1. **Brief Description of Process**

This Internal Appraisal was conducted for GAVI by independent technical expert Zaza Tsereteli, in close cooperation with GAVI CRO for the country Nilgun Aydogan, and is based on reports and documentation supplied to GAVI by the national authorities and institutions in the country for the year 2013. Detailed inputs and updates are provided by WHO EURO, and UNICEF Supply Division.

Immunisation decision support are drafted the dose calculations for 2015 for all NVS programs using the approved targets (numbers of infants & wastage). The number of doses to be allocated (and planned for shipment) for 2015 for pentavalent are based on the approved targets (2015) as well reported opening stocks (Jan 2014), shipment plan (2014) and target closing stocks (2015). Syringes and safety box calculations are derived from dose calculation. All this is done in consultation with the vaccine programme manager and (if there are any significant changes) the country, and are signed off by the CRO.

2. **Achievements and Constraints**

The country is meeting its EPI coverage plans, achieving 95% coverage for most of the vaccines. According to the APR vaccination coverage of children under 1 year old in 2013 for BCG was 98%, for DTP3 96.7%, and 96.9% for OPV3. In April 2013 country conducted the mass immunisation campaign for polio, in order to reach the children in remote villages and from the vulnerable groups. In total 14,721 persons were vaccinated during this campaign.

Despite the fairly high level of vaccination coverage at the national level, data from other sources, in particular DHS conducted in 2012 indicate the presence of "vulnerable" groups with limited access to immunisation. Those groups are mainly children of the migrant families and population in some of the regions, where lack of the medical staff is revealed. There is an increase of vaccination refusal due to the religious reasons and this is a growing concern for the MOH. The immunisation program is tracking the number of refusals to monitor the trend. In new GAVI health system strengthening (HSS) application building capacity to address communication needs and vaccine hesitancy is a major component.

No gender coverage discrepancies and gender –based barriers in immunisation were tracked or registered. It is planned to introduce new computerised system of data collection, which among other issues will produce a sex aggregated data. The country is working on the new HSS application which includes support for this objective.

Although there are no disaggregated data, there are national strategies exist, on how to tackle equity differences by geographic location and urban/rural, as per below:

- One of the strategic goals is the definition of the population living in remote areas, groups of "risk" and identifying the reasons for their non-vaccination. To do this, set up on the basis of the regional centres of family medicine, mobile vaccination teams are reaching people in remote regions of the country and attempts to ensure their orderly vaccination.
- Also applicable, experience of "visiting" vaccination teams to immunise school children and the risk groups (migrants, people of faith, etc.).
- Then within the framework of WHO's strategy to "reach every child", with the financial support of the GAVI HSS 1, were organized mobile teams in 20 of the most remote areas, which allowed for immunisation services and other types of medical care to access more than 200 villages located in remote mountainous areas. As a result, coverage with all kinds of vaccines at the national level has increased by 2.2-2.4%.
Finally European Immunisation Week (EIW) campaigns organised annually to improve the coverage among internal migrants located around Bishkek and other major cities of the country, people who are not registered in medical institutions.

According to the APR, The Kyrgyz Government has funded the purchase of 100% of traditional vaccines. Only Pentavalent is supported by GAVI. However, according to the table 5.5a - 91% of all vaccines for the routine immunisation were purchased with the financial support of the Project Hope (USA).

Country has a written plan to address all possible challenges. In addition to that, country had prepared an application to the GAVI health system strengthening, an important component of which is "Improving data collection system to ensure timeliness and reliability of the information on immunisation services."

3. Governance

According to the available document both the ICC and HSCC are operating in the country. Representatives from the CSOs are included in the both committees. The implementation of the GAVI programs are not always properly documented, and ICC that includes partners in the country meets "as needed" basis and not on a regular basis. Council on Health Policy as part of the MOH is considered too high-level body to deal with the GAVI activities.

Minutes from the meeting, where the APR for 2013 was adopted is available. The meeting took place on March 12, 2014. At the same time, the signatures for the approval of the APR were collected only in May.

The available minutes are describing in the details the discussion concerning the APR preparation and implementation of the activities supported by the GAVI.

4. Programme Management

Kyrgyzstan has developed a Multi-Year Plan for Immunisation 2011-2015. Pentavalent vaccine is introduced in 2009 and the country co-finances the vaccine since 2011. For 2012, the country requested to switch to 10 dose penta to make savings in co-financing and cold chain. After severe AEFI cases in 2012, the country switched back to one dose presentation as there were problems in implementing the open vial policy. The events also triggered a closer look into vaccine storage and management issues. Major improvements took place in 2013 and central cold room received upgrades. During the previous HSS project, the cold chain was strengthened with additional refrigerators, refrigerator trucks and construction/repair of cold store rooms. With additional support of JICA, the strengthening of the cold chain in the Southern part of Kyrgyzstan is now being completed.

The cMYP refers to the increase of storage when introducing new vaccines, a threefold increase when new vaccines – rotaviral, pneumococcal and pentavalent – are included in the program calendar. The country received an approval for PCV13 introduction in 2015 as planned (Decision letter pending). Accordingly, the capacity of the refrigerating equipment should be increased as well. It is also necessary to use specialised motor transport available in district/urban public healthcare organizations for vaccine transportation more rationally as well as acquire additional off-the-road vehicles for transporting vaccines to remote mountainous areas of the country. The new HSS application also focuses on improvements to cold chain throughout the country as well as building capacity of the workers for cold chain maintenance.

AEFIs in 2012 also revealed weaknesses among the health workers about dealing with adverse events as well as having appropriate communication skills when consulting and treating children and their parents. This issue also is to be addressed further under the new GAVI HSS application.
5. Programme Delivery

The last EVM assessment in Kyrgyzstan took place in October 2011. Among the main findings of the assessment was the fact that the overall level of compliance with the cold storage and transport capacity was low at oblasts and health facilities, and very low at central store. Buildings, equipment, and transport capacities were also described as a problematic.

A detailed plan for the EVM improvement activities was developed and important improvement activities have been implemented: Completed reconstruction of the premises of the national vaccine store. National vaccine store was renovated and expanded for both dry and cold chain storage. An additional 30m³ cold room was installed at the national store and five 10m³ cold rooms were installed at sub-national stores. Following 2012 AEFIs, additional training and supervision was implemented for all immunisation nurses, which allowed addressing programmatic errors; new vaccine stock management system implemented; temperature monitoring strengthened through implementation of electronic temperature monitoring devices, temperature monitoring studies and temperature mapping; EVM SOPs have adapted and implemented at each level of supply chain; cold chain equipment procured with JICA support and further needs assessment was conducted and integrated with HSS proposal.

Given plans of introduction of 2 new vaccines, it is planned to increase the capacity of vaccines storage from 111.8 cm³ to up to 213.4 cm³ (1.9 times) per fully immunised child (FIC) under the new GAVI HSS application, which includes an important cold chain strengthening component. The next EVM is planned for February 2015.

With support from WHO country works on reviewing and integrating its national policies on injection safety and health care waste management, involving other sectors and health programmes. Since low temperature burning is not allowed by the national environmental legislation, currently there is not an available and sustainable solution for disposing off immunisation sharp waste. The sharps management solution implemented for other disposable syringes, based on autoclaving and recycling separated plastic and needles, does not integrate immunisation syringes and needs to be further adapted to primary health care needs.

Introduction of pneumococcal vaccine in Kyrgyzstan is approved and scheduled for 2015.

6. Data Quality

In terms of coverage of the children under one year, there are no major discrepancies between the data presented between country data and WHO/UNICEF estimates.

In order to optimise the collection and recording of data on immunisation, analysis and transition to the next level, country piloted a software under the HSS. The project was financial supported by first GAVI HSS and was aiming to develop computerised information system on Immunisation (KISI). The system is facilitating to collect not only data on immunisation, but also on stock on vaccines and cold-chain equipment. Based on the outcomes of this pilot project, country is planning to develop a nationwide database. This is foreseen to solve the problem of registration of newborns. In 2013, country prepared an HSS application to the GAVI, an important component of which is “Improving data collection system to ensure timeliness and reliability of the information on immunisation services.” The application is under consideration in the GAVI Secretariat.

In 2012, Demographic and Health Survey (DHS) was performed in Kyrgyzstan, by the National Statistical Committe, MoH and ICF International (USA). According to the summary of findings, the coverage of DTP3 is 80.5 and OPV3 is 76.5 (n=736) based on health cards in the facilities. The DHS covered the children at the 18 months of age.

DHS 2012 indicates differentials in coverage by background characteristics of the child and the mother. Differences by sex and by birth order are not large, but there are marked variations by urban or rural residence and by region. The proportion of children who have received all the basic vaccinations is considerably higher in rural areas (78%) than in urban areas (67%). Children living in the Naryn, Djalal-Abad, Issyk-Kul, and Osh City regions are more likely to be fully immunised (87 to 91%) than children in other regions. Vaccination coverage falls below 70 percent among children in the Chui, Bishkek City, and Osh Oblast regions. Basic vaccination
coverage shows some tendency to decline as mother’s education and wealth quintile increase. It should be noted that the report could not make comparisons between new report and previous DHS report dated 1997. The data in 1997 was based only on health cards of children in the facilities, whereas the DHS2012 covers health cards as well as mothers’ reporting. However the report suggests there has been a decline in vaccine coverage. The report also indicates that there is more than 10% of drop out for both Penta and Polio vaccines.

7. Global Polio Eradication Initiative, if relevant

The polio immunisation is well integrated into the routine immunisation (RI) program. Country together with other countries from this region is certified as Polio free since the 2002. Given the risk of importation of “wild” poliovirus into Kyrgyzstan from the neighboring countries, in May 2013, Kyrgyzstan conducted two rounds of the local sub-national Immunisation Days against polio among children aged 0 to 5 years.

8. Health System Strengthening

End of first GAVI HSS implementation/ Lesson Learned:

The APR does not report on the HSS for 2013 as the activities under the proposal was completed. The country did submit a new GAVI HSS application which includes some lessons learned from the previous implementation. However there has been no end of grant evaluation or review upon completion of HSS to document lessons learnt.

Developed within the GAVI HSS, a financial incentives scheme for the health workers was aiming to increase the coverage and quality of health services at the primary care level by enhancing the motivation of health personnel. The basic principle of this mechanism was to accrue material incentives, the size of which depends on the achievement of health personnel performance on key indicators. However these financial incentives implemented for all providers of primary level in areas of the country with no clear criteria and indicators. In addition, the government increased the salaries of the health workers in threefold in past years, the incentives scheme by GAVI HSS became a redundant exercise with no real impact on job satisfaction of health personnel and coverage.

Quality and safety of immunisation, including AEFI surveillance, is a globally subject always more important in regards of management of possible adverse events. The experiences showed, if not properly detected, reported, investigated, managed and communicated, that AEFI could really damage a national programme of immunisation and the trust among the population.

During the previous HSS project, the cold chain was strengthened with additional refrigerators, vehicles for vaccines transportation and repair of cold store rooms. Major improvements took place in Kyrgyzstan for the cold chain in past years however, there are needs for transport, and improvements for the systems in the Northern parts of the country.

Currently, the data on immunisation, including vaccine supplies, is collected manually and the system is paper-based. This impacts the quality of data received at the central level and decisions that are based on the use of such data. Quality control of the accuracy and timeliness of data are difficult with such a system. A pilot software developed under the HSS and it is planned that new GAVI HSS funds would help to scale up the computerised system.

Summary of new GAVI HSS application

The National Health Reform Program (NHP) called Den Sooluk, covering the 2012-2016 period, is the 3rd sector strategy supporting a continuous track of reforms approved in 2013. Based on the burden of disease, four priority health improvement areas have been selected: (i) Cardiovascular diseases (CVDs), (ii) Mother and child health (MCH), Tuberculosis (TB), and HIV infection (HIV). Immunisation program is covered under the priority area of MCH. The GAVI HSS proposal is closely linked to the cMYP 2012-2016 and is needed for the implementation of the health systems related key strategic areas of the Plan.
There is a performance based programme that provides incentives to health care providers to deliver primary healthcare services, including immunisation, is the Results-Based Financing Project currently under the first pilot stage that includes only hospitals supported by SWAp funds (managed by the World Bank).

The overall objective of the new GAVI HSS application submitted in 2013 is to maintain the vaccination coverage of at least 95%, corresponding to the expected program result regarding immunisation coverage stated in the NHP. Based on the lesson learned in previous years on AEFIs, experiences in vaccine hesitancy and safety issues, and immunisation program needs and gaps including the cold chain and vaccine management needs, the new HSS focuses on specifically:

- Improving the infrastructure
- Increasing access to immunisation
- Ensuring quality and safety of immunisation services
- Increased efficiency of monitoring and management of data
- Increase knowledge and active involvement of the population in immunisation process

The GAVI HSS proposal will contribute to the target of immunisation outcome by securing a high acceptance for immunisation among the population in general as well as targeting underserved population groups with out-reach activities. Improved quality, proper identification and treatment of adverse reactions are expected to contribute to the public confidence for immunisation. Strengthening of the cold chain and the data collection, reporting and analysis will contribute to providing the necessary logistics and data for decision making.

The financing of the health sector from the government is estimated to USD 200 million per year and a total of USD 1 billion for 2013-2017. The health sector receives 13% of the total government budget. In addition, the donors are expected to contribute with USD 60 million for the same period. About 50% of the donor funds are channelled through the SWAp mechanism and the other 50% is expected to reduce the gap in financing the benefits package. Also an additional financing with no cost estimates are the donor-funded programs outside the SWAP mechanism. Currently the National Immunisation Program is mainly funded by the Government (2/3) and by GAVI (1/3). No other sources of funding are anymore available, WHO and UNICEF participating mainly with technical assistance.

It is planned that new GAVI HSS funds will be accumulated in a special account of the Ministry of Health, which exist at the Office of the Treasury serve as parallel financing to the existing SWAp. The Ministry of Health, in accordance with the action plan will be holding HSS funding. Funds will be managed according to standard budgetary procedures of the country. In line with forming and approving annual plans and budgets for Den Sooluk, the GAVI HSS Working Group will make a draft annual plan of work and budget. Procurements under the current Proposal will be included into the Annual Procurement Plan of the Den Sooluk Health Reform Program.

The new HSS application has been reviewed and IRC requested clarifications which the GAVI Secretariat closely working with the country to finalise. The clarifications included a request a stronger M&E Framework that is aligned with the national monitoring indicators for the NHP.

9. Use of non-HSS Cash Grants from GAVI

GAVI ISS funds are an additional source of funding for the program and cover a large part of the budget deficit.

GAVI funds allocated in 2013 were used to strengthen the program and improve its efficiency. The funds were used for the procurement of the cold chain equipment, for strengthening of the human resources, for the social mobilization campaign and for covering of travel expenses for mobile teams to improve access of the population in remote areas of the country.
It is difficult to say if the activities were being implemented to agreed schedule and budget, as no documents related to those activities are given.

According to the APR, total expenditures in 2013 were 212,088 US$. At the same time, according the financial records provided by the MoH, the costs in 2013 were 236,139 US$. There is a difference of 24,051 US$. As a result, there is also a difference in the sum reported as assigned for the year 2014. In APR, it is 368,487 US$ and in the financial records 333,029. Difference is 35,458 US$.

10. Financial Management

In 2013, GAVI have produced an external audit report. According to this report several problems were discovered in the management of the financial system in Health Care Sector. The accounting and financial reporting mostly done manually, as for the HSS funds it uses a combination of automatic and manual methods. As a result, the financial reports and audits are not given in time.

ISS incorporated into the National Health System budget. In order to use funds for the Republican Center, a separate special account is opened, which receives funds transferred from the GAVI. Financial reporting on the use of GAVI ISS issued and granted RCI’s auditors in accordance with the laws and regulations of the Kyrgyz Republic.

In March 2013, GAVI conducted an FMA and revisited to conclude the FMA and Aide Memoire. However Aide memoire is pending clarifications on HSS program management and budget execution issues. GAVI Secretariat is following up the issue with the country under the new GAVI HSS proposal clarification processes. The country signed the Partnership Framework Agreement (PFA).

11. NVS Targets

Penta vaccine

The target for penta1 in 2015 is 148,988 infants. This is 2% above the actual penta1 in 2013. The targets for drop out is 2% (in line with 2013), wastage rate is 5% which is the WHO indicative rate for the 5 dose vials. (Note that the APR refers to “Vaccine used” in Table 1.1 as the penta 10dose, which appears to be a typo, since all historical shipment reports show the penta 1ds vial being supplied.

For pentavalent it is recommended to check that the closing stock is actually zero, as the estimate for 2013 Dec 31st is 80,000 doses.

PCV13 vaccine

PCV 13 will be introduced in 2015 as per approval.

12. EPI Financing and Sustainability

Health system of the Kyrgyz Republic has three main sources of financing: (i) public, (ii) private and (iii) external financing. Public financing includes both republican and local budgets and payroll contribution to the Mandatory Health Insurance Fund (MHIF). Private funds include household out-of-pocket payments directly at the facility. External financing represents funds provided by international donors through parallel financing or budget support. From the national budget, funds flow to the Ministry of Health, the MHIF and other ministries and agencies. The Ministry of Health finances tertiary care facilities and the public health services and institutions. The MHIF accumulates funds at the state level, including revenues from the mandatory health insurance system and the Social Fund, and distributes them to the regions to finance provision of the benefits package in health facilities at the primary and secondary level.

Kyrgyzstan is a low income country. The government finances all traditional vaccines. However the country receives support from UNICEF, and Project Hope and other possible donors for
campaigns, emergencies and individual program costs. These are not properly documented in the APR. According to the APR, Kyrgyz Government aims to move towards financial sustainability of immunisation programs. In order to ensure financial stability has been increasing the proportion of the budget for the purchase of vaccines and injection equipment as part of the national calendar of preventive vaccinations. As indicated, there is a shortage of funds to cover the cost of the individual components of the program.

In 2013, the government did not pay all its co-financing requirements and was in default in the early 2014 which impacted in approval of the PCV13 application and fund allocation. The country has paid the 2013 co-financing requirements by April 2014. It has been explained that the country had to procure additional polio vaccine for the SIAs which resulted in shortfall in Pentavalent payments.

13. Renewal Recommendations

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<th>Recommendation</th>
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<td>NVS</td>
<td>Penta vaccine</td>
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<td>Approve 2015 NVS support based on country request target</td>
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14. Other Recommended Actions

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<td>Program management</td>
<td>Need for detailed analysis on vaccine refusals in order to prepare a comprehensive plan for communication strategy</td>
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<td>Capacity building for improved implementation of open vial policy.</td>
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<tr>
<td>EPI financing</td>
<td>There is a need to build capacity on program planning and management to analyse financial needs and gaps.</td>
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<td>Financial management</td>
<td>Budget execution and program management issues to be clarified and finalized for the new HSS proposal to conclude the aide memoire.</td>
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<td>For previous HSS records</td>
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<td>Country to fill out APR HSS table.</td>
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<td>Country to revise application of exchange rates in APR for expenditure and closing balance to reflect consistency between FS and APR. Currently the expenditure in APR is US$ 212,088, in FS – US$ 236,139. The closing balance in APR is US$ 368,487 and in FS – US$ 333,029. At the end of year rate of 1 USD = 54 SOM, the ending balance of SOM 16,151,915 should equal approximately US$ 299,110.</td>
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