



**GOVERNMENT OF THE REPUBLIC OF
TAJIKISTAN**

**Comprehensive Multi year plan for
2011 - 2015**

Dushanbe 2010

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INTRODUCTION

Tajikistan is the one of the first countries, which supported the creation process of “Comprehensive multi-year plan” (cMYP). In the beginning of 2006 year, European Region of World Health Organization (WHO) initiated joint mission of WHO, UNICEF and World Bank, in order to provide support to Ministry of Health in development of cMYP. Mission considered, that cMYP is the best opportunity for systematic support, providing stability of National immunization program (NIP), including planning of vaccination stability. Although, development of cMYP provided possibilities of consolidation in one document all existing strategies, which was directed on solution of global, national and sub national purposes and strategies, including estimation of cost and funding of this background. By mutual agreement, made between Ministry of Health (MoH) of Republic of Tajikistan and main partners of immunization National program (WHO, World Bank and UNICEF), Ministry of Health issue an order on “Preparedness of cMYP and creation of working group” (Order # from ... 2006 y.). Joint mission of multi-year planning organization process started in May 2006, which showed positive development process of cMYP in period from 2007 to 2010.

Working group defined strategies and main actions, directed on improvement and achievement stability of National immunization program based on situation analysis. WHO European Region, UNICEF Representative in Tajikistan and World Bank provided comprehensive technical support, in result of which was cleared cost of strategies and main priority actions of National immunization program.

Main reasons for creating cMYP are followings:

- Describe and justify the priorities and strategies of national immunization program (with appropriate finance calculations), that in final result might cause the achievement of 2 main purposes of millennium, and that Government of Tajikistan promised to achieve to international community
- It was necessary to mobilize extra financial sources on Immunization program, to avoid the coming financial crisis and in future provide financial stability.
- It was expected that the financial model of the Program could change radically soon as in working out cMYP it was already reduced and support of the Global Alliance of Vaccination and Immunization (GAVI) and the Japanese Agency on the international cooperation (JICA) came to an end;
- For achievement of EPI purposes calculated for five years, it was necessary to divide cost of the Program and demanded financing with all potential partners, including the Government of Tajikistan;
- cMYP is the suitable and useful tool of belief and a substantiation for allocation of demanded financial resources in the course of research of means;
- At the same time, effective realization cMYP could raise efficiency of use of available resources and to avoid partially approaching to the immunization program;

Besides everything, cMYP it is necessary for support of the future demands at the second stage GAVI.

In March, 2010 Republic Tajikistan Ministry of Health has issued the new order on «to Preparation to cMYP for 2011-2015 and to creation of working group» (the Order № from 2010). In the work the working group basically leant against the document (the Complex long-term plan for 2007-2010), prepared the previous working group with technical support of joint mission the WHO and UNICEF and has defined the basic priorities and actions of the National program of immunization on 2011-2015, including strategy cost.

The basic priorities for EPI in 2011-2015 are:

- Provision of achievements (poliomyelitis eradication, measles elimination, rubella and CRS, maintenance of low level of disease by a diphtheria, the control over other diseases, prevented by immunization), received due to primary vaccination against 7 infections prevented by immunization, four types of vaccines (BCG, Polio, pentavalent, (DPT, Hib, Hepatitis B) and rubella) and additional actions for immunization (mass and mop up campaigns).
- Decrease asymmetry coverage between regions by level reduction of less covered and untimely vaccinated children in remote area by mobile teams;
- Inclusion in the National calendar new vaccines, Rotavirus of vaccine RV1, starting from 2012;
- Ministry of Health of Tajikistan also plans to introduce pneumococcus vaccine, nevertheless, weight of this infection, social both economic gains and financial stability on purchase of this vaccine are not studied yet. For this purpose is necessary technical support of WHO experts:
- Potential strengthening on management of the program as a whole and to management of vaccines by means of training carrying out («the Management for middle level», «Immunization in practice», «Reach each district» and «Training on comprehensive surveillance») and to the control of international and operative level;
- Strengthening effective surveillance on the diseases, prevented by immunization, including laboratory acknowledgement;
- Strengthening of actions for social mobilization and communication

Annual cost of the Program makes approximately 1.5 million US dollars. In time of the cMYP realization financial deficiency makes from 600,000 to 1 million US dollar that corresponds from 40 % to 65 % of annual cost of the Program. Program financing is limited to the Government, UNICEF, the WHO and JICA. Support from GAVI of vaccination against a hepatitis and pentavalent comes to an end with a vaccine in 2010. Also in 2010 support from outside of JICA on delivery of traditional vaccines for primary immunization comes to an end. It is a principal cause of increase in financial deficiency in 2011, besides mass campaign for the immunization of the population planned in 2014. The contribution of the Government of Tajikistan in EPI is rather limited. The government was obliged to increase gradually the contribution, nevertheless this contribution still has not reached due level.

For maintenance of financial stability of EPI, it is necessary for the Government of Tajikistan:

- Essentially and in practice to increase the contribution of Government Tadjikistna to the National program of immunization, in particular in financing for purchase and delivery of vaccines for planned immunization and operative expenses from the general the budget public health services as follows: in 2011 – 2,8 %; in 2012 – 2,9 %; in 2013 – 2,9 %, in 2014 – 2,9 % and in 2015 – 3,0 %
- To conduct active search of new donors to support of EPI;
- Submit to GAVI request on continuing provision of support in immunization by pentavalent vaccine
- Submission of request to GAVI for financial support on
 - Enhancing immunization services up to May 2010;
 - Introduction of rotavirus vaccine during period up to May 15, 2011.

Support from GAVI somehow will allow covering deficiency of immunization services financing.

1. Justification

1.1 Background information

The Republic of Tajikistan, covering an area of 143,1 m², is a mountainous country, 93% of the territory consists of high mountains, is located in Central Asia. Tajikistan borders with Afghanistan, China, Kyrgyzstan and Uzbekistan. High mountain ridges impede communication between the regions, especially in winter. A population of more than 7 million people, 70 percent of the population lives in rural areas.



Tajikistan is divided into five regions - the three areas (Badakhshan, Khatlon and Sughd), Dushanbe city and 13 districts of Republican Subordination (RRS). Tajikistan is a country with high fertility, which amounts to 4.4% in 2009. The total fertility rate per 100,000 population decreased from 38.4% in 1990 to 20.9% in 2000. Nevertheless, in recent years there has been a growth in birth again - 28.0% in 2008 and 29.0% in 2009. During the same period (1990 - 2009 years) total mortality rate also declined from 6.2 to 4.4. When you save the current level of fertility and mortality rates of the population will double every 20 - 22 years.

Table 1: Demography indicators

Indicators	1991	1993	2000	2005	2006	2007	2008	2009
Population (thousands)	5505,1	5561,4	6199,5	6850,3	6880,8	7151,8	7300,1	7373,8
Birth rate per 100 thousand population	39,1	29,8	27,0	27,2	27,3	27,1	28,0	29,0
The death rate per 100 thousand population	6,1	4,2	4,7	5,1	4,8			4,4
Growth rate	33,0	25,6	22,3	22,1	22,3	22,1	23,5	24,0

Source: State Statistics Department

Ethnic groups - Tajiks - 75,6%, Uzbeks - 24,0%, Russian - 0,3%, others - 0,1%. State-Tajik language, while other languages - Uzbek, Russian.

Tajikistan's population is young, 35.5% are children under the age of 15 years, and only 5.1% - over 60 years (see Table 2).

Table 2: Population age group

Age	M		F		Total	%
	#	%	#	%		
0-6	624,282	51,2	595,018	48,8	1,219,300	16,5
7-14	707,213	50,4	695,987	49,6	1,403,200	19,0
15-19	439,000	50,7	425,800	49,3	864,800	11,7
20-29	717,200	50,3	708,400	49,7	1,425,100	19,3
30-59	1,023,500	49,1	1,061,000	50,9	2,084,500	28,2
> 60	179,500	47,7	197,400	52,3	376,900	5,1

The overall adult literacy rate is 99%, but poverty prevented some children from attending school. Attendance in secondary schools compared to 1991 fell from 99% to 88% in 2003. Enormous efforts had to make the Government, the international community and local communities in order to re-trend growth in attendance by children of schools - in 2005, 95% and in 2009 98.4%

1.2 Political and social-economic tendencies

Since 2000, following the signing of the Armistice Agreement between the Government of Tajikistan and the irreconcilable opposition, in general, the political situation has stabilized, which gives good conditions for normal life and work of local and international organizations. In February 2010 the country held parliamentary elections, in which the ruling People's Democratic Party of President Emomali Rahmon won a majority of seats in the Parliament of the country (70%). International observers assessed the elections quite democratic.

Tajikistan is a predominantly agrarian country, however, the national income from agricultural products is low. The country is still largely dependent on financial support in the form of loans and grants allocated by the international community. In the period 2006-2008. increased flow of remittances from migrant workers, which is one of the main sources of income for many families, but because of the global economic crisis, the cash flow for the past two years fell by almost half. Labour migration is about 1 million people, representing approximately 30% of the total working population of the country. Women play an important role in the survival of the family, carrying the burdens of daily existence, despite its vulnerability to excess labor force and unemployment. Women accounted for 56.4% of registered unemployed.

In recent years the economy will grow an average of almost 10-12% per year. Despite this, GDP per capita is still the lowest in the former Soviet Union, and has not yet reached the level of 1990 (before independence). To achieve long-term development and poverty reduction set out in the Reduction Strategy Paper (PRSP), the Government plans in the medium term to achieve 6% economic growth. This will require continued political reform and economic restructuring that will ensure sustained growth through private sector development and economic stabilization.

The study of living standards carried out in the country in 2008 with support from the World Bank indicate a decline in the share of population living below the poverty line from 83% in 1999 to 63,4%, however this level of poverty remains the highest among Central Asian republics. Tajikistan is one of the poorest countries in the world (according to the Human Development Report in 2009, Tajikistan is the 134 th place among 194 countries), where the monthly salary was only U.S. \$ 30-40. In 2009, GDP per capita was 661 U.S. dollars.

1.3 Health system

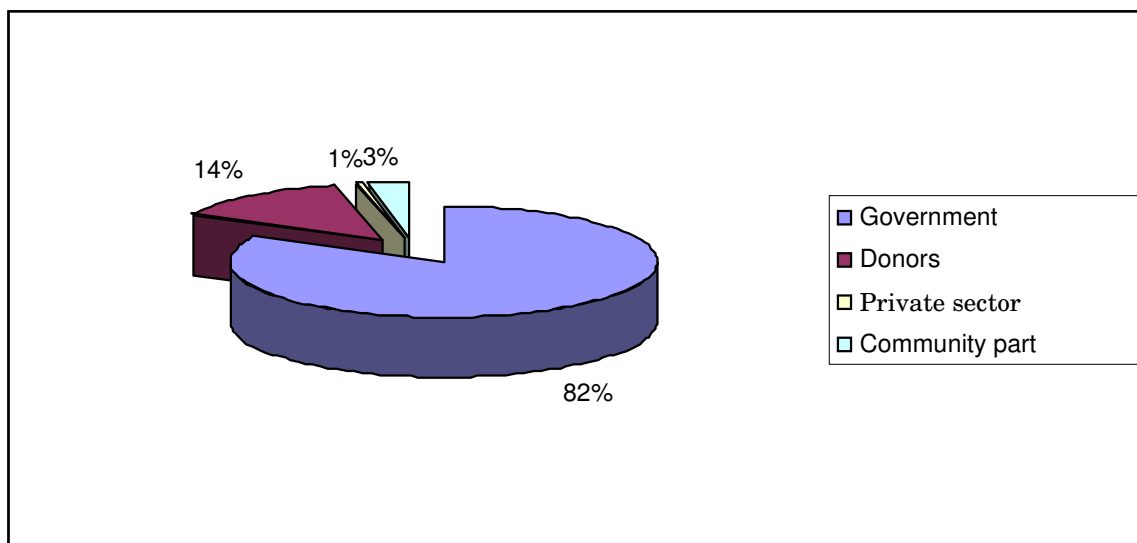
Tajikistan inherited the Soviet model health system, organized around a network of health institutions with emphasis on hospitalization. This system remains quite centralized, with small variations of decentralization. The Law on Local Self-Government gives local authorities, including health authorities, a wide range of office. Since 1999, the Government introduced a policy of decentralization, whereby the central level today is responsible for policy, strategy and leadership, and regional and district level is responsible for planning, budgeting and implementation. The main purpose of decentralization - to promote the construction of public participation and self-sustaining, as well as to ensure that services are based on demand.

One of the main priorities of the National Development Strategy is to reform the health system, which also includes the development of the private sector and attracting investments, improving maternal and child health, reduction of communicable diseases preventable by immunization, as well as improving access, quality and efficiency of medical services. Despite the ongoing reform of health care, the health system in many places still is vertical in nature and aimed at treatment. Resources allocated to support health care, limited, and in 2009 it received only 2.31% of national income. Services provided by the private sector, unreliable and because of the high prices are not available to most people. All these factors contribute to poor health of the population. According to the current country reports on implementation of the MDGs, the Millennium Goals in the health sector are unlikely to be achieved. The Ministry of Health (MOH) is responsible for planning, policy development and budget for the health sector, and is also responsible for the management and financing of the republican health institutions, including the Republican National Center for Immunoprophylaxis. The institutions of primary and secondary level are subject to local administration - Hukumat and their funding comes from the local budget.

Table 3: Main social-economic health indicators in Tajikistan in 2009

Population (in mln)	7,373,600
GDP per capita \$	661
Total expenditure on health per capita \$	13
Growth of population per 1000 population	22.5
The birth rate per 1000 population	29.0
Infant mortality per 1000 live births	4.4

Diagram 1: Total health budget, 2010



Current concept of health care reform is aimed at reducing the number of service delivery points, especially in rural areas. Provision of primary health care services is consolidated and provided health clinics and health centers with the assistance of general practitioners (family doctors). This reform process began in the big cities in 2002 and continued in rural areas where rural hospitals and dispensaries are united in rural health centers, which will have a significant impact on the NPI, which is to the process of reforming the health system implemented in more than 3,000 medical institutions (in all SMS, SMA and FAP).

1.4 Immunization service in the health system

Before 1996, the immunization program monitor and control the vertical system of sanitary-epidemiological stations (SES), who had regional and district offices. In response to outbreaks (1993-1994 years), preventable by vaccination, the Ministry of Health (MoH) has decided to strengthen immunization services, dividing the responsibility for immunization and health surveillance, and creating a Republican National Center for Immunoprophylaxis (RCIP). RCIP was established by the Order № 304 of Ministry of Health on 24 July 1996. Later, from 1997 to 2003, was set up six regional centers of Immunization (DRC) - in Dushanbe, Khujand, Sughd region, Kurgan-Tube and Kulyab city of Khatlon oblast, GBAO and Garm Rasht Valley (for the six districts of RRS).

RCIP directly accountable to the Ministry of Health, has a separate budget which is formed from the central health budget, is responsible for overall planning, evaluation and monitoring of EPI, the provision of vaccines and cold chain equipment, data collection and analysis, guidance and control for the safety of vaccination cities and districts of the republic.

In all cities and regions in the central district / municipal hospitals (CRH) has also established centers for immunization, which are subject to the chief physician CRH. Staff urban and regional detention center director, a pediatrician / immunologist, an official of the cold chain and

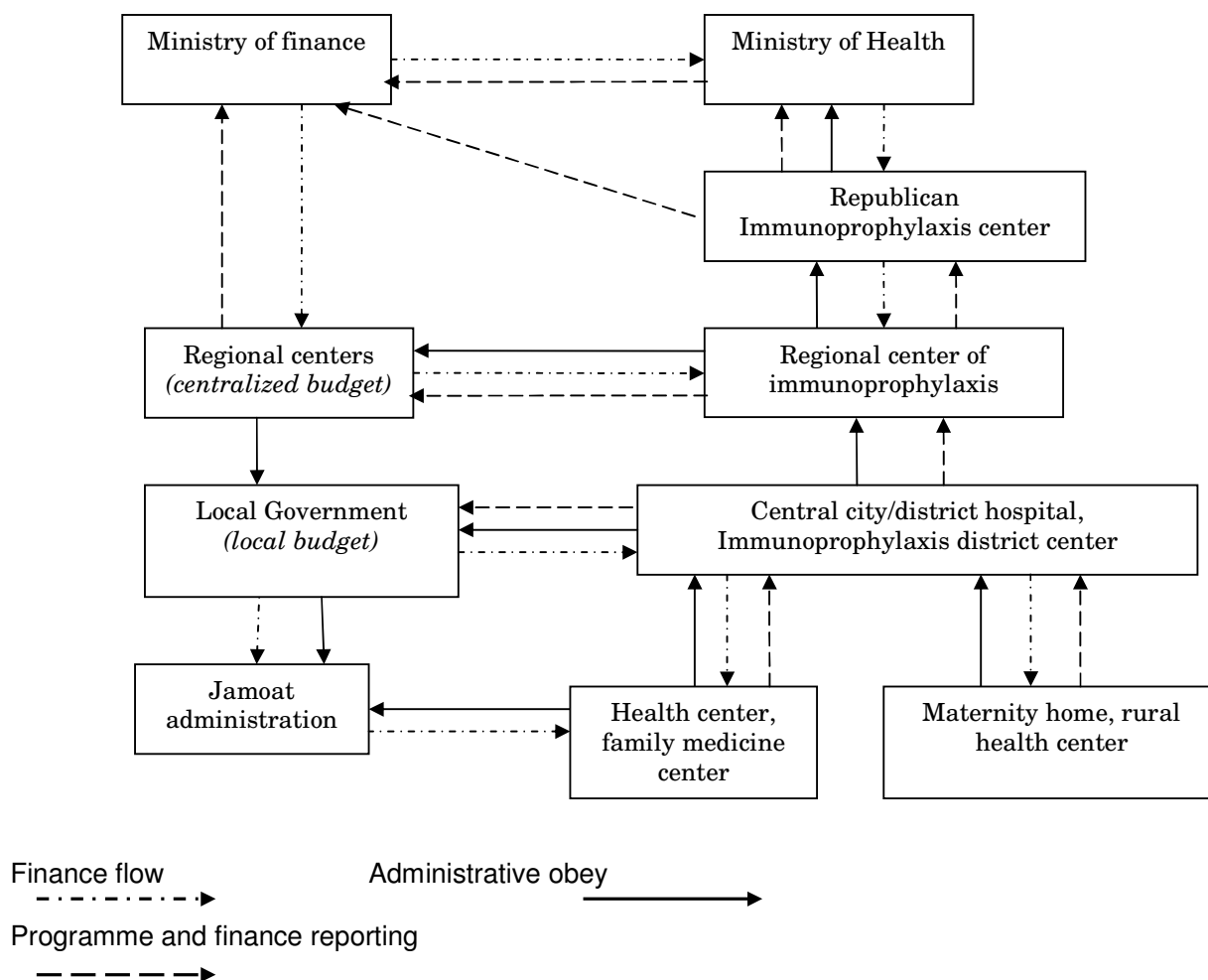
responsible for employee information system. Tific principles are based on annually updated contract with the head doctor of CRH and are responsible for planning and implementing preventive measures in towns and districts, providing vaccines, cold chain monitoring, safety monitoring and immunization, provision of technical assistance to medical institutions on the FIR, the organization of mobile teams to vaccinate children in remote and inaccessible locations, as well as the preparation and submission of monthly, quarterly and annual reports in RCIP. City and regional detention center coordinates its work with regional detention center, but funding is provided from the budget of CRH, which, in turn, is formed on the basis of the local budget.

Immunization is one of the basic services of primary health care (PHC). In urban areas, immunization is provided by general and children's clinics and Family Medicine Center. In rural areas, immunization is carried out through district health centers, rural health centers, which are subject to CRB. The private institutions participating in carrying out preventive vaccination does not accept.

Staff participating in the immunization consists of pediatricians, internists, family physicians, nurses and nurses and paramedics on Immunization (physician assistants) who provide triage services at health centers. Doctors are responsible for drawing up the schedule of preventive vaccinations, medical check-up vaccinations, control the work of nurses in identifying target groups, monthly planning and reporting. Fostering sisters have their own sites and are responsible for informing parents about vaccination safety of the vaccine and completed record forms (№ 63). Hospitals that serve large areas usually have special rooms for vaccination, which employ nurses, in whose responsibility is to provide immunization services. In general, immunization services are involved up to 3,000 medical institutions, including maternity homes and offices, clinics, family planning centers and health centers. The Organization for vaccines and inoculum is an important advantage of the immunization program; currently the system used to distribute vitamin A, and can also be used for other purposes, implying a broader scope, providing savings in the provision of medical services.

Immunization services are combined with other components of PHC. Immunization is carried out according to the calendar vaccination during certain hours. Their number in a month depends on the target population. For example, maternity wards, town and district health centers have daily hours of immunization, rural health centers immunize 1-2 times a month. In remote and inaccessible locations vaccination is carried out once a quarter with the help of mobile teams, which have an impact on coverage, vaccine management, cold chain and maintenance. Currently, about 85% of vaccinations carried out in paragraphs vaccination, 10-12% - during the campaign and 3-5% by mobile teams.

Diagram 2: Organizational structure and financing of immunization service



In order to coordinate immunization activities in May 2000 on the basis of the Order of the Ministry of Health of Tajikistan № 255 of 26.09.2000, was established Interagency Coordinating Committee (ICC). Given the changes in the functioning of the ICC and its absorption of new members of the MoH of the RT published the new orders. Latest Order for № ____ was published ____ 200, at the ICC meeting discussed the major issues related to immunization. The main partners of the NIP are:

- GAVI - supporting the provision of pentavalent vaccine, syringes for safe vaccination and boxes for safe disposal of used immunization materials.
- YAMS – supports the provision of vaccines for primary immunization..
- UNICEF – supports the purchase and delivery of vaccines, cold chain equipment, training, program management and compliance with immunization cold chain, to facilitate the political and technical aspects of the program.

- WHO – supports disease control, management FIR, training, policy and technical aspects of the program.
- Some national and international NGOs provide support in procurement, evaluation and monitoring program.

Financing of immunization services, including procurement of vaccines (10-15% of the total cost), the salaries RCIP and regional detention center, as well as some operating costs at the expense of the central budget. Operating expenses at the district level and health care institution are covered by urban / regional local authorities (Hukumats).

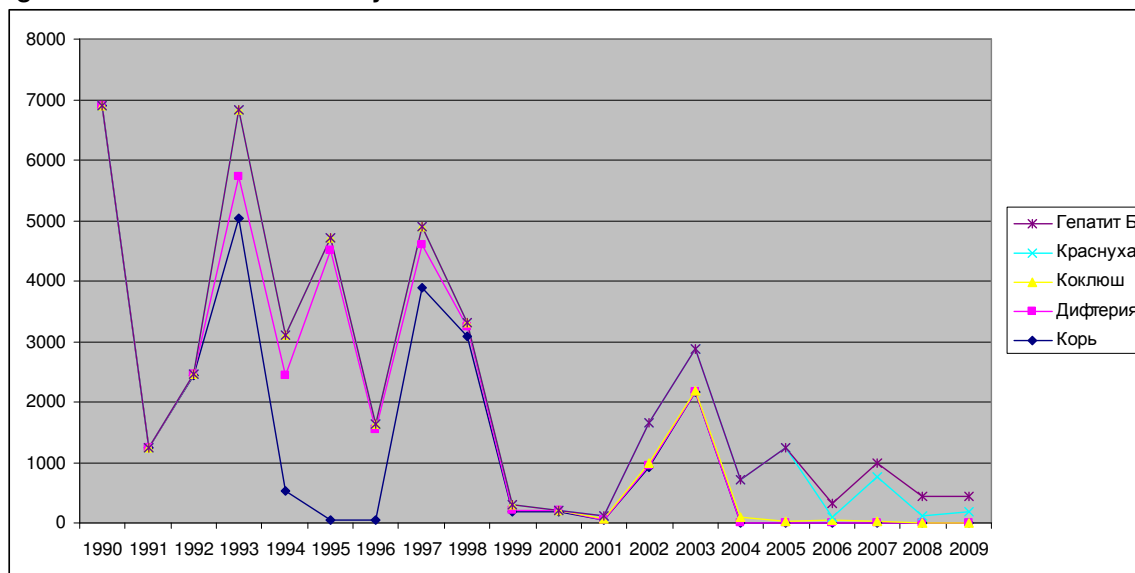
2. Infectious diseases situation and immunization coverage

2.1 Situation of infectious disease and mortality rate from the vaccine preventable diseases

Thanks to the successful organization and salutary efforts on vaccination realization, considerable changes in epidemiologic the diseases prevented by means of vaccination are observed; especially it concerns a poliomyelitis, measles and diphtheria. The situation on reduction of number of home delivery has over the last 5 years improved. So, in 1997 home delivery was 27.7 %, in 2003 they have increased to 35.8 % whereas in 2009 they were reduced more than twice and have made 17,6 %. Nevertheless, the quantity of home delivery remains still very big in which result the considerable number of not registered children as a result of home delivery affects planning and coverage by immunization.

Though support in development of information system of the public health services, rendered by the international partners last years, is essential, nevertheless it is still far from perfect. Quality of the national data becomes complicated weak system of public health services and inability more parts of the population to use public health services. Though these results are not definitive, they specify in an unsatisfactory condition of system of public health services, mainly, connected with problems of geographical access. The approximate analysis of the data of national statistics specifies in weakness of existing information system of public health services (artificial satellite). For example, it concerns the control and the reporting on coverage by vaccination. Big efforts it is necessary to put also in strengthening of epidemiological supervision for vaccindriving infections. Official statistical data about coverage by immunization does not reflect a real situation, plagues, periodic occurrence of flashes on some infections first of all speaks.

Figure 3: Data on morbidity from VPI in 2001 – 2009



Source: Republican Immunoprophylaxis Center

2.2 Immunization Calendar

Till 2002 purchase and delivery of all vaccines for planned immunization were carried out with UNICEF support. In 2002, after demand approval on introduction of vaccination against hepatitis, GAVI has started to provide republic with this vaccine up to 2010 inclusive. GAVI have approved the demand of the Government Tajikistan on maintenance a vaccine (DPT, Hib Hepatitis B) in 2008. Since 2008, vaccines for primary immunization (BCG, Polio, a hepatitis and measles) are provided with financial support from JICA which are bought and delivered in republic with use of mechanisms of purchases of UNICEF.

The immunization program in Tajikistan is directed on struggle against following diseases.

1. TB
2. Polio
3. Whooping cough
4. Tetanus
5. Diphtheria
6. Measles
7. Rubella
8. Hepatitis «B»

Table 4. Routine Immunization calendar introduced in Tajikistan in 2008

Vaccine	Age group		Booster
Polio	In Birth during 24 hours, months	2, 3, 4 and 12	-
Hepatitis «B»	In Birth during 24 hours		-
Pentavalent (DPT, Hib and Hepatitis B	2, 3 and 4 months		-
BCG	3-5 days after birth		6, 16 years*
MR	12 months***		6 years***
Rotavirus vaccine** (RV1)	2 and 4 month		
DPT			16 – 22 months
DT*			6 years*
DTM*			16, 26, 36, 46 и 56 years*

The note:

* And for absence of funds for purchase of vaccines - re-vaccination БЦЖ, АДС and АДСм it is not spent.

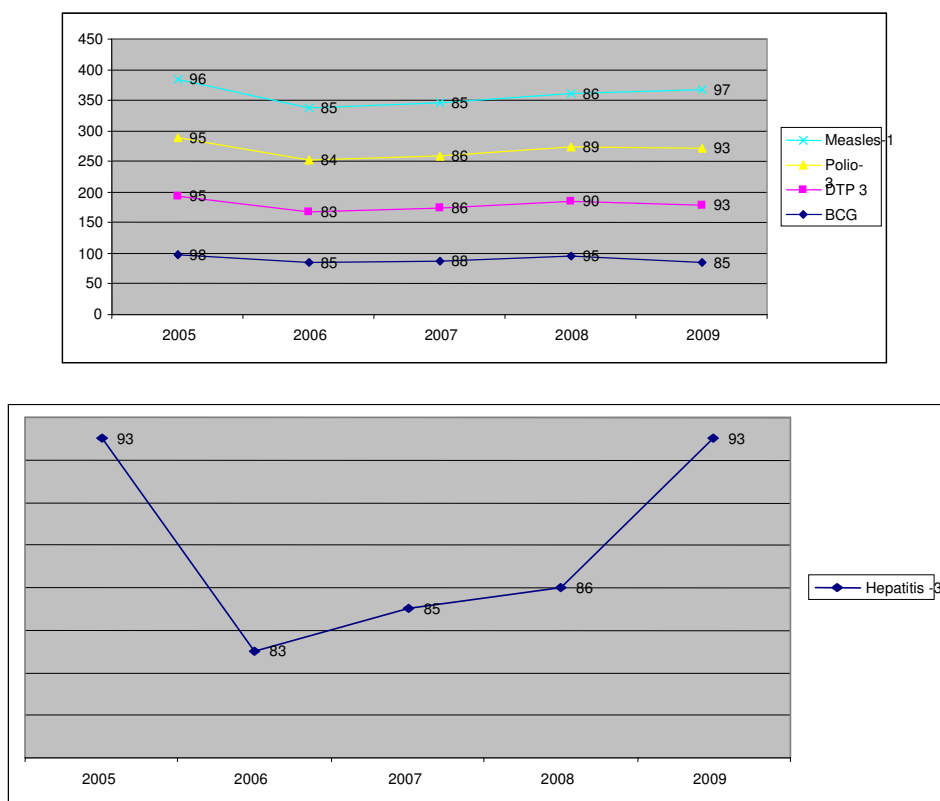
** As already it has been noted earlier, in case of support from outside ГАВИ, rotavirus a vaccine it is planned to enter in 2012.

*** introduction of vaccine MR is real has begun since November, 2009 after carrying out НДИ against measles and rubella.

2.3 Immunization coverage

In the early 1990 years the National program of immunization experienced serious difficulties in population immunization. Shortage of vaccines and materials for safe injections, the equipment cold chains, and also absence of motivation from outside medical workers, have led to decrease in coverage and flashes of the diseases warned by vaccination. Nevertheless, the Government, with support of various international organizations USAID, UNICEF, the WHO, GAVI, JICA and others has managed to restore immunization service in the country and to reach enough high coverage of immunization by all kinds of immunization. In 2009 coverage by immunization according to the official statistical data on all vaccination-driving to infections, except for vaccination BCG because of shortage of special disposable syringes, has made above 93 %. (See the Diagram 4 and Table 5).

Diagram 4: National coverage of immunization in Tajikistan, 2005 – 2009



Nevertheless, to hope for the official statistical data by the reached results as yet early. As already it was marked earlier, in registration-accounting system on planning and coverage by immunization there are still serious lacks. The comparative data on coverage by immunization on the basis of 1) the official statistical data and the researches spent in in 2000 (UNICEF), 2003 (Ministry of Health RT) and 2005 (UNICEF).

Table 5: Comparison of MICS 2000 and 2005

	2000	2003	2005
BCG	88.7	91,4	95.1
Polio	78.3	93.2	79.3
DPT3	75.6	90,8	82.1
Measles	61.2	91,2	85.6
Full immunization coverage	56.0	90,2	69.3
Hepatitis «B»	---	86,8	68.5

Since 2006, researches on coverage by immunization in the country due to absence of funds it creates a problem in an estimation of a real situation on coverage of vaccine-driving diseases.

3. Characteristics of the immunization program

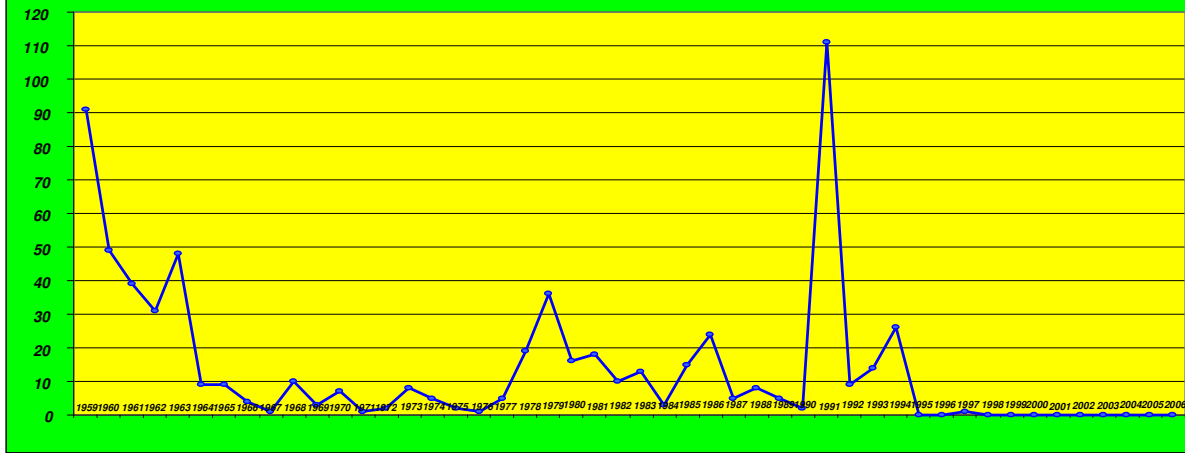
3.1 Characteristics of infections preventable by immunization

3.1.1 Poliomyelitis

Routine immunization against polio in the country started in the 70-s: starting from the date of birth to 12 months, infants received five doses of Polio. With WHO and UNICEF technical support in 1995 in Tajikistan was developed and identified strategy to eradicate polio. An active surveillance for acute flaccid paralysis (AFP) was introduced in the late 1990s. While at the national level monitoring of AFP is working satisfactorily, however there are several “silent” zones, no reported cases of AFP since 2000, owing to poor training of health workers of primary health care level. There are problems in identifying, reporting and investigation of AFP cases, and the problem of timely transportation, laboratory confirmation and follow-up, which ultimately leads to poor quality control. Mass campaign against polio was first held in 1995, which was held annually until 2002. For mass campaigns followed by additional campaigns “catch-up immunization”, conducted in 1998-2002 and 2007 in 35 districts with a high risk of disease near the border with Afghanistan, during which the coverage was 98%. In June 2002, Tajikistan has received the status of the country - free from polio.

Figure 5: The incidence of poliomyelitis in Tajikistan in 1959-2009

**The incidence of poliomyelitis in the Republic of Tajikistan
1959-2005 years. (Absolute number)**



The level of routine immunization coverage is quite high, although there are areas with low coverage (less than 80%). These areas are mostly located in remote mountainous areas, where there is a problem of timely immunization of infants born at home.

In order to preserve status of country free from polio, it is necessary to strengthen political strategy in those areas where it is not carried out properly. To strengthen the routine immunization the training of staff should be continued first of the entire primary health care "Reach Every District" and "Immunization in Practice" strategy. The following strategies are aimed at immunization coverage in remote areas and strengthening of epidemiological surveillance. Training on surveillance should be integrated with other VBF and concentrated at the primary health care. It is also very important to increase the motivation of health staff. The hospital staff should be trained in the proper identification and reporting, and district epidemiologists must learn how to conduct proper investigation of cases, collection and transportation of analysis.

SUMMARY OF PROBLEMS AND REASONS:

- Delays with immunization of infants born at home
- areas with low levels of coverage:
 - the low level of knowledge among health workers to implement the strategy « Reach of Every District»
 - geographical inaccessibility - the population live in remote areas, which complicates the transferability of medical facilities, as well as the work of mobile teams
- Weak epidemiological surveillance for AFP:
 - the low level of knowledge among regional epidemiologists to investigate, collect and deliver analysis because of inadequate training
 - lack of motivation of health personnel
 - delay the timely transportation of test
- presence of "silent" zones
- high-risk areas importation of wild polio virus, bordering with Afghanistan

3.1.2 Measles, Rubella

Vaccination against measles in the period of the Soviet Union began in the 60ths. Re-vaccination was introduced in 1986 and included children up to 6 years. In 1993, due to the unfavorable epidemiological situation of measles and lowering the age of infants who had measles have been changed for measles vaccination in the national immunization calendar, which included a primary vaccination at 9 months and booster - at the age of three (3) year old.

With the improvement of the epidemiological situation in the country vaccination against measles is once again held on schedule in 1986, in 12 months age and 6 years.

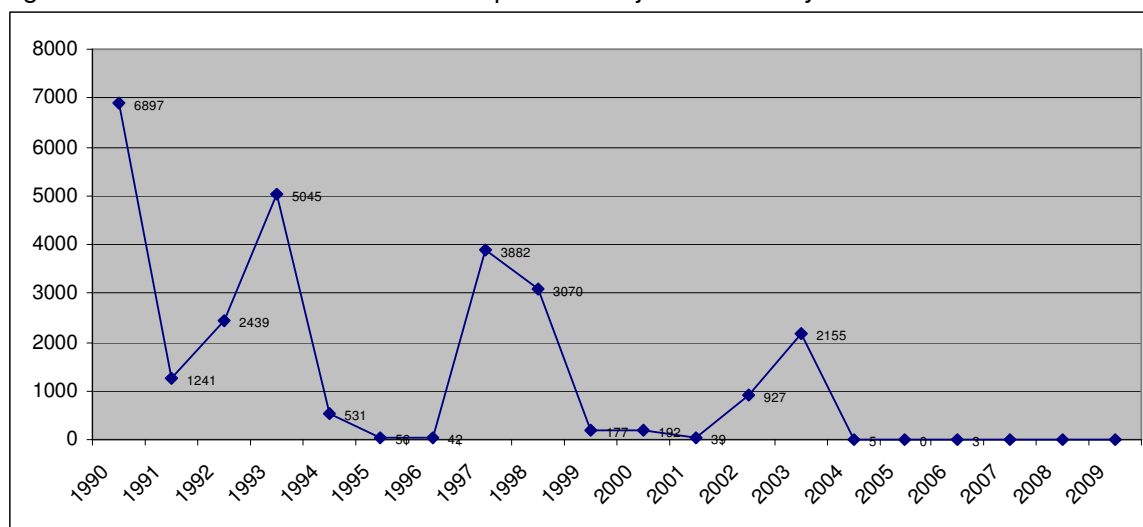
Because of the shortage of vaccine in early 1990, re-vaccination coverage against measles dropped sharply (to 46-70%). Before the introduction of additional immunization, in 1993 there were registered 5045 cases of measles in 1997 - 3883 cases during the outbreak in 2003 - 2155 cases. Prior to conducting mass immunization campaigns against measles, measles outbreaks were recorded every three years, which was indicating low immunization coverage in some areas. In 2004, there was a massive campaign against measles for children under the age of 19 years (in Soghd region up to 29), which greatly altered the epidemiological situation of measles.

Vaccination against rubella was not performed in the country. For the first time vaccination against rubella held during the second mass campaign against measles and rubella held in autumn 2009. Immunization covered children from 1 to 14 years.

In the near future there will be conducted campaign against measles and rubella in the country for the girls and women from 15 to 29 years.

According to WHO EURO Regional goal, 2010 is supposed to be a year of completing of eradication of this disease. However, achieving of this goal for Tajikistan is not yet feasible. In addition, Tajikistan was unable to include to the National Immunization Calendar antigen rubella vaccination of women of reproductive age. The purpose of the elimination of measles, rubella and CRS has been postponed for 2015.

Figure 6: Incidence of measles in the Republic of Tajikistan in the years 1990-2009.



To achieve this goal the European region, it is necessary to intensify efforts to implement programs to eliminate measles. The first strategy of this program is to improve routine immunization covering against measles exclusively in all areas of the country. This is possible through increased support for mobile teams in remote areas, including training in RED and "Immunization in Practice". The second strategy is to improve the epidemiological surveillance of measles through training on active surveillance. As for additional measures to fight measles, due to lack of funds in 2011-2015, it is not planned.

It is also very important to the Ministry of Health in the next two years to assess implementation of the Programme for the eradication of measles.

In 2008 the Ministry of Health has introduced a combined vaccine against measles and rubella (MRV), but really, this vaccine was used in November 2009 after the SIA.

Ensure laboratory resources supported by the WHO office for Europe.

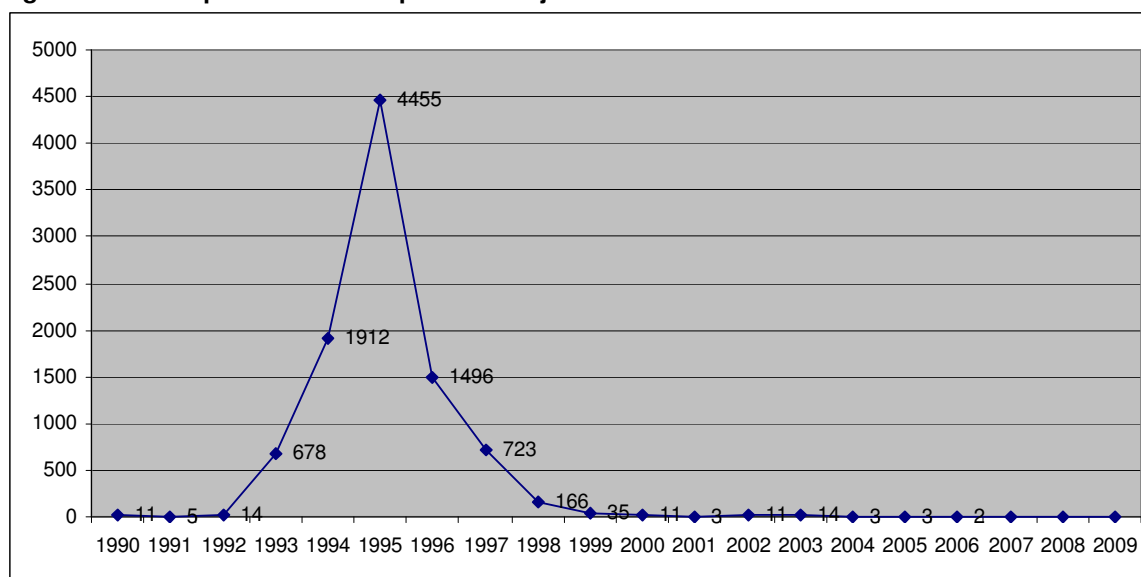
SUMMARY OF PROBLEMS AND REASONS::

- Lack of routine immunization coverage and very low coverage in some remote and inaccessible locations.
- Weak measles surveillance. Rubella and CRS:
 - Not full-time laboratory monitoring of measles;
 - Insufficient quality training of specialists;
 - Lack of adequate laboratory equipment.
 - Inadequate training of health personnel on active surveillance.

2.2.1 Diphtheria

Outbreaks of diphtheria were registered in 1990 in Tajikistan and all age group were involved. it started in Khatlon oblast and spread throughout the country. In total 4000 cases of disease were registered and out of those 265 were with lethal outcome. As response measures the surveillance system was strengthened and in 1995-96 mass immunization campaigns against diphtheria were conducted. Thanks to the campaigns conducted the epidemiological situation significantly improved and since then only sporadic cases of the disease re being registered. (Figure 67).

Figure 4: Diphtheria in the Republic of Tajikistan in 1990-2009



Due to the absence of reagents laboratory analysis practically is not conducted. The weakest component of the Diphtheria control programme is re-vaccination, linked to the lack of resources for vaccines procurement.

Surveillance involves combined tracking of the prevalence and implementation of planned activities including provision of equipment reagents to the laboratory, training of laboratory staff and implementation of active surveillance.

Mass campaigns are expensive measures, and it is more appropriate to achieve high coverage by routine vaccination and re-vaccination, strengthen the capacity of the laboratory and increase number of laboratory confirmed cases. Only with these measures it is possible to prevent further disease outbreaks

SUMMARY OF PROBLEMS AND REASONS:

- Relatively low coverage in three-four districts, mainly due to ineffective management of immunization activities;
- Low level of surveillance:
 - Lack of funds for support of mobile teams
 - Absence of integration of diphtheria surveillance into the surveillance system on other vaccine preventable diseases.
 - No laboratory confirmation of samples, due to absence of reagents;
 - Unclear demarcation of functions and responsibilities between the State SES and immunization services at local level;
- No re-vaccination among older age groups due to absence of funding for vaccines procurement (years of age and older).

2.2.2 Hepatitis B

Vaccination against a hepatitis would be included in the National program of immunization for 2001-2010. In May, 2001 the Republic Tajikistan Government has developed and submit to GAVI the demand for support of introduction of vaccination against a hepatitis in the country. The demand has been approved also the country has begun stage-by-stage introduction of vaccination against Hepatitis B have been begun in 2002. In the first years of application the vaccine was applied partially in hospitals, and coverage was low.

During the last years level of coverage of planned immunization has reached enough good result (more than 90 % at national level) though there are areas with low coverage (less than 80 %). These areas, basically, are located in remote mountain areas where there is a problem of timely immunization of the newborns who were born in house conditions.

The existing system of the information and the reporting about coverage by inoculations of children is elderly till 1 year does not allow to carry out monitoring of timeliness of introduction of the first dose of a vaccine against a virus hepatitis in newborns (at the first 24 hours after birth). It will be necessary to spend audit of system of the reporting and to bring respective alterations which will allow receiving the information on relative density of alive birth, received the first dose of a vaccine against virus hepatitis in at the first 24 hours after birth.

SUMMARY OF PROBLEMS AND REASONS:

Untimely immunizations of the newborns who were born in house conditions;
Areas with rather low level of coverage:
Absence of system of the reporting, allowing to obtain the data about timeliness of introduction of the first dose of a vaccine newborn (within 24 hours after a birth)
Low level of knowledge at medical workers on strategy performance «Reach each district»
Geographical low availability - the population lives in remote districts that complicates обращаемость in medical institutions, and also work of mobile brigades

Vaccination coverage

year	Hepatitis B-1	Hepatitis B-3
2002	59%	39%
2003	67%	60%
2004	90%	88%
2005	97%	93%
2006	86%	83%
2007	87%	85%
2008	88%	86%
2009	95%	93%

2.2.3 Rotavirus

Rotavirus is the most widespread reason for heavy gastroenteritis in babies and children of early age all over the world. Annually rotavirus the infection carries away lives about a half-million of children at age <5 years, and > 80 % of lethal outcomes are necessary on developing countries.

In Republic Tajikistan sentinel epidemiological surveillance on the basis of Dushanbe children's infectious hospital where researches the burden of diarrheal diseases caused by rotavirus etiologies, the clinical characteristic of cases, a current and weight of the analyses of children confirmed with laboratory image till 5th years are carried out is organized. In the surveillance frameworks within 3 years, it has been laboratory surveyed about 2880 cases of a diarrhea. Researches have shown that at 38,0 % of children is under 5 years hospitalized in a hospital because of a diarrhea, diseases caused by rotavirus infection. The rotavirus infection is especially extended among children up to second years, children with the severe form of a diarrhea were observed.

As the clinical picture of rotavirus gastroenteritis in many respects does not differ from a current gastroenteritis, caused by other activators, the great value has laboratory research of tests of excrements for reliable surveillance for rotavirus infection and it can be useful for the prevention of distribution of an infection in medical institutions.

In 2006 the commission of experts has spent an estimation of a condition of death rate from rotavirus infections in the countries of the European Region the WHO. According to the settlement data the WHO in Tajikistan annually dies 1483 children aged under 5 years for the rotavirus infections.

The obtained data convincingly testifies to necessity of introduction rotavirus vaccines in a national calendar of immunization for two administration of vaccination of children at the age of 2 and 4 months.

3.1.6 Routine immunization

Immunization services give about 3,000 various medical institutions (city polyclinics, maternity hospitals and branches, the health centres, the centres of family medicine). The medical personnel of various qualifications are involved in them: staff nurses, midwives, family doctors. Immunization services appear in medical institutions, and also during additional иммунизационных actions and with the help mobile brigades. The shortage of the personnel in some remote medical institutions, insufficient maintenance of mobile commands are the basic obstacles for realization of strategy on coverage by immunization. Timely vaccination of children suffers, first of all, because of enough great number of house sorts, doubts of medical staff concerning simultaneous introduction of several vaccines, incorrect interpretation of false contra-indications, and also the missed possibilities. At national level of loss of children make about 3 %. In some areas this indicator reaches 10 %. According to the current legislation, vaccination services are given free of charge; however there is a problem of informal payment for immunization services.

Concerning the majority of antigens coverage at national level is quite satisfactory, but at level of areas it can be a miscellaneous. One of purposes of EPI consists in increase in coverage with special attention on each area, and also increase in support of mobile brigades for vaccination of children where there is no constantly operating medical institution and medical staff. It is very important on provision of timely vaccination to children to train responsible medical staff in practice of immunization and coverage of each area.

SUMMARY OF PROBLEMS AND REASONS:

- Shortage of health workers in remote areas.
- No in time vaccination of children:
 - Home delivery (~17,6%);
 - Wrong interpretation of false contradictions;
 - Missed opportunities.
- High level of missed children (10%) in some districts:
 - Immunization bands from vaccination from false contradictions;
 - Informal payment for immunization services.
- No adequate organization of immunization services in some districts.

3.1.7 Introduction of new vaccine and underused vaccines

Changes of co –financing of GAVI have to be included

Poor resources it is not enough for realization even some prime actions, therefore till 2015 the Republic Tajikistan plans to direct inquiry GAVI on continuation of rendering of support in vaccination carrying out pentavalent vaccine for the period with 2011 to 2015 and to prepare the demand for GAVI for introduction of rotavirus vaccines (RV1) since 2012. If it will turn out to mobilize additional resources, need to be including in cMYP following important actions:

- Vaccination (two administrations) of pregnant women against a tetanus for decrease in risk of occurrence of a tetanus of mother and the newborn that is the extremely important because of a considerable quantity of house sorts, and also not conducted planned booster for DTP for long time.
- Vaccination of children against pneumococcus vaccine since 1915 (after study carrying out by efficiency of vaccination and burden of disease).

3.1.8 VPI surveillance

In Tajikistan the system of epidemiological supervision of the infectious diseases warned by immunization is created and there is a corresponding structure of the medical institutions responsible for carrying out surveillance. The developed and confirmed documents, correspond to requirements the WHO, the medical personnel as a whole conducts surveillance being guided by standards the WHO, nevertheless, there is a necessity to spend retraining of responsible medical staff on a regular basis.

There are complexities in sphere of the reporting which demands certain procedures and means (the immediate reporting, the regular reporting and the zero reporting). The reporting system functions up to the mark, at regional level, as to regional level it is required additional training for carrying out of epidemiological supervision, and the decision of existing problems.

Surveillance it is conducted, basically, for AFP, the measles and just introduces supervision of Rubella and CRS. However surveillance requires perfection. There is no possibility of carrying out of laboratory research at suspicion on diphtheria. Investigation of cases of diseases suffers because of difficulties with timely delivery of tests that basically is connected with shortage of financial assets for acquisition of combusive-lubricating materials. The system of surveillance gets of the country additional support from the WHO for transportation of AFP samples to Moscow. As to tests on measles they are investigated in national laboratory.

It is necessary to strengthen surveillance on all target illnesses.

Strengthening of laboratory potential and training of the employees giving reports should become one of directions. Separate training should be spent at regional and regional level for epidemiologists. The special emphasis is necessary for making on "silent" zones. It is necessary to establish the reasons of the unsatisfactory reporting and according to it to reconsider the maintenance of subjects of training, including revealing of cases and the form of the reporting for a sharp peripheral paralysis, measles, diphtheria, rubella and a congenital rubella syndrome. Also it is very important in due time provision of necessary forms on investigation and the reporting. It is very important to improve feedback system.

It is necessary to strengthen also information work with the population, parents that they also could make the decision on the timely reference to the doctor.

It is necessary to organize preparation of trainers. Training should proceed at all levels during all period of realization cMYP.

It is necessary to continue realization of sentinel surveillance for rotaviruses diarrheas to carry out tracking for epidemiology of rotavirus infections after vaccine introduction. Now the WHO gives financial support in realization of surveillance on rotaviruses. It is necessary for Ministry of Health to undertake efforts on maintenance of realization of system surveillance after support of the WHO will end.

SUMMARY OF PROBLEMS AND REASONS:

- Surveillance system of VPI limited by AFP and measles, but no any surveillance on other VPI.
- There is a need to implement measures on provision of realization of sentinel surveillance on rotaviruses after vaccine introduction, including negotiation on making sustainable financing system from Government when WHO will pull out.
- the surveillance system suffers from following lacks:
- Low revealing because of insufficient knowledge on diagnostics and use of standards of definition of a case (the WHO recommendation)
- Shortage of forms of registration and the reporting especially at primary level
- Difficulties of the timely notice because of:
 - ☐ Communication's constrains
 - ☐ Low knowledge of rules and procedures
 - ☐ Low motivation
- Insufficient investigation of cases (except Polio) because of:
 - ☐ Problems of gathering of tests and their timely delivery
 - ☐ Under equipment of laboratory service
- Inappropriate level of knowledge among epidemiologists on active surveillance
- the Untimely reference of parents in medical institutions in cases because of their low awareness
- Low level of revealing and the reporting on PVR/ABOUT:
 - ☐ Insufficient knowledge among the medical personnel in definition PVR/ABOUT
 - ☐ no adequate the relation to the reporting because of stereotypes among medical

3.1.9 Planning of target population, deployment, vaccine quality and delivery to lower level

Targeted population: It is one of the complicated questions in planning and an estimation of service of immunization. There are two sources of the data on target groups: the State Statistical Committee and the Republican Center of medical statistics and the information at Ministry of Health. Last does calculations on the basis of the data, received from medical establishment about number of the children's population. This data it is used for planning of requirements for vaccines and operational expenses. As number of target groups it agree the

data of Ministry of Health below the data of the State Statistical Committee at their use as a denominator different indicators of coverage turn out. Nevertheless, Ministry of Health considers that the data about quantity target, given by the Republican Center of medical statistics and the information, more reliable.

Vaccine procurement:

As already it has been noted earlier, all vaccines are provided from outside by Japanese GAVI and the country Governments through UNICEF. The state centre of examination and certification of pharmaceutical production at Republic Tajikistan Ministry of Health bears responsibility for registration and deliveries of the import licence and using vaccines and инъекционными materials. Within the limits of cMYP any changes of this procedure it is not provided.

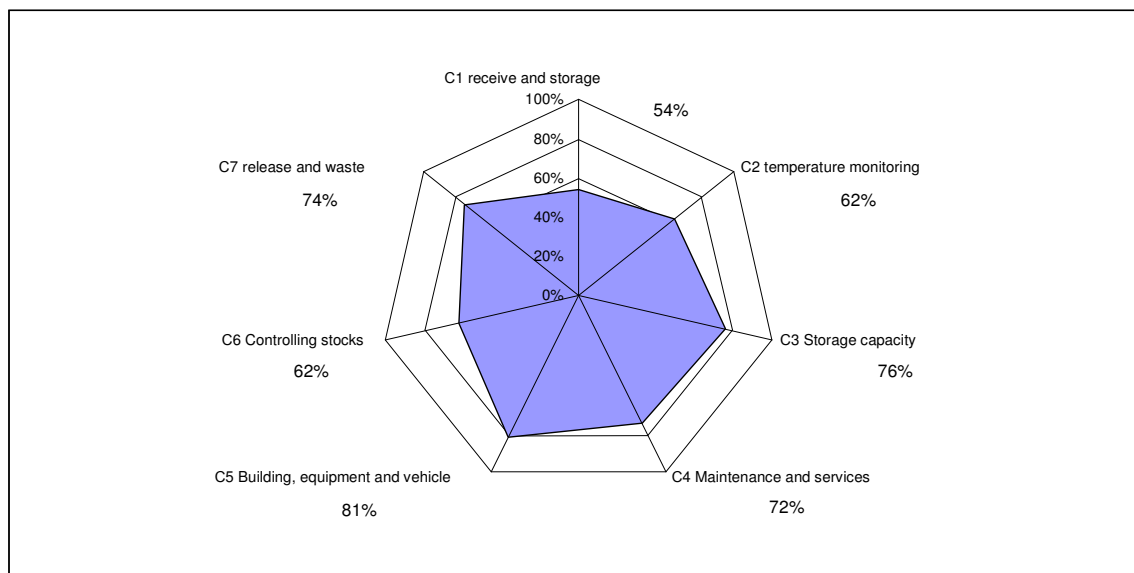
Vaccine management and delivery: The available cold chain equipment functions normally and is in a good condition; however it is extremely necessary to have the plan of routine maintenance of this equipment. In the end of each year, starting from regional level, the planning starts for requirement for a vaccine the next year. Calculations on target groups (planning) done by Republican Center of Immunoprophylaxis (RCIP) with use of the data received from establishments of PMSP. This data goes for studying and the analysis in regional Center of Immunoprophylaxis (CIP), and those, in turn, in a cut of each area direct to RCIP. The central level makes changes, spends an estimation of buffer stocks of vaccines and defines annual, quarter and monthly requirements of a vaccine for each region.

RCIP in 2008 with financial support of UNICEF has updated the central warehouse for storage of vaccines by new refrigerating chambers. RCIP has the truck with a covered van for vaccine transportation in the regional centres which has been bought in 2006 at the expense of funds GAVI. With the financial support of GAVI, all regional branches and 70 % of the regional immunocentres also have received vehicles. Vaccines and materials for safe immunization are delivered in regions of times in a quarter. Regional CIP bear responsibility for delivery of vaccines and materials for safe immunization from the central level on regional level every month, but in the remote areas (where it is difficult to reach on the car in the winter) delivery occurs two times a year. Sometimes regional CIP deliver vaccines and materials for injections from the regional centre during visit if they have their shortage

The majority of medical primary institutions received vaccines from regional RCIP monthly, but some medical institutions in case of remoteness or difficulties with transportation receive vaccines taking into account requirements for 2-3 months. During the winter period when there are difficulties with observance of cold chains and there are faults to electricity, medical institutions receive vaccines in the quantity demanded for 1st day. The majority of medical staff of PHC in the absence of the vehicle, basically, uses public transport or asks about the help from the next medical institution for delivery of vaccines and materials for safe immunization.

In 2008 experts of Ministry of Health conducted assessment of cold chains at national level, and also in four regions of the country. The estimation covered process, since reception of a vaccine before its use by 10 criteria. Results of estimation are specified more low:

Figure 8: Results of cold chain assessment at national and four regional warehouses, August 18 – 27, 2008



Many recommendations based on assessment results already accepted and some of other will require additional financial resources for solution.

Cold chain and provision: 3 000 health care facilities providing immunization services to community. Inventory and assessment of cold chain requirements have been done in 2007-2008. Results of study have revealed necessity of updating and equipment replacement of cold chains for the about 450,000 US dollars that includes, basically, purchase of refrigerating machinery for medical institutions PMSP, and also bags-refrigerators and containers for transportation of vaccines. This plan is completely considered in cMYP. It is necessary to notice that in case of introduction of pnevococcus vaccines and-or carrying out of additional scale actions for immunization, the plan on equipment of cold chains for realization of present cMYP should be reconsidered.

Safe immunization practice. Starting from 2002 full package of training materials included in PI program. Safe immunization practice assessment conducted in many regions of country in 2004. Following this assessment many investment were allocated for this component, especially during SIA on Measles in 2004. Main results of assessment were:

- 95% health care facility during immunization use disposal syringes;
- 72,4% administration is done in specially located venues with main safe vaccination requirements;
- Only in 78% cases vial with vaccines were monitored before using;
- Shortage of 0,05 ml disposal syringes for BCG in 70% health facilities;
- Only 36,2% health care facilities have medicines for anaphylactic shock;
- 92,4% have safe boxes for disposal of used syringes and everywhere were used accordingly;

- Main issues were storage of needles. Also 10,2% health workers informed on accidental stick by needles.

Despite that fact that from 2004 we have reached sufficient progress, we have to work on provision of maximum safe injection during SIA, which will support safe in practice. Health worker due to high turnover constantly have to be trained in safe injection practice according to WHO guide on «Immunization in practice». Also we would suggest to asses effectiveness of conducting training for personnel if funds will be available.

Management and safe disposal of used injectable materials: Assessment indicated satisfied implementation of waste management procedures. Used injectable materials are collected in safe boxes. Only 40% of district EPI centers have incinerators (special tools) for burning of wastes constructed by fund from GAVI. Health care facility of primary level collect and delivery filled safe boxes to district level EPI center, which is in charge of burning incinerators. District which do not have incinerators have to delivery filled safe boxes to regional EPI center. However, most health facility and district EPI center in practice do not opportunity for transportation and sometime collect them or burn openly in specially allocated places. Only 2,3% health care facility burry disposal. Current policy on management and safe disposal of used injectable materials will be continued in the framework of SIA without additional resources. There is very important continue training of health personnel on charge of waste management at regular base.

SUMMARY OF PROBLEMS AND REASONS:

- Existing of two official sources makes difficult in planning of needs in vaccines and safe immunization materials. Using State Statistical Committee data from May 2007
- Cold chain:
 - Plan of maintenance and repairing of cold chain not in place (accordingly resources)
 - Needs to fund resources to replacement of cold chain equipment according to the plan
- Less knowledge of health care workers on safe immunization practice and safe disposal of used injectable materials.

3.1.10 Promotion, social mobilization and Communications

By the end of July 2009 the Ministry of health of the country approved “ the concept of Strengthening of social mobilization, and communications with the communities” which included several key strategies directed at development and implementation of the Acton plan. The main strategies are: development of information-education materials, training, material-technical provisions, participation of all groups of the population.

In July 2009 in all regions of the country with financial support from UNCIEF a survey on “Knowledge, Attitude and Practice” was conducted, that included questions related to immunization. The findings of the survey showed that:

- Majority if parents, mainly mothers had sufficient knowledge about some illnesses that can be prevented through immunization;
- 95% of respondents reported that information is received from the health workers; in 27% of cases – from printed materials (posters, leaflets, fliers), especially in the course of mass events; in 14.5 % of cases – through TV; in 7.4% of cases – from neighbors.

The European Immunization Days conducted in the country during the past several years had a role in raising of the awareness about importance of immunization;

Despite that the work in the area of volunteers training has not been conducted at the desired level, attendances are not used effectively, particularly regarding the importance of immunization, possible adverse effects, measures that should be taken in such cases etc.

It will be necessary to develop and implement an additional plan on promotion and communications to ensure the successful implementation of the rotavirus vaccine;

3.1.11 Brief description of the analysis of the issues of immunization services

Considering the fact that the Government of Tajikistan has declared to the International Community to achieve the MDGs the success of the success of EPI plays one of the key roles in completing of these state obligations with regard to two goals:

- Reduction of child mortality
- Reduction in spread, as well as elimination of infectious disease, particularly measles, rubella, CRS, diphtheria etc

The main problem in the EPI programme is the danger of infectious diseases outbreaks and waste of the significant achievements of the immunization programme due to the following reasons:

- Existence of vulnerable groups of population and territories (from epidemiological point of view) with low immunization coverage;
- Probability of importation of infection from bordering endemic areas;
- High risk of financial shortages, first of all due to possible reduction of external support as a result of the World economic crisis;

On the basis of the situation analysis of the components of the immunization system, (see above) major problems were identified which were used as basis for prioritization and approaches of EPI for further strengthening of immunization services in the country;

- **High level of incomplete immunization and incorrect timing for immunization in relation to several vaccines;**
 - Low level of knowledge of the medical personnel about missed opportunities, contraindications etc;
 - Missed opportunities due to ineffective micro-planning
 - Low level of attendance of population to the immunization services;
 - Informal payments for the immunization services;
- **In sufficient level of coverage by traditional and insufficiently used vaccines, especially in hard-to-reach areas:**
 - Lack of personnel in some PHC facilities;
 - Insufficient support provided to the mobile teams;
 - Weak managerial capacities for provision of immunization services in some regions;
 - Existence of hard-to-reach areas
 - Low financial motivation of medical staff;
- **Weak surveillance:**

- The surveillance system of VPD is limited to OVP and measles and does not cover other diseases;
 - Existence of “silent” areas due to lack of knowledge about diagnosis and use of WHO standards for case definition;
 - Weak communications leading to untimely reporting of registered cases
 - Insufficient case investigation (except OVP cases);
 - Inadequate level of knowledge about active surveillance among the epidemiologists;
 - Untimely attendance to the medical facilities by parents due to lack of awareness;
 - Weak surveillance and low reporting on AEFI
- **Relatively weak vaccine management:**
 - Absence of Routine Plan of maintenance and repair of the equipment (with appropriate resources)
 - Lack of financial resources for the replacement of the cold chain according to plan;
 - Insufficient level of knowledge among medical personnel on safe injection practice and issues of safe disposal of used injection materials;
- **Relative ineffective programme management;**
 - Untimely and incomplete reporting from medical facilities about the vaccine needs;
 - Insufficient level of skills among the mid level managers (at rayon level)
 - High staff turnover, especially at district level;
 - Weak monitoring and evaluation system of management efficiency and development plan;
 - Significant dependence on donor aid and its reduction during the last few years due to the world financial crisis;

3. 4. Strategy and main action of immunization programme

4.1. National priority and tasks

Description and national priority	NPI priority	EPI marks	Regional and global tasks (up to 2015)	Priority
Low coverage in some remote districts	Vaccination coverage reached and sustain up to 2015 in each districts 90% and >90% at national level on following vaccines: 9. DPT3 10. Measles and Rubella 11. Hepatitis «B»3	DPT3: • 2011 - 95% districts reached 90% coverage • 2012- all districts have 90% coverage • 2013 - 30% remote reached coverage more than 90% • 2014- 60% remote districts • 2015- 100% remote districts Measles and Rubella-1: • 2011- National coverage in 95% • 2012- Reach 90% coverage at all districts Hepatitis «B»3: • 2011: 85% districts reached 90% coverage • 2012: 90% districts reached 90% coverage • 2013: 95% districts reached 90% coverage	Toward 2013 – all countries should have routine immunization coverage 95% and at district level not less than 90%	1
Regarding high level of less immunization coverage and no in time vaccinated children on some vaccines in some districts	Decrease less immunization coverage and not timely vaccination of children in targeted districts up to 2015	% districts with level of less coverage >10 (DPT1-DPT3): • 2011:< 2% • 2012: <1% • 2013: <0% % districts with less coverage >10 (Polio1-Polio3): • 2011: <1% • 2012: <0% Hepatitis «B»1 (first dose) • 2011: reach 80% coverage of first dose of Hepatitis 24 hours after birth • 2012: - 90% • 2013: - 95% Polio dose in birth: • 2011: reach 90% coverage of Polio dose in birth • 2012: reach 95% coverage		2

Description and national priority	NPI priority	EPI marks	Regional and global tasks (up to 2015)	Priority
Low level of surveillance	Increase scale and quality of surveillance	Integrate VPI and AEFI up to 13 Number of AEFI equal to <15 or more than 1 per 100 000 up to 2012 Health care facility share reporting on Zero cases • 2011: ≥99% • 2012: >90% • 2013: ≥99%	Reach level of 1/100,000 in children < 15 on AEFI surveillance All countries reached level of determining each case with lab confirmation at all levels.	2
Regarding low effectiveness of vaccine management and cold chain	Enhance existing vaccine management system and cold chain at all levels up to 2013	10 global criteria • 2012 – 95 % at national level • 2013 – 95% at regional • 2014 – 95% at district % districts equipped with first aid kits for AEFI: • 2011 - 60% • 2012 - 80% • 2013 - 90% • 2014 - 95% • 2015 - 99% % Immunization centers using standard incinerators for burning of used injection materials: • 2011 - 50% • 2013 - 70% • 2015 - 90%	Обеспечить устойчивую программу по качественной иммунизации и добиться высокого доверия населения к иммунизации	1
Regarding not effective management of immunization program	Increase level of effectiveness of EPI management and sustainability	Administrative and technical staff at national, regional and district levels– 100% Turnover decreased: • 2012 – vaccinators up to 15%, district epidemiologists up to 10% • 2014 – vaccinators up to 10%, district epidemiologists up to 7% Budget share for health on Immunization services • 2011 – 2,2% • 2012 – 2,4% • 2013 – 2,6% • 2014 – 2,8% • 2015 – 3,0%		1

4.2 Strategy and main measures

Tasks	Strategy	Main measures
1. Vaccination coverage reached and sustain up to 2015 in each districts 90% and >90% at national level on following vaccines:	12. Improve provision of services mechanism	13. Update micro plans, number of sessions on immunization at vaccination posts in a year and months 14. Organization of additional immunization hours aiming decreasing of missed opportunities 15. Recruitment of specialists for vacant on immunization and EPI managers at district level;
	16. Coordinate immunization services with maternity services (antenatal, inter natal and post natal care)	17. Close work of specialists of immunization services with midwives and gynecologists on timely and accordingly registration and immunization of pregnant and monitoring of newborn immunization with Hepatitis B 18. Advocate to mothers on hospital delivery or using support from midwives during pregnancy and after delivery
	19. Rational approaches to provision of services and support to mobile/outreach teams	20. Analyzing and aggregation of micro plans of primary level facility into district and regional levels 21. Determining of justification for use of mobile teams and combining with other measures
Decrease less immunization coverage and not timely vaccination of children in targeted districts up to 2015	22. Improve quality of micro planning	23. Area mapping where does not exist vaccination post 24. Accurate determination of target group 25. Planning and realization, at least, four measures on immunization in a year to remote area 26. Planning for need in vehicle and other operational costs
	27. Enhance knowledge and skills of health workers on immunization	28. Conduct training for vaccinators on methods «Immunization in practice» (WHO)
Improve level and quality of conducted effective surveillance	29. Enhance detection of cases in health care facilities	30. Develop methodology of training (with guidelines and algorithm) for health workers on implementing effective surveillance 31. Conduct training for health workers on using developed materials
	32. Enhancing early warning system	33. Conduct training on early warning system forms 34. Determine motivation mechanism for health workers at regional and district levels
	35. Increase reporting on AEFI	36. regular provision of recording and reporting forms 37. Conducting training on rule and reporting technique
Enhance existing vaccine management system and cold chain at all levels up to 2013	38. Improve knowledge and skills of health workers on safe practice and disposal of injected materials	39. Conducting interrupted training for health workers in primary level on Safe immunization practice 40. Develop integrated plan on

		introduction and functioning of safe disposal, including standards
		41. Procure incinerators for burning waste in all cities and districts centers by 2014
	42. Improving vaccine management at primary level	43. Improving demands for vaccine and injectable materials
Increase level of effectiveness of EPI management and	44. Improving reporting level	45. Revise and improve registration system and reporting on immunization coverage, including data collection on timely administration of first dose of Hepatitis B to newborn
		46. Conducting interrupted training for health workers on reporting of immunization coverage
	47. Extending practice of supervision at primary level	48. Development of plan of provision of supervisory visit
		49. Provision of direct and cascade additional surveillance, including visit to vaccination posts by representative from national, regional and district levels.
		50. Recruitment of vacant at district level and coordination of action in immunization with other programmes on child protection toward to 2012
Information level for population and its trust in immunization increased 80-90% towards 2015	51. Improving level of knowledge and skills of health workers on new methods of performance on advocacy, social mobilization and communication with community (in the framework of HLSC)	52. Conduct interrupted training of health workers
		53. Update and disseminate guidelines for health workers
		54. Develop and disseminate IEC materials for community
		55. Determine motivation mechanism for regional and district levels
	56. Increase timely health care seek for certain groups of community in health facility in certain districts	57. Detect target group and study behavior (quality and quantity studies)
		58. Develop strategic communication plan in targeted districts based on results
		59. Conduct training for health worker on communication strategy in targeted districts

4.3 Implementation plan in 2011 – 2015 rr

Measures	2011	2012	2013	2014	2015
Service provision					
1. Updating micro plans, quantity of immunization hours in a year and in a month (related to health care reform and changing number of vaccination posts)					
2. Recruitment of specialists for vaccination system	x	x			
3. Establish close communication of immunization services with midwives and gynecologists on registration of pregnant in order to monitor vaccination	x	x			
4. Improving awareness of women reproductive age on needs and safe delivery in maternity homes or use midwives before, during and after delivery	x				
5. Enhancing support to mobile/outreach teams (and combining with other measures)	x	x	x	x	x
6. Accurate determination of target group	x	x			
7. Planning and realization, at least, four immunization measures in a year in remote area	x	x	x	x	x
8. Planning needs for vehicle and other operational expenses	x	x	x	x	x
9. Conducting training for vaccinators on method «Immunization In practice» (WHO)	x	x			
10. Conducting training for health staff on active surveillance ob VPI, including recording and reporting forms and submission	x	x			
11. Regular provision of recording and reporting forms, logbooks	x	x	x	x	x
12. Conducting on regular base training of health workers (primary level) on immunization in practice.	x	x	x	x	x
13. development of plan (including standard) on safely collection and disposal of used inject able materials	x				
14. Constructing special incinerators for burning of waste at all district level up to 2014	x	x			
15. Conducting training for health workers on policy of quality provision of vaccine and reducing waste	x	x	x	x	x
Advocacy, social mobilization and communication					
16. Updating and dissemination of IEC materials	x	x			

17. Conducting effective updated training for health workers on hygiene and sanitary	x		x		x
18. Preparation and training of volunteers	x	x	x	x	x
19. Mobilization of additional resources from central and local budgets and decreasing donors funds	x	x	x	x	x
Surveillance					
20. Training of primary health worker and lab staff on active surveillance on VPI and AEFI	x	x	x	x	x
21. Conducting active surveillance on VPI and AEFI at all districts	x	x	x	x	x
22. Development of training materials and guide on complex surveillance on VPI and AEFI	x	x			
23. Timely provision of samples from Regions to Dushanbe	x	x	x	x	x
24. Timely investigating of cases in 48 hours after detection	x	x	x	x	x
25. Integration of active surveillance on Measles, Rubella and CRS at all levels	x	x	x	x	x
26. . Integration of active surveillance on diphtheria at all levels	x	x	x	x	x
27. Equipping bacteriological laboratories by required tools for testing cases with diphtheria and contacts		x	x		
28. Establishment of surveillance on virus infections (Hepatitis B, Rotaviruses and Hib)	x	x			
29. Conducting monitoring on VPI and AEFI	x	x		x	x
Vaccine management					
30. Development of plan on effective distribution of vaccine and supplies	x				
31. Improving vaccine store, including timely notification of re procuring supplies and vaccine	x	x	x	x	x
32. Analyzing data of inventory, cold chain in all districts keeping adequate distribution, volume of storage and quantity of implemented immunisation	x	x			
33. Training on cold chain staff in charge	x	x	x	x	x
34. Conducting monitoring of vaccine and supplies in all districts	x	x	x	x	x
Programme management					

35. Conducting assessment of EPI managers knowledge at district level and determining needs in re training	x		x		
36. Conducting effective training (case based) of RCIP staff (district and regional) and also chief specialists on provision health care to child and mother on "Immunization In Practice topics" (WHO)		x		x	
37. ICC regular meeting, briefing for donors on implementation of fundraising strategy	x	x	x	x	x
38. Integrating system of assessment on implementing program and professionally preparation and routine management system	x	x	x	x	x
39. Conducting assessment of effective implementation of program and detecting needs in improving and additional training		x			x
40. Based on the result of assessment develop plan on improving and functioning of management system of program.		x			x
41. Conducting nation wide study on immunization coverage	x				
42. Conducting study on effectiveness of pneumococcus introduction and diseases burden					x