



Montenegro  
Ministry of Health

**MASTER PLAN OF THE DEVELOPMENT OF HEALTH SYSTEM IN MONTENEGRO  
2015-2020**

Podgorica, August 2015

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## ACRONYMS

FI	Pharmaceutical Institution
AHT	Acute hospital treatment
GDP	Gross Domestic Product
CALIMS	Montenegrin Agency for Medicines and Medical  Devices
DRG	Diagnostic Related Groups
HC	Health Centre
EU	European Union
HIF	Health Insurance Fund
CNCD	Chronic Non-Communicable Diseases
CD	Chosen Doctor
PHI	Public Health Institute
IS	Information System
IHIS	Integral Health Information System
IT	Information Technologies
PI	Public Institution
CC	Clinical Centre
MoH	Ministry of Health
NAHT	Non-acute Hospital Treatment
NGO	Non-governmental organization
GH	General Hospital
OECD	Organization for economic cooperation and development
PHC	Primary Health Care
SH	Special Hospital
STHC	Secondary and Tertiary Health Care
WHO	World Health Organization
UN	United Nations
HI	Health Institution

## 1. INTRODUCTION

Healthy population is potentially the most important society resource in all development aspects, contributing to its overall social and economic progress. Therefore, a special attention should be paid to health and to the conditions for preservation and improvement of health, which will be accomplished not only by activities of the health sector, but by engagement of all social sectors. In this sense, all citizens of Montenegro are by their Constitution, as the most important public act, guaranteed the right to health and health care in accordance with the law, the right to a healthy life and healthy environment, as one of the basic human rights. Therefore, health sector investment should not be observed as the cost, but as investment in health, that is, in the entire sustainable development of a society. Principles of solidarity, universality, equality, accessibility and quality, which are the basis for building a sustainable and integrated healthcare system, with a citizen being the centre of the system, are bearers of socially-oriented European health care system also pursued by Montenegro within the process of EU integration of health.

In order to meet the conditions for achieving the highest possible level of health, the state directs its health policy and plans the development of health systems in the context of overall society development. Health Development Plan is therefore the roof document of the health system, enabling through the use of operational assessment of status within the system and in accordance with guidelines on national and international level, setting up of strategic goals and priorities in health policy management. In this sense, the Master plan for development of health care in Montenegro defines the basic goals and guidelines of health care system development in the period 2015-2020. Since health care system constitutes one of the most complex social systems, planning will have to take into account all aspects of its development, with special reference to sustainability, stability and rationality of the system, efficiency and effectiveness, quality and safety of health care in all levels, monitoring the current social trends, demographic changes, health status and health related population needs, especially in the part of chronic non-communicable diseases and a series of other factors that may affect its further development.

Basic principles of socially oriented European health system are directed to reaching a high level of social protection, social cohesion and social justice, whose main characteristics are public health services as an integral part of social services of common interest and must be jointly observed as such. In countries worldwide, public health needs are increasing, more than ever, which in addition to the foregoing is also affected by faster development of health technologies for diagnostics and treatment, growth of the medicine prices, especially innovative and biological ones, proper valuation of quality of work and larger population awareness. Health care costs are growing faster than the economic foundation of the society, causing adequate financing systems to be introduced and to provide access to the existing health care.

Health development planning function is coordination of activities within the society, in order to most contribute to the improvement of population health. As such, the health depends on social health determinants and a series of environmental factors the individual has no impact on. Factors that nowadays contribute to disease load are extremely complex and interconnected. These factors are as follows: aging of population, migrations, dominant share of non-communicable diseases, including mental health problems; remaining challenges related to communicable diseases; performance and financial challenges affecting the health systems; insufficient development of public health in many areas. Due to these factors the population health is directly or indirectly connected with all activities and actions of people in a society, and often depends on activities and events in other countries. It is very rare that we find areas of actions that do not have a specific impact on population health.

Any legal or other regulation contains certain elements that may contribute to the improvement or deterioration of population health. However, there are reliable evidences that rational policies may be created to directly improve the population health and well-being, by approaches combining the Government leadership and society support and promote a sense of control and building of the system.

Strategic planning which is also a characteristic of this document, has a political character, because political consent is necessary for the means and methods of decision-making on the status of health system, as part of a social system that can only function within its own framework and interdependent with other economic and social trends and development trends. When defining the strategic goals and priorities in the planning period, at least two time perspectives must be taken into account: short and long term ones. Short-term perspectives are grounded on analyses of current status and the existing documents with a shorter timeframe, while long-term perspectives contain projections of future trends and are only grounded on long-term documents, such as the current trends in Strategy Europe 2020 and Health 2020.

Development of the health system should be planned as a gradual and continuous activity so that the outcomes could be monitored in a timely manner and so that they could be influenced, taking into account the risks that radical reforms could have, but are very difficult to foresee. Strongholds for the development of plan are found in basic national and international health and multi- sectorial documents.

### **National normative framework**

Basic principles of health development in Montenegro are formulated in following essential regulations, strategic acts and relevant documents:

- Constitution of Montenegro
- Health Policy in Montenegro by 2020 (2001)
- Health Care Development Strategy of Montenegro (2003)
- Master Plan of the Development of Health Care of Montenegro for the period 2005.-2009.
- Master Plan of the Development of Health Care of Montenegro for the period 2010.-2013.
- Law on Health Care (Official Gazette of the Republic of Montenegro, 39/2004, 14/10),
- Law on Health Insurance (Official Gazette of the Republic of Montenegro, 39/2004, 14/12),
- Law on Patients' Rights (Official Gazette of Montenegro, 40/2010),
- Evaluation of the Health Care Program in Montenegro for 2013,

as well as in all other legal acts and bylaws, health and multi-sectorial strategic documents and national plans and programs.

### **Compliance of the plan with international documents**

Since Montenegro is in the process of EU accession, it is necessary to plan the health system development within the context of social, legislative and economic EU framework. Montenegro is also a member country of the WHO, international authority guiding and coordinating health policies of member countries of the United Nations (UN). Essential EU and WHO documents the Plan has to take into consideration for the forthcoming period are:

- "Europe 2020" – EU strategic document for smart, sustainable and inclusive growth, adopted in 2010.<sup>1</sup>;
- "Health 2020" – a new European political framework and health system development strategy for 21<sup>st</sup> century for European region of the WHO, adopted in 2012.<sup>2</sup>;
- Investing in health –*Towards Social Investment for Growth and Cohesion, EC staff working document* ), 2013.<sup>3</sup>;
- Third Programme for the Union's action in the field of health (2014-2020) (Regulation (EU) No

282/2014 of the European Parliament and of the Council)<sup>4</sup>.

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<sup>1</sup> [http://ec.europa.eu/health/europe\\_2020\\_en.htm](http://ec.europa.eu/health/europe_2020_en.htm)

<sup>2</sup> <http://www.euro.who.int/en/health-topics/health-policy/health-2020-the-european-policy-for-health-and-well-being>

<sup>3</sup> [http://ec.europa.eu/health/strategy/docs/swd\\_investing\\_in\\_health.pdf](http://ec.europa.eu/health/strategy/docs/swd_investing_in_health.pdf)

<sup>4</sup> [http://ec.europa.eu/health/programme/policy/index\\_en.htm](http://ec.europa.eu/health/programme/policy/index_en.htm)

## **2. STRATEGIC FRAMEWORK FOR BUILDING AND DEVELOPMENT OF HEALTH CARE SYSTEM**

Provision of available and comprehensive health care is a priority objective of the health policy in Montenegro by 2020, starting from the position that population health is of common social interest and the most significant development resource, which triggers the process of health advocacy, in accordance with global objectives in this area. Health Policy Strategy set by this document is based on improving the quality of population health by adjusting and improving actions of the health system in accordance with financial possibilities. The Health Policy defines following objectives as general: extension of life span, improvement of quality of life related to health, mitigation of differences in health system, insurance against financial risks.

Further work on preparation of strategic and legislative documents for reaching the objectives of health policy, starting from sectorial strategies, project activities on advancement of the health system to reform processes by health care levels identifies priority areas and provides guidance of health care to gaining the largest benefits for population, bearing in mind accomplishment of available and fair health care and reducing inequalities in health system.

Out of activities being continuously implemented in the health system since 2003., those implemented in the reform of primary health care are primarily significant, while further activities by strategic and legislative documents are directed to functional changes of the health care system in all levels and its integration, aimed at improving the population health. This can be achieved through provision of quality health care, its fair financing and good management of health system.

Within the activities intended to building of public health, some of the principal targets whose attainment Montenegro has also committed to (as a member of health network of South-Eastern Europe) are: reduction of diseases and injuries load, including communicable diseases, chronic non-communicable diseases, and mental disorders. To this effect, activities on building promotion, prevention and treatment by levels of health care have been initiated and are necessary to further implement as priority, which are the main guidelines for planning in the forthcoming period. Regional Strategy of South Eastern Europe SEE 2020 – *Jobs and Prosperity in a European Perspective*, contains the dimension „Health“ and Montenegro will get involved in crucial strategic actions related to universal health-promotional services, focusing on endangered population groups, multi sectorial advocacy for health, cross border cooperation in public health and building human resources in the health sector.

In attaining the principal objective, i.e. preservation and improvement of population health, it is necessary to guide the health system in a sustainable manner. For reaching the above, it is essential to provide solidarity and equality regardless to categories and population groups, which are the principles contained in the national legislative framework, with special focus to vulnerable population groups, appreciation of rights and indicating to citizens' obligations related to their own health. The health system has to provide available and accessible, in every sense, integrated and qualitative health care, development and building of human resources in health system, sustainability of financing and placing a citizen into the centre of health care system. On the other hand, for the purposes of building the health system itself and conducting of health policy on the basis of “evidence”, record keeping with using of real data from the system and building information and e-health services and technologies constitute the most significant transition drivers, from resource based to outcomes based health care. Health care program has already recognized population health needs as basis for planning and contracting of health care throughout the affiliated areas.

With reference to the health budget, a significant portion is still allocated to financing of hospital health

care. According to the World Health Organization data in transitional countries, up to 70% of the health budget belongs to the institutions of hospital health care. Through technological and pharmaceutical development which is reflected through provision of new health services, there may be a potential significant contribution to improvement of overall population health status.

With regard to the staff provision by Human Resources Development Plan by 2020, it is planned to have an equal distribution of health staff (with the share of 25% of staff in the northern and southern region, that is, 50% in central part) and after 2017 it is necessary to further investigate the staff needs in the primary level of health care, with regard to the growing health problems, orientation to promotion, prevention and health improvement.

In the period of globalization and changes, health systems are exposed to permanently growing pressures, changing day after day. This covers a wide range of impacts, such as demographic changes, massive chronic non-communicable diseases, and accelerated advancement of health technology through possibilities of providing new interventions, political expectations and public expectations.

In the process of accession to the EU, Montenegro as a candidate country has started the accession negotiations within Chapter 28 – Protection of consumers and health. Future planning orientations within the health system should create the conditions for process of health integration into EU, in terms of socially oriented European health system and high level of social protection, social cohesion and social justice. Basic objectives of the third European health program 2014-2020 are directed to the promotion of health, prevention of diseases and promotion of healthy life styles, respecting the principle of “health in all policies”, protection of citizens from cross border health threats, contribution to innovative, efficient and sustainable health systems and facilitating access to better and safer health protection. Promotion of good health is an integral part of the new EU Strategy of Economic Growth, i.e. the health policy is an important part for attaining the objectives of smart and inclusive growth by 2020 because only the healthy and active people have positive impact on productivity, employment, population changes and innovation makes health sector more sustainable.

WHO and EU strongly reiterate the fact that population aging and an increase in chronic diseases directly affect the quality of life and increase in health care costs. New European policy of the WHO named Health 2020 aims at supporting the multi sectorial actions in the state level and the entire society in order to substantially improve the population health and well-being, reduce inequalities in health, strengthen public health and provide health systems that have a comprehensive, sustainable and qualitative approach and gives practical solutions for new health challenges in the region.

In accordance with the above, it is very important to observe planning of the development of health system through segments of identifying problems and challenges, analysing of their causes so that, as the most important step, objectives and priorities to be achieved within the defined time period are set. An important stage in implementation of the plan is decision making on measures and activities to be implemented and a final step is evaluation on the basis of which we can only assess sustainability of certain solutions and realistically observe meeting of the objectives and possibly suggest their redefining.

Further development of the health system should be oriented in accordance with the response to national and international requirements, especially in the field of public health and control of communicable and massive non-communicable diseases, with financial sustainability of the system, increase of quality and availability of health services, solidarity and fairness of the health system whose focus is citizens' impact and their inclusion.



### **3. HEALTH SYSTEM GUIDELINES**

#### 3.1 Vision

Health system activities will improve the quality of life and create conditions for social growth and development through preservation and improvement of health of individuals and the entire population.

Starting from the fact that health is influenced by a large number of factors beyond the health system, capacities of health system for cooperation with other sectors will be strengthened as well as its own capacities for adjustment to new health challenges and population needs.

#### 3.2 Mission

Promotion of health in all policies, thus creating conditions for accessible, qualitative and long-term sustainable health care system, with a citizen in the centre of the system, with special focus on promotion and prevention, timely treatment, rehabilitation and care.

#### 3.3 Core values

Values to be guided by in the health system are health, as core value, then equality in accessing the means for health preservation and improvement, fair distribution of resources and solidarity between the social groups and population categories in attaining rights to health care.

#### 3.4 Principles

General principle guaranteed by the Constitution is right to health care and to possibility of reaching the highest possible health level, in accordance with legal provisions. In provision of health care it is necessary to observe the principle of patient orientation and recognized health needs, as well as guiding actions to priorities protecting the patients' core values. General principles refer to the system and to each citizen who, according to the law, shall care about his/her health and must not threaten the health of others and where everyone has equal opportunities for better health.

Specific principles are: comprehensiveness –health care provided to all citizens in accordance with the law, continuity –organization of health activity so as to enable perpetual population health care through all ages, especially in the level of primary health care, availability – distribution of health resources providing equal health care conditions, especially in the primary level, subsidiarity-solving health problems in the lowest level of health care where it is possible, then the principle of integral approach to primary health care which consolidates measures of health promotion and prevention of diseases, treatment and rehabilitation, improving quality and efficiency of work, the principle of specialized approach for meeting specific needs and complex health problems, the principle of protection of patients' rights with observance of ethnicity and availability principle, the principle of inclusion implying active inclusion of all stakeholders in the health care system.

### **4. OVERVIEW OF CURRENT STATUS OF THE HEALTH SYSTEM IN MONTENEGRO**

Overview of a current status of health care system in Montenegro is based on the data from health-statistical reports, situation analysis of health care for 2013, report on communicable diseases and registers of diseases of the Institute for Public Health, reports from health research conducted in Montenegro in the period 2008-2012 (National survey on population health in Montenegro 2008. and 2012.) as well as from other reports, notifications, analyses and publications of the Ministry of Health,

Institute for Public Health, Statistical Year Book on population health and health care in Montenegro, Statistical office of Montenegro –Monstat (Statistical Year Book, Demographic Statistics, Survey on Household Consumption, Labour Survey, Poverty analysis), Ministry of Finances and Health Insurance Fund of Montenegro. When comparing certain indicators with European Union countries (hereinafter referred to as EU) and the European Region, data from the WHO database were used “Health for all” (for 2013 or last available data).

#### **4.1 Demographic situation**

According to the estimates of the Statistical Office, there were 621.607 inhabitants living in Montenegro in 2013. Compared to 1991., total number of Montenegro population increased by 6% and the share of those older than 65 and more by around 57%, while share of children by 14 years of age dropped by around 26%. According to the census data for 2003 and 2011, there had been no significant demographic changes compared to the total number of population of respective municipalities, although a mild increase of adult population has been registered, as well as population aged 65 and older.

Main characteristics of demographic situation in Montenegro from 2001-2013 are characterized by tendencies of gradual population aging, drop in birth rate, fertility rate, natural increment, with increase of mortality rate. Thus, in 2001 the birth rate amounted 14,4 per 1000 inhabitants and mortality rate amounted 8,8 per 1000 inhabitants, while in 2013 the ration between these rates amounted 12,0:9,5. This has significantly caused the drop of natural increment rate from 5,6 in 2001 to 2,5 in 2013, which is still more favourable than in four European regions (from -0,2 in Eastern to 0,5 in Southern Europe in 2011). Changes in birth rate and mortality rate have also affected the fall of the vital index in Montenegro from 164 in 2001 to 126 in 2013. A very important demographic, social-economic and health status indicator is the mortality rate of infants which, in the period from 2001-2013 has decreased from 14,4 to 4,4 per 1000 children born alive and mortality of children younger than 5 has decreased from 15,7 to 5,1, which is not only indicating significantly better and more quality health care of infants and young children but also better health status of the entire population of Montenegro. For the purposes of assessing population needs for health care it is significant to indicate the representation of certain population groups per gender and age (share of children to 15 years of age, adults from 15 to 64, older than 65 and older and women of generative age from 15-49). According to the population census from 2011, there were 19,14% of children younger than 15, 68.06% of adults aged 15-64, 12,80% of old people and 24,22% of women of generative age. The above structures have slightly changed in 2013. Share of adults aged 65 and more in total population was less than the average in European region (15,1%), while share of those younger than 14 was 19,2%, while it amounts around 17% in European region.

Anticipated life expectancy at birth, i.e. average life span in 2013 was estimated at 76,6 years of age, whereat it was 74,1 for men and 79,0 for women, which is several years lower than in the EU countries.

#### **4.2 Social-economic circumstances**

For the last 15 years Montenegro has been marked by positive developments of some of the social-economic indicators. Growth of the gross domestic product (hereinafter referred to as: GDP), relative monetary stability and trivial increase in health spending have affected the relative stability in health care financing.

For example, in 2002, Montenegro's GDP was EUR 2208 per capita, which was permanently increasing by 2009, when, according to Statistical Office of Montenegro estimates it reached EUR 5,893.44 per capita. In 2012, the GDP of EUR 5930 per capita was higher than in Bosnia and Herzegovina, Serbia and Macedonia and significantly lower than in Croatia (almost double), Hungary, Poland, Bulgaria, or

several times lower than in many EU countries.

According to the data of the Statistical Office of Montenegro, the total poverty rate was reduced from 11,3% that amounted in 2012, to 8,6% in 2014, that is, 8,6% of population lived under the absolute poverty line, which amounted EUR 186,45 .

Average (real) earnings of employees, according to the data of the Statistical Office of Montenegro recorded an increase in the period 2004 -2013 so that in 2012 the total actual net earnings reached EUR 487, and in 2013 dropped to EUR 479. In the sector of health and social work, real average net earnings in 2011 were EUR 467 and in 2013 they were EUR 483.

Very low earnings of employees in Montenegro also affected the structure of personal consumption of households by purpose. For household consumption in Montenegro (according to the Survey on Household Consumption of the Statistical Office of Montenegro) a characteristic feature was a significantly high share of expenditure on food and beverages (more than 31,1% in 2013). Expenditures for housing, electricity and water supply amounted 15,5%, for health care 4,4%. For alcohol and tobacco households spend 3,4% and around 10% for clothes and shoes.

According to the published labour data of the Statistical Office of Montenegro, the registered unemployment rate of population ranging from 20-64 in 2013 amounted 19,5%, while employment rate of the same population amounted 52,6%. Therefore, the number of unemployed end of June 2013 amounted 33.437 and of employed 171.474. The unemployment rate was insignificantly falling compared to 2012 when it amounted 19,7%. However, the above unemployment rate in Montenegro is still significantly higher than the EU average (10,8% in 2013) and most of the EU countries (Austria 4,9%, Croatia 9,6%, Slovenia 10,1%, Czech Republic 7,0%, Belgium 8,4%, Estonia 8,6%, Germany 5,3%, Romania 7,3%, Spain 12,2%, Bulgaria 13,0%, etc.).

Still very low level of GDP compared to the EU region and high unemployment rate constitute a very significant limiting factor of sustainable financing of the health care system in Montenegro.

#### **4.3 Health care indicators**

Due to the extended period of transition in the region of Western Balkans that Montenegro was going through, and in unfavourable social-economic circumstances, numerous social factors have affected the functioning of the health system and health status of population. The health status of population is monitored through regular health-statistical reporting pursuant to the law and the data are reported in both national and international level. Since trends indicate the increase of chronic non-communicable diseases load, risk factors associated with these diseases but also cross-border threats related to communicable diseases, these health indicators are given special attention.

##### **Chronic non-communicable diseases**

Chronic non-communicable diseases are the leading cause of illness, disability and premature dying (before reaching the age of 65) of the population of Montenegro. Ischemic heart diseases, cerebrovascular diseases, lung cancer, affective disorders (unipolar depression) and diabetes mellitus (diabetes) are chronic non-communicable diseases which are responsible for almost two thirds of the total disease load of the society.

According to the available mortality data in Montenegro from 2008 to 2012, the share of chronic non-

communicable diseases in total causes of death are almost 80%, where blood circulation diseases and tumours take 60%. Out of the total number of deaths, cause for almost half of them (44,3%) were heart and blood vessels diseases and malignant tumours for almost one fourth (23,4%). In more than 10% of cases the death cause was unknown (symptoms, signs and pathological clinical and laboratory findings).

According to the data of hospital treatment in 2013, diseases of blood circulation system were on the first place in the structure of hospital death rate according to the discharges (15,2%), while the second place in reason for hospitalization were tumours (11,8%). Respiratory system diseases were on the third place (11,4%) and digestion system diseases with 10,4% took the fourth place. Rate of hospital treatment in 2013 amounted 134 per a thousand of inhabitants.

Within the structure of out- patient death rate, acute diseases and conditions were registered in the largest number of cases, primarily diseases from the group of respiratory system diseases (31,3%), while for example blood circulation system diseases as chronic diseases were on the third place (9,5%). According to the data on chronic non-communicable diseases, in 2014 circulation system diseases were mostly represented with around 30% of adult population in Montenegro (estimated prevalence). The highest share of individual diseases from this group belongs to a primary hypertension (64%), with a share of around 25% with men and 38% with women.

Since 2013, Montenegro has established the chronic non-communicable diseases registers: malignant neoplasm, diabetes, acute coronary syndrome and cerebral-vascular diseases. More comprehensive data from these registers for a total number of the people suffering from these diseases is expected in the following period, as well as the indicators to be generated according to the registers.

According to the available data from the register of malignant neoplasm, the total number of newly diseased from cancer in the level of Montenegro in 2013 amounted 1990. Compared to individual diagnoses and gender structure of the diseased, women have been most frequently suffering the breast cancer (33,4%), colorectal carcinoma (9,20%) and lung carcinoma (8,88%), while the lung cancer (22,19%) was the most frequent with men, then colorectal carcinoma (12,58%) and malignant skin tumour (10,22%).

Implementation of the program for early detection of colon cancer in Montenegro started on 1 June 2013. Citizens from 14 municipalities and age group 60-64 represented the target population. Since 1 June 2014 the target population has been extended to citizens from all municipalities and included the age groups ranging from 59-64.

### **Risk factors for non-communicable diseases**

Use of tobacco and tobacco products, harmful use of alcohol, unhealthy/irregular diet and physical inactivity are common risk factors for the majority of preventable non-communicable diseases and are related to conduct. Such risky conduct leads to four essential metabolic (physiologic) changes: increase of arterial blood pressure, increase of glucose and cholesterol level in blood and increase of bodily weight, that is, obesity. The above risk factors are main ones for four groups of non-communicable diseases prominent according to the number of diseases, consequential disability and death.

Two investigations on population health and health care have so far been implemented in Montenegro (2008 and 2012) on a representative sample of Montenegrin population and generated useful relevant

data related to the risk factors: smoking, alcohol use, physical activity and nutrition.

In 2008, 32,7% of adult population (20+) suffered from hypertension or potential hypertension and according to the bodily mass index 55,1% of adults had excessive bodily weight. Only 11,5% of adults were practicing more than three times a week. Prevalence of smoking (regular or occasional) in 2008 amounted 32,7% among adults, while in 2012 it amounted 31%. In 2008, alcohol was used on a daily basis or occasionally by 25,1% of adult population, that is, significantly higher in 2012 (32%).

### **Communicable diseases**

Montenegro has gone through “epidemiological transition” and larger diseases load for population, for decades, have constituted non-communicable instead of communicable diseases. Still, there are challenges connected to the improvement of population health in a part of communicable diseases. In addition to a daily need for supervision, prevention, fast discovery, treatment, control and suppression of common diseases of communicable etiology, there are different contemporary “threats” such as newly discovered pathogens and diseases caused by them, as well as diseases that again become apparent due to the changes in human environment. An increasing significance is given to cooperation with other countries, primarily with those in the region, but also with other countries worldwide due to an increased number of passengers in international traffic and increased risk of disease importation and outbreak of possible epidemics.

A special problem is anti-microbial resistance threatening to endanger the established control of communicable diseases.

According to the records of communicable diseases in 2014, there are 8.974 people suffering from communicable diseases in Montenegro subject to mandatory registration (without evidenced cases of influenza (flu), OR – a disease resembling flu and ARI –acute respiratory infections. Incidence of 1447,4/100.000 is by 9,7% higher than last year values.

In 2014 there have been three registered death outcomes from communicable diseases that are mandatory to report, with the death rate of 0,48/100.000 (excluding flu described in this report). Death incomes have been registered with two cases of suffering from haemorrhagic fever with kidney syndrome and one case of suffering from congenital syphilis.

Observed according to the groups of communicable diseases, the highest number of reported disease cases in 2014 has been in the group of respiratory communicable diseases (without flu), making 77,3% of total number of reported cases of communicable diseases, which has kept this group at the first place, the same as last year, i.e. the last six years. Intestinal communicable diseases are in the second place, with the share of 11,6% in total number of the diseases and the third place belongs to parasite diseases with 9,2%. Other groups of communicable diseases (anthropozoonoses, sexually transmitted diseases, vector-borne diseases, carrier state and other diseases) are present with a very low share (all together they make 1,9% of total number of people suffering from communicable diseases to be registered). Such sequence of frequency of individual groups of communicable diseases is characteristic of the observed six year period.

In 2014, there were 20 new cases of HIV/AIDS and incidence of newly discovered infections in 2014 amounted 3,22/100.000 inhabitants. At the moment of giving the diagnosis of HIV infection, 7 newly registered persons has already had the AIDS stadium (incidence of the diseased amounted 1,13/100.000), while 13 persons were registered in the phase of asymptomatic HIV infection (incidence amounted 2,09/100.000).

This year, two death outcomes from AIDS have been registered (death rate amounted 0,32/100.000 inhabitants).

In recent years the rate of newly registered cases of diseased from tuberculosis has been kept in the level of low notification rate for the EU region, i.e. it amounted less than 20/100000 inhabitants. For 2014 the value of this rate was 18,2/100.000, while percentage of the diseased from multiple sclerosis tuberculosis compared to the total number of tuberculosis diseased of 3,5. The tuberculosis death rate amounts 0,32/100.000 inhabitants.

#### **4.4 Health care organization**

In accordance with the law, the state is the founder of most of the health institutions providing health care of population. Health care is provided in health institutions comprising a network of public health institutions and privately owned health institutions.

A network of health institutions is organized in a way that citizens are provided the health care pursuant to the needs and possibilities of the health system, and in accordance with principles of solidarity, accessibility and equality in attaining health care.

Health care is provided in three levels.

The first level is the primary health care level that should provide 80-85% of health care needs. Holder of the primary health care is a chosen doctor in the health centre, i.e. teams of chosen doctors.

The second level, secondary health care level is provided through specialist clinics and hospital wards, as well as tertiary level of health care with the development of sub-specialist clinics.

Primary health care is priority in the development of health system, including the promotion of healthy life styles and preventive health care. Organization wise, the health centre is institution which, through chosen doctor clinics, i.e. the teams of chosen doctors of medicine and units for supporting the chosen doctors, is a carrier of primary health care.

In 2008, the health centres were reformed and changed their organization and content of work. In organizational terms, the Health Centre has three elementary units:

- **Clinic** of a chosen doctor, i.e. the teams of chosen doctors (chosen doctor pediatrician, chosen doctor for adults and chosen gynaecologist),
- **Centre for supporting chosen doctors** which are organized in local and regional level for: lung diseases and TBC, diagnostics, mental health, children with special needs, prevention and similar, and
- **Units** for :domiciliary care, physical therapy of primary level and medical transportation.

Health care in secondary and tertiary level is obtained in general and special hospitals and the Clinical Centre of Montenegro, through clinical specialist-consultative and consultation health care and through a hospital treatment in the wards and through daily patients' treatment (daily hospital).

#### **4.5 Health care resources**

In accordance with the legal regulations, the state has established the following health institutions: 18

health centres, 7 general hospitals, 3 special hospitals, Clinical Centre of Montenegro, Institute for Public Health, Emergency Medical Assistance, Blood Transfusion Institute, Pharmacies of Montenegro "Montefarm". The above institutions provide health care in levels (primary, secondary and tertiary) with regard to the activities they were established for.

The Health Insurance Fund of Montenegro is responsible for the implementation of health policy in a part related to health insurance and for implementation of pharmaceutical policy the state has set up the Agency for Medicines and Medical devices (CALIMS).

At the end of 2013, there were 7228 workers employed in all public institutions of Montenegro, out of which 5550 (76,8%) were health workers and 1678 (23,2%) of employees of medical profession. The ratio between the medical and non-medical staff employed in all health institutions of the public sector was 3,31:1 (i.e. 30,2 non-medical workers on 100 health workers and associates).

*Employees in public health institutions in Montenegro in 2013*

Health staff		Health institutions									
		Health centre	Health stations	Emergency medical assistance	Institute for Public Health	General hospital	Special hospital	Clinical centre	Blood Transfusion Institute	Pharmacy institution	Total
Doctors	general practitioners	93	-	25	-	-	-	-	-	-	118
	in spec. specializations	72	-	3	14	57	16	32	3	-	197
		364	6	17	29	251	47	303	15	1	1033
Total		529	6	45	43	308	63	335	18	1	1348
Dentists, pharmacist, health associates, higher prof. qualifications		-	-	-	3	-	1	22	-	1	27
		1	-	-	-	4	1	1	-	98	105
		34	-	2	24	27	7	101	1	2	195
Higher and secondary qualifications		1086	23	179	84	996	229	1063	43	172	3875
Total medical workers		1650	29	226	154	1335	301	1522	61	272	5550
Total non-medical workers		345	11	90	28	472	103	531	7	91	1678
Total workers		1995	40	316	182	1807	404	2053	68	363	7228

Out of the total number of workers 1348 (24,3%) are doctors (76,6% of that are specialists),,, 27 (0,5%) dentists, 105 (1,9%) pharmacists, 195 (3,5%) health associates with high professional qualifications and 3875 (69,8%) are workers having higher and secondary professional qualifications.

Compared to 1991, in 2003 there were 6,4%, and in 2013 there were 6,1% more employees in the health system of Montenegro. Qualification structure of employees has been changed at the same time. A share of non-medical workers was reduced from 1991 to 2013 by 16,9% and the share of doctors increased by 47,0%, share of nurses reduced from 2003 to 2013 by 1,5% so that staff provision on 100.000 inhabitants significantly increased, along with the number of doctors in the health system.

*Employees of the health system of Montenegro in 1991, 2003, 2008 and 2013*

Profil	1991	2003	2008	2013
Doctors and Specialist doctors	917	1139	1312	1348
Dentists	275	265	98	27
Pharmacists	120	103	99	105
All health workers and associates	3485	5464	5405	5550
Non-medical workers	1961	1787	1826	1678
All employees of the health system	6815	7251	7231	7228

A number of doctors which in 2012, in EU countries, amounted to 334 doctors on 100.000 inhabitants is significantly higher than in Montenegro (217 doctors on 100.000 inhabitants in 2013).

Share of the non-medical workers in total number of employees has continuously decreased, but is still high. In 2008 it amounted 25,3% and in 2013 it was 23,2%, while in 1991 it was 28,8%.

In 2013, in the primary health care level in Montenegro, 395 teams of chosen doctors of medicine were engaged, i.e. 361 chosen doctors for children and adults and 34 chosen doctors for women.

In terms of organization, chosen doctors for children and adults (361 doctors and 309 nurses/technicians) were, on 132 points, i.e. clinics, providing the primary health care, i.e.:

- For children aged 0-6 and children aged 7-18 health care was provided in 27 clinics with 92 doctors and 137 nurses/technicians,
- For the insured aged 18 plus the health care was provided in 100 clinics with 269 doctors and 309 nurses/technicians,
- For the insured women gynaecological health care was provided by 34 doctors, gynaecologists, and 44 nurses/technicians.

In out-patient health care (health centres, Institute for Public Health, Emergency Medical Assistance) there were 2533 employees, that is, 2059 medical workers and associates and 474 non-medical workers. The ration between medical and non-medical workers is 4,84 medical workers on one non-medical worker, or 20,66 non-medical workers on 100 medical ones, which is some 3% more in favour of health workers and associates compared to 2012.

In in-patient health care (general hospitals, special hospitals and Clinical Centre of Montenegro) there were 4332 employees, i.e. 3219 medical workers and associates and 1113 non-medical workers. The ratio between medical and non-medical workers is 2,89 medical workers on one non-medical worker, or 34,57 non-medical workers on 100 medical ones. The ratio between medical and non-medical staff employees in secondary and tertiary levels in public health services was 2,9:1, that is, there were 34,6 non-medical workers on 100 medical workers and associates, which is significantly lower than in the period from



2001 to 2009 when there were 36,0 to 39,9. Out of the number of medical workers 724 (22,5%) are doctors (out of which 85,1% are specialists of different disciplines), 23 (3,2%) are dentists, 135 (4,2%) are health associates having academic professional qualifications and 2331 (72,4%) are workers with higher and secondary professional qualifications.

According to the data from the report on operation of hospital-stationary institutions as at 31.12.2013, there were 2416 beds in total. Out of the total number, there were 1120 standard beds intended for general hospitals, 96 beds were in stationaries of health centres, 504 standard beds in special hospitals and 696 standard beds in the Clinical Centre of Montenegro. In this way, there were 389 beds on 100.000 inhabitants of Montenegro, which is still less than the EU average, i.e. than the European region average.

#### 4.6 Health care utilization

In 2013, in the primary level of health care with the chosen doctor there were 3.339.034 examinations, which are presented in Table 3 according to the chosen doctors.

*Actual number of examinations in primary health care in Montenegro in 2013*

Chosen doctor	no. of doctors	Realised in 2013		
		Number of examinations		
		preventive	curative	Total
children 0-6*	<b>92</b>	97589	352555	450144
children 7-18 adults		24321	273982	298303
18+	<b>269</b>	31490	2359062	2390552
total chosen doctor for children and adults	<b>361</b>	153400	2985599	3138999
Chosen doctor for women	<b>34</b>	42650	157385	200035
<b>Total chosen doctors</b>	<b>395</b>	196050	3142984	3339034

In 2013, the chosen doctors have had 5.13 examinations per the insured, in average.

*Number of examinations per chosen doctor, number of examinations per the insured and number of the insured per chosen doctor in 2013 in primary health care in Montenegro*

Chosen doctor	Actual examinations in 2013		
	Examination .per chosen doctor	Examinations per the insured	Insured per chosen doctor
children 0-6	4893	<b>8.42</b>	581
children 7-18		<b>2.96</b>	
adults 18+	8887	<b>5.13</b>	1813
total ch.doct.for child.&adults	8695	<b>5.06</b>	1718
chosen doctor for women	5883	<b>0.90</b>	6506
<b>Total chosen doctor</b>	8453	<b>5.13</b>	<b>1570</b>

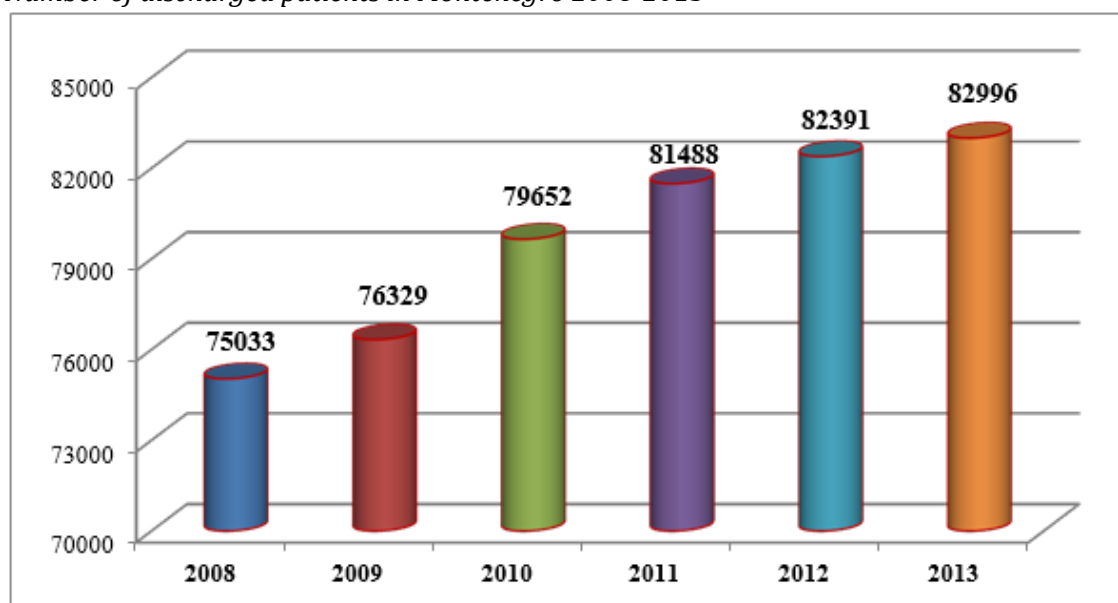
In 2013 there were total of 1.005.513 examinations in specialist clinics:

- In the primary health care level (clinics kept in certain health centres) and there were 225534 examinations in 67 specialist clinics
- In the structure of these examinations, there were 114165 first examinations (50.6%) and 111369 of control examinations (49.4%)
- In the secondary and tertiary health care there were 779979 examinations, that is, 1,26 examinations per the insured.

In the structure of examinations, there were 474250 (60.8%) of first examinations and 305729 (39,02%) of control examinations.

In 2013, the in-patient treatment rate in Montenegro amounted to 134. Number of discharged patients in the period from 2008 to 2013 recorded the growth of 10,6%.

*Number of discharged patients in Montenegro 2008-2013*



The hospitalization rate of 13,4 per 100 inhabitants in 2013, although increased, is lower than many European countries or the EU where this value goes up to 20.

The average length of treatment in Montenegro since 2008 has been reduced from 8,69 days to 7,89 days in 2013, which is a decrease compared to 2009 (9,91 day) or compared to 2011 (9,20 days). The above length of treatment is higher than it was in Slovenia (6,90) in 2009, but less than it was in Croatia in 2010, i.e. 9,46.

Average length of hospital treatment varied in relation to the type of hospital. In general hospitals, in 2013, it was 6,31 days, in special hospitals it was 28,34 days (Special hospital for Psychiatry Dobrota 80,60 days, Special Hospital Risan 14,31 days, Special Hospital Brezovik 15,97 days) and in the Clinical Centre of Montenegro it was 6,21 days.

The shortest average length of treatment was in health centres stationaries, 5,04 days. Average lengths of treatment in general hospitals were unbalanced, from the shortest one of 5,04 in General Hospital Kotor to the longest one of 7,07 days in General Hospital Pljevlja. In 2011 the average length of treatment was, for example, in Austria: 7,8 days, Croatia 9,3 days, Czech Republic 9,8, Denmark 4,5, Estonia 7,7, Finland 11,4, Hungary 10,2, European Region 9,59 days.

In 2013, an uneven number of patients was registered per doctor. In general hospitals, the number of registered patients per doctor was 174 (Bar 212, Berane 199, Bijelo Polje 140, Kotor 199, Niksic 157, Pljevlja 129, Cetinje 170) and in health centre stationaries 382. In special hospitals there were 100 patients registered per doctor (Brezovik 128, Dobrota 68, Risan 98) and in Clinical Centre of Montenegro there were 103 patients. The above numeric values of numbers of registered patients per one doctor indicate that the scope of work and doctors' load is uneven between individual hospitals, both according to the type and individual general hospitals.

Daily use of beds has a special significance in hospital operation. In 2013, utilization in general hospitals was: 65,11% (Bar 71,14, Berane 76,15%, Bijelo Polje 73,28%, Kotor 61,02%, Niksic 51,25%, Pljevlja 62,79%, Cetinje 69,68%), in special hospitals 88,98% (Brezovik 79,65%, Dobrota 106,11%, Risan 65,95%) and in the Clinical Centre of Montenegro 77,58%. In stationaries of health centres, utilization was 43,97. In relation to the utilization of beds in hospital institutions in 2013 and bearing in mind the above number of beds (2416), it is obvious that 657 beds were available daily (in general hospitals 391 out of 1120, in special hospitals 54 out of 504, in the Clinical Centre of Montenegro 156 out of 696 and in stationaries of health centres 54 out of 96).

*Indicators of work of stationary health institutions in Montenegro in 2013*

Public Health Institution	Occupied beds per doctor	Occupied beds per nurse	% of capacity utilization	Average length of treatment	Number of available beds
Stationaries of Health Centres	5,28	1,01	43,97	5,04	53,79
General hospitals	3,00	1,04	65,11	6,31	390,77
Bar	3,30	1,14	71,14	5,67	48,20
Berane	3,37	1,15	76,15	6,19	44,36
Bijelo Polje	2,87	1,17	73,28	7,50	37,68
Kotor	2,75	1,14	61,02	5,04	56,13
Niksic	2,98	0,87	51,25	6,91	133,08
Pljevlja	2,73	0,98	62,89	7,70	43,42

Cetinje	2,79	0,90	69,68	6,00	27,90
Special hospitals	7,73	2,16	88,98	28,34	55,52
Special hospital for lung diseases and TBC Brezovik-Niksic	5,62	1,44	79,65	15,97	28,70
Special hospital for psychiatry Dobrota-Kotor	15,04	3,60	106,11	80,60	-14,72
Special hospital for Orthopaedics, Neurosurgery and Neurology Risan	3,83	1,36	65,95	14,31	41,54
Clinical Centre of Montenegro	1,74	0,84	78,23	6,16	151,5
<b>TOTAL</b>	<b>2,84</b>	<b>1,11</b>	<b>72,84</b>	<b>7,74</b>	<b>656,13</b>

The above values of hospital capacities functioning from Table 5 show that the average occupancy, or capacity utilization, was the highest in Special hospital for psychiatry Dobrota-Kotor (106,11%) and the lowest capacity utilization was in General hospital Niksic (51,25%) and stationaries of health centres (43,97%).

A low level of utilization, i.e. occupancy of hospital beds cannot be solely interpreted by surplus of current bed capacities but also by their inappropriate distribution compared to the actual needs, and by traditional manner of financing capacities of health institutions.

The rate of hospital case fatality (number of deceased per 1000 treated patients) is a very significant indicator of quality of work in hospital institutions. In 2012 this rate for all patients treated in hospital institutions of Montenegro amounted to 22,38 per miles and in 2013 amounted to 25,46 per miles. In 2013 the case fatality rate in health centres was 5,56 per miles, in general hospitals it was 22,90 per miles, in special hospitals it was 26,66 per miles (Brezovik 22,59 per miles, Dobrota 9,50 per miles and Risan 41,42 per miles) and in the Clinical Centre of Montenegro 25,70 per miles.

#### 4.7 Financing of health care

Financing of health care system in Montenegro is based on the principles of Bismarck social health insurance, which is funded by the contributions under the legally defined categories. According to the last available data, more than 95% of population is covered by this insurance. The missing funds for functioning of the health system and for health care needs are provided from the state budget. These funds pertain to payment of salaries to employees of public health institutions and funding activities of local communities, which is indicating that Montenegro has a mixed system of financing, especially if bearing in mind that current legal solution (Law on Budget, treasury system) are more appropriate to the system of budgetary financing of health care than system of insurance.

Insignificant additional resources for financing of health care in Montenegro are obtained from personal participation of health care beneficiaries (participation), funds from other payments and donations.

It is known that principles of bindingness and solidarity in health insurance give population certain rights to health care and monetary compensations pursuant to the law, but their attainment is also related to the commitment of paying the contributions proportionate to their financial abilities. Mandatory health insurance with the insured provides right to use the health care.

Institution where rights from health insurance are exercised and where funds for exercising rights in health care are provided is the Health Insurance Fund of Montenegro (HIFoMn).

Incomes of mandatory health insurance are: contributions for mandatory health insurance, donations, incomes at conventions, incomes from indemnities, interest incomes, dividends, rents and incomes from other sources in accordance with the law.

*Structure of incomes for the period 2010-2014*

No.	Description	Achieved 2010	% of share	Achieved 2011	% of share	Achieved 2012	% of share	Achieved 2013	% of share	Achieved in 2014	% of share
1	Incomes from health care contributions	130.299.059,71	77,48	120.936.828,33	74,80	125.744.023,63	75,31	134.706.291,09	80,93	139.442.310,96	82,58
1.1	Contributions for health care of employees in the rural sector	78.972.115,86	46,96	118.842.645,53	73,50	125.518.993,75	75,17	133.747.385,84	80,35	139.241.795,43	82,46
1.1.1	Contributions for earnings of employees in economic sector	76.164.916,30	45,29	115.769.301,15	71,60	122.442.331,75	73,33	130.008.323,99	78,11	136.550.598,09	80,87
1.1.2	Contributions from independent activities	2.469.705,34	1,47	2.875.656,82	1,78	3.008.757,40	1,80	3.637.877,08	2,19	2.522.601,60	1,49
1.1.3	Contributions for insurance of farmers	337.494,22	0,20	197.687,56	0,12	67.904,60	0,04	101.184,77	0,06	168.595,74	0,10
1.2	Contributions for health care from public sector	51.326.412,29	30,52	2.093.794,68	1,29	224.850,77	0,13	958.762,86	0,58	149.161,40	0,09
1.2.1	Contributions for health care for employees in non-commercial sector	50.944.087,40	30,29	1.974.675,50	1,22	213.979,50	0,13	945.116,01	0,57	141.932,25	0,08
1.2.2	Contributions for health care of pensioners		0,00	466,52	0,00	5.692,73	0,00	11.851,93	0,01	7.150,92	0,00
1.2.3	Contributions for health care of unemployed - Employment Office	382.324,89	0,23	118.652,66	0,07	5.178,54	0,00	1.794,92	0,00	78,23	0,00
1.3	Other incomes from interests	531,56	0,00	388,12	0,00	179,11	0,00	142,39	0,00	51.354,13	0,03
II	INCOMES FROM BUDGET	37.862.749,12	22,52	40.750.610,09	25,20	41.225.730,46	24,69	31.742.512,22	19,07	29.407.347,02	17,42

2.1	General incomes from budget	25.586.624,31	15,22	25.325.741,15	15,66	24.975.772,26	14,96	28.636.748,59	17,20	29.407.347,02	17,42
2.2	Difference-intended contributions of the Budget	12.276.124,81	7,30	15.424.868,94	9,54	16.249.958,20	9,73	3.105.763,63	1,87		0,00
	TOTAL	168.161.808,83	100,00	161.687.438,42	100,00	166.969.754,09	100,00	166.448.803,31	100,00	168.849.657,98	100,00

\*Data in the table are presented according to the reports provided by the treasury.

Total incomes of the Health Insurance Fund in 2012 amounted near 167 million euro, the same as in 2013 and 2014, meaning 270 € per capita. If we observe incomes of the Health Insurance Fund per structure, then incomes from health care contributions in 2012 participated with 75,31%, in 2013 with 80,93% and in 2014 with 82,58%. The remaining part is made from the budgetary incomes.

In the period from 2009 to 2014, share of the Health Insurance Fund expenditures in GDP noted a significant decline.

#### *Share of the Health Insurance Fund expenditures in GDP from 2009 to 2014*

Year	GDP* (in million euro)	Budget realization **	Share in the GDP	Expenditures per accounting model ***	Share of the Health Insurance Fund in GDP
2009	2.980,97	158,50	5,32	189,13	6,34
2010	3.103,65	168,62	5,43	183,55	5,91
2011	3.234,06	162,31	5,02	176,35	5,45
2012	3.148,86	167,41	5,32	179,99	5,72
2013	3.327,08	167,49	5,03	178,23	5,36
2014	3.516,00	168,43	4,79	182,42	5,19

\*Source: Monstat, \*\* Guidelines for the development of Budget for 2015; \*\*\* Report on the Health Insurance Fund Operation

Note: From 2010 to 2012 the Institute for Public Health was a separate consumers unit and was not included in expenditures of the Fund and the data for 2014 show expenditures before the final calculation with the public health institution.

Expenses for medicines and medical devices in 2012 participated with 25,43% in total expenditures, in 2013 with 27,95% and in 2014 with 29,22% (data for 2014 are given as preliminary data).

Total health care costs per capita in Montenegro in 2012, according to the estimate of the WHO, amounted to 1018.76\$, which is less than in Serbia (1249.78\$), Croatia (1409.108 \$) or in Slovenia (2419.86 \$) and higher than in Bosnia and Herzegovina (927.62\$). At the same time, these costs in the EU amounted to 3346.19 \$.

According to the assessment of the WHO, a part of the GDP spent for the health system in Montenegro in 2012 amounted 7,58%, while at the same time it was 6,82% in Croatia, 10,48% in Serbia, 10,8% in Bosnia and Herzegovina and 9,61% in the EU.

Health care costs in the total state budget, according to the WHO data, are estimated at 9,96% in 2012, while the same are estimated at 16,6% in Bosnia and Herzegovina, at 15,06 in Croatia, at 13,36% in Serbia, at 13,1% in Slovenia and 15,17% in the EU.

Private households payments for health care (“out of the pocket payments”) as a proportion of total costs for health care, and according to the WHO data, participate with 26,66% in Montenegro, while this share is significantly lower in Slovenia (11,94%), Croatia (13,9%), i.e. in the EU (16,34%).

Payment of health services is effected by contracts with providers, i.e. by payment of work plans of health institutions within the funds planned in the estimates of the Health Insurance Fund. The work plan contains the number and type of health services and the number and structure of employees. For the realization of work plans a health services provider submits reports (Invoices) on completed health services in accordance with the Health Insurance Fund act governing the billing of health services.

Capital investments in the health care system have to the greatest extent been funded from the state budget and in its smaller part from the local self-governance budget, as well as from the resources of the Health Insurance Fund and donations.

## **5. STRATEGIC DEVELOPMENT DIRECTIONS OF THE HEALTH SYSTEM**

Strategic development directions of the health system are defined in relation to:

- Preservation and improvement of population health
- Organization and functioning of the health system

Health is one of the most important factors of quality life. Reaching the highest level of population health is objective of each society. This objective is the result and outcome of preservation and improvement of health, organization and functioning of health system and also of activities of all other sectors related to health, through the approach of “health in all policies”.

Priority areas for preservation and improvement of health and organization and functioning of the health system are defined within the above strategic directions, through a selection of objectives and priorities for improving the population health , health activity, financing, quality of health care and patients’ safety, pharmaceutical policy, integrated health information system, cooperation with other sectors and society as a whole.

## **I PRIORITY AREAS OF PRESERVATION AND IMPROVEMENT OF HEALTH**

The task of the state and all of its authorities is to promote policies to create conditions for better health, to give priority to health care programs oriented to the improvement of health, promotion and prevention, early detection of chronic diseases, the most vulnerable population, as well as the optimal functioning of the health system.

Health promotion, prevention and care are effective mechanisms for the preservation and improvement of health and therefore a prerequisite for faster socio-economic development. Preventive health care must be a strategic priority, a common goal and the greatest value of Montenegro. The quality of life and population health will improve with the strengthening of the public health sector. Quality public health is focused on more efficient decrease of health, social and economic load, which causes premature mortality and morbidity. It is necessary to improve awareness and knowledge in the field of public health, provide rapid responses of health institutions to life hazards and promotion of health, as well as prevention of diseases. Employer’s role is extremely important in providing a healthy workplace and preventing occupational diseases, injuries and illnesses related to work

Universal health coverage (universal health coverage) is one of the most powerful principles of public health that can reduce disparities in health among different population groups.

Universal health coverage is one of the most powerful principles of public health which can reduce the differences in health among different population groups. Universal health coverage implies that all people have available health care they need, including: promotion, prevention, treatment, rehabilitation and palliative care, without financial risks for the users, when exercising rights to health care.

Particular attention has to be paid to the most vulnerable population groups and respect equality principles in health system.

For the purposes of preservation and improvement of health it is necessary to improve the monitoring system that includes collection, analysis and reporting of the data regarding health and population health care, which is enabling decision to be made on the basis of evidence with the ultimate goal of creating and directing the health policy.

In order to achieve as healthier and qualitative life of individuals and population as a whole it is necessary to observe the health in a wider context that requires a comprehensive action of all segments of society. Therefore, a sustainable development, in long-term, implies permanent economic growth which, besides



economic efficiency, technological advancement and new technologies, innovativeness of the entire society and socially responsible operation also provides reduction of poverty, long-term better use of resources, mitigation of environmental pollution, prevention of new pollution and improvement of conditions for better living and quality lives of individuals.

Considering the current health problems and population needs for health care, priority areas of preservation and improvement of health have been defined that refer to the prevention and control of chronic non-communicable diseases, prevention and control of communicable diseases due to a permanent threat of new diseases and wide spread antibiotic resistance and specific health needs of individual population categories, as well as building of public health.

## **1. Prevention and control of chronic non-communicable diseases**

Chronic non-communicable diseases (CNCD) are characterised by: long and frequent life long duration of disease, reduction of quality of life, causing disability and premature death and significant financial load to individual and the society. Demographic trends, together with aging of population and unhealthy life and work styles, growing environmental pollution, as well as other factors, contribute to a significant increase in chronic diseases, especially in recent decades.

Control of chronic non-communicable diseases is achieved by prevention in individual and population level, by target examinations, preventive examinations and promotion of healthy life styles and healthy environment, by joint action of the health sector and other sectors and reduction of inequalities in the health system.

Aiming at reducing the disease affecting rate and dying from chronic non-communicable diseases in Montenegro, strategic, program and planning documents have been adopted that relate to the prevention and control of chronic non-communicable diseases (heart and blood vessels diseases, diabetes, malignant diseases, mental diseases), risk factors associated with health (for example: tobacco and tobacco products use, harmful use of alcohol, excessive salt intake in nutrition), early detection of cancer (screening program) and injuries.

Primary objectives of prevention and control of chronic non-communicable diseases are:

- reduction of getting sick and premature dying from heart and blood vessels diseases,
- reduction of getting sick and premature dying from malignant diseases,
- reduction of getting sick and premature dying from diabetes,
- detection and reduction of exposure to risk factors for chronic non-communicable diseases,
- improvement of mental health and
- reduction of injuries.

**Heart and blood vessels diseases** constitute the leading public-health problem and are the main cause of in-patient treatment and dying in Montenegro. It is possible to significantly improve health by prevention and control of heart diseases. The highest significance in improvement of health is based on reduction of risk factors and promotion of health, prevention of disease, improvement of treatment, reduction of incompetence and premature dying.

**Priority 1:** in reducing the heart and blood vessels diseases load it is early detection of risk factors: increased blood pressure, values of cholesterol and sugar in blood. This will be achieved by introduction of preventive programs in the primary health care level (screening program to increased blood pressure)

as well as by continuous implementation of already introduced opportunistic screenings (values of cholesterol and sugar in blood).

**Priority 2:** refers to the reduction of exposure to risk factors for heart and blood vessels diseases that are connected to unhealthy life styles (use of tobacco, alcohol, physical inactivity, unhealthy diet, obesity) and is implemented through the realisation of existing and introduction of new preventive programs in the level of primary health care in the prevention centres of the Health Centres. These programs are created, monitored and evaluated by the Institute for Public Health.

**Priority 3:** refers to the increase of availability and quality of treatment of heart and blood vessels diseases and rehabilitation in secondary and tertiary health care level.

**Malignant diseases:** are in the second place in terms of causes of death, following the heart and blood vessels diseases and constitute one of the leading causes of deaths and getting sick in Montenegro. Prevention of malignant diseases has exceptionally high public-health significance and constitutes the most efficient approach in malignant diseases control. Getting sick from malignant diseases may be preventively affected by preventing or modifying risks harmful to health. In case of getting sick, the disease outcome is possible to be affected by early detection, treatment and rehabilitation with palliative care.

**Priority 1:** refers to early detection of disease in target population (age groups in the increased risk of getting sick) by conducting of screening programs for early detection of colon, breast and cervix cancer. Activities will be implemented by teams of chosen doctors in the primary health care level in cooperation with health workers in the secondary and tertiary levels of health care. Institute for Public Health is in charge for introducing and evaluating this program. Screening program for malignant skin cancer (melanoma) should also be planned and its implementation should be organized the same as for the already introduced screenings.

**Priority 2:** refers to the increase of availability and quality of treatment, higher professional qualifications of health workers and associates for providing treatment to cancer diseased, improvement of availability of diagnostic procedures (mammography, colposcopy, colonoscopy), therapeutic procedures (surgeries, radio and chemotherapy), medicines and adequate palliative care for all citizens.

**Diabetes** in general, and especially type II, constitutes extremely significant cause of vascular diseases whose consequences are complications such as: blindness, terminal kidney insufficiency (that requires dialyses or kidney transplant), non-traumatic amputation of limbs and peripheral neuropathy, but also heart attack or stroke. According to the assessments, around 5% of population in Montenegro suffers from diabetes.

**Priority 1:** refers to the advancement of preventive program for diabetes that is implemented within the population counselling centre of the Centre for Prevention of the Health Centre. Trained chosen doctors and nurses take part in implementation of this program.

**Priority 2:** implies available clinical specialist health care in the level of Internist or Endocrinologist.

**Mental health:** is recognised as priority in improving health and well being of population. It is supported by the fact that in strategic documents of the health sector in Montenegro mental health has been emphasized as priority, through the promotion of physical and mental health, stressing the prevention and timely healing of these diseases. The roof laws of the health sector stipulate priority measures of health care in relation to the population groups and getting sick, including chronic non-communicable

diseases and mental disorders. Problems and disorders of mental health affect the functioning of individual and of a wider community. Due to a relatively high prevalence and often chronic course, beginning in a younger age stage and impact of a large number of factors on disease appearance, preservation and improvement of mental health constitutes one of the priority public-health activities. Long-term treatment due to mental disorders leads to the increased absence from work, reduced productivity and unemployment. It all affects the emotional and economic status of family and increase of society costs.

**Priority 1:** is building of roles of the Centre for Mental Health in Health Centres, dominantly on the basis of principle of mental health in a community (house visits to the diseased). Centre for the improvement and promotion of mental health and international cooperation should develop programs for assisting young people with difficulties in mental health, assisting diseased from depression, those in risk of suicide and program for mental disorders at older people. The above programs will be conducted by Centres for Mental Health in the Health Centres.

**Priority 2:** reflects in building capacities of general hospitals for taking care of people with acute mental disorders.

**Priority 3:** pertains to increase of availability and quality of treatment, higher professional capacities of health workers and associates for treating the diseases from mental disorders by using medicament and various other forms of psycho-therapy.

**Priority 4:** pertains to early recognition of harmful use of alcohol through implementation of screening programs to be implemented by the teams of chosen doctors in cooperation with the Centres for Mental Health in the Health Centres.

**Priority 5:** includes continuation of substitution therapy for users of psycho-active substances aimed at reducing damages (methadone, buprenorphine) . Activity will be implemented by the Centres for Mental health in the Health Centres.

**Injuring** is an important public-health problem of the health sector and all other sectors. By wider public-health approach we may significantly impact the reduction of injuries, including violence, work injuries, traffic injuries and death outcomes related to injuries. Such approach includes understanding the society load by injuries and risks for their appearance, which can be preventively influenced.

**Priority 1:** is prevention of injuries through multi-sectorial approach with close cooperation of different segments of society in order to achieve safer physical and social environment and to increase general safety.

## **2. Prevention and control of communicable diseases**

Like other transitional countries, Montenegro has also been facing health threats since 90s. Different factors which consequentially have induced the macro economic crisis have had a negative impact on health status of population. Within the epidemiologic transition that Montenegro is also undergoing there is an increased load by chronic non-communicable diseases, but in recent decades we are witnessing the fact that risks of communicable diseases have not gone yet. Although the advancement in the development and use of vaccines for the prevention of communicable diseases, therapy for their treatment and improvement of general hygienic conditions lead to the decrease in getting sick and dying from communicable diseases it is necessary to perform a continuous supervision and control of communicable

diseases and take all measures, bearing in mind the increased cross-border threats from communicable diseases, bearing in mind the openness of borders and mobility (tourism, trade, asylum).

Diseases that are still present and are the reflection of social-economic circumstances, such as tuberculosis, outbreak of new diseases and increasingly present appearance of bacterial resistance to medicines indicate that communicable diseases still require our special attention.

Due to the above, more efficient and more effective mechanisms for detection, prevention and control of communicable diseases have to be continuously improved for reasons of responding to permanent threats.

Principal objectives of prevention and control of communicable diseases are:

- maintenance and improvement of coverage by immunization of vaccine preventable diseases,
- control of bacterial resistance to antibiotics
- setting up the system for prompt response to health safety threats.

**Vaccination against communicable diseases** in Montenegro is being implemented in accordance with the annual immunization program which is mandatory for all people in a specified age group, as well as others being implemented in accordance with specific epidemiological and clinical indications. Although the national coverage of mandatory immunizations is relatively high, for certain vaccines there are difficulties in keeping the expected scope (hardly accessible and socially endangered population groups, continuity in vaccine supply, building of anti-vaccine lobbies, etc.).

**Priority 1:** maintaining the scope of vaccination of children according to the vaccination card at minimum 95% in each municipality, with increase in the scope of high risk population groups (Roma population).

**Antimicrobial resistance** is threatening to endanger the established control of communicable diseases. Montenegro belongs to European countries with high consumption of antibiotics, which is indicated by data on prescribing and consumption of medicines. With regard to the control of bacterial resistance to antibiotics, there is no supervision system in place.

**Priority 1** set up a national system for supervision of antimicrobial resistance.

**Prompt response to the health safety threats** implies setting up of the system that can adequately respond to the challenges such as: outbreak of epidemics in a global level that are increasingly larger and spread by unexpected speed. Threats to health safety are numerous and different, from those affecting the health and society such as unexpected diseases (SARS, bird flu), readmission diseases (Ebola), to natural and humanitarian disasters, bioterrorism and other health risks. It is therefore necessary to build capacities for the prevention of existing and new health threats through building of public-health activities.

**Priority 1:** full implementation of international health rulebook for building mechanisms for supervision of epidemics and other health threats in the state and international level.

### **3. Health care of especially vulnerable and threatened population groups**

Different population groups and categories of population have their specific health needs exercised in a special way. Population groups with specific health needs compared to the age, gender, work status, disability and social status are: infants, pre-school and school children, the young, the old, women of reproductive age, work active population, disabled persons and socially endangered and marginalized groups.

Principal objectives of health care of specially vulnerable and endangered population groups are:

- Improvement of health of women in reproductive age,
- Improvement of infants' health, pre-school, school children and youth,
- Improvement and preservation of health of elderly
- Improvement and preservation of health of disabled persons
- Improvement and preservation of health of socially endangered and marginalized population groups
- Improvement and preservation of health of employees.

**Health of women in reproductive age** is of extreme significance, not only due to the sensitivity of this population group but also due to a direct impact of their health to offspring health. In this sense, special attention should be paid to preservation and improvement of women's health in reproductive age, including preparation and conducting of clinical protocols and guidelines for improvement of health status of pregnant women and better monitoring of their pregnancies.

**Priority 1:** increase the scope of women of reproductive age by preventive activities, especially with pregnant women, at chosen gynaecologist in the primary health care level.

**Priority 2:** accomplish cooperation and communication between the chosen gynaecologists and gynaecologists at other levels of health care with regard to the exchange of information, experiences and knowledge, which includes a possibility of a chosen gynaecologist to attend the delivery.

**Health of infants, pre-school, school children and youth** is of extreme significance considering the sensitivity of this population group and also due to significant impacts that risk factors in this period of growth and development of children may have on their health during the entire life. Conditions in delivery rooms are especially important, according to "baby friendly" standards and professional work standards in order to provide a safe delivery and health of infant.

**Priority 1:** take activities in raising safety in delivery rooms and building capacities of neonatal health care, which should lead to reduction of perinatal infant death.

**Priority 2:** In accordance with the adopted National Action Plan for Children (NAPC) and the strategic objective – Provide health support to optimal psycho-physical development of each child until it turns 18, measures and activities established by this plan are necessary to be implemented.

**Priority 3:** In accordance with the national action plan for youth and plans in the municipal level, activities aimed at raising the established strategic objectives should be implemented, primarily those related to the prevention of addiction diseases, raising the level of awareness of significance of reproductive health, improvement of mental health of youth, raising awareness on prevention of injuring and its consequences, as well as raising awareness on healthy life styles. Strategic and program documents of the Ministry of Health will be especially important, which will define the health care of elderly with their care in institutions or out of the institutions.

**Health of elderly** is necessary to pay a special attention to, especially in relation to the quality of life and demographic changes considering the expected aging of population. The most frequent health problems of this population group are related to chronic non-communicable diseases, injuries, reduction of function of locomotor system, damaging of sight and hearing and dementia, which implies, primarily, the provision of care that includes a long-term care and treatment at home.

**Priority 1:** it is necessary to additionally build services of care and house treatment of elderly through activities and cooperation between a doctor and a nurse.

**Priority 2:** it is necessary to improve the cooperation between the health institutions and centres of social work in a part related to provision of care and social services, with a possibility of establishing special institutions for long-term care and treatment of elderly.

**Health of disabled persons** requires a special approach, both in a part of relations between the health workers and in a part related to readiness of the system to support the exercising of rights in the area of health care. Disabled persons constitute especially vulnerable group which is often in society margin and is heterogeneous compared to the congenital or acquired physical, sensory, intellectual and emotionally reduced abilities. Due to numerous barriers, these persons have difficulties when exercising health care, both in a part related to its physical availability and in a part related to the provision of health services. In the level of primary health care we have so far developed the Centres for Children with special needs and physical therapy, primarily for children with special needs, but also for disabled persons. Although there are no accurate data about the number of disabled persons, estimates of the WHO for Europe say that there are 7-10% of disabled persons. It should be noted that the term of disability has not been clearly defined yet, which is leading to different interpretations of the same term in certain sectors and subject to political, legal, social and other conditions.

**Priority 1:** continue building the role of centres for children with special needs in the primary health care level and provision of physical therapy in the houses of children with special needs and disabled persons and also consider a possibility of integrating these centres with daily centres established by municipalities in local level.

**Priority 2:** take activities referred to in Action plan for the implementation of Strategy for integrating the disabled persons in Montenegro.

**Health of socially endangered and marginalized population groups**, made of people and families living under the poverty threshold (unemployed, employed with irregular incomes, uneducated, etc.), then hardly accessible population groups, is associated with many aspects of health care problems. Their core problem is ignorance of their rights and methods for exercising health care. A typical example of socially endangered and marginalized group is Roma population group.

**Priority 1:** implies introduction of health mediators per population groups (start with Roma population), that have to provide easier access to health care to endangered and marginalized groups.

**Health of employees, work ability and occupational health and safety**, constitute a crucial issue of comprehensive, social-economic development of each country. Health of employees and "healthy workplace" constitute one of the most important attainments of individual, community and state. Specific health care of workers provides workers' health since only the healthy working population contributes to building of economy of any country through increased productivity, effectiveness, efficiency, quality, working motivation and has positive impact on entire quality of lives of workers and the society as a whole. Preservation and improvement of employees' health is governed by regulations within the health

care system and occupational health and safety system, while specific health care is defined by strategy of improving employees' health and occupational health and safety.

**Priority 1:** improvement of specific health care and activities of occupational medicine which has to result in reduction of injuries at work, and work related professional illnesses and diseases.

#### **4. Building of public health**

Development of public health doctrine in accordance with the European guidelines and system of monitoring the population health according to comparable indicators, analysing and presenting of the data are crucial elements for the creation of evidence based health policy. Institute for Public Health sets up expert bodies for the development and implementation of activities in the area of public health and organizes education of staff for their enforcement.

Prevention of diseases and promotion of health through preventive programs and increasing the citizens' liability for their own health includes activities on transposing knowledge of risk factors, avoidance of risks for getting sick, conduct in certain situations and individual diseases and at specially threatened groups. The above activities in Health Centres are directed to pregnant women, pre-school and school children, youth and other sensitive (vulnerable) groups and are carried out within the teams of chosen gynaecologists, chosen paediatricians and chosen doctors for adults. Institute for Public Health prepares unique facilities and instructions for the implementation of the above programs, materials required for the implementation of special health campaigns and organizes education of necessary staff.

Public health programs mostly related to the most frequent risk factors associated with health (smoking, harmful use of alcohol, physical inactivity, unhealthy diet) are coordinated by the Institute for Public Health and counselling office of the Health Centres will also involve in implementation of the program, NGOs, humanitarian and other associations of patients, disabled persons and local community citizens.

The Institute suggests amendments to the Curriculum of schools of medicine and nursing schools that are necessary in order to get fully competent health workers, aiming at implementation of principles of quality in their daily work.

**Priority 1:** Building the role of the Institute for Public Health through the development of public health doctrine and improvement of monitoring system and evaluation according to the indicators for monitoring the health status of population and health care.

**Priority 2:** continue building the activities in prevention of diseases and health promotion by active involvement of chosen doctors and centres for prevention in the Health Centres and Institute for Public Health.

**Priority 3:** implementation of preventive programs in all health institutions, dominantly in centres for prevention of the Health Centres, created and monitored by the Institute for Public Health.

## **II PRIORITY AREAS OF ORGANIZING AND FUNCTIONING OF THE HEALTH SYSTEM**

Very often, needs and requirements in the health system are not compliant with available resources and it is therefore necessary to set up priorities in distribution of available resources, financial and human, infrastructure and other resources. That is why the health system is necessary to develop as sustainable and stable system, adjusted to the development guidelines of European health system, with directions to increasing the efficiency and quality and building resources to provide meeting of needs of health care,

with optimal and equal availability. One of the important prerequisites for improving the quality and efficiency of health care is functional connecting of the system in all levels, with pre-defined liabilities and tasks. Roles and liabilities in the management level in the health system have to be directed to conducting operations within the available resources and by observing professional operational guidelines.

Reliable, qualitative and upgraded health data and information are an important segment of health system management in all of its levels. Data are necessary at the source of their emergence, i.e. in health institutions, in the reporting level, analytical level and evidence based decision-making level. Improving the development of integral health information system is a necessary prerequisite for resources management, quality of health care, financing within the health system.

Montenegro tries to design its own health system, with limited economic and human resources, which will be efficient and serve the population health care. That is why the issue of health care quality is imposed as imperative in the reform of health system. The Health system reform should meet the population needs for health care which should be of high quality and accessible, through the development of financially viable system.

### **Reform processes in the health system of Montenegro**

Reform processes within the Project of improving the health system of Montenegro included the reform of primary and secondary health care in the period from 2003 to 2012.

Reform of the primary health care level in Montenegro started in 2003 by implementation of a new method of organizing the primary health care and by introduction of the concept of a chosen doctor as the "gate keeper" of the system. Role of the Health Centres, which became centres for supporting the work of a chosen doctor, was changed. Concept of a chosen doctor was accepted throughout Montenegro and according to the last available data from 2014 the scope of registration of the insured with a chosen doctor for children and adults amounted to 95,89%. When speaking about a chosen doctor for women, we note a poor scope of the registration of 62,40% in 2014. Taking into account the principle of regionalization, certain health centres established, according to the areas they belong to, regional centres for: mental health, children with special needs, reproductive health and lung diseases and tuberculosis. Traditional organizational forms (specialist clinics, dialyses, hospital capacities-stationaries in certain health centres) have not been entirely abandoned by reorganization of health centres in order to maintain better accessibility of population health care. Reform of the primary health care provided the optimal coverage by required staff, with satisfactory relation between the medical and non-medical workers (82%:18%), with more favourable staff standards in municipalities of low population density.

Chosen doctors have undergone training (additional education) for the purposes of improving their knowledge and skills, in accordance with a new concept and role of a chosen doctor. Reform of the primary health care included the change of payment method by introducing model of financing which is a combination of capitation and provided services.

Reform of the secondary and tertiary levels of health care included the development of strategic and normative documents (human resources plan, strategy for improving hospital health care, strategy for improving the quality of health care and patients' safety, basic package of services for secondary and tertiary level of health care, national guidelines of good clinical practice, strategy of public-private partnerships, support to optimization of health network in Montenegro). With a document basis, it was planned to introduce a new payment model for acute hospital care according to the DRG model in financing.

Complete reform so far conducted in the health system was followed by the development of integral



health information system to support the new payment methods (business information system) and medical processes in primary and secondary levels of health care (medical information system). Integral system also included the development of IT support in the Health Insurance Fund of Montenegro, health statistical information system of the Institute for Public Health for providing support to reporting, of the system of Agency for Medicines and the Ministry of Health.

Although the reform processes last longer than 10 years, the health system still faces the numerous problems, ranging from the optimization of network of health care institutions and management decentralization, to the rational financing of anyway expensive health care system. Priority issues related to the organization and functioning of the health system depend on a series of factors related to technical (staff, equipment, space) and technological system performances (skills and knowledge of health care provider, standardized procedures), continuous improvement of legislation, health care system management in different levels (management, leadership, advocacy for health), cooperation between the health sector and other sectors (social welfare, education, sustainable development, tourism, economy, justice, etc.) and flexibility of the health system to changes (change management).

Priority areas of organization and functioning of the health system are: organization of the health care system, human resources in health system, management in the health system, integral health information system, quality of health care and patients' safety, medicines and medical devices, system of financing and multi-sectoral cooperation.

## **1. ORGANIZATION AND FUNCTIONING OF THE HEALTH CARE SYSTEM**

The health care system should be organized so as to primarily provide the accessible health care to population by decreasing differences in the health system and health care, which further development of the system and its institutions should be directed to. An important factor of organization and functioning of the health care system is level of connectivity of the system in all levels, as well as its territorial distribution, decentralized management and harmonized actions of public and private sector. Inclusion of community into the system is a possible option for more efficient organization and functioning of health care, as well as inclusion of out of institution forms of provision of health care. Leading health problems invoked by increased load of chronic non-communicable diseases, epidemiological threats, demographic changes as well as other problems and conditions requiring an urgent response and reaction of the health care system in an efficient and qualitative manner are necessary prerequisites in guiding the organization of system itself. Integrated approach in provision of health care in all levels is an important factor to be taken into consideration when defining objectives and priorities in organization and functioning of the health care system.

A network of health institutions is organized for the purposes of organization and functioning of the health care system. Analyses within the health system in terms of organization, structural and staff capacities show that network of health institutions within the public sector in Montenegro is oversized in relation to the area it is covering, number of inhabitants, bed capacities and on the other hand, although the staff coverage is less than the EU average, there is an uneven load in certain specialist activities.

Principal objectives in organization and functioning of the health care system are:

- reorganization and rationalization of network of health institutions within the public sector;
- building of primary health care;
- organization, structure and position, work and competence of health institutions in secondary and tertiary levels of health care;
- integrated approach in provision of health care;

- integration of private and public sector.

**Network of health institutions** includes type, number and distribution of all health institutions established by the state and certain health institutions or parts of the health institutions whose founder is other legal entity and individual, per levels of health care, aiming at provision of optimal availability of health care to the entire population. The network includes primary, secondary and tertiary levels of health care and should provide geographical accessibility of health care. The health network is set in relation to the total number of inhabitants, demographic characteristics of population, their health status, affiliated number of inhabitants, characteristics of certain territories, availability of health resources, availability of health care, economic abilities of the state.

**Priority 1:** development of the new network of health institutions in accordance with the defined objectives of health policy and available financial resources, with observance of elementary principle of availability based on the population needs for health care.

**Primary health care** is elementary level for provision of available health care of population and all adopted standards in the area of primary health care anticipate the need for resolving 80-85% of all health problems in this level. In addition to the largest benefit for population health, building of primary health care will also achieve higher efficiency of the health care system and its financial viability. Priority activities in the primary health care should be directed to prevention of diseases and promotion of health, as well as to building capacities for treatment and rehabilitation of the most frequent population health problems, with special emphasis on leading chronic non-communicable diseases, communicable diseases and injuring.

**Priority 1: Continuous monitoring and evaluation of the reform process and functioning of the primary health care.** A crucial step in the reform of the health care is its better guidance to citizens and their needs. It is necessary to monitor the course of reform, as well as defining priority areas in primary level, aiming at reaching better quality of health care for all citizens.

**Priority 2: Evaluation of roles and work of the centres and units for supporting a chosen doctor,** aiming at improvement of work support and quality of work of a team of chosen doctor and professional connecting with secondary and tertiary level.

**Priority 3:** building of professional capacities of health workers and associates (continuous medical education and professional training), according to the contemporary programs and methods of work in the clinic and at patient's home, in order to provide adequate response to population needs of health care.

**Priority 4:** building of group practice of chosen doctors for reaching higher efficiency, continuity and quality of work.

**Priority 5:** Improve house treatment so as to enable resolution of acute health problems, as well as continuation of hospital treatment.

**Priority 6:** implementation of preventive and promotional activities, as well as screening programs, in accordance with the health care program.

**Secondary and tertiary health care** is an important segment in solving complex health issues, needs for additional diagnostics, treatment and rehabilitation and in Montenegro is still organized in traditionally developed hospital-stationary capacities. Considering that a significant amount of resources is spent on

hospital health care, according to the data in international level (WHO), a special attention should be paid to organizing and functioning of the secondary and tertiary levels of health care.

In the level of secondary and tertiary health care it is necessary to follow international guidelines for building of specialist-clinical activities, acute and non-acute hospital treatment, transferring activities to daily hospitals, transparent systems of classification of patients as the basis for financing systems, which at the end have to be connected to the system of improving quality and safety. Organization and functioning of secondary and tertiary health care should be directed to building of ambulance treatment of patients and daily hospital with reconstruction of current hospital capacities. Staff resources in secondary and tertiary levels should be planned according to population needs, which will be defined through national priorities, number of patients and covered affiliated areas. Introduction of indicators is required, so that they are used for monitoring and comparing the productivity, efficiency and quality of work.

Tertiary level of health care is of significant national interest for the most complex procedures, scientific and research work and, bearing that in mind, it is essential to execute periodic control of the tertiary status (every 5 years). Tertiary level is functioning on same principles as secondary level, except that it also includes education, research and development. It is necessary to precisely separate services provided in secondary and tertiary levels of health care. Defining of tertiary health care, i.e. distribution of work between the tertiary and secondary health care, does not mean the obstacle and barrier between these two levels of health care since secondary and tertiary levels of health care have to constitute an indivisible functional unit, with undisturbed flow of information and experiences between the health workers and associates. Health activity in tertiary level provides highly-specialized health care by enforcement of the most contemporary technologies in a form of specialist-concilliary multidisciplinary ambulance and hospital activities. Tertiary activity includes narrow specialist units directed to the areas of diagnostics, therapy and rehabilitation, as well as educational, scientific and research work done independently or in cooperation with Faculty of Medicine and other faculties. Within the expert support to other levels, tertiary health care includes preparation of new treatment methods, development of national programs, preparation of clinical guidelines and guides and standard operational procedures of diagnostics and treatment (SOP). Programs of education, expert support and scientific research activity in tertiary level have to be defined by a plan. Tertiary health care is available only following the referral of a chosen doctor and after the previous triage in the secondary level.

Bearing in mind the EU perspectives in the accession process, in organizing and functioning of tertiary health care a possibility of closer cooperation should be taken into account, creating conditions for networking, exchange of experiences and the best practices, contract on joint guidelines and improvement of access to highly-specialized services and expert knowledge within European reference networks.

Improvement of technological and communication infrastructure may impact the increase of accessibility and quality of health care in areas covered by general hospitals, by introducing telephone-medical services and telephone-consultations with the Clinical Centre of Montenegro for those health issues that, with such support, could be solved faster and in more qualitative manner, in the place of patient's location.

Health care in secondary and tertiary level should be provided in the most efficient manner and it is dominantly directed from the primary level of health care. In-patient treatment, as the most expensive method of health care, should only be limited to cases when diagnostics and treatment cannot be done any other way. That is why the scope of treatment, including hospitalization, will reduce, as well as the number of beds and smaller wards for treatment of acute cases in hospitals.

**Clinical-specialist activity.** Referral from primary to secondary level of health care is subject to applicable guidelines for treatment of patients in primary level, weight of the patient's disease, network or

available resources (staff, financial and material). Tendency for continuous, integrated, safe, quality and efficient treatment of a patient are directed to priority development of clinical specialist activities. In the next period, the staff should be re-allocated to clinical-specialist activity. If population needs for health care within the public sector are not sufficiently covered and waiting time is longer than professionally accepted, private health institutions may be included through concessions. Conditions for the development of clinical-specialist activity are: transparent rules of distribution of work between the primary and secondary level, number of patients treated in ambulance (on 1000 inhabitants) for certain specialty, average number of patients that may be treated by one team of doctors in one year, unacceptable waiting time.

**Acute hospital treatment (AHT)** implies treatment in hospital, when giving the diagnosis and treatment may not be done any other way. Hospital wards should, in a satisfactory manner, provide health care uninterruptedly, 24 hours a day, taking care of all emergencies and observing criteria of quality, safe and efficient patients' treatment. According to some international studies, optimal number of bed capacities for efficient hospital management ranges between 200 and 600 beds.

**Non-acute hospital treatment (NAHT)** Patients who have undergone the acute hospital treatment (AHT) are referred to the non-acute hospital treatment, or those patients that require extended treatment, rehabilitation, health care or palliative care, when health status of a patient does not permit treatment or it would be hardly feasible somewhere else. NAHT constitutes an important area between the CHT and discharge to hospital treatment or to institution of social welfare. NAHT is usually charged per hospital days, with certain restrictions in duration of treatment. Forms of the NHAT are divided in following programs:

1. Extended hospital treatment with rehabilitation for patients: who after the diagnostic or therapeutic treatment may not extend their treatment beyond the hospital because it would deteriorate their status, without a need for acute diagnostics and therapy, without the need for complex diagnostics and treatment, with planned long-term treatment and higher share of health care and rehabilitation;
2. Hospital health care in special wards for patients who, after the completed AHT need: predominantly health care, physical therapy and additional social treatment aiming at increasing abilities of self-care, execution of specific activities of health care that cannot be done at home or in institutional protection, stimulation of active role of the patient in solving his/her health issues, implementation of health educational programs for fighting the disease after discharge, higher safety of discharge.

**Palliative care (nursing).** According to demographic and epidemiological trends, the number of elderly and chronic patients is increasing, image of traditional family is changing, which has caused a different approach to the issue of death. Obligation of taking care of elderly, chronic patients and dying patients has transposed from the family to the society and to the public health system to the largest extent. Palliative care for the patients with progressive and incurable disease and for their surroundings means integral care (nursing) due to the consequences of disease (pains, nausea, difficulties in breathing, fatigue, delirium) and psycho social needs for a quality life until the time of death. This implies people suffering from malignant diseases, failure of organs, neurological diseases, psychiatric diseases, HIV etc. Palliative care is today carried out in a primary level, in one part, through services of home care nurse and home treatment by chosen doctors, which is not meeting the actual needs. In the following period, in the area of palliative care, it is necessary to pay special attention to the development of educational programs and organizing multi disciplinary teams for palliative care (doctor, nurse, social worker, physiotherapist, working therapist, dietetic and psychologist). Palliative care must become an integral part of health care through palliative teams, palliative wards or hospices.

**Long-term care** as a part of integral patient's treatment closely connects health and social care and nursing for those in need of certain assistance due to the consequences of disease, injuries, disability or general weakness in a longer period of time with everyday activities, rehabilitation, aiming at training them for self-care (self-nursing) and long-term mitigation of needs for long-term care. Long-term care is provided to people with physical or mental disorders, weak old people and to those who need support and assistance in carrying out elementary daily activities. Definitions of long-term care in the EU differ from the point of view of determining the length of use and users' profiles, as well as the scope and type of services and the delineation line between the social and health component in long-term care is practiced in a very different manner.

**Priority 1:** Secondary and tertiary health care should include clinical and specialist treatment, acute and non-acute hospital treatment. Thanks to the amended demographic structure and advancement of medical technology, it is necessary to introduce new forms of patients' care (daily hospitals, non-acute care, extended hospital care, palliative care), if we want to timely respond to the patients' needs and wishes. Daily hospitals are organizational model of introducing modern, cost-efficient and multi disciplinary method of treatment, which will substantially improve the quality of health care. Palliative care must be supplemented by psychological, social and spiritual care of the patients and their closest family members with all of their wishes, fears and needs.

**Priority 2:** Health services in secondary level will be rationally reorganized in order to meet the criteria of availability, efficiency, quality and safety of patients. Merging of individual hospitals must be planned in order to reach organizational, expert and financial connectivity, in order to jointly maintain certain existing activities and services and eliminate doubling of capacities. Inter disciplinary rational integration of the health care processes of related and geographically close activities must be the basis for provision of health services. Reorganization of services in hospitals in the principle of staff and material capacity of each institution for admittance of patients is necessary. For early discharge from hospitals and reducing the need for institutional housing it is necessary to develop the NAHT and a wider scope of treatment and care at home. The fact that elderly and sick people will stay at home improves the quality of their lives and at the same time reduces the treatment costs in institutions, required for these services.

**Priority 3:** health institutions in secondary and tertiary level will be organized in accordance with the standards and normative based on the process and not on capacities. For reorganization of hospitals it is necessary to set up the standards of treatment, equipment used by health services providers, management and information. It is necessary to start the process of accreditation of hospitals, wards and laboratories and verification of premises, equipment and activities. Accreditation designated as a process should be differed from the process of evaluation of work of the health institutions. Accreditation should contribute to the improvement of organization of work and provision of health services, reduction of costs, increase of efficiency and raising public trust in the health care system.

**Priority 4:** Charging for health services will be done according to the complexity of patients. According to the new classifications of diseases in clinical-specialist activity, acute and non-acute treatment, with parallel development of information system and training of experts in all areas (doctors, nurses, IT experts, economists), charging according to the complexity of disease will be gradually applied. DRG system will be applied for acute treatment and current payment methods shall be kept for other types of patients' treatment. When implementing this model, it is very important to have a good strategy with analysis of current status and vision of objectives.

**Priority 5:** Set up the system of charging on the outcome of treatment. New system of financing, in accordance with indicators of treatment outcomes, will enable the introduction of charging according to the treatment outcome.

**Priority 6:** Institutional solution of forensic psychiatry. Assessment of needs for mandatory psychiatric treatment in Montenegro is up to 100 beds, which are missing now, since patients who have been pronounced the court safety measure of mandatory guarding and treatment are also referred to one psychiatric institution. A wider knowledge on issues related to recognition and identification of bodily injuries and elementary psychiatric syndromes is required, as well as the knowledge on problems of court medical and psychiatric expertise and safety measures enforcement. Ministry of Health, Ministry of Justice and Ministry of Interior should all participate in this project.

**Priority 7:** Provide the payment of services for patients with extremely long period of hospital stay in health institutions, according to the type of payment for accommodation, as the case is in current social institutions.

**Priority 8:** Reference, national interest and scope of scientific work in special hospitals will be included in the criteria for their categorization in a form of health institution in tertiary level.

**Priority 9:** Establishment of independent health institution for health care of employees, as a specific type of care which will improve the health of employees.

**Priority 10:** Special attention should be paid to health care of health workers, considering the increased risks they are facing with in the course of their work. Development of a national program is suggested, in accordance with Global plan of action on health workers' health.

**Integrated approach in provision of health care** is an important factor in organization and functioning of the health care system and success in application of this approach is depending on the level of integration of the system (functional connectivity between the primary, secondary and tertiary level), its territorial independence and withdrawal of administrative barriers (network and financing), as well as harmonization of public sector activities with other stakeholders (local community, private sector).

**Priority 1:** Improvement of functional connectivity of certain activities, within and between the levels of health care (horizontal and vertical connectivity) is an important assumption for efficient health care and in the best interest of patients. Integration primarily refers to activities of paediatrics, gynaecology, physical medicine, radiology and laboratory diagnostics and emergency medicine.

**Priority 2:** Improving the system of referring patients to levels of health care, aiming at better integration of primary level and higher levels and split responsibility and exchange of information between the participants in provision of health care.

**Integration of public and private sector** . Health system may potentially be improved and induced by inclusion of private sector , under the umbrella of a modern concept of public sector. Previous interventions, such as announcing calls to private institutions for provision of services from primary package of services and introduction of private public partnership constitute promotion of introduction of market operation principle in order to make the public health sector more competitive compared to other health systems of the EU and make private sector capable of responding to new challenges in a quality and efficient manner.

**Priority 1:** Implementation of activities planned by the Action Plan for the implementation of strategy of public-private partnership in the health system of Montenegro, with priorities directed to assignment of certain services to specialized agencies (maintaining hygiene of premises, beds and clothes, diet, equipment servicing, sterilization, etc.)

## **2. HUMAN RESOURCES IN THE HEALTH SYSTEM**

Human resources in the health system are the most important resource which is the basis of development of the health care system and which is required to gradually develop. It is supported by the fact that there are outlined activities in the reorganization of the health care system, which necessitates human resources planning in accordance with the population needs of health care, trends in getting sick and population dying, load of the health care system.

Implementation of strategic commitments as required prerequisites and a legislative framework governing the area of human resources in health system (Law on Health Care, Law on Health Insurance, Labour Law) and bylaws (Rulebook on specializations and sub-specializations of health workers and associates), all warrant the regulation of human resources needs in the health system.

Human resources for health system are basic determinant of health care system, in all areas (promotion, prevention and treatment). At the same time, human resources constitute the largest and the most expensive "input" of the health system and resource which is most difficult to develop. Health workers are the largest and the most important health resource and majority of measures, within the priorities and optimization of hospital health care, should directly or indirectly affect the improvement of work of health workers and improvement of their position.

In addition to health workers and associates, human resources in the health area also include those from the area of health management and other non-medical workers who can be significant for good functioning of provision of health care. Heads of the health institutions play an important role in that. Laws and bylaws in the area of health govern the human resources needs in out and in the hospital health care. That is why it is necessary to plan the health human resources, subject to the population needs for health care, network of health institutions, demographic population structure and projections, migration routes, age structure of employees, needs for resources in accordance with current and new requirements.

Human resources have a central role in improvement of the health sector assuming that basic requirements are met with regard to the competence, load/employment, their scope and distribution. Number of employees and their qualification structure reflect qualitative and quantitative development of health activity. In past decades we noted an uneven and disproportionate development of health capacities and employment. Likewise, we noted large differences between the regions per inhabitant and deemed accessibility to some regions as problem. This is the consequence of inadequate planning of number and structure of staff in the past.

Available data indicate that human resources development of health activities in Montenegro, in the past period, was not directed to building and developing primary health care and to meeting the population needs, but to the prompt development of specialist activities of the secondary and tertiary levels and meeting the normative based on the developed institutional capacities.

Modern systems plan the number of employees on the basis of outcomes and results – number of patients together with the gravity of their condition and quality of health care. This approach helps accepting more modern, international indicators and criteria for comparing health workers, such as the number of patients (or even patients with dedicated seriousness of disease) per doctor or nurse.

In the past decade, nursing has being developed as an independent profession, which delivers health care based on research and validated methodology in nursing. Nurses are the most numerous group in the health care system and their work contributes to the wellbeing of the community. A nurse is responsible for assessing, planning, enforcement and evaluation of health care that is delivered solely on the

basis of the plan, which is based on nurse's diagnosis and issues identified by the nurses. The intervention must be accompanied by appropriate documentation and scientific research. Plan and interventions of nurses must ensure patient safety as well as protection of patient rights.

Directive 2005/36/EU governs education, professional qualifications and professional title recognition, ensures patient safety during interventions in health care, enables free flow of nursing services.

Principal objectives in human resources planning are:

- adjustment of education of health resources to society needs
- continuous advancement of knowledge and skills
- development of capacities for human resources management
- mobility of health workers.

**Education of health staff** has not been adjusted to society needs although the plan of human resources in the health system has made the projections of a required number of doctors. According to the WHO recommendations, policy of human resources in the health system implies planning of education of appropriate number and structure (according to the needs assessment) and their appropriate utilization, with continuous professional education.

**Priority 1:** Adjustment of education of health professionals to actual society needs, implying the adjustment of interests and needs of the education system and health care system.

**Priority 2:** Planned approval of specializations in accordance with the human resources plan, in order to avoid excessive concentration of specialists within a specific region, and their absence in other, with the stimulation of deficit specialist branches (for example, paediatric and adolescent psychiatry).

**Continuous improvement of knowledge and skills** is essential process considering permanent demographic and epidemiologic changes, introduction and adoption of new technologies, changes in political and economic surroundings, globalization and the process of European integrations.

**Priority 1:** Improvement of knowledge and skills of human resources through process of education. Education/training of health workers is a dynamic process that has to be permanently improved and adjusted to changes.

**Priority 2:** Increasing the role of nursing staff (nurses, midwives, physiotherapists) in assuming of new independent tasks at treatment of the diseases (chronic health problems, pregnancies without complications).

**Developing capacities for human resources management** and a possibility of long-term planning and investing in human resources, in addition to knowledge generation, infrastructure and technology, also represents necessity in reaching adequate response to variable health needs and new means of providing health services.

**Priority 1:** Education in the area of health management is necessary for all decision makers in national level, for those managing the health institutions in all levels of health care and those engaged in health planning in the area of formulating policies of planning and human resources development.



**Mobility of health workers** should be enabled through attaining higher educational levels, which is increasing their competence and promotion in the profession and assuming tasks in accordance with the attained highest educational level.

**Priority 1:** Vertical and horizontal mobility of health workers should compensate the deficit of health workers (dominantly doctors) and to respond to permanent changes in population health needs and it is necessary to standardize methods of transfer or part-time work from one health institution to the other.

**Priority 2:** define the work of health workers after acquiring conditions for retirement, as well as activities they could be engaged in.

**Priority 3:** Define the introduction of working in shifts for health workers in relation to certain activities (internal medicine, surgery, gynaecology), then in accordance with the loads per individual specialties/narrow specialties.

### **3. MANAGEMENT IN THE HEALTH CARE SYSTEM**

Management capacities in the health sector are an important condition for the efficient and effective functioning of the health system, whereat attention should be paid not only to the highest levels of management, but to all of them. Managers at all management levels must be aware that by management, or decision making they are affecting the financial effects, which is making them more engaged in financial management and control of expenditure in the public sector.

To perform management duties and responsibilities (especially in a form of personal and institutional responsibility with respect to the results achieved) specific knowledge and skills are required, but also a full-time dedication to management. As shown by past experiences, physicians who assume management responsibilities and continue to practice the profession, and it is therefore necessary to separate the organizational and financial management from the medical one. Managers at organizational and financial level covering controlling activities must be engaged full time and do not need to have a primary medical education, but must possess a specific expertise (economic, legal, management), which qualifies them for the job. Financial management will benefit from centralization in terms of e.g. unified procurement. Medical management need not imply a full-time, but must be the responsibility of health professionals with rich clinical expertise, focused on care quality management, patient's safety, implementation and supervision of application of clinical guidelines and other activities closely related to the medical profession. Medical management should be directed towards decentralization, that is, implementation and supervision which is as close as possible to individual patient.

Basic objectives of health system management refer to the following:

- Building of efficient management in all levels and
- Distribution of management competences.

**Efficient management in all levels** is a prerequisite for the implementation of any changes and reform processes within the health system. Role of the current managers of health institutions within the limited conditions is complex one. In their activities, besides the leadership and their vision, managers have to be: innovative, flexible, educational, to respect the knowledge and experience of staff in all levels of health care, to improve the team work and communication between the wards and services, to reward their teams and staff for quality performance.

**Priority 1:** Continuous education of management staff in all levels. Education on management in health system must include: introduction to management, health systems, health policy, strategic management, tools for the review and decision making, leadership, planning techniques, organization management, management methods, methods and techniques of monitoring and evaluation, quality management, human resources management, information management, change management, conflict management, risk management, project management, economy for managers, health economy, financial management, book keeping, negotiation skills, project of introducing the system of management and quality system.

**Distribution of management competencies** in a part of organizational-financial and medical management should be improved so that the system institutions can competently perform the data analyses and planning in accordance with the health care program and terms of reference, as well as project activities in national and international level.

**Priority 1:** It is necessary to standardize and govern the organization and functioning of the health institutions with detailed recognition of divided management roles (organizational-financial and medical).

**Priority 2:** Setting up the system of management liability per management levels.

#### **4. HEALTH INFORMATION SYSTEM AND E-HEALTHS**

In important documents of the Ministry of Health of Montenegro, directing the health policy and reform processes, the development of health information system is recognized as crucial and necessary component of reforms success and better management and improvement of the health system in general. With the beginning of the Project on improving the health system in Montenegro (since 2004) parallel activities on the development of health information system have also begun.

Basic concepts of the system are contained in the strategic documents for the development of IT support to the reform processes in the health system, and are implemented by development and implementation of integrated health information system. Initial activities in the development of IT support related to covering the functions of financial operation of the Health Insurance Fund (2000.) and monitoring the consumption of medicines in the Public Pharmacy Institution Montefarm. However, the development of information system within the health care system begins for the first time with the beginning of implementation of the Project on improving the health system.

Integrated health information system in Montenegro includes information system of the Health Insurance Fund, information system of primary health care, information system of pharmacy activity, IS of dentistry health care in primary level, IS of general hospitals, IS of the Institute for Emergent Medical Assistance, IS of the Blood Transfusion Institute, IS of the Institute for Public Health and IS of the Agency for Medicines. Individual e-services were developed in support to electronic data exchange (e-health).

Integral health information system, which includes health-statistical information system of the Institute for Public Health, which is an important segment for keeping the prescribed records in the area of health pursuant to the law, have to entirely cover all the requirements of the health system for the purposes of more efficient management, planning and supervision, as well as provision of timely information and evidence for the process of decision making in the health system. Concept of internal operability and introduction of e-service enable timely and quality exchange of information in the health system in national and international level to the benefit of all participants in the process of providing health care.

Health information system, integrally oriented and based on common resources, with coordinated management and controlled coverage of business and medical processes, potentially provides updated, qualitative and useful data and information for guiding the strategic planning in the health system, transparent data for cost management in the health system, better quality of health care, patient management and his/her health issues. Aiming at better management for health and conducting of adequate health policy and creating prerequisites for financial sustainability of the system, further advancements and upgrading of health information system are necessary.

Basic objectives of information of the health system and development of e-services in the following period are as follows:

- Further development and implementation of integral health information system,
- Better management of the health system in all levels by using of health information for the decision-making process,
- Safe and efficient exchange of data between the participants of the health system aimed at higher accessibility, continuity and quality of health care,
- Automation and reduction of costs in all procedures and processes accompanying basic activities of health care.

**Development and implementation of the health information system** should be directed in an organized and coordinated manner with observance of the integration principle (management by joint resources, qualifications, codebooks, unique data bases and modules, electronic health cards, interoperability, etc.) and standardization of a model of data and communications, with the use of already developed information support in the health system. Integration is achieved through unification of supply and equalization of standards for computer equipment, licenses, communication infrastructure, maintenance and technical support.

**Priority 1:** define management of integral health information system by a plan, with clearly defined competencies in all of its phases of development and implementation.

**Priority 2:** functional improvement, modernization and maintenance of existing and development of new IT solutions within the integral health information system, observing the established standards for functionality, safety and interoperability of the system.

**For better health system management** it is necessary to use the relevant updated, quality and analytic information that are generated within the health information system in all levels and are a reliable evidence in the decision making process in the health system.

**Priority 1:** setting up of automated advanced system of health statistics, data analysis and report preparation –business intelligence system/data warehouse system, which are a basis for the process of decision making in the health system.

**Safe and efficient data exchange** between all of the participants of the health system is a prerequisite for functionality of information system. Introduction of electronic service (e-health) in all levels may significantly contribute to the functional system advancement and consequentially leads to the quality improvement, continuity and availability of health care.

**Priority 1:** setting up functional electronic card of a patient to be filled in different levels and segments in the process of providing health care, with possibility of connecting parts of the card when necessary and with defining authorizations, which is helping in accomplishing the conditions for electronic communication between the participants and expectedly increases the quality of treatment.

**Priority 2:** functional improvement of current IT solutions through the development and implementation of electronic services –e-prescription, e-scheduling, e-referral, e-guidelines of prescribing, e-clinical guidelines, e-medicine lists and e-application.

**Priority 3:** introducing telemedical services in covering certain health activities (cardiology, radiology, emergency medical assistance) aiming at increasing the availability and improvement of the health care quality.

**Automation of monitoring costs of all procedures and processes** monitoring the process of health care is one of very important segments in the development of health information system. It primarily implies functional connecting of business processes to medical processes since medical processes are a starting point for automation of monitoring costs (referrals, diagnostics, prescriptions, sick leaves).

**Priority 1:** setting up IT support for monitoring costs according to outcomes/results of work in the process of providing health care, in accordance with the adopted models of payment in the primary and secondary level of health care.

**Priority 2:** functional connecting of segments of health activity for the purposes of possible reduction of costs of procedures and processes in the health care system (laboratory, radiology).

## **5. QUALITY OF HEALTH CARE AND PATIENTS' SAFETY**

Demographic changes, development of new health technologies, increased expectations and needs of patients and citizens and consequentially the growth of costs are challenges of every health system. Health services are mainly offered fragmented, oriented to the disease and application of new technologies and not the patients, which may invoke a feeling of alienation and insecurity.

A very intense development of new technologies includes increasingly complex series of activities in making the diagnosis and treatment, prevention of disease and promotion of health in the health system, as well as establishing responsibilities for health to well informed population, where significant role belongs to the information technologies (IT). Health care and good health require permanent provision and improvement of quality and safety for a patient. Improvement of quality and safety of applied technologies and health interventions becomes a crucial issue in a large number of countries worldwide and in Montenegro.

Permanent improvement of quality of health care is a continuous process aimed at reaching a higher level of efficiency and a higher satisfaction of users and providers of health services and is a part of everyday activities of health workers and all other employees of the health centre.

Strategic orientation in setting up the system of quality in the health system, in addition to patient orientation (holistic approach), is also directed to their safety. The health system should be made as safe as it can be for the patient and for those providing health care.

For defining and adopting the national policy of health care quality, firm cooperation between all stakeholders is necessary in order to create a favourable environment through tolerance and mutual understanding to the benefit of the entire system.

Policy in the area of quality and health care safety is monitoring contemporary trends in this area, but also has to take into account national priorities and conditions in which it should be enforced. Building capacities in the development and implementation of strategic objectives in the area of quality constitutes

an integral part of the health system reform process and is in accordance with strategic approaches of European countries and principles of health care quality in the EU.

Health workers are expected to provide the highest quality of health services in all levels of the system, to have appropriate communication, partner relations and team work –all aiming at improving health and adequate treatment of health problems by using the best professional practice and with the lowest possible risk for the patient. In increasing the quality, a significant role belongs to continuous medical education and permanent improvement of professional knowledge and skills.

Safe and high quality health care should become priority of each health institution and individuals implementing health care. All employees in the health system should develop the new access to quality, reduce differences in conducting health procedures and improve wider principles of the best professional practice. Management mode of thinking affects the conduct and work of the employees and liability for introducing methods and means of quality and protection should be included in their everyday work.

The following should be required from all health care providers: introduction and use of national and international clinical guidelines, establishing and use of clinical paths, standards, protocols, algorithms, instructions and rules of profession, which are based on scientific evidence. It is significant to provide the measurement of quality indicators through setting up the system monitoring and evaluation. Monitoring the use of clinical guidelines, algorithms and protocols is an integral part of accreditation, the second essential instrument of advancement and equalization of health care quality and patients' safety, aiming at testing their compliance with accreditation standards. It is required to base the process of contracting health care on efficiency and quality indicators, which requires defining and monitoring of basic quality indicators, as well as setting up of appropriate organizational IT support.

At introduction of advanced health technologies, new medicines and procedures it is necessary to apply methodologies of health technologies assessment, implemented by the Ministry of Health.

Principal objectives of improving the quality of health care and patients' safety are:

- reaching the high level of quality of health services,
- high safety of health care and minimum patients' risk
- higher patients' satisfaction
- improvement of health outcomes and efficient utilization of resources.

**High degree of quality of health services** is an important factor for improving population health and reaching higher efficiency of the health system and at the same time the rational spending of financial resources.

**Priority 1:** introduction and assessment of health technologies due to a larger improvement of investigations offered by new technologies in medicine for which, by using the principle of evidence based medicine (EBM –Evidence based medicine)it is necessary to evaluate to which extent each individual method contributes to patients' health benefits compared to the current methods, including: clinical efficiency and effectiveness, safety, cost-efficiency, organizational implications, legal and ethical issues and social consequences.

**Priority 2:** Setting up internationally recognized accreditation procedure in the health system in all levels of health care. Accreditation is voluntary and its purpose is governing all activities that secure permanent improvement of quality and safety on the basis of internationally recognized programs. Accreditation

model should follow the clinical principle of quality and quality management (observance of accreditation standards).

**Priority 3:** building capacities for quality management through continuous education of staff in the area of quality, starting from the implementation of quality system, quality management, to supervision and improvement of quality for all employees in the health sector.

**Priority 4:** Systematic measuring of improving quality and safety through monitoring safety through collection, analysis and monitoring of the data contained in the program and system for providing quality (set of mandatory standards and indicators, clinical guidelines and protocols). Evaluation of the extent the guidelines and protocols are applied and observed, principles of good professional practice shall be implemented according to the collected data on quality indicators.

**Safety of health care with minimum risk for the patients** is a basic assumption for carrying out health activities and confidence in the health system.

**Priority 1:** set up a notification system for unwished events and register of unwished events, internal control and evaluation of application of defined elements of quality system (mandatory standards and indicators), permanent monitoring and testing of measures of prevention and promotion of quality culture.

**Patients' satisfaction** and health workers' satisfaction are principal objective of any well organized health system and constitute the basis for directing the health policy.

**Priority 1:** testing and verification of users' satisfaction with health care in all levels and all segments in the health system, as well as the public through the elements of: strengthening of patients, information and respecting their preferences, prompt and efficient response to their needs and desires, observance and support to well coordinated care.

**Priority 2:** Investigation and verification of health services providers on the basis of annual surveys performed on their satisfaction with their participation in the system of providing and improving quality.

**Priority 3:** implement the policy of notifying the public on activities related to quality, especially on results achieved in improvement of safety and safe application of new health technologies in diagnostics and treatment.

**Improvement of health outcomes** should enable citizens to obtain the health care based on scientific evidence, best practices and harmonized with standards, which is helping in achieving **efficient use of the resources**.

**Priority 1:** introduction of national guidelines of good clinical practice and clinical paths and patients' treatment in hospitals.

## **6. MEDICINES AND MEDICAL DEVICES**

Medicines are a very important segment of the health system, not only for treatment of diseases but also for high consumption of available funds on medicines within the health system.

In the past decades, medicines have had an important role in reducing the death and morbidity rates. Rational use of medicines envisages the patients get medicines appropriate to their clinical statuses, in

doses that are adjusted to their individual needs, during the adequate period and at the lowest price for them and their social status.

Improvement of such defined use of medicines by health workers and by general public is of essential significance for the reduction of morbidity and death rates and the costs the health system is allocating for medicines in all levels of health care. National consumption in economic terms leads to huge losses of resources and unavailability of essential medicines.

National consumption of medicines may have different forms, such as:

- taking more medicines (poly-pharmacy),
- excessive use of antibiotics and injection therapy,
- omissions to prescribe medicines in accordance with clinical guidelines,
- inadequate self-treatment etc.

Provision of rational use of medicines is implemented through the health care system in which main actors are doctors as those prescribing medicines, pharmacists dispensing the medicine and providing information about it and the patients themselves.

Different analyses show that relation of a doctor to prescribing medicine is essential for efficient, but rational pharmacotherapy. Facts indicate that relation of a doctor to selection of medicine is not economically determined.

In conducting pharmaceutical policy in Montenegro, it is necessary to impact the rational consumption of medicines and require doctors to take care about the financial aspect of treatment, prescribing cheaper alternative medicines and thereby implement the policy of having impact on prescribing habits of doctors. Prescribing analyses should be used in the process of supervision and counselling. Budget restriction is a legitimate guideline, but with a previous education of doctors and patients, as well as availability and general acceptability of therapeutic guidelines. At making individual decision for prescribing medicines, every doctor should be aware of pharmaco-economic evaluation.

Pharmacists must have active role in preservation of health and prevention of population diseases. Cooperation between the health workers (doctors-pharmacists) aimed at provision of quality services to patients must be directed to the provision of application of the right medicine, in a timely manner, in the right dose, for the appropriate indication and in the right manner. In order to use medicines in the most efficient and the safest manner it is necessary, first of all, to ensure that doctors of medicine and pharmacists, but also the patients (users) have unbiased information on medicines and their application. Pharmacists and doctors of medicine must have access to relevant information and must be educated on medicines and their application.

In economic field, supervision of medicines consumption is implemented the same as supervision of medicines price. Creators of health policies must find the way to balance their medicine supply costs (manufacturers, wholesale, pharmacy) and needs costs (prescribers, patients). To this end, different methodologies are applied: international comparisons, reference prices, restrictions in consumption, agreements on returning the profit excess, pharmaco-economic analyses, generic policy, margins in the distribution chain, participation in costs and other tools for costs control).

Measures for mitigating different impacts on prescribing medicines are necessary, through stimulation of generic prescribing of medicines, which is contributing to rational use of medicines and reducing treatment costs, as well as increasing the level of medicines compliance, i.e. degree of patients'

cooperation. A relation between the doctor and the patient is essential for improving the cooperation, level of communication and trust.

Supervision of advertising medicines and harmonization between the possibilities of advertising with health policy and regulatory standards implies that manufacturer's promotional activities and information on medicines that they market have to be evidence based, balanced and marketed in accordance with the current regulations, whereat cooperation between academic medicine and pharmacy with medicine manufacturers is very important. One of the largest ethical challenges the health professionals are facing with is the impact of industrial promotion of medicines on professional practice. Interaction between the pharmaceutical industry and health professionals is complex one and needs to be regulated, with the development of strategies for improving the prescribing and dispensing of medicines, raising awareness on personal susceptibility to impacts, avoiding conflicts of interest and raising transparency.

Supervision of dispensing medicines without a prescription implies suppression of bad practice of availability of those medicines with prescription based regime in a free sale, i.e. without a prescription/doctor's report, since this practice not only contributes to increase of interactions and adverse effects among medicines, medicine resistance, but also affects the correct diagnosis and treatment.

Development of clinical guidelines, i.e. systematically prepared professional algorithms to assist doctors of medicine in making the decision on the best treatment for specific clinical situation, are necessary in the national level. The above recommendations must be based on valid clinical evidence (evidence based medicine) that include pharmaco-economic analyses. Facts based medicine should enable a doctor to obtain required information on all clinical changes based on new research. Revision of pharmacotherapy positions is required, which will be equally created on the basis of evidence on efficiency and cost-effectiveness.

Establishing the list of essential medicines that should meet the needs of the largest number of population in treatment of majority of diseases and conditions appearing in the country, i.e. selection of essential medicines, is the most important part of medicine policy. As an important step in provision of availability of medicines and securing of rational pharmacotherapy in sufficient quantities and appropriate forms, the list of medicines must according to the prices be available to the society and to the individual. Unbiased and transparent process of selection of medicines when establishing the list of medicines, with predefined criteria, is of utmost importance.

Human resource development includes appropriate health, educational and economic policies and strategies to provide a sufficient number of trained and motivated expert staff who will be able to implement the medicine policy. Continuous education of health workers stimulates rational, effective and the most efficient treatment and provides optimal use of available resources. Expert staff are extremely important part of the medicine policy.

Evaluation, supervision and feedback information, as a set of periodic and targeted activities for assessing the effect of medicine policy, create standards for comparison in the state level and multi-regionally with other countries and in time periods, where they all together bring an indispensable evidence of improvement. It is necessary to identify a set of indicators for monitoring the medicines consumption in all levels of the health care.



Adoption of appropriate regulations in pharmaceutical policy, through transposition of international recommendation, European standards and directives in the areas of quality, safety, efficiency and rational use of medicines is of essential importance.

Health Technologies Assessment (HTA) is a very important asset for supporting the decision-making on remuneration of prices of medicine and medical devices. It is necessary to consider the harmonization of reports obtained in other countries and reports submitted by pharmaceutical companies, for which Montenegro will have to build the technical capacities. HTA processes should be transparent and available to public when making practical assessments and decisions, Montenegro should primarily cooperate with the regional countries for the purposes of improving the data exchange and common demands for the health technologies development.

Principal objective in the area of medicines and medical devices:

- improvement of pharmaceutical policy,
- rationalization of consumption of medicines.

**By improvement of pharmaceutical policy** it is expected to have provision of medicines and medical devices according to the availability principles, meaning with respect to clinical conditions, in doses that are adjusted to their individual needs, during adequate time period and at the lowest price for them and their social status.

**Priority 1:** Urgent adoption of the Decree on maximum prices of medicines in Montenegro, that is, Rulebook on criteria for placing medicines in the list of medicines, is necessary. Application of these measures will restrict the prices of medicines and disable price increase above the legally prescribed level.

**Priority 2:** Periodic corrections of the existing one and development of new list of medicines with clearly précised criteria and limitations for each medicine, in accordance with international pharmacotherapy and pharmaco-economic guidelines, and suitable to economic power of Montenegro.

**Priority 3:** Priority registration of new generic medicines as medicines of special strategic significance for the national policy of medicines in Montenegro, at the shortest notice.

**Priority 4:** Setting up the commission for innovative, expensive medicines at the Ministry of Health of Montenegro, which will be composed of independent experts, for the purposes of objective assessing if patients suggested by the Medical Board meet the criteria indicated in the list of medicines and use medicines beyond the list as the last and only possible pharmacotherapeutic and pharmaco-economic justified alternative.

**Priority 5:** regular pharmaco-epidemiological and pharmaco-economic analyses for obtaining objective information for the decision makers in the medicine policy.

**Rationalization of consumption of medicines** is one of the essential segments in financial sustainability of the health system and rational use of medicines will have impact on improvement of health and its quality and on rational consumption of health care devices

**Priority 1:** Education of doctors in the area of regulations, i.e. the legislation and pharmaco-economy and all other provisions that precise liabilities for non-observance or not-abidance of the criteria and restrictions referred to in the List of Medicines.

**Priority 2:** Setting up a special fund for medicines that are expensive, for rare diseases and medicines to be selected by patients.

**Priority 3:** Monitoring adverse effect of medicine.

**Priority 4:** Reduction of consumption of medicines through activities of all stakeholders of the health system (prescribers, pharmacists, CALIMS).

## **7. FINANCING IN THE HEALTH SYSTEM**

Mandatory health insurance is financed from the contributions as source incomes to be paid by the Employers (contribution rate for 2014 amounted 12,3%), Pension Insurance Fund for the retired in a low percentage (1% on net pensions), Employment Office for persons receiving fees, self-employed, agricultural producers, persons who are self-insured, etc. The missing funds are provided by the Budget from overall incomes, up to the level of identified budget. Available contributions data indicate that Montenegro belongs to the group of countries with average contribution rate for health insurance within the framework of observed European countries.

For certain categories the state has to provide the health care for, from separate resources intended for these purposes, beyond the resources of mandatory health insurance, health care costs are also financed from the resources allocated to the Fund (unemployed, persons serving their prison sentence, foreign nationals without health insurance, asylum seekers, uninsured persons, etc.). According to the Law on Budget, from 1 January 2010 the state funds have been included in the consolidated account of the State Treasury, which has changed the manner of functioning of the Fund and financing of the health system.

Public health institutions are not included in the consolidated account of the Treasury, but are committed to submit the reports on incomes and expenditures of the Fund, that the Fund submits to the Ministry of Finance and that make a compositional part of the Final account of the state budget. Incomes generated from carrying out their own activities they may use for financing of current and capital expenditures within the annual financial plan.

Method of payment of health institutions has a form of itemized budgetary financing. The Fund, according to the decision on distribution of Fund resources for current year, allocates funds to health institutions for their earnings, substantive costs, medicines and medical devices, capital expenditures, etc. Health institutions know in advance the monthly amount of assets the Fund will transfer to them and execute payments within the available financial assets and, due to the lack of assets for covering all of their needs they state their unsettled liabilities.

In Montenegro there is no separate contribution rate for injuries at work and professional diseases, as the case is in some European countries, where Employers pay special contribution rates for insurance of employees against injuries at work and professional diseases. These revenues are used to finance the health care of persons injured or get sick from a professional disease. This type of revenue is different and depends on the amount of risk expenditures. Application of the above contribution rate constitutes one of the potential sources of additional funds.

Distribution of revenues to public revenue beneficiaries is done according to the key and not according to the beneficiaries they are intended to. Although the Law on contributions for mandatory social insurance stipulates the rate of contributions for health insurance for net pensions in the amount of 1,0%, it comes out of the above data that calculation and payment of contributions for net pensions is not done.

## Expenditures of the Health Insurance Fund

The Fund has concluded contracts on provision of health services with most of the public health institutions and executes payments for rendered services covered by mandatory health insurance on the basis of prices set by the pricelists of the health services of the Fund.

At certain number of public health institutions, invoices for rendered services may not justify funds allocated by the Fund in accordance with the contract and the budget and the balance sheet states surpluses.

Services of treatment in health institutions in Serbia and other clinics abroad are paid according to the actual value of rendered services, as well as services of rehabilitation rendered in the Institute in Igalo, services rendered in private health institutions the Fund has concluded the contracts with, medicines dispensed on prescriptions through pharmacies covered by the Decision on the network of health institutions, dentistry services.

### *Movement of the budget and generated expenditures of the Fund for the period 2009-2014*

Year	Budget	Expenditures	Difference	
			Amount	%
2010	169.319.173,58	183.553.528,37	14.234.354,79	8,41
2011	163.679.832,13	176.347.620,96	12.667.788,83	7,74
2012	167.761.787,45	179.988.776,82	12.226.989,37	7,29
2013	163.251.968,60	175.850.671,60	12.598.703,00	7,72
2014	165.954.621,77	179.948.562,59	13.993.940,82	8,43

Note: Data are presented with the exclusion of the Institute for Public Health and for 2014 the data on expenditures are given prior to the final account with health institutions.

From the presented data it can be seen that level of generated expenditures in each year individually is significantly higher than the projected budgetary funds, which requires a detailed review of the costs and method of distributing funds.

Total generated expenditures of the Health Care Fund in 2012 amounted to 166,067 million euro, and in 2013 they amounted to 164,16 million euro.

### *Expenditures of the Fund and structure of expenditures per levels of health care*

Number	DESCRIPTION	2012	2013
	Expenditures for health care	<b>166.067.241,01</b>	<b>164.155.782,00</b>
	Expenditures per levels of health care	<b>151.092.376,62</b>	<b>147.603.566,34</b>
I	Primary care	61.479.115,24	62.099.936,51
II	Secondary care	72.017.397,72	68.732.224,82
III	Tertiary care	17.595.863,66	16.771.405,01
	Other rights from health care	<b>14.974.864,39</b>	<b>16.552.215,66</b>

Source: Report of the operation of the Fund for 2013 (data for 2014 are not available yet)

Note: Generated expenditures in hospital level (secondary and tertiary level) are divided according to the evaluation used in a former period (80%:20%).

The Law on Budget of Montenegro for 2014 allocated funds in the amount of 168.434.987,91€ for 2014 to the Health Insurance Fund for three programs: Program-Health Insurance Fund; Program-Health institutions and Institute for Public Health.

### Program: Health Insurance Fund

Funds allocated by the Law on Budget of Montenegro for 2014 to the Health Insurance Fund –Program: Health Insurance Fund amount 25.084.098,41 € and are distributed according to the types and economic classification.

Out of the total funds within this program, 21,5 million or around 86% refers to the expenditures for other rights in the area of health care and other rights from the health insurance, while 3,6 million euro or around 14% refers to gross earnings and other expenditures of the Fund within this program.

**For other rights in health care** the funds are planned in the amount of 14,5 million euro and refer to the treatment beyond Montenegro which includes: clinical and stationary treatment abroad (Serbia and other clinics abroad) as well as other treatment in health institutions in Montenegro that are not covered by the system of public health, such as General hospital “Meljine”, Institute Igalo, treatment in private health institutions the Fund has concluded the contract with, social care institutions and in vitro fertilization and health care according to the conventions, etc. The planned funds are not sufficient for covering all costs due to the increase of costs of treatment abroad and out of the Fund system, which is resulting in increase of unsettled liabilities at the end of 2014.

### Treatment costs out of Montenegro

Total costs of treatment abroad in 2014 are at approximately same level as in 2013, whereat the costs of treatment in health institutions in Serbia are lower by 0,67 million euro. Costs of treatment in other countries abroad are higher by 0,79 million euro.

*Number of referred insured persons and costs of treatment out of Montenegro for the period 2010-2014*

DESCRIPTION		YEAR				
		2010	2011	2012	2013	2014
TREATMENT IN SERBIA	Total number of referred	6.369	5.893	5.555	5.674	5.865
	Treatment costs	6.988.045,57	6.311.444,53	6.162.555,72	5.967.708,64	5.341.263,63
	Travel costs	1.000.725,98	887.259,55	773.337,00	755.595,83	710.626,73
	Total amount	7.988.771,55	7.198.704,08	6.935.892,72	6.723.304,47	6.051.890,36
TREATMENT ABROAD WITHOUT SERBIA	Total number of referred	86	84	111	239	335
	Treatment costs	954.440,34	949.544,00	1.258.328,46	2.301.792,73	2.973.603,10
	Travel costs	203.145,69	180.516,39	165.957,42	173.990,99	287.588,69
	Total amount	1.157.586,03	1.130.060,39	1.424.285,88	2.475.783,72	3.261.191,79
TREATMENT ABROAD	Total number of referred	6.455	5.977	5.666	5.913	6.200
	Treatment costs	7.942.485,91	7.260.988,53	7.420.884,18	8.269.501,37	8.314.866,73
	Travel costs and per diems	1.203.871,67	1.067.775,94	939.294,42	929.586,82	998.215,42
	Total amount	9.146.357,58	8.328.764,47	8.360.178,60	9.199.088,19	9.313.082,15

## Costs of treatment in health institutions in Montenegro out of the system of public health

According to the contracts with 15 private health institutions that provided services in 2014, the amount of submitted invoices is 1.800.215,98 euro. According to the contract concluded with the Fund, general hospital Meljine, which is an integral part of the network of health institutions, in 2014, the amount of submitted invoices is 2.5590.321,01 euro.

*Number of Fund insured persons referred to treatment and rehabilitation to General hospital Meljine and amounts of submitted invoices*

Number	Year	Number of referred to HBO treatment	Amount
1	20	684	1.777.671,81
2	20	877	2.624.651,48
3	20	1.006	2.395.604,01
4	20	1.186	2.561.257,21
5	20	1.403	2.559.321,01

The Health Insurance Fund has concluded the contract with the Institute "Dr Simo Milosevic" Igalo for the provision of services of specialized medical rehabilitation and the amount of submitted invoices is 2.812.8625,94 euro.

*Number of referred persons and financial resources for the rehabilitation of the Fund insured persons in the Institute "Dr Simo Milosevic" Igalo*

Number	Year	Number of referred	Amount
1	2010	3.578	2.724.810,49
2	2011	3.604	2.685.548,57
3	2012	3.677	2.953.804,54
4	2013	3.831	2.908.410,51
5	2014	3.806	2.812.962,94

By contract concluded between the Fund and the Public Institution Centre for Education and Rehabilitation of Persons with Hearing and Speaking Disorders Kotor, costs of the health care on these grounds for 2014 amount to 232.949,16 euro. Refunding costs for medicines, treatment, IVF amount around 813.500,00 euro.

### **Right to medical-technical aids (orthopaedic, hearing, seeing, tiflo-technical and other aids)**

One of the elementary rights from health care is the right to medical-technical aids. Costs of medical-technical aids are increased compared to the previous period and for 2014 and amount 1,8 million euro.

**Right to compensation for sick leave longer than 60 days** whose costs in 2014 in the amount of around 5,18 million euro, and travel costs for 2014 amount 3,375 million euro.

According to the above presented and available data, it is obvious that costs for the health care exceeding the budgetary allocated funds and it is necessary to take a whole series of measures aimed at rational distribution of funds, with stimulating quality and efficient functioning of the health system.

In accordance with that, the principal objectives in the system of financing are:

- rational distribution of funds for exercising rights to health care from mandatory health insurance;
- application of the payment model based on performance results and treatment outcomes;
- more efficient collection of funds for health care.

**Rational distribution of funds** for exercising rights to health care from the mandatory health insurance implies directing of funds to the levels of health care and to the development of public sector capacities (technological development and human resources development). The goal is to provide meeting of needs for the health care, primarily in the public sector in Montenegro.

**Priority 1:** reduce the treatment costs in health institutions out of Montenegro as well as the treatment costs out of the public health institutions.

**Priority 2:** reduce the costs for temporary inability to work (sick leave).

**Priority 3:** reduce funds for compensation of travel costs in Montenegro and out of it.

**Priority 4:** establish criteria for planned introduction of public-private cooperation , with strict regulations and supervision of the type and quality of services that are contracted.

**Models of payment according to the performance results and treatment outcomes** contribute to rational and controlled distribution of funds for the health care.

**Priority 1:** introduction of program payment.

**Priority 2:** payment of primary health care based on performance.

**Priority 3:** Continuation of activities on payment of acute hospital treatment according to the diagnostically related groups (introduction of DRG payment model).

**Priority 4:** plan the funds for financing of public health (program activities).

**Priority 5:** transfer to the contractual principle with health institutions (contracting health care in accordance with the health care program in Montenegro) with active role of the Fund in the control of contract implementation.

**Priority 6:** Application of methodologies of national health accounts (NHA) for monitoring and evaluation of consumption in the health sector.

**Collecting funds for the health care** should be organized in a proactive and continuous manner that implies full engagement of the Health Insurance Fund.

**Priority 1:** increase collectability of contributions for health care from contribution payers.

**Priority 2:** plan funds in the state budget according to additional taxation of products that have a negative impact on health (alcohol, tobacco, products containing a lot of sugar, fizzy drinks...).

**Priority 3:** Introduction of the system of voluntary health insurance for the purposes of providing additional funds for financing the system of health care.

## 8. COOPERATION WITH OTHER SECTORS AND SOCIETY AS A WHOLE

New European health strategy "Health 2020" stimulates significance of partnership, joint cooperation and inclusion of all people engaged in health and in the society in reaching essential objectives: improvement of health and welfare, mitigating inequality in health and provision of health systems that are sustainable and citizens oriented.

Approach of "health in all policies" is an important priority in strategic development, which is the commitment of Montenegro within the membership to the Health network of countries of south-eastern Europe (Banja Luka Charter, 2011) and possibilities of cooperation are extremely wide and numerous. It can be said that there is no sector that directly or indirectly influences health by its actions.

Basic objectives of establishing cooperation with other sectors and society as a whole, with a tendency of improving health and prevention of diseases, are:

- implementation of concept "health in all policies"
- building communication in extraordinary situations.

**"Health in all policies"** is a concept that all sectors acting in improvement of health and prevention of diseases have to be aware of and the Ministry of Health has to stimulate or coordinate such actions in these sectors.

Units of local self-governance have an important role and large possibilities in the population health care and improvement of health. Mutual cooperation and connecting of local self-governance units may contribute to building of their abilities to exercise their legally defined rights, obligations, tasks and objectives in the area of health care.

The Ministry of Health already has a cooperation with many civil society organizations (non-governmental organizations, union), through their participation in preparation of different regulations and acts in the health sector, especially in the area of protection of patients' rights, promotion of health, prevention of diseases and injuries.

**Priority 1:** building capacities of the Ministry of Health in fighting for the health, i.e. setting the health as priority in governmental and social agenda.

**Priority 2:** implementation of line action plans that have multi sectoral approach \*for example, chronic non-communicable diseases, disabled persons).

**Priority 3:** inclusion of local self-governance to mitigation of impacts of risk factors for the appearance of chronic non-communicable diseases.

**Priority 4:** raising citizens' awareness on personal health care in cooperation with civil society and media.

**Strengthening communication in extraordinary circumstances** (natural disasters, epidemics, pandemia), when population health is under special threat, it is necessary to have a multi sectoral approach in an organized manner.

**Priority 1:** development/updating of communication plans in extraordinary situations.

## **6. MONITORING, EVALUATION AND REPORTING ON IMPLEMENTATION OF MASTER PLAN OF THE HEALTH SYSTEM DEVELOPMENT**

Following the adoption of Master Plan, its implementation is under the competence of the Ministry of Health in cooperation with all stakeholders in the health system, as well as the other sectors and society as a whole.

Monitoring of implementation of priorities from the Master Plan is performed by the Ministry of Health and Institute for Public Health and other institutions responsible for the implementation of activities of the plan.

Evaluation of implementation of Master Plan is performed in each phase of the process. Standardized health indicators are used for the evaluation.

Annual reporting is mandatory and contains results of implemented activities, difficulties and problems in implementation of the plan, as well as proposal of measures for solving newly incurred problems.