

PUBLIC HEALTH STRATEGY OF THE REPUBLIC OF UZBEKISTAN FOR THE PERIOD 2010-2020

Table of contents

1	Introduction	21
2	Health status of the population	23
3	Risk factors	26
4	Evaluation of available resources	28
5	Goals and objectives of the public health strategy	31
6	Methods and instruments	34
6.1	Implementation and evaluation of the public health strategy	34
6.2	Management and co-ordination of the public health sector	34
6.3	Health promotion	35
6.4	Health protection	35
6.5	Personal preventive activities	35
6.6	Public health laboratories	36
6.7	Development of human resources	36
6.8	Economic and financial aspects	37
7	Implementation plan	38
	Objective 1 - Co-ordination of public health	38
	Objective 2 - Deployment and development of human resources in public health	39
	Objective 3 - Public health laboratories development plan	40
	Objective 4 - Public health information system	40
	Objective 5 - Cardiovascular disease	41
	Objective 6 - Nutrition	42
	Objective 7 - Tobacco	43
	Objective 8 - Accidents	44
	Objective 9 - Under-five mortality	44
	Objective 10 - Maternal mortality	45
	Objective 11 - HIV/AIDS and tuberculosis	46
8	Overview of the implementation plan	47
12	Appendix	50

1 INTRODUCTION

According to the Decree of the President of the Republic of Uzbekistan # UP 3923 “On main directions of further intensification of reforms and implementation of the State Programme for health care development” of 19.09.2007, and Resolution of the President No. PP-700 dated October 2, 2007, “prevention of diseases, and above all, infectious and viral diseases, health education activities to advance medical culture in families, health promotion are among the most important directions of Ministry of Health activity. Public health sector deals with these issues”.

Public health is a set of measures undertaken by society aimed at prevention of communicable and non-communicable diseases. This field of medicine monitors the health status of the population, and tries to improve this health status by influencing the known determinants of health (also known as risk factors). Public health activities are carried out by actors within and outside the health care system, and therefore call for inter-sectoral co-operation.

The overall goal of the public health strategy for the Republic of Uzbekistan is to describe the way forward to achieve the best possible health condition for its population, by analysing the major challenges to health improvement, by setting priorities in public health, and by describing the public health activities required to achieve concrete objectives.

Public health consists of the following essential functions:

- 1 Development of policies and programmes through participatory processes with stakeholders within and outside the health care sector and with communities;
- 2 Development and strengthening of institutional capacities for policy-making, planning, legislation and management in public health;
- 3 Monitoring, analysis and evaluation of the health status of the population;
- 4 Control of risks for communicable and non-communicable diseases;
- 5 Sharing the information with stakeholders, educate and empower people about health issues;
- 6 Human resources development and training in public health;
- 7 Support to the provision of equitable access to necessary health services;
- 8 Quality assurance in personal and population based health services;
- 9 Research in public health;
- 10 Decreasing the effects of emergencies and disasters on health through prevention, preparedness, response, mitigation, and rehabilitation.

Public health function nr. 1 is the key to the implementation of public health strategies. It provides an epidemiological analysis of health status, risk factors and needs of population related to preservation of health, in order to strengthen programmes and activities focused on health gain.

Public health functions 6 and 8 are closely connected to medical services. Geographical and financial accessibility to outpatient and inpatient medical services will not be discussed at all in this public health strategy. Quality assurance in health care is a vast subject that requires its own document. In this public health strategy, quality assurance will be elaborated only in connection to public health services. Research in public health (public health function 9) will not be discussed explicitly, although many of the proposed activities and indicators contain elements of research.

Public health *functions* will have to be translated into public health *services* (or *activities*) that will be provided by public health *structures* (or *providers*).

The Republic of Uzbekistan needs a public health strategy for the following reasons:

- a The public health strategy will provide a consistent national framework for investments in actions to improve health, and for measuring and reporting on those health improvements. This includes existing and new strategies for specific issues such as nutrition, AIDS, smoking, etc. A national framework for public health is missing at present.
- b The public health strategy will focus attention and resources on important health determinants that lie outside the control of the health sector, and facilitate inter-sectoral collaboration.
- c The public health strategy will strengthen the call for promotion and maintenance of health and prevention of health problems, beyond a pre-occupation with treatment for diseases.
- d The public health strategy will foster evidence based policy making and planning of public health activities based on scientific facts.
- e The public health strategy will lead to priority-setting and promotion of efficiency in view of limited funds available.
- f Without a clear public health strategy, agreed targets (such as the Health21 targets and the Millennium Development Goals) will not be achieved.

The selection of priorities and objectives is described in chapter 5. It is based on the analysis of the health status of the population (chapter 2), the risk factors leading to ill-health (chapter 3) and the resources available for public health (chapter 4). Much more information has been used to make the selection than is presented in this strategy document. Only major sources of information are mentioned in this strategy document.

2 HEALTH STATUS OF THE POPULATION

There are several useful recent overviews of health reform in Uzbekistan and the health status of the Uzbek population, which we used in development of this document. Their list is given below in major source of information:

a

In general, health statistics have to be interpreted with caution because there are some methodological problems in data collection.

In Uzbekistan in 2005 the average life expectancy at birth was 70.5 years both for men and women according to official statistics; 64,7 years according to estimations of the World Bank and 66 years according to WHO as of 2003. Women live nearly 5 years longer than men. The difference between official statistics and World Bank/WHO estimates is mostly due a difference in the methodological approach to the definition of “live birth”.

It means that an average person can expect to live from 66 to 70.5 years depending on statistical source, but approximately nine of these years are not spent in good health. In other words: healthy life expectancy is 55.0- 61.5 years. Women live approximately 3 years longer in good health than men.

Uzbek life expectancy compares favourably to data from the other Central Asian republics. However, the WHO prefers to compare statistical data to the averages of the combined countries of Central and Eastern Europe, former Soviet Union and Turkey, called “Europe B+C”. According to WHO estimates, average life expectancy at birth in Europe B+C was 67.9 years and healthy life expectancy 60.5 years. Average life expectancy in Western Europe is 79 years, and healthy life expectancy 71.6 years.

The official infant mortality rate was 21‰ in 2002, but survey and research data lead to values that are two to three times higher. This is due to not reporting deaths in the first 7 days of life. WHO estimated the Uzbek infant mortality rate at 30‰ and the under five mortality rate at 69‰, lower than in the other Central Asian countries.

The maternal mortality rate was 29.2 per 100,000 live births in 2005, slightly below other Central Asian values.

In 2002, non-communicable diseases accounted for about 90% of deaths, external causes for about 5%, and communicable diseases (excluding the group of respiratory diseases) for about 2%. The group of non-communicable diseases includes cardiovascular disease (66%), respiratory diseases (7%), cancer (7%), and digestive diseases (5%). Cancer mortality rates are low by international comparison.

For most causes of death, most age groups and both sexes, Uzbek mortality data compare favourably to those of other Central Asian republics, and - to a lesser extent - also to the average data from Europe B+C. However, cardiovascular disease is responsible for 66% of age-standardised mortality, 10% higher than in Europe B+C, and 3 times higher than in Western Europe, although some of this excess mortality may be due to inaccurate coding. Uzbek standardised mortality rates for respiratory, digestive and communicable diseases are also higher than in Europe B+C.

Another way of determining the public health importance of various health problems is to calculate the number of years of life lost (YLL) to these health problems before an arbitrarily chosen end of life date, e.g. 70 or 85 years. An example is given in Table 1 where the Uzbek situation is compared to Western Europe (“Europe A”).

The data in Table 1 show that ischemic heart disease is the main health problems as far as lost years of life is concerned. They also show to what extent the chance of dying prematurely from some health problems is different in Uzbekistan from Western Europe, which gives an impression of the potential health benefit of public health activities.

Table 1. Number of years of life lost (YLL) to specific health problems before age 70, per 1,000 inhabitants in Uzbekistan (2005) and Western Europe (2002).

<i>health problem</i>	<i>Uzbekistan</i>	<i>Western Europe</i>	<i>ratio Uzbek./W. Eur.</i>
all health problems	73.45	43.08	1.70
tuberculosis	2.58	0.06	43.68
hepatitis B+C	0.35	0.10	3.68
acute lower respiratory infections	5.88	0.65	9.05
acute upper respiratory infections	2.05	0.02	130.13
birth asphyxia and trauma	3.04	0.28	10.86
diabetes mellitus	1.75	0.62	2.83
schizophrenia	0.29	0.01	21.65
ischemic heart disease	10.14	4.68	2.17
arterial hypertension	4.04	0.28	14.18
cerebrovascular disease	4.87	0.65	7.50
liver cirrhosis	4.00	1.79	2.24
traffic accidents	2.21	2.50	0.88
drowning	1.22	0.19	6.43
suicide	1.28	2.22	0.57

The burden of disease in a population can be viewed as the gap between an ideal situation in which everyone lives disease-free and disability-free until death at an advanced age, and the actual situation of existing morbidity, disability and premature death. The burden of disease is usually expressed in disability-adjusted life years (DALYs) which is a summary measure that combines the impact of disease, disability and prematurely lost life-years. The advantage of using DALYs is that not only mortality but also morbidity is taken into account when determining the importance of public health problems. Table 2 presents the most important disease categories to which DALYs are attributed.

Table 2. Five leading disability groups as percentages of total DALYs for both sexes in Uzbekistan in 2002 (source: WHO).

	males		females	
	<i>disability groups</i>	<i>total DALYS (%)</i>	<i>disability groups</i>	<i>total DALYS (%)</i>
1	cardiovascular diseases	18.7	psychiatric and behavioural disorders	21.9
2	psychiatric and behavioural	16.6	cardiovascular diseases	18.3

	disorders			
3	unintentional injuries	12.5	respiratory infections	7.4
4	respiratory infections	9.1	digestive diseases	6.3
5	digestive diseases	6.2	infectious & parasitic diseases	5.3

It is clear that cardiovascular disease and psychiatric and behavioural disorders are the two most important causes of ill-health in Uzbekistan. It should be noted that a large part of the burden of cardiovascular disease is from premature death, but that the burden from psychiatric and behavioural disorders is caused almost entirely by morbidity and disability.

Malnutrition among children and women of reproductive age continues to be a problem in Uzbekistan. Surveys found moderate or severe stunting (short for their age) among 21% of children under 5, moderate or severe wasting (low weight for their height) among 7%, and some degree of anaemia in 49%, especially among low-income families and in rural areas. Vitamin A and iodine deficiency also occur. Up to 60% of women of reproductive age have some degree of anaemia. (Source: UDHS 1996 & UHES 2002)

Although the share of communicable diseases in the overall morbidity and mortality picture is small, there are several points of concern. The epidemiological situation with tuberculosis is still unstable. The tuberculosis incidence was 70.4 cases per 100,000 inhabitants in 2006. The number of cases of HIV infection and sexually transmitted diseases has increased in recent years. The incidence rates for syphilis and gonorrhoea in 2006 were 14.0 and 22.8 per 100,000, respectively.

From this short overview, it is clear that the major challenges to the health of the Uzbek people are cardiovascular disease (mostly ischemic heart disease, arterial hypertension and cerebrovascular disease), psychiatric and behavioural disorders (mostly endogenous psychosis, depression and addiction) and - although this does not clearly follow from Tables 1 and 2 - nutrition-related conditions. Cardiovascular disease and nutritional problems lend themselves well to preventive measures, but psychiatric and behavioural disorders much less so. Other health problems also require attention although their impact on Uzbek health is not as important as from those three groups: respiratory diseases; digestive diseases; injuries, disability and death from external causes; and certain communicable diseases (tuberculosis, HIV/AIDS, sexually transmitted diseases). In principle, accidents and injuries and communicable diseases are almost entirely preventable.

3 RISK FACTORS

The burden of disease in Uzbekistan can be expressed as DALYs per disease category (as in Table 2), but also as DALYs caused by risk factors, presented in Table 3.

Table 3. Five leading risk factors as causes of disease burden for both sexes measured in DALYs in Uzbekistan in 2002 (source: WHO).

	males		females	
	<i>risk factors</i>	<i>total DALYS (%)</i>	<i>risk factors</i>	<i>total DALYS (%)</i>
1	alcohol abuse	7.4	high body mass index	7.2
2	high body mass index	5.7	high blood pressure	6.7
3	high blood pressure	5.7	high cholesterol	5.2
4	high cholesterol	5.5	indoor smoke from solid fuels	3.7
5	tobacco use	5.4	iron deficiency	3.4

In fact, attributing DALYs to risk factors is more relevant for public health activities, because one can attempt to prevent major health problems by reducing the prevalence of known risk factors.

The first position occupied by alcohol in the list of risk factors for men is somewhat surprising, as official data show that alcohol consumption is low in Uzbekistan (approximately 1 litre of pure alcohol per capita per year). Mortality from chronic liver disease and cirrhosis is high in Uzbekistan compared to other countries, and it is tempting to relate this to alcohol abuse, but other factors such as hepatitis infection may also play a role. This needs further investigation. In Uzbekistan, 3.1% of traffic accidents are caused by drunk driving.

Having a high Body Mass Index (BMI) occupies a high position in the list of risk factors. Being overweight (BMI between 25 and 30 weight/height²) occurs in 27% of men and 21% of women. Obesity (BMI > 30) is present in 5% of men and 7% of women. On the other hand, 4% of men and 6% of women are underweight (BMI < 18.5). A high BMI is positively correlated to many health problems, especially cardiovascular disease and diabetes mellitus.

Nutrition-related deficiencies such as iron deficiency have been discussed in the previous chapter. Long-term breastfeeding of infants is a beneficial standard practice in Uzbekistan.

Hypertension and hypercholesterolemia are well-known risk factors for the development of cardiovascular disease. They are partly genetically determined and partly influenced by external factors such as nutrition and stress. Adding salt to food is risk factor for the development of arterial hypertension. Depending on the definition of hypertension, 10-30% of the adult population have some degree of hypertension.

Tobacco use, lack of physical exercise, and diabetes mellitus are other important risk factors for cardiovascular disease. Uzbek women hardly use tobacco at all, but over 20% of Uzbek men smoke (Source: Report "Impact of tobacco consumption on population health and economics of Uzbekistan (results of social survey of households and health facilities' patients)". Ministry of Health of RUz and the World Bank, Tashkent, 2007).

Changes in sexual behaviour have led to an increase in the incidence of sexually transmitted diseases. The incidence of HIV infection has increased from almost zero to more than 2,000 new

cases per year. Intravenous drug use is the main way of transmission, but the role of unsafe sex is increasing. Awareness of sexually transmitted diseases and HIV/AIDS is not yet optimal.

Most risk factors are more prevalent among socially unprotected groups. According to official statistics, the unemployment rate is very low. The educational level is very high, with 90% of the young population completing secondary education. In many statistics, the situation with health and risk factors is worse in rural areas than in urban areas. Approximately 85% of the population have access to safe drinking water, but only 43% have running water inside the house (Source: Uzbekistan Human Development Report, UNDP 2006).

The major risks to the health of the Uzbek people are life-style related such as smoking, nutrition and unsafe sex, and as such amenable to health promotion interventions. Hypertension and hypercholesterolemia as important risk factors for the main health problem in Uzbekistan (cardiovascular disease) would call for screening activities and preventive treatment, in addition to health education activities.

Provision of safe drinking water and fortified food are examples of beneficial health protection measures.

4 EVALUATION OF AVAILABLE RESOURCES

Systematic public health activities have been organised in Uzbekistan since the second quarter of 20th century. Success achieved by the country in the prevention of dangerous infectious diseases and in some other areas, serves as convincing evidence of the effectiveness and vitality of the public health sector. However, shifts in social, political and economic conditions in the country during Uzbekistan's transition period, lead to substantial changes in the exterior environment of the public health sector. As a result, the earlier mechanisms that influenced the activities of economic entities and target groups and mobilised resources in emergency situations became weak, whereas responsibilities delegated by government to local and sector authorities proved to be insufficient for effective management of community health.

Today, the public health functions mentioned in chapter 1 are performed by many organisations and agencies, both inside and outside the health care system and have inter-sectoral character. For instance, safety and quality of drinking water is ensured by services supplying water and controlled by the Centres of the Sanitary Epidemiological Service. In the same way, food safety depends on organisation of food processing by agricultural, industrial and catering enterprises, and is under control of the services of veterinary and sanitary-epidemiological surveillance.

Thus, responsibility for public health functions is distributed among systems of the Ministry of Health of the RUz, the Ministry of Agriculture and Irrigation of the RUz, the Ministry of Labour and Social Protection of the RUz, the Ministry of Public Education of the RUz, the Ministry of Higher and Specialised Secondary Education of the RUz, the Ministry of Emergency of the RUz, the Ministry of Internal Affairs of the RUz, the State Statistics Committee of the RUz, the State Environment Protection Committee of the RUz, the State Committee on Architecture and Civil Works of the RUz, agencies responsible for water quality, etc. A detailed analysis of the public health functions of different ministries and agencies is presented in the annex.

The functions, responsibilities and obligations of these agencies/organisations are regulated by constituent documents and legislation of Uzbekistan. As a result, their public health related functions are limited to their activity areas

Public health activities under the aegis of the Ministry of Health are performed by the State and Departmental Sanitary-Epidemiological Services (SES), the Institute of Health and its branches, primary health care units, and international agencies.

There are important committees under the Cabinet of Ministers that are directly relevant for public health:

* The Republican Emergency Anti-Epidemic Committee is chaired by the prime minister. It is responsible for organising the response to outbreaks of communicable diseases, for example when there are cases of cholera or avian influenza. This Committee has a sub-committee for AIDS control. In cases of emergencies of a non-infectious nature (e.g. an earthquake), the Ministry of Emergency is responsible. Government co-ordination for emergency situations minimises humanitarian losses and economic costs, and allows for preventive measures to be developed. Similar co-ordination in case of public health problems that are not an emergency and not related to outbreak of infectious diseases does not exist.

* There are various committees for national projects, for example the Coordination Committee responsible for implementation of the National Program on Flour .

The SES services under the Department of Sanitary-Epidemiological Inspection of the Ministry of Health being a structural base for public health are responsible for environmental health, food safety and control of communicable diseases, including supervision of immunisation programmes implemented by primary care providers. The SES network is organised vertically, with services and laboratories at national, oblast and rayon level.

The following national research institutes and specialized scientific practical centres under the Ministry of Health can be considered as part of the SES network:

- * Scientific Research Institute of Epidemiology, Microbiology and Infectious Conditions;
- * Scientific Research Institute of Medical Parasitology;
- * Scientific Research Institute of Sanitary, Hygiene and Occupational Conditions;
- * Scientific Research Institute of Virology;
- *

Responsibility for occupational health is shared by SES, the Labour Inspection of the Ministry of Labour & Social Protection, diagnostics and treatment of occupational disease physicians in primary care, a department for professional diseases in oblast hospitals (in a short term perspective – in oblast multi-field medical centers), and specific Center for professional diseases in Tashkent. SES Centres monitor and analyse the risk factors for employees in the work place. The Labour Inspection makes sure that safety measures are implemented in the work place, including provision of individual protective means to employees.

There are also research institutes and specialised scientific practical centres that combine public health and clinical functions, and that do not belong to the SES services:

- * Republican Scientific Practical Medical Centre for Dermatovenereology with its country-wide network of dispensaries;
- * Republican Scientific Practical Medical Centre for Phthisiology and Pulmonology with its country-wide network of outpatient and inpatient facilities;
- * Republican Narcology Centre with dispensaries in each oblast;
- * 19 Centres for Reproductive Health;
- * Hospitals for infectious diseases and their laboratories, and infectious disease units in polyclinics.
- * Research Institute of Haematology and Blood Transfusion with a network of specialised inpatient departments at the level of the oblast hospitals;
- * Republican Scientific Practical Medical Centre for Endocrinology with dispensaries at each oblast level;

The Institute of Health and Medical Statistics is responsible for the collection and analysis of all health-relevant data and for advising the Ministry of Health accordingly. It is also responsible for the design, implementation and co-ordination of health promotion activities in Uzbekistan. It has 14 oblast branches, and 159 rayon and 15 urban centres. Schools and primary care providers are also involved in health education activities. Various international agencies are supporting health promotion activities.

Uzbekistan has a separate vertical infrastructure for epidemiological analysis, prevention and treatment of HIV infection and AIDS, and for an advocacy role in this field. The Republican AIDS Centre has branches in each oblast. Testing and treatment facilities are being expanded, including

the possibility of anonymous testing and the establishment of “trust points” for drug users. The AIDS control system is heavily supported by international donors.

Various national and international agencies are involved in activities to improve nutrition. This includes iron-folate supplementation for pregnant women and children and vitamin A supplementation for children. Mandatory iodination of table salt has been introduced, and there is a flour fortification programme.

It is not so easy to calculate the total number of facilities, laboratories and staff working in the public health sector under the Ministry of Health. The data in Table 4 are the result of a recent survey. However, facilities and laboratories may be counted as separate entities but can be located within the same institution, and staff positions may either not be fully occupied or a staff member may occupy more than one position. As stated above, some facilities and staff perform both public health and clinical functions. The Scientific Research Institutes, Specialised Scientific Practical Medical Centres and the Reproductive Health Centres are not included in Table 4, and neither are the primary health care facilities that also perform some public health tasks such as immunisation and health education, but it is not their basic function.

Table 4. Overview of the numbers of facilities, laboratories and staff in the public health sector in Uzbekistan in 2006. Source: Health-2-project.

	<i>nr of facilities</i>	<i>nr of laboratories</i>	<i>total staff positions</i>	<i>of which doctors</i>
SES Centres	185	488	22,528	5,667
Centres for Prophylaxis of quarantine and dangerous diseases	8	13	556	75
Institute of Health and its regional branches	183	-	2,970	698
Tuberculosis Service	185	114	14,360	1,867
Dermatovenereology Service	132	65	4,199	679
Narcology Service	150	8	2,160	414
Infectious diseases Service	158	83	11,614	4,148
AIDS control Service (including Trust Points)	168	28	1,089	374
total	1,173	799	59,476	13,992

However despite this limited information it can be concluded that there are vast resources of facilities, laboratories and staff available for public health services in Uzbekistan. The emphasis is on the control of communicable diseases and much less on the non-communicable health problems that form the main burden of disease in Uzbekistan. Most public health activities are organised in a strictly vertical manner leading to duplication and inefficiency. The present budget system in the Ministry of Health of the RUz does not allow the analysis of the financial revenues for public health services in Uzbekistan, but it can be observed in the field that a relative lack of financial resources has led to under-investment in premises, equipment and training in the sector, except to some extent in facilities that participate in donor-supported projects. In 2000-2006, the Uzbekistan health care sector received US\$ 134.8 million in foreign assistance, of which roughly half was available for public health activities.

5 GOALS AND OBJECTIVES OF THE PUBLIC HEALTH STRATEGY

According to the World Health Organisation, a public health *policy* is a formal statement by the government which defines priorities and the parameters for action in response to health needs, available resources and other political pressures. It is a vision of what a country wants to achieve for the health of its citizens in the medium to long term.

A public health *policy* provides a number of goals that must be elaborated in a public health *strategy*, i.e. a set of - preferably quantitative - objectives, a description of the actions and instruments designed to achieve the goals and its objectives, and an implementation plan with progress indicators, a time schedule and sources of financing.

The goals of the national public health policy and strategy of Uzbekistan are:

- a To promote, preserve and improve the health of citizens, leading to an increase in healthy life expectancy, especially by focussing on major preventable health problems.
- b Increase equity in health regardless of differences in gender, socio-economic status, geographical location.
- c Re-orient the public health infrastructure from a medical top-down approach to a more widely spread responsibility for health, fostering health promotion, inter-sectoral co-operation, community involvement and individual responsibility.
- d Achieve conformity with international standards and policies in public health.

What is needed for a public health strategy to be effective is a limited number of clear, measurable targets. The targets of the Health21 policy of the World Health Organisation and the Millennium Development Goals of the United Nations have already been adopted by the Government of Uzbekistan, and the Ministry of Health and its partners in public health would like to reach those targets and goals during the required time frame.

On the basis of the analysis of the national health and risk factor situation, priorities have been set for which a number of objectives have been formulated. These objectives should be reached within the period for which this public health strategy has been designed, 2010-2020. This period is sufficiently long for achieving measurable improvement in the health status of the population. The selection of priorities and objectives for public health has been made according to the following criteria:

- * The emphasis is on those health problems that lead to the greatest burden of morbidity, disability and premature death, especially cardiovascular disease. This does not exclude attention for less frequent but potentially dangerous health problems such as specific infectious diseases.
- * The emphasis is also on health problems for which risk factors are known that are amenable to improvement through public health activities that are affordable and technically feasible.
- * Public Health priorities and objectives must correspond to international agreements such as the Health21 policy and the Millennium Development Goals, including the quantification of the looked-for health benefit.
- * There are also priorities for *healthcare* in terms of expanding the range of and improving the quality of individual medical care (such as the improvement in mental health care and in the treatment of respiratory diseases) but they are not the subject of this public health strategy.

- * Public health also and especially requires the improvement of factors outside the direct control of the Ministry of Health (for example raising income levels and increasing the proportion of the population that has clean drinking water supply inside their dwelling), but these factors cannot be the subject of this public health strategy.

It is expected that the Government of the Republic of Uzbekistan will strive to achieve the following objectives during the period 2010-2020:

- 1 Broadening the scope of the existing Republican Emergency Anti-Epidemic Commission under the Cabinet of Ministers into the co-ordination of all public health activities (urgent and non-urgent, communicable and non-communicable diseases) by the end of 2010. Under its new charter defined by the Cabinet of Ministers of Uzbekistan, the Republican Emergency Anti-Epidemic Commission will gain a higher status of the Public Health Committee and will develop annual public health programmes, directives and reports from 2009 onwards, with technical assistance by the Ministry of Health.
- 2 Development and adoption of a comprehensive plan for the training and continuous professional development of public health staff by the end of 2010, and gradual implementation of this plan between 2009 and 2020.
- 3 Development and adoption of a comprehensive plan for the rationalisation and development of public health laboratories by the end of 2010, and gradual implementation of this plan between 2009 and 2020.
- 4 Establishment of an efficient system of monitoring the indicators for progress in the implementation of this public health strategy, in the framework of a unified national health information system.
- 5 Mortality due to cardiovascular disease in people under 65 years should be reduced by at least 20% between 2010 and 2020.
- 6 Between 2009 and 2020, improved nutrition should lead to a measurable decrease in anaemia, thyroid dysfunction, malnutrition and over-nutrition.
- 7 Male smoking prevalence over 15 years of age should decrease to below 15% by 2020.
- 8 Mortality and disability from traffic, work, domestic and leisure accidents should each be reduced by at least 20% between 2009 and 2020.

The Millennium Development Goals (MDG) nr. 4, 5 and 6 are concerned with health.

- 9 MDG 4 is the reduction of the under-five mortality rate by two-thirds between 1990 and 2015. This rate was 47.8 per 1,000 live births in 1990 and 20.6 per 1,000 in 2005 (source: Health in Uzbekistan - facts and figures, 2006). Therefore the Uzbek rate should be below 16.0‰ in 2015. An additional indicator for MDG 4 in Uzbekistan is the infant mortality rate.

- 10 The international MDG 5 is the reduction of the maternal mortality rate by three-quarters between 1990 and 2015. The maternal mortality rate was 65.3 per 100,000 live births in 1991, 34.1/100,000 in 2001, and 31.4/100,000 in 2004 (source: Ministry of Health of the RUz). The objective is a maternal mortality rate of below 163./100,000 in 2015.
- 11 MDG 6 is to halt and begin to reverse the spread of HIV/AIDS and other major diseases by the year 2015. More specifically, this means that:
- 11a the annual increase in the number of new cases of HIV infection should have stopped by 2015;
- 11b The coverage with DOTS treatment should reach 100% of newly identified patients by the end of 2010, and 85% of newly identified patients should be successfully treated by the end of 2010;
- 11c A sustained and continuing reduction of the incidence and mortality of tuberculosis should be reached by 2015.

Giving priority to these objectives does not exclude commitment to the other Health21 targets.

The elaboration of these objectives is presented in the implementation plan.

The relationship between these 11 objectives, the essential public health functions presented in chapter 1, the Health21 targets and the Millennium Development Goals is shown in Table 5.

Table 5. Relationship between the Uzbekistan public health objectives, essential public health functions (EPHF), Health21 targets and Millennium Development Goals (MDG).

<i>Uzbekistan public health objective</i>	<i>EPHF nr.</i>	<i>Health21 target nr.</i>	<i>MDG nr.</i>
1. Establishment of Public Health Co-ordination Committee under the Cabinet of Ministers	2, 4, 5, 10	14, 20, 21	
2. Development of human resources	7	18	
3. Development and rationalisation of public health laboratories			
4. Monitoring and evaluation system	1, 3	19	
5. Reduction of cardiovascular mortality	3	5, 8	
6. Improved nutrition	3	11	
7. Tobacco control	3	4, 12	
8. Reduction of morbidity and mortality from external causes	3	4, 9, 13	
9. Reduction of child mortality		3	4
10. Reduction of maternal mortality		3	5
11. Stabilization and reducing the spread of HIV and tuberculosis	3	7	6

6 METHODS AND INSTRUMENTS

6.1 Implementation and evaluation of the public health strategy

The implementation of the public health strategy needs a “road map” that describes in clear language which activities should be undertaken and by whom, and which methods and instruments will be used. Responsibilities for carrying out the activities, for financing the activities, and for supervision and monitoring progress of implementation must be clearly allocated. There will be a

time schedule for undertaking the activities and for reaching the targets. Chapter 6 provides a brief overview of the methods and instruments that will be used to improve Uzbek public health over the next 12-13 years. Details of the implementation plan will be described in chapter 7.

A monitoring and evaluation system will be put in place to measure progress made during the lifetime of the public health strategy. This monitoring and evaluation system will be part of the regular evaluation of progress towards the Health21 targets and Millennium Development Goals. It will probably be necessary to establish a system of regular health surveys in Uzbekistan.

Existing short to medium term programmes (control of tobacco, tuberculosis and HIV/AIDS, and the nutrition programme) will be evaluated before they expire, to be replaced by new programmes in the framework of the overall public health strategy.

A list of progress indicators for the public health strategy is presented in the implementation plan in chapter 7.

6.2 Management and co-ordination of the public health sector

The Ministry of Health of the RUz is the key institution for implementing public health measures in Uzbekistan. However, the Ministry of Health and its institutions and staff at various levels of the health care system cannot implement the public health strategy all by themselves. Inter-sectoral co-operation and partnership in public health should be promoted and organised. Examples of areas of intersectoral co-operation are food safety (with the Ministry of Agriculture, Ministry of Food Industry), health education (with the Ministry of Public Education and many other governmental and non-governmental partners), occupational safety & health (with the Ministry of Labour & Social Protection, employers, syndicates, etc.), and environmental health (with the State Environment Protection Committee, agencies responsible for water quality, etc.). Therefore, it is proposed to enlarge the scope of the existing Republican Emergency Anti-Epidemic Commission under the Cabinet of Ministers of RUz to become a national body for co-ordination of all public health activities, thus becoming the Public Health Co-ordination Committee.

Day-to-day management of the public health sector is done by ministries, especially by the Ministry of Health with its various departments, the Republican SES Centre and the Institute of Health and Medical Statistics system. For the medium to long term, it is proposed to establish a Department of Public Health in the Ministry of Health of the RUz that will be responsible for the control of both communicable and non-communicable diseases.

The Institute of Health and Medical Statistics should further develop its capacity for data collection, analysis and evaluation in the framework of a streamlined but more effective national health information system. The Institute should have all available data at its disposal on health status of the population, health services and other health-related issues, such as demography, environment, life style and social issues. The Institute of Health and Medical Statistics should analyse the data and use the conclusions for developing the proposals on drafting policies and strategies to be submitted for consideration of the Ministry of Health and through the Ministry to the new Public Health Co-ordination Committee, including joint actions between ministries and agencies. It will also monitor progress on agreed health objectives, and propose adjustment of activities if progress is insufficient.

For the medium to long term, the Ministry of Health of the RUz will study the possibility of restructuring the Institute of Health into Institute of Public Health. It will conduct analysis of population health problems and develop proposals on prioritizing public health arrangements.

This enlarged role for the Institute of Health will require investment in its human resources and technical base.

Citizens must be engaged to implement the public health strategy. There are many ways to assure public participation. Mahallas and non-governmental organisations can play an important role here.

No public health strategy can succeed without informing and involving the stakeholders and the public. Therefore, a public health strategy always needs a component of public relations or “information, education and communication”.

6.3 Health promotion

Health promotion will receive more emphasis, especially regarding cardiovascular diseases, but also on nutrition and on the prevention of accidents and communicable diseases. Health promotion includes educational activities to change the behaviour of citizens, but this should be supported by structural measures that should make it easier for people to make healthy choices. Examples are the increased availability of healthy food (e.g. in canteens), the creation of sport facilities, the establishment of smoke-free zones, and decreasing the access to harmful substances (e.g. by higher taxes or by forbidding sales of tobacco products and alcoholic beverage to minors). The health promotion capacity of the Institute of Health and Medical Statistics and its network will be strengthened, and the Institute will propose a long-term strategy and annual action plans in the field of health promotion.

6.4 Health protection

Present health protection activities, such as sanitation, environmental control, food safety measures, and occupational safety & health measures will to a large extent continue as before.

The public health strategy has many elements of health protection for which the Ministry of Health needs the co-operation of other ministries. Examples are improved possibilities for physical exercise to combat cardiovascular disease, flour fortification, protection against passive smoking, and traffic and other safety measures. Co-ordination and co-operation between various ministries and agencies should gradually increase. Legislation in these fields may have to be adapted.

6.5 Personal preventive activities

Present personal preventive activities, such as mother and child care, immunisation, and screening for disease, have been very successful in the past and will to a large extent continue as before. The immunisation rate should remain as high as it is now. These activities are largely implemented by the primary care services. The public health strategy does not discuss personal preventive activities in detail, except for a further improvement in mother and child care. Examples are improved antenatal and obstetric services and counselling on nutrition issues and accident prevention.

6.6 Public health laboratories

A thorough analysis planned for 2010 will show to what extent the network of health laboratories is in need of rationalisation and improvement. Some analyses and recommendations have already been made by foreign and national consultants in 2003 and 2006. A comprehensive plan will describe which activities will be needed, how they should be organised, when they should be performed, and how they should be paid. The analysis and plan will deal with all public health and facilities of specialized vertical structures combining public health and clinical functions under the Ministry of Health of Uzbekistan. When analysing the SES laboratory system, the position of the laboratories of parallel sanitary-epidemiological services under other ministries and agencies will also be taken into account.

It seems likely that some centralisation, especially of more sophisticated tests, will be required to improve efficiency and quality.

The method of financing public health laboratories needs attention. A public health laboratory must have sustainable financing, with reimbursement according to real cost. Apart from paying salaries, laboratories should have sufficient funds for consumables, investment in new equipment and buildings, and continuing professional development.

It's preferable to assign a separate line in public health facility's budget for the financing of public health laboratories, which should be transparent.

The quality assurance system for laboratory activities must be improved. Staff training should be higher on the agenda in the future. Logistics of sample transport and communication of results between laboratories, specialists and medical facilities must also be improved.

The system of reference laboratories must be further developed.

6.7 Development of human resources

Modern public health modules will be developed for the undergraduate curricula of all medical faculties, colleges and other educational institutions for health care personnel. Postgraduate training in public health is available in various forms. A master's degree in public health can be obtained in the School of Public Health of the Tashkent Medical Academy. A master's degree will be important in positions of analysis and control of public health, such as the Ministry of Health, oblast health departments, and the Institute of Health and Medical Statistics and its branches. "Practicing medical and non-medical personnel can upgrade their skills and knowledge through short- and medium-term trainings at the Tashkent Institute of Postgraduate Medical Education" Shorter and longer courses will be available in various relevant areas, such as epidemiology of non-infectious diseases, health economics, and health management. The Tashkent Institute of Postgraduate Medical Training is playing a major role here. Managers of curative health care facilities such as polyclinics and hospitals do not have to be public health specialists, but they should have at least the required expertise in health management and health economics.

All professionals in public health need regular postgraduate and continuous professional development. Accredited courses for postgraduate education should be available in various educational institutions, where health professionals can collect credit points for their regular re-licensing.

The large pool of human resources available for public health will have to be prepared for some shift in the emphasis in public health activities. As the analytical and policy-making capacity of the staff and their skills in health promotion must be strengthened, this will have consequences for retraining and deployment of existing staff and the hiring of new staff.

6.8 Economic and financial aspects

The financing of public health activities is a - national and local - government responsibility. In principle, all citizens should be covered with a standard package of public health measures. Financing of this standard package must be sustainable over time. Therefore, a capitation system appears to be a logical way of financing public health: each oblast and rayon spends funds on public health according to its number of inhabitants. However, some oblasts or rayons may need an extra effort, for example in environmental control, addiction care or tuberculosis control. Densely populated areas need less logistical support than - for example - Karakalpakstan. A resource allocation formula based on capitation with some coefficients for regional diversity should be worked out that is fair for all regions in Uzbekistan and is based on solidarity between the regions.

It is not the purpose of this public health strategy to obtain a larger share of government funds for public health than is being provided at the moment. Budget claims will be evaluated by careful analysis of expected cost and health outcomes. Public health programmes often show a greater return on investment than individual medical services. As funds for health care in general and public health services in particular will always be limited, the setting of priorities and the improvement of efficiency should be important goals. Organisations that manage to increase efficiency should be allowed to retain the saved funds to improve the quality of their services, while maintaining financial discipline and external oversight.

A National Health Accounts system will be created that links resource flows to the performance of the various components of the health care sector. This National Health Accounts system will be invaluable in the future to analyse and - if necessary - correct financial flows in the Uzbek health care sector.

7 IMPLEMENTATION PLAN

The implementation plan gives an overview of the activities that will be performed to achieve the objectives of the public health strategy. For some of the objectives, short-term programmes have already been developed and most of them are being implemented at the moment. This is the case for nutrition, tobacco control, HIV/AIDS control, and tuberculosis control. It is important to evaluate the results of these short-term programmes shortly before they expire, and to draft new programmes for these subjects to be included into the overall public health strategy 2010-2020.

At the end of this chapter, there is a Table with an overview of all objectives, activities, responsible organisations, time schedule and progress indicators.

Objective 1 - Co-ordination of public health

The scope of the existing Republican Emergency Anti-Epidemic Commission under the Cabinet of Ministers will be broadened into the co-ordination and evaluation of all public health activities (urgent and non-urgent, communicable and non-communicable diseases) by the end of 2010. Under its new mandate, the Public Health Co-ordination Committee will develop annual public health programmes, directives and reports from 2009 onwards, with technical assistance by the Ministry of Health.

Activities

- * Establishment of a Public Health Co-ordination Committee (PHCC) under the Cabinet of Ministers with its own charter by the end of 2010.
- * The PHCC will advise the Cabinet of Ministers to assign to ministries and agencies the task to prepare laws and statutes that regulate inter-sectoral co-operation in public health.
- * The PHCC will initiate and advise on the establishment of a system of National Health Accounts and on the required data base for the development of public health activities that can be linked to the National Health Accounts.
- * Delegation of rights and responsibilities to the Institute of Health and Medical Statistics to prepare draft public health programmes and legislation that will be submitted to the PHCC via the Ministry of Health.
- * Further development of the Institute of Health to assume its growing responsibilities.
- * Adoption of annual public health programmes in the framework of the public health strategy 2010-2020. The first annual public health programme will be prepared in 2009 for the year 2010.
- * Publication of annual public health reports, the first being the report over the year 2010. These reports will present the progress made in the implementation of the public health strategy 2010-2020 and the specific programmes that are part of it.
- * Delegation to professional associations of the right to participate in the quality control of public health services through the setting of standards, licensing and development of human resources.
- * Delegation of the right to local self-governing bodies (communities, mahalla committees) to take part in the planning and management of public health services.
- * The PHCC will establish conditions for the participation of local self-governing bodies mahalla committees, professional associations and other institutions in the civil society in the implementation of public health programmes.

Indicators

- * Creation of the PHCC and dissemination of data on its activities.
- * Publication (also on the internet) of agreed annual public health programmes.
- * Publication (also on the internet) of the annual national and regional public health reports, including data on health, the results of surveys, the health care system, legal developments, national health accounts, public health partnerships, and other relevant public health information.
- * Increasing number of public agencies participating in public health measures, such as other ministries, local authorities and self-governing bodies. Participation should also include financial contribution.

Objective 2 - Deployment and development of human resources in public health

Development and adoption of a plan for training, deployment and continuous professional development of public health staff by the end of 2010, and gradual implementation of this plan between 2009 and 2020.

Activities

- * During 2010, the Ministry of Health and the Institute of Health and Medical Statistics will make a projection of future needs of human resources in public health on the basis of the present situation and expected developments in public health activities. The projection will indicate the need for the retraining of some of the existing staff.
- * The School of Public Health of the Tashkent Medical Academy will develop an adequate public health teaching programme to be included into undergraduate medical and nursing curricula in Uzbekistan.
- * The Tashkent Institute of Postgraduate Medical Training will gradually develop and implement a comprehensive programme of continuous education for all public health staff with higher education, which will be implemented in a form of distance learning as well. The professional associations, the School of Public Health and other relevant partners will be associated in this major undertaking.
- * Together with other stakeholders, the Tashkent Institute of Postgraduate Medical Training will develop and implement a training programme with short modules for decision-makers in public health, including members of Parliament, members (deputies) of oblast Co-ordination Boards, and Committees relating to public health issues.
- * Together with other stakeholders, the Tashkent Institute of Postgraduate Medical Training will develop and implement short courses for the improvement of legal knowledge in the field of HIV/AIDS and tuberculosis for medical specialists and for non-medical staff (police, prison staff, social workers).

Indicators

- * Human resources development plan completed by the end of 2010.
- * Undergraduate teaching in public health gradually introduced in the whole country during 2009-2012.

- * Comprehensive programme of continuous education developed in 2010-2009 and gradually introduced from 2009 onwards.
- * Training programme for decision-makers developed in 2010-2009 and implemented from 2009 onwards.
- * Short courses of legal aspects of HIV/AIDS and tuberculosis control developed in 2010-2009 and implemented from 2009 onwards.

Objective 3 - Public health laboratories development plan

Development and adoption of a comprehensive public health laboratories development plan by the end of 2010, and gradual implementation of this plan between 2009 and 2020.

Activities

- * Development and implementation of a comprehensive public health laboratories development plan.
- * The financial analysis of public health laboratories network performance and development of proposals for its transparent and sustainable financing in the coming years should be part of the public health laboratories development plan.
- * Revision of the existing protocols on laboratory tests to ensure performance quality in public health laboratories.
- * Development and implementation of a plan for continuous professional development of public health laboratories staff (see also objective 2).
- * Further development and implementation of a system of reference laboratories for the public health sector.

Indicators

- * Adoption of comprehensive public health laboratories development plan.
- * Financial analysis of public health laboratories network performed and an appropriate system of financing put in place.
- * Existing protocols on laboratory tests revised to ensure their quality; quality indicators improved.
- * Plan for continuous professional development developed and gradually implemented.
- * System of reference laboratories improved.

Objective 4 - Public health information system

Establishment of an efficient system of monitoring the indicators for progress in the implementation of this public health strategy, in the framework of a unified national health information system.

Activities

- * The Institute of Health and Medical Statistics will gradually upgrade and streamline the existing national health information system, so that it will become possible to continuously

monitor and evaluate a set of key performance indicators relevant for the management of the health care sector (including public health).

- * More specifically for the implementation of the public health strategy 2010-2020, the Institute of Health and Medical Statistics will establish a monitoring and evaluation system, allocate responsibilities for data handling, train staff, and report to the Ministry of Health and the PHCC (including data on the Health21 targets and the Millennium Development Goals).
- * The Institute of Health and Medical Statistics will use its website to publish information that is relevant for health professionals and the public.
- * Regular evaluation of progress made in the implementation of the public health strategy will provide the option of adjustment of objectives and indicators if necessary.
- * Continuation of activities on the establishment of a modern health information system will require further investment in hardware, software and training.
- * Further development of an electronic database for surveillance of communicable diseases.
- * The national health information system will be linked to a new system of National Health Accounts, so that a more economic approach to health care can emerge gradually with attention to cost-effectiveness.
- * Regular health surveys will be organised to collect data that cannot be provided by routine statistics, such as life style factors, nutrition, prevalence of morbidity and disability, level of out-of-pocket payments, and patient satisfaction.

Indicators

- * Improvements in the national health information system.
- * Monitoring and evaluation system for the public health strategy established, responsibilities allocated, and staff trained
- * Regular reports to the Ministry of Health and the PHCC.
- * Information published on the website of the Institute of Health and Medical Statistics.
- * Investments made for the establishment of a modern health information system.
- * Electronic database for surveillance of communicable diseases developed.
- * National health information system linked to a new system of National Health Accounts.
- * Regular health surveys organised.

Objective 5 - Cardiovascular disease

Mortality due to cardiovascular disease in people under 65 years should be reduced by at least 20% between 2010 and 2020.

Activities

- * The Institute of Health and Medical Statistics and its oblast branches will develop and implement various programmes of health education about nutrition (see objective 6), smoking (see objective 7), and physical exercise, throughout the period 2010-2020. Health education will be provided in the form of national and local campaigns and as individual counselling in primary care.

- * Guidelines will be developed and implemented for counselling on the prevention of cardiovascular disease in primary care (including advice on nutrition).
- * Public schools will organise regular health promotion activities.
- * Stimulation of physical exercise. This will be achieved by support of local authorities to sport facilities, such as sports fields, bicycle lanes and jogging paths. Physical exercise will be stimulated throughout the period 2010-2020.
- * Active detection and treatment of hypertension and hypercholesterolemia by primary care doctors, according to official guidelines, throughout the period 2010-2020.
- * Improved emergency care for patients with heart attacks and strokes, by primary care physicians and emergency services. This will be achieved by the development of clinical guidelines during 2010-2009 and by continuing professional medical education throughout the period 2010-2020.

Indicators

- * Cardiovascular mortality data are part of the standard health statistics provided by the Institute of Health and Medical Statistics. Standardised cardiovascular mortality rate under 65 was 188.4/100,000 inhabitants/year in 2005 (Health For All database).
- * The improvement in life style factors will be monitored through regular health population surveys (see objective 4).
- * Oblast Institutes of Health and Medical Statistics will provide the information on the stimulation of physical exercise in their regular annual reports.
- * Primary care doctors will provide data on the number of patients with hypertension and hypercholesterolemia under their regular control.
- * Data on the real prevalence of hypertension and hypercholesterolemia should come from measurement among population samples.
- * Improved emergency care will be measured from case fatality rates. Emergency care guidelines must be adopted by 2009. It can be measured how many doctors have received courses in emergency care.

Objective 6 - Nutrition

Between 2010 and 2020, improved nutrition should lead to a measurable decrease in anaemia, thyroid dysfunction, malnutrition and over-nutrition.

Activities

- * During 2010-2009, the existing Action Plan for Healthy Nutrition 2005-2010 will be updated as the basis for a new Action Plan for Healthy Nutrition 2010-2020 that has clear objectives and quantitative indicators.
- * The Co-ordination Committee on National Flour Fortification Program under the Cabinet of Ministers will be integrated into the new Public Health Co-ordination Committee in 2010.
- * The Institute of Health and Medical Statistics and its partners in various projects and programmes will expand health education in nutrition in various settings.
- * The flour fortification programme will be continued and expanded to reach 80% of the population in 2020.

- * The iron and folic acid supplementation programme will be continued for children under 5, girls of 12-14 years old and pregnant women. This programme should reach 90% of the target groups in 2020.
- * By 2010, at least 90% of households are using salt with a iodine content of 15 parts per million (ppm) or more.
- * The vitamin A supplementation programme will reach 100% of children between 6 months and 5 years old in 2020.
- * An average daily consumption of vegetables and fruits by adults will reach 200g. in 2010 and 400g. in 2020.

Indicators

- * In 2020, no more than 5% of children under the age of 5 should have values for height/age and weight/age that are outside the normal range.
- * The proportion of children that are fully breast-fed during 6 months should be at least 90% in 2020.
- * No more than 20% of women of reproductive age should have a Body Mass Index value outside the normal range (20-25 kg/m²) in 2020.
- * No more than 10% of children between 6 months and 5 years and 10% of women of reproductive age should have moderate to severe anaemia in 2020.
- * Compared to 2000, the use of folic acid by women in the reproductive age via the flour fortification programme should lead to a 40% decrease in the incidence of neural tube defects in 2020
- * In 2020, median urinary iodine levels examined among sample population are at least 100µg/l and no more than 20% of values are below 50µg/l.
- * National statistics on food consumption by the population: iodised salt, fortified flour, proteins, energy from fat, fruits and vegetables.

Objective 7 - Tobacco

Male smoking prevalence over 15 years of age should decrease to below 15% in 2020.

Activities

- * Implementation of the actions described in the “National Programme on Tobacco Control 2007-2011”, by the actors described in that document.
- * Evaluation of the “National Programme on Tobacco Control for 2010-2012” in 2010.
- * Preparation of a follow-up “National Programme on Tobacco Control 2011-2020” by the Ministry of Health of the RUz in 2010. This new Programme should have clear objectives and measurable indicators.

Indicators

- * Prevalence of smoking and nasway use among adolescents and adults as determined in health surveys. Baseline is the estimated smoking prevalence of 21% for adult men in 2005.
- * National statistical data on tobacco sales.

Objective 8 - Accidents

Mortality and disability from traffic, work, domestic and leisure accidents should each be reduced by at least 20% between 2010 and 2020.

Activities

- * In 2010, the Ministry of Health will produce a “Programme for prevention and control of injuries and violence” with technical assistance by the Institute of Health and Medical Statistics.
- * Specific activities and quantitative indicators will be described in the new programme.
- * The Institute of Health and Medical Statistics will develop and implement health education materials about the prevention of accidents and violence.
- * Enforcement of traffic safety: enforcement of safe driving, wearing of safety belts, not using mobile telephones while driving, not using alcohol before driving, etc.
- * Strengthening of occupational safety and health measures.
- * Promotion of safety in and around the home, especially for children; prevention of falls, drowning, poisoning, etc.

Indicators

- * Frequency of medical consultation for various types of injuries, by age and sex.
- * Mortality from various types of accidents and violence, by age and sex.
- * Frequency of permanent disability from accidents and violence, by age and sex.
- * Number of sick leave days from various types of occupational accidents.

Objective 9 - Under-five mortality

Reduction of the under-five mortality rate by two-thirds between 1990 and 2015.

Activities

- * Improvement of the quality of antenatal, obstetric and newborn care, including training of staff, and the development and implementation of new clinical guidelines.
- * Improvement of the quality of primary and paediatric care, including training of staff, and the development and implementation of new clinical guidelines.
- * Supplementation of iron and folic acid, see objective 6.
- * Support for breast feeding, see objective 6.
- * Nation-wide implementation of the live birth definition criteria according to the WHO recommendations by January 1st, 2010.

Indicators

- * Infant mortality rate according to the international definition, by cause of death.
- * Under-five mortality rate, by cause of death.
- * Number and type of staff trained.

- * Number of clinical guidelines developed and introduced.
- * WHO live birth definition criteria adopted.

Objective 10 - Maternal mortality

Reduction of the maternal mortality rate by three-quarters between 1990 and 2015.

Activities

- * Continuation of the screening programme for women in the reproductive age group by primary care physicians.
- * Further promotion of family planning, so that at least 80% of sexually active fertile women that do not wish to become pregnant use modern contraceptives in 2020.
- * Expansion of the iron and folic acid supplementation programme for pregnant women against anaemia (see objective 6).
- * Improvement of the quality of antenatal and obstetric care, including training of staff, equipment, and the development and implementation of new clinical guidelines.
- * Complete coverage of the pregnant population with appropriate antenatal and obstetric care, including all deliveries in maternities and all complicated deliveries in specialised facilities.

Indicators

- * Up to 90% of women in the reproductive age group voluntarily undergo annual screening for risk factors in 2020.
- * Use of modern contraceptives increased to 85% of fertile women in 2020.
- * Supplementation with iron and folic acid reaches 90% of pregnant women in 2020.
- * Full antenatal and obstetric care at the appropriate level is available for 100% of pregnant women in 2020.

Objective 11 - HIV/AIDS and tuberculosis

Annual incidence rates of HIV/AIDS and tuberculosis should start to decrease by 2015 (this is Millennium Development Goal nr. 6).

Activities

- * Implementation of the detailed actions described in the “Strategic Programme on Response to HIV in the Republic of Uzbekistan 2007-2011”, by the actors mentioned in that document, under the guidance of the National AIDS Commission.
- * Evaluation of the “Strategic Programme on Response to HIV in the Republic of Uzbekistan 2007-2011” in 2010.
- * Preparation of a follow-up HIV/AIDS strategy 2011-2020 by the Ministry of Health in 2011.

- * Implementation of the detailed actions described in the “Strategic Programme on the Prevention and Reduction of TB Morbidity in Uzbekistan 2004-2010”, by the actors mentioned in that document, under the guidance of the Republican Specialized Research Institute of Phthisiology and Pulmonology/DOTS Centre.
- * Evaluation of the “Strategic Programme on the Prevention and Reduction of TB Morbidity in Uzbekistan 2004-2010” by the Republican DOTS Centre in 2010, followed by the preparation of a follow-up tuberculosis strategy 2010-2020 by the Ministry of Health, also in 2010, with clear objectives and quantitative objectives.
- * Integration of the TB Co-ordination Council into the new Public Health Co-ordination Committee
- * Improvement of the regulatory-legal basis and law enforcement practices related to the control of the spread of HIV and tuberculosis.
- * Provision of accessible and free legal assistance to persons with HIV and tuberculosis.

Indicators

- * Incidence rate for HIV seropositivity and AIDS.
- * See “Strategic Programme on Response to HIV in the Republic of Uzbekistan 2007-2011” for detailed indicators.
- * See “Strategic Programme on the Prevention and Reduction of TB Morbidity in Uzbekistan 2004-2010” for detailed indicators.
- * Legal changes adopted by the Government.

8 OVERVIEW OF THE IMPLEMENTATION PLAN

<i>objective (key words)</i>	<i>activities (key words)</i>	<i>main responsible organisations</i>	<i>time frame</i>
1. Co-ordination of public health	1. Establishment of Public Health Co-ordination Committee (PHCC)	Government of Uzbekistan	2010
	2. Advise on laws and statutes for inter-sectoral co-operation	PHCC	2009-2011
	3. Advise on introduction of the National Health Accounts system and on required databases	PHCC, Institute of Health and Medical Statistics	2009-2011
	4. Delegation of rights and responsibilities to the Institute of Health and Medical Statistics in accordance with the results of the «Analysis of execution of Public Health main functions», shown in the Section 10 of this document (See Appendix).	PHCC, Ministry of Health and Medical Statistics	2009
	5. Further development of the Institute of Health and Medical Statistics	Institute of Health and Medical Statistics, Ministry of Health	2010-2015
	6. Development and adoption of annual public health programmes.	Institute of Health and Medical Statistics, Ministry of Health and Medical Statistics, PHCC	2010-2020
	7. Publication of annual public health reports	Institute of Health and Medical Statistics, PHCC	2011-2020
	8. Participation by professional associations in quality control in public health	Ministry of Health, professional associations, public health institutions	2009-2020
	9. Citizens self-government bodies (citizens gatherings, mahalla committees) acquire right of participation in public health planning and management	PHCC, citizens self-government bodies (citizens gatherings, mahalla committees)	2009-2010
	10. Creation of conditions for attracting partners to public health	PHCC	2010-2015
2. Deployment and development of human resources	1. Prepare projection for human resources in public health	Ministry of Health, Institute of Health and Medical Statistics	2010
	2. Development and implementation of undergraduate curriculum in public health	School of Public Health of Tashkent Medical Academy (TMA)	2009-2012
	3. Development and implementation of comprehensive continuous professional education for public health staff in the whole country	Tashkent Institute of Post-graduate Medical Training (TIPMT) + partners	2010-2020
	4. Development and implementation of training courses in public health for decision-makers	Tashkent Institute of Post-graduate Medical Training	2010-2020
	5. Development and implementation of courses for legal knowledge in the fields of HIV/AIDS and tuberculosis	Tashkent Institute of Post-graduate Medical Training	2010-2020
3. Public health laboratories development plan	1. Development and implementation of public health laboratories development plan	Ministry of Health	2010-2020
	2. Financial analysis and plan for the public health laboratories	Ministry of Health	2010-2020

	3. Revision of protocols for quality assurance	Ministry of Health	2010-2010
	4. Continuous professional development (see activity 2.3)	Ministry of Health	2010-2020
	5. Improvement of the system of reference laboratories	Ministry of Health	2009-2013
4. Improvement of public health information system	1. Improvement of the national health information system	Institute of Health and Medical Statistics + partners	2010-2015
	2. Establishment of monitoring and evaluation of public health strategy	Institute of Health and Medical Statistics + partners	2010-2010
	3. Publication of relevant public health information on website	Institute of Health and Medical Statistics	2009-2020
	4. Regular evaluation of progress with public health strategy	PHCC, Institute of Health and Medical Statistics, Ministry of Health	2009-2020
	5. Further investment in training, hardware and software for the national health information system	Ministry of Health , Institute of Health and Medical Statistics + partners	2010-2015
	6. Further development of electronic database for surveillance of communicable diseases	Institute of Health and Medical Statistics, laboratory network of SESC's, other networks for communicable diseases	2009-2012
	7. Linking of national health information system and new system of National Health Accounts	Institute of Health and Medical Statistics, Ministry of Health, PHCC	2011-2015
	8. Organisation of regular health surveys	Institute of Health and Medical Statistics	2010-2020
5. Reduction of cardiovascular mortality under 65	1. Development and implementation of health education programmes	Institute of Health and Medical Statistics	2010-2020
	2. Guidelines for prevention of cardiovascular disease developed and implemented	expert committee, professional associations	2010-2012
	3. Organisation of health promotion activities in schools	Institute of Health and Medical Statistics, Ministry of Education	2009-2020
	4. Stimulation of physical exercise	Institute of Health and Medical Statistics, various ministries, local authorities, PHCC	
	5. Detection and treatment of hypertension and hypercholesterolemia	primary health care facilities	2010-2020
	6. Improvement of emergency care for cardiovascular patients	primary health care facilities, emergency medical care	2010-2020
6. Improved nutrition	1. Formulation of new action plan for healthy nutrition 2010-2020	PHCC, Institute of Health and Medical Statistics, expert committee	2010-2009
	2. Integration of Nutrition Co-ordination Committee on implementation of "National Flour Fortification Programme" into PHCC	PHCC	2010
	3. Expansion of health education in nutrition	Institute of Health and Medical Statistics + partners (Center for Anemia under the Research Institute for Hematology and Blood Transfusion, National Centre for Endocrinology)	2009-2020
	4. Expansion of the flour fortification programme	Co-ordination Council on implementation of	2010-2020

		“National Flour Fortification Programme” under Cabinet of Ministers, Uzdonmahsulot Company, Uzstandart Agency, Ministry of Health (Center for Anemia under the Research Institute for Hematology and Blood Transfusion).	
	5. Continuation of iron and folic acid supplementation	PHC, Center for Anemia under the Research Institute for Hematology and Blood Transfusion, National Centre for Endocrinology	2010-2020
	6. Expansion of use of iodised salt	Salt producing companies, Uzstandart Agency, Ministry of Health, National Centre for Endocrinology	2010-2020
	7. Expansion of the distribution of vitamin A	primary health care facilities	2010-2020
7. Reduction of smoking prevalence	1. Implementation of National Programme on Tobacco Control	see Programme	2007-2011
	2. Evaluation of National Programme on Tobacco Control	PHCC	2010
	3. Preparation and implementation of new national programme on tobacco control	PHCC, various ministries and agencies	2010-2020
8. Decrease of injuries, disability and death from accidents and violence.	1. Development of programme for prevention and control of injuries and violence, with specific activities and quantitative indicators	Ministry of Health, Institute of Health and Medical Statistics, Labour Inspection, PHCC	2010-2009
	2. Development and implementation of health education in this field	Institute of Health and Medical Statistics	2009-2020
	3. Enforcement of traffic safety	State Inspectorate for Traffic Security	2010-2020
	4. Strengthening of occupational health and safety measures	Business entities – employers, Labour Inspection,	2010-2012
	5. Promotion of safety in and around the home	Institute of Health and Medical Statistics	2009-2013
9. Reduction of under-5 mortality	1. Improvement of antenatal, obstetric and newborn care	Maternity and primary health care facilities	2010-2020
	2. Improvement of children’s care	Maternal and child health institutions, primary health care facilities	2010-2020
	3. Continuation of iron and folic acid supplementation	see activity 6.5	
	4. Continuation of support for full breast feeding during 6 months	primary health care facilities	2010-2020
	5. Nation-wide implementation of WHO definition of live birth	Ministry of Health	2010
10. Reduction of maternal mortality	1. Continuation of screening of women in reproductive age	primary health care facilities	2010-2020
	2. Further promotion of family planning	Maternal and child health institutions, primary health care facilities	2010-2020
	3. Expansion of iron and folic acid supplementation for pregnant women	Maternal and child health institutions, primary health care facilities	2010-2020
	4. Improvement of quality of antenatal and obstetric care	Maternal and child health institutions, primary health care facilities	2010-2020
	5. Complete coverage of pregnant and delivering women with antenatal	Maternal and child health institutions, primary	2010-2020

9. GLOSSARY

- Public health strategy** – plan to solve the tasks set to achieve wide-scale and long term goals regarding health status of population; which is based on usage of adequate to the task methods of effecting the situation subjected to be changed.
- Monitoring, of the health status of the population** – continuous collection and generalization of data on the health status of population basing on information of current governmental reporting, and on the results of periodically implemented target studies of health status of representative population groups
- Risk factor (health determinant)** – factor of internal environment, life-style or life activity sphere of a man; with respect to this factor, it is statistically proved that the presence of it increases possibility of disease development among population groups being under its effect.
- Quality of health services** – combination of characteristics of provided health care, reflecting its adequacy to modern level of medical science and technologies, to patient’s objective needs and expectations.
- Life expectancy at birth** – duration of life of a person, calculated with account of keeping in future trends of population mortality, which occurred in the year of his/her birth.
- Standardized mortality index** – mortality index per 1000 population, calculated for conditional age and sex composition of population, accepted as standard for all countries
- Body-weight index** – estimate indicator to evaluate degree of inanition (fatness), derived from the ratio of weight (in kilograms) and squared height, measured in meters
- Supplementation** – preventive distribution of standard dose of microelements (as a drag), to the representatives of population’s groups being under the risk of the development of disease caused by microelement deficiency in nutrition.
- Food fortification** – preventive fortification of widely used food with microelements, lacking in nutrition of the most part of the population, characterized by high level of disease prevalence, caused by deficiency of microelement in nutrition.
- Reference laboratory** – laboratory, which performs at assigned territory the function of the body, authorized to perform control over following laboratory diagnostics quality standards by the healthcare facilities.
- Contraceptive** – medical article or drug used to prevent unwanted pregnancy.
- Seropositiveness** – presence of specific components in patient’s blood serum, which are produced by the immune system and giving in laboratory conditions positive reaction with reagents which contain substances specific for pathogenic agent

10. ABBREVIATIONS

SSES – State Sanitary and Epidemiology Surveillance

Europe A – West Europe

Europe B – Central Europe

Europe C – East Europe

PHCC – Public Health Co-ordination Committee

IEC - “information, education and communication”

NIISGiPZ – Research Institute for Sanitary, Hygiene and Professional Diseases

PH – Public Health

OMO – Organizational Medical Department

SES – Sanitary and Epidemiological Service

TIPMT - Tashkent Institute of Postgraduate Medical Training

TMA –Tashkent Medical Academy

11. PUBLICATIONS

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2. “Major Indicators of Health in Uzbekistan, 2005”, WHO European Regional Bureau, 2006 (in English version) (See the web-site: www.who.dk).
3. Uzbekistan Human Development Report developed by National Group on Human Development Report: UNDP, 2006 (in Uzbek, Russian and English versions) (See the web-site: www.undp.uz).
4. Healthcare in Uzbekistan: Facts and Figures, prepared by the State Statistical Committee of the Republic of Uzbekistan and UNDP , Statistical Bulletin # 4, Tashkent, 2006 (in Russian and English versions) (See the web-site: www.undp.uz).
5. Millennium Development Goals, 2006, developed by the Government of the Republic of Uzbekistan and UNN (in Russian and English versions).
6. Resource: «Consequences of tobacco smocking for population health and economy of Uzbekistan” (results of social research of households and patients of healthcare facilities). Ministry of Health of RUZ and the World Bank, Tashkent, 2007.

12. APPENDIX

Analysis of Public Health Functioning

Basic Function	PH Function performance technology	Structural element-performer of PH function
Monitoring of communities health state and planning of activities	Monitoring of natural movement of the population.	Therapeutic and preventive care facilities under the Ministry of Health and departmental health services of other ministries, institutions and organizations; Forensic medical examination bureau of MoH; Ministry of Justice Authorities for registration of documents of civil status;
	Analysis of tendencies of natural movement of the population and related to them threats to communities health.	Government management executive bodies responsible for regulation of macroeconomic development of the country; The Institute of Health and Medical Statistics, its regional and territorial divisions;
	Monitoring of disease incidence and morbidity of the population.	Therapeutic and preventive care facilities of the Ministry of Health and departmental health services of other ministries, institutions and organizations;
	Analysis of tendencies of disease incidence and morbidity of the population and connected with them threats to communities health.	The Institute of Health and Medical Statistics, its regional and territorial branches; SES Centers; Centers on surveillance over quarantine and special danger infections; AIDS Centers; Organizational Medical Departments (OMO) of specialized scientific research institutes and centers of the Ministry of Health;
	Monitoring of population employability status.	Medical consultation commissions of Therapeutic and preventive care facilities under the Ministry of Health; and of departmental health services under other ministries, institutions and organizations; Medical-labour expert Committee under the Ministry of Labor and Social Protection;
	Analyses of tendencies of the population employability status.	Department on pensions and welfare payments, Inspection on medical disability commission under the Ministry of Labor and Social Protection; Pension Fund under the Ministry of Finance; The Institute of Health and Medical Statistics, its regional and territorial branches;
	Monitoring of offer and consumption of public health care services.	Offices, Health statistics departments of therapeutic and preventive care facilities under the Ministry of Health; and of departmental health services under other ministries, institutions and organizations;
	Analysis of tendencies of offer and consumption of public health care services to the population and connected with them threats to the health of the communities	The Institute of Health and Medical Statistics, its regional and territorial branches;
	Monitoring of health care and social welfare expenditures done from state budget funds and households budgets.	<i>Subjects of markets infrastructure, specializing on provision of information re demand and supply status for pharmaceuticals and medical products at medical services markets;</i> <i>Therapeutic and preventive care facilities under the Ministry of Health and departmental health</i>

		<i>services of other ministries, institutions and organizations;</i> Department on pensions and welfare payments under the Ministry of Labor and Social Protection; Pension Fund under the Ministry of Finance;
	Monitoring of nomenclature and consumption volumes of habitat and environment resources by the population;	<i>Subjects of markets infrastructure, specializing on provision of information regarding supply and demand status on the markets to the economic entities, which plan their marketing policy;</i> Accounting subdivisions of economic entities;
	Analyses of nomenclature and consumption volumes of habitat and environment resources by the population.	<i>The Institute of Health and Medical Statistics, its regional and territorial branches;</i> Agencies of State Committee on Statistics; Marketing services of economic entities;
	Monitoring of quality characteristics of habitat and environment resources consumed by the population.	<i>SES Centers under the Ministry of Health and departmental health services of other ministries, institutions and organizations;</i>
	Analysis of trends on population consumption of resources from habitat and environment and connected their quantitative and qualitative characteristics of threats to community health.	<i>Groups of leading specialists of territorial public health care management bodies with involvement of leading specialists of SESC, profile scientific research institutes and SC of MoH;</i>
	Monitoring of trends on social and economic development of the nation, and of population stratification.	Agencies of State Committee on Statistics; State Tax Committee authorities;
	Analysis of trends on social and economic stratification of population and of the connected with them threats to community health.	Informational-analytical subdivisions of the Ministry of Economy; <i>The Institute of Health and Medical Statistics, its regional and territorial branches;</i>
	Monitoring of circulation of living biogenic damaging agents, constituting immediate threat to the health of the population, in human population, in its habitat and environment.	Therapeutic and preventive care facilities and SES Centers under the Ministry of Health and departmental health services of other ministries, institutions and organizations; Centers on surveillance over quarantine and special danger infections under the Ministry of Health; Phyto- and Veterinary surveillance agencies under the Ministry of Agriculture and Water Resources;
	Analysis of circulation tendencies of living biogenic damaging agents, constituting immediate threat to the health of the population, in human population, in its habitat and environment.	SES Centers under the Ministry of Health and departmental health services of other ministries, institutions and organizations; Centers on surveillance over quarantine and special danger infections under the Ministry of Health; Phyto- and Veterinary surveillance agencies under the Ministry of Agriculture and Water Resources;
	Monitoring of occurrence of lifeless biogenic and abiogenic damaging agents, constituting immediate threat to health of the population, in human habitat, in resources consumed by population, in environment.	SES Centers under the Ministry of Health and departmental health services of other ministries, institutions and organizations;
	Analysis of occurrence tendencies of lifeless biogenic and abiogenic damaging agents,	SES Centers under the Ministry of Health and departmental health services of other ministries, institutions and organizations;

	constituting immediate threat to health of the population, in human habitat, in resources consumed by population, in environment.	
	Analyses of currently known and available technologies for solving community health issues and development of public health programme of action.	Groups of leading specialists of SES Centers under the Ministry of Health and departmental health services of other ministries, institutions and organizations; <i>Groups of leading specialists of the Institute of Health and Medical Statistics, its regional and territorial branches;</i> <i>Groups of main specialists of MoH, regional and territorial health care management bodies with involvement of leading specialists of profile scientific research institutes and scientific centers under the Ministry of Health.</i>
	Development of projects on legal regulation of activities of economic entities and population target groups, including development of standards of harmful factors presence for technological processes, manufactured goods and rendered services.	Groups of leading specialists of UzNIISGiPZ and SES Centers under the Ministry of Health and departmental health services of other ministries, institutions and organizations; Group of leading specialists of National Agency on standardization, metrology and certification (UzStandard Agency); <i>Group of leading specialists of the Institute of Health and Medical Statistics, its regional and territorial branches;</i> <i>Groups of main specialists of MoH, regional and territorial health care management bodies with involvement of leading specialists of profile scientific research institutes and scientific centers under the Ministry of Health;.</i>
	<i>Development of projects on economic regulation of the actions of economic entities and of population target groups.</i>	<i>Group of leading specialists of the Institute of Health and Medical Statistics, its regional and territorial branches;</i> <i>Groups of main specialists of MoH, regional and territorial health care management bodies with involvement of leading specialists of profile scientific research institutes and scientific centers under the Ministry of Health;.</i>
	Development of projects on moral-ethical regulation of the actions of economic entities and of population target groups.	Group of leading specialists of the Institute of Health and Medical Statistics, its regional and territorial branches; Groups of main specialists of MoH, regional and territorial health care management bodies with involvement of leading specialists of profile scientific research institutes and scientific centers under the Ministry of Health;.
	<i>Analyses of cost efficiency of public health action programs.</i>	<i>Group of leading specialists of the Institute of Health and Medical Statistics, its regional and territorial branches;</i> <i>Groups of main specialists of MoH, regional and territorial health care management bodies with involvement of leading specialists of profile scientific research institutes and scientific centers under the Ministry of Health;.</i> <i>Head Department of Economy and Financing of MoH; and its regional and territorial branches;</i>
	Prioritization of programs within the framework of planning health system activities for a period ahead.	Chief executives of SES Centers under the Ministry of Health and departmental health services of other ministries, institutions and organizations; and their deputies; <i>Chief executives of MoH, of regional and territorial health system management bodies; their deputies;</i> <i>Heads of the Institute of Health and Medical Statistics, its regional and territorial branches;</i>
	Conducting political agreements to organize	Chief executives of SES Centers under the Ministry of Health and departmental health services of

	interagency cooperation	other ministries, institutions and organizations; and their deputies; Chief executives of MoH, of regional and territorial health system management bodies; their deputies; <i>Heads of the Institute of Health and Medical Statistics, its regional and territorial branches;</i>
Organization of Public Health activities	Submission to legislative authorities the projects of legal regulation of actions of economic entities and of population target groups;	UzNIISGiPZ, Head Department and SES Centers under the Ministry of Health and departmental health services of other ministries, institutions and organizations; and their deputies; <i>The Cabinet of Ministers, regional and territorial executive bodies of government administration; The Ministry of Health, regional and territorial health system management bodies; Local self-government bodies; Public organizations and associations expressing interests of citizens;</i>
	<i>Submission to legislative authorities the projects of economic regulation of actions of economic entities and of population target groups;</i>	<i>The Cabinet of Ministers, regional and territorial executive bodies of government administration; The Ministry of Health, regional and territorial health system management bodies; Local self-government bodies; Public organizations and associations expressing interests of citizens;</i>
	Submission to legislative authorities the projects of moral-ethic regulation of actions of economic entities and of population target groups;	<i>The Cabinet of Ministers, regional and territorial executive bodies of government administration; The Ministry of Health, regional and territorial health system management bodies; Organs of local self-government bodies; Public organizations and associations expressing interests of citizens; The Institute of Health and Medical Statistics, its regional and territorial branches;</i>
Motivation of the participants of public health activities	Legal regulation of quality standards of goods and services, which are supplied to markets, to establish obstacles preventing markets from undesirable goods and services; and in order to switch demand to desirable substitute goods and services.	The Oliy Majlis (Supreme Council) and other legislative bodies of government administration; Chief sanitary officer of the Republic and chief sanitary officers of SSES Centers under the Ministry of Health and departmental health services of other ministries, institutions and organizations, within the framework of their powers delegated to them by state administration bodies; Agencies of the Ministry of Internal Affairs; Agencies of National Security; <i>Local self-government bodies;</i>
	Economic regulation of quality standards of goods and services which are supplied to the markets, to provide competitive advantage to the desirable replacing goods and services; and in order to switch demand to them.	<i>The Oliy Majlis (Supreme Council) and other legislative bodies of government administration; State Tax Committee and its departments; Chief sanitary officer of the Republic and chief sanitary officers of SSES Centers under the Ministry of Health and departmental health services of other ministries, institutions and organizations, within the framework of their powers delegated to them by state administration bodies; Local self-government bodies;</i>
	Direct administration of PHC facilities' activity and specialized vertical structures of health care system purposed to regulate availability, range and quality of medical services.	The Ministry of Health, regional and territorial health system management bodies;
	Advocacy of needs satisfaction strategy, which requires provision of offered service as a moral and	Personnel of primary health care facilities of any departmental affiliation; Personnel of specialized public health vertical structures of any departmental affiliation;

	ethic norm of population target groups' behavior within the framework of business activity on markets.	Personnel of the Institute of Health and Medical Statistics, and of its regional and territorial branches; Personnel of preschool, school, special and higher educational institutions under the Ministry of Public, Higher and Specialized Secondary Education; Mass media of any property category; Creative unions and associations; <u>Personnel of therapeutic and preventive care facilities of secondary and tertiary parts of public health care;</u> <u>Personnel of SSES Centers of all levels and of any departmental affiliation;</u> <u>Personnel of the Centers on surveillance over quarantine and special danger infections under the Ministry of Health;</u> <u>Personnel of profile scientific research institutes and SC of the Ministry of Health;</u>
	Advocacy of needs satisfaction strategy, which requires provision of offered service as a moral and ethic norm of population target groups' behavior within the framework of noncommercial activity	Local self-government <i>bodies</i> ; Public organizations and associations expressing interests of citizens;
	Promotion of goods and services within the framework of business activity in the market by means of communication and advertising.	Marketing services of economic entities;
	Promotion of offered services in the market of medical services.	Personnel of primary health care facilities of any departmental affiliation; Personnel of <u>specialized public health vertical structures of any departmental affiliation;</u>
Control and evaluation of activities results on solving specific problems of community health	Monitoring of goods and services availability in the markets, availability of natural resources in the environment, which are needed for population's target groups to realize, proposed by public health, the strategy to satisfy their requirements;	<i>Subjects of markets infrastructure, specialized on provision of information re market supply and demand status to economic entities, which plan their marketing policy;</i> SES Centers under the Ministry of Health and departmental health services of other ministries, institutions and organizations; Centers on surveillance over quarantine and special danger infections under the Ministry of Health; Offices, Health statistics departments of all level healthcare facilities of any departmental affiliation;
	Monitoring of population target groups' consumption of goods and services, including public health services, environmental natural resources, needed for them to realize, proposed by public health, the strategy to satisfy their requirements;	<i>Subjects of markets infrastructure, specialized on provision of information re market supply and demand status to economic entities, which plan their marketing policy;</i> SES Centers under the Ministry of Health and departmental health services of other ministries, institutions and organizations; Centers on surveillance over quarantine and special danger infections under the Ministry of Health; Offices, Health statistics departments of all level healthcare facilities of any departmental affiliation;

Underlined is a duplication of the function, which is subject to liquidation.

Italics is partly or completely non-performance of the function, which is subject to introduction.

