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UZBEKISTAN COUNTRY STUDY REPORT

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ACRONYMS AND ABBREVIATIONS

ADB	Asian Development Bank
AD	Auto-disable
APR	Annual Progress Report
BCG	Bacille-Calmette-Guerin vaccination
cMYP	comprehensive Multi-Year Plan
CSO	Civil Society Organisation
DTP	Diphtheria Tetanus and Pertussis
FMA	Financial Management Assessment
GDP	Gross Domestic Product
GoU	Government of Uzbekistan
HBV	Hepatitis B Vaccine
Hib	<i>Haemophilus influenzae</i> type b (Hib-containing vaccine)
HSS	Health System Strengthening
ICC	Inter-agency Coordination Committee
INS	Injection Safety Support
ISS	Immunisation Services Support
JICA	Japan International Cooperation Agency
MoF	Ministry of Finance
MoH	Ministry of Health
NIP	National Immunisation Program
NVS	New and underused Vaccines Support
PPP	Public Private Partnership
SG	Strategic Goal
TICA	Turkish Cooperation Agency
UNICEF	United Nations Children's Fund
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development
WHO	World Health Organization

EXECUTIVE SUMMARY

This is the executive summary of the Country Evaluation Report for Uzbekistan, undertaken as a part of the GAVI second evaluation. The report has been prepared by CEPA, in partnership with the country consultant, EPOS Health Consultants.

The report provides contextual information on Uzbekistan, in terms of its health and immunisation sector and assesses the results and value add of GAVI programs in the country. The key conclusions are based on evidence gathered during a field visit to Uzbekistan between 15th and 19th June 2010 and desk research.

Uzbekistan has a relatively strong health and immunisation system, as compared to many other GAVI recipient countries. This is reflected, among other indicators, by the consistently high coverage rates – in excess of 95% for most child vaccinations.

The country has applied to GAVI for funding support for vaccines through its New and underused Vaccines Support (NVS) program as well as for Auto-disable (AD) syringes / safety boxes through the Injection Safety Support (INS) program.

The following are our overall judgements on the performance of GAVI across the four Strategic Goals (SGs), as well as areas where it has added value, based on country stakeholder feedback.

Health Systems Strengthening (HSS) (SG1)

Uzbekistan has received support for INS between 2002-05. While AD syringes were well received during the GAVI INS support period, Uzbekistan has not continued their use in routine immunisation. Instead, Uzbekistan uses disposable / one-time use syringes for routine immunisation (this is the case in the broader health sector as well), the purchase of which is fully funded by the Government of Uzbekistan (GoU). Consultees informed us that this choice was primarily driven by the lower price of these syringes as compared to ADs, and the fact that they are produced locally. Safety boxes are, however, being used in routine immunisation, following their introduction through GAVI INS support.

GAVI INS support has however added value by leading to an overall increase in awareness on safety and changes in attitude / working practices among medical staff. As a result, there has been a significant reduction in problems associated with re-use of syringes, pointing towards a system-wide improvement in the correct use / safety of injections. In 2001 the government decreed safe injection use across the health system, however it was suggested that the actual implementation of this decree into practice was critically supported by the advent of GAVI INS support.

Uzbekistan has not applied for other SG1-related programs:

- Given the wider focus of HSS (beyond immunisation), there is no ownership of the program amongst the government, due to the 'silo structure' of the Ministry of

Health (MoH). The Financial Management Assessment (FMA) requirement and difficulty in using cash grants in Uzbekistan have also served as deterrent factors.

- With high coverage rates of greater than 95% in Uzbekistan, there are limited incentives to apply for Immunisation Services Support (ISS) support. There was also limited awareness of the program.
- The lack of involvement of Civil Society Organisations (CSOs) in the immunisation sector has implied no demand for this support from the country.

Vaccine Support (SG2)

Stakeholders agreed that GAVI support has facilitated the introduction and uptake of the Hepatitis B vaccine (HBV) and pentavalent vaccine. To date, there has been a stable supply of vaccines supported by GAVI.

An area of value add, as we understand, is that GAVI's support has helped increase the bargaining power of MoH with the Ministry of Finance (MoF) – the MoH can use the 'visible' positive results of vaccine support to negotiate ongoing government financial support for the vaccine. Nevertheless, there is unanimous agreement that the pentavalent vaccine is currently far too expensive for government to procure without GAVI support.

It has also been noted that the introductions of new vaccines have not been associated with any undue burden on country health / immunisation systems. In fact, they have been seen as supporting the sustainability of a government run system to train nursing staff at polyclinics to become certified vaccinators and have resulted in a useful comprehensive review of the cold chain and related facilities, and upgrading of refrigeration equipment where this was necessary.

Country stakeholders suggested that it would have been useful to have had more guidance and technical support in the transition from GAVI supported procurement to that being undertaken solely by the government.

Financing (SG3)

A number of stakeholders supported GAVI's policy of empowering the government to take over the financing of vaccinations over time through the co-financing mechanism. However consultees also noted that the uncertainty around the level of co-financing that will be required from GAVI for the continuation of the pentavalent vaccine program was making national planning difficult, and that it was essential for the price of the pentavalent vaccine to start to decrease significantly if it was to become affordable to the local government.

Added value as a global Public Private Partnership (PPP) (SG4)

The application form and procedure was regarded as suitable, and the timelines for approval and disbursement of funding (i.e. delivery of vaccines and injection safety material in the case of Uzbekistan) were regarded as efficient. However, the frequency of changes made to the Annual Progress Report (APR) format by GAVI has not been helpful.

Government stakeholders valued the support provided by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF). The in-country partners continue to be happy to provide technical support as required, although it was noted that the language issue has meant that the technical partners spend a considerable amount of time translating documents between GAVI and the relevant government departments, which is not considered the best use of their time and resources.

Finally, the absence of either a GAVI representative in the country or even the region, and the lack of visits from the GAVI Secretariat / decision makers was a universally acknowledged challenge. In particular it was suggested that GAVI could play a very important role in advocating to the central government and MoF in particular for both: (i) increased budget allocations for both routine and new vaccinations; and (ii) priority access to foreign currency by the MoH for purchasing relevant equipment and vaccines, and for co-financing the GAVI program on the pentavalent vaccine.

1. INTRODUCTION

1.1. Background and purpose

This Country Evaluation Report for Uzbekistan has been developed as part of the Second Evaluation of the GAVI Alliance. The report is prepared by CEPA¹ in partnership with the country consultant, EPOS Health Consultants.

The purpose of the report is to provide an evaluation of the results and value add of GAVI in Uzbekistan, drawing on country stakeholder perspectives.

1.2. Methodology

This report has been informed by the following sources of evidence:

- A review of the relevant literature / country reports, including academic papers, country health plans and reports and GAVI documentation. A complete bibliography is provided in Annex 1.
- Analysis of country level data on health and immunisation. Data sources and further background information are provided in Annex 2.
- Interviews with relevant country stakeholders during a field trip to Uzbekistan in the week of 14th June 2010. A full list of individuals consulted is provided in Annex 3.

1.3. Structure of the report

The report is structured as follows:

- Section 2 provides some background in terms of an overview of the key political and economic developments, and the health sector in the country.
- Section 3 synthesises the history and current state of the country's immunisation sector.
- Section 4 provides an overview of GAVI support to Uzbekistan to date.
- Section 5 provides an assessment of GAVI's support for health systems strengthening programs in the country (SG1).²
- Section 6 assesses GAVI's support for vaccines in country (SG2).
- Section 7 discusses the sustainability of GAVI funding in Uzbekistan (SG3).

¹ A Consortium led by CEPA (www.cepa.co.uk) has been appointed by the GAVI Alliance to undertake its second evaluation.

² SG1 programs cover ISS, INS, CSO, and HSS.

- Section 8 reviews the effectiveness of GAVI structures and processes in country (SG4).
- Section 9 presents a summary evaluation of GAVI's results and value added in Uzbekistan across the programs.

2. OVERVIEW OF COUNTRY CONTEXT

2.1. Background: demographic, social and economic profile

Located in Central Asia, Uzbekistan has a population of 27.3m and a population growth rate of about 17% (2008).³ The population density is close to 55.4 persons per square kilometre, with a mixture of densely and sparsely populated areas. The majority of the population continues to be based in rural areas.

Uzbekistan's per capita Gross Domestic Product (GDP) at purchasing power parity is estimated at \$2,394 in 2007.⁴ Rapid economic reforms have enabled Uzbekistan's economy to achieve an annual GDP growth rate of 9% in 2008 (from an average of 4% during the early years of the decade), with the rate of inflation at 7.8%.⁵ While the economy is in a state of transition to a more market-based system, a wide range of economic activity remains state controlled. The progress of transition is represented by a series of macroeconomic, structural and institutional reforms. In 2007, the poverty rate was estimated at 23.6%, with urban and rural poverty rates at 17.6% and 27.1%, respectively.⁶ The Human Potential Development Index stands at 0.756 (2004) showing steady improvement since the 1990s, and life expectancy at birth is 72.5 years (2004).⁷

2.2. Background to the health sector

2.2.1. Structure of the health sector

The key healthcare institutions in the country are in the public sector. The private sector is not well represented, and there are no local NGO providers of healthcare. According to the Concept on Health System Reforms (1998-2005) and MoH Order No. 587 (December 29, 2007), the following institutions constitute the health sector:

- *Institutions providing free-of-charge primary healthcare services.* These include Rural Doctors' Posts (RDPs), municipal outpatient institutions, republican and provincial centers, district and municipal emergency medical assistance departments, child and obstetrics institutions, maternity complexes, infectious disease, tuberculosis, oncology, psychiatric, drug addiction rehabilitation, and endocrinology facilities.
- *Institutions providing medical assistance financed through a mix of user fees and public sector subsidies.* These include general inpatient hospitals, specialised hospitals and government agency outpatient-polyclinic institutions and hospitals.

³ Source: *Analysis of situation in Health System of the Republic of Uzbekistan. GTZ. –Tashkent, 2009*

⁴ World Bank, 2008.

⁵ State Statistics Committee of the Republic of Uzbekistan (2009)

⁶ UNDP, 2010.

⁷ MoH, Republic of Uzbekistan (2008)

- *Institutions providing medical assistance primarily on a user-fee basis:* These include dental clinics and private healthcare institutions.

2.2.2 Health sector policy and financing

Health system reforms in Uzbekistan were started with the President’s decree “On State program for reforming system of public health services” (10 November 1998). Annex 2 (section A2.2) provides further details on the key focus areas in the decree. The resulting national model of public health services system promotes provision of better essential health services and improvements in the standard of living of the population.

Reforms are undertaken within the framework of the State Program on Health Reforms and special annual social programs (2003-10) such as “Rural Areas Infrastructure Development”, “Healthy Generation Year”, “Mother and Child Year” etc. A program on staged reconstruction and capital repairs of health facilities’ equipment has been approved for the period 2008-12.

Expenditure and financing

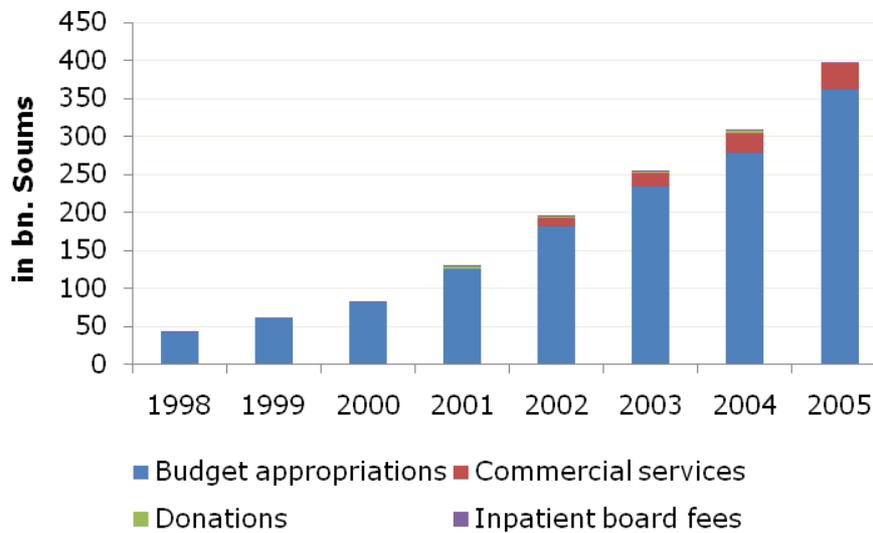
The total health expenditure in Uzbekistan in 2005 was 393.3 bn. soums⁸ (or around \$247m), which constituted around 3% of the GDP. Total healthcare expenditure has grown at an average annual growth rate of 37% (in nominal terms) during the period 1998 to 2005, while the total health expenditure as a percentage of GDP has fallen from 3.5% in 1998 to 2.7% in 2007. The contribution of non-state funding to total health expenditure has increased from 5% in 1998 to about 8.6% in 2005.

The key sources of health care financing in the country include government budget allocations, targeted funds geared toward public health care, health institutions’ funds generated by provision of medical services beyond the government guaranteed services and by medical services provided on a commercial basis, and donations and contributions by companies, agencies, organisations, public associations and individuals made to health care institutions.

Figures 2.1 and 2.2 below show total health expenditure and sources of funding for the period 1998 to 2005, and the total health expenditure as a percentage of GDP (1998-2007) respectively.

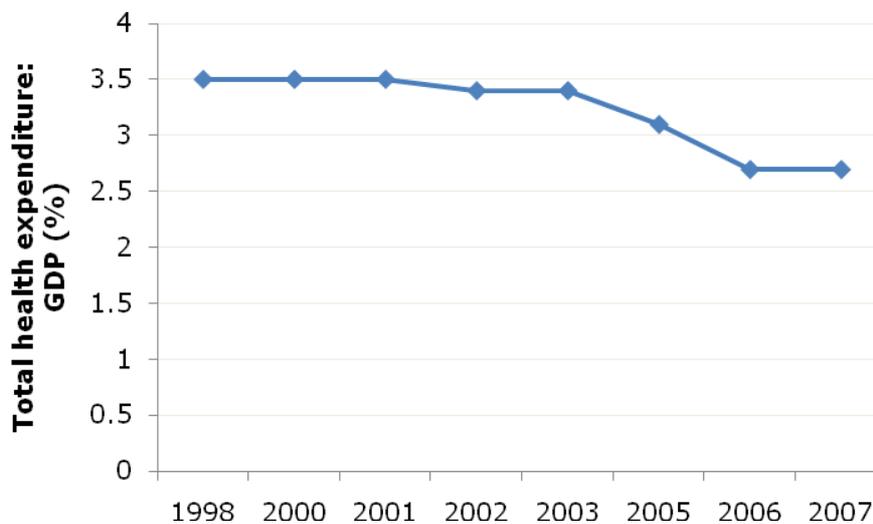
⁸ State Statistics Committee and MoH, Uzbekistan

Figure 2.1: Total health expenditure and sources of financing, 1998-2005



Source: State Statistics Committee and MoH, Uzbekistan

Figure 2.2: Total health expenditure as a proportion of GDP, 1998-2007



Source: State Statistics Committee and MoH, Uzbekistan, 2008

Key health indicators

Life expectancy of the population in Uzbekistan for the period from 1990 to 2007 has increased from 67 to 72.5 years.

The Infant Mortality Rate has improved from 35.4 per 1,000 live births in 1990 to 11.6 per 1000 live births in 2008. The primary reasons for mortality in the prenatal period are

respiratory diseases, infection and parasitic diseases, hereditary disabilities etc. In the same time period, maternal mortality reduced from 35.4 to 21.5 per 1,000 live births.⁹

2.2.3 Key health sector donors

The key health sector donors in Uzbekistan include United Nations' Population Fund (UNFPA), Asian Development Bank (ADB), the World Bank, the United States Agency for International Development (USAID), WHO, German Technical Cooperation, UNICEF, Japan International Cooperation Agency (JICA), Global Fund, Islamic Development Bank etc.

These donors have supported the health sector through a range of activities such as procurement of equipment, development of Information Education Communication material, provision of healthcare services, training of health workers, management of financial systems and development of infrastructure. Some of the largest projects include:

- Improving maternal and child health through enhancing the infrastructure for obstetrical and haematological services – the total project cost is around \$70m, of which \$40m is from an ADB preferential loan.
- Enhancing the reforms in the primary health care sector, introducing GP practices nationwide, and testing a municipal model of primary health care – the total project cost is around \$118m, of which around \$40m is from an IDA loan.
- Grants from the Global Fund to combat AIDS (\$24.6m) tuberculosis (\$12.6m) and malaria (\$2.5m).
- To promote implementation of the Government Program for Health System Reform, improve infrastructure of the National Emergency Medical Assistance Research Center and its provincial branches, an agreement with the Islamic Development Bank was signed to procure equipment in the amount of \$23.8m.

Annex 2, section A2.4 provides details of the health sector donors in Uzbekistan along with examples of support provided.

In addition, Annex 2, Section A2.5, presents key strengths and weaknesses of the health sector in Uzbekistan.

⁹ MoH Uzbekistan, 2009

3. IMMUNISATION SECTOR

3.1. Policy developments and key actors

The policy framework for the immunisation sector is based on the premise that protecting and improving the public's health is an aim for society as a whole and not only of health care workers. This concept is backed up by a number of legislative acts, such as the Constitution of the Republic of Uzbekistan, the Law on Public Health Care and the Law on State Sanitation control.

Planned vaccination of children, adolescents and adults are set out in the national vaccination calendar. In Uzbekistan the national vaccination calendar is regulated by "The rules and requirements on organisation and conducting of immunisation against infection diseases" No: 0239-07 2008; and the Decree of the Chief Sanitary Inspector.

Preventive health care is the responsibility of the state Sanitation-Epidemiology Service. It manages sanitation and epidemiological centres, among a host of other medical stations, employing around 4,000 doctors and more than 10,000 mid-level medical staff. Within its scope is the National Immunization Program (NIP), which is responsible for the overall coordination of resources and activities to reduce diseases, disability and mortality caused by vaccine-preventable infections. The activities include purchase of vaccines, injections, and other immunisation products, development of cold chain, transport, pre-diploma and post-diploma education and training, social mobilisation, infection control, research, program administration and management.

Immunisation is provided in the country's family polyclinics and maternity wards, among other facilities. In the case of inaccessibility by the population, immunisation services are provided by mobile teams of paediatricians, neurologists and vaccinators.

3.1.1. Funding and support for the immunisation sector

The government prepared a plan for financial sustainability of vaccines purchase in 2003, which resulted in a dedicated allocation in the state budget for Immunization Program (decree No.: 114, 21 November 2003). Annex 2, section A2.6 provides details of government financing for immunisation during the period 2004 to 2010. GAVI, WHO and UNICEF are supporting the government's long-term immunisation plan for 2006 to 2010.

During the decade there have been shortfalls in vaccination availability, but these have been supplemented through humanitarian assistance from WHO and the Turkish Cooperation Agency (TICA) towards vaccine procurement. Annex 2, section A2.6 details the support provided by WHO and TICA through humanitarian assistance during 2004 to 2009.

Issues of financial sustainability for vaccines continues to exist. In recent years, the MoH expenditure on vaccines has been growing due to increases in cost of both vaccines themselves and their delivery, as well as increases in demand driven by population growth.

These financial challenges and demographic dynamics will continue to exert pressures effect on sustainability of immunisation program in Uzbekistan.

3.1.2. Performance of the immunisation sector

The immunisation sector is well developed and has shown very good results. Child morbidity from diarrhoea, other acute diseases, and infant mortality nationwide have been declining sharply over the years. Coverage of infants younger than 12 months with preventive vaccinations has reached 98%. As a result of this, for example, no cases of poliomyelitis have been registered in the country in the past six years and diphtheria has not been registered for the last two years. Incidence of viral hepatitis and bacterial dysentery has been reduced significantly.

As shown in Table 3.1 below, the official coverage rates for a whole series of vaccines continues to be very high.

Table 3.1: Key vaccine coverage rates

Vaccines	2009	2008	2007	2006	2005	2004	2003	2002	2001
BCG	99%	96%	99%	99%	93%	99%	99%	99%	98%
DTP1	97%	96%	94%	96%	99%	99%	99%	94%	97%
DTP3	98%	98%	96%	96%	99%	99%	98%	99%	99%
HepB1	99%	99%	99%	99%	99%	99%	99%	99%	30%
MCV	95%	98%	99%	95%	99%	99%	99%	97%	99%
Pol3	99%	98%	98%	94%	99%	99%	99%	99%	99%

Source: WHO, Uzbekistan reported immunisation coverage (2010)

4. OVERVIEW OF GAVI SUPPORT IN UZBEKISTAN

Uzbekistan has applied for GAVI support for NVS and the INS. Support for NVS was received since 2001, and for INS over a period between 2002 to 2005. Between 2001-10, total support of around \$20m has been approved for Uzbekistan, with most of it disbursed already (apart from 2010) as shown in Figures 4.1 and 4.2 below.¹⁰

Figure 4.1: GAVI approvals and disbursements to Uzbekistan (\$m)¹¹

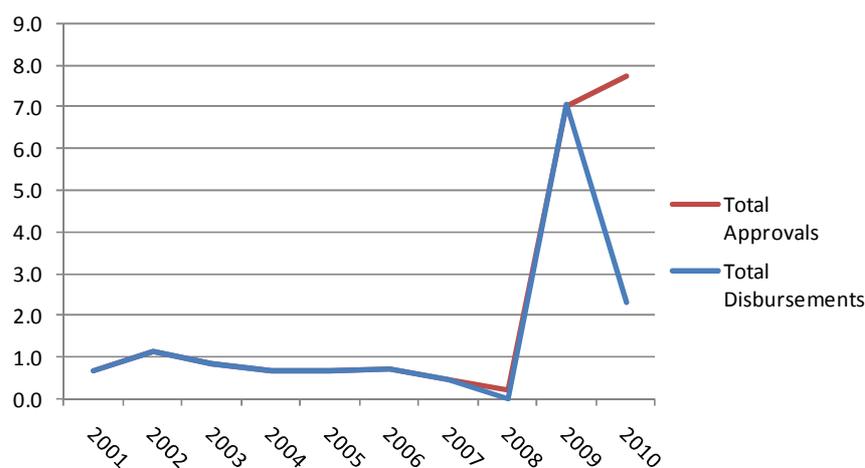
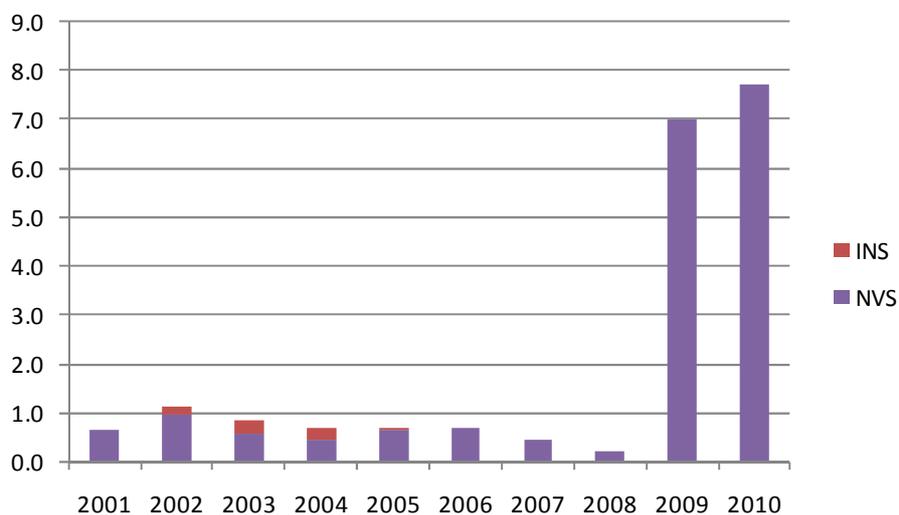


Figure 4.2: GAVI approvals by program (\$m)

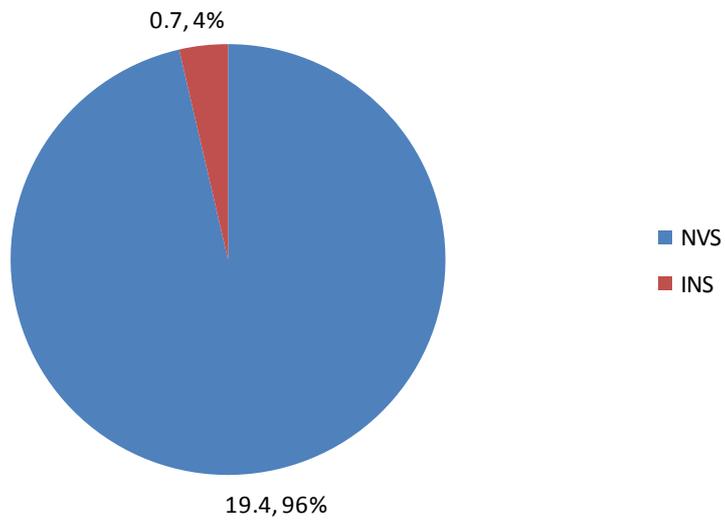


As noted in Figure 4.3 below, the vast majority (96%) of this support was for NVS (initially for HepB and then in 2009 and 2010 for the pentavalent vaccine).

¹⁰ CEPA - GAVI Phase I & II consolidated approvals & disbursements" GAVI Secretariat (2010)

¹¹ Where lines overlap, disbursements are equal to approvals

Figure 4.3: Breakdown of cumulative GAVI approvals by program (\$m; %)



5. ASSESSMENT OF GAVI HSS SUPPORT (SG 1)

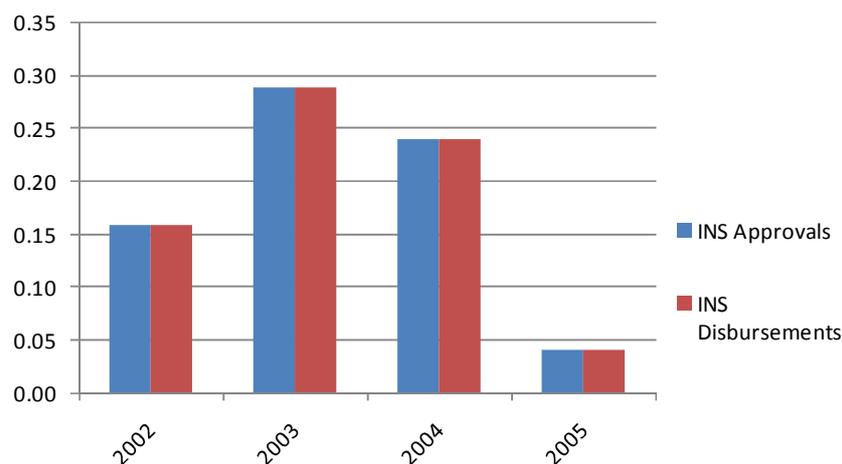
GAVI's first goal (SG1) is to contribute to strengthening the capacity of country health systems to deliver immunisation and other health services in a sustainable manner. This goal covers the following GAVI programs: HSS, ISS, INS, and CSO.

Uzbekistan has received support from GAVI only for the INS program. We provide below a description of the support as well as an assessment of the results and value add. In addition, during the field visit we discussed the GAVI HSS, ISS and CSO programs with stakeholders and include below some feedback on their reasons why the country has not applied to date.

5.1. Assessment of GAVI INS support

Figure 5.1 below shows the volume of approvals and disbursements for the GAVI INS program, which was provided to Uzbekistan between 2002 and 2005. As shown, all approvals were followed through with full disbursements

Figure 5.1: INS - GAVI approvals and disbursements data (\$m)¹²



5.1.1. Description of INS application, approval and implementation process

Uzbekistan received INS support in the form of commodities (i.e. as against cash support) in GAVI Phase I, between 2002-05. Feedback during the field visit suggested that stakeholders were generally happy with the application process and approval / disbursement timelines. However, it was noted that the provision of GAVI documents / correspondence in English was an issue, resulting in delays in action at the MoH level.

¹² "CEPA - GAVI Phase I & II consolidated approvals & disbursements" GAVI Secretariat (2010)

There were no issues highlighted with the implementation of INS. General feedback was that the AD syringes and safety boxes were delivered in a timely fashion and used across the routine immunisation sector during the period of support.

5.1.2. Results and value add of INS support

Sustainability of use

While AD syringes were well received during the GAVI INS support period, Uzbekistan has not continued their use in routine immunisation. At present, AD syringes are used only for the vaccines funded by GAVI (i.e. currently only the pentavalent vaccine, but previously also HepB mono vaccine) as a part of its ‘bundled support’ approach. All other routine immunisation vaccines are not administered through AD syringes.

Instead, Uzbekistan uses disposable / one-time use syringes for routine immunisation (this is the case in the broader health sector as well), purchase of which are fully funded by the government. Consultees informed us that this choice was primarily driven by the lower price of these syringes as compared to ADs¹³ and the fact that they are produced locally - many consultees clearly noted that if the price of AD syringes was comparable they would in fact prefer to use them instead of the disposable syringes.^{14 15}

Local production of the disposable syringes implies lower transport costs – contributing to the overall lower price of these syringes as compared to ADs. The local production also implies that these can be paid for in local currency, from budgetary allocations. As discussed further in this report, we understand from discussions with stakeholders that MoH continues to face considerable difficulties in procuring commodities produced overseas due to stringent foreign exchange restrictions in place in Uzbekistan.

Given this situation, it is our assessment that it is very unlikely that AD syringes will be used outside GAVI supported ‘bundled’ vaccines.

Safety boxes are, however, being used in routine immunisation, following their introduction through GAVI INS support. During our visit, we noted that both GAVI funded (as part of the ‘bundled’ vaccines support) and government funded (for all other routine immunisation vaccines) safety boxes were widely available. Stakeholders interviewed suggested that there

¹³ We understand that AD syringes are around \$0.57 compared to \$0.05-0.06 for disposable syringes.

¹⁴ There were also some reports that the available sizes of the disposable syringes were larger than that required for certain vaccines doses, which raised some (but not major) issues in administration of the vaccines.

¹⁵ Many stakeholder also commented that the incidence of vaccine related infections/ problems (say for example the transfer of HIV/ AIDS) has reduced dramatically in Uzbekistan, with very few occurrences of such issues. Thus country stakeholders do not feel any sense of ‘urgency’ to revert back to AD syringes (or in fact use them more widely in the health sector).

has not been any problems in the sourcing and distribution of these around the country. As such, it was stressed that stock-outs of safety boxes are extremely rare, if at all.¹⁶

Safe disposal/ waste management

As mentioned above, at the point of vaccine delivery, safety boxes are being used. However, we understand that challenges to safe disposal (incineration) persist in some more remote areas in the country. Larger centres and those in towns appear to have operational systems in place – either at their premises (if they are outside main towns) or collection and disposal services in urban centres by central authorities. Consultees suggested that greater support towards ensuring appropriate incineration facilities are available in more remote areas would be beneficial.

Value add of GAVI INS support

Consultees suggested that the impact of GAVI INS support was particularly felt in the initial period of GAVI support, as it reshaped immunisation safety practices in Uzbekistan. Even though ADs are no longer used for routine immunisation activities (they continue to be used for GAVI funded ‘bundled’ vaccines), their introduction (and the wider GAVI INS support) has been welcomed by the country stakeholders, who identified many areas of value add, as follows:

- We understand that in 2001 the government decreed safe injection use across the health system, however it was suggested that the actual implementation of this decree into practice was supported by the advent of GAVI INS support.
- All stakeholders noted that GAVI INS support had led to a discernable increase in overall awareness on safety and change in attitude / working practice among medical staff. As a result, there has been a significant reduction in problems associated with the re-use of syringes, pointing towards a system wide improvement in the correct use / safety of injections.
- Finally, we also understand that GAVI INS support has played a part in promoting / encouraging (although no direct funding was provided for this) a nationwide certification program for vaccinators (i.e. medical staff that administer vaccines). Relevant medical staff are trained and certified in injection safety, including the use and disposal of syringes, and immunisation issues more generally.¹⁷

¹⁶ It was suggested that in the some remote areas, medical staff also create their own makeshift safe boxes, if there is a need.

¹⁷ Three day training course followed by an exam, which is undertaken on an annual basis.

5.2. Uzbekistan and other SG1-related support

5.2.1. HSS

The Uzbek government has not applied to GAVI for HSS support, and consultations suggest that it is unlikely that this will be done in the near future.

We understand that a draft HSS proposal was developed by the immunisation department at the MoH, however this process has stalled given the intended nature of GAVI HSS as wider than immunisation – as a result there is no real interest from the immunisation department.

Also, stakeholder feedback suggests that any intention to apply for GAVI HSS reached a complete halt with the introduction of the FMA requirement. Uzbekistan's government policy does not allow external audit of its ministries' accounts, and hence, the requirement of FMA has made receiving any cash grants from GAVI directly to the MoH budgets very difficult.

Having said this, we also note that a number of larger health systems projects (e.g. World Bank and ADB sponsored / led) have been structured, in close cooperation with the government, in a way that has allowed external auditors to review the project income and expenditure, even when large proportions of the expenditure (through co-funding / matching funding) stemmed from the government. This suggests that exemptions or specifically negotiated arrangements could potentially be used to overcome the FMA problems, but potentially only in a project context.

In addition, there are a number of challenges facing any potential HSS application by Uzbekistan, as discussed below:

- *Silo-structure of the MoH.* The MoH is organised into four separate areas, overseen by different deputy ministers.¹⁸ We understand from some stakeholders that there is limited interaction across the four areas, with each operating relatively independently of each other. This could one of the reasons that has caused both reduced ownership and lack of coherent institutional support required for coordinating such a system-wide application (and would impact any subsequent program implementation). However, other donors have suggested that their experience has been different, noting areas of useful cooperation across the different departments.
- *Difficulty in using cash grants in Uzbekistan.* We understand that the current legislation and regulatory framework makes it extremely difficult in practice for the MoH to access and use cash grants received from international donors. (In fact, the grant that was provided as part of the introduction of the pentavalent vaccine was in the end

¹⁸ Sanitary and epidemiology, maternal and child health, health systems, and TB and other specific diseases.

returned to GAVI as it could not be used by the MoH.¹⁹) We understand that these difficulties are related to:

- considerable delays associated with receiving approvals for use of funds from the Government Grants Commission;
- the obligations that funds, if approved, are used in accordance with stringent national rules and regulation (e.g. per diem rates, transport, fuel etc.), which are considered generally quite bureaucratic and economically unrealistic; and
- for funding to be applied sub-nationally, relevant amounts need to be transferred to local governments for onward use, which are associated with transaction costs and time delays.

It should be noted however, as we understood from our discussions in the country, that exceptions can and have been made in the operations of some donors, when those providing the grants have had an opportunity to agree in detail with the government the exact terms of use. It was suggested that these agreements / exceptions were part of larger projects and had greater visibility and support from within the government.

Other donor funding for health systems

We understand that Uzbekistan receives support from a number of donors for health system strengthening, including the World Bank and the ADB. We understand that these have particularly included considerable support for human resource development (including training on immunisation) as well as support towards upgrading of equipment and organisational capacity. These projects have been co-financed by the government.

We also understand that a donor coordination / steering committee was in place, and included both the MoH and WHO, among others. This was used to identify gaps and possible areas of overlap in health system strengthening in the country. We understand that areas for further support would include some specialised training for neonatology as well as equipment support in more remote areas of the country. (It was not clear the extent to which the steering committee continues to play an active role.)

5.2.2. ISS

Uzbekistan has not applied for GAVI ISS funding. Stakeholder feedback suggests that the key reasons for this include:

- *High coverage rates have implied that there are limited incentives to apply for ISS funding.* Uzbekistan has very high coverage rates (in excess of 95%) – see Table 3.1 in Section 3 above. As a result, there are limited incentives to apply for ISS support, given the performance-based nature of the rewards criteria.

¹⁹ We understand that discussions are currently ongoing to find another way in which these funds can be accessed.

- *Limited information of the program.* Some key government stakeholders did not appear to be fully aware of the details of the program.

In addition, we understand that similar issues as highlighted for GAVI HSS support above, are applicable here – the difficulty of receiving cash grants and the FMA requirement has / will deter Uzbekistan from putting forward any such application.

During the visit, many stakeholders confirmed that the immunisation system in the country is relatively strong and adequately funded by the Government. However, stakeholders did indicate some areas in the immunisation system that could benefit from greater funding, including:

- Upgrading of refrigeration facilities – although there is sufficient equipment in many areas.
- Purchase of additional refrigerated transport vehicles. We understand that there are only six in the country, owned centrally. It was suggested that a more efficient system would consist of at least two vehicles per province, to be used to collect vaccines from the centre and distribute them further at local level.
- Human resource capacity development.

5.2.3. CSO

The Uzbek health system is dominated by the public sector, although there is some private sector provision, mostly in the Tashkent city area. CSOs do not play a role in the health and immunisation field in the country, as is the case with most other countries in the region as well, and hence there is no demand for funding support through the CSO window.

6. ASSESSMENT OF GAVI VACCINE SUPPORT (SG2)

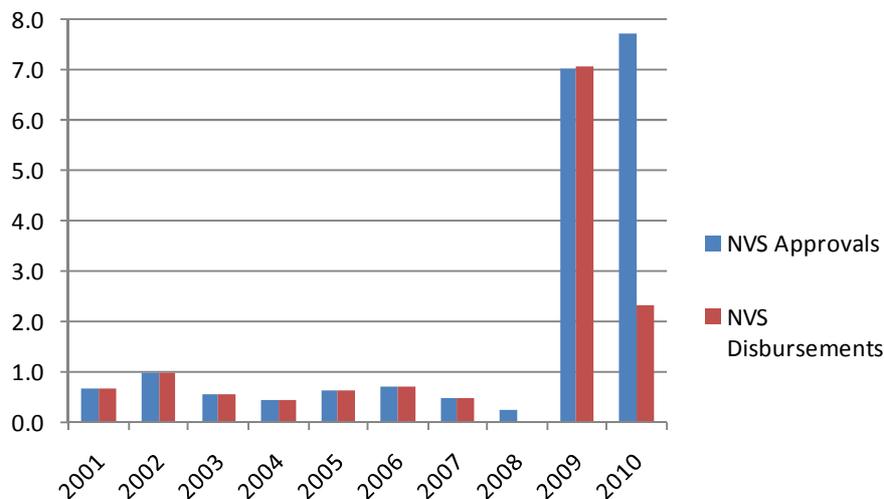
GAVI's second goal (SG2) is to: 'accelerate the uptake and use of underused and new vaccines and associated technologies and improve vaccine supply security'. This section provides a summary assessment of GAVI's support for vaccines to Uzbekistan.

6.1. Description of GAVI support for vaccines

Figure 6.1 presents the NVS approvals and disbursements to the country. The key aspects to note are the following:

- From 2001 to 2007/08, GAVI provided funding for the HepB vaccine.
- In 2009, Uzbekistan introduced the pentavalent vaccine through GAVI support, which is ongoing at the time of writing of this report.
- Vaccine introduction grants were provided at the start of both vaccine funding programs – in 2001 for HepB and in 2008 for the pentavalent vaccine. The latter has, however, faced a number of obstacles to its implementation as described below.

Figure 6.1: NVS - GAVI approvals and disbursements data (\$m)



6.2. Assessment of GAVI vaccine support

6.2.1. Description of application and approval process

As per Uzbekistan's application for INS support (see Section 5), stakeholders did not highlight any major issues with the application for NVS – both for HepB initially and pentavalent subsequently. The general issue of all GAVI documents being in English, and

the subsequent need for translations, did however result in administrative delays in the proposal development process.

The application process was led by the responsible individuals at the MoH, specifically from the Sanitary and Epidemiological Department. We understand that this was undertaken in close collaboration with GAVI partners in the country (both WHO and UNICEF).

Some consultees indicated that the projections in Uzbekistan's application for new vaccines underestimated the actual birth cohort, and therefore under-forecasted vaccine requirements. We understand that this was based on the strong pressure from the government to reduce fertility rates, reflected in the projected 'flat' growth of births in the application. As a result, Uzbekistan was left with a supply gap.

6.2.2. Results of GAVI NVS support

As was noted by a number of stakeholders, the key impact of GAVI support for the HepB and pentavalent vaccines has been the reduced burden of relevant diseases in the country. For example, Uzbekistan has not had any HepB infections in children under the age of 10.

Some aspects of GAVI NVS support explored with country stakeholders are discussed below.

- *GAVI support has facilitated the introduction and uptake of the HepB and pentavalent vaccines.* Feedback was unequivocal that GAVI support was instrumental in facilitating the introduction and uptake of both of the supported vaccines in country, and especially for the pentavalent (Hib) vaccine. Some stakeholders suggested that in the absence of GAVI support, perhaps Uzbekistan may have introduced the HepB vaccine on its own, although with some delay. However, in the case of the pentavalent vaccine, given the relatively higher price, we understand that it would have been highly unlikely that the vaccine would have been introduced without GAVI funding. Going forward, the recent comprehensive Multi-Year Plan (cMYP) for Uzbekistan includes plans to introduce the rotavirus and pneumococcal vaccine, and consultees suggested that, again, given the price, their introduction would be highly unlikely without GAVI funding support.²⁰ (It was also noted that there may need to be some further adjustments to the cold chain for these new vaccines, should the vial size, for example, be larger than is provided for in existing infrastructure.)
- *There has been a stable supply of vaccines supported by GAVI, as also of other routine vaccines.* There have not been any problems in the supply (i.e. stock outs) of GAVI supported vaccines. In addition, the supply of routine immunisation vaccines in general have been relatively stable in Uzbekistan, although a few shortages did occur (we understand, however, that these were of a temporary nature (for a month or two)

²⁰ It was also noted however that the uncertainty over GAVI's plans for its co-financing policy going forward is affecting the MoH planning for possible introduction of these vaccines.

and as such did not materially impact on the coverage rates or availability of vaccines within any given year).^{21 22}

- *The new vaccine introductions have not been associated with any undue burden on country health/immunisation systems.* There has been a fairly unanimous view among the stakeholders that Uzbekistan's immunisation system is relatively strong (in comparison to many African immunisation systems for example), with consistently high coverage rates of over 90% to 95%. All stakeholders also concluded that the health / immunisation system more generally was sufficiently ready to implement the introduction of the new vaccines supported by GAVI, without undue burden being imposed. Prior to the vaccine introductions, some updates to the cold storage facilities were required, but we understand that this was done effectively, with financing coming from both the government as well as some bilateral support (for example from JICA).
- *Affordability of the new vaccines continues to be obstacle challenge.* Country stakeholders informed us that GAVI funded the HepB vaccine in Uzbekistan until about mid 2006, after which the vaccine was funded by the government.²³ However, funding from MoF to the MoH for health as a whole has always been an issue (data shows that the MoF provides about 50-60% of the MoH requested budget on average in a year – see Table A2.6 in Annex 2), and it was suggested that the move to introduce the pentavalent vaccine partly stemmed from the desire to reduce the financial burden of HepB and DTP vaccines. The pentavalent vaccine continues to be too expensive for the government to fund on its own – and some country stakeholders noted the limited price reduction in the vaccine thus far.
- *Need for procurement support.* The government has found procuring the HepB vaccine through international tender, as compared to undertaking the procurement through UNICEF, very expensive.²⁴ Some stakeholders suggested that it would have been useful to have had more guidance and technical support from international partners in the transition to government procurement. We also understand that the MoH and MoF have reverted to procuring the HepB vaccine through UNICEF.

To summarise, GAVI NVS support has had the key impact of aiding the introduction of the HepB and pentavalent (Hib) vaccines in Uzbekistan, as well as supporting their uptake and increased coverage in the country – with the consequent positive impact on the disease burden. This positive impact has been recognised by all stakeholders consulted, with one consultee noting that they “could not imagine a world without GAVI”.

²¹ It should be noted, however, that some of the temporary stock outs of routine vaccines were relieved through humanitarian in-kind contributions of excess vaccine stocks from other countries, such as Turkey and Georgia.

²² Country stakeholders suggested that there may be value in GAVI having an emergency vaccine fund, which could be used at times when, for one reason or another, stock outs of vaccines happen.

²³ We note that as per the data provided by GAVI, HepB approvals and disbursements continued until 2007.

²⁴ We understand that the price differential was in the region of three times.

The vaccine introductions do not appear to have caused much additional burden to the existing relatively strong health / immunisation systems. Results in terms of greater affordability of the vaccines for Uzbekistan are however yet to be achieved, with a view shared by most stakeholders that new vaccines (e.g. pentavalent, rotavirus, pneumococcal) continue to be unaffordable for the government in the absence of GAVI support.

6.2.3. Value add of GAVI NVS support

Based on the feedback provided by country stakeholders, our view is that the main value add of GAVI has been its funding support of pentavalent, without which, the vaccine would not have been introduced in the country. Without the support, the vaccine would not have been affordable and therefore inaccessible to the population – with the consequent impact in terms of lives saved and reduced disease burden.

Another area of value add, as we understand, is that GAVI's support has helped increase the bargaining power of the MoH with the MoF – the MoH can use the 'visible' positive results of the vaccine support to negotiate for ongoing government financial support to the vaccine.

Stakeholders also suggested that the NVS support had a positive impact on the sustainability of a government run system to train nursing staff at polyclinics to become certified vaccinators.

Finally, the introduction of the new vaccines has been associated with a comprehensive review of the cold chain and related facilities, and upgrading of refrigeration equipment where this was necessary (as a pre-requisite to receiving the vaccines). This included ensuring sufficient and appropriate cold storage facilities existed at the airport to store the vaccines whilst customs procedures were carried out. The review, and any relevant improvements, have had broader benefits to the immunisation system, as opposed to the pentavalent vaccine.

7. SUSTAINABILITY OF GAVI FUNDING AT THE COUNTRY LEVEL (SG 3)

GAVI's third goal relates to financing of its program, and is to 'increase the predictability and sustainability of long-term financing for national immunisation programs'. This section considers both Uzbekistan's cMYP and the extent to which GAVI has promoted and increased the sustainability of immunisation funding in the country.

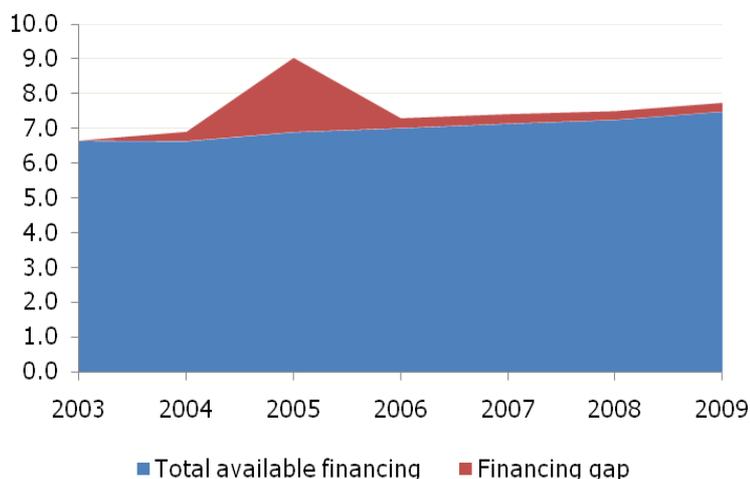
7.1. Review of Uzbekistan's FSP and cMYP

7.1.1. Financing

Information from the FSP (2003-09)

Overall expenditure on the NIP stood at \$5.7m in 2000 and \$7.1m in 2002. Of this, Government funding (from the national and local budgets) covered 98% of all the NIP's expenditure in 2000 and 68% in 2002, while donors covered 1.5% and 32%, respectively i.e. donor contributions have increased substantially from 2000 to 2002.²⁵ Figure 7.1 below presents the forecast expenditure and financing included in the FSP. The figure highlights the relatively small forecasted shortfall over the period, with the exception of 2005 (\$2.14m), when the mass measles immunisation campaign required significant expenditure for the acquisition of measles vaccines.

Figure 7.1: Financing gap for National Immunisation Program



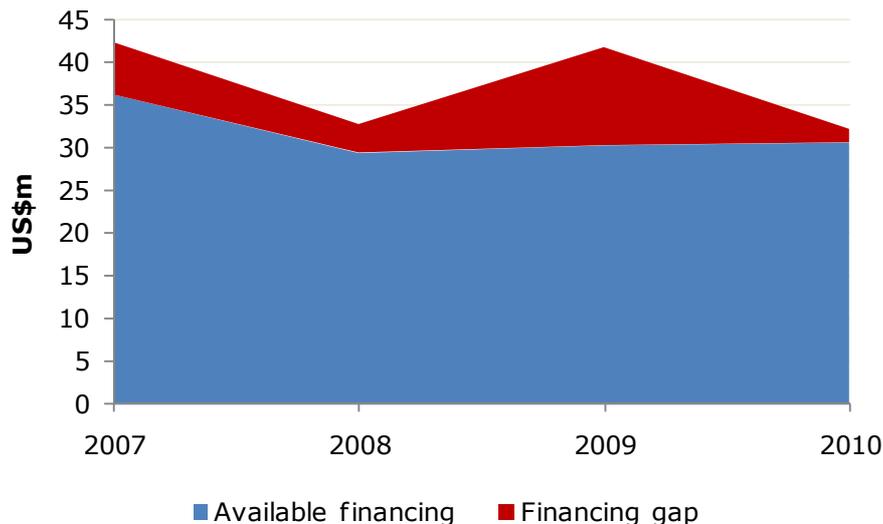
Among donors, the leading roles were played by the Government of Japan and GAVI. In 2002, the former provided 17% of the overall financing. In the same year, GAVI accounted for 13% of overall financing, funding the purchase of \$714,000 worth of vaccines and \$128,000 worth of injection supplies.

²⁵ 2.4% of GDP was spent on health in 2002, constituting 9.3% of overall spending from the state budget.

Information from the cMYP (2007-10)

Figure 7.2 presents the planned expenditure and financing as presented in the more recent cMYP for 2007-10. As can be seen from the figure, both the level of planned expenditure and the financing gap²⁶ has increased substantially in the cMYP period. Total resource requirements of the NIP for the period 2007-10 amounts to \$149m.

Figure 7.2: National Immunisation Program – Financing gap, 2007-10



In 2005, the Government was the main source of financing, covering 95.6% of costs from the national and sub-national budgets. GAVI was the only donor that paid for new vaccines (Hep B). JICA supported the Polio campaign in 2005.

7.2. Stakeholder views on the sustainability of GAVI funding

A number of stakeholders supported GAVI's policy of empowering the government to take over the financing of the vaccinations overtime, through the co-financing mechanism. However in-country stakeholders recognised that uncertainty exists around the level of co-financing that will be required from GAVI for the continuation of the pentavalent vaccine program. They noted that this was making national planning difficult, including the discussions that the MoH needs to have with the MoF about future budgetary requirements.

As was already noted earlier, the current price level of the pentavalent vaccine is not affordable for the government in the near future. Any potential increases in budgetary allocations to health in Uzbekistan, which are by no means certain and may well decrease as the international economic crisis reflects on the country's finances, are unlikely to make a significant contribution to the current price level of this vaccine. There was universal

²⁶ The financing gap for 2007-10 is \$22m taking into account both secured and probable funding. It is highest in 2009 when the Diphtheria campaign is planned and funding sources have not been identified.

agreement that it is essential for the price of the pentavalent vaccine to start to decrease significantly if it is to become affordable to the local government.

Stakeholders also noted that greater direct GAVI advocacy to non-MoH elements of the government would provide further support to the arguments presented by the MoH in securing national budgetary contributions to the immunisation system on a sustainable basis.

Finally, a number of stakeholders suggested it would be very helpful if GAVI also provided technical assistance on procurement procedures to country governments, so as to help them take-on procurement after GAVI funding for vaccines stops. It was noted that this was a new area for many individuals in the sector, and they would find it helpful for some assistance on the international market procurement process and securing best possible prices from the markets.

8. GAVI'S STRUCTURES AND PROCESSES (SG4)

This section presents an evaluation of the institutional structures in place within the country that support the application and implementation of GAVI funding. It also considers the overall application and monitoring process by the country, the functioning of the Alliance model on the ground, and GAVI's role in advocacy for immunisation in the country. This section is based entirely on stakeholder views obtained during the field visit.

8.1. Institutional structures

GAVI support in Uzbekistan is for immunisation only i.e. there is no HSS funding in the country, and hence the only relevant institutional structure is the Inter-agency Coordination Committee (ICC).

Our understanding from consultations with stakeholders is that this body functions mostly in an informal manner, providing recommendations but without decision making power. Having said this, we understand that the ICC meets fairly regularly (as often as once a quarter, if not more), and has provided a useful forum for discussions on relevant issues by those that participate.

Our conversations with stakeholders in the country resulted in mixed feedback on the efficacy of this body for GAVI programs:

- Some stakeholders suggested that the ICC played an important role in terms of sharing information among the stakeholders, helping develop proposals and reviews of GAVI funding in the country. They viewed the ICC as an important institutional structure within the immunisation sector in the country.
- Others, however, suggested that the ICC's efficacy is compromised by not having maintained broader participation of stakeholders, as it comprises mainly MoH officials. It does not involve other relevant Government ministries and has very limited participation from the wider donor community (with the exception of WHO and UNICEF, who are active members).

8.2. GAVI application and monitoring processes

As presented in the sections above, no real issues were highlighted by country stakeholders with regards to the GAVI application processes. The application form and procedure was regarded as suitable, and the timelines for approval and disbursement (i.e. delivery of vaccines and injection safety material in the case of Uzbekistan) were regarded efficient.

All stakeholders however noted the problem of guidelines and information being provided by GAVI in English as against in Russian. The in-country technical partners spend a considerable amount of time translating document between GAVI and the relevant

government departments. It was suggested that this brings into question whether partners' resources are most efficiently used and has the obvious repercussions in terms of delays.

While Uzbekistan has not yet had an FMA, as noted above, the requirement of an FMA is one of the key factors that has deterred their application for GAVI HSS funding support. While Uzbekistan's government policy does not allow for external audit of its ministries' accounts, some other donors have managed to negotiate suitable arrangements for external audit of specific projects, suggesting that there may be ways around this issue although this continues to be a considerable obstacle to any HSS (and ISS) funding being received by Uzbekistan.

With regards to GAVI's monitoring process – which relates to the requirement of countries to fill out the APRs – a number of comments were made by country stakeholders:

- First, there was agreement across many stakeholders that the frequency of changes made to the APR format by GAVI have not been helpful. Country stakeholders noted that while they understand and support the need to improve the form over time, GAVI has changed its APR format almost every year which has increased the reporting burden on the already very limited and stretched MoH resources. A suggested approach might be to update the format every three years to reflect the learning and improvements.
- Second, it was noted that the requirement of signatures on the APRs from the ICC does not necessarily represent the sought-after endorsement of the progress by all relevant members, given the relatively narrow actual stakeholder participation in the ICC (see previous sub-section). We also understand that the Minister of Finance does not counter sign the APR – his endorsement is replaced by another official from the MoH, making this a solely MoH endorsed document.
- Thirdly, it was noted by some stakeholders that the monitoring process is placed under considerable strain as MoH staff rotation and their considerable workload has meant that the process suffers from weak institutional memory. Because of this, and the fact that the APR format has changed on an annual basis, the APR is started from scratch each year and takes up much of the available resources.
- Finally, and closely related to the difficulties in maintaining institutional memory at the MoH, some consultees have suggested to us that there has been a disconnect between the data presented in one APR to the next. It was suggested that data and projections have been changing between different years.

8.3. Stakeholder views on the ‘Alliance’ model at the country level

Stakeholders provided both positive feedback but also expressed some concerns about the functioning of the Alliance model in Uzbekistan. We discuss several aspects below.

8.3.1. Role of technical partners

The role of the technical partners in supporting the MoH was generally regarded as efficacious. Government stakeholders valued the support provided by WHO and UNICEF. Meetings with stakeholders in the country also clearly highlighted the close working relationship that WHO and UNICEF have with the government in relation to the GAVI program and the broader immunisation sector. It was noted, however, that the World Bank has not been as actively involved in GAVI activities in the country.

Some GAVI partners noted that their role in accountability for GAVI support to the country was limited. They do not have a say on how the country chooses to use GAVI support (apart from an advisory role) and also the funding does not flow through the partner organisations – and hence in their view they cannot be held accountable.

Finally, it was noted by some of the GAVI partners consulted that, given their already heavy workload, the role of ‘translators’ for documents and correspondence was not the best use of their technical expertise and skills. The consultees noted that they are keen to fulfil their role as ‘technical’ partners in country, but often find themselves providing increasing amounts of administrative support.

8.3.2. Interaction with the GAVI Secretariat

Although there appears to be agreement among stakeholders that GAVI partners in the country are providing as much support as they are able to, the absence of either a GAVI representative in the country or even the region, and the lack of visits from GAVI Secretariat / decision makers was a universally acknowledged challenge. Whilst support from the Secretariat to date has been much appreciated, GAVI in many ways is viewed to be a fairly remote entity.

Government stakeholders are keen to interact more with the Secretariat in order to obtain clarifications and any additional information. They are also keen for GAVI to play a more active role in the in-country advocacy processes, as noted in the next sub-section. It was suggested to us that that relatively infrequent international / regional forums (such as the Partners’ Forum, regional EPI manager meetings, etc.) do not provide sufficient opportunity for the required interaction. This is both because of the infrequency of such meetings but also because of the limited time available for each country to interact with GAVI counterparts at these events. In this context, a view was expressed by a number of stakeholders that the GAVI Secretariat was not in a position to fully understand the specificity of the country political and economic context (e.g. the stringent foreign exchange

restrictions) to the extent needed to be able to structure and implement its support to Uzbekistan in the most efficient and effective manner.

Experience of other donors in the country has been that many administrative difficulties related to the implementation of their programs, not least of which is the issue of foreign currency convertibility, can be resolved during direct negotiations and agreements with relevant government departments. (For example, we understand that the World Bank and the ADB, have frequent meetings with government officials and engage in detailed negotiations on aspects of support they provide to the health system.)

8.4. Advocacy

There was a general view that GAVI funding for new vaccines (initially Hep B and then the pentavalent vaccine) has improved the profile and prioritisation of immunisation activities in general for Uzbekistan's government.

At the same time, it was suggested by a number of stakeholders that there is scope and a real opportunity for GAVI to have a greater influence on the government's immunisation policy. In particular it was suggested that GAVI could play a very important role in advocating to the central government and MoF in particular for both:

- increased budget allocations for both routine and new vaccinations; and
- priority access to foreign currency by the MoH for purchasing relevant equipment and vaccines, and for co-financing the GAVI program on the pentavalent vaccine.

Many of the stakeholders felt that as an independent international entity, which has played an extremely important role in Uzbekistan to date, GAVI has an opportunity to sensitise MoF officials on the importance of routine immunisation.

9. SUMMARY AND CONCLUSIONS

This section brings together the findings on results and value add across GAVI programs in Uzbekistan. Table 9.1 below consolidates the evidence from our analysis on areas where GAVI has demonstrated relatively better or weaker performance across its four Strategic Goals.

Table 9.1: Performance of GAVI programs in Uzbekistan

Strategic Goal	Positive results/value add	Weaker results/value add
SG1: Health systems strengthening	<ul style="list-style-type: none"> • Safety boxes are used in routine immunisation, following their introduction through GAVI INS support. • The introduction of a safe injection decree by the government was finally implemented due the advent of GAVI INS support. • GAVI INS support led to a discernable increase in overall awareness on safety and change in attitude / working practice among the medical staff. As a result, there has been a significant reduction in problems associated with re-use of syringes, pointing towards a system wide improvement in the correct use / safety of injections. • GAVI INS support has played a part in promoting / encouraging a nationwide certification program for medical staff involved in vaccination. 	<ul style="list-style-type: none"> • AD syringes were not adopted outside GAVI vaccine support (provided as ‘bundled’ support) because they are too expensive and there is no local producer (i.e. foreign currency is required to purchase these). • Challenges to safe disposal (incineration) of safety boxes still persist in some remote areas in the country. • The Uzbek government has not applied to GAVI for HSS support, partly because of FMA requirement. Other issues include: (i) silo-structure of the MoH; and (ii) difficulty in using cash grants in Uzbekistan. • Uzbekistan has not applied for GAVI ISS funding. Issues include: (i) the structure/ design of the ISS program is not relevant / applicable in the Uzbek context; (ii) limited information of the program; (iii) FMA requirement; and (iv) difficulty in receiving cash grants. • CSOs do not play a role in the health and immunisation field in the country and hence there is no demand for funding support via the CSO window.

Strategic Goal	Positive results/value add	Weaker results/value add
SG2: Vaccine support	<ul style="list-style-type: none"> • GAVI support has facilitated the introduction and uptake of the HepB and pentavalent vaccines. • There has been a stable supply of vaccines supported by GAVI, as also of other routine vaccines. • Introduction of the new vaccines have been associated with a comprehensive review of the cold chain and related facilities, and upgrading of refrigeration equipment where this was necessary. • GAVI support has helped increase the bargaining power of the MoH with the MoF – the MoH can use the ‘visible’ positive results of the vaccine support to negotiate for ongoing government financial support to the vaccine.. • The new vaccine introductions have not been associated with any undue burden on country health/ immunisation systems. 	<ul style="list-style-type: none"> • Affordability of the new vaccines continues to be a significant challenge. It would have been useful to have had more guidance and technical support in the transition from GAVI supported procurement to that being undertaken solely by the government.
SG3: Financing	<ul style="list-style-type: none"> • A number of stakeholders supported GAVI’s policy of empowering the government to take over the financing of the vaccinations overtime, through the co-financing mechanism. 	<ul style="list-style-type: none"> • Existing uncertainty around the level of co-financing that will be required from GAVI for the continuation of the pentavalent vaccine program was making national planning difficult. • The current price level of the pentavalent vaccine is not affordable for the government in the near future. • It is essential for the price of the pentavalent vaccine to start to decrease significantly if it is to become affordable to the local government. • Greater direct GAVI advocacy to non-MoH elements of the government would provide further support to the arguments presented by the MoH in securing national budgetary contributions to the immunisation system on a sustainable basis. • A number of stakeholders suggested it would be very helpful if GAVI also provided technical assistance on procurement procedures to country governments, so as to help them take-on procurement after GAVI funding for vaccines stops

Strategic Goal	Positive results/value add	Weaker results/value add
SG4: Added value as a global PPP	<ul style="list-style-type: none"> • The application form and procedure was regarded as suitable, and the timelines for approval and disbursement (i.e. delivery of vaccines and injection safety material in the case of Uzbekistan) were regarded as efficient. • Government stakeholders valued the support provided by WHO and UNICEF. 	<ul style="list-style-type: none"> • All correspondence from GAVI being in English creates delays in action at MoH level. The in-country technical partners spend a considerable amount of time translating document between GAVI and the relevant government departments – not best use of their time. • The frequency of changes made to the APR format by GAVI have not been helpful. • Some GAVI partners noted that their role in accountability for GAVI support to the country was limited. • The absence of either a GAVI representative in the country or even the region, and the lack of visits from the GAVI Secretariat / decision makers was a universally acknowledged challenge. • In particular it was suggested that GAVI could play a very important role in advocating to the central government and MoF in particular for both: (i) increased budget allocations for both routine and new vaccinations; and (ii) priority access to foreign currency by the MoH for purchasing relevant equipment and vaccines, and for co-financing the GAVI program on the pentavalent vaccine.

ANNEX 1: BIBLIOGRAPHY

- ADB (2001): “Asian Vaccine Initiative: Uzbekistan National Immunisation Program - Financing Assessment”
- Analysis of situation in Health System of the Republic of Uzbekistan. GTZ. – Tashkent, 2009
- Financial Sustainability Plan for the National Immunisation Program (2003-2009), Uzbekistan
- GAVI: “Uzbekistan Country Profile”
- Ministry of Health, Republic of Uzbekistan (publications in Russian)
- Republic of Uzbekistan: “Annual Progress Reports”, 2002-08.
- Republic of Uzbekistan (2000): “Country proposal for support to the Global Alliance for Vaccines and Immunisation and the Global Fund for Children’s Vaccines”
- Republic of Uzbekistan (2001): Proposal for support submitted to the Global Alliance for Vaccines and Immunisation and the Vaccine Fund”
- Republic of Uzbekistan (2003): “Financial Sustainability Plan of the National Immunisation programme”
- Republic of Uzbekistan (2007): “GAVI Application Form – New and underused Vaccines: Introduction of Pentavalent Hib vaccine”, GAVI
- Republic of Uzbekistan: “Multi-Year Strategic Plan for Immunisation”
- State Statistics Committee of the Republic of Uzbekistan (publications in Russian)

ANNEX 2: DATA SOURCES AND FURTHER BACKGROUND INFORMATION

A2.1: Further demographic and social indicators

Table A2.1: Social and economic indicators

Indicator	1995	2000	2001	2002	2003	2004
Life expectancy at birth (in years)	69.1	70.8	71.3	71.2	71.6	72.5
Literacy rate – adult (%)	98.96	99.17	99.18	99.19	99.2	99.31
Index of Human Development Potential	0.715	0.736	0.74	0.742	0.747	0.756
Index of Development with account of Gender Factor (IDGF)	0.704	0.733	0.736	0.738	0.743	0.752
Index of Expansion of Women’s Opportunities (IEWO)	0.351	0.382	0.378	0.38	0.411	0.468

Source: MoH, Uzbekistan 2008

A2.2: Health sector policy

Health system reforms in Uzbekistan were started with the President’s decree “On State program for reforming system of public health services” (10 November 1998). The key focus areas in the decree include:

- New approaches to health system construction and infrastructure development. The principal objective is the creation of equitable access to primary medical care across the country, including rural areas.
- New conceptual and practical approach to mother and child issues, with an aim of establishing supportive conditions for better health. The goal is not only to achieve a short-term impact on maternal and child mortality but to reduce these mortality figures in the long-term (human development context).
- Reform of the health financing system, and improved quality of healthcare services.
- Establishing of new system of emergency medicine for the population in all administrative-territorial units.
- Improving of the regulatory and legal framework.
- Creation of a new program for training medical staff, and a transition to a two-level system of medical higher education – a bachelor degree and a masters degree.

A2.3: Health sector expenditure and financing

Table A2.2: Total health expenditure, 1998-2005 (bn. soums)

	1998	1999	2000	2001	2002	2003	2004	2005
Budget appropriations / allocations	41.7	59.7	81.9	125.6	180.6	234.2	277.4	361.9
Commercialised services	1.7	2.5	4.4	8.1	12.3	16.9	27.1	34.7
Donations	0.1	1.1	1.2	2.5	1.6	3.0	2.4	2.2
Inpatient user fees / board fees	0.6	0.8	0.7	0.9	1.2	1.57	1.3	1.7
Total	43.9	63.8	87.4	134.7	195.73	256.3	308.1	393.3
% of non-state budget funds	5	6.4	6.3	6.7	7.7	8.6	10.0	8.6

Source: State Statistics Committee and MoH data

Table A2.3: Health expenditures as proportion of GDP, 1998-2007 (%)

	1998	2000	2001	2002	2003	2005	2006
Total health expenditure (% of GDP)	3.5	3.5	3.5	3.4	3.4	3.1	2.7
Government health expenditure (% of GDP)	2.9	2.5	2.5	2.4	2.3	2.3	2.5

Source: State Statistics Committee and MoH, Uzbekistan. 2008

Table A2.4 Structure of current costs for public health care for state budget (as % of total costs)

	2003	2004	2005	2006	2007
Hospital service	46.0	45.3	43.6	44.3	44.1
Out-patient-clinic care	43.2	44.2	45.3	45.5	45.1
Preventive work	4.9	4.9	5.1	5.2	5.3
Epidemiological activities	0.4	0.4	0.5	0.6	0.7
Other costs	5.5	5.2	5.5	4.4	4.8

Source: MoH, Uzbekistan. 2008

A2.4: Health sector donors

Table A2.5: Key health sector development partners and examples of activities

Organisation	Activities
UNFPA (2004-09)	<ul style="list-style-type: none"> • Urgent obstetrician service • Development of curriculum for doctors (general practice, obstetrician and antenatal care, nurses and midwives) • Procurement of capital equipment for improvement of reproductive health in establishments of primary level public health services, and in regional maternity homes • Improvement of integrated services for reproductive health for supporting public health services reform • Development of Information, Educational and Communication materials • Activities for youth following the principle “Equal to Equal” for change of behavior, and increased knowledge with respect to sexual and reproductive health of teenagers
ADB (2005-09)	<ul style="list-style-type: none"> • Services for health protection of women and children: Efficient Prenatal Care (EPC), reproductive health, antenatal care, neonatal care • Development and use of clinical manuals and Information Education Communication materials • Delivery of the equipment for 13 regional maternity homes, and 177 district maternity homes • Management of the Financial system of Public health services at Rural Medical Centre level • Training patronage nurses of 3,180 Rural Medical Centre in all regions
World Bank (2005-09)	<ul style="list-style-type: none"> • Development of infrastructure and delivery of equipment for primary level public health services establishments. • Improvement in quality and monitoring of primary level public health services equipment. • Training Doctors of the General Practice. • Manage system of financing and management of public health services
USAID (2005-09)	<ul style="list-style-type: none"> • Technical support for WB and ADB projects • Project to improve quality of services in health, course on financing health and training of mahalla nurses, CDIC (as part of support of ADB/WB projects)
WHO (2008-09)	<ul style="list-style-type: none"> • Technical assistance to MoH • Effective prenatal care– making pregnancy safe • Nutrition of newly born and children • Safety of foodstuffs • Vaccine Prevented Diseases

Organisation	Activities
German Technical Cooperation (2009-11)	<ul style="list-style-type: none"> • Capacity building: Professional training of nurses, obstetrician and midwives • Awareness raising on healthy motherhood • Fortification of food products • Fortification of vegetable oil with Vitamin A • Development of strategy on fortification of cotton seed oil
UNICEF (2005-2009) – country program and the project “Improving protection of mother and child health in Uzbekistan” implemented with EU finance (2008 – 2010)	<ul style="list-style-type: none"> • Establishment of national center on introduction of live-birth criteria • Fortification of foodstuffs (edible oil, flour), rendering basic services in nutrition • Integrated reaction to HIV: HIV/AIDS, IMCI, safety of injection (supply component) and services for children • Package of services for survival of newborn: Neonatal reanimation/principles of care for newborn, effective prenatal care, Initiative of Hospitals on Friendly Attitude to Child (IHFAC). • Package of services for survival of child: CDIC at the hospital and community level, Primary CDIC • Training managers at the region level for managing and improving quality of healthcare • Establishment of database and certification of experts trained
JICA	<ul style="list-style-type: none"> • Training of medical nurses • Exchange programs: Training courses in Japan on problems of non-infection diseases for administrators and service providers in Navoi region • Provision grant assistance to the Institute • Obstetrician and Gynecology • Volunteer exchange program • Servicing medical equipment (according to an agreement with MoH)

Source: *Analysis of situation in Health System of the Republic of Uzbekistan; GTZ –Tashkent, 2009*

A2.5: Key strengths and weaknesses of the health sector

Strengths

- Existence of an active multi-tier system of public health monitoring, which meets international standards.
- There is an adequate legislative and regulatory framework to track public health trends.
- The government has prioritised measures to enhance health care in the country with a focus on the following:

- Expanded access to quality primary health care services, emergency and specialised treatment.
- Improved preventive medicine
- Improved vaccination programs
- Improved sanitation and epidemiological conditions

Weaknesses

- Flaws in the current system for collecting and processing medical information include voluminous but unreliable statistical data, weak analytical capacity, organisational fragmentation, frequent duplication, and insufficient automation of data collection and processing.
- Oversight functions and management decisions in terms of quality control of medical assistance are made within an ineffective system of internal guidelines, recommendations, and directivities. The main factors undermining the quality of medical assistance in the country are:
 - Ineffective organisation and management of the health care system;
 - Inadequate budgetary funding for the health care system;
 - Inadequate professional competence of health workers in some fields;
 - Insufficient incentives for health care workers to provide quality services;
 - Limited access of health workers to resources and information needed to deliver quality professional services;
 - Lack of a coordinated system for protection of patients' rights as well as limited access of patients to resources and information about their rights;
 - Lack of incentives for health care institutions to improve the quality of health services.

A2.6: Funding and support for the immunisation sector

Table A2.6: Government financing for immunisation, 2004-2010

	Amount requested by MoH (in UZS)	Amount approved by MoF/GoU (in UZS)	Funds received (in UZS)	Approved amount as % of requested amount
2004	1,703,200	921,428	921,428	54.1
2005	2,396,800	1,526,881	1,526,803	63.7
2006	2,250,500	1,422,377	1,422,299	63.2
2007	2,735,000	1,593,377	1,593,377	58.3
2008	4,885,000	2,566,000	2,566,000	52.5
2009	6,554,454	2,900,000	3,738,600	57.1

Source: MoH data, 2010

Table A2.7: Vaccines received through humanitarian assistance, 2004-2009 (WHO, TICA)

Vaccines (in dosage & total amount in \$)	2004	2005	2006	2007	2008	2009
DTP					1,250,300 (\$424,689)	
HBV	1,218,600 (\$335,622)	1,804,900 (\$433,177)	2 044,000 (\$526,640)	1,579,100 (\$311,871)		500,000 (\$126,877)
BCG			119,950 (\$6,600)			1,061,000 (\$129,247)
Measles, Mumps and Rubella Vaccine			600,000 (\$450,000)	8,742,030 (\$3,661,553)	400,000 (\$490,000)	276,000 (\$123,648)
Oral Poliomyelitis Vaccine		2,680,000 (\$316,240)			750,300 (\$357,462)	
Total (\$)	335,622	749,417	983,240	3,973,424	1,272,152	379,772

Source: MoH data, 2010

ANNEX 3: LIST OF THE CONSULTEES FOR THE EVALUATION

CEPA team, working closely with our local consultant, visited Uzbekistan between 15th and 19th June 2010.

The following individuals were consulted with during the visit:

MoH

- Mr. Saidmurad Saidaliev, Head of Sanitary and epidemiologic department
- Ms. Dilorom Tursunova, Chief specialist of Sanitary and epidemiologic department
- Ms. Suraya Rasulova, Head of Motherhood and Childhood Department
- Ms. Dilfuza Khasanova, Chief specialist, Motherhood and Childhood Department

Paediatrics Institute

- Dr. Roza Jubatova, Director, Chief Paediatrician
- Dr. Gulnara Khalilova, Head of Immunisation Department

Republican Sanitary-Epidemiologic Centre

- Dr. Venera Baratova, Deputy Chief Doctor
- Ms. Luciya Kim, Head of Prevention Department

World Health Organisation

- Dr. Shakhin Huseynov, Technical Officer, vaccine Preventable Diseases and Immunization
- Ms. Anna Pashalishvili, National Professional Officer, Communicable Diseases Surveillance Unit

UNICEF

- Dr. Hari Krishna Banskota, Maternal and Child Health Specialist
- Bakhodiy Rakhimov, Nutrition Officer

World Bank Project – Health 2

- Ms. Roza Mukhamadiyarova, Coordinator
- Ms. Sevil Abdurakhimova, Coordinator
- Mr. Farkhad Fuzaylov, Coordinator

ADB Project – Mother and Child Health Improvement

- Dr. Nigora Karabaeva, Coordinator

Family polyclinics (where vaccination programs are implemented)

- Chief Doctor, Immunologist and Vaccinator nurse: Family Polyclinic # 51, Yunusabad district, Tashkent
- Chief Doctor, Immunologist and Vaccinator nurse: Rural medical units “Khasanboy”, Tashkent district – Tashkent oblast
- Chief Doctor, Immunologist and Vaccinator nurse: Branch of Family Polyclinic # 51