

# **Application Form for Gavi NVS support**

Submitted by

# The Government of Kyrgyzstan Republic

Date of submission: 8 September 2017

## **Deadline for submission:**

i. 8 September 2017

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

Start Year

2017

**End Year** 

2021

Form revised in 2016

(To be used with Guidelines of December 2016)

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

# Gavi GRANT TERMS AND CONDITIONS

#### FUNDING USED SOLELY FOR APPROVED PROGRAMMES

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

#### AMENDMENT TO THE APPLICATION

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

#### **RETURN OF FUNDS**

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

#### SUSPENSION/ TERMINATION

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

#### **ANTICORRUPTION**

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

#### **AUDITS AND RECORDS**

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

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

#### **CONFIRMATION OF LEGAL VALIDITY**

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

#### CONFIRMATION OF COMPLIANCE WITH THE GavI TRANSPARENCY AND ACCOUNTABILITY POLICY

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

#### **USE OF COMMERCIAL BANK ACCOUNTS**

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

#### **ARBITRATION**

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

. The languages of the arbitration will be English or French.

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

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

## 1. Type of Support requested

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

Type of Support	Vaccine	Start Year	End Year	Preferred second presentation[1]
Routine New Vaccines Support	RV1, 1 dose/plastic tube, liquid	2019	2021	

[1] Gavi may not be in a position to accommodate all countries first product preferences, and in such cases, Gavi will contact the country and partners to explore alternative options. A country will not be obliged to accept its second or third preference, however Gavi will engage with the country to fully explore a variety of factors (such as implications on introduction timing, cold chain capacity, disease burden, etc.) which may have an implication for the most suitable selection of vaccine.

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Annex 1 - NVS Routine Support

Annex 1.1 RV1, 1 dose/plastic tube, liquid

<u>Table Annex 1.1 A Rounded up portion of supply that is procured by the country and estimate of relative costs in US</u>\$

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#### 12. Banking Form

#### 3. Executive Summary

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

- For each specific request, NVS routine support or NVS campaign :
  - The duration of support
  - o The total amount of funds requested
  - Details of the vaccine(s), if applicable, including the reason for the choice of presentation
  - Projected month and year of introduction of the vaccine (including for campaigns and routine)
- · Relevant baseline data, including:
  - DTP3 and Measles coverage data (as reported on the WHO/UNICEF Joint Reporting Form)
  - Target population from Risk Assessments from Yellow Fever and Meningitis A
  - Birth cohort, targets and immunisation coverage by vaccines
- · Country preparedness
  - Summary of planned activities to prepare for vaccine launch, including EVM assessments, progress on EVM improvement plans, communication plans, etc.
  - Summary of EVM assessment and progress on EVM improvement plan
- The role of the Coordination Forum (ICC/HSCC or equivalent) and stakeholders' participation (e.g. government, key donors, partners, key implementers, CSOs) in developing this proposal

Правительство Кыргызской Республики (ПКР) запрашивает поддержку ГАВИ для внедрения ротавирусной вакцины в национальную программу плановой иммунизации. Поддержка запрашивается на срок действия текущего Комплексного многолетнего плана по иммунизации (КМП), до конца 2021 года. Внедрение ротавирусной вакцины планируется на всей территории страны с марта 2019 года, с охватом ориентированным на 50% в 2019 году, 75% в 2020 году и 97% в 2021 году. Общая сумма средств, запрашиваемых ПКР у ГАВИ, составит 368 017 долл. США (2019 год), 495 860 (2020 год), 613 100 (2021 год), с грантом на внедрение ротавирусной вакцины (VIG) в размере 116257 долл. США. Софинансирование ПКР составит 80 767 долл. США (2019 год), 123 841 (2020 год), 181 546 (2021 год). Целевое население (дети до 1 года), используемое для оценок, - это исходный уровень в 2016 году, 155 411 детей и коэффициент роста 1,67% в год.

Выбранная ротавирусная вакцина представляет собой препарат Rotarix в 1-дозной презентации, который вводится перорально двухкратно, одновременно с 1-й и 2-й дозами АКДС-ВГВ-ХИБ-пентавалентной вакцины. Выбор вакцины в основном оправдан меньшим объемом требуемой холодовой цепи и меньшим количеством вводимых доз, чем в случае с Rotateq. Две другие ротавирусные вакцины в настоящее время не пре-квалифицированы.

Известно, что ротавирус является наиболее распространенной причиной тяжелый диарей у детей раннего возраста во всем мире и представляет значительную проблему для общественного здравоохранения Кыргызстана. Внедрение ротавирусной вакцины уменьшит бремя ротавирусных гастроэнтеритов, а также будет экономически выгодным, как показано в двух исследованиях, в которых продемонстрировано, что ежегодно в стране будет предотвращаться 131 случай заболеваний со смертельным исходом, 2 917 случаев госпитализации по причине ротавирусной инфекции, а также 17 299 обращений за медицинской помощью. Экономия финансовых средств на оказание медицинской помощи детям с диареями составит 386 193 долларов США ежегодно. Учитывая эти данные, Независимая техническая группа экспертов по иммунизации (НТГЭИ) рекомендовала в 2012 году внедрить ротавирусную вакцину в Кыргызстане, что отражено в отчете совместного международнонационального обзора РПИ в 2016 году и включено в комплексный многолетний план иммунизации (КМП) на период 2017-2021 годов.

Обзор РПИ 2016 года, в ходе которого были оценены различные компоненты НПИ, подтвердил эффективную работу программы иммунизации в Кыргызской Республике. Имеются эффективная система предоставления и отчетности по иммунизации, а также инфекционным заболеваниям и эпиднадзору за ПППИ, и поддерживается высокий уровень охвата иммунизацией на всех уровнях. Основные показатели продемонстрировали, что охват Пента-3 составил 94% в 2016 году, а охват КПК-1 составил 96% в том же году. Высокий охват АКДС и хорошее качество отчетности по иммунизации были подтверждены Многоиндикаторным кластерным обследованием (MICS), проведенным в Кыргызстане в 2014 году. Высокие показатели охвата прививками подтверждаются низкими показателями заболеваемости вакциноуправляемыми инфекциями: дифтерией, столбняком, коклюшем, краснухой и эпидемическим паротитом. За последние два года отмечается существенное снижение заболеваемости корью.

В течение последних пяти лет в национальный календарь профилактических прививок внедрены следующие новые вакцины: пневмококковая вакцина PCV-13 была добавлена в программу иммунизации в марте 2016 года. Кроме того, с 30 апреля 2016 года осуществлен переход с трехвалентной пероральной полиовакцины (tOPV) на двухвалентную вакцину (bOPV) в рамках Глобально синхронизированного усилия для вывода вакцины против полиомиелита 2-го типа. В целом, как внедрение ПКВ, так и переход на bOПВ в Кыргызстане прошли успешно. В 2016 году охват первой дозой ПКВ составил 74,5%, второй дозой - 41%. Принимая во внимание, что ПКВ была внедрена в марте, и только 83% новорожденных, родившихся в 2016 году, могли получить первую дозу ПКВ, и только 50% имели право на вторую дозу.

План по внедрению ротавирусной вакцины будет включать следующие мероприятия:: 1) подготовка и осуществление координации и мониторинга; 2) планирование закупок и распределение ротавирусной вакцины; 3) увеличение объема и модернизация системы холодовой цепи, логистики и вакцин; 4) планирование возросших потребностей в отношении управления отходами и обеспечения безопасности инъекций; 5) пересмотр системы информации / управления данными здравоохранения /иммунизации; 6) планирование мониторинга и оценки внедрения ротавирусной вакцины; 7) подготовка медицинских работников, вовлеченных в вакцинацию; 8) планирование и проведение социальной мобилизации, коммуникации и адвокации.

Некоторые из этих мероприятий были реализованы и/или в настоящее время реализуются при финансовой поддержке гранта УСЗ-2 ГАВИ и через платформу по оптимизации холодовой цепи (ПОХЦ). Деятельность УСЗ-2 включает: 1) увеличение знаний, доверия и спроса на услуги ОЗМиР среди населения; 2) укрепление учреждений первичной медико-санитарной помощи для расширения доступа к основным услугам ОЗМиР и иммунизации для городских мигрантов и труднодоступных сельских районов; 3) увеличение потенциала работников ПМСП для предоставления качественных услуг по иммунизации детей; 4) укрепление физических мощностей холодовой цепи; 5) укрепление системы сбора данных для обеспечения своевременности и точности информации о службах иммунизации; 6) управление программами. Поэтому приоритетными мероприятиями будут пересмотр нормативных документов, руководств и форм учета/отчетности; подготовка медицинского персонала; и коммуникация и социальная мобилизации по конкретным вопросам, связанным с внедрением ротавирусной вакцины. Безопасность вакцины станет важной областью для внедрения ротавирусной вакцины.

Платформа ОХЦ станет важной возможностью для реабилитации (восстановления) холодовой цепи в Кыргызстане. Соответствующее оборудование ПОХЦ будет использоваться для удовлетворения потребностей в холодовых мощностях на районных уровнях предоставления услуг иммунизации, в то время как финансирование УСЗ-2 будет сосредоточено на укреплении систем хранения и транспортировки вакцин на национальном, региональном (областном) и районном уровнях. Что касается управления вакцинами, то в течение 2013-2016 годов была оказана техническая помощь, и в сентябре 2015 года была проведена оценка эффективного управления вакцинами (ЭУВ), в результате чего был сделан следующий вывод: «Результаты оценки ЭУВ показали наличие высококачественных методов управления вакцинами, особенно на центральном уровне». «Кроме того, обзор РПИ в 2016 году показал, что большинство наблюдаемых вакцин находились в хорошем состоянии, без какоголибо серьезного нарушения VVM (флаконного термоиндикатора).

Осуществление ключевых мероприятий до и во время внедрения ротавирусной вакцины даст возможности для увеличения знаний и навыков медицинских работников, а также улучшения программы иммунизации и системы здравоохранения в целом. Кроме того, внедрение ротавирусной вакцины станет возможностью расширить масштабы и расширить реализацию других существующих мероприятий, направленных на профилактику и борьбу с диарейными заболеваниями.

Республиканский центр иммунопрофилактики Министерства здравоохранения Кыргызской Республики (РЦИ МЗ КР) будет учреждением, отвечающим за планирование, координацию и мониторинг внедрения ротавирусной вакцины. Межведомственный координационный комитет (МКК) будет осуществлять надзор за общей подготовкой и осуществлением. Основные партнеры (например, ВОЗ и ЮНИСЕФ) также окажут поддержку при внедрении ротавирусной вакцины, а ГАВИ обеспечит совместное финансирование вакцины в течение 5 лет.

РЦИ при технической поддержке ВОЗ и активном участии соответствующих заинтересованных сторон разработали это предложение в июле и августе 2017 года. Затем это предложение было подробно обсуждено на заседаниях Независимой технической группы экспертов по иммунизации (НТГЭИ, 16 августа 2017г.) и Межведомственного координационного комитета по иммунизации (МКК, 17 августа 2017г). МКК одобрил рекомендации НТГЭИ по внедрению ротавирусной вакцины в 2019 году. Протоколы НТГЭИ и МКК прилагаются.

#### 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 Kyrgyzstan Republic would like to expand the existing partnership with the Gavi for the improvement of the infants routine immunisation programme of the country, and specifically hereby requests Gavi support for:

RV1, 1 dose/plastic tube, liquid routine introduction

The Government of Kyrgyzstan 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 and its partners contribute financial and technical assistance to support immunisation of children as outlined in this application.

Table(s) **6.2.3**, **6.2.4** in the Routine New Vaccines Support of this application shows the amount of support in either supply or cash that is required from the Gavi.Table(s) **6.2.3**, **6.2.4** of this application shows the Government financial commitment for the procurement of this new vaccine (NVS support only).

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

The payment for the first year of co-financed support will be around **June 2019** for RV1, 1 dose/plastic tube, liquid.

Please note that this application will not be reviewed or recommended for approval by the Independent Review Committee (IRC) without the signatures of both the Minister of Health and Minister of Finance or their delegated authority. These signatures are attached as DOCUMENT NUMBER: 1 and 2 in Section 10. Attachments.

Minister of Health (or delegated authority)		Minister of Finance (or delegated authority)		
Name	Батыралиев Т.А.	Name	Атакулов М.М	
Date		Date		
Signature		Signature		

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

This report has been compiled by (these persons may be contacted in case the Gavi Secretariat has queries on this document):

Full name	Position	Telephone	Email
Жумагулова Г.Ж.	Специалист РЦИ	996(312)323011	gjj69@mail.ru

Ишенапысова Г.С. Директор РЦИ 996(312)323011 ishenapysova@mail.ru

# 4.1.2. National Coordination Forum (Interagency Coordinating Committees (ICCs), Health Sector Coordinating Committees (HSCCs), and other equivalent bodies)

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

#### **Profile of the Coordination Forum**

Name of the Forum	Межведомственный координационный комитет
Organisational structure (e.g., sub-committee, stand-alone)	Состав и ТЗ МКК были рассмотрены в Приложении МЗ № 218 «Об улучшении работы МКК» (март 2016 года). М

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

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

- 1. Интеграция правительственных и международных структур для создания сильного партнерства посредством координации вкладов и ресурсов, предоставленных из внутренних и внешних источников;
- 2. Содействие в разработке и утверждении Национальной политики по иммунизации, многолетних рабочих планов по иммунопрофилактике;
- 3. Координация технической и финансовой поддержки со стороны имеющихся партнеров, разработка ключевых принципов сотрудничества международных организаций для обеспечения наиболее эффективного использования средств, а также привлечения средств на поддержку и совершенствование службы иммунизации;
- 4. Мониторинг и оценка экономической эффективности и целесообразности мероприятий, проводимых для улучшения реализации целевых программ по иммунизации;
- 5. Обсуждение вопросов, отражающих состояние иммунопрофилактики в стране наряду с выработкой рекомендаций по улучшению ситуации;
- 6. Определение необходимых ресурсов и оказание помощи по укреплению службы

иммунизации для обеспечения реализации Национальной Программы по иммунизации, а также контроль и искоренение определенных инфекций;

1. Координация финансирования в сфере иммунизации между существующими

партнерами МКК для обеспечения соответствующей поддержки.

Республиканский Центр иммунопрофилактики (РЦИ), при технической поддержке ВОЗ, и при активном участии соответствующих заинтересованных сторон разработали это предложение в августе 2017 года. Были организованы совещания для получения информации, мнений и комментариев заинтересованных сторон от Национальной Технической Консультативной Группы экспертов по Иммунизации (НТГЭИ), Межведомственного координационного комитета по иммунизации (МКК), Министерства здравоохранения, Министерства финансов, ГСЭН и крупных партнеров, таких как ВОЗ и ЮНИСЕФ.

Затем это предложение было подробно обсуждено на заседании Национальной технической консультативной группы экспертов по иммунизации (НТГЭИ) 16 августа 2017 года, а затем на заседании Межведомственного координационного комитета по иммунизации (МКК) 17 августа 2017 года, где предложение и рекомендация НТГЭИ по внедрению ротавирусной вакцины в 2019 году были представлены и одобрены.

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

We the members of the ICC, HSCC, or equivalent committee [1] met on the 17/08/2017 to review this proposal. At that meeting we endorsed this proposal on the basis of the supporting documentation which is attached. The minutes from the meeting endorsing the proposal and of the meetings of the past 12 months are attached as Document number 5. The signatures endorsing the proposal are attached as Document number 7 (please use the list for signatures in the section below).

			Please sign below	Please sign below	
Function	Title / Organisation	Name	to indicate the	to indicate the	
			attendance at the	endorsement of	

			meeting where the proposal was endorsed	the minutes where the proposal was discussed
Chair	Минздрав КР/ Заместитель министра здравоохранения	Горин О.В.		
Secretary	РЦИ МЗ КР/ врач педиатр- иммунолог	Плотникова О.Д.		
	Директор/ Республиканский Центр укрепления здоровья	Айтмурзавева Г.Т.		
	Заведующая городским центром иммунопрофилактики Асыкбекова Б.І г. Бишкек / ЦГСЭН	Асыкбекова Б.Ш.		
	Научный сотрудник отделения патологии перинатального периода	Бабаджанов Н.Д.		
	Главный врач / ЦГСЭН г. Бишкек	Буюклянов А.И.		
	Начальник управления профилактики заболеваний и госэпидуправления /ДПЗиГСЭН	Жороев А.А.		
	Член общественного наблюдательного совета	Жумагулова Б.Т.		
	РЦИ МЗ КР/ врач педиатр- иммунолог	Жумагулова Г.Ж.		
	Технический координатор УСЗ-2 ГАВИ в КР (по согласованию	Имакеев А.К.		
Members	Специалист программ по здравоохранению и питанию ЮНИСЕФ в КР	Иманалиева Ч.А		
	Минздрав КР/Главный специалист отдела общественного здравоохранения	Исмаилова Б.А.		
	РЦИ МЗ КР/ директор	Ишенапысова Г.С.		
	Заместитель директора /ДПЗиГСЭН	Кундашев К.У.		
	Сотрудник по общественному здравоохранению ВОЗ в КР	Монолбаев К.М.		
	Директор /ЦЭЗ МЗ КР	Мурзакримова Л.К.		
	Руководитель РНПЦКВИ НПО "ПМ"	Нурматов З.Ш.		
	Специалист по вопросам здравоохранения ВБ (по согласованию)	Саргалдакова А.З.		
	Заведующая сектором по фармнадзору/ ДЛОиМТ МЗ КР	Сулейманова Г.Т.		
	Минздрав КР / Главный специалист отдела общественного здравооохранения	Эсенгулова Н.Ш.		

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

The minutes from the meeting endorsing the proposal and of the meetings of the past 12 months are attached are attached as DOCUMENT NUMBER: 6.

# 4.2. National Immunization Technical Advisory Group (NITAG)

Has a NITAG been established in the country? Yes

We the members of the NITAG met on the 16/08/2017 to review this proposal. At that meeting we endorsed this proposal on the basis of the supporting documentation describing the decision-making process through which the recommendations were reached, attached as Document number 31.

#### **4.2.1. The NITAG**

#### **Profile of the NITAG**

Name of the NITAG	Независимая техническая группа экспертов по иммунизации	
Year of constitution of the current NITAG	2012	
Organisational structure (e.g., sub-committee, stand-alone)	Постоянно действующая структура	
Frequency of meetings	2 раза в год	

Function	Title / Organisation	Name
Chair	Научный сотрудник отделения патологии перинатального периода /НЦОМиД	Бабаджанов Н.Д.
Secretary	Врач эпидемиолог / РЦИ МЗ КР (по согласованию)	Шейшеева Н.А.
	Заведующая кафедрой ОЗ с курсом КГМИиПК	Алтымышева Н.А.
	Главный специалист /Отдел доказательной медицины	Барыктабасова Б.Б.
	Заместитель главного врача ГКБСМП г. Бишкек	Джанабилова Г.А.
	Заведующая клинико-диагностического отдела НЦОиМД	Дюйшембиева К.Д.
	Руководитель Республиканского центра инфекционного контроля НПО "ПМ"	Кравцов А.А.
	Заместитель директора ЦСМ №19 г.Бишкек	Кушбакеева А.К.
	Заместитель директора / НЦОМиД	Маймерова Г.Ш.
	Завуч кафедры микробиологии, вирусологии, иммунологии КГМА	Ниязалиева М.С.
Members	Руководитель Республиканского научно- практического центра по контролю вирусных инфекций НПО "ПМ"	Нурматов З.Ш.
	Заведующая эпидотделом / ДПЗиГСЭН МЗ КР	Оторбаева Д.С.
	председатель комитета по биоэтике МЗ КР/ Д.м.н, профессор	Тилекеева У.М.
	Заведующая кафедры микробиологии, вирусологии,иммунологии, эпидемиологии КРСУ	Тойгонбаева В.С.
	Заместитель главного врача /РКИБ	Узакбаева А.З.
	Доцент кафедры детских инфекций КГМА, к.м.н	Чыныева Д.К.
	Заведующая кафедрой детских болезней КГМИПиПК	Шукурова В.К.

Major functions and responsibilities of the NITAG

#### Положение

#### о Научно-технической группе экспертов по иммунопрофилактике Министерства здравоохранения Кыргызской Республики

Научно-техническая группа экспертов по иммунопрофилактике (НТГЭИ) при Министерстве здравоохранения Кыргызской Республики создается как независимая экспертная группа, обеспечивающая государственные структуры здравоохранения консультативной поддержкой и рекомендациями по вопросам формирования политики, внедрения новых нормативов и практических подходов в области иммунизации.

#### І. Общие положения

Настоящее положение о Научно-технической группе экспертов по иммунопрофилактике разработано на основе существующего мирового опыта и рекомендаций ВОЗ.

В своей деятельности НТГЭИ руководствуется Законами и другими нормативными правовыми актами Кыргызской Республики, приказами и распоряжениями Министерства здравоохранения Кыргызской Республики, а также настоящим Положением.

НТГЭИ организует свою работу во взаимодействии с государственными органами Кыргызской Республики, местными государственными администрациями Кыргызской Республики и органами местного самоуправления, общественными объединениями, гражданами и юридическими лицами, а также во взаимодействии со структурными, подведомственными и территориальными подразделениями Министерства здравоохранения.

НТГЭИ в своей деятельности подотчетна Министерству здравоохранения Кыргызской Республики.

Решения НТЭГИ носят рекомендательный характер и могут быть использованы Министерством здравоохранения в качестве доказательной основы при внедрении новых проектов в программу иммунизации.

Деятельность НТГЭИ осуществляется на общественных началах. Работа, выполняемая ее членами, рассматривается как выполнение служебных обязанностей.

#### II. Задачи и функции НТГЭИ

Основными задачами НТГЭИ являются:

- обеспечение независимой консультативной поддержки государственных структур здравоохранения и разработка научно-обоснованных рекомендаций в области иммунопрофилактики, согласно принципам доказательной медицины:
- минимизация вероятности конфликта интересов в процессе принятия решения по изменению национальной политики иммунизации;
- проведение независимой экспертизы проектов, направленных на изменение национальной политики иммунизации.

Для реализации вышеназванных задач на НТГЭИ возлагаются следующие функции:

- оказание технической помощи при разработке новых направлений в политике иммунизации;
- сбор данных, проведение анализа и разработка рекомендаций при решении вопросов о внедрении в календарь прививок новых вакцин:
- проведение литературного обзора по актуальным вопросам иммунопрофилактики;
- взаимодействие с ведущими мировыми научно-исследовательскими институтами по вопросам совершенствования политики иммунизации;
- взаимосотрудничество и обмен информацией с независимыми экспертными комитетами по иммунизации других стран;
- сотрудничество с международными организациями, оказывающими поддержку программе иммунизации Кыргызской Республики;
- использование принципов доказательной медицины при разработке рекомендаций по усовершенствованию существующей политики иммунизации;
- определение причинно-следственных связей в случаях возникновения поствакцинальных осложнений.

#### III. Организация работы НТГЭИ

- 1. Состав НТГЭИ утверждается приказом Министерства здравоохранения. При необходимости состав НТГЭИ может быть пересмотрен в сторону увеличения или сокращения членов.
- 2. В состав НТГЭИ могут входить как ведущие специалисты научных медицинских организаций республики, имеющие ученую степень кандидата или доктора медицинских наук, так и представители неправительственных организаций, а также специалисты практического здравоохранения по неврологии, аллергологии, пульмонологии, эпидемиологии, иммунологии, семейной медицине, инфекционным болезням, фтизиатрии и представители комитета по этике. В отдельных случаях к работе НТГЭИ могут быть привлечены специалисты в области гинекологии, онкологии, хирургии и др.
- 3. Каждый член НТГЭИ обязан ознакомиться с положением о деятельности НТГЭИ и гарантировать выполнение обязательств, взятых на себя в рамках данного положения, исключив лоббирование собственных интересов и злоупотребление должностным положением, а также при необходимости соблюдать конфиденциальность информации, обсуждаемой на заседаниях НТГЭИ.
- 4. Председатель и секретарь избираются путем голосования из числа специалистов, входящих в состав HTГЭИ.

- 5. Члены НТГЭИ исполняют свои обязанности на общественных началах. Для выполнения поручений, требующих отвлечения от основной деятельности, членам НТГЭИ сохраняется заработная плата по основному месту работы.
- 6. Деятельность НТГЭИ осуществляется на плановой основе. Заседания НТГЭИ должны проводиться не реже 1 раза в полугодие, при необходимости чаще.
- 7. План работы НТГЭИ составляется в начале года и рассматривается на общем заседании. После одобрения всеми членами НТГЭИ, план утверждается председателем НТГЭИ.
- 8. Время и место созыва заседания НТГЭИ определяется Председателем, секретариат на постоянной основе располагается на базе РЦИ.
- 9. Процедура по подготовке к проведению как плановых, так и внеочередных заседаний НТГЭИ, возлагаются на секретаря НТГЭИ по согласованию с председателем НТГЭИ.
- 10. Основные проблемные вопросы для рассмотрения НТГЭИ могут быть инициированы Министерством здравоохранения, ДГСЭН, Республиканским Центром иммунопрофилактики и другими организациями здравоохранения, задействованными в службе иммунизации, а также любыми членами НТГЭИ при условии внесения предложения не менее чем за две недели до заседания.
- 11. Заседание НТГЭИ считается правомочным при условии присутствия половины его членов.
- 12. Решения НТГЭИ принимаются открытым голосованием и являются правомочными, если за них проголосовало более половины его членов. Каждый член НТГЭИ имеет один голос. При равном количестве голосов, голос Председателя считается решающим.
- 13. Протоколы заседаний, включая рекомендации по обсуждаемым вопросам, ведутся секретарем НТГЭИ, утверждаются председателем и хранятся у секретаря.
- 14. Распространение рекомендаций НТГЭИ осуществляется рассылкой решений и протоколов заседаний заинтересованным лицам через курьера или электронную почту.

In the absence of a NITAG, countries should clarify the role and functioning of the advisory group and describe plans to establish a NITAG. This document is attached as **(Document Number: 8)** 

### 5. Immunisation Programme Data

#### 5.1 Background information

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

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

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

	Figure	Year	Source
Total population	6,140,200	2016	National Statistical Committee (NSC) http://www.stat.kg/en/statistics/naselenie
Birth cohort	158,032	2016	National Statistical Committee (NSC) http://www.stat.kg/en/statistics/naselenie
Infant mortality rate (per 1000)	17	2016	National Statistical Committee (NSC) http://www.stat.kg/en/statistics/naselenie
Surviving infants[1]	155,411	2016	National Statistical Committee (NSC) http://www.stat.kg/en/statistics/naselenie
GNI per capita (US\$)	1,100	2016	The World Bank http://data.worldbank.org/country/kyrgyz- republic

Total Health Expenditure (THE) as a percentage of GDP	6.5	2014	UNDP http://www.kg.undp.org
General government expenditure on health (GGHE) as % of General government expenditure	8.8	2016	National Statistical Committee (NSC) http://www.stat.kg/ru/statistics/finansy/

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

#### 5.1.1 Lessons learned

#### **Routine New Vaccines Support**

If new or under-used vaccines have already been introduced in your country, please give details of the lessons learned from previous introduction(s) specifically for: storage capacity, protection from accidental freezing, staff training, cold chain, logistics, coverage and drop-out rates, wastage rate, etc., and suggest action points or actions taken to address them. Please refer to previous Post Introduction Evaluations (PIE), if applicable. If they are included in the Introduction Plan, please cite the section only. If this information is already included in NVIP/POA, please reference the document and in which section/page this information can be found.

# During the past five years, one new antigen was added to the immunization programme, the pneumococcal vaccine in 13-valent presentation, PCV-13, in March 2016. In addition, from 30 April 2016, Kyrgyzstan switched from trivalent oral polio vaccine (tOPV) to bivalent vaccine (bOPV) as part of the globally synchronized effort to withdraw type 2 polio vaccine. Overall, both PCV introduction and OPV switch in Kyrgyzstan were a smooth process.

**Lessons Learned** 

In 2016, an EPI review was conducted, looking specifically at PCV introduction experience in the country. During the review, it was found that all health facility staff were satisfied with the training provided. For future trainings, some healthcare workers requested more information through printed materials. Healthcare workers reported no problems administering the PCV vaccine, although some additional hesitancy among parents was caused by two injectable vaccines administered in one visit. In most cases, explanation by health worker solved the situation and no PCV refusals were reported. Actually, some health workers indicated that parents accept PCV better than any other vaccine as for some reason PCV does not hurt and make children cry, although this remains a subjective matter

Acceptance of new vaccine was equally good by medical workers and parents, concerns with the need for additional vaccine and with safety of vaccine or multiple injections were limited. The interviewed medical workers were aware of diseases PCV prevents and of benefits of vaccination, knew new immunization schedule and did not have any difficulties with administration of PCV. No AEFIs were reported for any vaccine since the introduction of PCV vaccine, and PCV was generally regarded as very safe vaccine. Immunization forms were updated to include new vaccine, however the reporting form No.6 had PCV entered manually – the updated form was not provided to the districts yet.

All visited sites reported that the introduction of PCV was a smooth process and staff of health facilities and SSES felt that the introduction of PCV had improved their immunization programme. Interviewed staff noted that advocacy and communication activities and training sessions prior to PCV introduction boosted immunization awareness in communities and increased overall knowledge of health workers. In 2016 the administrative PCV coverage was as following: 74.5% with one PCV dose and 41% with two doses of PCV. Taking into account that PCV was introduced in March and only 83% of infants born in 2016 could receive the first dose of PCV and only 50% were eligible for the second dose, the reported coverage demonstrates a high uptake of PCV in the target population.

Beyond PCV introduction, there was also positive experiences with introduction of new and underutilized vaccines in the past (hepatitis B, MMR, and pentavalent vaccines).

#### **Action Points**

As mentioned in the lessons learned, the PCV was smoothly introduced. It was for a part due to a good preparation and implementation. Also, Gavi HSS and CCEOP support will allow to strengthen all immunization activities in the near future. Therefore, we can consider that there are relatively few challenges and risks to introduce rotavirus vaccine. However, it is important still to highlight those challenges, and activities will be identified for the introduction. One first challenge could be the proper understanding by health workers and population the benefits of rotavirus vaccination, and therefore the commitment for RV administration. The NIP also expects concerns about vaccine safety among parents, especially in urban areas, and among medical workers. In that regard, the communication component is an important one to be addressed during the periods before and during the introduction of rotavirus vaccine. The training of medical workers on vaccine safety and contraindications that are planned to be conducted in 2017 with WHO support will help to address vaccine safety concerns among health care professionals.

A second challenge is related to the problem of serious AEFI, mainly intussusception. The latest global data on intussusception due to vaccine show an occurrence of 1 to 6 excess cases of intussusception per 100.000 children vaccinated. It is important to remind that the rate of natural intussusception in infants, although varying between regions and countries, is around 70 cases per 100,000. This means that in Kyrgyzstan there should be around 105 cases of intussusception annually, and after the introduction, the frequency of intussusception may increase up to 107-114 cases. Obviously that AEFI issue is an important and will need to be properly addressed through the AEFI surveillance and response system, currently being strengthened. The communication component related to vaccine safety and to risk-benefit of introducing rotavirus vaccine will have to be enhanced before and during the introduction of rotavirus vaccine. The communication materials for care givers should contain information about intussusception symptoms and recommendations on seeking of medical care.

The last but not least challenge is related to financial sustainability. Scenarios in the cMYP are informing the costs of rotavirus vaccine introduction. Cost-effectiveness studies on the other side demonstrated the savings that could follow the RV introduction. Although the RV introduction will be cost-saving during the period Gavi will be co-financing, the full payment of the vaccine costs after 5 years of Gavi support should be taken over by the Government. At that time, most probably the vaccine cost will have decreased with the arrival of new manufacturers (especially Indian manufacturers) and therefore RV administration should still be cost-saving.

#### 5.1.2 Health planning and budgeting

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

As the current Health Sector Strategy, the so-called "Den Sooluk" programme, is finishing by end of 2018, the 2017 Joint Annual Review was the opportunity to initiate discussions around the development of the next health sector strategy for Kyrgyzstan. There are several benefits which can be achieved through the development and implementation of the next phase of a strategy for health system in Kyrgyzstan such as convening the sector and coordinating the many different health programs in place; continuing the tradition of regular policy dialogue to review achievements and challenges; ensuring there is a contribution to broader government development strategy for sustainable development concept 2040 and taking advantage of opportunities that come from this; agreeing on a clear set of priorities, including priorities for system strengthening; and aligning all resources as the system moves towards Universal Health Coverage.

The health planning and budgeting cycle in Kyrgyzstan is derived from the "Den Sooluk" (it will be presented in below paragraph).

Concerning immunization, the current "National Programme Immunoprophylaxis 2013-2017" was approved by the Resolution of the Kyrgyzstan and is synchronized with "Den Sooluk". Immunization issues are reflected in two components of the programme "Mother and Child Health Protection" (MCH) and "Public Health".

The immunization planning and budgeting cycle is derived from the "National Programme Immunoprophylaxis 2013-2017" (it will be presented in below paragraph).

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

National Health Plan: "Den Sooluk National Health Reform Programme in the Kyrgyz Republic for 2012-2016"

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

The latest comprehensive Multi Year Plan (cMYP) dated 2012-2016 was neither aligned with the "National Programme Immunoprophylaxis 2013-2017" nor used as a core planning document, expect for Partners support. A major effort is currently being done to synchronize the new cMYP 2017-2021 with the national programme, to get it approved by Government Resolution, and to become the "reference document" for all immunization planning and budgeting.

In that regard, the current Gavi proposal on rotavirus vaccine introduction is aligned with the new cMYP 2017-2021, with its costing and financing component being revised and updated.

Please indicate the national planning budgeting cycle for health

The health budget development cycle starts in April of each year, and is based on the Government decree that announces budget development process and sets timelines for development and submission of the midterm (three year) budget forecasts for all national health programs. The national health programs have to submit the mid-term budget forecasts by June. During the period of June-September the MoH discusses submitted budget forecasts with the key stakeholders of the health sector including the NGOs. In addition, the MoH holds budget negotiations with the Ministry of Finance on funding of all national health programs in order to finalize these budgets. The Government submits the final budget to the parliament for approval by September 1, and the parliament approves the budget by the end of the year.

Please indicate the national planning cycle for immunisation

The RCI develops and submits the budget forecast to the MoH in November of each year. The submitted forecast includes annual requirement for vaccine procurement, staff salaries based on the staff qualification and ranking, and operational costs for epidemiological surveillance. The MoH reviews RCI request and informs RCI on preliminary approval by December 1st, and the final approval by the end of the year. The actual transfer of RCI funds is carried out in March of the next year.

#### 5.1.3 Coverage and equity

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

The Multiple Indicator Cluster Survey (MICS) conducted in Kyrgyzstan in 2014 confirmed high immunization coverage among young children and demonstrated that there were no significant differences in vaccination status between boys and girls as well as between children born to mothers with higher or lower level of education. However, there were variations in coverage between children residing in urban or rural areas and in different regions of the country. The proportion of infants who have received three doses of DTP-containing vaccine was higher in rural areas (97%) than in urban areas (92%). Vaccination coverage falls up to 90% among children in the Bishkek City. The MICS revealed significant difference in immunization coverage in families with different income level. The coverage with three doses of DTP-containing vaccine was the lowest in rich families (90.9%) and was the highest in the poorest families (96.5%).

The EPI Review conducted in Kyrgyzstan in 2016 found out that the main reasons of observed differences in immunization coverage between urban and rural populations is vaccine hesitancy which is more significant among parents in big cities where they are more exposed to anti-vaccination publications in mass media and in the Internet. Another important reason of lower coverage in regions with predominantly urban populations is vaccine safety concerns among medical workers, particularly neurologists, who delays vaccination of infants by providing not justified contraindications. The lower level of immunization of children from families with higher income is in line with lower coverage among urban populations because these families reside mainly in big cities. The children of richer families are also more likely to be referred to medical specialists, including private health care professionals, who often provide not justified contraindications again vaccination.

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

The National Immunization Programme has undertaken efforts to address the vaccine hesitancy among parents and to increase immunization coverage in infants residing in urban areas. The following activities were implemented with the support from partners:

- Raising awareness about immunization among parents;
- Education of medical workers:
- Improvement of the new born registry and other data sources for immunization programme;
- Annual participation in European Immunization Week: implementation of social mobilization and communication activities; immunization of children among internal migrants and in remote territories.

More communication and social mobilization activities are planned to be implemented prior to the introduction of rotavirus vaccine. In particular, in 2017 the NIP is going to conduct trainings of medical workers on vaccine safety and contraindications. Increasing confidence in immunization and creating demand is one of the main objectives of HSS Gavi support. The following activities will be implemented using HSS grant prior to the introduction of rotavirus vaccine:

- Training of PHC workers and immunization programme staff in communication skills on immunization issues;
- Nationwide representative (taking into account the sub-population of internal migrants living in Bishkek and Osh) surveys integrating:
- KAP related to immunization and other MCH services.
- immunization coverage evaluation and,
- customized health utilization and expenditure survey (HUES).

Further activities specifically planned for the introduction of rotavirus vaccine, as described in chapter 6.2.4, will be also supporting coverage and equity.

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

As mentioned, 2014 MICS survey and 2016 EPI review took place in recent years, assessing gender and equity related barriers, and providing related recommendations.

More survey(s) assessing that component will be planned in the future. For example, under the HSS Gavi support, the followings activity is planned: "Conduct nationwide representative (taking into account the subpopulation of internal migrants living in Bishkek and Osh) surveys integrating a) KAP related to immunization and other MCH services, b) immunization coverage evaluation and c) customized health utilization and expenditure survey (HUES)".

WHO will also support the post-introduction evaluation (PIE) for rotavirus vaccine introduction, which will among other components assess coverage and equity.

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

In Kyrgyzstan, sex disaggregated data is not collected and reported in the immunisation routine reporting system. However, high vaccination rates in the country as a whole and in individual regions, and also the information shared by the local health workers confirm that there are no differences between boys and girls with regard to accessing vaccination.

Is the country currently in a situation of fragility (e.g. insecurity, conflict, post-conflict, refugees/and or displaced persons and recent, current or potential environmental disaster, such as flooding, earthquake or drought or others)? If Yes, please describe how these issues may impact your immunisation programme, planning for introduction of routine vaccines or campaigns and financing of these activities.

There is no specific situation of fragility in Kyrgyzstan which will require specific interventions.

#### 5.1.4 Data quality

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

#### 5.2. Baseline and Annual Targets for Routine Vaccines

Please refer to cMYP pages to assist in filling-in this section. For HPV, please also refer to Annex 3 of the HPV Guidelines.

The Base year information should be completed for the year in which the application is being completed.

Table 5.2: Baseline NVS routine figures

	Base Year	Ва	seline and Targe	ets
Number	2016	2019	2020	2021
Total births	158,032	166,082	168,856	171,675
Total infants' deaths	2,621	2,522	2,494	2,469
Total surviving infants	155,411	163,560	166,362	169,206
Total pregnant women	158,032	166,082	168,856	171,657
Target population (routine cohort) vaccinated with OPV3[1]	151,060	157,018	160,539	164,130
OPV3 coverage[2]	97 %	96 %	96 %	97 %
Target population (routine cohort) vaccinated with DTP1[1]	150,283	160,222	163,815	167,480
Target population (routine cohort) vaccinated with DTP3[1]	149,350	157,018	160,539	164,130
DTP3 coverage[2]	96 %	96 %	96 %	97 %
Wastage[3] rate in base-year and planned thereafter (%) for DTP	5	5	5	5
Wastage[3] factor in base-year and planned thereafter for DTP	1.05	1.05	1.05	1.05
Target population (routine cohort) vaccinated with 1st dose of RV1	0	82,606	126,032	165,788
Target population (routine cohort) vaccinated with 2nd dose of Rotavirus	0	81,780	124,772	164,130
RV1 coverage[2]	0 %	50 %	75 %	97 %
First Presentation: RV1, 1 dose/plastic tube, liquid				
Wastage[3] rate in base-year and planned thereafter (%)	5	5	5	5
Wastage[3] factor in base-year and planned thereafter (%)	1.05	1.05	1.05	1.05
Maximum wastage rate value for RV1, 1 dose/plastic tube, liquid	5 %	5 %	5 %	5 %
Target population (routine cohort) vaccinated with 1st dose of MCV	150,749	158,653	162,203	165,822
MCV coverage[2]	97 %	97 %	98 %	98 %
Annual DTP Drop out rate [ ( DTP1 – DTP3 ) / DTP1 ] x 100	1 %	2 %	2 %	2 %

<sup>[1]</sup> Indicate total number of children vaccinated with either DTP alone or combined

<sup>[2]</sup> Number of infants vaccinated out of total surviving infants

<sup>[3]</sup> 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.

# **5.3. Targets for Preventive Campaign(s)**

No NVS Prevention Campaign Support this year

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

No One time mini-catchup campaign this year

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

## 6.1. Assessment of burden of relevant diseases (if available)

If already included in detail in the Introduction Plan or Plan of Action, please cite the section only.

Disease	Title of the assessment	Date	Results
.Rotavirus	Rotavirus infection in hospitalized children and estimates of disease burden in Kyrgyzstan	Survey 2005–2007 Published 2009	To estimate the rotavirus-associated burden in Kyrgyzstan, hospital surveillance was conducted among children <5 years old with diarrhoea during 2005–2007. Of 3756 children hospitalized with diarrhoea, 26% had rotavirus detected in stool samples by an enzyme immunoassay. The virus genotype G1P was identified in 60% of 190 characterized samples from 2005 to 2006. The estimated risk for rotavirus hospitalization by age 5 years was 1 in 28 children. One quarter of all gastroenteritis hospitalizations in children <5 years old in Kyrgyzstan may be attributable to rotavirus. Rotavirus vaccination could be an important health intervention to reduce the burden of rotavirus gastroenteritis.
Rotavirus	Costs of Diarrheal Disease and the Cost-Effectiveness of a Rotavirus Vaccination Programme in Kyrgyzstan	Survey 2005-2008 Published 2009	Rotavirus-related hospitalizations and outpatient visits cost US\$580,864 annually, of which \$421,658 (73%) is direct medical costs and \$159,206 (27%) is nonmedical and indirect costs. With 95% coverage, vaccination could prevent 75% of rotavirus-related hospitalizations and deaths and 56% of outpatient visits and could avert \$386,193 (66%) in total costs annually. The medical break-even price at which averted direct medical costs equal vaccination costs is \$0.65/dose; the societal break-even price is \$1.14/dose for a 2-dose regimen. At the current GAVI Alliance—subsidized vaccine price of \$0.60/course, rotavirus vaccination is cost-saving for the government. Vaccination is cost-effective at a vaccine price \$9.41/dose, according to the cost-effectiveness standard set by the 2002 World Health Report.
Rotavirus	A routine epidemiological surveillance of rotavirus infection	Surveillance Oct. 2010 to Sept. 2011	Data available with the Republican SSES
Rotavirus	WHO Rotavirus Mortality Estimate	Estimate, 2015	In 2013, 54 children at the age less than 5 years died from rotavirus diarrhoeas. The introduction of rotavirus vaccine will allow to avert these preventable deaths.

#### 6.2. Requested vaccine (RV1. 1 dose/plastic tube, liquid)

As reported in the cMYP, the country plans to introduce RV1, using RV1, 1 dose/plastic tube, liquid.

When is the country planning to introduce this vaccine? March 2019

Please note that, due to a variety of factors, the launch date may vary compared to the date stipulated in the application. Gavi will work closely with countries and their partners to address these issues.

Please summarise the cold chain capacity (at central and other levels) and readiness to accommodate new vaccines, taking into consideration training, cold chain equipment and other logistical requirements. If cold chain expansion is required, state how it will be financed, and when it will be in place. The Independent Review Committee requires assurance that the cold chain is ready or will be ready for the routine introduction of the new vaccine, and evidence/plans need to be provided. All proposals that include Gavi- financing for cold chain equipment intended for vaccine storage shall need to procure equipment pre-qualified by WHO under their Performance Quality and Safety (PQS) program. The purchase of non-PQS equipment will only be considered on an exceptional basis, with justification and advance agreement from Gavi.

With the support of the HSS Gavi grant and the Cold Chain Equipment Optimization Platform (CCEOP), several areas of the immunization programme and the health system are currently being strengthened in Kyrgyzstan, and the upgrading of cold chain, logistics and vaccine management accounts among the biggest component; that will represent an important opportunity for cold-chain rehabilitation in Kyrgyzstan. CCEOP eligible equipment will be used to address cold-chain needs at the district and immunization service provision level, while the HSS funding will be focusing on strengthening vaccine storage and transportation systems at national, oblast and rayon levels.

Concerning new vaccine introduction and cold chain capacity requirements, in the "CCE rehabilitation and maintenance plan" (February 2017), the vaccine volume data for the future new vaccines were calculated using the following assumptions:

- PCV13: Three doses (single dose vial) introduced in 2016
- IPV: One dose (single dose vial) introduced as soon as global supply available
- Rotavirus: Two doses (single dose vial) introduction planned for 2019
- HPV: Two doses for girls (single dose vial) tentative introduction planned for 2021
- Expanding the use of non-routine vaccines (i.e. influenza and rabies vaccines)

Therefore, it could be confirmed that once all new equipment coming through the HSS Gavi support and through the CCEOP will have been supplied by 2019, the cold chain capacity will be sufficient to handle rotavirus vaccine supplies at all levels. Further details on cold stores rehabilitation, on new equipment procurement, and on future cold chain capacity (at central and other levels) could be found in the HSS and CCEOP documents (provided as attachments to this proposal).

On vaccine management, technical assistance was extensively provided during the years 2013-2016 and an EVM assessment was conducted in September 2015, providing the following conclusion: "Results of the EVM assessment revealed existence of high quality vaccine management practices, particularly at central level." Moreover the 2016 EPI review showed that most of vaccines observed were in good condition, with no major VVM (vaccine vial monitoring) infringement. However continuous vaccine management improvement is required, with SOPs implementation, especially at the lower levels; activities in that direction are included in the HSS support.

#### 6.2.1. Vaccine Prices

Vaccine	Presentation	2017	2018	2019	2020	2021
RV1, 1 dose/plastic tube, liquid	1	2.012	2.012	2.012	2.012	2.012

#### **6.2.2. Co-financing information**

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

Country group	<b>group</b> Preparatory transition phase	
	2019	2020
minimum co-financing per dose	0.37	0.43
your co-financing per dose (please change if higher)	0.37	0.43

	2021
minimum co-financing per dose	0.49
your co-financing per dose (please change if higher)	0.49

#### 6.2.2.1. Specifications of vaccinations with new vaccine for routine cohort

	Source		2019	2020	2021
Number of children in routine cohort to be vaccinated with the first dose	Table 5.2	#	82,606	126,032	165,788
Number of children in routine cohort to be vaccinated with the second dose	Table 5.2	#	81,780	124,772	164,130
Immunisation coverage with the second dose	Table 5.2	%	50%	75%	97%
Country co-financing per dose	Table 6.2.2	\$	0.37	0.43	0.49

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

		2019	2020
Number of vaccine doses	#		
Number of AD syringes	#		
Number of re-constitution syringes	#	0	0
Number of safety boxes	#		
Total value to be co-financed by the Country [1]	\$	80,476	123,841

[1] The co-financing amount for intermediate and graduating countries indicates costs for the vaccines, related injection safety devices and any freight charges. The total co-financing amount does not contain the costs and fees of the relevant Procurement Agency, such as contingency buffer and handling fees. Information on these extra costs and fees will be provided by the relevant Procurement Agency as part of the cost estimate to be requested by the Country.

		2021
Number of vaccine doses	#	
Number of AD syringes	#	
Number of re-constitution syringes	#	0
Number of safety boxes	#	
Total value to be co-financed by the Country [1]	\$	181,546

[1] The co-financing amount for intermediate and graduating countries indicates costs for the vaccines, related injection safety devices and any freight charges. The total co-financing amount does not contain the costs and fees of the relevant Procurement Agency, such as contingency buffer and handling fees. Information on these extra costs and fees will be provided by the relevant Procurement Agency as part of the cost estimate to be requested by the Country.

#### 6.2.4 New and Under-Used Vaccine Introduction Grant

Calculation of Vaccine Introduction Grant for the RV1, 1 dose/plastic tube, liquid

Year of New Vaccine Introduction	Births (from Table 5.2)	Share per Birth in US\$	Total in US\$
2019	166,082	0.80	132,866

This is a one-time cash grant of US\$0.80/child in a single birth cohort or a lump sum of \$100,000 (whichever is higher). It should be noted that for introduction applications submitted from January 2017 onwards and for all Gavi vaccine introductions planned for implementation in 2018 onwards, this grant will be adjusted according to transition stage of the country. Countries in preparatory transition phase (Phase 1) will be provided with \$0.70 per targeted person in a single birth cohort, and countries which have entered accelerated transition phase (Phase 2) \$0.60 per targeted person in a single birth cohort. For low income countries, the amount will remain at \$0.80 per targeted person.

Please describe how the Gavi Vaccine Introduction Grant will be used to facilitate the timely and effective implementation of critical activities in advance of and during the introduction of the new vaccine (refer to the cMYP and the Vaccine Introduction Plan).

The following activities will be implemented prior to and during the rotavirus vaccine introduction, for an effective introduction. The Gavi Vaccine Introduction Grant (VIG) will financially support several of these activities, as described in the "Detailed activities and budget for VIG / Operational costs" provided as an attachment. The estimated amount of the VIG will be USD 132,866. Other activities will be supported by the Government, by the Partners, and/or integrated into RCI routine activities.

- 1. Coordinating and monitoring preparation and implementation
  - RCI to organize regular meeting and reporting to MoH and ICC, to update on rotavirus vaccine introduction
  - Revise regulatory and normative documents (Prikaz/Order)
  - Revise immunization guidelines and/or development of rotavirus vaccine specific annexures to the existing documents:
  - Immunization schedule
  - Immunization services and practices
  - Vaccine management
  - Injection safety and waste management
  - AEFI surveillance
  - Advocacy and communication
    - Disseminate updated regulatory documents and immunization guidelines to all oblast and rayon SES, and to all health centres
- 2. Planning for procurement and distribution of rotavirus vaccine
  - Update MOH-UNICEF 5-year forecasting tool with rotavirus vaccine requirements
  - Procure rotavirus vaccines annually, as per other vaccines procedures
  - Distribute rotavirus vaccines, as per other vaccines procedures
  - Inform DDPME (NRA) about rotavirus vaccine introduction, providing all Rotarix specifications
- 3. Expanding or upgrading cold chain, logistics and vaccine management
  - Monitor the supply and installation of all cold chain equipment provided by HSS Gavi grant and CCEOP
  - Monitor the vaccine management training planned under the HSS Gavi grant and CCEOP
- 4. Planning for increased waste management and injection safety needs
  - No specific activities
- 5. Revising health and immunization management information/data system
  - Revise immunization recording and reporting forms, including child health or vaccination card/booklet; Adjust accordingly computer software on immunization management information/data system
  - Disseminate updated immunization recording and reporting forms, including child health or vaccination card/booklet, to all oblast and rayon SES and to all health centres.
  - Revise AEFI surveillance guidelines and AEFI reporting forms

- The following activities will be implemented prior to and during the rotavirus vaccine introduction, for an effective introduction. The Gavi Vaccine Introduction Grant (VIG) will financially support several of these activities, as described in the "Detailed activities and budget for VIG / Operational costs" provided as an attachment. The estimated amount of the VIG will be USD 132,866. Other activities will be supported by the Government, by the Partners, and/or integrated into RCI routine activities.
  - 1. Coordinating and monitoring preparation and implementation
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- Revise regulatory and normative documents (Prikaz/Order)
- Revise immunization guidelines and/or development of rotavirus vaccine specific annexures to the existing documents:
- Immunization schedule
- Immunization services and practices
- Vaccine management
- Injection safety and waste management
- AEFI surveillance
- Advocacy and communication
  - Disseminate updated regulatory documents and immunization guidelines to all oblast and rayon SES, and to all health centres
- 2. Planning for procurement and distribution of rotavirus vaccine
- Update MOH-UNICEF 5-year forecasting tool with rotavirus vaccine requirements
- Procure rotavirus vaccines annually, as per other vaccines procedures
- Distribute rotavirus vaccines, as per other vaccines procedures
- Inform DDPME (NRA) about rotavirus vaccine introduction, providing all Rotarix specifications
- 3. Expanding or upgrading cold chain, logistics and vaccine management
- Monitor the supply and installation of all cold chain equipment provided by HSS Gavi grant and CCEOP
- Monitor the vaccine management training planned under the HSS Gavi grant and CCEOP
- 4. Planning for increased waste management and injection safety needs
- No specific activities
- S. Revising health and immunization management information/data system
- Revise immunization recording and reporting forms, including child health or vaccination card/booklet;
   Adjust accordingly computer software on immunization management information/data system
- Disseminate updated immunization recording and reporting forms, including child health or vaccination card/booklet, to all oblast and rayon SES and to all health centres.
- Revise AEFI surveillance guidelines and AEFI reporting forms
- Disseminate AEFI surveillance guidelines and AEFI reporting forms
- Include information on establishment and implementation of intussusception surveillance in the preintroductory trainings for health care workers
- Include information about intussusceptions, including symptoms and heath care seeking behaviour, in the information materials on rotavirus vaccine for parents
- 6. Planning for monitoring and evaluation of rotavirus vaccine introduction
- Conduct, at least twice a year, supervision visits from national level to oblast/rayon/municipality level and from rayon/municipality level to health facility level
- Plan and implement pre- and post-introduction evaluations, with the support of "New Vaccine Introduction Checklist" and WHO "New Vaccine PIE Tool"
- Establish a pre- and post-introduction surveillance system for diarrhoeal diseases, in a couple of sentinel hospitals, for a determinate period of time
- Establish a pre- and post-introduction specific AEFI active surveillance to monitor intussusception in those two sentinel hospitals, using standard case definition

- 7. Training of health workers involved in vaccination
- Draft a training plan with strategy, number and type of healthcare workers to be trained, duration and content of training, materials to be developed, monitoring and evaluation
- Develop training courses and educational materials, including all required topics necessary for the rotavirus vaccine introduction
- Implement cascade training, from national level to oblast/rayon/municipality level and from rayon/municipality level to health facility level, with an initial training of trainers for national and oblast epidemiologists
- 8. Planning and conducting social mobilization, communications and advocacy
- Conduct a formative research to better understand knowledge and attitudes towards rotavirus vaccine among target populations and develop communication strategy tailored to target audiences needs
- Draft a specific-to-rotavirus advocacy, communication and social mobilization plan
- Develop appropriate education and information materials
- Implement advocacy, communication and social mobilization activitie
- Please complete the 'Detailed budget for VIG / Operational costs' template provided by Gavi and attach as a mandatory document in the Attachment section.

Detailed budget attached as Document No. 22.

Where Gavi support is not enough to cover the full needs, please describe other sources of funding and the expected amounts to be contributed, if available, to cover your full needs.

As the Government usually provides regular financial support to immunization, e.g. human resources, logistics, vaccine distribution, it will apply in the same way to rotavirus vaccine as for other routine vaccines. Also, several of the above-listed activities are integrated and implemented by RCI, in the loop of their routine activities, e.g. supervision, continuous training, monitoring, etc.

In the context of HSS Gavi support, several immunization components are also being strengthened, e.g. communication and social mobilization, trainings of medical workers, cold chain and vaccine management.

Finally, WHO and UNICEF should be able to provide technical assistance, as they usually do when introducing new vaccine.

Please complete the 'Detailed budget for VIG / Operational costs' template provided by Gavi and attach as a mandatory document in the Attachment section.

Detailed budget attached as Document No. 22.

Where Gavi support is not enough to cover the full needs, please describe other sources of funding and the expected amounts to be contributed, if available, to cover your full needs.

As the Government usually provides regular financial support to immunization, e.g. human resources, logistics, vaccine distribution, it will apply in the same way to rotavirus vaccine as for other routine vaccines. Also, several of the above-listed activities are integrated and implemented by RCI, in the loop of their routine activities, e.g. supervision, continuous training, monitoring, etc.

In the context of HSS Gavi support, several immunization components are also being strengthened, e.g. communication and social mobilization, trainings of medical workers, cold chain and vaccine management.

Finally, WHO and UNICEF should be able to provide technical assistance, as they usually do when introducing new vaccine.

#### 6.2.5.Integrated disease control

a) Please describe **any** existing interventions for **the** prevention and treatment of pneumonia and diarrhoea and the status of implementation.

The Government of Kyrgyzstan adopted and implemented National Health Reform Programme "Den Sooluk" for the period 2012 to 2016, extended up to 2018. "Den Sooluk" was aimed at ensuring universal coverage of population with high quality health, sanitation prevention services regardless of social status, gender differences and insurance status of the population.

The introduction of programmes that are evidence-based (basic prenatal care, integrated management of childhood illnesses, improve nutritional status, including fortification by homemade food complex of minerals and vitamins "Gulazyk", etc.), as well as support for all health care provided under the programme "Den Sooluk" were key factors contributing to the steady decline in infant and child mortality. In 2015 the mortality rate in children at the age less than 5 years was 19 per 1000 live births (MDG Target: 22). The infant mortality rate has decreased by 5.2%.

The proportion of infants less than 6 months of age that were exclusively breastfeed in 2015 was 41%. The proportion of children with diarrhoeas that received oral rehydration therapy/increased fluids significantly increased in the last decade and reached 67% in 2015.

b) Please provide any considerations for how vaccination could strengthen delivery and communication of additional health interventions. Please highlight any barriers that you may foresee with integrating vaccination with other health interventions.

The introduction of rotavirus vaccine will be used as an opportunity to improve coverage with other interventions that help to prevent diarrhoeas and reduce mortality due to diarrhoeas. The training materials for health care workers will contain information on comprehensive prevention and control of diarrhoeas, including use of low-osmolarity ORS and Zinc supplementation for treatment of diarrhoeas in children. The education materials for parents will contain information about an important role of exclusive breastfeeding, hand washing, adequate nutrition, and safe water and sanitation in prevention and control of diarrhoeal diseases that cannot be prevented by immunization.

#### 6.2.6. Technical assistance

Please describe any particular area(s) the Ministry would require technical assistance to support the introduction of RV1. Please consider the support in the context of developing and implementing an integrated approach to disease prevention and control.

Technical assistance will be provided by WHO and UNICEF, for the HSS and CCEOP grants implementation, which will encompass several components strengthening the immunization programme and therefore benefiting the rotavirus vaccine introduction.

The specific technical assistance for the rotavirus vaccine introduction itself will be requested from WHO and UNICEF in the following areas:

- NITAG evaluation and strengthening
- Provision of information for revision/development of immunization regulatory documents, guidelines and forms for inclusion of rotavirus vaccine specific information
- Provision of information for development of training materials
- Conduct of a formative research to better understand knowledge and attitudes towards rotavirus vaccine
- Provision of information for development of appropriate education and information materials
- Establishing a pre- and post-introduction surveillance system for diarrhoeal diseases (sentinel hospitals)
- Establishing a pre- and post-introduction specific AEFI active surveillance to monitor intussusception
- Rotavirus vaccine post introduction evaluation (PIE)
- Rotavirus vaccine forecast and procurement (UNICEF Supply)

# 7. NVS Preventive Campaigns

No NVS Prevention Campaign Support this year

# 8. NVS Follow-up Campaigns

No NVS Follow-up Campaign Support this year

#### 9. Procurement and Management

#### 9.1 Procurement and Management of New and Under-Used Vaccines Routine

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

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

Kyrgyzstan has been using for many years the opportunity of purchasing all childhood quality-assured vaccines (WHO prequalified) through UNICEF Procurement Services. The procurement and supply mechanism is regulated within the frame of the Memorandum of Understanding (MOU) 2012-2022 between the Government and UNICEF. RCI is currently in charge of the immunization procurement related activities. Every year, they make an estimation of needs (considering the vaccines stock balances), then the request for vaccines takes place in October to UNICEF Procurement Services, with 100% pre-payment (funds are allocated by Government in April; 5-7% financial buffer is deposed in RCI). Upon arrival of vaccines, RCI is in charge of customs clearance and transferring vaccines from the airport to the central cold store. Vaccine arrival report (VAR) is usually used.

The same procedure will apply to rotavirus vaccine procurement.

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

- A description of the mechanism and the vaccines or commodities to be procured by the country
- Assurance that vaccines will be procured from the WHO list of pre-qualified vaccines, indicating the specific vaccine from the list of pre-qualification. For the procurement of locally-produced vaccines directly from a manufacturer which may not have been prequalified by WHO, assurance should also be provided that the vaccines purchased comply with WHO's definition of quality vaccines, for which there are no unresolved quality problems reported to WHO, and for which compliance is assured by a fully functional National Regulatory Authority (NRA), as assessed by WHO in the countries where they are manufactured and where they are purchased.

No alternative mechanism for procurement and delivery of rotavirus vaccine will apply. The current system, through UNICEF Procurement Services, will remain in place (MOU until 2022).

c) If receiving direct financial support from Gavi (such as operational support for campaigns or VIG activities), please indicate how the funds should be transferred by Gavi.

Funds for the introduction of rotavirus vaccine will be transferred to Republican Centre for Immunoprophylaxis (RCI). The Deputy Minister of Health and the Head of RCI are responsible for utilization of GAVI grant funds.

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

The co-financing amounts will be transferred to the UNICEF Supply Division bank account by the Ministry of Health. The Deputy Minister of Health is responsible for transferal of funds

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

The funds allocated by GAVI in support for the rotavirus vaccine introduction will be transferred to the bank account of the Republican Centre for Immunoprophylaxis (RCI), and will be used for disbursement for the activities listed in the "Detailed activities and budget for VIG / Operational costs" provided as an attachment. The utilization of funds will have been discussed and agreed with the Inter-Agency Coordination Committee (ICC). The Deputy Minister of Health and the Head of the RCI will be responsible for the use of the GAVI funds. The Finance Department of the Ministry of Health will monitor the compliance with the national requirements placed to medical equipment procurement using the GAVI funds. The reports on GAVI funds

utilization will be discussed every year at the ICC meetings and submitted to GAVI together with an annual report

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

Monitoring the coverage of the rotavirus vaccine will be incorporated into the routine immunization coverage monitoring system. Immunization recording and reporting forms will be revised, printed and disseminated prior to the new vaccine introduction. The medical workers will monitor the number and proportion of infants that received 1st and 2nd doses of rotavirus vaccine and the drop-out rate. Number of infants received the 1st and 2nd doses of vaccine will be used a nominator and number of infants in the target population provided by the Ministry of Statistics will be used as denominator. Monthly reports will be submitted from health facility levels to the regional level. Aggregated regional reports will be submitted monthly to the National Immunization Centre (RCI). Final national annual reports will be submitted to the Ministry of Health, Ministry of Statistics and to WHO and UNICEF through the Joint Reporting Form.

A post introduction evaluation (PIE), as recommended by WHO, will be implemented 6-9 months after the introduction, to assess the overall implementation.

Other type of review and survey should they be planned by partners could also provide information about rotavirus vaccine coverage, e.g. EPI review, MICS or other assessment.

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

#### 9.2 Procurement and Management for NVS Preventive Campaign(s)

No NVS Prevention Campaign Support this year

#### 9.3 Product Licensure

For each of the vaccine(s) requested, please state whether manufacturer registration and/or national vaccine licensure will be needed in addition to WHO prequalification and, if so, describe the procedure and its duration. In addition, state whether the country accepts the Expedited Procedure for national registration of WHO-prequalified vaccines.

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

Concerning medicines and vaccines regulation and registration in Kyrgyzstan, the Department of Drug Provision and Medical Equipment (DDPME) of the MoH is in charge of registration of all pharmaceuticals. However, typical functions of the NRA for vaccines licensing and post-marketing surveillance are not yet in place and existing control laboratories don't have the required technical capacity to perform vaccine regulatory functions. Currently, not all vaccines are registered in the country and WHO prequalified vaccines imports are based on individual waivers issuance. The RCI team is in charge of the follow-up of the issuance of this waiver, with the support of UNICEF Country Office. No delay has been observed for that procedure.

The same regulation procedures will apply to rotavirus pregualified vaccine.

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

The rotavirus vaccine selected, Rotarix, is not licensed/registered in Kyrgyzstan.

WHO prequalified rotavirus vaccine imports will be based on individual waivers issuance. No delay has been observed for that procedure.

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

As mentioned above, Kyrgyzstan is purchasing all childhood quality-assured vaccines (WHO prequalified) through UNICEF Procurement Services. The procurement and supply mechanism is regulated within the frame of the Memorandum of Understanding (MOU) 2012-2022 between the Government and UNICEF.

No specific barriers and delays have been observed in recent times.

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

As mentioned above, typical functions of the NRA for vaccines licensing and post-marketing surveillance are not yet in place and existing control laboratories don't have the required technical capacity to perform vaccine regulatory functions.

As emphasized in the 2016 EPI review, the NRA in Kyrgyzstan should be strengthened to allow vaccine registration.

NRA points of contact: Kurmanov Rustam Abdykaiypovich, Director General of Department of Drug Provision and Medical Equipment, MoH

#### 9.4 Waste management

Countries must have a detailed waste management and monitoring plan as appropriate for their immunisation activities. This should include details on sufficient availability of waste management supplies (including safety boxes), the safe handling, storage, transportation and disposal of immunisation waste, as part of a healthcare waste management strategy. Please describe the country's waste management plan for immunisation activities (including campaigns).

The rotavirus vaccine selected for the introduction, Rotarix, is a liquid vaccine, in a single dose plastic tube presentation. Therefore, injection safety concerns do not apply to that vaccine.

Concerning waste management, the rotavirus vaccine will come in single dose, and therefore empty plastic tube, once vaccine administrated, could be trashed in regular healthcare waste bin. There is no need to put the empty vial in the safety box used for AD syringes.

However, as the rotavirus vaccine is a live attenuated vaccine, any plastic tube with remaining vaccine in it will have to be destroyed accordingly (incinerating, autoclaving).

#### 9.5 Procurement and Management for Follow up Campaign(s)

No NVS Follow-up Campaign Support this year

# 10. List of documents attached to this proposal

Table 1: Checklist of mandatory attachments

Document Number	Document	Section	File				
Endorsemer	Endorsements						
1	MoH Signature (or delegated authority) of Proposal	4.1.1	Подписи МЗ и Минфин КР.РDF File desc: Date/time: 08/09/2017 11:15:29 Size: 147 KB				
2	MoF Signature (or delegated authority) of Proposal	4.1.1	Подписи МЗ и Минфин КР.РDF File desc: Date/time: 08/09/2017 11:15:46 Size: 147 KB				
4	Terms of Reference for the Coordination Forum (ICC/HSCC or equivalent) including all sections outlined in Section 5.2 of the General Application Guidelines (Note: countries applying before May 2017 can submit their existing Terms of Reference)	4.1.2	Положение и функции МКК КР.docx File desc: Date/time: 08/09/2017 11:16:24 Size: 33 KB				
5	Minutes of Coordination Forum meeting endorsing Proposal	4.1.3	Протокол МКК (6 стр).png File desc: Date/time: 07/09/2017 10:31:02 Size: 309 KB				
6	Signatures of Coordination Forum members in Proposal	4.1.3	Подписи МКК.pdf File desc: Date/time: 08/09/2017 11:17:03 Size: 303 KB				
7	Minutes of the Coordination Forum meetings from the past 12 months before the proposal	4.1.3	Протокол МКК от 4.07.2017г.pdf File desc: Date/time: 08/09/2017 11:17:32 Size: 130 KB				
8	Role and functioning of the advisory group, description of plans to establish a NITAG	4.2.1	Положение НТГЭИ-ок2012.doc File desc: Date/time: 08/09/2017 11:18:07 Size: 75 KB				
31	Minutes of NITAG meeting with specific recommendations on the NVS introduction or campaign	4.2	Протокол НТГЭИ от 16.08.17г.docx File desc: Date/time: 08/09/2017 11:19:20 Size: 31 KB				
Planning, fir	nancing and vaccine management						
9	Comprehensive Multi Year Plan - cMYP	5.1	KGZ cMYP 2017-2021 Kyrgyzstan (Update21Feb2017) with Costing and Financing Section of 7Sep2017.pdf File desc: Date/time: 14/09/2017 07:40:28 Size: 4 MB				

10	cMYP Costing tool for financial analysis	5.1	<u>cMYP KGZ 2017-2021 Scenario</u> <u>A_07.09.17.xlsx</u> <b>File desc: Date/time:</b> 08/09/2017 11:21:41 <b>Size:</b> 3 MB
11	M&E and surveillance plan within the country's existing monitoring plan	5.1.4	<u>M&amp;E (миниторинг).docx</u> <b>File desc:</b> <b>Date/time</b> : 08/09/2017 11:23:27 <b>Size:</b> 13 KB
12	New vaccine introduction plan (NVIP), New Vaccine Introduction Checklist and Activity List & Timeline for routine vaccines or Plan of Action (PoA) for campaign vaccines	5.1,7.2.3	Kyrgyzstan Rotavirus Vaccine Introduction Plan 06 September.docx File desc: Date/time: 08/09/2017 11:24:54 Size: 414 KB
19	EVM report	9.3	EVM report KGZ.docx File desc: Date/time: 07/09/2017 10:37:15 Size: 2 MB
20	Improvement plan based on EVM	9.3	План ЭУВ по улучшению.pdf File desc: Date/time: 07/09/2017 12:15:15 Size: 49 KB
21	EVM improvement plan progress report	9.3	EVM improvement plan kyrgyzstan (статус выполнения плана ЭУВ) (1).xls File desc: Date/time: 07/09/2017 12:14:00 Size: 236 KB
22	Detailed budget template for VIG / Operational Costs	6.x,7.x.2,6.x.2,8.2.3	<u>Бюджет плана внедрения РВ (анг верс).xlsm</u> <b>File desc: Date/time:</b> 08/09/2017 11:24:10 <b>Size:</b> 2 MB
32	Data quality assessment (DQA) report	5.1.4	KGZ DQA Final Report July 2016.docx File desc: Date/time: 07/09/2017 09:52:46 Size: 1 MB

Table 2: Checklist of optional attachments

Document Number	Document	Section	File
3	MoE signature (or delegated authority) of HPV Proposal	4.1.1	No file loaded
14	Annual EPI Plan with 4 year forward view for measles and rubella		No file loaded

15 H	HPV Region/ Province profile	6.1.1	
	HPV Key Stakeholder Roles and Responsibilities	6.1.1,6.1.2	No file loaded
17 F	Evidence of commitment to fund purchase of RCV (in place of the first dose of MCV) / for use in the routine system	5.1.6, 6.1.7	No file loaded
18	Campaign target population documentation	8.x.1, 6.x.1	No file loaded
24 r	Risk assessment and consensus meeting report for Yellow Fever, including information required Section 5.3.2 in the General Guidelines on YF Risk Assessment process	5.1	No file loaded
	Post Introduction Evaluation report from any recent NVS introduction	5.1	No file loaded
26	List of areas/districts/regions and targets to be supported for meningitis A mini catch up campaigns		No file loaded
	National Measles (& Rubella) elimination plan if available		No file loaded
	A description of partner participation in preparing the application	4.1.3	No file loaded
30 s	For countries applying for measles/rubella support that are not yet financing the measles monovalent component of MCV1, ICC minutes committing to finance from 2018 onwards.		No file loaded
33	DQA improvement plan	5.1.4	No file loaded
34 F	Plan of Action for campaigns	8.1, 8.x.4	No file loaded

35	Other		cMYP KGZ 2017-2021 Basic Scenario 07.09.17.xlsx  File desc: Additional cMYP scenario (for doc number 10), primary scenario under doc number 10  Date/time: 13/09/2017 03:22:33  Size: 3 MB  KGZ Costing and Financing Section 07.09.17.docx  File desc: Supports submission under doc # 9  Date/time: 13/09/2017 03:22:44  Size: 1 MB  Kyrgyzstan Rotavirus Checklist and Activity List and Timeline 06 Sep.xlsx  File desc: Supports submission under doc # 12
36	Strategy for establishing or strengthening a national comprehensive approach to cervical		Date/time: 13/09/2017 03:22:54 Size: 49 KB  No file loaded
	cancer prevention and control		No file loaded
37	Evidence of self-financing MCV1	5.1.5	
38	For countries applying for measles/rubella support that are not yet financing the measles monovalent component of MCV1, a signed letter from the Minister of Health and the Minister of Finance committing to finance from 2018 onwards.		No file loaded
39	Epidemiological analysis/evidence	8.3.1	No file loaded
40	Post Campaign Coverage Survey report for MR catch-up applications	5.1.x	No file loaded
41	cMYP addendum on measles and rubella		No file loaded
42	Offline cofinancing calculator for this campaign	5.5, 8.2.3	No file loaded

### 11. Annexes

# **Annex 1 - NVS Routine Support**

# Annex 1.1 RV1, 1 dose/plastic tube, liquid

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

		2019	2020	2021
Number of vaccine doses	#			
Number of AD syringes	#			
Number of re-constitution syringes	#	0	0	0
Number of safety boxes	#			
Total value to be co-financed by the Country [1]	\$	80,476	123,841	181,546

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

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

		2019	2020	2021
Number of vaccine doses	#	0	0	0
Number of AD syringes	#	0	0	0
Number of re-constitution syringes	#	0	0	0
Number of safety boxes	#	0	0	0
Total value to be co-financed by Gavi	\$	386,017	493,860	613,100

# Table Annex 1.1 D: Estimated numbers for RV1, 1 dose/plastic tube, liquid, associated injection safety material and related co-financing budget (page 1)

		Formula		2019	
			Total	Government	Gavi
Α	Country co-finance	V	17.25 %		
В	Number of children to be vaccinated with the first dose	Table 5.2	82,606	14,251	68,355
С	Number of doses per child	Vaccine parameter (schedule)	2		
D	Number of doses needed	BxC	165,212	28,501	136,711
Ε	Estimated vaccine wastage factor	Table 5.2	1.05		
F	Number of doses needed including wastage	DxE	173,473	29,926	143,547
G	Vaccines buffer stock	Buffer on doses needed = (D - D of previous year) x 25% Buffer on wastages = ((F - D) - (F of previous year - D of previous year)) x 25%, = 0 if negative result G = [buffer on doses needed] + [buffer on wastages]	43,369	7,482	35,887
I	Total vaccine doses needed	Round up((F + G) / Vaccine package size) * Vaccine package size	217,500	37,522	179,978
7	Number of doses per vial	Vaccine parameter	1		
K	Number of AD syringes (+ 10% wastage) needed	(D + G) x 1.10	0	0	0
L	Reconstitution syringes (+ 10% wastage) needed	(I / J) x 1.10	0	0	0
М	Total of safety boxes (+ 10% of extra need) needed	(I / 100) x 1.11	0	0	0
N	Cost of vaccines needed	I x vaccine price per dose (g)	437,610	75,493	362,117
0	Cost of AD syringes needed	K x AD syringe price per unit (ca)	0	0	0
Р	Cost of reconstitution syringes needed	L x reconstitution price per unit (cr)	0	0	0
Q	Cost of safety boxes needed	M x safety box price per unit (cs)	0	0	0
R	Freight cost for vaccines needed	N x freight cost as of % of vaccines value (fv)	28,883	4,983	23,900
S	Freight cost for devices needed	(O+P+Q) x freight cost as % of devices value (fd)	0	0	0
Т	Total fund needed	(N+O+P+Q+R+S)	466,493	80,476	386,017
U	Total country co-financing	I x country co- financing per dose (cc)	80,475		
٧	Country co-financing % of Gavi supported proportion	U/T	17.25 %		

# Table Annex 1.1 D: Estimated numbers for RV1, 1 dose/plastic tube, liquid, associated injection safety material and related co-financing budget (page 2)

		Formula		2020	
			Total	Government	Gavi
Α	Country co-finance	V	20.05 %		
В	Number of children to be vaccinated with the first dose	Table 5.2	126,032	25,268	100,764
С	Number of doses per child	Vaccine parameter (schedule)	2		
D	Number of doses needed	BxC	252,064	50,536	201,528
Ε	Estimated vaccine wastage factor	Table 5.2	1.05		
F	Number of doses needed including wastage	D x E	264,668	53,063	211,605
G	Vaccines buffer stock	Buffer on doses needed = (D - D of previous year) x 25% Buffer on wastages = ((F - D) - (F of previous year - D of previous year)) x 25%, = 0 if negative result G = [buffer on doses needed] + [buffer on wastages]	22,799	4,571	18,228
I	Total vaccine doses needed	Round up((F + G) / Vaccine package size) * Vaccine package size	288,000	57,740	230,260
7	Number of doses per vial	Vaccine parameter	1		
K	Number of AD syringes (+ 10% wastage) needed	(D + G) x 1.10	0	0	0
L	Reconstitution syringes (+ 10% wastage) needed	(I / J) x 1.10	0	0	0
М	Total of safety boxes (+ 10% of extra need) needed	(I / 100) x 1.11	0	0	0
N	Cost of vaccines needed	I x vaccine price per dose (g)	579,456	116,173	463,283
0	Cost of AD syringes needed	K x AD syringe price per unit (ca)	0	0	0
Р	Cost of reconstitution syringes needed	L x reconstitution price per unit (cr)	0	0	0
Q	Cost of safety boxes needed	M x safety box price per unit (cs)	0	0	0
R	Freight cost for vaccines needed	N x freight cost as of % of vaccines value (fv)	38,245	7,668	30,577
S	Freight cost for devices needed	(O+P+Q) x freight cost as % of devices value (fd)	0	0	0
Т	Total fund needed	(N+O+P+Q+R+S)	617,701	123,841	493,860
U	Total country co-financing	I x country co- financing per dose (cc)	123,840		
٧	Country co-financing % of Gavi supported proportion	U/T	20.05 %		

# Table Annex 1.1 D: Estimated numbers for RV1, 1 dose/plastic tube, liquid, associated injection safety material and related co-financing budget (page 3)

		Formula		2021	
			Total	Government	Gavi
Α	Country co-finance	V	22.85 %		
В	Number of children to be vaccinated with the first dose	Table 5.2	165,788	37,876	127,912
С	Number of doses per child	Vaccine parameter (schedule)	2		
D	Number of doses needed	BxC	331,576	75,752	255,824
Ε	Estimated vaccine wastage factor	Table 5.2	1.05		
F	Number of doses needed including wastage	DxE	348,155	79,540	268,615
G	Vaccines buffer stock	Buffer on doses needed = (D - D of previous year) x 25% Buffer on wastages = ((F - D) - (F of previous year - D of previous year)) x 25%, = 0 if negative result G = [buffer on doses needed] + [buffer on wastages]	20,872	4,769	16,103
I	Total vaccine doses needed	Round up((F + G) / Vaccine package size) * Vaccine package size	370,500	84,645	285,855
7	Number of doses per vial	Vaccine parameter	1		
K	Number of AD syringes (+ 10% wastage) needed	(D + G) x 1.10	0	0	0
L	Reconstitution syringes (+ 10% wastage) needed	(I / J) x 1.10	0	0	0
М	Total of safety boxes (+ 10% of extra need) needed	(I / 100) x 1.11	0	0	0
N	Cost of vaccines needed	I x vaccine price per dose (g)	745,446	170,305	575,141
0	Cost of AD syringes needed	K x AD syringe price per unit (ca)	0	0	0
Р	Cost of reconstitution syringes needed	L x reconstitution price per unit (cr)	0	0	0
Ø	Cost of safety boxes needed	M x safety box price per unit (cs)	0	0	0
R	Freight cost for vaccines needed	N x freight cost as of % of vaccines value (fv)	49,200	11,241	37,959
S	Freight cost for devices needed	(O+P+Q) x freight cost as % of devices value (fd)	0	0	0
Т	Total fund needed	(N+O+P+Q+R+S)	794,646	181,546	613,100
U	Total country co-financing	I x country co- financing per dose (cc)	181,545		
V	Country co-financing % of Gavi supported proportion	U/T	22.85 %		

# **Annex 3 - NVS Preventive campaign(s)** No NVS Prevention Campaign Support this year Annex 4 **Table Annex 4A:Commodities costs**

Annex 2 - NVS Routine - Preferred Second Presentation

No NVS Routine - Preferred Second Presentation requested this year

### Estimated prices of supply are not disclosed

Vaccine	Presentation	2017	2018	2019	2020
RV1, 1 dose/plastic tube, liquid	1	2.012	2.012	2.012	2.012

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

### Table Annex 4B: Freight cost as percentage of value

Vaccine Antigen	Vaccine Type	2019	2020
RV1, 1 dose/plastic tube, liquid	ROTA	6.60 %	6.60 %

Vaccine Antigen	Vaccine Type	2021
RV1, 1 dose/plastic tube, liquid	ROTA	6.60 %

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

Vaccine	2019	2020
RV1, 1 dose/plastic tube, liquid	0.37	0.43
Vaccine	2021	
RV1, 1 dose/plastic tube, liquid	0.49	

# 12. Banking Form

In accordance with the decision on financial support made by the Gavi, the Government of Kyrgyzstan Republic hereby requests that a payment be made via electronic bank transfer as detailed below:							
Name of Institution (Account Holder):	Республиканский Центр иммунопрофилактики Министерства здравоохранения Кыргызской Республики						
Address:	Address: г. Бишкек, ул. Фрунзе 535						
City Country:	г.Бишкек, Кыргызстан						
Telephone no.:	0312323127	Fax no.:	0312323127				
	Currency of t	he bank account:	0				
For credit to:		!					
Bank account's title:	Лицевой счет (спец счет)						
Bank account no.:	4402011103008067						
Bank's name:							

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

By who is the account audited? 0

Signature of Government's authorizing official

	0	Seal
Name:		
Title:	0	
Signature:		
Date:	9/8/2017	

	FINANCIAL INSTITUTION	CORRESPONDENT BANK (In the United States)
Bank Name:	Центральное казначейство	0
Branch Name:	In favour Pervomayskiy Branch	0
Address:	77 Kievskaya Str	0
City Country:	Bishkek, Kyrgyzstan	0
Swift Code:	0	0
Sort Code:	0	0
ABA No.:	4402011103008067	0
Telephone No.:	0	0
FAX No.:	0	0

I certify that the account No 0 is held by 0 at this banking institution

The accoun	t is to be signed joint	ly by at least 0 (number of signatories) of the following authorized s	ignatories:
1	Name:	Gorin Vyacheslav	
	Title:	Deputy Minister	
2	Name:	Ishenapysova Gulbara	
	Title:	Head of Republican Centre of Immunoprophylaxis	
3	Name:	Asanova B.	
	Title:	Finicial Manager of Republican Centre of Immunoprophylaxis	
Name of hor	aldo outborision offici	-l	1
	nk's authorizing offici	aı	
0 Signature:			
Signature:			
Date:			9/8/2017
Seal:			,