

GAVI Alliance

Application Form for Country Proposals

For Support to New and Under-Used Vaccines (NVS)

Submitted by

The Government of Democratic People's Republic of Korea

Date of submission: 15.05.2011 11:24:26

Deadline for submission: 1 Jun 2011

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

Start Year 2011

End Year 2015

Revised in January 2011

(To be used with Guidelines of December 2010)

Please submit the Proposal using the online platform https://AppsPortal.gavialliance.org/PDExtranet.

Enquiries to: proposals@gavialliance.org or representatives of a GAVI partner agency. The documents can be shared with GAVI partners, collaborators and general public. The Proposal and attachments must be submitted in English, French, Spanish, or Russian.

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

The GAVI Secretariat is unable to return submitted documents and attachments to countries. Unless otherwise specified, documents will be shared with the GAVI Alliance partners and the general public.

GAVI ALLIANCE GRANT TERMS AND CONDITIONS

FUNDING USED SOLELY FOR APPROVED PROGRAMMES

The applicant country ("Country") confirms that all funding provided by the GAVI Alliance will be used and applied for the sole purpose of fulfilling the programme(s) described in the Country's application. Any significant change from the approved programme(s) must be reviewed and approved in advance by the GAVI Alliance. All funding decisions for the application are made at the discretion of the GAVI Alliance Board and are subject to IRC processes and the availability of funds.

AMENDMENT TO THE APPLICATION

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

RETURN OF FUNDS

The Country agrees to reimburse to the GAVI Alliance all funding amounts that are not used for the programme(s) described in its application. The country's reimbursement must be in US dollars and be provided, unless otherwise decided by the GAVI Alliance, within sixty (60) days after the Country receives the GAVI Alliance's request for a reimbursement and be paid to the account or accounts as directed by the GAVI Alliance.

SUSPENSION/ TERMINATION

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

ANTICORRUPTION

The Country confirms that funds provided by the GAVI Alliance shall not be offered by the Country to any third person, nor will the Country seek in connection with its application any gift, payment or benefit directly or indirectly that could be construed as an illegal or corrupt practice.

AUDITS AND RECORDS

The Country will conduct annual financial audits, and share these with the GAVI Alliance, as requested. The GAVI Alliance reserves the right, on its own or through an agent, to perform audits or other financial management assessment to ensure the accountability of funds disbursed to the Country.

The Country will maintain accurate accounting records documenting how GAVI Alliance funds are used. The Country will maintain its accounting records in accordance with its government-approved accounting standards for at least three years after the date of last disbursement of GAVI Alliance funds. If there is any claims of misuse of funds, Country will maintain such records until the audit findings are final. The Country agrees not to assert any documentary privilege against the GAVI Alliance in connection with any audit.

CONFIRMATION OF LEGAL VALIDITY

The Country and the signatories for the Country confirm that its application, and Annual Progress Report, are accurate and correct and form legally binding obligations on the Country, under the Country's law, to perform the programmes described in its application, as amended, if applicable, in the APR.

CONFIRMATION OF COMPLIANCE WITH THE GAVI ALLIANCE TRANSPARANCY AND ACCOUNTABILITY POLICY

The Country confirms that it is familiar with the GAVI Alliance Transparency and Accountability Policy (TAP) and complies with the requirements therein.

USE OF COMMERCIAL BANK ACCOUNTS

The Country is responsible for undertaking the necessary due diligence on all commercial banks used to manage GAVI cash-based support. The Country confirms that it will take all responsibility for replenishing GAVI cash support lost due to bank insolvency, fraud or any other unforeseen event.

ARBITRATION

Any dispute between the Country and the GAVI Alliance arising out of or relating to its application that is not settled amicably within a reasonable period of time, will be submitted to arbitration at the request of either the GAVI Alliance or the Country. The arbitration will be conducted in accordance with the then-current UNCITRAL Arbitration Rules. The parties agree to be bound by the arbitration award, as the final adjudication of any such dispute. The place of arbitration will be Geneva, Switzerland. The language of the arbitration will be English.

For any dispute for which the amount at issue is US\$ 100,000 or less, there will be one arbitrator appointed by the GAVI Alliance. For any dispute for which the amount at issue is greater than US \$100,000 there will be three arbitrators appointed as follows: The GAVI Alliance and the Country will each appoint one arbitrator, and the two arbitrators so appointed will jointly appoint a third arbitrator who shall be the chairperson.

The GAVI Alliance will not be liable to the country for any claim or loss relating to the programmes described in the application, including without limitation, any financial loss, reliance claims, any harm to property, or personal injury or death. Country is solely responsible for all aspects of managing and implementing the programmes described in its application.

1. Application Specification

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

Important note: To enable proper functioning of the form, please first select the cMYP years on the previous page.

Note: To add new lines click on the New item icon in the Action column. Use the Delete item icon to delete a line.

Type of Support	Vaccine	Start Year	End Year	Preferred second presentation ^[1]	Action
New Vaccines Support	DTP-HepB-Hib, 1 dose/vial, Liquid	2012	2015	DTP-HepB-Hib, 10 doses/vial, Liquid	

^[1] This "*Preferred second presentation*" will be used in case there is no supply available for the preferred presentation of the selected vaccine ("**Vaccine**" column). If left blank, it will be assumed that the country will prefer waiting until the selected vaccine becomes available.

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3. Executive Summary

Of estimated 10 million annual deaths worldwide amongst children under five, WHO estimates that more than 700,000 are caused by pneumococcal infections. In DPRK, severe pneumonia and diarrheal diseases are still the major causes of child morbidity and mortality. In order to reach MDG 4 by 2015, one of the cost effective, life saving and a fairly new intervention is to introduce Haemophilus Influenzae Type B (Hib) for delivery with DPT3 in routine immunization programme in DPRK. This combination vaccine will bring the added benefit of better compliance, coverage and injection safety for immunization programme.

EPI is one of the most successful and sustainable public health programme in DPRK. Routine immunization coverage is quite high and stable over the last couple of years particularly increase in coverage of DTP-HepB with 3 doses (82% in 2006 to 93% in 2010) among the children under 1 year. Immunization services are provided through more than 12,000 immunization posts, 7008 PHC units, and 433 county level clinics/hospitals. 130 central and provincial level hospitals and specialized hospitals.

Over the past 10 years or so, the programme has received substantial assistance from both UNICEF and WHO in building a nation-wide cold chain system for the storage and distribution of vaccines for immunization programme. To understand the actual status of cold chain capacity, a nation-wide cold chain assessment was carried out in October 2008 with the technical guidance and close supervision of an international consultant. Based on assessment report, nation-wide cold chain replacement plan was developed and implementation of this cold chain replacement plan was completed in June 2010. This was a critical step in infra-structure building and strengthening cold chain capacity for the immunization programme in the country.

DPRK's cold chain system is now well-established and much investment and capacity building efforts have been undertaken in the last 2 years to improve it not only in the area of equipment replacement but also conducted series of cold chain maintenance training at different levels and raised awareness around proper vaccine handling and temperature monitoring through procuring more thermometers and designing, developing and distributing posters on cold chain issues to all health facilities in the country.

Effective Vaccine Management (EVM) assessment will be started from June 2011 with WHO and UNICEF's technical and financial support.

The national EPI team updated their existing comprehensive multi-year plan (2011-2015) and will be submitted to GAVI along with 2010 APR on 15 May,2011. This plan provides the framework for the introduction of new vaccines. cMYP has also outlined financial implication of EPI program and long term strategies for financial sustainability (cMYP page-51) for its solution. The cMYP clearly stated introduction of DTP-HepB-Hib (pentavalent) vaccine in 2012.

Considering all above factors, national EPI team decided to introduce pentavalent vaccine (DTP-HepB-Hib) in its routine immunization program starting from July 2012 for an initial duration of four years. The estimated cost will be US\$ 10.98 millions with 8.5% government cofinancing. Birth cohorts will be around 350,000 per year with a coverage target of 95% for the 3rd doses of DTP-HepB-Hib in 2012; 96% in 2013 & 2014 and 97% in 2015. This was agreed by the ICC/HSCC members during the 1st meeting of the year (7 March 2011). It was also recommended by Technical Consultative Group of SEARO in the yearly meeting conducted in July, 2008. In addition, the letter from WHO-Geneva dated 27 July 2009 (see under attachments#15) provided DPRK specific data on Haemophilus Influenzae type B which is convincing and very useful information in guiding decisions for the introduction of Hib vaccine.

Finally, this proposal was reviewed and endorsed by the existing ICC/HSCC committee which strongly recommend that the NVS support for penta vaccine by GAVI will greatly contribute to

prevent diseases which are the major causes of child death in DPRK.

4. Signatures

4.1. Signatures of the Government and National Coordinating Bodies

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

The Government of Democratic People's Republic of Korea 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 DTP-HepB-Hib 1 dose/vial Liquid introduction.

The Government of Democratic People's Republic of Korea commits itself to developing national immunisation services on a sustainable basis in accordance with the Comprehensive Multi-Year Plan (cMYP) 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.

Tables 6.(n).5. (where (n) depends on the vaccine) in the NVS section of this application shows the amount of support in either supply or cash that is required from the GAVI Alliance. Tables 6.(n).4. of this application shows the Government financial commitment for the procurement of this new vaccine (NVS support only).

Following the regulations of the internal budgeting and financing cycles the Government will annually release its portion of the co-financing funds in the month of June.

Please note that this application will not be reviewed or approved by the Independent Review Committee (IRC) without the signatures of both the Minister of Health & Minister of Finance or their delegated authority.

Enter the family name in capital letters.

Minister of Health (or delegated authority)		Minister of Finance (or delegated authority)	
Name	Prof. CHOE Chang Sik	Name	PAK Su Gil
Date		Date	
Signature		Signature	

This report has been compiled by

Note: To add new lines click on the **New item** icon in the **Action** column. Use the **Delete item** icon to delete a line.

Enter the family name in capital letters.

Full name	Position	Telephone	Email	Action
Dr. KIM Jong Hwan	National EPI Manager, MOPH	850-2-3814077	Bogon.moph@star.co.net.kp	
Dr. MUNGUN Tuya	Health Specialist	850-191-2500553 (mobile)	tmungun@unicef.org	

Full name	Position	Telephone	Email	Action
Dr. ISLAM Kamrul	Chief, Health Section	850-191-250-0495 (mobile)	kislam@unicef.org	
Dr. MATHUR Arvind	Medical Officer	850-191-250-0734 (mobile)	mathura@searo.who.int	

4.1.2. National Coordinating Body - Inter-Agency Coordinating Committee for Immunisation

We the members of the ICC, HSCC, or equivalent committee^[1] met on the 03.05.2011 to review this proposal. At that meeting we endorsed this proposal on the basis of the supporting documentation which is attached.

^[1] Inter-agency Coordinating Committee or Health Sector Coordinating Committee, or equivalent committee which has the authority to endorse this application in the country in question.

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

Note: To add new lines click on the **New item** icon in the **Action** column. Use the **Delete item** icon to delete a line.

Enter the family name in capital letters.

Name/Title	Agency/Organisation	Signature	Action
RI Pong Hun , Vice- Minister	Minstry of Public Health		
PAK Myong Su, Director, State Hygienic	Minstry of Public Health		
PAK Jong Min, Director, External Affairs Department,	Minstry of Public Health		
KIM Bok Sil, Director, Department of Finance,	Minstry of Public Health		
KIM Kwang Jin, Officer, Department of External Affairs,	Minstry of Public Health		
KIM Jong Hwan, National EPI Program manager	Minstry of Public Health		
RI Hyon Chol, Director of Medical Service	Minstry of Public Health		
KI Kwang Ho, Director, Department of External Finance	Minstry of Finance		
KIM Su Gil, Vice Director, Department of Cooperation	State Planning Commission		
KO Kwang Jin, Vice Direcot, Academy of Medical Science	Academy of Medical Science		
Dr. TEGEGN Yonas, Representative	WHO, DPRK		
Mr. Bijaya RAJBHANDARI , Representative	UNICEF, DPRK		

In case the GAVI Secretariat has queries on this submission, please contact Enter the family name in capital letters.

Name	Dr. Kim Kwang Jin	Title	Officer Department of Evternal Affaire MODIL	
Tel no	850-2-3814077		Officer, Department of External Affairs, MOPH	
Fax no	850-2-44104416	Address	Sochaung-dong, Central District, P.O.B 44, Pyongyang city,	
Email	bogon.moph@star.co.net.kp	Addiess	DPRK	

4.1.3. The Inter-Agency Coordinating Committee for Immunisation

Agencies and partners (including development partners and NGOs) supporting immunisation services are co-ordinated and organised through an inter-agency coordinating mechanism (ICC, HSCC, or equivalent committee). The ICC, HSCC, or equivalent committee is responsible for coordinating and guiding the use of the GAVI NVS support. Please provide information about the ICC, HSCC, or equivalent committee in your country in the table below.

Profile of the ICC, HSCC, or equivalent committee

Name of the committee	Inter-Agency Coordinating Committee for Immunization
Year of constitution of the current committee	2007
Organisational structure (e.g., sub-committee, standalone)	Sub-Committee
Frequency of meetings	Quarterly meeting

Composition

Note: To add new lines click on the **New item** icon in the **Action** column. Use the **Delete item** icon to delete a line.

Enter the family name in capital letters.

Function	Title / Organisation	Name	
Chair	Vice Minister, Public Health	Prof. Ri Pong Hun	
Secretary	National EPI Program Manager, MoPH	Dr. Kim Jong Hwan	
Members	Director, State Hygiene & Communicable Disease Control Board, MoPH	PAK Myong Su	Action
	Director, External Affairs Department, MOPH	Dr. Pak Jong Min	
	Director, Department of Finance, MOPH	Kim Bok Sil	
	Officer, Department of External Affairs, MOPH	Mr. Kim Kwang Jin	
	Director, Department of Medical Service, MOPH	Ri Hyon Chol	
	Director, Department of External Finance, Ministry of Finance	Ki Kwang Ho	
	Vice-Director, Department of Cooperation, State Planning	Kim Su Gil	

Function	Title / Organisation	Name	
	Commission		
	Vice- Director, Academy of Medical Science	Dr. Ko Kwang Jin	
	Representative, WHO	Dr. Tegegn Yonas	
	Representative, UNICEF	Mr. Bijaya Rajbhandari	

Major functions and responsibilities of the committee

- 1. Provide policy guidelines for immunization programme in the country and if necessary review the guidelines and make necessary modifications.
- 2. Act as an advisory board to the Government on matters related to EPI including self sufficiency in immunization programme, adequate national resource allocations, new developments and to acquire assistance for strengthening EPI.
- 3. Establish a forum for exchange of information and dialogue on global and national EPI status and coordination activities in the country.
- 4. Ensure that partner agencies are provided necessary support in strengthening EPI and diseases eradication, elimination and control activities in the country.
- 5. Assist the Ministry of Public Health and partner agencies in identifying and developing support for new programme strategies when required.
- 6. Facilitate resource mobilization for EPI programme.
- 7. Review the progress of EPI and advise Government on appropriate measures for achieving the targets.
- 8. Organize a subcommittee/task force for a specific EPI related activities for in depth review and implementation when necessary.
- 9. Act as a liaison with regional and global institutions in issues related to immunization. 10.Hold regular meetings and monitor implementation status of ICC annual workplan.

Three major strategies to enhance the committee's role and functions in the next 12 months

1.	Provide technical support to review and finalize important documents like (i) Application Form for Country Proposal (ii) Annual progress report and (iii) WHO/UNICEF Joint Reporting form.
2.	Ensure quarterly ICC meetings and circulating meeting minutes.
3.	Strengthen provincial co-ordination through field monitoring visits.

4.2. National Immunization Technical Advisory Group for Immunisation

(If it has been established in the country)

We the members of the NITAG met on the 05.05.2011 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: .

In case the GAVI Secretariat has queries on this submission, please contact Enter the family name in capital letters.

Name	Title	
Tel	Title	
no		
Fax	Address	

Email						
4.2.1. The NITAG Group for Immunisation Profile of the NITAG						
Name of the NITAG						
Year of constitution of the current NITAG						
Organisational structure (e.g., sub-committee, stand-alone)						
Frequency of meetings						
Composition						
Note: To add new lines click on the New item icon in the Action column. Use the delete a line. Enter the family name in capital letters.	Delete item icon to					
Function Title / Organisation Name						
Chair						
Secretary						
Members	Action					
Major functions and responsibilities of the NITAG						
Three major strategies to enhance the NITAG's role and functions in the next 12 months						
1.						
2.						

5. 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 (cMYP) (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 (JRF) on Vaccine Preventable Diseases.
- Please refer to Health Sector Strategy documents, budgetary documents, and other reports, surveys etc, as appropriate.

5.1. Basic facts

For the year 2010 (most recent; specify dates of data provided)

	Figure		Year	Source
Total population	24,312,696		2010	cMYP on EPI for 2011-2015 and WHO/UNICEF JRF for 2010
Infant mortality rate (per 1000)	26		2011	State of the World's Children, UNICEF
Surviving Infants ^[1]	345,730		2010	cMYP on EPI for 2011-2015 and WHO/UNICEF JRF for 2010
GNI per capita (US\$)	740		2010	cMYP on EPI for 2011-2015
Total Health Expenditure (THE) as a percentage of GDP	6.08	%	2010	cMYP on EPI for 2011-2015
General government expenditure on health (GGHE) as % of General government expenditure	5.55	%	2010	cMYP on EPI for 2011-2015

^[1] Surviving infants = Infants surviving the first 12 months of life

Please provide some additional information on the planning and budgeting context in your country; also indicate the name and date of the relevant planning document for health

MEDIUM TERM STRATEGIC PLAN FOR THE DEVELOPMENT OF THE HEALTH SECTOR IN DPRK (2010 - 2015)

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

Please indicate the national planning budgeting cycle for health

Annual planning budgeting cycle (January to December)

Please indicate the national planning cycle for immunisation

Annual planning budgeting cycle (January to December)

Please indicate if sex disaggregated data (SDD) is used in immunisation routine reporting

systems

NO

Please indicate if gender aspects relating to introduction of a new vaccine have been addressed in the introduction plan

No. 2008 Coverage Evaluation Survey clearly showed that there is no gender difference with regards to vaccination.

5.2. Current vaccination schedule

Traditional, New Vaccines and Vitamin A supplement (refer to cMYP pages)

Note: To add new lines click on the **New item** icon in the **Action** column. Use the **Delete item** icon to delete a line.

delete a line.				
Vaccine (do not use trade name)	Ages of administration (by routine immunisation services)	Given in entire country	Comments	Action
BCG	One dose within 24 hours after birth	Yes		
HepB	One dose within 24 hours after birth	Yes		
Polio	Three dose in 1.5, 2.5 and 3.5 month after birth	Yes		
DTP+HepB	Three dose in 1.5, 2.5 and 3.5 month after birth	Yes		
Measles	I dose at the age of 9 month and 2nd dose at the 15 months	Yes		
П	Two dose in 3rd and 4th month of pregnancy	Yes		
Vitamin A	6-59 month	Yes		

5.3. Trends of immunisation coverage and disease burden

(as per last two annual WHO/UNICEF Joint Reporting Form on Vaccine Preventable Diseases)

	Trends of im	munisation co	Vaccine preve	Vaccine preventable disease burden				
Va	ccine	Reported		Survey	Disease	Number of report cases		
		2009	2010	2008		2009	2010	
BCG		98	98	97	Tuberculosis			
DTD	DTP1	94	94	94	Diphtheria			
DTP	DTP3	93	93	92	Pertussis		80	
Polio 3		98	99	99	Polio			
Measles (fi	rst dose)	98	99	99	Measles	64		
	nant women)	97	98	97	NN Tetanus			
Hib3	-				Hib ^[2]			
Yellow Fev	er				Yellow fever			
HepB3		93	93	92	HepBsero- prevalence ^[1]			
	supplement 6 weeks post-		98					
Vitamin A s Infants (>6	supplement months)	99	100					

^[1] If available

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

"EPI COVERAGE EVALUATION SURVEY-2008" DPR Korea was conducted in 2008 under the technical guidance and supervision of an International consultant along with technical and financial asssitance from UNICEF and WHO local offices. Three different target populations surveyed as (i)1Children 12-23 months old for routine immunization coverage (ii) Children 0-11 months old for current immunization coverage and (iii) Mothers of infant 0-11 month old for TT vaccination coverage.

^[2] Note: JRF asks for Hib meningitis

5.4. Baseline and Annual Targets

(refer to cMYP pages)

Table 1: baseline figures

Number	Base Year			Baseline ar	nd Targets	
Number	2010	2012	2013	2014	2015	
Total births	352,534	356,352	358,276	360,211	362,156	
Total infants' deaths	6,804	6,878	6,915	6,952	6,990	
Total surviving infants	345,730	349,474	351,361	353,259	355,166	
Total pregnant women	357,117	360,984	362,934	364,893	366,864	
Number of infants vaccinated (to be vaccinated) with BCG	345,483	349,225	351,110	353,007	354,913	
BCG coverage (%) ^[1]	98%	98%	98%	98%	98%	
Number of infants vaccinated (to be vaccinated) with OPV3	341,927	345,979	347,847	349,726	351,970	
OPV3 coverage (%) ^[2]	99%	99%	99%	99%	99%	
Number of infants vaccinated (or to be vaccinated) with DTP1 ^[3]	325,677	333,748	339,063	342,661	344,511	
Number of infants vaccinated (to be vaccinated) with DTP3 ^[3]	321,875	332,000	337,306	339,129	340,959	
DTP3 coverage (%) ^[2]	93%	95%	96%	96%	96%	
Wastage ^[1] rate in base-year and planned thereafter for DTP (%)	30%	30%	30%	30%	30%	
Wastage ^[1] factor in base-year and planned thereafter for DTP	1.43	1.43	1.43	1.43	1.43	
Infants vaccinated (to be vaccinated) with 1 st dose of HepB and/or Hib	348,656	349,225	351,110	353,007	354,913	
Infants vaccinated (to be vaccinated) with 3 rd dose of HepB and/or Hib	321,875	332,000	337,306	339,129	344,511	
HepB and/or Hib 3 rd dose coverage (%) ^[2]	93%	95%	96%	96%	97%	
Infants vaccinated (to be vaccinated) with 1 st dose of Measles	342,273	342,484	344,334	346,194	348,063	
Measles coverage (%)[2]	99%	98%	98%	98%	98%	
Pregnant women vaccinated with TT+	349,260	353,764	355,675	358,325	360,260	
TT+ coverage (%) ^[4]	98%	98%	98%	98%	98%	

Number	Base Year	Baseline and Targets						
Number	2010	2012	2013	2014	2015			
Vit A supplement to mothers within 6 weeks from delivery	352,534	356,352	358,276	360,211	362,156			
Vit A supplement to infants after 6 months	342,273	342,484	344,334	346,194	348,063			
Annual DTP Drop-out rate[(DTP1 - DTP3) / DTP1] x 100 ^[5]	1%	1%	1%	1%	1%			

^[1] Number of infants vaccinated out of total births

^[2] Number of infants vaccinated out of total surviving infants

^[3] Indicate total number of children vaccinated with either DTP alone or combined

^[4] Number of pregnant women vaccinated with TT+ out of total pregnant women

^[5] The formula to calculate a vaccine wastage rate (in percentage): [(A - B) / A] x 100. Whereby: A = the number of doses distributed for use according to the supply records with correction for stock balance at the end of the supply period; B = the number of vaccinations with the same vaccine in the same period.

5.5. Summary of current and future immunisation budget

(or refer to cMYP pages)

		Estimated costs per annum in US\$ (in thousand US\$)										
Cost category	Base Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8			
occi catogory	2010	2012	2013	2014	2015							
Routine Recurre	nt Cost						•	•	•			
Vaccines (routine vaccines only)	1,796,002	6,276,786	13,406,579	11,882,480	12,087,366							
Traditional vaccines	572,952	608,418	472,844	503,042	508,993							
New and underused vaccines	1,223,050	5,668,368	12,933,735	11,379,438	11,578,373							
Injection supplies	506,096	354,229	347,466	341,959	344,962							
Personnel	1,142,794	1,735,190	1,769,893	1,805,291	1,841,397							
Salaries of full-time NIP health workers (immunisatio n specific)	789,871	1,192,453	1,216,302	1,240,628	1,265,441							
Per-diems for outreach vaccinators / mobile teams	352,923	542,737	553,591	564,663	575,956							
Transportation	26,715	207,950	233,193	237,226	211,844							
Maintenance and overheads	76,112	177,765	230,162	284,584	321,494							
Training		185,233	162,407	111,534	113,764							
Social mobilisation and IEC		43,697	44,571									
Disease surveillance	1,189,500	1,990,805	1,966,949	2,006,288	2,046,414							

			Estimate	ed costs per	annum in US\$	(in thousand	d US\$)		
Cost category	Base Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
cost outagory	2010	2012	2013	2014	2015				
Program management	270,000	310,039	348,076	300,916	306,934				
Other									
Subtotal Recurrent Costs	5,007,219	11,281,694	18,509,296	16,970,278	17,274,175				
Routine Capital	Costs								
Vehicle	76,000	377,540	482,892	492,550	418,491				
Cold chain equipment	70,700	142,217	160,479	181,765	156,182				
Other capital equipment	0	0	0	0	0				
Subtotal Capital Costs	146,700	519,757	643,371	674,315	574,673				
Campaigns							•		
Polio									
Measles									
Yellow Fever									
MNT campaigns									
Other campaigns	300,000								
Subtotal Campaign Costs	300,000	0	0	0	0				
GRAND TOTAL	5,453,919	11,801,451	19,152,667	17,644,593	17,848,848				

5.6. Summary of current and future financing and sources of funds

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 (or refer to cMYP).

Note: To add new lines click on the **New item** icon in the **Action** column. Use the **Delete item** icon to delete a line.

		Estimated costs per annum in US\$ (in thousand US\$)								
		Base Year	Year 1	Year 2	Year 3	Year 4	Yea r 5	Yea r 6	Yea r 7	Yea r 8
Cost category	Funding source	2010	2012	2013	2014	2015				
Routine Recurrent Cost										
Vaccines, devices, personnel, transportation, maintenance, training, IEC/S M, disease surveillance and prog. maangement	UNICEF,WHO,G AVI & GOVT	5,007,21 9	11,281,69 4	18,509,29 6	16,970,27 8	17,274,17 5				
Routine Capital Costs										
Vehicles and cold chain equipment	UNICEF and GAVI	146,700	519,757	643,371	674,315	574,673				
Campaigns							•	•		
Operational cost	Government	300,000								
GRAND TOTAL		5,453,91 9	11,801,4 51	19,152,6 67	17,644,5 93	17,848,8 48				

6. New and Under-Used Vaccines (NVS)

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 indicate the additional cost, if capacity is not available and the source of funding to close the gap.

Cold Chain Capacity and Readiness: The national immunization programme in DPR Korea has been established for more than 20 years, and reported administrative coverage for all the key antigens have been consistently high for the last ten years. Over the past 10 years or so, the programme has received substantial assistance from both UNICEF and WHO in building a nation-wide cold chain system for the storage and distribution of vaccines for immunization programme. To understand the actual status of cold chain capacity, a nation-wide cold chain assessment was carried out in October 2008 with the technical guidance and supervision of an international consultant. Based on assessment report, nation-wide cold chain replacement plan was developed and implementation of this replacement plan was completed in June 2010 which is a critical step in infra-structure building and strengthening cold chain capacity for the immunization programme in the country.

Country did a cold chain analysis during the 2008 nation-wide cold chain assessment which is attached under attachments#16 (Figure-1, page-13). It shows the projected cold chain storage needs by province for 3 different scenarios (a) with the current vaccines and immunization schedule (b) with a revised schedule, assuming the new 'pentavalent' vaccine is introduced as an all-liquid formulation, presented in single vials, and (c) with a revised schedule, assuming the new 'pentavalent' vaccine is introduced in a part-liquid, part-lyophilised formulation, using two separate vials.

In summary, DPRK's cold chain system is now well-established and much investment and capacity building efforts have been undertaken in the last 2 years to improve it not only in the area of equipment replacement but also in conducting series of cold chain maintenance training at different levels. Awareness generated around proper vaccine handling and temperature monitoring through procuring more thermometers and designing, developing and distributing posters on cold chain issues to all health facilities in the country.

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)

Ref: cMYP page 43-45: The critical factors for facilitating decision making on new vaccine introduction include disease burden, program capacity, vaccine efficacy, vaccine safety and affordability. Although these are challenging areas for DPR Korea, the priority areas for development include disease burden, program capacity and vaccine safety. For the introduction of new vaccine, an introduction plan was developed (cMYP page 43-45) which includes resource requirements, IEC strategy, training plan, systems for monitoring and response to AEFI and surveillance strategy for monitoring impacts of vaccine introduction.

Apart from developing main target with objectives on introduction of a new vaccine, cMYP has also outlined financial implication of EPI program and long term strategies for financial sustainability (cMYP page-51) for its solution. The cMYP clearly reflected introduction of DTP-HepB-Hib (pentavalent) vaccine in 2012. This was agreed by the ICC members during the 1st meeting of the year (7 March 2011). In addition, the letter dated 27 July 2009 from Dr. Thomas Cherian, Coordinator, EPI, WHO-Geneva provided DPRK specific data on Haemophilus Influenzae type B which is convincing and very useful information in guiding decisions for the introduction of Hib vaccine.

6.1. Capacity and cost (for positive storage)

		Formula	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
			2012	2013	2014	2015				
A	Annual positive volume requirement, including new vaccine (litres or m³) m3	Sum-product of total vaccine doses multiplied by unit packed volume of the vaccine	11	32	28	28				
В	Existing net positive cold chain capacity (litres or m³) m3	#	80	80	80	80				

		Formula	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
			2012	2013	2014	2015				
С	Estimated minimum number of shipments per year required for the actual cold chain capacity	A/B	1	1	1	1				
D	Number of consignments / shipments per year	Based on national vaccine shipment plan	3	3	3	3				
Е	Gap (if any)	((A / D) - B)	-76	-69	-71	-71				
F	Estimated additional cost of cold chain	US\$								

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)

cMYP has clearly outlined financial implication in case of new vaccine introduction and long term strategies for financial sustainability (cMYP page-51) for its solution. On the other hand, Government of DPRK already showed its commitment by providing co-financing for combined DTP-HepB vaccine since 2009. Even 2011 obligations are alreday transferred through UNICEF country office to UNICEF Copenhagen in March,2011. The co-financing amount will be paid by MoPH through UNICEF country office once in a year.

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

Note: To add new lines click on the New item icon in the Action column. Use the Delete item icon to delete a line.

Disease	Title of the assessment	Date	Results	
See atatchment number-15 (DPRK_Hib_Spn_DiseaseBurden_WHO Letter_27 July'2009)				

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

Note: To add new lines click on the New item icon in the Action column. Use the Delete item icon to delete a line.

Lessons Learned	Action Points	
Full vaccine storage capacity to be ensured from central to peripheral level health facilities for the introduction of new vaccine.	A. Central level cold chain facility was upgraded with two-walk in cold rooms along with a capacity of 80m3(each 40m3). B. Walk-in cold room (each 10m3)installed at 8 provincial medical warehouses. C. County level cold rooms are fully equipped with ice-lined refrigerators and deep freezers. D. Vaccine carriers were supplied to each Ri/village level clinic to conduct monthly outreach sessions.	
2. Cold chain maintenance from national to periphery needs to be monitored periodically.	Master trainers were trained on cold chain management with external consultant supported by UNICEF/WHO in May, 2009. Cascade training plan developed for the cold chain technicians and training completed between 2009-2010. All trainings were organised at the provincial levels and conducted by the trained master trainers. MoPH and UNICEF officials monitor the cold chain maintenance during their routine field trips.	

Lessons Learned	Action Points
3. Reduce vaccine wastage is important	Introduced multi-dose vaccine vial policy and recommended weekly vaccination session at Ri clinics instead of monthly session to reduce the
	wastage.
4. Coverage of HepB birth dose	The country is planning to implement OCC (Outside cold chain) policy for HepB vaccine to ensure vaccination within 24 hours of birth
	particularly in the rural areas (Ri clinics). Currently, all Ri clinics are conducting vaccination session once a month.

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

DTP-HepB+Hib(pentavalent)- 1 dose/vial,Liquid

6.3.1. Requested vaccine (DTP-HepB-Hib, 1 dose/vial, Liquid)

As reported in the cMYP, the country plans to introduce DTP-HepB-Hib, 1 dose/vial, Liquid vaccine.

6.3.2. Co-financing information

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

Note: Selection of this field has direct impact on automatic calculations of support you are requesting and should not be left empty.

Country group	Low
---------------	-----

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
	2012	2013	2014	2015				
Minimum co-financing	0.20	0.20	0.20	0.20				
Your co-financing (please change if higher)	0.20	0.20	0.20	0.20				

6.3.3. Wastage factor

Please indicate wastage rate:

Countries are expected to plan for a maximal wastage rate of:

- 50% for a lyophilised vaccine in 10 or 20-dose vial,
- 25% for a liquid vaccine in 10 or 20-dose vial or a lyophilised vaccine in 5-dose vial,
- 10% for a lyophilised/liquid vaccine in 2-dose vial, and

• 5% - for a liquid vaccine in 1-dose vial

Note: Selection of this field has direct impact on automatic calculations of support you are requesting and should not be left empty.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
	2012	2013	2014	2015				
Vaccine wastage rate in %	5%	5%	5%	5%				
Equivalent wastage factor	1.05	1.05	1.05	1.05				

6.3.4. Specifications of vaccinations with new vaccine

	Data		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
	from		2012	2013	2014	2015				
Number of children to be vaccinated with the first dose	Table 1	#	349,225	351,110	353,007	354,913				
Number of children to be vaccinated with the third dose ^[1]	Table 1	#	332,000	337,306	339,129	344,511				
Immunisation coverage with the third dose	Table 1	#	95.00%	96.00%	96.00%	97.00%				
Estimated vaccine wastage factor	Table 6.(n).3 ^[3]	#	1.05	1.05	1.05	1.05				
Country co-financing per dose ^[2]	Table 6.(n).2 ^[3]	\$	0.20	0.20	0.20	0.20				

^{[1] 2}nd dose if Measles vaccine or Rotavirus 2-dose schedule

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

		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
		2012	2013	2014	2015				
Number of vaccine doses	#	104,700	89,700	102,600	112,900				
Number of AD syringes	#	111,800	94,800	108,500	119,300				
Number of re-constitution syringes	#								
Number of safety boxes	#	1,250	1,075	1,225	1,325				
Total value to be co-financed by country	\$	275,500	221,500	223,000	224,000				

6.3.6. Portion of supply to be procured by the GAVI Alliance (and cost estimate, US\$)

		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
		2012	2013	2014	2015				
Number of vaccine doses	#	1,270,400	1,017,900	1,010,900	1,006,700				
Number of AD syringes	#	1,356,500	1,076,100	1,068,800	1,064,300				
Number of re-constitution syringes	#								
Number of safety boxes	#	15,075	11,950	11,875	11,825	_			

^[2] Total price per-dose includes vaccine cost, plus freight, supplies, insurance, visa costs etc.

^[3] Where (n) depends on the vaccine

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
	2012	2013	2014	2015				
Total value to be co-financed by GAVI	\$ 3,337,500	2,515,500	2,195,000	1,998,000				

6.3.7. New and Under-Used Vaccine Introduction Grant

Please indicate in the tables below how the one-time Introduction Grant^[1] will be used to support the costs of vaccine introduction and critical pre-introduction activities (refer to the cMYP).

Calculation of lump-sum for the DTP-HepB-Hib, 1 dose/vial, Liquid

If the total is lower than US\$100,000, it is automatically rounded up to US\$100,000

Year of New Vaccine Introduction	Births (from Table 1)	Share per Birth in US\$	Total in US\$
2012	356.352	0.30	107,000

^[1] 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

Cost (and finance) to introduce the DTP-HepB-Hib, 1 dose/vial, Liquid (US\$)

Note: To add new lines click on the New item icon in the Action column. Use the Delete item icon to delete a line.

Cost Category	Full needs for new vaccine introduction in US\$	Funded with new vaccine introduction grant in US\$
Training	31,500	31,500
Social Mobilization, IEC and Advocacy	35,000	35,000
Cold Chain Equipment & Maintenance	0	0
Vehicles and Transportation	14,000	14,000
Programme Management	6,500	6,500
Surveillance and Monitoring	10,000	10,000
Human Resources	5,000	5,000
Vaste Management	1,000	0
echnical assistance	20,000	5,000
Conduct EVM Assessment	20000	0
mplement key components of EVM plan	10000	0
Management of any potential post-introduction complications	20000	0
Potential post-introduction evaluation in 2013	10000	0
Totals	183,000	107,000

7. Procurement and Management of New and Under-Used Vaccines

Note: The PCV vaccine must be procured through UNICEF

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)

Vaccines and vaccination devices will be procured through UNICEF which is the existing practice of DPRK Government.

- 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 descriptions of the mechanism 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.

Not applicable.

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

Pentavalent vaccine (DTP-HepB-Hib) will be introduced for the entire country from 2012 (refer to page-44,cMYP 2011-2015).

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

Through UNICEF and WHO.

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

The co-financing amount will be paid by MoPH through UNICEF country office once a year.

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

Coverage will be monitored by routine EPI information system. Moreover joint field visits with UNICEF/WHO and MOPH officials will be made on a regular basis.

7.1. Vaccine Management (EVSM/EVM/VMA)

When was the last Effective Vaccine Store Management (EVSM) conducted? -

When was the last Effective Vaccine Management (EVM) or Vaccine Management Assessment (VMA) conducted? -

If your country conducted either EVSM, EVM, or VMA in the past three years, please attach relevant reports. (Document N°)

A VMA report must be attached from those countries which have introduced a New and Underused Vaccine with GAVI support before 2008.

Please note that EVSM and VMA tools have been replaced by an integrated Effective Vaccine Management (EVM) tool. The information on EVM tool can be found at http://www.who.int/immunization delivery/systems policy/logistics/en/index6.html

For countries which conducted EVSM, VMA or EVM in the past, please report on activities carried out as part of either action plan or improvement plan prepared after the EVSM/VMA/EVM.

When is the next Effective Vaccine Management (EVM) Assessment planned? June - 2011

Under new guidelines, it will be mandatory for the countries to conduct an EVM prior to an application for introduction of new vaccine.

8. Additional Comments and Recommendations

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

Routine immunization coverage is quite high and stable over the last few years particularly increased in the coverage of DTP-HepB with 3 doses (82% in 2006 to 93% in 2010) among the children under 1 year old. This high coverage was verified by independent Coverage Evaluation Survey conducted in 2008.

DPRK's cold chain system is well-established and much investment and capacity building efforts have been undertaken in the last 2 years to improve it. Efforts were made both in the area of equipment replacement and cold chain maintenance training throughout the country.

The updated cMYP (2011-2015) clearly reflected the introduction of DTP-HepB-Hib (pentavalent) vaccine in 2012. cMYP has also outlined financial implication of EPI program and long term strategies for financial sustainability for its solution.

9. Annexes

Annex 1

Annex 1.1 - DTP-HepB-Hib, 1 dose/vial, Liquid

Table 1.1 A - Rounded up portion of supply that is procured by the country and estimate of related cost in US\$

Required supply item		2012	2013	2014	2015		
Number of vaccine doses	#	104,700	89,700	102,600	112,900		
Number of AD syringes	#	111,800	94,800	108,500	119,300		
Number of re-constitution syringes	#						
Number of safety boxes	#	1,250	1,075	1,225	1,325		
Total value to be co-financed by the country	\$	275,500	221,500	223,000	224,000		

Table 1.1 B - Rounded up portion of supply that is procured by GAVI and estimate of related cost in US\$.

Required supply item		2012	2013	2014	2015		
Number of vaccine doses	#	1,270,400	1,017,900	1,010,900	1,006,700		
Number of AD syringes	#	1,356,500	1,076,100	1,068,800	1,064,300		
Number of re-constitution syringes	#						
Number of safety boxes	#	15,075	11,950	11,875	11,825		
Total value to be co-financed	\$	3,337,500	2,515,500	2,195,000	1,998,000		

Required supply item	2012	2013	2014	2015		
by the country						

Table 1.1 C - Summary table for DTP-HepB-Hib, 1 dose/vial, Liquid

	Data from		2012	2013	2014	2015		
	Data II OIII		2012	2013	2014	2013		
Number of Surviving infants	Table 1	#	349,474	351,361	353,259	355,166		
Number of children to be vaccinated with the third dose ^[1]	Table 1	#	332,000	337,306	339,129	344,511		
Immunisation coverage with the last dose	Table 1	#	95.00%	96.00%	96.00%	97.00%		
Number of children to be vaccinated with the first dose	Table 1	#	349,225	351,110	353,007	354,913		
Number of doses per child		#	3	3	3	3		
Estimated vaccine wastage factor	Table 6.(n).3 ^[2]	#	1.05	1.05	1.05	1.05		
Number of doses per vial		#	1	1	1	1		
AD syringes required		#	Yes	Yes	Yes	Yes		
Reconstitution syringes required		#	No	No	No	No		
Safety boxes required		#	Yes	Yes	Yes	Yes		
Vaccine price per dose		\$	2.470	2.320	2.030	1.850		
Country co-financing per dose	Table 6.(n).2 ^[2]	\$	0.20	0.20	0.20	0.20		
AD syringe price per unit		\$	0.053	0.053	0.053	0.053		
Reconstitution syringe price per unit		\$						
Safety box price per unit		\$	0.640	0.640	0.640	0.640		
Freight cost as % of vaccines value		%	3.50	3.50	3.50	3.50		
Freight cost as % of devices value		%	10.00	10.00	10.00	10.00		

^{[1] 2}nd dose if Measles vaccine or Rotavirus 2-dose schedule

^[2] Where (n) depends on the vaccine

Table 1.1 D - Estimated number of doses for DTP-HepB-Hib, 1 dose/vial, Liquid associated injection safety material and related co-financing budget (page 1)

		Formula		2012			2013	
			Total	Government	GAVI	Total	Government	GAVI
Α	Country Co-finance		7.61%			8.09%		
В	Number of children to be vaccinated with the first dose ^[1]	Table 1 (baseline & annual targets)	349,225	26,587	322,638	351,110	28,418	322,692
С	Number of doses per child	Vaccine parameter	3	3	3	3	3	3
D	Number of doses needed	B * C	1,047,675	79,761	967,914	1,053,330	85,253	968,077
Е	Estimated vaccine wastage factor	Table 6.(n).3. in NVS section ^[2]	1.05	1.05	1.05	1.05	1.05	1.05
F	Number of doses needed including wastage	D*E	1,100,059	83,749	1,016,310	1,105,997	89,515	1,016,482
G	Vaccines buffer stock	(F - F of previous year) * 0.25	275,015	20,938	254,077	1,485	121	1,364
I	Total vaccine doses needed	F+G	1,375,074	104,687	1,270,387	1,107,482	89,635	1,017,847
J	Number of doses per vial	Vaccine parameter	1	1	1	1	1	1
K	Number of AD syringes (+ 10% wastage) needed	(D + G) * 1.11	1,468,186	111,775	1,356,411	1,170,845	94,764	1,076,081
L	Reconstitution syringes (+ 10% wastage) needed	I/J*1.11						
M	Total of safety boxes (+ 10% of extra need) needed	(K + L) / 100 x 1.11	16,297	1,241	15,056	12,997	1,052	11,945
Ν	Cost of vaccines needed	I * vaccine price per dose	3,396,433	258,575	3,137,858	2,569,359	207,954	2,361,405
0	Cost of AD syringes needed	K * AD syringe price per unit	77,814	5,925	71,889	62,055	5,023	57,032
Р	Cost of reconstitution syringes needed	L * reconstitution price per unit						
Q	Cost of safety boxes needed	M * safety box price per unit	10,431	795	9,636	8,319	674	7,645
R	Freight cost for vaccines needed	N * freight cost as % of vaccines value	118,876	9,051	109,825	89,928	7,279	82,649
S	Freight cost for devices needed	(O + P + Q) * freight cost as % of devices value	8,825	672	8,153	7,038	570	6,468
Т	Total fund needed	(N + O + P + Q + R + S)	3,612,379	275,015	3,337,364	2,736,699	221,497	2,515,202
U	Total country co-financing	I * country co-financing per dose	275,015			221,497		
V	Country co-financing % of GAVI supported proportion	U/T	7.61%			8.09%		

^{[1] 2}nd dose if Measles vaccine or Rotavirus 2-dose schedule

^[2] Where (n) depends on the vaccine

Table 1.1 D - Estimated number of doses for DTP-HepB-Hib, 1 dose/vial, Liquid associated injection safety material and related co-financing budget (page 2)

		Formula		2014			2015	
			Total	Government	GAVI	Total	Government	GAVI
Α	Country Co-finance		9.21%			10.08%		
В	Number of children to be vaccinated with the first dose ^[1]	Table 1 (baseline & annual targets)	353,007	32,522	320,485	354,913	35,766	319,147
С	Number of doses per child	Vaccine parameter (schedule)	3	3	3	3	3	3
D	Number of doses needed	B * C	1,059,021	97,564	961,457	1,064,739	107,298	957,441
Е	Estimated vaccine wastage factor	Table 6.(n).3. in NVS section ^[2]	1.05	1.05	1.05	1.05	1.05	1.05
F	Number of doses needed including wastage	D*E	1,111,973	102,442	1,009,531	1,117,976	112,663	1,005,313
G	Vaccines buffer stock	(F - F of previous year) * 0.25	1,494	138	1,356	1,501	152	1,349
I	Total vaccine doses needed	F+G	1,113,467	102,580	1,010,887	1,119,477	112,814	1,006,663
J	Number of doses per vial	Vaccine parameter	1	1	1	1	1	1
K	Number of AD syringes (+ 10% wastage) needed	(D + G) * 1.11	1,177,172	108,448	1,068,724	1,183,527	119,269	1,064,258
L	Reconstitution syringes (+ 10% wastage) needed	I/J * 1.11						
M	Total of safety boxes (+ 10% of extra need) needed	(K + L) / 100 x 1.11	13,067	1,204	11,863	13,138	1,324	11,814
Ν	Cost of vaccines needed	I * vaccine price per dose	2,260,339	208,236	2,052,103	2,071,033	208,706	1,862,327
0	Cost of AD syringes needed	K * AD syringe price per unit	62,391	5,748	56,643	62,727	6,322	56,405
Р	Cost of reconstitution syringes needed	L * reconstitution price per unit						
Q	Cost of safety boxes needed	M * safety box price per unit	8,363	771	7,592	8,409	848	7,561
R	Freight cost for vaccines needed	N * freight cost as % of vaccines value	79,112	7,289	71,823	72,487	7,305	65,182
S	Freight cost for devices needed	(O + P + Q) * freight cost as % of devices value	7,076	652	6,424	7,114	717	6,397
Т	Total fund needed	(N + O + P + Q + R + S)	2,417,281	222,694	2,194,587	2,221,770	223,896	1,997,874
U	Total country co-financing	I * country co-financing per dose	222,694			223,896		
V	Country co-financing % of GAVI supported proportion	U/T	9.21%			10.08%		

^{[1] 2}nd dose if Measles vaccine or Rotavirus 2-dose schedule

^[2] Where (n) depends on the vaccine

Annex 2

Estimated prices of supply and related freight cost: 2011 from UNICEF Supply Division; 2012 onwards: GAVI Secretariat

Table A - Commodities Cost

Vaccine	Presentation	2011	2012	2013	2014	2015	2016	2017
AD syringe	0	0.053	0.053	0.053	0.053	0.053	0.053	0.053
DTP-HepB	2	1.600						
DTP-HepB	10	0.620	0.620	0.620	0.620	0.620	0.620	0.620
DTP-HepB-Hib	WAP	2.580	2.470	2.320	2.030	1.850	1.850	1.850
DTP-HepB-Hib	WAP	2.580	2.470	2.320	2.030	1.850	1.850	1.850
DTP-HepB-Hib	WAP	2.580	2.470	2.320	2.030	1.850	1.850	1.850
DTP-Hib	10	3.400	3.400	3.400	3.400	3.400	3.200	3.200
HepB monoval	1							
HepB monoval	2							
Hib monoval	1	3.400						
Measles	10	0.240	0.240	0.240	0.240	0.240	0.240	0.240
Pneumococcal(PCV10)	2	3.500	3.500	3.500	3.500	3.500	3.500	3.500
Pneumococcal(PCV13)	1	3.500	3.500	3.500	3.500	3.500	3.500	3.500
Reconstit syringe for Pentaval (2ml)	0	0.032	0.032	0.032	0.032	0.032	0.032	0.032
Reconstit syringe for YF	0	0.038	0.038	0.038	0.038	0.038	0.038	0.038
Rotavirus 2-dose schedule	1	7.500	6.000	5.000	4.000	3.600	3.600	3.600
Rotavirus 3-dose schedule	1	5.500	4.000	3.333	2.667	2.400	2.400	2.400
Safety box	0	0.640	0.640	0.640	0.640	0.640	0.640	0.640
Yellow Fever	WAP	0.856	0.856	0.856	0.856	0.856	0.856	0.856
Yellow Fever	WAP	0.856	0.856	0.856	0.856	0.856	0.856	0.856

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

Table B - Commodities Freight Cost

			200'	000 \$	250'(000 \$	2'000	000 \$
Vaccines	Group	No Threshold	<=	>	<=	>	<=	>
Yellow Fever	Yellow Fever		20%				10%	5%
DTP+HepB	HepB and or Hib	2%						
DTP-HepB-Hib	HepB and or Hib				15%	3,50%		
Pneumococcal vaccine (PCV10)	Pneumococcal	5%						
Pneumococcal vaccine (PCV13)	Pneumococcal	5%						
Rotavirus	Rotavirus	5%						
Measles	Measles	10%						

Table C - Low - Minimum country's co-payment per dose of co-financed vaccine.

vaccine	2012	2013	2014	2015		
DTP-HepB-Hib, 1 dose/vial, Liquid	0.20	0.20	0.20	0.20		

Table D - Wastage rates and factors

Countries are expected to plan for a maximal wastage rate of:

- 50% for a lyophilised vaccine in 10 or 20-dose vial,
- 25% for a liquid vaccine in 10 or 20-dose vial or a lyophilised vaccine in 5-dose vial,

- 10% for a lyophilised/liquid vaccine in 2-dose vial, and
- 5% for a liquid vaccine in 1-dose vial

Vaccine wastage rate	5%	10%	15%	20%	25%	30%	35%	40%	45%	50%	55%	60%
Equivalent wastage factor	1.05	1.11	1.18	1.25	1.33	1.43	1.54	1.67	1.82	2	2.22	2.5

WHO International shipping guidelines: maximum packed volumes of vaccines

Table E - Vaccine maximum packed volumes

Vaccine product	Designation	Vaccine formulation	Admin route	No. Of doses in the schedule	Presentation (doses/vial, prefilled)	Packed volume vaccine (cm3/dose)	Packed volume diluents (cm3/dose)
BCG	BCG	lyophilized	ID	1	20	1.2	0.7
Diphtheria-Tetanus-Pertussis	DTP	liquid	IM	3	20	2.5	
Diphtheria-Tetanus-Pertussis	DTP	liquid	IM	3	10	3.0	
Diphtheria-Tetanus	DT	liquid	IM	3	10	3.0	
Tetanus-Diphtheria	Td	liquid	IM	2	10	3.0	
Tetanus Toxoid	TT	liquid	IM	2	10	3.0	
Tetanus Toxoid	TT	liquid	IM	2	20	2.5	
Tetanus Toxoid UniJect	TT	liquid	IM	2	Uniject	12.0	
Measles	Measles	lyophilized	SC	1	1	26.1	20.0
Measles	Measles	lyophilized	SC	1	2	13.1	13.1
Measles	Measles	lyophilized	SC	1	5	5.2	7.0
Measles	Measles	lyophilized	SC	1	10	3.5	4.0
Measles-Rubella freeze dried	MR	lyophilized	SC	1	1	26.1	26.1
Measles-Rubella freeze dried	MR	lyophilized	SC	1	2	13.1	13.1
Measles-Rubella freeze dried	MR	lyophilized	SC	1	5	5.2	7.0
Measles-Rubella freeze dried	MR	lyophilized	SC	1	10	2.5	4.0
Measles-Mumps-Rubella freeze dried	MMR	lyophilized	SC	1	1	26.1	26.1
Measles-Mumps-Rubella freeze dried	MMR	lyophilized	SC	1	2	13.1	13.1
Measles-Mumps-Rubella freeze dried	MMR	lyophilized	SC	1	5	5.2	7.0

Vaccine product	Designation	Vaccine formulation	Admin route	No. Of doses in the schedule	Presentation (doses/vial, prefilled)	Packed volume vaccine (cm3/dose)	Packed volume diluents (cm3/dose)
Measles-Mumps-Rubella freeze dried	MMR	lyophilized	SC	1	10	3.0	4.0
Polio	OPV	liquid	Oral	4	10	2.0	
Polio	OPV	liquid	Oral	4	20	1.0	
Yellow fever	YF	lyophilized	SC	1	5	6.5	7.0
Yellow fever	YF	lyophilized	SC	1	10	2.5	3.0
Yellow fever	YF	lyophilized	SC	1	20	1.5	2.0
Yellow fever	YF	lyophilized	SC	1	50	0.7	1.0
DTP-HepB combined	DTP-HepB	liquid	IM	3	1	9.7	
DTP-HepB combined	DTP-HepB	liquid	IM	3	2	6.0	
DTP-HepB combined	DTP-HepB	liquid	IM	3	10	3.0	
Hepatitis B	HepB	liquid	IM	3	1	18.0	
Hepatitis B	HepB	liquid	IM	3	2	13.0	
Hepatitis B	HepB	liquid	IM	3	6	4.5	
Hepatitis B	HepB	liquid	IM	3	10	4.0	
Hepatitis B UniJect	HepB	liquid	IM	3	Uniject	12.0	
Hib liquid	Hib_liq	liquid	IM	3	1	15.0	
Hib liquid	Hib_liq	liquid	IM	3	10	2.5	
Hib freeze-dried	Hib_lyo	lyophilized	IM	3	1	13.0	35.0
Hib freeze-dried	Hib_lyo	lyophilized	IM	3	2	6.0	
Hib freeze-dried	Hib_lyo	lyophilized	IM	3	10	2.5	3.0
DTP liquid + Hib freeze-dried	DTP+Hib	liquid+lyop.	IM	3	1	45.0	
DTP-Hib combined liquid	DTP+Hib	liquid+lyop.	IM	3	10	12.0	
DTP-Hib combined liquid	DTP-Hib	liquid	IM	3	1	32.3	
DTP-HepB liquid + Hib freeze-dried	DTP-Hib	liquid	IM	3	10	2.5	
DTP-HepB liquid + Hib freeze-dried	DTP-HepB+Hib	liquid+lyop.	IM	3	1	22.0	
DTP-HepB-Hib liquid	DTP-HepB+Hib	liquid+lyop.	IM	3	2	11.0	
DTP-HepB-Hib liquid	DTP-HepB-Hib	liquid	IM	3	10	4.4	
DTP-HepB-Hib liquid	DTP-HepB-Hib	liquid	IM	3	2	13.1	
DTP-HepB-Hib liquid	DTP-HepB-Hib	liquid	IM	3	1	19.2	
Meningitis A/C	MV_A/C	lyophilized	SC	1	10	2.5	4.0
Meningitis A/C	MV_A/C	lyophilized	SC	1	50	1.5	3.0
Meningococcal A/C/W/	MV_A/C/W	lyophilized	SC	1	50	1.5	3.0

Vaccine product	Designation	Vaccine formulation	Admin route	No. Of doses in the schedule	Presentation (doses/vial, prefilled)	Packed volume vaccine (cm3/dose)	Packed volume diluents (cm3/dose)
Meningococcal A/C/W/Y	MV_A/C/W/Y	lyophilized	SC	1	10	2.5	4.0
Meningitis W135	MV_W135	lyophilized	SC	1	10	2.5	4.0
Meningitis A conjugate	Men_A	lyophilized	SC	2	10	2.6	4.0
Japanese Encephalitis	JE_lyo	lyophilized	SC	3	10	15.0	
Japanese Encephalitis	JE_lyo	lyophilized	SC	3	10	8.1	8.1
Japanese Encephalitis	JE_lyo	lyophilized	SC	3	5	2.5	2.9
Japanese Encephalitis	JE_lyo	lyophilized	SC	3	1	12.6	11.5
Japanese Encephalitis	JE_liq	liquid	SC	3	10	3.4	
Rota vaccine	Rota_lyo	lyophilized	Oral	2	1	156.0	
Rota vaccine	Rota_liq	liquid	Oral	2	1	17.1	
Rota vaccine	Rota_liq	liquid	Oral	3	1	45.9	
Pneumo. conjugate vaccine 7-valent	PCV-7	liquid	IM	3	PFS	55.9	
Pneumo. conjugate vaccine 7-valent	PCV-7	liquid	IM	3	1	21.0	
Pneumo. conjugate vaccine 10-valent	PCV-10	liquid	IM	3	1	11.5	
Pneumo. conjugate vaccine 10-valent	PCV-10	liquid	IM	3	2	4.8	
Pneumo. conjugate vaccine 13-valent	PCV-13	liquid	IM	3	1	12.0	
Polio inactivated	IPV	liquid	IM	3	PFS	107.4	
Polio inactivated	IPV	liquid	IM	3	10	2.5	
Polio inactivated	IPV	liquid	IM	3	1	15.7	
Human Papilomavirus vaccine	HPV	liquid	IM	3	1	15.0	_
Human Papilomavirus vaccine	HPV	liquid	IM	3	2	5.7	
Monovalent OPV-1	mOPV1	liquid	Oral		20	1.5	
Monovalent OPV-3	mOPV3	liquid	Oral		20	1.5	

10. Attachments

10.1. List of Supporting Documents Attached to this Proposal

Document	Section	Document Number	Mandatory ^{[1}
MoH Signature (or delegated authority) of Proposal		1	Yes
MoF Signature (or delegated authority) of Proposal		2	Yes
Signatures of ICC or HSCC or equivalent in Proposal		3	Yes
Minutes of ICC/HSCC meeting endorsing Proposal		4	Yes
comprehensive Multi Year Plan - cMYP		5	Yes
cMYP Costing tool for financial analysis		6	Yes
Minutes of last three ICC/HSCC meetings		7, 12, 13	Yes
Improvement plan based on EVM		Missing	Yes
WHO/UNICEF Joint Reporting Form (JRF)		10	
ICC/HSCC workplan for forthcoming 12 months		11	
National policy on injection safety			
Action plans for improving injection safety			
Plan for NVS introduction (if not part of cMYP)		8	
Banking details		9	

^[1] Please indicate the duration of the plan / assessment / document where appropriate

10.2. Attachments

List of all the mandatory and optional documents attached to this form

Note: Use the **Upload file** arrow icon to upload the document. Use the **Delete item** icon to delete a line. To add new lines click on the **New item** icon in the **Action** column.

ID	File type	File name		New	Actions
	Description	Date and Time	Size	file	Actions
1	File Type: MoH Signature (or delegated authority) of Proposal * File Desc: Ministers signature page of MoH & MoF	File name: C:\DPRK Folder - 2011\GAVI\New Proposal\I Documents\Penta Application_MoH & MoF_S Pages.pdf Date/Time: 13.05.2011 10:11:14 Size: 1 MB			
2	File Type: MoF Signature (or delegated authority) of Proposal * File Desc: Ministers signature page of MoF & MoH	File name: C:\DPRK Folder - 2011\GAVI\New Proposal\I Documents\Penta Application MoH & MoF S Pages.pdf Date/Time: 13.05.2011 10:12:48 Size: 1 MB			

	File Type:	File name: C:\DPRK Folder - 2011\GAVI\New Proposal\Uploaded	
3	Signatures of ICC or HSCC or equivalent in Proposal *	Documents\Penta Application_ICC&HSCC_Signature Pages.pdf	
	File Desc: Signature pages of ICC/HSCC members	Date/Time: 13.05.2011 10:14:05 Size:	
	File Type:	567 KB File name: C:\DPRK Folder - 2011\EPI\ICC & HSCC minutes\ICC-	
4	Minutes of ICC/HSCC meeting endorsing Proposal *	HSCC - Meeting Minutes_ Endorsed Proposal_5 May 2011.doc	
	File Desc: ICC/HSCC Meeting minutes endorsed pentavalent proposal	Date/Time: 13.05.2011 10:16:37 Size: 86 KB	
	File Type:	File name: C:\DPRK Folder - 2011\EPI\cMYP DPRK Final Version	
5	comprehensive Multi Year Plan - cMYP * File Desc:	11 May 2011.docx Date/Time: 13.05.2011 10:18:06	
	cMYP _Final Version_2011-2015	Size: 335 KB	
	File Type: cMYP Costing tool for financial analysis *	File name: C:\DPRK Folder - 2011\EPI\cMYP Costing Tool_DPRK_Final Version_11 May 2011.xlsx	
6	File Desc: cMYP Costing tool_Final Version	Date/Time: 13.05.2011 10:19:24 Size:	
	File Type: Minutes of last three ICC/HSCC meetings	1 MB File name: C:\DPRK Folder - 2011\EPI\ICC & HSCC minutes\ICC- HSCC - Meeting Minutes 7 March 2011.doc	
7	File Desc: ICC/HSCC Meeting minutes_7 March 2011	Date/Time: 13.05.2011 10:24:17 Size: 82 KB	
8	File Type: Plan for NVS introduction (if not part of cMYP)	File name: C:\DPRK Folder - 2011\GAVI\New Proposal\Uploaded Documents\Plan for NVS introduction-cMYP Page 43- 45.docx	
0	File Desc: Plan for NVS introduction (part of cMYP)	Date/Time: 13.05.2011 10:49:33 Size: 22 KB	
	File Type: Banking details	File name: C:\DPRK Folder - 2011\GAVI\New Proposal\Uploaded Documents\Penta Application Banking Form Signature Pages.pdf	
9	File Desc: Signature pages of banking form	Date/Time: 13.05.2011 10:36:18 Size: 364 KB	
	File Type:	File name: C:\DPRK Folder - 2011\EPI\JRF 2010 Final 7 April 2011.xls	
10	WHO/UNICEF Joint Reporting Form (JRF) File Desc: Joint Reporting Form_2010_Final	Date/Time: 13.05.2011 10:52:39 Size:	
	File Type:	327 KB File name: C:\DPRK Folder - 2011\GAVI\New Proposal\Uploaded	
11	ICC/HSCC workplan for forthcoming 12 months	Documents\ICC- HSCC Workplan for 2011.doc Date/Time:	
	File Desc: ICC-HSCC Annual workplan for 2011	13.05.2011 11:20:39 Size: 61 KB	

12	File Type: Minutes of last three ICC/HSCC meetings *	File name: C:\DPRK Folder - 2011\EPI\ICC & HSCC minutes\ICC- HSCC - Meeting Minutes_22 June 2010.doc Date/Time:	
	File Desc: ICC/HSCC Meeting Minutes_22 June,2010	13.05.2011 10:33:49 Size: 69 KB	
13	File Type: Minutes of last three ICC/HSCC meetings *	File name: C:\DPRK Folder - 2011\EPI\ICC & HSCC minutes\ICC- HSCC - Meeting Minutes Endorsed APR 10May 2010.doc Date/Time:	
13	File Desc: ICC/HSCC Meeting Minutes_10 May,2010	13.05.2011 10:34:45 Size: 63 KB	
14	File Type: other	File name: C:\DPRK Folder - 2011\GAVI\New Proposal\Uploaded Documents\Cover Letter Penta Application.pdf	
14	File Desc: Cover Page - Letter from the government	Date/Time: 13.05.2011 11:27:35 Size: 139 KB	
	File Type: other	File name: D:\DPRK Folder - 2011\GAVI\New Proposal\DPRK_Hib_Spn_DiseaseBurden_WHO Letter_27 July'2009.pdf	
15	File Desc: DPRK_Hib_Spn_DiseaseBurden_WHO Letter_27 July'2009	Date/Time: 14.05.2011 05:37:45 Size: 148 KB	
16	File Type:	File name: D:\D-DRIVE\Data\DPRK Folder-2009\EPI\CES & CCA - 2008\Cold Chain Assessment 2008 DPR Korea Final Report.doc	
16	File Desc: Cold Chain Assessment 2008_DPR Korea_Final report	Date/Time: 14.05.2011 05:45:22 Size: 1 MB	

Banking Form

Bank's name:

In accordance with the decision on financial support made by the GAVI Alliance, the Government of				
Democratic People's Republic of Korea hereby requests that a payment be made via electronic bank				
transfer as detailed below	v:			
Name of Institution	Ministry of Dublic Hos	alth.		
(Account Holder):	Ministry of Public Health			
Address:	Sochang-dong, Central District,			
City Country:	Pyongyang, DPR Korea			
Telephone no.:	850-2-18666-2 ext.	Fax no.:	850-2-381-4077 (or 4410, 4416)	
releptione no	8678		830-2-381-4077 (01 4410, 4410)	
Currency of the bank account:				
For credit to:				
Bank account's title:				
Bank account no.:	421-11300			

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

Foreign Trade Bank, DPRK

By who is the account audited? Ministry of Finance

Signature of Government's authorizing official

		Seal
Name:	Ms. Kim Pok Sil	
Title:	Director, Department of Finance,	
inte.	MoPH	
Signature:		
Date:	09.05.2011	

FINANCIAL INSTITUTION		CORRESPONDENT BANK (In the United States)
Bank Name:	Foreign Trade Bank of the DPRK	
Branch Name:		
Address:	Central District, Pyongyang DPRK	
City Country:	Pyongyang, DPR. Korea	
Swift Code:	FTBDKTPY	
Sort Code:		
ABA No.:		
Telephone No.:	850-2-18666-2 ext. 8678	
FAX No.:	850-2-381 4467	

I certify that the account no 421-11300 is held by (Institution name) Ministry of Public Health at this banking institution.

The account is to be signed jointly by at least 2 (number of signatories) of the following authorized signatories:		
1	Name:	CHOE Chang Sik
	Title:	Minister , Public Health
2	Name:	KIM Pok Sil
	Title:	Director, Department of Finance, Ministry of Public Health
3	Name:	RI Yong Son
	Title:	Senior Officer, Department of Finance, Ministry of Public Health
4	Name:	
	Title:	

Name of bank's authorizing official			
	Mr. KO Chol Man, Vice-President, Foreign Trade Bank of DPR Korea		
Signature:	Signature:		
Date:			
Seal:			