



Implementation strategy - integrated health care system: Modernising health care infrastructure and improving access to quality services in primary and acute bed health care

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1. Introduction

The Slovak health system shows a very low degree of effectiveness and efficiency when compared to many other EU countries. In its current conditions, the system is at risk of being economically unsustainable in the future. The main consequence of this situation are ongoing adverse impacts on public health, for example, in the form of a shorter Healthy Life Year indicator which is only 52.2 years for the Slovak population compared to the 62 years of the EU-wide average (ten years of negative difference for the Slovak population). This results in an early leaving of the labour market and social exclusion of persons at retirement age.

Council recommendation on Slovakia's 2013 national reform programme and delivering a Council opinion on Slovakia's stability programme for 2012-2016 calls for improving the long-term sustainability of public finance by increasing the cost-effectiveness of the health care sector. This is in line with the underlying principles of the Europe 2020 strategy (an EU document on the cohesion policy strategy) that emphasises the need to ensure that the current and future generations continue to enjoy a high-quality of healthy life underpinned by Europe's unique social models and sustainable health care system. Slovakia is currently far from this ideal situation, as evidenced, for example, by the aforementioned shorter Health Life Years indicator compared to other EU regions.

The recommendation of Council⁴ health care expenditure will be the main driver of costs associated with an aging population, which represents 2% of GDP, the second highest projected growth in health care spending from all EU Member States. Problems remain, especially in the area of hospital care and primary care. Government in December 2013 adopted a strategic framework for health for the years 2014-2030 to improve cost efficiency.

A healthy population is a key to a community growth. Good health has a positive effect on the economic growth by increasing labour productivity, increasing savings during the life of an individual, which in turn brings improvements in education and supports foreign direct investments. Each extra year of life expectancy raises economic performance by 4%, even when adjusted for working experience and education.⁵

There are two main reasons why the current health care system has failed to effectively contribute to improving public health:

1) the lack of effective management of chronic diseases, especially in the primary outpatient health care;

http://epp.eurostat.ec.europa.eu/statistics explained/index.php/Healthy life years statistics#Main tables

² http://<u>ec.europa.eu/europe2020/pdf/nd/csr2013_slovakia_sk.pdf</u>

³ EUROPE 2020 Strategy http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:2020:FIN:SK:PDF

⁴ COUNCIL RECOMMENDATION concerning the Slovak National Reform Programme for 2014 and establishing delivering a Council opinion on the Stability Programme of Slovakia for the 2014th, http://ec.europa.eu/europe2020/pdf/csr2014/csr2014 slovakia sk.pdf

⁵ BLOOM, D., CANNING, D., and JAMISON, D.T.: *Health, Wealth and Welfare.* Finance and Development, 2004 (March)

2) oversized, ineffective and unsustainable sector of acute hospital care facilities that drains resources from where they are most needed - from the sector of primary health care and investments in public health.

While in EU countries primary care physicians play an important role in the provision of care to chronically ill patients, in Slovakia, patients with, for example, type 2 diabetes mellitus are recommended to visit various medical specialists six times a year (Table 1). Also, in Australia, the clinical care of type 2 diabetes is predominantly carried out by primary care physicians, often under "shared care" arrangements with local diabetes centres and/or private endocrinologists. The prevalence of type 2 diabetes mellitus currently stands at 6.5% in Slovakia, approximately 350,000 people, a half of that suffer from its moderate form which could be fully controlled and managed by general practitioners. At the same time, there is a group of pre-diabetes patients, some 12.5%, who will suffer from this condition in the next few years if no preventive intervention is taken in time. Indicators that are primarily examined during regular visits of diabetic patients throughout a year include the level of glycated haemoglobin, blood sugar and other biochemical parameters contained in blood and urine, blood pressure, fundus, etc.

Table 1:

Current model	Proposed model
4x diabetologist	1x internist
1-2x internist or cardiologist	VLD
2x nephrologist	
1x neurologist	
1x ophthalmologist	

These two main problems in the provision of health care services are interrelated. A low quality, late diagnostics and ineffective treatment of chronic diseases in the primary inpatient care puts an increased pressure on specialised care and hospitalisation. This is accompanied by a multiplier effect by disadvantaging people at productive age at the labour market (chronic diseases are a crucial factor for people to leave jobs too early), contributing to social exclusion, representing a factor that lead to further deterioration of health conditions, and funds ineffectively spent on inpatient care impair the sustainability of the health care system. All these factors ultimately result in a slowdown of the country's economic growth. Similarly to other Central European countries, Slovakia has inherited a centralised hospital care sector with a redundant number of acute beds, resulting in very high direct fixed costs and, subsequently, in hospitals attempting to "fill" the beds by patients (to preserve a "cash-flow"), as well as in high variable costs. Compared to the OECD

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average of 16,555, the number of hospitalisations is 21,196 per 100,000 population in Slovakia (30% higher on average). This fact, coupled with the absence of a DRG based payment mechanism, results in major shortcomings in the acute hospital sector, leading to considerably high direct and indirect debts of district as well as regional hospitals.⁷

Another indicator of ineffectiveness in the primary health care system is the fact that the average number of doctors' consultations per year (11.3) in Slovakia is nearly double that of the OECD average (6.4). One of the causes of this situation is a poor integration of health care providers, reflected in the high degree of fragmentation, particularly of primary health care providers, throughout Slovakia (there are 1,290 contact points⁸ with a total number of 2,780 general practitioners for adults and 783 contact points with 1,251 paediatricians scattered across 620 territorial units - municipalities - in Slovakia). Another reason is a high number of visits by patients in specialised outpatient facilities, which indicates an insufficient care of patients by primary contact physicians. More than 80% of chronically ill patients are referred by the first contact general practitioners to specialised outpatient facilities and to hospital specialists. This is in extreme disproportion to the data obtained from other countries where a stronger emphasis is put on the primary care and greater integration of primary health care providers, as well as on their cooperation and establishment of joint medical teams. Such an approach contributes to achieving much better results in patient management, a significantly lower number of redundant referrals to outpatient specialists and hospitals, while providing better access for patients to health care services since a local general practitioner's office is a place where a major portion of health care is provided to chronically ill patients. This system of work is also reflected in lower morbidity and mortality rates among chronically ill patients, as well as in an increased effectiveness of medical services. 9,10

Many countries have recently considerably reformed their health care systems; for example, an integrated primary health care system approach has begun prevailing in the UK, Finland and many other countries.¹¹ It also has a non-negligible influence on the hospital sector. Combination of the transfer of chronically ill patients to primary care, several specialised outpatient facilities and an increased number of senior citizens with several additional diseases or disorders (comorbidity) means that a reform focused on the acute

⁷ State-owned hospitals reported a loss of EUR 116 million in 2012; the Health Ministry adopted a three-year plan to cut the deficit by 2015.

⁸ Contact point for the purpose of this strategy is meant as a building (space), where there are doctor's surgeries

⁹ Primary care in the driver's seat? Organizational reform in European primary care. Eds. Saltman R B, Rico A, Boerma W G W. Open University Press, on behalf of the European Observatory on Health Systems and Policies. 2006

¹⁰ Rittenhouse DR, Shortell SM, Fisher ES. Primary Care and Accountable Care — Two Essential Elements of Delivery-System Reform. N Engl J Med 2009; 361:2301-2303 December 10, 2009

¹¹ Beck M. et al: The Role and Effectiveness of Public – Private Partnerships (NHS LIFT) in the Development of Enhanced Primary Care Premises and Services, Report for the National Institute for Health Research Service Delivery and Organisation programe, January 2010

hospital sector should not be forgotten when developing a new system of integrated health care.

2. Current situation

2.1. Strategic Framework for Health for 2014-2030

The Strategic Framework for Health for 2014-2030 was approved by the Slovak government on 18 December 2013 to introduce priority areas for improvement in the effective provision of health care services and subsequent public health improvements:

- Improvements in the health care system should mainly target the primary care system (outpatient), including with respect to incentivising general practitioners and distribution of resources. This will be reinforced by introducing new financial incentives which will reflect in a gradual implementation of fee-for-service payments in the primary care.
- To implement the concept of integrated model of health care primary outpatient care system (hereinafter IHCCs integrated health care centres) focusing mainly on the position of general practitioners for adults, general practitioners for children and adolescents, gynaecologists and dentists as the first contact physicians (gate-keeping) and nursing care 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.
- Improved performance along with improvements in operational and economic sustainability of the health care system will be the main result of the integration of primary health care. Subsequently, the pressure on the hospital sector will be relieved, thus providing room for the much desired and interconnected reforms to be carried out in hospitals, entailing their restructuring coupled with a new structure of hospital services, i.e., a multi-dimensional approach to health care. Highly specialised acute care facilities will be established at the regional level, while community-based facilities for chronically ill patients (rehabilitation care supported by the primary nursing services) will be set up at the local level.
- To implement medical preventive programmes focusing on prevention of communicable and non-communicable diseases through cooperation with other components of the health care system and public health institutions.

2.1.1. Priorities under the Strategic Framework

1) Implementation of the concept of an integrated health care model with focus on reinforcing the role of general practitioners for adults and general practitioners for children and adolescents and gynaecologists as primary care physicians ("gatekeepers"), and concentrating nursing care services in integrated centres. Development of new therapeutic and preventive practices, reinforcing and enlarging general outpatient and nursing care services, including initiatives to support public health.

- 2) Continual provision of training for general practitioners through a resident programme, especially in regions that lack general practitioners or where their average age is high (a pending risk of their retirement).
- 3) **Improvements in medical preventive programmes** focusing on prevention of communicable and non-communicable diseases through cooperation with other components of the health care system and public health institutions.
- 4) Satisfying long-term needs of the ageing population, especially those associated with higher comorbidity, by reforming the integrated health care model. All these challenges, along with progress in acute inpatient care, will require a new setup of the hospital system, including increased specialisation in complex medicine, better approach to routine treatment which can be provided in a community environment, and wider accessibility of long-term care and rehabilitation activities.
- 5) **Streamlining in the hospital sector** will be ensured through an integrated approach to the "patient's way" through the health care system, while all the processes must be set up from the very bottom (primary care centres) through to the top of the pyramid (highly specialised centres for acute conditions and/or centres of excellence). Only this approach will help increase effectiveness of health care providers, having a positive impact on overall health status of Slovak citizens.

2.1.2. Political and legislative support by the Health Ministry and Slovak government to implementation of reform processes

The Slovak government considers the health sector one of its key priorities; this is also evidenced by the fact that Slovakia is one of few countries which have not made cuts in their overall health care budgets during the financial crisis (Figure 1).

By approving the 2014-2013 Strategic Framework, the Slovak government has taken another step towards providing a political support to reforms that need be made in the health care system. In addition, the existing health care legislation fully allows for making all the proposed changes. Minor legislative changes are expected during the implementation stage.

Health expenditures, social security funds, in national currency [mio €] 4 000 3 500 3 000 2 500 2 000 1 500 1 000 500 0 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012

Figure 1: Total public health expenditures in Slovakia (million euros)

Source: OECD, Statistical Office of the Slovak Republic

A formal report by the European Commission endorses the integrated health care in Slovakia and recommends that its principles be included in the cohesion policy and the Europe 2020 strategy. The Commission staff working document entitled "Investing in Health"¹² (as part of the social investment package) considerably contributes and illustrates how the health system reform and development can "contribute towards social investment for growth and cohesion." The Slovak model of integrated care contains the main principles and recommendations.

From the point of view of the Slovak health system, "ensuring efficiency and making the provision of health services more cost-effective and efficient is crucial to ensure universal access to and equity in health services and their adequate and sustainable financing." Several areas have been specified under a number of specific structural and operating objectives where structural reforms and increased efficiency will improve sustainability of the health system. For example:

- "encouraging patients to better use primary outpatient care through improved services ("gate-keeping") and to define a cost-effective path of care: from GP, to outpatient specialist, to hospital, to emergency care, while encouraging patients to have less recourse to unnecessary care and emergency services" (especially for chronic diseases) - Slovakia supports this reform objective through its reform in the area of integrated health care.
- "ensuring a balanced mix of staff skills and anticipating staff needs due to ageing"; this could include "improving staff motivation through non-financial aspects (working conditions, career advancement etc.) and encouraging continuous professional development" - The reform strategy covers these types of actions.
- " reducing the unnecessary use of specialist and hospital care while improving primary healthcare services; improving access to primary care for certain population

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¹² http://ec.europa.eu/health/strategy/docs/swd investing in health.pdf

groups could include increasing the number of training posts and making general practice more attractive or developing new roles for other healthcare providers, such as advanced practice nurses, and encouraging the relocation of general practitioners to areas where there is a shortage of them - Even though the model for Slovakia was primarily developed as "investment in health", the recommendations will be fully implemented through the reform of integrated health care.

The whole integrated approach to the reform is implicit in these recommendations, as also evidenced by the "Investing in Health" reference (e.g. WHO (2012): Health policy responses to the financial crisis in Europe, WHO Policy Summary 5)¹³. We can thus conclude that tools which could support austerity measures in health care systems include better coordination of primary and secondary care, including a change and restructuring of the hospital system.

The proposed reforms are also in line with the conclusions of the Council of the EU of 6 June 2011¹⁴: Member State should - "consider innovative approaches and models of health care responding to challenges, and develop future long-term health sector strategies, with particular emphasis on effective investment in the health sector and in human resources with the aim of moving away from hospital-centred systems towards integrated care systems, enhancing equitable access to high quality care and reducing inequalities".

2.2. Trends in health care across EU

Many Member States are gradually reforming their health care systems, with a clearly consistent trend:

- 1) More effective management of chronic diseases (including demographic factors) is a foundation stone of each health system reform. The main principle is an early diagnostic of a chronic disease and its treatment on the local (community) level.¹⁵ Reinforcing competences of centres (including their role as the point of firs contact for patients) and subsequently eliminating redundant hospitalisations and specialised examinations;
- 2) Developing new services and new models of care to move the care of patients from hospitals to the local community;
- 3) Creating specialised centres (end hospital networks) as centres of excellence in order to improve quality, achieve better results, avoid unnecessary duplicities in services and better use the limited labour force resources;

¹³ http://www.euro.who.int/__data/assets/pdf_file/0009/170865/e96643.pdf

¹⁴ http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/lsa/122395.pdf

¹⁵ Kringos DS, Boerma W, van der Zee J, Groenewegen P. Europe's Strong Primary Care Systems Are Linked To Better Population Health But Also To Higher Health Spending. Health Affairs Vol 32 (4). pp 686-694. April 2013.

4) Changing smaller hospitals to ones providing rehabilitation services and care of agerelated diseases (chronic beds) as intermediaries between local community-based primary health care centres and larger specialised hospital centres.

2.3. Hospital system reform

In 2012, the health care providers reported a total of 841,479 acute-care hospitalisations, with the average length of 6.6 days per hospitalisation¹⁶. These health care providers operate 19,971 acute beds in total. The average occupancy rate per bed is 62.3%. Under the objectives set in the 2014-2030 Strategic Framework for Health, the occupancy rate should increase to 85%. This percentage figure represents an occupancy rate of some 310 days per acute bed per year. Based on these facts, needs and tasks can be defined that are necessary to increase effectiveness in the provision of acute health care in Slovakia. The aim of the analysis carried out by the Health Policy Institute (Health Ministry) was to identify hospitals, taking into account number of hospitalisations, the average length of a hospital stay, actual bed occupancy rates, regional accessibility and catchment area, capable of ensuring complete acute health care, while increasing cost-effectiveness by cutting costs of beds and preserving the quality of the care provided.

1

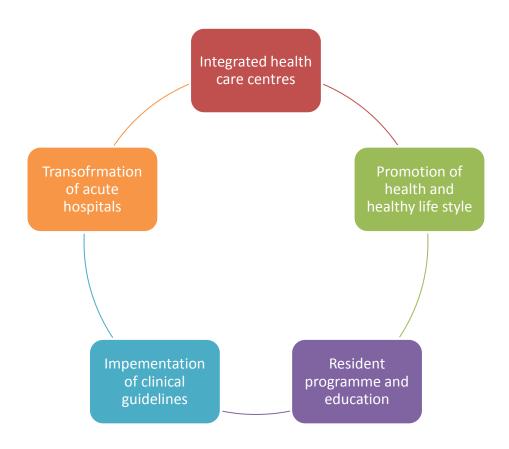
 $^{^{16}}$ 6.6 days is an average length of stay in hospital weighted against the number of hospitalisations made by individual health care providers.

3. Strategic objectives

3.1. Integrated health care model

Five measures have been defined on the basis of the aforementioned analysis that need to be taken in order to implement an integrated health care model. The measures must be implemented and carried out concurrently in order to yield expected results. If they are not, measures implemented separately are very likely not to yield the results as expected.

- 1. Creating integrated health care centres
- 2. Transforming acute centres and regional centres of excellence in the hospital sector
- 3. Implementing clinical guidelines and preventive medicine guidelines
- 4. Resident programme and education, especially for doctors and nurses
- 5. Integrating and distributing information to promote health



All these five measures are interlinked; namely the integrated primary care centres with the regional acute care hospitals through the implementation of standardised care, clinical guidelines and preventive practices, accessibility and improved efficiency in the treatment of patients and links to training for clinical staff to ensure the implementation of new processes. The resident programme is an important measure under the national

strategy which is primarily focused on general practitioners, i.e., contact points (gatekeepers) in centres of integrated primary health care.

The entire process must be supported by an exchange of information between individual health care providers, i.e., through improved ICT infrastructure. If these measures are successfully implemented, considerable improvements are likely to occur both under the result and output indicators defined in the Strategic Framework.

Strategic objectives:

Area of concern	Current situation (baseline)	Target situation	Target deadline		
High average age of general practitioners	Average age (years)	53.9	40	by 2030	
Patients referred to higher levels of health care	% of patients referred to higher levels of health care	80%	30%	by 2030	
Doctors' consultations (visits by patients)	Per capita	11.3	6.4	by 2030	
High fragmentation of primary health care providers in Slovakia	The number of primary care physicians in one contact point	1,63		by 2030	
Excessive number of acute care beds	Number of acute care beds per 1,000 population	4.7	2.5	by 2030	
Capacity utilisation	Occupancy rate of acute care beds in %	66.5	85	by 2030	
Average length of stay in hospital (acute care)	Number of days	5.5	5	by 2030	

In particular, the improvements will be reflected in a greater number of patients treated at the primary care level, a lower number of unnecessary patients' visits to outpatient offices, a lower number of hospitalisations of chronically ill patients in acute care hospitals, a lower number of acute beds, a higher bed occupancy rate, a higher number of treatments provided in line with standardised clinical guidelines, reduced medical drug

consumption and enhanced medical prevention. However, the measures require some changes in the legislation, as well as a change in payment mechanisms for primary care physicians (moving away from a solely capitation-based model to a proportionate model, i.e., capitation + fee for services, or P4P (pay for performance)).

Generally speaking, the reform towards an integrated health care model must be carried out at the regional level. Each region is defined by the catchment area of an acute hospital with corresponding primary and secondary outpatient care facilities. The health care regions, therefore, do not have to be identical with the existing administrative units (municipalities or higher territorial units). Based on the experience from abroad, one acute hospital centre should cover approximately 200,000 people; i.e., Slovakia will be divided into some 30-35 health care regions.

3.2. Integrated health care centres (IHCCs)

Integrated centres for primary health care (IHCCs) are best positioned to link primary health care with social care services at a community level for people living in particular areas. Based on Act No. 448/2008 Coll. on social services, there are several types of social services that should be provided at IHCCs. Similarly to health care services, an excessive fragmentation of social services providers and insufficient networking between individual social services, as well as between social services and health care, exists in this area. Building on a humancantered holistic approach to health, it is crucial to interlink these segments, with the focus on ensuring subsidiarity in the provision of social services and enabling individuals in an adverse life situation to stay at their home environment as long as possible with the support of complex and sufficient social and health care services. At the same time it is necessary to work hard and develop targeted promotion of public health and social integration of disadvantaged communities and vulnerable groups (economically and socially weak families, citizens of Roma communities). Bad health is often one of the risks and causes of adverse social conditions. The primary health care is exactly the area where an occurrence of adverse social conditions can first be identified. Primary care physicians are often capable of identifying these risks but, on the other hand, they lack the sufficient competence and knowledge to resolve adverse social conditions. They do not know where they could refer patients who are at risk of social exclusion and adverse social conditions; they do not have enough information on social care and assistance services available in their region.

The social services primarily focus on preventing, resolving or mitigating poor social conditions of an individual, family or community; on preserving, restoring and developing an individual's ability to lead an autonomous life; on providing conditions necessary to satisfy basic living needs of an individual; on resolving an emergency situation of an individual and family; and on preventing social exclusion of an individual.

The IHCCs will provide social services in compliance with the Act on Social Services. Therefore, in-depth consultations with public and non-public social services providers in individual regions will be necessary, along with a detailed analysis of needs, taking into account policy documents of local authorities and availability of individual types of social services.

Changes in primary health care from the patient's perspective

In 2013 patient organization "Slovak patient" who is grouping more than 50 different patient organization, in cooperation with the agency GfK Slovakia held survey on a sample of patients (1,200 respondents) about the quality of healthcare delivery in Slovakia. To the survey were included citizens who are in the recent period (less than a week) were contact from health care (outpatient, inpatient). It was shown that patients suffer from the following problems in particular:

- a) Fees and supplements in health;
- b) Long waiting times for examination, hospitalization respectively;
- c) The general practitioners do not real heal, but only refer patients to specialists;
- d) Poor accessibility to general practitioners fragmentation.

What is expected from the introduction of IHCCs:

- Improved primary health and social care infrastructure
- Improved access to integrated, multidisciplinary basic health care and social care services
- Improved support for public health and social integration in communities socially vulnerable and disadvantaged groups Improved support for public health in communities that are at risk of social exclusion and marginalisation
- Improved education and training for future primary care workers
- The result would be to reduce the average number of consultations with medical specialists in long-term compensated patients with chronic diseases. While strengthening the primary care consultation form to achieve a reduction in acute hospital admissions in the long run.

Why the introduction of IHCCs is necessary:

The primary health care is the founding pillar of a health care system; therefore, it is important that primary care is adapted to the current demands, such as:

- a growing prevalence of chronic diseases and conditions driven by demographic changes
 the capacity of specialist outpatient care are insufficient for the detection of mild to moderate types of diseases;
- reducing the number of hospitalisations earlier detection of chronic diseases (IHD, HT, DM, etc.) leads to a reduction of hospitalizations;
- changes in treatment, since patients require greater and more complex care;
- a growing demand for clinical training and training facilities for primary health care among students, resident physicians and medical workers;
- the necessity to link health and social care services with the focus on the development of community-based, individual/patient-oriented services;
- integration of medical and social services and promotion of public health in a targeted work with disadvantaged groups of population in their familiar environment;
- enhancing and developing a network of basic and specialised social counselling, prevention and social rehabilitation and integration as close to citizens as possible;
- developing and supporting social and medical services in an environment as close to citizens as possible.

What services should an IHCC provide:

Health care provided in an IHCC will cover:

- Outpatient services of general practitioners for adults and children, gynaecologists and dentists
- ANCSH services coordinated by the centres
- Department for collection of samples, separately for infectious and non-infectious samples
- Facility providing regular services to medical workers such as physiotherapists, dietetic counselling, paediatrics, occupational medicine, geriatrics, psychology and mental health related services and health promotion programmes Advisory and rooms for visiting medical specialists (medical committees)
- Training facility for medical nurses and residents (large centres)
- Facility for regular screening of chronic diseases prevention
- Optionally, provision of first aid medical services
- Links to key components of a local health care system, such as hospitals, community-based medical services, specialised outpatient care, cal centres advice via phone

- Health counseling to improve the health status of the population and prevent chronic non-infectious diseases increase the interest of the population for their own health and prevention (eg. prevention of obesity, heart disease, promoting healthy eating, physical activity, mental health, smoking cessation, and so on.)
- A pharmacy

The social care provided in the IHCCs must distinguish between the services that are obligatory and essential to ensuring the basic care and support to citizens who find themselves in adverse social conditions and have been identified by primary health care, and the optional and specialised social services that will reflect needs, at the regional level, of the communities where these IHCCs will be located. This group will primarily involve outpatient services. The third group of social services are bases for the provision of certain social field services. The development of this group of services in specific IHCCs will also be based on regional needs of individual communities. A majority of social services proposed to be provided in IHCCs are among scarce services in Slovakia.

Programme objectives for IHCCs:

- IHCCs will provide integrated primary health care to patients in a single point;
- IHCCs will to a greater degree focus on diagnostic and treatment of chronic diseases and conditions (lower to medium risk);
- IHCCs will respond to local conditions and create conditions for community workers in the field of health education, the task of ensuring awareness of the usefulness of preventive examinations the doctor and the importance of vaccination. Improving the communication between inhabitants of segregated and isolated Roma settlements and primary care physicians.
- IHCCs will provide accessible, appropriate and affordable health care to their patients;
- Providers' autonomy ensured through an invoice-based payment mechanism collective invoicing - simplified administrative requirements;
- IHCCs will provide advice to increase the interest of the population for their own health and prevention, including through promoting a healthy life style, which could help improve diagnostic and treatment of chronic diseases;
- IHCCs will use effective and efficient information technologies;
- IHCCs should provide a good working environment to attract and encourage a high quality labour;
- Providing rooms for medical workers' training and supporting primary research and clinical trials;
- IHCCs will deliver high-quality health care services through good therapeutic practice and educational base for professional accreditation of general practitioners;

- IHCCs will be financed from insurance funds and co-payments by patients, and/or our other sources of financing (clinical studies, pharmacies);
- IHCCs will play an important role in the education of students, medical trainees and residents.

3.2.1. Obligatory and optional social services provided in IHCCs

IHCCs will serve as points of first contact for citizens who could be at risk of adverse social conditions caused by their worsened health status. To that end and in order to ensure a holistic approach to citizens' health, it is crucial that, in addition to receiving primary health care, they also be given information on appropriate social support, if necessary. Each IHCC will have room to provide the following social services:

- Social counselling (basic and specialised) is designed to provide assistance to
 individuals in adverse social conditions and concentrates on assessing the nature of a
 problem of an individual, family or community, providing basic information on
 possible solutions to the problem, and referring and arranging for further help and
 assistance. Specialised social counselling further focuses on identifying causes, nature
 and scope of problems of an individual, family or community and on the provision of
 professional assistance.
- Social rehabilitation (field and outpatient form) is designed to support autonomy, independence and self-reliance of an individual by developing and learning skills or activating capabilities and reinforcing self-care and life skills, household and personal care skills and social engagement with the maximum possible use of existing resources within a family and community.
- Preventive activities are designed to prevent risky behaviour of an individual, family
 or community and prevent, overcome or resolve risk situations.

All the three aforementioned groups of social services are closely interrelated and may be combined and linked with health care. The holistic and multidisciplinary approach is prerequisite to the quality of the provision of these services, for which IHCCs represent an ideal place.

Optional:

• Early intervention service is a new social service provided to children up to seven years of age if their healthy development is endangered due to a disability, and to their families. This professional service primarily concentrates on stimulating an overall development of children with disabilities, focusing on their support and development in line with their individual needs and needs of their family members, on reinforcing family members' abilities to overcome an adverse social situation and supporting their social inclusion. Given the fact that paediatricians, as well as other

medical specialists, will be available at IHCCs, the centres give room to creating a basic network of early intervention centres.

- A rehabilitation centre within IHCCs is an outpatient service for individuals reliant on the help and assistance from other persons in compliance with the Act on Social Services for the purposes of social rehabilitation.
- **Day centres** is a social service provided to individuals at a retirement age or with severe disability or in bad health, parents with a child or grandparents with grandchildren. Day centres provide social counselling or leisure activities.
- Day-care centres is a social service for individuals reliant on the help and assistance from other persons in compliance with the Act on Social Services for a certain part of a day only. Day care centres provide social counselling, social rehabilitation, meals, work therapy and leisure activities.
- Health monitoring and alarm services is a social service ensuring non-stop remote, ICT-based (voice, SMS, etc.) communication with an individual in bad health by means of a signalling devices or audio-visual device connected to a control centre that will provide the necessary help in response to a signalled alarm.
- Medical devices rental is a social service enabling individuals to rent medical devices
 for an agreed time, usually until they are provided a necessary medical device based
 on a payment from the public health insurance scheme, financial contribution for
 obtaining the device provided in compliance with a separate regulation or from other
 funds, or until the terms of the provision of the device expire.

Base for field social services

A base for field social services represents an administrative and client centre for the provision of certain social services. Field social services bases established in IHCCs will provide citizens with an opportunity to obtain effective comprehensive health and social services in one place. In addition, it will provide sufficient room for cooperation between services provided by agencies for nursing care services at home (ANCSHs) and home nursing care services, transportation services and other social services.

- Crisis intervention field social service
- Home nursing care service
- Transportation service
- Assisted living service

- Monitoring of social and economic needs of groups of population at health and social risks and the Roma (availability of drinking water, hygienic conditions in their communities, etc.)
- Protection of public health (cooperation with primary contact physicians in inoculation of children and adults, preventive check-ups, cooperation in resolving emergency situations - such as epidemics of infectious diseases, etc.)

Availability of individual social services in Slovakia

Social services that will be provided by IHCCs are services provided at a community level which are currently largely scarce. Their provision in IHCCs is likely to expand health and social care delivery at a community level throughout Slovakia, making such services readily available and accessible to the largest possible group of population. The need for community-level social services is also clear from the overview of the number of providers of social services that can be operated in IHCCs., shown in Table 2.

Table 2 - Selected types of social services that can be provided in IHCCs and the number of their providers

		Number of social services providers									
Type of social service	Bratislava	Trnava	Nitra	Trenčín	Žilina	Banská Bystrica	Prešov	Košice	Slovakia		
Social counselling (specialised)	26	5	9	3	8	5	17	24	97		
Social rehabilitation (field)	2	4	1	1	2	1	2	1	14		
Early intervention services	0	0	0	0	0	0	0	0	0		
Rehabilitation centre (outpatient)	16	0	3	1	1	3	6	7	37		
Day centre	43	24	9	14	10	11	41	30	182		
Day care centre	12	11	13	5	9	11	26	16	103		
Health monitoring and alarm	0	1	2	0	2	2	2	3	12		
Medical device rental	16	4	3	7	4	7	9	2	52		
Transportation service	16	5	15	15	11	8	13	9	92		
Home nursing care service	62	96	97	130	207	109	112	146	959		
Assisted living service	0	0	0	0	0	0	0	0	0		
Crisis intervention field social service	0	0	0	0	0	0	0	0	0		

Central registry of social services of the Ministry of Labour, Social Affairs and Family of the Slovak Republic, April 2014.

3.2.2. Pilot part of implementation stage

As already mentioned earlier, the integrated health care model is region-based and does not have to be implemented across all regions at the same time. The reasons include differences in local policy issues in individual regions, a different level of preparedness of self-governing regions and municipalities to carry out structural reforms, different models of ownership of health care providers (in particular hospitals, primary care and specialised outpatient health centre). The Health Ministry has therefore chosen the Trenčín self-governing region (TSR) as a pilot region in order to define, prepare and plan the integrated health care reform. TSR was primarily chosen for the implementation of the pilot project due to the following reasons: the existing regional implementation capacities; TSR represents Slovakia in international project Health Equity 2020; regional acute care hospitals are owned by the regional government; and a consolidated network of outpatient specialists exists in those hospitals.

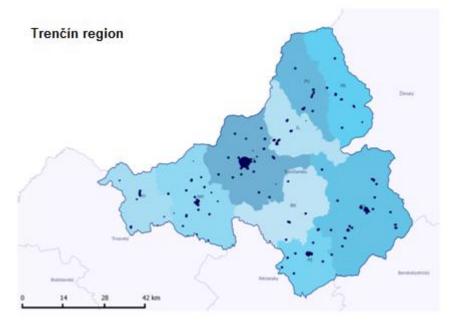
3.2.1.1. Current situation in the Trenčín self-governing region

The Trenčín region was established in accordance with Act of the National Council of the Slovak Republic No. 302/2001 Coll. on self-governance of higher territorial unit on 1 January 2002. With the area of 4,501 km² and the population of **593,159** (Statistical Office, as at 31.12.2012), TSR is Slovakia's second smallest region, following the Trnava region.

Health care services in the Trenčín region are delivered by providers of outpatient and inpatient health care, emergency medical service and pharmaceutical care.

There are **389 general outpatient health care providers** in the region: **256 general practitioners for adults and 133 general practitioners for children and adolescents.** The ageing of general practitioners is a long-term problem in the Trenčín region; the average age of general practitioners for adults is 55.78 years and that of general practitioners for children and adolescents is 57.31 years. Number of full time contracts of general practitioners for adults is **248.23** in **141 contact points**; in the case of paediatricians, it is **124.01** full time contracts in **71 contact points**.

Figure 2: Current distribution of primary outpatient care facilities in the Trenčín region

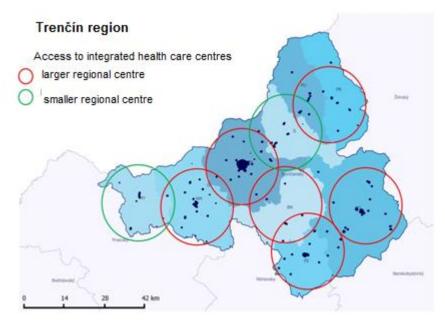


Highly defragmented number of contact points for the provision of primary outpatient health care for adults (dark blue circles), i.e., 248.23 full time contracts of general practitioners for adults correspond to 141 contact points (1.76 full time contract per contact point).

Holistic approach:

Primary outpatient health care centres currently exist in locations with the highest concentration of health care contact points, ignoring geographic and infrastructural impacts on patients' access to health care services.

Figure 3: Preliminary (holistic) distribution of primary outpatient care facilities in the Trenčín region



Realistic approach

Based on a survey carried out in the Trenčín region, the current average distance of a patient from a primary outpatient health care facility is 12.84 km. The proposed solution should not increase this distance; quite to the contrary, the accessibility of health care should improve, including through an added value of integrated centres providing patients with access to comprehensive and quality medical services in one place (thus reducing the number of patients' visits to higher specialised medical facilities in larger towns).

Criteria of geographic location centers:

The basic criterion was current concentrations of primary care physicians as well as patients road access to the city public transport (buses, trains, public transport), so that the patient does not permeate more than 1x (not always so in the current state!). Current of village ambulance, where prescribed by a doctor 1, a maximum of two days per week were analyzed, as they could be transformed into centers and providers implement the dentist 1-2 times a week in the village-original equipment. All existing contact points that do not meet the aforementioned criteria will remain unchanged, that is, they cannot be transformed into new IHCCs. The analysis has shown they account for 27% of all contact points throughout Slovakia. All centers must meet the conditions for the disadvantaged, for example barrier-free access, parking areas for disabled.

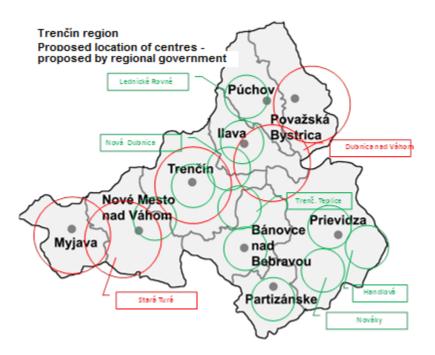
Table 3: Current situation with respect to general practitioners for adults:

		,		С	ther conta	act points
	Main contact point (0	Number of full	(current situation)			
			time contracts per contact point	Number	full time	full time
District	Municipality	Address	(current situation)	of CPs	contracts	contract/CP
Bánovce nad Bebravou	Bánovce nad Bebravou	Hviezdoslavova	10	5		
Ilava	Dubnica nad Váhom	Pod Hájom	7,2	5	5,9	1,180
Ilava	Ilava	Ľ. Štúra	3	2	3,1	1,550
Ilava	Nová Dubnica	Gagarinova	4			
Myjava	Myjava	Staromyjavská	6,5	4	3,5	0,875
Nové Mesto nad Váhom	Nové Mesto nad Váhom	rôzne		26	24,25	0,933
Nové Mesto nad Váhom	Stará Turá	Mýtna	5			
Partizánske	Partizánske	Nitrianska	4	10	14,8	1,480
Považská Bystrica	Považská Bystrica	Nemocničná	11	7	12	1,714
Prievidza	Handlová	SNP	5	2	3	1,500
Prievidza	Nováky	Matice Slovenske	3	3	5	1,667
Prievidza	Prievidza	Nábrežná	14,8	28	31,25	1,116
Púchov	Púchov	Pod Lachovcom	7	6	11	1,833
Trenčín	Trenčín	Zlatovská	4			
Trenčín	Trenčín	Legionárska	4,06	27	32,67	1,210
	Trenčianska Teplá, Turná, Jastrabie,	¥				
Trenčín	Stankovce	Štvrť SNP	9			

Working meetings with Trnava region officials were held afterwards to consult and specify locations where new IHCCs should be established, using the following criteria:

- regional accessibility;
- existing concentration of primary outpatient health care providers;
- requirements defined by municipalities;
- reconstruction of existing facilities preferred over the construction of new ones;
- existing ownership relations.

Figure 4: Preliminary distribution of primary outpatient care facilities in the Trenčín region



3.3. Hospital sector reform

A hospital sector reform in Slovakia will be based on experience with similar reforms in other European countries. The reform to be carried out in the Trenčín region will also follow this principle. The region has now 8 acute hospitals with a significant number of duplicate services provided under main medical specialisations. Bed occupancy rates in hospitals vary, resulting in ineffective use of resources, both financial and labour. We suggest reducing the total number of acute hospitals by four, thus making the streamlining of specialised departments fairer. Accessible and clinically efficient scope of services throughout the region. A target set under the strategy is to have 2.5 acute beds per 1,000 population by 2030. The target is in line with the current practices in top European countries as well as with future WHO recommendations. The hospital sector reform in the Trenčín region may even reduce the number of acute beds to as little as 2.37 beds per 1,000 population. This target can only be achieved by setting new performance parameters, for example, an average occupancy rate will be at 85% (usual and achievable standard reference value throughout Europe), an optimum number of beds, as well as length of patients' hospitalisation. Changes and improvements in hospitals' performance parameters will follow principles and good practice from other European countries (e.g., the Netherlands, Sweden, Northern Ireland). They will mainly include an average length of stay in hospital and waiting times for medical interventions, regularly applied in various health systems. Experience from the construction project for a new teaching hospital in Bratislava, the project is at a feasibility study stage now, will also be an important source of information for the planning of the hospital sector reform in Slovakia.

3.3.1. Master Plan

- To identify current and future demand for hospital services (based on epidemiological parameters and trends, including demographic effects of population ageing, current needs, and analyses of deficient and duplicate medical services).
- To ensure that future planning also takes into account a growing occurrence of comorbidities - caused by population ageing. This also calls for development of new forms of treatment, such community-based care at home, and/or rehabilitation facilities (chronic beds).
- To make sure that the planning takes into consideration geographical (time of travel) and urbanistic (rural/urban area) factors.
- To assess the conditions of the existing hospital infrastructure in order to identify hospitals that:
 - are viable, in good operating and economic conditions, well positioned and suitable for adaptation (extending the scope of basic acute services);

- o are suitable, but badly positioned for acute clinical services, but suitable for alternative services, for example, rehabilitation, community hospitals providing a lower intensity care, medical centres, etc.;
- are in bad economic and operating conditions (not suitable for adaptation) to be used for health care purposes in the future and should be disposed of;
- To prepare the Master Plan on the basis of the aforementioned analysis.
- The plan will also provide a template which should contain:
 - minimum standards (treatment) for each specialisation (based on extensive clinical evidence from the EU) necessary in order to provide safe and highquality services to patients - this will also help to identify suitable hospitals and/or establish regional centres of excellence;
 - development of integrated health care using the centres of primary outpatient health care;
 - introduction of model performance standards for clinical services based on good practices across the EU;
 - introduction of operating performance standards (non-clinical services) similar benchmarking across the EU;
- To create a plan to ensure integrated hospital and primary care in order to ensure:
 - coordinated allocation of resources to restore the balance in services from hospitals towards the primary care;
 - gradual reduction in the number of acute beds proportionately to the expansion of primary care and local (community) types of hospitals;
 - implementation of integrated health care models in the process of change management;
 - o an investment plan to support changes in the Master Plan;
 - training and requalification courses for clinical staff, nurses and health professionals to implement changes and effectively participate in a new system of health care.

These are complex, but necessary strategies to change the system.

Arguments to support the implementation of the Master Plan:

The following steps were developed to fulfil the Master Plan:

The Master Plan has been developed at the Aalto University (Finland) to address a
regional health care system reform ("Vision for a Service System of the Near Future",
financed from EU structural funds) and chosen by the DG Regio as a good practice
example, a so-called "Kymenlaakso strategy" - cooperation of Finnish regions in the
health system reform.

- The epidemiological and demographic assessment of the system has been adopted from Northern Ireland where it was used in a primary health care reform.
- The clinical modelling strategy approach has been adopted from the Netherlands and the UK (NHS) to implement a reform in the acute hospital care.
- Ensuring broad benchmarking of top EU hospitals in developing clinical and nonclinical good practice standards.
- Access to a model and system analysis template used in Sicily to change the entire diagnostic system - the strategy was financed from an EU regional development fund - chosen by the DG Regio as a good practice example for investment in clinical technologies.
- Evaluation criteria developed by "Multi-consult" (Norway) for the hospital sector (note: in Norway, all public buildings, including hospitals, are required by law to be approved prior to their construction).
- Available training and educational programmes for clinical staff (and medical nurses) developed by the Centre for Clinical Management Development (Durham University, UK).
- Access to recommendations from a recent Euro-Summit (organised by the Nuffield Trust, UK) focused on the "future organisation of hospital services", January 2014.

Expectations from the hospital sector reform

- more sustainable, accessible and cost-effective services resulting from cuts in the number of beds (to a large degree driven by improvements in primary care services); avoidance of unnecessary duplication of services, improved utilisation of specialised labour;
- improved quality of services resulting from a tiered system of health care provision
 with clearly defined tasks at each level and with a larger portion of medical services
 delivered at the regional level, taking into account the future effect of population
 ageing;
- improved clinical outputs driven by enhanced focus on particular specialisation, e.g., more time available to treat complicated cases, increased productivity with respect to regular cases, local management of elderly patients with comorbidity, etc.;
- improved training, research and development facilities for all levels and types of services;
- better working environment which contributes to improved labour force recruitment and retention;
- elimination of high maintenance/operating costs of the existing hospital infrastructure through removal and liquidation of uneconomical facilities.

These changes require investments in the following areas:

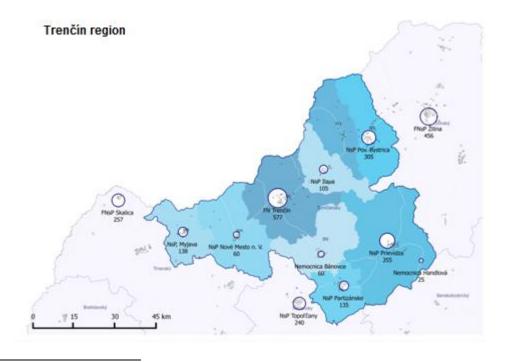
- reconstruction and enlargement surgery rooms, intensive care units, imaging technology, etc.;
- implementation of an integrated care system;
- information system to facilitate the process transformation (patient's way through the health care system);
- training and education for medical staff.

The analysis has shown that Slovakia needs a maximum of 26-30¹⁷ acute health care providers. The provision of health care will fully be ensured, while opportunities will be created for savings resulting from increased cost-effectiveness.

3.3.2. Pilot project in the Trenčín self-governing region

Acute inpatient health care is provided by eight general hospitals and two specialised hospitals, with an overall capacity of 1,885 acute care beds. Three hospitals, in Trenčín, Nové Mesto nad Váhom and Ilava, are controlled by the Ministry of Health of the Slovak Republic, two hospitals are privately owned (Bánovce hospital and Handlová hospital), while three hospitals are controlled by the Trenčín regional government, in Bojnice, Považská Bystrica a Myjava. They are contribution-funded organisations with separate legal personality.





¹⁷ In the case of the Bratislava region, the function of an acute health care provider should be performed by the University Hospital.

Based on an analysis of financial performance of health care facilities, cost/benefit assessment of facilities, strategic and operative policies, analysis of inputs and key assets, and physical accessibility defined using a geographic information system, all acute care services in the region can be provided in four facilities (see figure below).

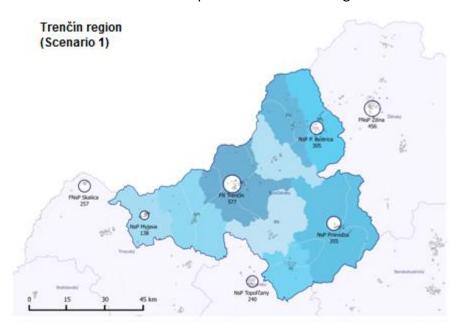
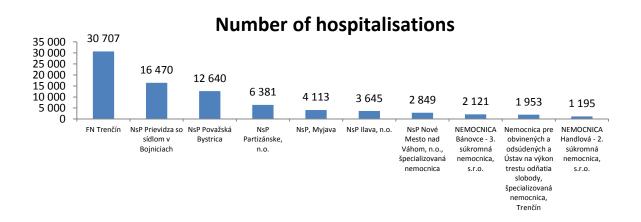
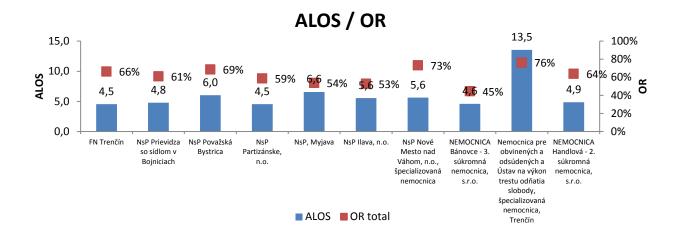


Figure 6: New structure of acute care hospitals in the Trenčín region

In 2013, these hospitals reported a total of **82,074 hospitalisations**, with the highest share of acute hospitalisations reported by the Trenčín teaching hospital (30,707).





The average length of stay (ALOS) was **5.2 days**, varying among individual hospitals in the range between 4.5 and 13.5 days (the latter figure, however, is for a specialised hospital in Trenčín). **Weighted occupancy rate** (OR) of acute beds is **64%**.

3.4. Integrated health care system leads to reform of the entire system

The new strategy for integrated health care will considerably change the current balance and dynamics of the health care system. The new system will concentrate on where needed most - and, above all, will be closer to patients. The system will be more flexible and will better respond to the changing demand for health care services, for example, with respect to the needs of the aging population, as well as progress made in diagnostics and treatment. The existing hospital-centred health care system with obsolete facilities and services is unable to effectively deliver aforementioned results. The number of hospitals (beds) unnecessarily increased in the past in Slovakia, resulting in the following deficiencies when compared to other countries:

- identical services (duplicities) provided by hospitals in an immediate geographical proximity;
- unnecessary competition for scarce labour;
- risk of deterioration in the quality of health care due to the lack of evidence-based medicine;
- unnecessary, artificially-induced competition for patients;
- funds available to hospitals are very little and ineffectively used in the hospital sector to maintain necessary investments into new clinical technologies and modern infrastructure;
- due to the combination of the aforementioned facts, many hospitals have considerable financial deficits.

4. Measures

The supported activities will include activities focused on reform and innovative development and modernisation of medical infrastructure in order to improve the availability of quality health care and increase labour productivity. Activities will directly contribute to the process of transforming the current hospital-oriented healthcare provision system into an integrated model, i.e., shifting the focus from inpatient care to community-based outpatient primary care and after care that is client-oriented and creates functional links between the existing services.

The primary health care will be supported through development of the integrated health care centre infrastructure. The centres will serve as the basic pillar of health care and will be adapted to the current and future needs and trends, such as higher prevalence of chronic diseases, decrease in the number of hospitalisations, as well as population ageing.

In determining the geographical distribution and the number of integrated health care centres, an analysis of the current state of play in the fragmented primary outpatient health care in all regions of Slovakia and the geographical distribution of the primary outpatient health care facilities in the individual regions have been taken into account. The fixed network will include two types of integrated health care centres – bigger centres with a capacity of 20-25 physicians and smaller regional centres with a capacity of 12-15 physicians. The larger centres will be allocated in regions with a population of more than 50,000 within the radius of 25 km and small centres will be set up in regions with a population of 20,000 within the radius of 10-15 km. The results of the analysis carried out by the Health Ministry will be consulted with regional governments and their preferences will accepted. Each planned contact point of the fixed network will be subject to an assessment as to whether the respective location has the appropriate infrastructure which could be rebuilt, through reconstruction, into an integrated health care centre or whether it would more practicable to build new infrastructure. This is also due to the capacities of medical positions which could be preserved in newly created infrastructure.

Every centre will provide the services of a general practitioner for adults, general practitioner for children and adolescents, gynaecologist and, optionally, a dentist; the premises for medical consultations with outpatient specialists will be available as well. All facilities will be equipped with modern IT infrastructure enabling simpler patient management and reducing unnecessary paperwork for physicians (who will in turn have more time for their patients). Every facility will have at its disposal shared diagnostic equipment (ECG, X-ray, ultrasound medical devices, analysers for fast blood and urine tests, etc.). To address the rare cases of worsened accessibility (geographical setting, poor transport infrastructure), patient transport services is available for older and immobile patients, and the activities of home nursing care will be reinforced through the centres. A completed centre will be granted the authorisation to provide integrated outpatient health

care if its staff capacity is filled to 50% at the least. The integrated health care centres will provide services covered by public health insurance or other public sources.

For the purposes of modernising the infrastructure of acute care hospitals in order to improve their productivity support will only be provided to an optimised network of acute care general hospitals – providers of acute inpatient care in Slovakia. The optimised network will be consulted with all self-governing regions. As regards the geographical distribution and the number of acute care general hospitals within the streamlined network, the optimal geographical distribution of acute inpatient care in the individual regions will be taken into account while respecting the optimal catchment area coverage. The supported acute care hospitals will be providing services covered by public health insurance. A demonstrable and quantifiable increase in the productivity of a health care facility will represent an important condition for investments in the infrastructure of the existing acute care general hospitals within the optimised network. For this purpose, every applicant will be required to prepare a health care facility transformation plan with a predefined structure.

4.1. Implementation requirements

Develop the analysis of the current state of fragmented primary outpatient care and geographic distribution of primary outpatient care in different regions, while maintaining physical access and improvement of quality health care.

4.1.1. (Re)construction activities

The analysis has confirmed that as much as 46% of centres can be built by reconstructing the existing facilities (structural changes, infrastructure) and 54% of centres must be built anew. All facilities will be equipped with modern IT infrastructure enabling simpler patient management and reducing unnecessary paperwork for physicians (who will in turn have more time for their patients).

4.1.2. Measures and the method of their implementation

- Pilot feasibility study analysis of the current situation in the provision of primary outpatient health care in individual higher territorial units (regions) **January 2014**.
- Development of an exact plan and geographical distribution of centres throughout Slovakia (large - urban centres and smaller centres - use of the existing, welldeveloped local centres - ownership relation analysis) - March-May 2014

- Communication with all affected regions and submission of proposals by the Health Ministry - May 2014
- Feedback from the regions on the location of IHCCs and acute hospitals June 2014
- Legal analysis of ownership and ownership relations for planned centres in existing premises - June/July 2014
- Need analysis
- Legal analysis of employment contracts of health care providers in the centres (selfemployed, limited liability company, etc.) - June/July 2014
- Current conditions analysis the use of centres in their current conditions and upgrading them integrated centres, and/or building new centres from scratch -June/July 2014
- Communication and presentation of the proposals to establish IHCCs and locate acute care hospitals with all the stakeholders concerned:
 - self-governing regions (regional governments) May-September 2014
 - local authorities (ZMOS) September/October 2014
 - health insurance companies August/September 2014
 - associations and chambers of health care providers September/October
 2014
 - patients' associations September/October 2014
- Preparation of the content requirements for a large and small HCC –
 October/November 2014
- Preparation of a standard project for a large and small centre December 2014
 - large centre approx. 25 doctor's offices, reception desk, waiting rooms,
 WCs, preparatory room, storeroom, servicing rooms floor area of approximately 1,500 m²
 - small centre approx. 10 doctor's offices, reception desk, waiting rooms,
 WCs, preparatory room, storeroom, servicing rooms floor area of approximately 600 m²
- Summary overview and preparation of legislative changes September/October
 2014 (a new type of provider, fixed minimum IHCC network, payment mechanisms, i.e., capitation vs pay-for-performance, or +P4P, etc.)
- Plan of network of acute hospitals 1H2015
- Transformation plans for hospitals **2H2015**
- Preparation of legislative changes laws and regulations (decrees) with effect from
 1 January 2016
- Establishment of non-profit organisations Health Ministry, self-governing regions, municipalities **1H2015**

- Land-use and construction permit procedures depending in the actual progress in the preparation of individual IHCC
- Public tenders for construction works 1H2015

Beneficiaries:

For the activity "Building the infrastructure of integrated health care centres":

- non-profit organisations ¹⁸ established by the Ministry of Health of the Slovak Republic in cooperation with self-governing regions and municipalities as owners or long leaseholders of the plots of land (when building new infrastructure) or as owners or long leaseholders of the existing health care facility infrastructure (when modernising the existing infrastructure).

For the activity "Modernising the infrastructure of acute care hospitals in order to improve their productivity":

- general hospitals¹⁹ – only as part of the streamlined network of acute inpatient care providers.

Target groups:

- the Slovak population.

Target territory:

- the entire territory of the Slovak Republic, with the exception of the Bratislava region.

In order to effectively ensure the highest possible contribution of operations/projects to the accomplishment of the specific objective and the defined results, the proposed operations/projects should respect the following principles:

- The project must be in line with the Strategic Framework for Health for 2014 2030 and its relevant partial strategies/tools for transformation;
- The project must reflect regional specificities (geography, transport accessibility, demography, epidemiology, ...) and integration trends;
- In terms of cost-effectiveness, the project of setting up an integrated health care centre by constructing new infrastructure or modernising the existing infrastructure must be the most suitable construction solution in the given locality;
- The infrastructure modernisation project for acute care hospitals must demonstrably improve labour productivity of the supported health care facility;

¹⁸ Pursuant to Act No 213/1997 Coll. of 2 July 1997 on non-profit organisations providing services of general interest.

¹⁹ Pursuant to §7(4)(a)(1) of Act No. 578/2004 Coll. of 21 October 2004 on healthcare providers, health workers and professional organisations in the health sector and on amendments to certain acts.

- The constructed/reconstructed premises which received support must be fully barrier-free in accordance with the principles of universal design;
- The project will be subject to performance-based subsidy if, during the reconstruction/construction of buildings or parts of buildings, the thermal-technical properties will comply with parameters which go beyond the currently required energy performance level pursuant to STN 73 0540-2: 2012 standard;
- The project will be subject to performance-based subsidy if, during the reconstruction/construction of buildings or parts of buildings, measures will be taken to minimise the impact of the built-up area on local climatic conditions (water retention, overheating of the ambient environment, etc.) for instance, in the form of green facades and roofs;
- With respect to the reconstruction/construction of buildings, the project must comply with the requirements specifying the hygiene parameters for the interior of buildings (air flow, the use of daylight and the quality of artificial lighting, as well as acoustic parameters of the building).

Cost-effectiveness:

The aim of the entire project (IHCCs and the restructuring of acute care hospitals) is to improve cost-effectiveness, to be measured by means of HTA^{20,21} and adjusted to meet the needs of individual regions.

The analysis will consist of the following steps:

- 1) Initial identification
 - a. size of population
 - b. aim to be achieved
 - c. stakeholders analysis
 - d. resources analysis
 - e. risk analysis
- 2) Identification of health priorities
 - a. population profile
 - b. data collection
 - c. needs analysis
 - d. identification and health assessment
- 3) Assessment of health priorities
 - a. selection of health conditions and decisive factors with the greatest impact
 - b. determining an effective and acceptable intervention for change
- 4) Change planning

a. clarifying the aims of the intervention

b. action planning

²⁰ Sibbald et al. BMC Health Services Research 2013, 13:209, http://www.biomedcentral.com/1472-6963/13/209

²¹ Sue Cavanagh and Keith Chadwick: Health needs assessment, 2005. NICE UK, <u>www.nice.org.uk</u>

- c. strategy monitoring and evaluation
- d. risk minimisation strategy
- 5) Evaluation
 - a. lessons learned
 - b. measuring of effect

Summary of key expected results:

- increasing the number of first-contact doctors per contact point;
- reducing the average number of doctors' consultations (per patient);
- improved access to high-quality primary outpatient health care;
- increased acute bed occupancy rate;
- shortened length of stay in hospital;
- reduced number of acute bed hospitals;
- increased number of acute care interventions in the remaining acute care hospitals.

4.2. Risks that may lead to a failure in the reform towards integrated primary and hospital health care

Timely communication with all groups of stakeholders and their support for changes are crucial to successful implementation of the proposed reformed measures.

Equally important is to learn from past failures in health system reforms in other European countries and to avoid possible risks.

- Even if improved primary health care contributes to decreasing the overall bed capacity in the hospital sector to the desired level, it may ultimately lead to functional or economic chaos in hospitals.
- Most hospitals are already under strong financial pressures; a loss of cash flows resulting from the transfer of patients to the primary care may create further financial turmoil since the hospitals have now high overhead costs.
- Many hospitals will continue trying to treat "inappropriate patients" (e.g., chronic diseases) in order to preserve their "cash flow", thus putting at risk the primary care strategy.
- If the planed hospital sector reform is unsuccessful, it will not be possible to reduce costs in order to obtain extra funds to finance improvements in the primary health care.
- Under the efficient primary care, patients will get appropriate treatment in the right place and right time - therefore, it is necessary to ensure appropriately structured and tiered hospital services to support the achievement of this objective (specialised outpatient care, chronic and acute hospital beds).

- If no steps are taken to set up local community hospitals, a lot of primary contact
 physicians will be overburdened by patients who cannot be placed in a relevant local
 medical facility, e.g. by senior citizens with comorbidities. These patients might be
 transferred to specialised hospitals, thus blocking beds for patients with acute
 conditions.
- Primary care physicians and hospital staff need be trained and informed about a new hospital network structure - it may also involve provision of the primary care (specialised medical consultations) in local community hospital and further integration in the provision of health care.

4.2.1. Potential drawbacks and their solutions

1. Worsened accessibility - distance

Solution:

- i. Increased ANCSHs' activity managed by centres especially with respect to older (immobile) patients
- ii. Ensuring shuttle transport services directly from the centres
- iii. Facilities in certain remote locations (taking into account Slovakia's geography and available infrastructure) will be preserved in their current form (approx. 27%)
- 2. Insufficient motivation to move to centres

Solution:

- i. Possibility to contract a facility at a preparatory stage already
- ii. More than 90% medical practitioners have currently offices in rented premises (a TN survey)
- iii. Attractive job opportunities for newly trained residents

4.3. Drivers for the transition towards a centralised primary care model

- 1) Meeting the inclusive criteria of the project geographical distribution, personnel and technology capacities.
- 2) Financial incentives
 - development of modern centres equipped with technology and personnel capacities, administrative support, education capacities;
 - better payment mechanism for centres capitation + pay for some services that do not require specialised outpatient care treatment (chronic diseases -HT, IHD, DM, etc.) + prevention;
 - reduced administrative burden;
 - o improved patient management call centre, counselling;

o better conditions to attract and retain young medical practitioners in the primary health care (example: a LIFT programme implemented in UK).

4.4. Monitoring

In order to ensure effective spending of funds and to comply with the timetable for the entire implementation process, a "Steering committee to oversee the fulfilment of tasks under implementation strategies, programmes and project" was set up and its statutes published in the Official Journal of the Ministry of Health of the Slovak Republic on 4 April 2014²².

The committee will primarily

- a) monitor the implementation of implementing strategies under the Strategic Framework for Health for 2014–2030;
- b) monitor the implementation of implementation programmes and projects under implementation strategies.

The key activities to be performed by the committee include in particular:

- a) assigning tasks related to development and review of implementation strategies;
- b) approving proposals and changes in implementation strategies;
- a) assigning tasks related to development and review of programmes and projects under implementation strategies;
- d) approving proposals and changes in project charters;
- d) approving proposals and changes in programme and project plans;
- d) approving programme and project implementation progress reports;
- g) monitoring fulfilment of implementation strategies, programmes and projects.

4.5. Cost estimate for implementation of IHCCs and acute hospital reform

Costs of developing IHCCs:

1. Non-repayable financial contribution from EU funds: €150.138 million

2. national co-financing: 5%

	Number	area (m²)	costs/m ² (EUR)	costs/IHCCs (EUR)
Large IHCCs	57	1,500	1,200	102,600,000
Small IHCCs	77	600	1,200	55,440,000
Total costs				158,040,000

²² Official Journal of the Ministry of Health of the Slovak Republic, Issue 21-22, 14 April 2014, Volume 62, pg. 122-124

Detailed cost of building IHCCs will be developed after the pilot phase.

The pilot phase of the project

In 2015 will be made the pilot phase of the project, build three IHCCs (1 large - urban center, 1 small center and 1 center in the region with marginalized Roma communities). Based on these pilot studies will be elaborated in more detail the cost of construction / reconstruction IHCCs.

Costs of restructuring acute care hospitals:

Based on the document entitled *Information on investments in acute health care beds in Slovakia and proposal for construction of a new hospital in Bratislava*, approved under a government resolution in July 2013²³, modernisation of the hospital sector requires a total investment of EUR3.94 billion over a period of 35 years (a life span of a single hospital), which makes approximately EUR113 million a year. The Health Ministry seeks to achieve this objective using three main sources of funding (as shown in the table below) - state budget, public and private sector funds (PPPs) and structural funds of the European Union. These efforts are also evidenced by the fact that the Slovak government has approved additional EUR 30 million for 2014 to be invested in the acute care hospital sector.

									Average
million EUR	2014	2015	2016	2017	2018	2019	2020	Sum	per year
State budget	30	40	50	60	60	60	60	360	51
PPPs			120	130				250	36
EU structural funds (including national co- financing from the state budget)		30	30	30	30	30	30	180	26
Total	30	70	200	220	90	90	90	790	113

EU funds will only be invested in ten acute care hospitals - university and teaching hospitals so that in this way was supported by at least one hospital in each autonomous region - in the total amount of €150.38 million (€176.9 million in the form non-repayable financial contribution). Investments in the remaining 16 hospitals will come from the following sources:

- construction of a new Bratislava university hospital €250 million in the form of PPP
- rest of hospitals will be financed from the state budget, in the total amount of €300 million

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²³ http://www.rokovania.sk/Rokovanie.aspx/BodRokovaniaDetail?idMaterial=22607