Strategic framework for health for

2014 - 2030

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Introduction

Strategic framework for health for 2014-2030 constitutes the main document that should determine the medium and long-term direction of Slovak health policy.

In the past, the key decisions in the area of health care were often prepared without any sufficient understanding and identification of the real problems. The ambition of this document is, based on the methodology, to identify current problems of Slovak health sector, to find measurable indicators and set objectives achievable by 2030. Subsequently, the key tools for achieving these goals will be identified. These tools will be realized by developing individual strategies, resulting from the strategic framework, which will be prepared and subsequently implemented.

The efforts of the Ministry of Health will be to apply the principle of Health in all policies (from the English Health in All Policies – HiAP) [1] and thus to collaborate in development and promotion of health policy with all other sectors to achieve the set objectives.

It is important to remind that the submitted Strategic framework will have no ambition to remain unchanged by 2030 in terms of the tools for transformations. Based on the relevant and informed arguments, it will be re-evaluated on a regular basis and individual implementation strategies may be corrected accordingly. Therefore, it is necessary to understand this document as a dynamic material that may be amended in the future on the basis of new knowledge.

The first part of document presents common priorities of the Member States of World Health Organisation for European Region WHO Europe in the health sector that form a part of Health 2020 document (Health 2020). These priorities constitute the basis for setting priorities for a health sector in Slovakia.

The second part deals with the analysis of current situation in terms of efficiency of healthcare in Slovakia (*taken from study elaborated by the Institute for financial policy of the Ministry of Finance SR Less Health for More Money*) and identifies the extremely low efficiency of current system in Slovakia.

The third part describes the expected demographic development in Slovakia until 2050 and estimates the impact of ageing on healthcare in Slovakia. It also defines key factors by which Slovakia has to respond to the worsening demographic development.

The fourth part deals with setting strategic frames in three priority areas of healthcare whose implementation should begin as soon as possible.

[1] HiAP is an approach to development of health policy aimed to cover all health aspects in policy making in various sectors affecting the health. It includes transport, agriculture, use of land, housing, public safety and education.

The fifth part identifies key areas and indicators of Slovak healthcare conditions, its comparison with the OECD countries as our reference countries. The indicators are grouped into five units, namely health status of population, public health promotion, general/outpatient care, inpatient care, and e-health. In this part, the target parameters of individual indicators for 2013 are identified. The basic tools by which these target indicators can be gradually met are set therein as well. When the tools for reaching the determined parameters are identified, implementation strategies will be prepared for each tool to be realized and monitored under the Ministry of Health SR.

The next part describes the monitoring system that will be implemented in order to monitor changes in individual indicators, fulfilment and realisation of individual strategies as well as to update this strategic framework on a regular basis.

In the last part of document, various funding sources of implementation of realisation strategies will be presented.

1 International context

In 2012, 53 Member states of the European region agreed upon the WHO new common policy framework - Health 2020.

Common objectives of the framework are:

1. to significantly improve health status and well-being of population,
2. to reduce health inequalities,
3. to strengthen public health
4. to ensure that people-centred health systems are universal, sustainable, equitable and of high quality.

The Health 2020 policy is build around four priority areas for policy action:

- investing in health through the lifecycle and empowering people,
- tackling the Region's major health challenges: noncommunicable and communicable diseases,
- strengthening the health systems, public health capacity and emergency preparedness, surveillance[2] and response,
- creating resilient communities and supportive environment for health of population.

In a spirit of solidarity and conformity, the abovementioned four priority areas are based on the categories according to which priorities and programmes of WHO are defined. These categories, at the global level, were approved by the Member states and are adjusted in light of the specific requirements and experiences of the European region. They are also consistent with the WHO relevant strategies and action plans at the regional and global level.

Four priority areas are interrelated, interdependent, and mutually reinforcing. For example, activities focusing on healthy lifestyle promotion and responsibility of people for their health may help to prevent the epidemic of noncommunicable diseases. Even such measures which seem unrelated to medicine but to public health may help to prevent the rise of new noncommunicable diseases and to improve the current status of people suffering from the so-called modern civilisation diseases- obesity, cancer diseases, cardiovascular diseases, hypertension, bone disorders, metabolic diseases and so on. By implementing these measures, Governments will achieve a greater effect with favourable

[2] epidemiological methods of monitoring

impact on public health improvement. However, a prerequisite are integrative links between individual departmental policies, investments, and services aimed to reduce inequalities.

Tackling the given priorities requires a combination of management approaches promoting health, equality and prosperity. The approaches inducing changes will include the centralized governance by means of policy of public health development as well as new forms of cooperation with civil society organisations, independent agencies and technical experts.

Priority area 1: **Investing in own health throughout a life-course and empowering people.**

Promotion of good health status of citizens throughout a life-course leads to increasing life expectancy and longevity that may yield economic, social and individual benefits. The ongoing demographic transformation aimed to build an effective strategy for a healthy lifestyle gives priority to new approaches to promoting health and preventing socially significant diseases. Health promotion should already begin during pregnancy and early childhood, and later at elderly humans, by which we reach the set objective of active ageing and increase of longevity. Healthy and active ageing of population is a policy priority and important research priority.

Health promotion programmes based on the principles of population involvement in activities strengthening their mental and physical capacity present the individual and social benefit (creating better conditions for healthy lifestyles, improving health literacy, self-support, etc.). Ensuring the sufficiency and financial affordability of healthy food and nutrition throughout a life- course is one of the tools aimed to fight against the epidemic of obesity, increase of cardiovascular diseases and diabetes. Another important way to maintain the vitality is the growing awareness and implementation of appropriate regular physical activities in different stages of life, in accordance with European policies targeted on prevention of socially debilitating diseases by non-pharmacological interventions.

An important task of a state should be an accelerated development of accommodation facilities providing the primary long-term care, in all regions of Slovakia. Facilities of such type would contribute to a substantial elimination of high financial costs for long- term care of patients as well as senior care. In accordance with the intention to prepare functioning integrated model of health care it is also necessary to increase people's own responsibility for preventing situations of reliance on the help of others and it is also the responsibility of public authorities at different levels to support enforcement of that interest (through awareness-raising and prevention activities) and then provide quality and sustainable services in the cases when such a dependence occurs.

The cost-effective policy solutions may directly influence the improvement of population’s health and well-being, whereas the practice based experience and evidence concerning the health promotion programmes and national strategies for main groups of

diseases such as cardiovascular diseases or diabetes mellitus reflect the growing trend across the European region. They demonstrate that interconnection of governmental plans, programmes for environmental improvement and approaches increasing importance of control and accountability may be successful.

It is also important to enhance programmes of metal health promotion. In the European region, each fourth man suffers throughout a life-course from any form of mental health disorders. Special attention should be paid to support of early diagnosis of depression and suicide prevention by initiating community intervention programmes. The researches lead to better understanding of negative links between problems of mental health and social marginalization, unemployment, homelessness, alcoholism and use of other addictive substances; new forms of dependence on the virtual world of internet are becoming more relevant as well. Within the context of health impacts associated with use and abuse of legal and illegal drugs is necessary to respect and implement national programmes – National Drug Strategy of the Slovak Republic, National Action Plan for Problems with Alcohol and National Action Plan for Tobacco Control.

A major problem in prevention and treatment of mental diseases is social isolation of seniors (living alone, respectively in social services centers), their sense of being life and social burden for families and society.

Characteristic feature of demographic development in the Slovak Republic is ageing of population, mainly as a result of the significantly long-term decreasing natality and stabilisation of mortality rates in the recent years.

Healthy start to life should be a top priority for any civilised society. Based on that, the strategies affecting health of young people, connected with their social environment, may be developed. From forming the basic health habits in a nursery school through development of social skills, and protection against risk factors typical for youth, the age groups of children, youth and adolescents, due to their specificity, require higher attention and individual approach. Ambition is to give to young generation the best of what is offered by health, taking into account the principles of equality and participatory governance for health.

Choosing healthy life style is also closely related to the area of healthy food and nutrition provision throughout a life-course of citizens. According to the results of epidemiological studies carried out on the international and national levels, the harmful factors in the diet such as excessive energy intake, increased intake of saturated fatty acids, reduced intake of unsaturated fatty acids, reduced intake of fiber, reduced intake of antioxidants, inadequate intake of minerals, especially calcium, potassium, magnesium, iodine and some micronutrients such as selenium, excessive intake of sodium (in form of salt) significantly affect occurrence of non-infectious disease.

The results of nationwide monitoring of selected groups of adults, conducted by public health authorities in the Slovak Republic in the years 2009 – 2012, showed that the diet of our population is still energy-rich, with high consumption of animal fats and

proteins, which has a direct impact on the increase in overweight and obesity and high levels of lipoprotein metabolism, depending on gender and age. Consumption of fats exceeds the recommended dietary allowances for population of the Slovak Republic (OVD) in some cases by 40%, consumption of protein exceeds by circa 45% and consumption of table salt is higher in some cases by 50%, in comparison with the recommended daily intake (5 g / day).

In this context, it is necessary to ensure the availability of healthy foodstuffs and healthy diet with regard to composition, labelling, education of population and active cooperation of all departments. It is important to achieve change in composition of certain foodstuffs, particularly with regard to risk substances like salts, saturated fats (trans fatty acids), and sugar; labelling of these foodstuffs (e.g.nutrition and health statements); the marketing policy (advertising and internet advertising) and economical contribution. Maintaining and developing educational and counselling activities provided to citizens by the public health authorities is also necessary in order to raise awareness about healthy diet.

Priority area 2: **Tackling the major health challenges in the region: noncommunicable and communicable diseases.**

Strategic focus on healthy lifestyle of young as well as older population is an important element in setting a perspective of reducing population morbidity. A wide range of interested parties may be involved in such kind of programmes. However, for a programme to be successful will be essential the coordination among all departments of the Government of the Slovak Republic. The results of this programme should be the activities ranging from those of legislative nature up to development of various grant schemes, highly focusing on meeting the programme objectives. The measures should range from promotion activities to specific medical actions; it should include changes in health insurance as well. It will be important to develop health literacy among young people, up to integration of efforts in developing mental and physical health as well as education to responsible paternhood. Among the seniors, will be very important the engagement in initiatives aimed at active and healthy ageing contributing to a healthier and better life of people in retirement categories and to their long-term self-support.

A combination of medical and other approaches is required to successfully address the high incidence of noncommunicable diseases. The 2020 Health programme supports the implementation of integrated whole-of-government and whole-of-society approaches, since it is recognized that action to influence behaviour of individuals have a limited impact. Incidence of the so-called noncommunicable diseases is closely associated with influence of social and environmental factors on human health.

Noncommunicable diseases

In Europe as well as in the Slovak Republic, incidence of chronic noncommunicable diseases significantly increased since the mid-20th century. These diseases are the cause of majority of deaths and morbidity in the above-mentioned areas. In the Slovak Republic, chronic noncommunicable diseases cause more than 80 % of mortality, morbidity and disability. The highest percentage of all mortality causes represents the diseases of circulatory system and cancer diseases. It is possible to prevent most of these diseases by means of prevention. It is necessary to seek risk factors in the living and working environment, actual behaviour of an individual and in its lifestyle in order to reduce occurrence of these diseases and their subsequent complications. Modifiable risk factors for chronic noncommunicable diseases directly associated with lifestyle play an important role in terms of health status of population. The best-known are: smoking, unhealthy eating habits, insufficient physical activity, excessive intake of alcohol, use of psychoactive substances, psychosocial stress. Obesity, overweight, diabetes mellitus, metabolic syndrome, hypertension, dental caries and other are directly related to these factors. It is important to minimize these risk factors through primary prevention that can be realized only if the individuals will look after their own health.

In the Slovak Republic, the most frequent chronic noncommunicable diseases include cardiovascular and cancer diseases, diseases of digestive system, and particularly chronic obstructive pulmonary disease and asthma from a category of pulmonary diseases, and accidents, injuries, poisoning, musculoskeletal disorders and a constantly increasing number of diseases of diabetes mellitus and psychiatric diseases.

In the future, we should reckon with the rise of chronic noncommunicable diseases, in particular diabetes and cancer diseases conditioned by ageing of population. Therefore, there is a need for increased, improved monitoring, supervision, and evaluation of noncommunicable diseases. Interventions aimed at covering the entire population in the area of prevention can yield the greatest benefits to health of population. It is obvious that investments in prevention programmes lead to reduction in mortality, and thus have a clear economic benefit, and therefore they are important and we should pay attention to them.

Communicable diseases

No country may ignore a problem of communicable diseases and therefore it must continually ensure the highest standards. For the European Region are selected the following areas:

• Capacity building in the field of informatisation and surveillance over implementation of the international health regulations, improvement of information exchange and relevant establishment of common procedures for surveillance by engaging the authorities of public health control, veterinary and official supervision over production of healthy food, food industry and agriculture, for better control of infectious diseases that can be transmitted

from animals to humans, including emerging infectious diseases and water- resistant microorganisms and water-based infections.

• Tackling serious viral, bacterial, parasitic and fungal (microscopic fungi) threats: implementing regional policies and action plans to combat resistance to antibiotic, antifungal, antiviral and antiparasitic drugs, and preventing the emergence and spread of resistant microorganisms and infections through the prudent use of antibiotics and infection control, ensuring health safety of essential commodities such as water and foodstuffs; achieving and maintaining the recommended immunizations as a way of preventing certain diseases and reaching the regional and global elimination of diseases such as polio, measles, rubella, full control of major diseases such as tuberculosis, HIV, chronic viral hepatitis B and C and bird flu, and ensuring the access of the whole population, including vulnerable groups, to a healthcare system. It is necessary to maintain correct, regular and strong argumentation initiative to encourage the highest possible vaccination coverage of population against infectious diseases and to maintain the high standard of the already established vaccination coverage of population against the highly infectious diseases, not only with regard to the health of vaccinated individuals, but also of other individuals living in the community.

Due to the migration of population SR, for the purposes of relax or work, to the countries with a risk of infectious diseases absenting in our country, it is necessary to provide the citizens with information about such journeys and to highlight the consequences of risk behaviour in such countries. The same attention should be paid to the reverse migration of people from the risk countries to the territory of the Slovak Republic.

Priority area 3: **Strengthening people-centred health services, public health capacity and emergency preparedness, surveillance and response.**

Achieving the high-quality care and improvement of results in health sector requires health systems that are financially sustainable, covering the needs with an emphasis on people and accepting the implementation of latest scientific knowledge. All countries must adapt to changing demographic situation and development of a range of individual types of diseases, especially in the field of mental health, chronic and civilisation diseases related to the ageing. These facts require a restructuring of health systems of healthcare provision towards prevention, promotion of continuous improvement of quality and integration of services, provision of continuity, professional and financial efficiency of healthcare and change of location where healthcare services are provided as close to home environment as possible for safety and cost-effectiveness. In the near future, the potential of a targeted therapy, the so-called personalized medicine, should be highlighted and preferred in order to ensure t effectiveness of treatment.

Many countries have achieved the universal coverage; however, it is still necessary to reduce impact of high private expenditure on health. It is important to ensure long-term sustainability and resilience to economic cycles, to the costs drawn by offer and to

eliminate wasteful expenditure at providing an adequate level of financial protection. Assessment of health technology and provision of quality mechanisms are particularly important to maintain transparency and accountability of health system and form an integral part of the culture of patient safety.

The Health 2020 framework confirms commitments in the field of access to general healthcare as the base of health systems of the 21st century. Primary healthcare can address the needs of our time by promoting and creating a favourable environment for development of successful partnerships and by encouraging people in involving themselves in the new procedures in prevention, treatment as well in taking care of their own health. The primary prevention[3] is followed by the secondary prevention a task or mission of which is to search the early stages of health disorders by the means of prevention examinations and screening programs aimed at improving the chances of success rate of treatment and by the tertiary prevention which focuses on restoring health after the disease outbreak, by caring, treating, curing or relieving symptoms of a disease or its symptoms.

Full use of tools and innovations of the 21st century as communication technologies (digital records, telemedicine and e-Health) and social media may contribute to better and more cost-effective healthcare. An important principle is the perception of a patient as a partner while maintaining responsibility for the outcome of treatment.

The essence of functioning of health systems in the 21st century is more flexible, more qualified and teamwork collaboration. This concept includes team provision of healthcare; new forms of healthcare provision (including home care and long-term care); gradual adjustment of competencies of health workers, patients´ care for their own health; improving strategic planning, management, co-operation among the sectors of high expertise and financial efficiency. It is a new integrated work culture that supports new forms of collaboration among experts in the area of public health and healthcare in the community, as well as among health and social professional providers in the health sector and other sectors.

Priority 4: **Formation of healthy communities and supporting environment for the health of people**

The ability to respond flexibly and withstand the negative effects is the crucial factor of health protection and support and it brings the success on the individual as well as on the community level. The opportunities of people to maintain their health are closely connected with the environment where they were born, brought up, worked and where they are aging. It is inevitable to assess the effects of a quickly changing environment on people's health – especially the ones regarding the technologies, jobs, social conditions, lack of regular physical activities, eating habits, energy production and urban development.

[3] By primary prevention should be understood prevention of emergence of diseases, influence on determinants affecting health and reduction of health risks.

Such assessment should result in the activities that can ensure the positive contribution to health. The healthy communities respond to the new or adverse situations proactively, they are prepared to economic, social and environmental changes, and they are capable of coping with crisis and hard times much better. The WHO Programme „Healthy towns and communities“ offers large-scale and notable examples of how to build up a healthy community- such as engaging mainly the local people with the activities and focusing the attention of the community on the medical issues. Similar experience has been gained in next areas – for example, the promotion of an active approach to the support and development of health in schools and workplace.

The extending of an interdisciplinary and interdepartmental cooperation with regard to health of people enhances the effectiveness of the public heal service. It includes: the efforts to implement the multilateral environmental agreements and recommendations of the European process of environment and health to the full extent; the fast spread of scientific knowledge; the evaluation of the political impacts on different sectors (particularly with regard to health and environment); ensuring the continuous development and customising the services to the needs of environment and health of people; and the support to the environmentally more responsible behaviour of the health department.

A vigorous economic development over the last century brought a lot of undesirable effects such as harmed and damaged environment, which by means of various factors affects and damages the health of people nowadays. Based on the WHO statistics, there are approximately 16% of the deaths in the Slovak Republic caused by environmentally risk factors. Inappropriate living conditions such as primary or secondary pollution of the environment constituents by chemical or physical factors, natural or artificial negative phenomena mean the health risks whether people are exposed to them on a short-term or long-term basis.

The Slovak Republic follows the European trends being applied in intervention and prevention policies against the adverse environmental factors, which are taken into account in the course of activities undertaken by the public health bodies. These institutions, particularly over the last decade, have been involved in solving new, Pan-European tasks focusing on the development of new methodologies for detecting and evaluating environmental factors and establishing the personnel and technical sources necessary for such activities.

The topical priority is to exploit these capacities for data collection and their further enhancement in practice regarding the environmental load on people, defining new indicators of the environment and health, and providing the public with information so that the maximum level of prevention with regard to the environmental risks could be ensured.

Forming healthy communities and supportive surroundings is also closely connected with employees’ health protection at work. Better public awareness of the possible risks related to particular jobs, as well as of the mechanisms of protection against the dangerous job and workplace factors increases the possibilities of an active participation of the employees in their health protection activities as well.

The Romani community[4] is one of the marginalised groups that demands the extra approach as for the health. The estimated life expectancy of men is from 55.3–64.4 years (the same of the whole men population in Slovakia is 71.6 years) and of women 59.5-71.6 years (the same of the whole women population in Slovakia is 78.8 years). Determinative factors that affect the lower quality of health of the Romani population nowadays are: the low level of education, insufficient information on health and lack of motivation for taking care of their health, personal and municipal hygiene low level, the absence of drinking water sources and sewer system, not - existent waste disposal, the absence of sanitary equipment, low level of living, unhealthy eating habits, unsatisfactory nutrition, weak physical activities, increasing rate of alcohol and tobacco use at early age and rising addiction to illegal drugs.

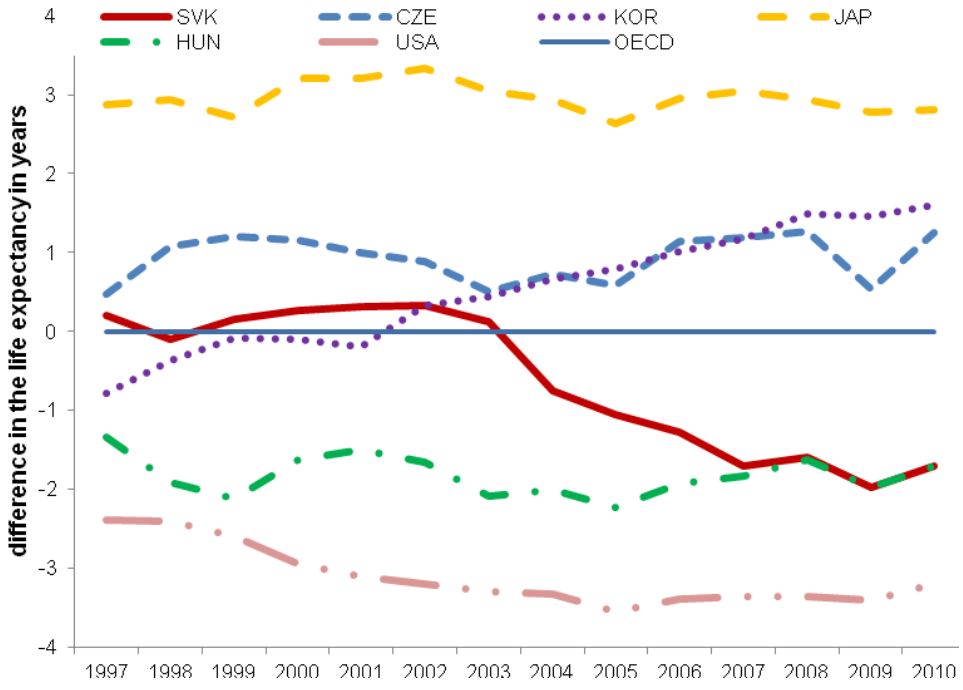
[4] Health care in socially excluded Romani communities, http://ec.europa.eu/health/ph_projects/2004/action3/docs/2004_3_01_manuals_sk.pdf

2 Performance analysis of the Slovak health care system [5]

Recent study by the International Monetary Fund (Grigoli, 2012) used the DEA method to compare the trends in healthcare inefficiency in the period between 2000 – 2004 and 2005 – 208 in 37 OECD countries. According to the results there is a great opportunity for the reduction of inefficiencies in our healthcare. In the subject period the potential cost savings in the Slovak health care system with respect to the life expectancy increased from 60[6] to 64 % of total expenditures. Similar results were achieved by Slovakia also in the study by OECD. At input prices of 2007 we could live more than 4 years longer at the same cost (Joumard and others, 2010).

The model, estimating the effect of factors that statistically significantly affect health on the life expectancy, takes into consideration the healthcare costs, alcohol consumption, inequality of resources and post-socialistic past of the country. The difference between the actual life expectancy in the country and its model value represents the estimate of efficiency. People in countries with efficient healthcare system live longer than expected by the model, on the contrary, people in countries with less efficient healthcare live shorter.

Graph 1: **Efficiency of Slovak health care**



Source: IFP from OECD data

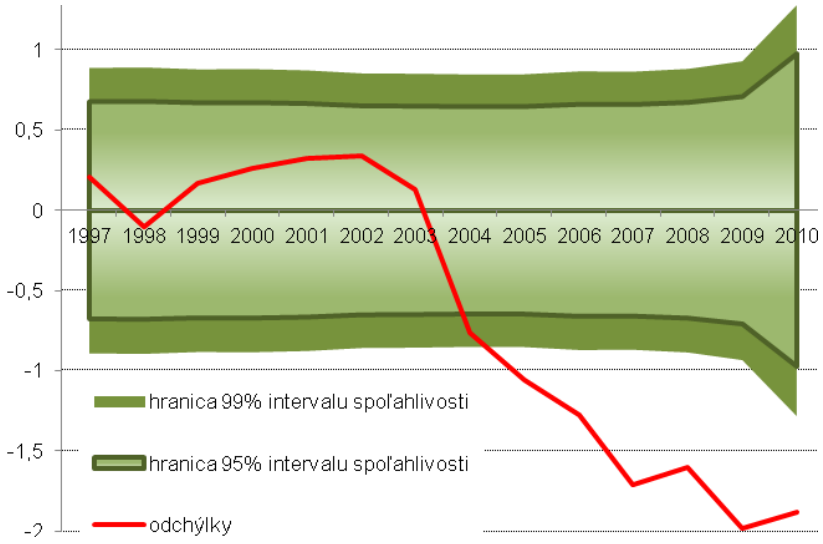
[5] Little health for a lot of Money, Financial policy insitute, Ministry of Finance SR, 2012
[6] This number was only 9.1 percentage points lower than the average in the observed countries.

Chart 1 shows that upon correcting by important factors (especially the amount of healthcare funding and post-socialistic heritage), Slovak health care has an average efficiency until 2003. Between 2040 and 2007 the situation was deteriorating.. Comparison with the Czech Republic shows adverse development – the efficiency of our western neighbours was similar at the beginning of the subject period, but improved slightly by 2010. Currently we are lagging behind – together with Hungary – as a result of inefficiency and not due to lifestyle of healthcare spending – we are three years behind Czechs and two years behind the average of developed countries. *Among all observed countries during the period, we have recorded the greatest drop.* Among OECD, USA show the worst results – losing more than 3 years of life due to inefficiency. The most efficient country is Japan and the best "leaper" in efficiency is the South Korea.

If we had healthcare efficiency on par with OECD average, we could live two years longer with the same healthcare spending.

The following graph (Graph 2) demonstrates the development of the difference from model efficiency of the Slovak health care. Between 1997 and 2003 (2004) the difference was within 95% (99%) of the confidence interval for the model efficiency values. Adverse trend since 2003 (2004) is undoubtedly statistically significant and it is not an accidental deviation from efficiency.

Graph 2: **Statistical significance of the deviations – drop of efficiency of Slovak healthcare**

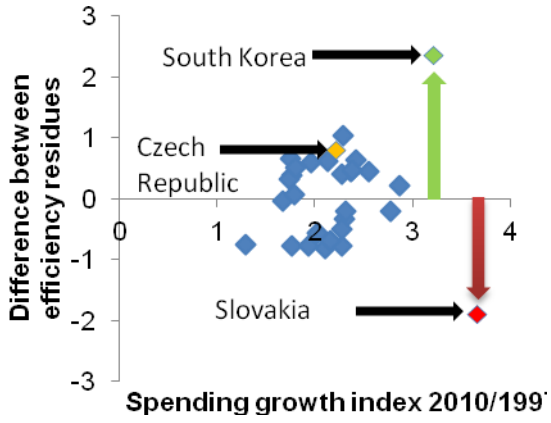


Source: IFP from OECD data

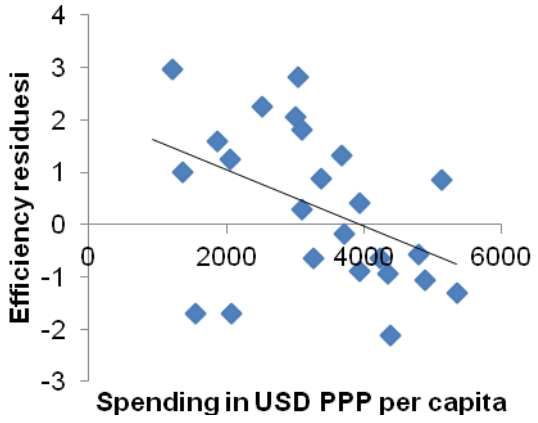
99% confidence interval level
95% confidence interval level
Deviations

Graph no. 3 shows that the improvement or deterioration of the effectiveness does not depend on the growth rate of health care funding. After all, the greatest growth of spending was observed in the South Korea, the "leaper" and "anti-leaper" in efficiency.

Graph 3 Relation between the change of efficiency and growth of spending[7]



Graph 4 Relation between the efficiency and health care spending in 2010

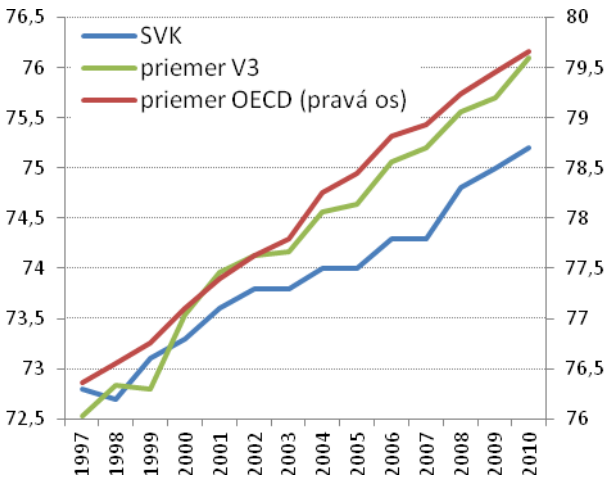


Source: IFP from OECD data

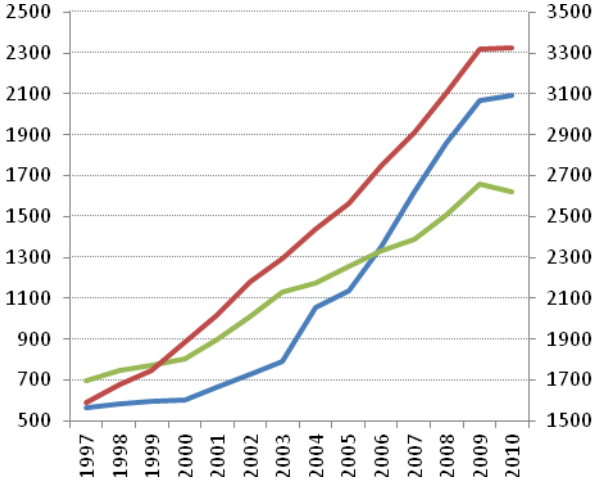
The comparison of efficiency and spending (Graph 4) in 2009 shows the trend of dropping efficiency with increasing healthcare spending.

The following graphs (Graph 5 and 6) demonstrate the reasons for adverse development of inefficiency of the Slovak healthcare. Life expectancy in V3 countries was superior to that in Slovakia as of 1999-2000, and the difference was increasing until 2007. At the end of the observed period we lived almost one year less than the average in the Czech Republic, Hungary and Poland. On the spending side, the development is the opposite. While before 2003 we spent less than our neighbours on healthcare, since 2004 the spending started to grow significantly. In 2006 our healthcare spending exceeded the V3 average and in 2010 we paid one third more than our neighbours.

Graph 5 Life expectancy in years



Graph 6 Healthcare spending in USD PPP per capita



[7] Data in graph 3 and 4 from year 2010 or nearest available.

Source: IFP from OECD data

SVK – blue line
V3 average – green line
OECD average (right axis) – red line

Average annual growth of spending between 1997 – 2010 was second highest in Slovakia among OECD countries (behind Turkey) and almost doubles the V3 average. Average annual growth of life expectancy in Slovakia in the period of 1997 – 2010 was fourth lowest (with Island) (lower annual growth was observed only in Japan, USA and Sweden – however these countries have the highest life expectancy among the OECD countries).

3 Demographic development

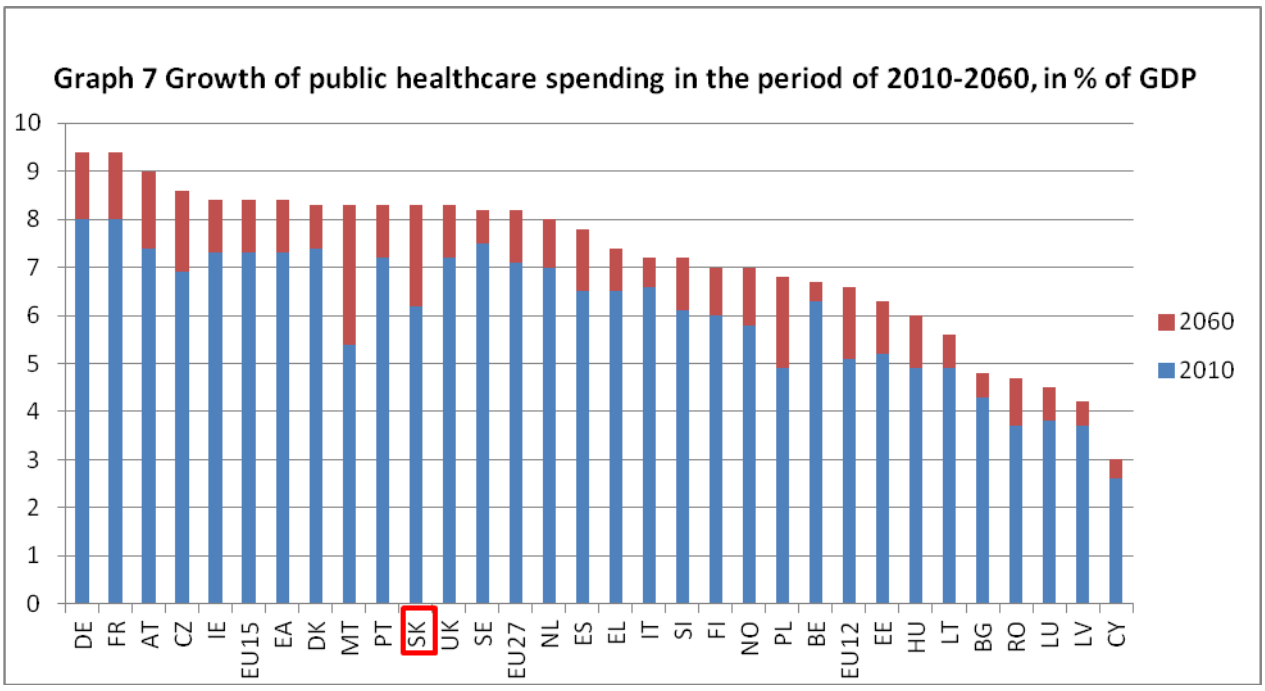
The main features of the Slovak Republic demography in the first half of the 21st century will be reduction of population growth and ageing. Intensity of these processes will be directly affected by development of fertility, mortality, and migration; however, these processes will be, indirectly, affected by other demographic factors as well as social, political, economic, cultural and many other factors.

Population growth is most likely to stagnate for a certain period of time. Even fertility increase up to a level of simple reproduction and positive net migration of at least 10 000 persons per a year would allow to maintain a slight increase in population by the end of a forecast period. However, such development is very unlikely.It is assumed that not later than during 15 up to -20 years will begin a period of lasting decrease in population that will probably stop at the end of century. Population ageing process will accelerate in the next decades. It is a consequence of decrease of population growth and prolongation of human life. This process is irreversible in terms of this projection; it cannot be stopped, only mitigated. Population ageing is the most serious consequence of a current demographical development. According to the forecast on a number of population by 2060, the most probable development from today's perspective seems to be a slight increase in population by 2030 (to 5558 thousand persons) and subsequent decrease to 5345 thousand persons by 2060.

The expected demographical development will bring many significant changes. Society must be prepared for an increasing number of old and elderly people, integration of a higher number of foreigners (often from very different cultural environments), increased tension in intergenerational relations. To handle the situation, the new approaches to population, family, social, economic and migration policies are necessary. We have an advantage of already knowing the problems that we will face. Moreover, time delays with which these problems come to Slovakia allows us to monitor how other countries, in which such processes have already progressed, struggle to cope with the situation. It means that we have time to find optimal solutions for our country. Anyway, it is necessary to take such measures that may mitigate the expected negative impacts on society and population.

To estimate the public expenditure increase in the health sector in correlation with demography, several scenarios have been prepared, of which the "reference scenario" may be considered the most realistic one. Based on the assumption that a half of years of increased life expectancy will be spent in impaired health condition, and at the same time, it also includes scenario of impact of income elasticity on healthcare services demand. According to the reference scenario, the development of public expenditure in the health sector will be as follows[8]:

[8] http://ec.europa.eu/economy_finance/publications/european_economy/2012/pdf/ee-2012-2_en.pdf



Due to the unfavourable demographical development in Slovakia, it is assumed, in the medium-term horizon, a significant increase in healthcare services demand, mainly in the field of elderly care, while the health sector will be characterized by the following features:

- a number of financial resources for health sector will be stable or slightly declining,
- a number of acute patients will be stabilized,
- a significant increase in a number of performances in the area of medical and social care due to population ageing is expected,
- a number of people working in health sector will slightly decline.

The key responses of health systems to address these issues are:

- implementation of an integrated model of healthcare provision - community – provided healthcare based on the powerful position of general practitioners, agencies for nursing care services at home (ANCSH), reduction of specialized outpatient healthcare and acute inpatient care,
- a significant increase in efficiency of use of existing financial resources in health sector (see the previous chapter),
- a significant increase in labour productivity, especially in hospitals,
- transfer of care from acute hospital beds to outpatient healthcare, or nursing care services at home,

- reduction of a number of acute beds in hospitals and reduction of length hospitalisation in hospital in these hospitals,

- creating cost-effective system of social and medical beds for long-range patients, whose acute exacerbation of chronic diseases cannot be therapeutically treated at home, requires the long-term professional integrated healthcare and social care provided in a community, but it does not require the use of cost-intensive beds in hospital,

- promotion of preventive programmes and activities for prevention of communicable and noncommunicable diseases and disability (regular preventive care in the outpatient units of general practitioners providing general outpatient care for adults (hereinafter only the "general practitioner for adults"), paediatric practitioners providing general outpatient care for children and adolescents (hereinafter only the "paediatric practitioners for children and adolescents"), in dentists clinics, in centres of early diagnosis and within scope of vaccination.

A necessary condition for function of integrated model of healthcare provision is fast, affordable and effective exchange of information (eHealth).

4 Strategic objectives

Strategic direction and objectives of health sector are defined by its mission as set out in the Programme declaration of the Government of the Slovak Republic:

The mission of health sector is to significantly contribute to improvement in quality of life of population by reducing mortality, morbidity, permanent and temporary effects of diseases and injuries, by providing specialized, quality and effective healthcare, public health, by promoting individual and community healthcare.

Fulfilment of strategic objectives and relevant indicators will be spread over a longer period, and therefore it is necessary to set priorities.

Strategic framework defines the following priorities in three health areas.

4.1 Public Health

Public health is a fundamental pillar of healthcare. Public health indicators such as life expectancy at birth, number of life lost years due to premature death and disease consequences and prevalence of chronic non-communicable diseases, classify Slovakia to the bottom of the ranking of EU countries. Therefore, priorities in public health are:

1. perceive health care of the population as one of the basic tasks of public administration (health in all policies),
2. draft a functional model of health care of the population in terms of public administration (central and regional government),
3. create a health care system of population at national, regional and local level with the involvement of all relevant public and private subjects, including the active involvement of the population in terms of the proposed functional model,
4. implement the public health programs in non-medical prevention of socially significant diseases and health risks,
5. increase the level of public health in socially disadvantaged communities,
6. increase the level of preparedness for biological, chemical and radiation threats of public health,
7. improve the level of non-medical determinants of health through multisectoral collaboration (especially in the field of life , work and social environments),
8. strengthen citizens' interest and responsibility for own health, promote their awareness of health care, healthy lifestyle, health threats, prevention of drug addiction by using modern communication tools and technologies.

4.2 Integrated outpatient healthcare

Its core lies in the work of general practitioners for adults, paediatric practitioners for children and adolescents, gynaecologists and dentists providing general outpatient care, together with nurses and other health professionals. General outpatient healthcare should be the basis of healthcare provision with links to the specialized and after-treatment healthcare. At present, the outpatient healthcare is fragmented, with different motivations and lack of coordination that causes inefficient use of resources. Fragmentation has a negative impact on quality, costs and results. Eliminating this inefficiency is key to improving quality parameters and cost reduction. The evidence shows that this is possible to achieve by higher vertical and horizontal integration of healthcare provision. Integrated model is an organized, coordinated and collaborative network linking various providers to provide continuous health services.

In this area have been, for the given period, set the following priorities:

1. To implement the concept of integrated model of healthcare focusing mainly on position of general practitioner for adults, paediatric practitioner for children and adolescents, gynaecologist and dentist as the first contact physicians (gatekeeping) and nursing based on the concentration of activities by creating new procedures in the field of treatment and prevention, by strengthening and expanding general outpatient and nursing care. To ensure health system to be renewed by general practitioners and specialists by means of residential program (financially promoted specialization study), with subsequent placement in the regions with shortage or higher average age of physicians.
2. To implement medical preventive programmes focusing on prevention of communicable and noncommunicable diseases through cooperation with other components of healthcare provision.

4.3 Inpatient healthcare

Inpatient healthcare is provided by hospitals or other healthcare facilities of inpatient healthcare. In this area, the key priorities include:

1. to redefine types of hospitals and range of healthcare they provide, determine catchment area, review existing types and organisational structures of healthcare facilities of inpatient healthcare,
2. to re-evaluate a number and structure of acute beds and to strengthen after-care, rehabilitation, nursing beds and beds for long- range patients,
3. to implement a programme of renewal of health infrastructure of hospitals aimed to effectively use the human sources, buildings and medical equipment,

4. to effectively receive and transfer information (including via eHealth) between the hospitals and other healthcare facilities of inpatient and outpatient healthcare, while stressing continuity of healthcare when transferring patients within different environment, particularly in the so-called overflow management from hospital to home or wider community environment and comprehensive patient management.

Within the scope of these priorities, the detailed implementation strategies will be gradually created in the years 2014 – 2016, describing in detail the method for achieving defined target indicators. Implementation strategies and tools for transformations are specified in the following chapter in Table No. 2.

5 Health sector area of concern and tools for transformation

Based on the priority areas defined in the previous chapter, the key parameters, which describe the health status and health sector in the individual European countries, were identified. When analyzing the parameters of Slovakia, the following sources were used:

1. OECD Health Data
2. European Community health indicators (ECHI)
3. WHO Global Health Observatory
4. National Health Information Center (NHIC)
5. Statistical Office of the Slovak Republic.

The aim of the Ministry of Health was to identify key performance indicators in the fields of outpatient care, inpatient healthcare and public health, to set a current value of the indicator in Slovakia, average for the OECD countries and for the top 5 countries of the OECD or the EU. Subsequently, a target value of the indicator for 2030 in Slovakia was identified.

The following table shows a list of indicators, with values from 2011 or the last available year, and a draft of target states of these indicators that are structured into five units - key areas of health. In addition to the three aforementioned priority areas of health, health status of population and eHealth, as one of the key tools for achieving accessibility, quality and efficiency in all three priority areas, form the individual area.

Tab. No.1: **Relevant indicators**

Kľúčové oblasti zdravia (Health sector area of concern)	Oblasť indikátorov (Area of indicators)	Premenná (Variable)	Premenná 2 (Variable 2)	Jednotka (Unit)	SK	OECD average	TOP 5 OECD	Cieľový stav / Target index - rok 2030
Verejné zdravie - Zdravotný stav obyvateľstva (Public Health-Health status)	Zdravé roky života (Healthy life years)	Zdravé roky života pri narodení (Healthy life years at birth)	Muži (Males)	Roky (Years)	52,4	61,9	69,7	63
			Ženy (Females)	Roky (Years)	52,1	62,7	69,7	63
	Očakávaná dĺžka života (Life expectancy)	Pri narodení (At birth)	Muži (Males)	Roky (Years)	71,6	76,9	79,7	77.6
			Ženy (Females)	Roky (Years)	78,8	82,4	85,1	83
	Potenciálny počet rokov kratšej dĺžky života (Potential years of life lost)	Všetky príčiny (All causes)	Muži (Males)	Stratené roky na 100 000 ob. (Years lost per 100 000 population)	7 254,00	4 798,00	3 255,00	4 500,00
			Ženy (Females)	Stratené roky na 100 000 ob. (Years lost per 100 000 population)	3 073,00	2 457,00	1 797,00	2 400,00
	Príčiny úmrtnosti (Causes of mortality)	Všetky príčiny smrti (All causes of death)	Ročná báza (Annually)	Počet úmrtí na 100 000 ob. (Deaths per 100 000 population)	1 188,50	852,2	707,3	840,2
		Odvrátiteľná úmrtnosť (Amenable mortality)	Ročná báza (Annually)	Počet úmrtí na 100 000 ob. (Deaths per 100 000 population)	187,7	95,1	63,8	94
		Ochorenia srdcovo-cievnej sústavy (Diseases of the circulatory system)	Ročná báza (Annually)	Počet úmrtí na 100 000 ob. (Deaths per 100 000 population)	674,2	331,2	203,4	328

Kľúčové oblasti zdravia (Health sector area of concern)	Oblasť indikátorov (Area of indicators)	Premenná (Variable)	Premenná 2 (Variable 2)	Jednotka (Unit)	SK	OECD average	TOP 5 OECD	Cieľový stav / Target index - rok 2030
		Nádory (Neoplasms)	Ročná báza (Annually)	Počet úmrtí na 100 000 ob. (Deaths per 100 000 population)	261,2	229,7	187,2	187,2
Verejné zdravie - Podpora verejného zdravia (Public Health - Health promotion)	Nemedicínske determinanty zdravia (Non-medical determinants of health)	Spotreba alkoholu (Alcohol consumption)	Ročná báza (Annually)	Litre na osobu (15+) (Liters per capita (15+))	10,7	9,2	6,2	8,9
		Spotreba tabaku (Tobacco consumption)	Ročná báza (Annually)	% denných fajčiarov 15+ (% of population aged 15+ who are daily smokers)	19,5	19,5	15	17,3
		Miera obezity populácie (Level of obese population)	Ročná báza (Annually)	% obéznych z celej populácie (% of obese population)	16,9	18,9	15,4	15,8
	Prevencia (Prevention)	Imunizácia: Záškrt, tetanus, čierny kašeľ (Immunisation: Diphtheria, Tetanus, Pertussis)		% zaočkovaných detí (% of children immunised)	99	95,2	99	99
		Imunizácia: Osýpky (Immunisation: Measles)		% zaočkovaných detí (% of children immunised)	98	93,9	98,4	98
		Imunizácia: Hepatitída B (Immunisation: Hepatitis B)		% zaočkovaných detí (% of children immunised)	99	85,9	98	99

Kľúčové oblasti zdravia (Health sector area of concern)	Oblasť indikátorov (Area of indicators)	Premenná (Variable)	Premenná 2 (Variable 2)	Jednotka (Unit)	SK	OECD average	TOP 5 OECD	Cieľový stav / Target index - rok 2030
		Imunizácia: Chrípka (Immunisation: Influenza)		% obyvateľov nad 65 rokov (% of population aged 65 years and over)	23,8	52,2	74,6	52,2
		Mamografia, programové dáta (Mammography screening, programme data)		% vyšetrených žien vo veku 50-69 (Percentage of females aged 50-69 screened)	16	54,1	74,1	54,1
		Rakovina krčka maternice, programové dáta (Cervical cancer screening, programme data)		% vyšetrených žien vo veku 50-69 (Percentage of females aged 50-69 screened)	22,9	50,6	70	50,6
Všeobecná / Ambulantná starostlivosť (Primary / Outpatient Care)	Všeobecní lekári (General practisioners)	Priemerný vek všeobecných lekárov (Average age of General practisioners for adults)		Vek (Age)	53,9			40
	Všeobecní lekári ako gatekeepers (GPs acting as gatekeepers)	Pacienti odoslaní na vyšetrenie na vyšších úrovniach zdravotnej starostlivosti (Patients transferred to higher levels of care)	-	% návštev pacientov odoslaných na vyššiu úroveň zdravotnej starostlivosti (% of visits transferred to higher level of care)	80%	-	-	30%

Kľúčové oblasti zdravia (Health sector area of concern)	Oblasť indikátorov (Area of indicators)	Premenná (Variable)	Premenná 2 (Variable 2)	Jednotka (Unit)	SK	OECD average	TOP 5 OECD	Cieľový stav / Target index - rok 2030
	Konzultácie (Consultations)	Návštevy u lekára (Doctors consultations)		Počet na osobu (Number per capita)	11,3	6,4	4	6,4
	Štandardizované klinické procesy (Standardized clinical processes)	Počet implementovaných klinických odporúčaní v praxi (Number of clinical guidelines implemented and forced to use)		% pacientov v ambulantnej starostlivosti liečených podľa klinických odporúčaní (% of patients in ambulatory care treated according to clinical guideliness)	0%			50%
	Farmaceutické produkty a zdravotnícke pomôcky (Excessive pharmaceuticals expenditure)	Celkové výdavky na farmaceutické produkty a zdravotnícke pomôcky (Total expenditure on pharmaceuticals and other medical non-durables)		% z celkových výdavkov na zdravie (% total expenditure on health)	26,4	16,6	8,5	20
	Spotreba liekov (Pharmaceutical consumption)	Antibiotiká (Antibiotics)		Doporučená denná dávka (Daily defined doses)	24,5	21,1	13,2	17,2
	Prístup k zdravotnej starostlivosti (Access to healthcare)	Finančný prístup (Financial access)	Súkromné výdavky (Out-of-pocket expenditures)	Podiel z celkových výdavkov v zdravotníctve v % (Share of total exp. in health)	27,2	18,2	9,6	20

Kľúčové oblasti zdravia (Health sector area of concern)	Oblasť indikátorov (Area of indicators)	Premenná (Variable)	Premenná 2 (Variable 2)	Jednotka (Unit)	SK	OECD average	TOP 5 OECD	Cieľový stav / Target index - rok 2030
	Prevencia (Prevention)	Pacienti, ktorí absolvovali preventívnu prehliadku (Patients with prevention by medical inspection)		Podiel pacientov v % (Share of patients in %)	32			60
Ústavná zdravotná starostlivosť (In-patient care)	Ukončené hospitalizácie (Discharges)	Všetky príčiny (All causes)		Na 100 000 ob. (Per 100 000 population)	21 196,7	16 555,3	11 378,3	15 000
		Choroby obehovej sústavy (Diseases of the circulatory system)		Na 100 000 ob. (Per 100 000 population)	3 333,9	2 081,2	1 053,8	1 800
	Lôžka (Hospital beds)	Celkovo nemocničných lôžok (Total hospital beds)		Počet na 1 000 ob. (Per 1 000 population)	6,4	5,1	2,3	3,5
		Akútna starostlivosť (Curative (acute) care beds)		Počet na 1 000 ob. (Per 1 000 population)	4,7	3,5	1,8	2,5
	Využitie kapacít (In-patient utilisation)	Obložnosť lôžok akútnej starostlivosti (Acute care occupancy rate)		% z disponibilných lôžok (% of available beds)	66,5	75,2	91	85
	Stav budov (Obsolescent hospital infrastructure)	Priemerný vek nemocničných budov (Average age of hospital buildings)		Roky (Years)	42			25
	Priemerná dĺžka	Všetky príčiny (All causes)		Dni (Days)	7,3	7	4,3	5,8

Kľúčové oblasti zdravia (Health sector area of concern)	Oblasť indikátorov (Area of indicators)	Premenná (Variable)	Premenná 2 (Variable 2)	Jednotka (Unit)	SK	OECD average	TOP 5 OECD	Cieľový stav / Target index - rok 2030
	hospitalizácie (Average length of stay)	Akútna starostlivosť (Acute care)		Dni (Days)	6,6	6,2	4,2	5
	Štandardizované klinické procesy (Standardized clinical processes)	Počet implementovaných klinických odporúčaní v praxi (Number of clinical guidelines implemented and forced to use)		% pacientov v ústavnej starostlivosti liečených podľa klinických odporúčaní (% of patients in hospital care treated according to clinical guideliness)	0%			30%
	Výskum a vývoj (Research and development)	Počet univerzitných nemocníc zapojených do výskumných programov spolu s univerzitami, Slovenskou akadémiou vied, zahraničnými fakultnými nemocnicami a súkromným subjektmi (Number of teaching hospitals operating in research programs with universities, Slovak Academy of Science, foreign teaching hospitals and private companies)		Počet (Number)	0			3
	Udržateľnosť zdravotníckeho systému (Health system financial stability)	Operatívny zisk nemocníc (Operational profit of hospitals)	-	Milión EUR (Million EUR)	-116	-	-	120
Elektronické zdravotníctvo	Elektronická zdravotná	Pripojených PZS do Národného zdravotníckeho IS (Providers of		%	0	20	95	99

Kľúčové oblasti zdravia (Health sector area of concern)	Oblasť indikátorov (Area of indicators)	Premenná (Variable)	Premenná 2 (Variable 2)	Jednotka (Unit)	SK	OECD average	TOP 5 OECD	Cieľový stav / Target index - rok 2030
(eHealth)	dokumentácia (Electronic health documentation)	health services involved in system)						
		Elektronické zdravotné knižky občanov (Population with eHealth accounts)		%	0	25	95	99
		Počet zápisov do elektronickej zdravotnej knižky (Number of entries into eHealth record)		Miliónov ročne (Millions per year)	0	-	-	350
	Elektronická medikácia (Electronic medication)	Počet položiek na e-receptoch (Number of items on eRecipes)		Miliónov ročne (Millions per year)	0	-	-	215
	Propagácia zdravia (Health promotion)	Návštevy Národného zdravotného portálu (Visits of National health portal)		Mesačný počet návštev v tisícoch (Number of visits per month)	0	-	-	2300

Data source:: OECD data base, link download*: http://stats.oecd.org/ section Health*

Within the scope of these priorities, the detailed implementation strategies will be gradually created during the period 2014 – 2016, which will describe the methods for achieving the defined target indicators in details. The realisation strategies will include the objectives specification, activities structural decomposition, time-schedules, responsibility and rights matrices of the project implementers, the plan of resources, costs planning, risks and restrictions analysis and project inspection plan.

On grounds of predefined indicators, the tools for individual areas have been identified, by implementation of which the target values of indicators will be achieved:

Tab.No.2: **Tools for transformation**

Kľúčové oblasti zdravia (Health sector area of concern)	Oblasť indikátorov (Area of indicators)	Strategy/tools for transformation	Impact of the strategy/tools on the accessibility (A), quality (Q), efficiency (E) of health services provission	Beginning of implementation (year)
Verejné zdravie - Zdravotný stav obyvateľstva (Public Health - Health status)	Zdravé roky života (Healthy life years)	Improvement of the health determinants, prevention, development of programs to encourage regular physical activity in all age groups, improvement of the healthcare quality, higher safety of the patient, lower disparity, implementation of the unitary public health insurance system	Q, A, E	2015
	Očakávaná dĺžka života (Life expectancy)			
	Potenciálny počet rokov kratšej dĺžky života (Potential years of life lost)			
	Príčiny úmrtnosti (Causes of mortality)	Diseases prevention programmes, support for the cooperation among the general practitioners, specialists and specialised medical centres, national monitoring programme	Q	2015
		Oncology prevention programmes, workable National Health Care Registers, support for the cooperation among the general practitioners, specialists, and specialised medical centres, a national monitoring programme, workable screening programme, the care of patients in remission, a national action plan for solving the problems with alcohol and NAP for tobacco control	Q	2015
Verejné zdravie - Podpora verejného zdravia (Public Health - Health	Nemedicínske determinanty zdravia (Non-medical determinants of health)	Program for reducing consumption of alcohol, tobacco, intentional and unintentional injuries, public education in critical segments	Q	2015
		Program of reducing obesity, monitoring exposure to harmful substances from the environment - biomonitoring, prevention programs, healthier food and nutrition, legislative changes	Q	2016

Kľúčové oblasti zdravia (Health sector area of concern)	Oblasť indikátorov (Area of indicators)	Strategy/tools for transformation	Impact of the strategy/tools on the accessibility (A), quality (Q), efficiency (E) of health services provission	Beginning of implementation (year)
promotion)	Prevencia (Prevention)	Designing and introducing the standardised practices of medical prevention	Q, A, D	2015
		Implementation of the standardised practices of medical prevention in to the law	Q, A, D	2016
	Prevencia (Imunizácia) (Prevention (Immunisation))	Carry on the vaccination programme	Q,A	2013
Všeobecná / Ambulantná starostlivosť (Primary / Outpatient Care)	Všeobecní lekári (General practisioners)	Program of planning human resources in healthcare, residents programme, legislative redefining of the scope of the general practitioners' competences, building the integrated health care centres	A, Q, E	2014
	Všeobecní lekári ako gatekeepers (GPs acting as gatekeepers)			
	Konzultácie (Consultations)			
	Štandardizované klinické procesy (Standardized clinical processes)	Implementation of the standardised clinical processes into the law	Q, E, A	2016
	Farmaceutické produkty a zdravotnícke pomôcky (Excessive pharmaceuticals expenditure)	Implementation project of the standardised clinical processes	Q, E, A	2015
	Prístup k zdravotnej starostlivosti (Access to healthcare)	Programme for reducing the private sources in medical care by means of adjusting the fees of medical services	A	2014
Ústavná zdravotná starostlivosť (In-	Ukončené hospitalizácie (Discharges)		A, Q, E	2016
	Lôžka (Hospital beds)			

Kľúčové oblasti zdravia (Health sector area of concern)	Oblasť indikátorov (Area of indicators)	Strategy/tools for transformation	Impact of the strategy/tools on the accessibility (A), quality (Q), efficiency (E) of health services provission	Beginning of implementation (year)
patient care)	Využitie kapacít (In-patient utilisation)	Program of planning human resources in healthcare, better cooperation among the general practitioners, specialists and social sector, effectiveness in sharing the information among the hospitals, (e-Health), new programme of the hospitals infrastructure		
	Stav budov (Obsolescent hospital infrastructure)			
	Priemerná dĺžka hospitalizácie (Average length of stay)			
	Štandardizované klinické procesy (Standardized clinical processes)	Implementation project of the standardised clinical processes	E	2016
	Výskum a vývoj (Research and development)	Biomedicine strategy implementation	Q	2015
	Udržateľnosť zdravotníckeho systému (Health system financial stability)	Implementation of the controlling mechanisms in the management of faculty and university hospitals, DRG implementation	E	2013
Elektronické zdravotníctvo (eHealth)	Elektronická zdravotná dokumentácia (Electronic health documentation)	Establishing the National health information system (NZIS), connecting the NZIS to the Pan European system of the exchange within the scope of epSOS project	A, Q, E	2016
		Electronic health books for all policy holder of the Health Insurance Company, data basis of NZIS	A, Q, E	2016
		Electronic support for vaccination, management of laboratory tests, reminders for patients.	A, Q, E	2016
	Elektronická medikácia (Electronic documentation)	Electronic prescription, electronic support	Q,E	2016

Kľúčové oblasti zdravia (Health sector area of concern)	Oblasť indikátorov (Area of indicators)	Strategy/tools for transformation	Impact of the strategy/tools on the accessibility (A), quality (Q), efficiency (E) of health services provission	Beginning of implementation (year)
	Propagácia zdravia (Health promotion)	Health National Portal (NPZ), information centres of NPZ on social networks, mobile support	A	2014

6 Monitoring system

The monitoring system includes the task as follows: to observe and meet the requirements related to the strategic framework itself, the preparation and implementation of partial strategy policies focused specifically on meeting the strategic objectives defined in single strategy priorities, as well as reaching the target values of the selected indicators.

The monitoring and inspection will be carried out on the two levels as follows:

1. The Ministry of Health of the Slovak Republic will elaborate „Action plan for specifying the partial strategies/tools for transformation“, which will in details define:

   - a time-schedule for specifying the partial strategies and the commencement of their implementation,

   - the subjects responsible for designing the partial strategies, as the case may be, other relevant subjects participating in designing such strategies.

   Performing the Action plan – devising the partial strategies – will be monitored on grounds of beforehand fixed deadlines, resulting from the directives of the Ministry of Health of the Slovak Republic.

2. The ministry of Health of the Slovak Republic will found the monitoring panel that will consist of the representatives of the Ministry of Health, Ministry of Education, Ministry of Labour, Social Affairs and Family, Ministry of Finance, Ministry of Interior (accidents), Public Health Authority of the Slovak Republic, patients associations, professional associations of healthcare employees, non-governmental non-profit organisations, the representatives of health insurance companies, healthcare providers, higher territorial units, the Association of Towns and Communities of Slovakia and of the representatives of universities.

   This panel will regularly monitor the progress within the strategic framework, propose possible amendments to the framework, and supervise whether the single strategies are followed. The work of the monitoring panel will not affect the budget of the Ministry of Health of the Slovak Republic.

   The Ministry of Health of the Slovak Republic in cooperation with their partners will compile the reports on the achieved progress within the strategic framework on a yearly basis, particularly by means of updating the values of the selected indicators and submitting the information on the status of pursuing the strategies/applying the tools with regard to undertaking the transformations. The reports will be publicly available on the Ministry of Health of the Slovak Republic website.

7 Source of Finance

The strategies on improving the level of healthcare will also need a financial support. The sources of the state budget, public health, EU community programmes sources and structural funds will be used, too. The source of money and its volume will be a mandatory part incorporated into each elaboration of the transformation strategy.

7.1 Public Health Insurance

The Ministry of Health considers the public health insurance a crucial source of the healthcare financial support. Therefore, it is supposed that some of the realisation strategies related to health care provision will be financed from these sources in particular, because of the identified low efficiency of healthcare in Slovakia. This way, we expect better redistribution of the sources among the healthcare providers. The higher efficiency will not result in reducing the financial needs, but in better accessibility, higher productivity and quality of provided healthcare.

The yearly amount of sources of the public healthcare insurance reaches up to 3.8 billion EUR (year 2012; the sources from the state budget for the policyholders of the state are 1.36 billion EUR)[9]. In a medium-term horizon, we only expect a slight growth of these funds. Such funds are to be used to finance the healthcare (including the infrastructure renovation).

7.2 State Budget Funds

The Ministry of Health allocates a certain part of the state budget funds to the allowances for state policyholders, for running the institutions in the sphere of authority of the Ministry of Health, to the preventive programmes implementation and investments in the renovation of hospital beds infrastructure.

The indicative yearly budget for the activities in the field of public health and preventive programmes is 7 million EUR.

7.3 Structural Funds for programming period 2007 - 2013

In the current programming period 2007 – 2013, with regard to the advanced state of concluded contracts and implementation of the programmes, the availability of the

[9] http://www.udzs-sk.sk/buxus/docs//vestniky/rocnik_2013/VE-9-2013_Sprava_o_stave_vykonavania_verejneho_zdravotneho_poistenia_za_rok_2012.pdf

financial sources from the structural funds is reduced. The investments in healthcare infrastructure may be supported within the Operational Programme Healthcare. The activities for healthcare human resources development may be supported within the Measure 2.2 of the Operational Programme Education. In this field, the funds of 5 million EUR are withheld for the implementation of residency programmes. The possibilities, instantaneous availability of funds and the suitability of such funds use will be assessed in the course of implementation of the priorities within the scope of the strategic framework. The disposable financial means from the structural funds in the programming period 2007 – 2013 have to be spent by 31st December 2015.

7.4 Structural and Investment Funds for programming period 2014 - 2020

The structural and investment funds are the effective means of how to help the member states with direct and indirect investments in health. The possibilities of the direct investments include, for example: the support of stable, innovative and reforming healthcare systems; investments in the healthcare infrastructure for the purpose of healthcare systems transformations; improving the availability of sustainable healthcare on a high level in order to reduce the healthcare disparities among the regions with regard to the needs of specific measures for the marginal communities; the support for the healthcare human resources development; the support of healthy and active aging within the context of increasing the employment rate and employability of older people on a labour market; adaptation measures related to climate changes; applied health research; investment into eHealth; support analytical and strategic capacities of the health sector. The possibilities of indirect investments in health include, for example, investments in the towns' recovery, increasing the employment, the support of education and investments in environment protection and transport.

The strategic framework is an ex ante prerequisite for the direct investments in health and healthcare financed from the sources of the structural and investments funds in a new programming period 2014 – 2020 within the tematic objective number 9. After concluding the partnership agreement and operational programmes for the period of 2014 – 2020, it will be possible to identify the volume of the funds for the financial support for single tools of the strategic framework transformation.

7.5 The second action program of Community of Healthcare (2008-2013)

The program was established by the European Parliament and of the Council. 1350/2007/EC of 23 October 2007. Main objectives of the program are the protection and promotion of human health and improvement of public health through three priority areas:

1. Improvement of citizens' health security

2. Promoting health and reducing inequalities in public health

3. Creation and propagation of information and knowledge in the field of health

The program is centrally managed by the European Commission through the Executive Agency "Executive Agency for Health and Consumers." Member States shall ensure the provision of information about the activities of the program through a network of National Contact Points. Conditions for implementation of the program are updated annually through so-called work plans. Work plan provides eligible activities, conditions for participation in the program, specifies evaluation criteria, defines eligible costs etc. Work plans for each year represent the basic source document for the calls for proposals. Calls are announced annually during the entire period of the program. The program can only fund activities at the international level.

Contribution to achieving the objectives of the strategic framework is particularly the participation of Slovakia in thematically relevant joint action program to complement and support national strategies and initiatives. Most relevant projects based on the objectives of the strategic framework are the following joint actions, where is directly involved in the Ministry of Health of the Slovak Republic as a leader of one of the work packages:

- European Union Network for Patient Safety and Quality of Care
- European Health Workforce Planning and Forecasting

These are international projects with duration of three years, whose activities overlap in time in the new programming period. EU sources of these projects are 240 000 EUR. MZ SR provides co-financing of projects of almost 148 000 EUR.

7.6 Third EU Action Programme of Healthcare for 2014 – 2020

Within the scope of the programme, it is possible to finance the activities on an international level, the objectives of which are to complement and support the state policies of the member states with the aim to improve the health of the EU citizens and to reduce the disparities in the field of healthcare by means of promoting a healthy lifestyle, by motivating the innovations in the field of healthcare would occur, enhancing the sustainability of the healthcare systems and through the protection of the EU population against serious health threats. The programme initiates and supports the collaboration among the member states in the areas, where such collaboration on a European level is more suitable, as the case may be, inevitable, and functions as a complement to the national policies of the member states as for the common solving priorities and objectives. The contribution to attaining the objectives of the strategic framework is expected through the participation of the Slovak Republic in the relevant common activities of the programme, which can supplement and support the national strategies and initiatives. In the case of this source of finance, it is not possible to identify the subject and the volume of disposable funds for a single member state in advance; since the projects within the programme are implemented on the multinational level and calls for proposal are announced according to annual work plans.

7.7 Public-private partnerships

Public-private partnership (PPP) is a form of cooperation between the public and private sectors to finance the construction, reconstruction, operation and maintenance of infrastructure and the provision of public services through this infrastructure. Within the PPP the public sector subjects are partners and customers of the private sector from which they purchase services. Private partner finances and operates the construction (infrastructure) and thus is permitted to provide services associated with this work for payment from its users (concession) or by the public partner. An essential feature of PPP is the allocation of risks associated with the construction and operation work between private and public partners and long duration of contractual relationships between private and public partners.

The model of financing the construction of new hospitals through PPP is often applied abroad. Every year in Europe there are built several dozens of medical facilities from specialized clinics, diagnostic centers to university hospital by PPP projects.

For these reasons, this form of financing construction of health infrastructure is considered as promising area in Slovakia and in the future there is potencial of its implementation particularly in large infrastructure projects.

The following table provides an overview of key priority actions and tools for transformation (Chapter 5) and their primary sources of financing:

Tab.: No.3: Sub-strategies / tools for transformation sources of financing

Key priority areas	Measures (sub-strategies / tools for transformation)	Primary sources of financing	Impact on the accessibility (A), efficiency (E) of health care / public health
Public health	Health Promotion Programme for disadvantaged communities in Slovakia	Structural and investment funds, state budget	A
	Implementation of prevention programs, non-medical (cardiovascular and oncological diseases)	State budget	A
	National Monitoring Programme	State budget	E
	National Action Plan for solving the problems with Alcohol	State budget	A
	National Action Plan for Tobacco Control	State budget	A
	Program of restraining alcohol consumption, further education in critical segments	State budget	E
	Program of restraining tobacco consumption, further education in critical segments	State budget	E
	Minimizing the obesity prevalence	State budget	E
	Implementation of the unitary public health insurance system	State budget	A, E
	Implementation of obesity prevention programes, healthier food and nutrition	State budget	A
	Carry on the vaccination programme	Public health insurance	A

Key priority areas	Measures (sub-strategies / tools for transformation)	Primary sources of financing	Impact on the accessibility (A), efficiency (E) of health care / public health
Primary / Outpatient Care	Concept of general practice development	state budget	A, E
	Program of planning human resources in healthcare	EU programs for health, structural and investment funds, state budget	D, E
	Implementation project of the standardised clinical processes	Structural and investment funds	A, E
	Implementation of the standardised clinical processes into the law	public health insurance	A, E
	Designing and introducing the standardised practices of medical prevention	Structural and investment funds	A, E
	Implementation of standardised practises of medical prevention in to the law	public health insurance	A, E
	Building the integrated health care centers	Structural and investment funds	E
	Adjusting payment mechanism of general outpatient health care	Public health insurance	E
	eHealth	Public health insurance, Structural and investment funds	E
	Programme for reducing the private sources in medical care by means of adjusting the fees of medical services	State budget	A
	Resident programme	Structural and investment funds	A
Inpatient Care	New programme of the hospital infrastructure	PPP	E
	DRG	Public health insurance, structural and investment funds	E

Key priority areas	Measures (sub-strategies / tools for transformation)	Primary sources of financing	Impact on the accessibility (A), efficiency (E) of health care / public health
	Program of planning human resources in healthcare	EU programs for health, structural and investment funds, state budget	D, E
	eHealth	Structural and investment funds, public health insurance	E
	Implementation project of the standardised clinical processes	Structural and investment funds	A, E
	Implementation of standardised clinical processes into the law	public health insurance	A, E
	Implementation of the controlling mechanisms in the management of faculty and university hospitals	state budget	E
	Biomedicine strategy implementation	Structural and investment funds, state budget, Third EU Action Programme of Healthcare for 2014 – 2020	E

Conclusion

Slovakia nowadays, in comparison with the other countries of EU achieves a low level of healthcare efficiency. One of the possible consequences is a smaller number of years of the healthy life (Healthy life years) of the Slovak population compared to the average of the EU countries. The Slovak population lives healthy life 52.2 years on average, while EU population by almost 10 years longer (62 years)[10].

The strategic framework is a document, by adopting of which we suppose the key indicators of the health status, public health, outpatient and inpatient healthcare and electronic health would be improved. To attain this, the implementation of identified realisation strategies will be a crucial factor.

The investments in the primary contact networks and in hospitals providing the acute healthcare, also carrying out the preventive programmes in the area of public health are some of the cardinal measures for improving the quality of the healthy life in Slovakia.

[10] EUROSTAT statistics, year 2011
http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Healthy_life_years_statistics