy, multy-year working plans on immunoprophylaxis in conditions of health system reforming.

3. Coordination of technical and financial support of available partners, development of key principles of collaboration of international organizations to ensure the most effective resource using, fundraising for support and improvement of the immunization service;
4. Monitoring and evaluation of economical effectiveness and expediency of activities undertaken for better implementation of target immunization programs;
5. Discussion of issues, reflecting the status of immunoprophylaxis in the country along with development of recommendations on situation improvement.

Three major strategies to enhance the ICC/HSCC's role and functions in the next 12 months:

1. Identification of necessary resources and provision of assistance to strengthen the immunization service to ensure realization of the new National Immunization Program as well as control and elimination of certain infections.
2. Coordination of financing in the sphere of immunization between existing partners through ICC to ensure an appropriate support.
3. Fundraising to ensure immunization needs in the country.

3. Immunisation Programme Data

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

- Please refer to the Comprehensive Multi-Year Plan for Immunisation (or equivalent plan), and attach a complete copy (with an executive summary) as DOCUMENT NUMBER ……..
- Please refer to the two most recent annual WHO/UNICEF Joint Reporting Forms on Vaccine Preventable Diseases and attach them as DOCUMENT NUMBERS ……..
- Please refer to Health Sector Strategy documents, budgetary documents, and other reports, surveys etc, as appropriate.

Table 3.1: Basic facts for the year 2007 (the most recent; specify dates of data provided)

	Figure	Date	Source
Total population	5 224 300	17/03/2008	http://www.stat.kg/Rus/Annual/social.html
Infant mortality rate (per 1000)	30,6	25/01/2008	National Statistics Committee of Kyrgyz Republic Ref. № 12-05/82 от 25/01/08
Surviving Infants*	118 562	25/01/2008	National Statistics Committee of Kyrgyz Republic Ref. № 12-05/82 от 25/01/08
GNI per capita (US$)	764	17/03/2008	http://www.stat.kg/Rus/Annual/external.html#Exchange%20Rates Exchange rate (US$) 2007 г. – 34,94

Percentage of GDP allocated to Health	2,6%	25/01/2008	Ministry of Finance
Percentage of Government expenditure on Health	11,0	25/01/2008	Ministry of Finance

* Surviving infants = Infants surviving the first 12 months of life

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

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

The long-term planning in the health sector is based on the “Manas Taalimi” national program on reforms in the healthcare in Kyrgyz Republic, covering period of 2006-2010. The program is a logical continuation of “Manas” program which covered the period of 1996-2005. Manas Taalimi focuses on achieving the vaccine independence, increasing the share of state financing in the health sector, increasing the share of mandatory health insurance in health spendings, improving mechanisms of collecting and accumulating resources for health, balancing commitments within The State Guarantees Program, further introduction of evidence medicine, increasing responsiveness of the health system.

The National Immunization Program was adopted in 2005 and covers period till 2010. It is integrated with Manas Taalimi program in two components: individual health services, and public health services. Control of vaccine preventable diseases is included as one of priorities in Manas Taalimi.

The latest documents regulating the health care financing are:

Decree №699 of the Government of Kyrgyz Republic of 20.09.2004, “Methodology of calculation of base norms in financing and healthcare payments within the framework of Single Payer system of the State Guarantee Program”.

Decree №184 of the Government of Kyrgyz Republic of 21.05.2007, “On Healthcare financing on programmatic principles”, which formalized the legislative initiative on “Forming and implementing the healthcare budget on the programmatic principles”

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

The Multi-Year Plan was updated in April 2008. The cMYP is aligned both with Manas Taalimi program and National Immunization Programme in timing and content.

The cMYP is also synchronized with the Decree №184 concerning vaccine procurement: the para. 3.4 of the document elaborates procedures and funds for centralized procurement of vaccines.

Please indicate the national planning budgeting cycle for health

Annual, April to March of the next year (the budget discussion begins in November and budget is approved in March)

Please indicate the national planning cycle for immunisation

Annual, April to March of the next year

Table 3.2: Current Vaccination Schedule: Traditional, New Vaccines and Vitamin A Supplement *(refer to cMYP pages)*

Vaccine *(do not use trade name)*	**Ages of administration** *(by routine immunisation services)*	**Indicate by an "x" if given in:**		**Comments**
		Entire country	**Only part of the country**	
BCG, HepB1, OPV0	At birth	X		
DTP1, OPV1, HepB2	2 months	X		
DTP2, OPV2	3.5 months	X		
DTP3, OPV3, HepB3	5 months	X		
MMR	12 months	X		
DTP 4	2 years	X		
MR, DT	6 years	X		
Td	11, 16, 26, 36, 46, 56 years	X		
Vitamin A	> 6 months to 5 years	X		Twice a year, through campaigns

Table 3.3: Trends of immunisation coverage and disease burden
(as per last two annual WHO/UNICEF Joint Reporting Form on Vaccine Preventable Diseases)

Trends of immunisation coverage (in percentage)						**Vaccine preventable disease burden**		
Vaccine		**Reported**		**Survey**		**Disease**	**Number of reported cases**	
		2006	**2007**	**2006**	**2007**		**2006**	**2007**
BCG		**98,6**	**97,7**	-	-	Tuberculosis*	**5 683**	**5 574**
DTP		**96,0**	**98,1**	-	-	Diphtheria	**2**	**0**
		92,4	**94,0**	-	-	Pertussis	**56**	**71**
Polio 3		**92,8**	**94,0**	-	-	Polio	**0**	**0**
Measles (first dose)		**97,3**	**98,8**	-	-	Measles	**27**	**40**
TT2+ (Pregnant women)		**-**	**-**	-	-	NN Tetanus	**0**	**0**
Hib3		**-**	**-**	-	-	Hib **	**-**	**-**
Yellow Fever		**-**	**-**	-	-	Yellow fever	-	-
HepB3		**90,3**	**94,4**	-	-	hepB sero-prevalence*	-	-
Vit A supplement			**70,2**	-	-			
		98,0	**98,9**	**95,6**	-			

* If available
** Note: JRF asks for Hib meningitis

If survey data is included in the table above, please indicate the years the surveys were conducted, the full title and if available, the age groups the data refers to:

The Multiple Indicator Cluster Survey (MICS) was conducted in 2006 with support of UNICEF and covered the age groups of 6-month to 5 years of age.

Table 3.4: Baseline and annual targets *(refer to cMYP pages)*

Number	Baseline and targets					
	2007	**Year 1 2008**	**Year 2 2009**	**Year 3 2010**	**Year 4 20…**	**Year 5 20…**
Births	122,540	116,556	117,871	119,362		
Infants' deaths	3,978	5,362	5,304	5,252		
Surviving infants	118,562	111,194	112,566	114,110		
Pregnant women		117,420	118,965	120,510		
Target population vaccinated with BCG	119,732	116,000	117,000	119,000		
BCG coverage*	97,7	98,5	99,0	99,5		
Target population vaccinated with OPV3	104,664	105,000	105,850	107,350		
OPV3 coverage**	94,0	94,5	95,5	96,0		
Target population vaccinated with DTP3***	104,823	105,000	105,850	107,350		
DTP3 coverage**	94,0	94,5	95,5	96,0		
Target population vaccinated with DTP1***	109,488	109,555	110,100	111,350		
Wastage[2] rate in base-year and planned thereafter	15%	15%	10%	5%		
Target population vaccinated with **3rd dose** of ……			101,592	102,984		
…… Coverage**			95	95		
Target population vaccinated with **1st dose** of ……			106,938	108,405		
Wastage[1] rate in base-year and planned thereafter			10%	5%		
Target population vaccinated with **1st dose** of Measles	100,961	105,120	107,670	110,250		
Target population vaccinated with **2nd dose** of Measles	89,900	90,500	91,700	92,400		
Measles coverage**	98,8	99,0	99,2	99,4		
Pregnant women vaccinated with TT+						
TT+ coverage****						
Vit A supplement 78,702	117,420	118,965	120,510			

[2] The formula to calculate a vaccine wastage rate (in percentage): [(A – B) / A] x 100. Whereby : A = The number of doses distributed for use according to the supply records with correction for stock balance at the end of the supply period; B = the number of vaccinations with the same vaccine in the same period. For new vaccines check **table α** after Table 7.1.

	452,026	435,740	437,910	439,715			
Annual DTP Drop out rate [(DTP1-DTP3)/DTP1] x100		4,2	4,1	3,8	3,5		
Annual Measles Drop out rate (for countries applying for YF)							

* Number of infants vaccinated out of total births
** Number of infants vaccinated out of surviving infants
*** Indicate total number of children vaccinated with either DTP alone or combined
**** Number of pregnant women vaccinated with TT+ out of total pregnant women

Table 3.5: Summary of current and future immunisation budget *(or refer to cMYP pages)*

	Estimated costs per annum in US$ (,000)					
Cost category	**2007**	**2008**	**2009**	**2010**	**Year 4 20…**	**Year 5 20…**
Routine Recurrent Cost						
Vaccines (routine vaccines only)	$817,170	$713,903	$2,046,364	$1,629,736		
Traditional vaccines	$362,434	$432,943	$302,659	$306,750		
New and underused vaccines	$454,736	$280,960	$1,743,704	$1,322,986		
Injection supplies	$200,814	$179,327	$168,013	$162,126		
Personnel	$106,158	$130,024	$157,602	$188,250		
Salaries of full-time NIP health workers (immunisation specific)	$95,276	$114,430	$136,463	$160,926		
Per-diems for outreach vaccinators / mobile teams	$10,882	$15,594	$21,139	$27,325		
Transportation	$64,860	$204,723	$235,431	$270,746		
Maintenance and overheads	$169,255	$207,790	$206,165	$210,288		
Training	$76,708	$86,068	$96,569	$108,347		
Social mobilisation and IEC	$67,402	$72,188	$77,313	$82,802		
Disease surveillance	$2,206	$5,000	$5,610	$6,242		
Program management	$11,029	$12,500	$14,025	$15,866		
Other						
Subtotal Recurrent Costs	**$1,515,602**	**$1,614,696**	**$3,025,089**	**$2,693,236**		
Routine Capital Costs						
Vehicles		$224,224				
Cold chain equipment	$87,600	$229,439	$147,113			
Other capital equipment	$612	$8,211				
Subtotal Capital Costs	**$88,212**	**$461,874**	**$147,113**			
Campaigns						
Hepatitis B		$35,893		$725,941		
Measles						

Yellow Fever						
MNT campaigns						
Mumps			$905,321			
Subtotal Campaign Costs		**$35,893**	**$905,321**	**$725,941**		
GRAND TOTAL	**$1,603,814**	**$2,112,463**	**$4,077,522**	**$3,419,177**		

Please list in the tables below the funding sources for each type of cost category (if known). Please try and indicate which immunisation program costs are covered from the Government budget, and which costs are covered by development partners (or the GAVI Alliance), and name the partners.

Table 3.6: Summary of current and future financing and sources of funds *(or refer to cMYP)*

		Estimated financing per annum in US$ (,000)					
Cost category	**Funding source**	**Base Year 2007**	**2008**	**Year 1 2009**	**Year 2 2010**	**Year 3 2011**	**Year 4 2012**
Routine Recurrent Cost							
1. Vaccines	1. Government	430,958	338,403	638,510	622,288		
2.	2. ADB	386,212	270,000				
3.	3. GAVI		105,500	1,407,854	1,007,448		
4. Injection materials	4. Government	140,814	148,002	131,849	133,296		
5.	5. GAVI	60,000	31,325	36,164	28,830		
6.	6.						
7. Trainings	7. Government	76,708		2,280			
8.	8. GAVI		86,068	60,000			
9.	9. WHO			10,000	10,000		
10. Social Mob.	10. Government	67,402					
11.	11. GAVI		72,188	40,000			
12. Other expenses	12. Government	353,508	563,211	636,831	710,225		
11.	11.						
12.	12.						
Routine Capital Costs							
1. Equipment	1. UNICEF	88,212	264,663				
2.	2. GAVI		197,211				
3.	3.						
4.	4.						
5.	5.						
Campaigns							

1. Hep B	1. Government		35,893		208,080		
2. Mumps	2. Government			255,000			
3.	3.						
4.	4.						
5.	5.						
GRAND TOTAL		**1,603,814**	**2,112,463**	**3,218,488**	**2,720,167**		

6. New and Under-Used Vaccines (NVS)

Please give a summary of the cMYP sections that refer to the introduction of new and under-used vaccines. Outline the key points that informed the decision-making process (data considered etc):

Hib (Haemophilus influenzae type b) related diseases represent important public health problems in the Kyrgyz Republic. Intense circulation of the Hib infection among children in the Kyrgyzstan was testified in several separate studies. The Hib burden estimates released by WHO Head Quarters in 2007 allowed estimate annually in Kyrgyz Republic occur from 2252 to 4168 severe cases of Hib diseases and from 185 to 493 cases of deaths following Hib. Implementation of the Hib vaccination associated with high vaccination coverage rates would prevent most of the above mentioned cases of disease and death.

Please summarise the cold chain capacity and readiness to accommodate new vaccines, stating how the cold chain expansion (if required) will be financed, and when it will be in place. Please use attached excel annex 2a (Tab 6) on the Cold Chain. Please indicate the additional cost, if capacity is not available and the source of funding to close the gap

An EVSM assessment conducted in 2002 recommended reorganization and refurbishment of the national cold store, install safe and efficient equipment of adequate capacity, organize and use adequately packing/unpacking areas to allow respecting standard operating procedures, making inventories and ensure safe conditions of work.

A general reconstruction of the national vaccine store is scheduled for 2008 in order to enhance quality and safety of vaccine storage and meet the 10 WHO/UNICEF criteria for effective vaccine store management. That should involve installation of a $30M^3$ cold room, a stand-by generator a computerized continuous temperature monitoring and alarm system.

In the framework of pandemic influenza vaccination preparedness, based on a 2007 assessment, UNICEF will supply in the 1st quarter of 2008 in order to strengthen vaccine storage capacity at the national and regional level 3 cold rooms (2 units x$10m^3$ and 1 unit x $30m^3$), 2 Diesel generator sets 20kVA, 60 refrigerators MK304, 310 voltage regulators and 500 Fridge tag indicators.

The data from the table 6.1 above show clearly that the available net storage capacity at the vaccine store exceeds at least 3 times the required maximal capacity for one supply period.

Intermediate vaccine stores are represented in Kyrgyzstan by oblast (region) and rayon (district) levels.

All oblast have sufficient vaccine storage capacity for temperature -25C. The situation is different for vaccines requiring storage conditions at +2 +8. Only one oblast currently is ready to store safely vaccines when pentavalent vaccine is introduced. The additional required capacity varies from 100 liters in Talas oblast to 800 liters in Osh oblast. A provisional distribution plan of the cold chain equipment supplied by UNICEF would solve efficiently the problem: two cold rooms with 10m3 gross volume (net storage volume = 4m3) will be supplied to Osh oblast and Jalalabad oblast. That would create additional capacity in those oblasts for introduction of additional new vaccines, including influenza, rotavirus and pneumo.

For other oblast refrigerators MK304 with the net storage volume of 188 liters will be distributed

in order to match the demand for additional cold chain capacity.

Table 6.1: Capacity and cost (for positive storage) (*Refer to Tab 6 of Annex 2a or Annex 2b)*

		Formula	2008	Year 1 2009	Year 2 2010	Year 3 2011	Year 2012
A	Annual ***positive*** volume requirement, including new vaccine - DTPw-HepB liquid-Hib combined (litres)[3]	*Sum-product of total vaccine doses multiplied by unit packed volume of the vaccine*	7,790	10,310	10,370		
B	Annual ***positive*** capacity, including new vaccine - DTPw-HepB liquid-Hib combined (litres)	#	34,831	64,831	64,831		
C	Estimated minimum number of shipments per year required for the actual cold chain capacity	*A / B*		1	1		
D	Number of consignments / shipments per year	*Based on national vaccine shipment plan*		2	2		
E	Gap (if any)	*((A / D) - B)*		0	0		
F	Estimated cost for expansion	*US $*		n/a	n/a		

Please briefly describe how your country plans to move towards attaining financial sustainability for the new vaccines you intend to introduce, how the country will meet the co-financing payments, and any other issues regarding financial sustainability you have considered (refer to the cMYP):

In accordance with the Government Decree #184 on Healthcare Financing on Programmatic Principles, the Ministry of Health receives lumpsum funds to be spent on vaccine procurement. The resources allotted for this purpose are increasing annually, according to the Government's commitment to move toward vaccine independence. Currently, 60% of all routine vaccines for

[3] Use results from table 5.2. Make the sum-product of the total vaccine doses row (I) by the unit packed volume for each vaccine in the national immunisation schedule. All vaccines are stored at positive temperatures (+5°C) except OPV which is stored at negative temperatures (-20°C).

children under 6 years of age are procured with the state funds. The remaining share is provided through Asian Development Bank grant, support which would end in 2009, as well as through GAVI (60% of required HepB vaccine in 2008). Introduction of pentavalent vaccine would allow to fill the gap and provide sufficient time for the government to meet the commitment.

According to cMYP, the existing and planned external support is expected only in form of vaccine and injection materials supplies and, occasionally, the cold chain improvement. The government is already the major financing agency for most budget lines within the National Immunization Programme, such as personnel, maintenance, transportation, communication, overhead and logistics cost, as well as for partial procurement of vaccine and supplies.

Regarding the co-financing, the Government of Kyrgyzstan will ensure the release of its portion to the UNICEF Supply Division annually in April each year, after approval of the annual budget. The mechanism of payments to UNICEF is established and well-functioning. The Government also commits continuation of co-financing should the support be extended for 2011-2015.

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Table 6.2: Assessment of burden of relevant diseases *(if available)*:

No comprehensive Hib disease burden assessment was conducted in Kyrgyzstan; burden of disease not currently available.

Disease	Title of the assessment	Date	Results
Hib	Rapid Assessment	Nov 2002	The rate of Hib meningitis per 100,000 children under 5 years of age for the country is approximately 20.4 (Bishkek data for 1999-2000) , with mortality rate due to Hib estimated at 25.3
Hib	Country consultation visit	Nov 2005	13% of all bacterial meningitis case was Hib-associated
Hib	Global disease burden calculations based on available data (WHO HQ)	Aug 2007	Estimated annual number of serious Hib-associated diseases is 2252 to 4168 , and estimated number of deaths is 185 to 493 per annum

If new or under-used vaccines have already been introduced in your country, please give details of the lessons learnt from storage capacity, protection from accidental freezing, staff training, cold chain, logistics, drop out rate, wastage rate etc., and suggest solutions to address them:

The country introduced HepB vaccine with the GAVI support in 2001, and MMR vaccine with the state funding (combined with the support from JICA) in 2002. The lessons learned from the introduction of those vaccines, particularly of HepB, are given below.

Lessons Learned	Solutions / Action Points
Initially, the HepB vaccine was supplied in 10-dose vials. Consequently, the wastage rate was relatively high, particularly in small maternity departments.	New vaccine is requested only in one-dose vials.

Insufficient cold chain capacity in vaccine stores at the province level	Additional refrigerating equipment was procured with support of UNICEF (will arrive in the country in May 2008), which would provide sufficient cold chain volumes at central and province levels.
Often cases of HepB vaccine freezing during transportation in cold boxes and vaccine carriers.	The standards of use of conditioned icepacks was adopted. Sufficient quantity of freeze-tag is already procured.
Health staff, including medical professionals and vaccination personnel, need advance training on new vaccines.	Specific training to health staff to be conducted prior to new vaccine introduction. This should be complemented by relevant and effective advocacy and communication activities. The lump-sum grant for facilitating the introduction of the new vaccine will be used for this purpose as described in a chapter below.

Please list the vaccines to be introduced with support from the GAVI Alliance (and presentation):

Kyrgyzstan is now applying for support in introduction of Hib vaccine in the following presentation: pentavalent DTPw-HepB liquid-Hib combined (1-dose vials) as the first preference. If the primary-choice presentation is not available or is available in insufficient quantity, the country is requesting DTPw pentavalent DTPw-HepB liquid-Hib combined in 2-dose-vial presentation as the second prefrence.

First Preference Vaccine

As reported in the cMYP, the country plans to introduce Hib vaccinations, using pentavalent DTP-HepB-Hib vaccine, in 1-dose per vial liquid form.

Please refer to the excel spreadsheet Annex 2a or Annex 2b (for Rotavirus and Pneumo vaccines) and proceed as follows:

- Please complete the "Country Specifications" Table in Tab 1 of Annex 2a or Annex 2b, using the data available in the other Tabs: Tab 3 for the commodities price list, Tab 5 for the vaccine wastage factor and Tab 4 for the minimum co-financing levels per dose[4].

- Please summarise the list of specifications of the vaccines and the related vaccination programme in Table 6.3 below, using the population data (from Table 3.4 of this application) and the price list and co-financing levels (in Tables B, C, and D of Annex 2a or Annex 2b).

- Then please copy the data from Annex 2a or 2b (Tab "Support Requested") into Tables 6.4 and 6.5 (below) to summarize the support requested, and co-financed by GAVI and by the country.

- Please submit the electronic version of the excel spreadsheets Annex 2a or 2b together with the application

Table 6.3: Specifications of vaccinations with new vaccine

[4] *Table D1 should be used for the first vaccine, with tables D2 and D3 for the second and third vaccine co-financed by the country*

Vaccine: pentavalent DTP-HepB-Hib vaccine, in 1-dose per vial liquid form.	*Use data in:*		**Year 1 2008**	**Year 2 2009**	**Year 3 2010**	**Year 4 20…**	**Year 5 20…**
Number of children to be vaccinated with the third dose	*Table 3.4*	#		101,592	102,984		
Target immunisation coverage with the third dose	*Table 3.4*	#		95	95		
Number of children to be vaccinated with the first dose	*Table 3.4*	#		106,938	108,405		
Estimated vaccine wastage factor	*Annex 2a or 2b Table E - tab 5*	#		1.05	1.05		
Country co-financing per dose *	*Annex 2a or 2b Table D - tab 4*	$		$0.30	$0.30		

* Total price pre dose includes vaccine cost, plus freight, supplies, insurance, fees, etc

Table 6.4: Portion of supply to be co-financed by the country (and cost estimate, US$)

		Year 1 2008	**Year 2 2009**	**Year 3 2010**	**Year 4 20…**	**Year 5 20…**
Number of vaccine doses	#	0	33,900	31,000		
Number of AD syringes	#	0	36,300	32,800		
Number of re-constitution syringes	#	0	0	0		
Number of safety boxes	#	0	425	375		
Total value to be co-financed by country	**$**	0	$126,500	$103,000		

Table 6.5: Portion of supply to be procured by the GAVI Alliance (and cost estimate, US$)

		Year 1 2008	**Year 2 2009**	**Year 3 2010**	**Year 4 20…**	**Year 5 20…**
Number of vaccine doses	#	0	387,200	311,800		
Number of AD syringes	#	0	413,900	330,000		
Number of re-constitution syringes	#	0	0	0		
Number of safety boxes	#	0	4,600	3,675		
Total value to be co-financed by GAVI	**$**	0	$1,444,500	$1,036,500		

- Please refer to http://www.unicef.org/supply/index_gavi.html for the most recent GAVI Alliance Vaccine Product Selection Menu, and review the GAVI Alliance NVS Support Country Guidelines to identify the appropriate country category, and the minimum country co-financing level for each category.

Second Preference Vaccine

If the first preference of vaccine is in limited supply or currently not available, please indicate below the alternative vaccine presentation

In case if the first preference vaccine presentation is not available in the required quantity, the alternative vaccine presentation would be DTPw-HepB liquid + Hib combined in 2-dose presentatrion.

- Please complete tables 6.3 – 6.4 for the new vaccine presentation
- Please complete the excel spreadsheets Annex 2a or Annex 2b for the new vaccine presentation and submit them alongside the application.

Table 6.3.a: Specifications of vaccinations with new vaccine

Vaccine: DTPw-HepB liquid + Hib combined in 2-dose presentatrion.	*Use data in:*		**Year 1 2008**	**Year 2 2009**	**Year 3 2010**	**Year 4 20…**	**Year 5 20…**
Number of children to be vaccinated with the third dose	*Table 3.4*	#		101,592	102,984		
Target immunisation coverage with the third dose	*Table 3.4*	#		95	95		
Number of children to be vaccinated with the first dose	*Table 3.4*	#		106,938	108,405		
Estimated vaccine wastage factor	*Annex 2a or 2b Table E - tab 5*	#		1.11	1.11		
Country co-financing per dose *	*Annex 2a or 2b Table D - tab 4*	$		$0.30	$0.30		

* Total price pre dose includes vaccine cost, plus freight, supplies, insurance, fees, etc

Table 6.4.a: Portion of supply to be co-financed by the country (and cost estimate, US$)

		Year 1 2008	**Year 2 2009**	**Year 3 2010**	**Year 4 20…**	**Year 5 20…**
Number of vaccine doses	#	0	36,900	32,800		
Number of AD syringes	#	0	37,700	32,800		
Number of re-constitution syringes	#	0	0	0		
Number of safety boxes	#	0	425	375		

Total value to be co-financed by country	**$**	0	134,000	109,000		

Table 6.5.a: Portion of supply to be procured by the GAVI Alliance (and cost estimate, US$)

		Year 1 2008	Year 2 2009	Year 3 2010	Year 4 20…	Year 5 20…
Number of vaccine doses	#	0	408,300	329,500		
Number of AD syringes	#	0	417,700	330,000		
Number of re-constitution syringes	#	0	0	0		
Number of safety boxes	#	0	4,650	3,675		
Total value to be co-financed by GAVI	**$**	0	1,480,000	1,094,000		

Procurement and Management of New and Under-Used Vaccines

a) Please show how the support will operate and be managed including procurement of vaccines (GAVI expects that most countries will procure vaccine and injection supplies through UNICEF):

This support will operate through the usual GAVI-UNICEF collaboration mechanisms. The current Memorandum of Understanding between MOH of Kyrgyz Republic and UNICEF on procurement of vaccines is valid until 2010. The agreement on incorporating the pentavalent vaccine into procurement plans for Kyrgyzstan has already been achieved with UNICEF and will be formalized once this application for support is approved by GAVI Board.

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

- *Other vaccines or immunisation commodities procured by the country and description of the mechanisms used.*
- *The functions of the National Regulatory Authority (as evaluated by WHO) to show they comply with WHO requirements for procurement of vaccines and supply of assured quality.*

No alternative mechanism for procurement and delivery of vaccine is requested. The current system of procuring routine vaccines through UNICEF is well-functional and effective.

There is no National Regulatory Authority as evaluated by WHO in Kyrgyzstan. Registration/licensing of vaccine and monitoring/reporting of AEFI are done by the Department of pharmaceutical s and medical equipment and the Republican Centre for Immunoprophylaxis of MOH respectively.

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

The enclosed detailed vaccine introduction plan describes the introduction of pentavalent Hib vaccine with the goal to reduce by 80% morbidity and mortality associated with Hib related diseases, and to achieve 90% reduction in prevalence of chronic HBV infection (as measured by the prevalence of HbsAg) among children under five.

In order to achieve the objective of vaccinating all infants (by age 12 months) with 3 doses of pentavalent (DPT-HepB-Hib) vaccine, attaining a coverage of 95% at the national level and at least 90% at district level by the year 2010 the following strategies are planned :

- Strengthening and building capacity of the immunization staff;
- Increasing access to EPI services;
- Strengthening vaccine management, logistics, reducing vaccine wastage and achieving safety of immunizations;
- Strengthening monitoring, evaluation and supervision system;
- Enforcing Communication & Advocacy activities

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

GAVI will pay directly to UNICEF Supply Division for procurement of vaccines and injection and injection safety materials.

GAVI funds to facilitate the introduction of pentavalent vaccine should be transferred to RCI to the account opened in 2003 during introduction of HepB vaccine (the account details are indicated in this application.)

Implementation mechanism of these funds is elaborated in the vaccine introduction plan. Reports on funds implementation will be submitted for review at ICC meetings semiannually.

Persons accountable for cash grant implementation are Deputy Minister of Health and the Head of RCI.

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

The co-financing amount will be transferred to UNICEF Supply Division by the Ministry of Health of Kyrgyzstan. The payment mechanism exists and is well-functioning.

Kyrgyzstan agrees with co-financing requirements and commits co-payment of USD0.3 per dose during 2009-2010. Kyrgyzstan assures the compliance with current co-financing requirements in future in case of continuation of the support.

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

Monitoring of the pentavalent vaccine coverage will be incorporated into routine coverage monitoring systems on a monthly basis once the vaccine is introduced. .

The monitoring and supervision tools will be reviewed to incorporate specificities pertaining to the new vaccine. The monitoring system will include the proportion of children who complete the pentavalent primary series of three doses by 12 months of age, checking implementation of true contraindications, safe administration, timely vaccination, quality of vaccine storage, safe waste management.

In April each year the coverage will be reported in the MOH-WHO-UNICEF Joint Reporting Form and in May each year it will be reported as well in the GAVI Annual Progress Report.

New and Under-Used Vaccine Introduction Grant

Table 6.5: calculation of lump-sum

Year of New Vaccine introduction	N° of births (from table 3.4)	Share per birth in US$	Total in US$
2009	117,871	$ 0.30	$35 361

Please indicate in the tables below how the one-time Introduction Grant[5] will be used to support the costs of vaccine introduction and critical pre-introduction activities (refer to the cMYP).

Table 6.6: Cost (and finance) to introduce the first preference vaccine (US$)

Cost Category	Full needs for new vaccine introduction	Funded with new vaccine introduction grant
	US$	US$
Training	33 000	33 000
Social Mobilization, IEC and Advocacy	31 000	20 000
Cold Chain Equipment & Maintenance	205 400	10 000
Vehicles and Transportation	10 000	10 000
Programme Management	8 000	8 000
Surveillance and Monitoring	3 000	3 000
Human Resources	-	-
Waste Management	1 000	1 000
Technical assistance	8 000	8 000
Development of new guidelines for using Pentavalent vaccine	7 000	7 000
Other (please specify)		
Other (please specify)		
Other (please specify)		
Total	306 400	100 000

- Please complete the banking form (annex 1) if required

Table 6.7: Cost (and finance) to introduce the second preference vaccine (US$)
(costs of facilitating introduction of te second preference vaccine are the same as for the first preference vaccine)

Cost Category	Full needs for new vaccine introduction	Funded with new vaccine introduction grant
	US$	US$
Training	33 000	33 000
Social Mobilization, IEC and Advocacy	31 000	20 000
Cold Chain Equipment & Maintenance	205 400	10 000
Vehicles and Transportation	10 000	10 000
Programme Management	8 000	8 000
Surveillance and Monitoring	3 000	3 000
Human Resources	-	-
Waste Management	1 000	1 000
Technical assistance	8 000	8 000
Development of new guidelines for using Pentavalent vaccine	7 000	7 000
Other (please specify)		
Other (please specify)		
Other (please specify)		
Total	306 400	100 000

[5] The Grant will be based on a maximum award of $0.30 per infant in the birth cohort with a minimum starting grant award of $100,000

7. Additional comments and recommendations from the National Coordinating Body (ICC/HSCC)

The ICC is commended continuous support provided by GAVI for immunization programmes in Kyrgyzstan. The ICC emphasized that the current opportunity allows the country to introduce a new important antigen along with continuation of external support for HepB supply in view of discontinuation of GAVI support for HepB after 2008 and taking over provision of part of other antigens, thus relieving financial burden on the national health system and ensuring sustainability for the next few years. Introduction of pentavalent Hib vaccine is important for the country as shown by several assessments and described in the cMYP.

The ICC noted that the immunization programme has proved itself as the most effective and beneficial health development intervention; therefore with full confidence the Government of Kyrgyzstan is committed for co-financing of the pentavalent vaccine and its partners are committed to support the immunization programme towards sustainable development of the programme.

The Ministry of Health of Kyrgyzstan and its immunization partners are therefore appealing to the GAVI board for positive response of the proposal to support the Kyrgyzstan's endeavours in achieving national, regional and global child survival targets.

8. Documents required for each type of support

Type of Support	Document	DOCUMENT NUMBER	Duration *
ALL	WHO / UNICEF Joint Reporting Form (last two)		
ALL	Comprehensive Multi-Year Plan (cMYP)		
ALL	Endorsed minutes of the National Coordinating Body meeting where the GAVI proposal was endorsed		
ALL	Endorsed minutes of the ICC/HSCC meeting where the GAVI proposal was discussed		
ALL	Minutes of the three most recent ICC/HSCC meetings		
ALL	ICC/HSCC workplan for the forthcoming 12 months		
Injection Safety	National Policy on Injection Safety including safe medical waste disposal (if separate from cMYP)		
Injection Safety	Action plans for improving injection safety and safe management of sharps waste (if separate from cMYP)		
Injection Safety	Evidence that alternative supplier complies with WHO requirements (if not procuring supplies from UNICEF)		
New and Under-used Vaccines	Plan for introduction of the new vaccine (if not already included in the cMYP)		

** Please indicate the duration of the plan / assessment / document where appropriate*

ANNEX 1

Banking Form

SECTION 1 ***(To be completed by payee)***

In accordance with the decision on financial support made by the Global Alliance for Vaccines and Immunisation dated . . . . . , the Government of . . . . . 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.:**	
Amount in USD:	(To be filled in by GAVI Secretariat)	**Currency of the bank account:**
For credit to: ***Bank account's title***		
Bank account No.:		
At: ***Bank's name***		

Is the bank account exclusively to be used by this program? **YES ( ) NO ( )**

By whom is the account audited? .....

Signature of Government's authorizing official:
By signing below, the authorizing official confirms that the bank account mentioned above is known to the Ministry of Finance and is under the oversight of the Auditor General.

Name:	.....	**Seal:**
Title:	.....	
Signature:	.....	
Date:	.....	
Address and Phone Number:		

SECTION 2 ***(To be completed by the Bank)***

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.:		
Bank Contact Name and Phone Number:		

I certify that the account No. . . . . is held by *(Institution name)* . . . . . .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:** **4 Name:** **Title:**	**Name of bank's authorizing official:** **Signature:** **Date:** **Seal:**

COVERING LETTER

(To be completed by UNICEF representative on letter-headed paper)

TO: GAVI Alliance – Secretariat
Att. Dr Julian Lob-Levyt
Executive Secretary
C/o UNICEF
Palais des Nations
CH 1211 Geneva 10
Switzerland

On the …… I received the original of the BANKING DETAILS form, which is attached.

I certify that the form does bear the signatures of the following officials:

	Name	Title
Government's authorizing official	.....	.....
Bank's authorizing official	.....	.....

Signature of UNICEF Representative:

Name .....

Signature .....

Date .....