

1. Brief Description of Process

This Internal Appraisal was conducted for GAVI by independent technical expert Deborah McSmith, in close cooperation and with substantive inputs by 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. Feedback and updates provided for the report by WHO EURO, WHO country office, UNICEF Supply Division.

Immunisation decision support team is 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 the programmes 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

Coverage across vaccines was very high and wastage rates were well within recommended rates. Although the DTP-HepB-Hib wastage rate was well above the ambitious target rate of 5. The country expressed an interest for having 2 presentation of Pentavalent vaccine to better manage the wastage based on population and geographical disparities. This issue was briefly discussed during GAVI visit in May 2014. There are differences between national coverage rates and subnational rates due to longstanding challenges with some low performing districts. Uzbekistan aims to maintain national coverage at 95% and sub national coverage at 90%.

Sex-disaggregated data on DTP3 coverage collected in 2013 indicates DTP3 coverage estimates of 45% for both and 55% for girls. No information is provided as to how this data will be used for future planning.

3. Governance

Uzbekistan's ICC is chaired by the Deputy Minister of Health. Membership includes state health authorities and WHO and UNICEF; there are no CSO members. The main ICC functions are to coordinate all issues related to immunisation and vaccine-preventable diseases; coordinate and facilitate the National Immunisation Programme (NIP) implementation; strengthen NIP management; review the national EPI policy and strategies; foster partnerships in the immunisation field; and mobilise resources. The ICC approved the formation of a NITAG, which is headed by the Head of Department of Pediatrics and Infectious Diseases.

The ICC met 4 times (quarterly) in 2013. Meeting minutes were included with APR submission. The ICC includes representatives from provincial (Oblast) and district (rayon) levels.

4. Programme Management

Since 1999, Uzbekistan has maintained universal national coverage of DTP3. The post introduction evaluation (PIE) for Pentavalent vaccine conducted in November 2011 (combined with a Rotavirus pre-introduction evaluation) reported that the introduction of Penta went smoothly and the vaccine was well accepted by the population. Rotavirus introduction took place in mid-June 2014, and the RV PIE is tentatively planned for October 2014.

The last EVM assessment conducted in May 2012 indicates effective vaccine management practices. All Oblast and Rayon stores exceeded the 80% satisfactory level for all 9 criteria while health centers exceeded the 80% satisfactory level for 8/9 criteria (building equipment and transport 73%). However, the vaccine management at the central store was less effective with only 3/9 criteria above the 80% of the satisfactory level. Criteria to be improved upon included:

temperature monitoring, buildings, cold chain equipment and transport systems, maintenance, stock management, distribution, and MIS, supportive management functions. Country reports some changes in the improvement plan and reports on improvement activity progress. Additional, substantial progress made in 2014 is not reflected in the 2013 APR. The next EVM assessment is planned for May 2015.

According to the 2012 APR, Uzbekistan is a member of Invasive Bacterial Disease (IBD) surveillance network, and sentinel surveillance started in Q4 2011. Surveillance is conducted for RV with studies on RV diarrhoea, and for paediatric bacterial meningitis. Sentinel RV surveillance as part of the European Network re-established from January 2014. These studies are used to evaluate impact of vaccine introduction. The NITAG uses surveillance for decision making.

Uzbekistan seems to have an adequate AEFI system in place, including the national vaccine safety plan, dedicated capacity for vaccine pharmacovigilance and AEFI expert review committee.

Within the EPI program, the EPI manager is responsible for forecasting. A forecasting tool is in place. Forecasting is based on the demand and not on history. Wastage and available stock on oblast level is included in each forecast. Once a month, all oblasts report available stock to the Republican Center for State Sanitary Epidemiological Surveillance (RCSSES). The definitive forecast is finalised and authorised before December.

5. Programme Delivery

All committed GAVI vaccine doses were received on time. No stock outs were reported for 2013. Coverage is high across vaccines. Overall, GAVI supported activities appear to be implemented according to schedule and budget. Country has outlined the following priority areas and actions for 2014/15:

- Financial sustainability for immunisation program
- Elimination of measles and rubella
- Introductions of rota virus (2014), PCV13 (Q1 2015) and HPV (Q3 2015)
- IPV introduction application
- National immunisation safety policy implementation
- Eradication (RCC) concluded that Uzbekistan remains at risk for the importation of wild polioviruses, and that the risk appears to be growing.

THE EVM improvements are being implemented. Although much of the activities were partially done in 2013, activities such as improvement of dry storage, preventive maintenance plan preparation for central stores (cold chain equipment, buildings), repair of cooling units for the central storage, and increasing the capacity of the central cold room by adding a new cold room are completed. The new GAVI HSS funding, approved in April 2014, includes major modernisation plans to the cold chain capacity throughout the system. The HSS investment will also contribute to the vaccine transport to the provinces in which the vaccines are sent by road rather than air.

6. Data Quality

No assessments of administrative data systems have been conducted from 2012 to the present. Obtaining quality data on major indicators can be challenging. The new HSS investment focuses on data quality and improvement in the data systems. The new HSS will also be used for conducting coverage surveys.

7. Global Polio Eradication Initiative, if relevant

Polio immunisation is well integrated into the routine immunisation (RI) program as there has not been a separate polio program or resources in the country. This is inherited from the Soviet era and is similar to other countries of the region. Therefore integration of polio program to RI has

not been an issue to address. Country together with other countries from this region is certified as Polio free since 2002.

Routine immunisation delivery is part of the routine services delivery administered through the network of 5,000 health sites. A wild polio virus outbreak in Tajikistan in April 2010 served as a trigger for Uzbekistan to mobilise resources for OPV activities. Since then the country implemented SIAs for polio regularly every year. In 2013 there have been SIAs for the border areas using OPV donations from Russia. The country is planning to introduce IPV in 2015. An application to GAVI as part of the polio end game strategy is expected in September 2014.

8. Health System Strengthening

Uzbekistan is not reporting on HSS funds utilization in 2013. The country applied for GAVI HSS and has been approved. This funding is pending the finalisation of FMA report (for an FMA conducted in May, 2014) and subsequent Aide Memoire.

The HSS proposal focuses on priority areas for the sustainability of the immunisation program. These are:

- Increase performance and sustainability of immunisation services
- Improve management of PHC services
- Increase demand for preventive and MCH services
- Strengthen data collection and reporting for MCH services

9. Use of non-HSS Cash Grants from GAVI

Uzbekistan does not have any ISS funding. As the country never received direct cash support from GAVI there were no audit or bank statements required from Uzbekistan. The country signed the GAVI PFA in April 2014.

Previously, the country received Pentavalent grant via UNICEF which UNICEF reported on. The country received the rota virus introduction grant in 2014, which has been channelled via WHO.

The introduction grant for Rotavirus vaccine was channelled via WHO in 2014 as per country's request and Uzbekistan is expected to report on the utilisation of it in the next reporting cycle. For 2013, the two finance partners for immunisations were Government of Uzbekistan and GAVI. Country is to be congratulated for having reached graduating country status and for a strong co-financing performance, starting with Pentavalent vaccine in 2009. Although it defaulted in 2009, in 2012 it co-financed higher amounts than the minimum required.

10. Financial Management

Uzbekistan had only vaccine introduction grants to-date which were transferred through GAVI partners.

Upon approval of new HSS funding, a financial management assessment conducted in May 2014. The FMA findings and report are pending which will be communicated to the country as soon as it is finalised.

11. NVS Targets

Pentavalent

Country has achieved consistently high national and sub-national coverage rates since 2009, although national rates are higher overall due to some low performing districts. Targets for 2014 and 2015 seem appropriate, and historical coverage evidence suggests that they will be met.

During the country visit in May 2014, the country indicated their desire to utilise both 1dose penta and 10dose penta (mixed presentations) vaccines if GAVI makes such an option available for the countries. It is possible to reduce the wastage rate with the mixed presentations for pentavalent vaccine and maintain coverage. This will need review within Vaccine Implementation and further

discussion with GAVI partners. It would also require a review of country chain for feasibility to implement. It may also require further training of staff to ensure management and administration of mixed presentations in the system. There is a typo in the target for 2015 3rd dose penta which is higher than the 1st dose.

It should be noted the mixed presentation will have impact on dose calculated since the wastage rates will be different and GAVI has not implemented this option historically.

Rota Virus

The country did not report on Rota vaccine as the vaccine was introduced on June 16, 2014.

12. EPI Financing and Sustainability

Since 2007 MOH has procured all traditional vaccines (DPT, OPV, HepB and MMR), and Government indicates commitment toward a gradual increase in vaccine co-financing levels with GAVI in 2014 and 2015. Support from GAVI for new and under-used vaccines and injection supplies is reported in the National Health Sector budget. There is a separate budget line for vaccines within the MoH, so that financial resources are clearly earmarked. .

Immunisation services are delivered in 5000 health facilities throughout Country. The immunisation program is managed by State Surveillance Department of the Ministry of Health and the NIP Manager is a Deputy Head of the Department. Planning, procurements and distribution of immunisation supplies, including vaccines, are managed by RCSSES (Republican Center for State Sanitary and Epidemiological Surveillance), which has a network in all provincial and district centers. The epidemiologists employed at the branches of RCSSES are acting as provincial and district EPI managers, respectively. The EPI program appears to be well rooted in all levels of the health care system.

According to the cMYP for 2011-2015, Uzbekistan has taken a gradual, step-by-step approach to structural reforms, cautiously introducing features of an open-market economy. The Government hopes to ensure that high economic growth is sustainable, in the range of 8 to 10 % per annum through the year 2020. Although the short-term outlook appears positive, further major reforms will be necessary to stimulate additional private sector development, including deepening liberalization of trade and exchange systems and modernizing the financial sector.

Public spending on health accounts for about 8-9% of overall government spending over the past several years (WHO, National Health Accounts). Government spending has grown steadily, and so has public spending on health. Expressed in terms of US\$ per capita, public spending on health has grown from \$13 per capita in 2005 to \$56 per capita in 2013. EPI vaccines, including GAVI co-financing requirements for pentavalent vaccine, have averaged an estimated 0.2% of overall public spending on health in Uzbekistan in from 2010 to 2013. This is expected to grow steadily over the period 2013 to 2020, reaching just over 0.9% by 2020.

Uzbekistan has a budget line for EPI vaccines. Financing for traditional vaccines, syringes, human resources, and other recurrent costs at all levels of the immunisation program comes from the republican (national) and local (subnational) budgets. All traditional and underused vaccines included in the national EPI schedule are centrally purchased since 2012. The non-vaccine costs of the National Immunisation Program in Uzbekistan are financed mainly by the Sub-national Government. This includes salaries, transportation and other recurrent costs. Government purchases of non-EPI vaccines are not included in the national budget. In 2013, the budget for non-EPI vaccines represented about 15% of the budget for EPI vaccines.

As Uzbekistan was to enter graduation, the country moved quickly to take advantage of its last opportunity to access GAVI support by applying for funding support for pneumococcal and HPV vaccines and Health System Strengthening cash support in 2013. The introduction of the new vaccines, along with the already approved Rotavirus vaccine, will yield important health and economic benefits for the country. These vaccine introductions will require new resource mobilization, in the first instance, to cover GAVI's co-financing requirements. Co-financing will increase steadily as GAVI support is phased out so that by 2020, Uzbekistan will be able to fully cover all vaccines.

It will also require investments in training, logistics, and other areas to deliver the vaccines and monitor their impact. Given Uzbekistan's projected economic growth and political commitment to health and to immunisation, the budgetary room could be readily created by the Government.

A graduation assessment was conducted in September 2013 by GAVI and partners. Below is the summary of findings and recommendations. The graduation plan has been agreed with the country. As per November 2013, GAVI board decision the plan will need to be re-visited and costed in line with the revised GAVI graduation policy.

The recommendations below have been provided by GAVI as part of the graduation assessment to ensure financial sustainability of Uzbekistan's immunisation program.

Immunisation financing

- Keep immunisation agenda high on the development agenda
- Empower NITAG to strengthen advocacy efforts
- Conduct regular updates of vaccine resource requirements
- Effectively communicate resource requirements in the MOH budget and Mid-Term Expenditure Framework (MTEF) processes
- Consider centralizing procurement of safe injection supplies to ensure adequate supply and efficiency gains
- Advocate for timely release of funds by the MoF (understanding importance of uninterrupted supply of vaccine for prevention)
- Maximize contribution of HSS support to immunisation outcomes by filling funding gaps for operational activities of the program (training, supervision, surveillance, upgrade of cold chain and logistics infrastructure)

Vaccine procurement

- Improve understanding of UNICEF's procurement process through increased collaboration, in order to better align and streamline required in-country procedures
- Continue safeguarding procurement through UNICEF by communicating its positive impact on the program
- Consider centralizing procurement of safe injection supplies to benefit from WHO's policy on bundling of vaccines and supplies (i.e., potential cost savings, reduction of risk of unsafe injection practices and advocate for technology investment to produce AD syringes locally, to improve injection safety)
- Advocate for the necessity of a buffer stock for vaccines (minimum 25% required)

Quality assurance/NRA Capacity

- Quality Assurance should not be a barrier to the immunisation program, but a supportive function
 - Align national legislation to benefit from expedited review of imported WHO prequalified vaccines
 - Eliminate fees for regulatory services for publicly procured vaccines
 - Encourage registration of additional manufacturers with WHO-prequalified vaccines
 - Prioritise registration of vaccines to be used in the routine immunisation
 - Develop training plan for staff to improve quality of regulatory functions

13. Renewal Recommendations

Uzbekistan is to be congratulated for an immunisation programme with consistently high national and sub- coverage rates, and Government commitment for financing routine programme operations and meeting GAVI co-financing obligations.

Topic	Recommendation
New Vaccines	Renewal without a change in presentation for 2 vaccines: DTP-HepB-Hib, and Rotavirus PCV13 (Decision Letter pending) and HPV are already approved introductions planned for 2015. GAVI will make adjustments to doses based on stocks and introduction dates.

14. Other Recommended Actions

Topic	Action Point	Responsible	Timeline
<i>Program Management</i>	The Government is encouraged to engage civil society partners in ICC leadership and oversight.		
<i>Program delivery and cold chain</i>	In light of the new vaccine introductions the country needs to ensure that EVM improvements and logistics improvements indicated in new HSS are implemented in timely fashion.		
<i>Sustainability and Graduation</i>	A graduation assessment was conducted in September 2013 by GAVI and partners. Below is the summary of findings and recommendations. The graduation plan has been agreed with the country. As per November 2013, GAVI board decision the plan will need to be re-visited and costed in line with the revised GAVI graduation policy.		