

Country report Slovenia – June 2015



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Prepared for the EACPR "Country of the Month" initiative

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Short Summary

Slovenia is a central European country, a democratic parliamentary republic and a member of the European Union and North Atlantic Treaty Organization. It has a population of 2.03 million (2008), approximately half of whom live in urban areas. Since regaining independence in 1991, the political environment is stable enough and various economic and social sector reforms have been implemented which aim to further ensure stability.

I. Structure of Health care in Slovenia

The health system in Slovenia resides under the Ministry of Health. It includes various agencies such as the Health Inspectorate, public independent bodies such as the Health Insurance Institute of Slovenia (HIIS), National Institute of Public Health of the Republic of Slovenia (NIPH-RS), publicly owned hospitals and primary health care centres, private providers of health services and various nongovernmental organisations (NGOs)

There are 29 hospitals in Slovenia, which are almost all publicly owned and have largely been refurbished since the late 1970s. The overall number of hospital beds has decreased by approximately 33%; from 695 per 100 000 population in 1980 to 466 per 100 000 in 2007. A reduction in the average length of stay is reported: from 10.4 days in 1995 to 6.8 days in 2007.

The Slovene health care system is built around countrywide family medicine-centred primary care with specially trained doctors and nurses who are mainly employed in publicly owned primary care facilities. By the end of 2004 there were 64 primary health care centres and 69 primary health stations evenly distributed across the country: a primary health care facility is accessible within a distance of 20 km from almost all locations in Slovenia. The country has a significantly smaller number of physicians per capita than most EU and central and eastern European (CEE) countries.

Specialised outpatient services at the secondary care level are provided by hospitals (or polyclinics), spas and private facilities, while 75% of specialist services are provided by hospitals either as inpatient or outpatient care. Access to secondary care requires referral

by the patient's personal physician. Cooperation between services at different levels leaves much to be desired and is mainly limited to referrals and exchange of test results.

Medical training for doctors is provided by the Medical Faculties in Ljubljana and Maribor. Basic education leading to a university degree of medical doctors takes six years, followed by an obligatory 6-month internship. The main challenges are to adjust the number of qualified professionals in the health care sector to be able to manage future workforce demands.

Public health activities are mainly designed, implemented and monitored by the NIPH-RS and its nine regional institutes. Health promotion as a standard function of the public health institutes was introduced gradually throughout the 1990s and institutionalised only recently by the health reform of 2003, which redefined and strengthened the role of public health. In recent years, screening programmes were introduced for early detection of cervical cancer (2001), along with risk factors for cardiovascular diseases (2002), breast cancer (2008) and colon cancer (2008).

Finances

Since 1992 Slovenia has a national social insurance system, based on a single insurer for statutory health insurance, which is fully regulated by national legislation and administered by the HIIS. Health care expenditure of the HIIS represented 67.1% of total health expenditure and 92.9% of public health expenditure in 2006. VHI premiums and household out-of-pocket (OOP) spending represent private sources of funds and accounted for approximately 28% of the total health care funding. Primary health care services within the public health care network are paid for through a combination of capitation and fee-for-service payments, while outpatient specialised care is paid for by fee-for-service payments only.

II. Risk factor statistics

Cardiovascular diseases (CVD) remain the most common causes of illness and death in Slovenia. In the early nineties, the results of a research conducted by the National Institute of Public Health (NIPH) revealed that on average, 5.9% of the adult population above the age of 19 years, 4.5% of the 35-64 age group and 23.7% of the population above 65 years of age had a manifest form of the disease (heart attack, stroke, angina or peripheral arterial disease [PAD]). Similar results were obtained in 2001. The Slovenes were not sufficiently physically active, many had excessive body weight (more than 50% of the adult population), and on the average, they consumed food of excessive energy value, contained too much saturated animal fat (40% more than the prescribed amounts), too much salt and too much alcohol. With respect to the recognised nutritional recommendations they were far from consuming enough fruits and vegetables, and especially fibers. All these led to a high prevalence of so-called major biological CVD risk factors: over 40% of the adult population were found to have markedly increased blood pressure (> 140/90 mmHg), in 50% inappropriately high fasting glucose was measured and more than 60% suffer from some form of abnormality of the blood lipid profile.

Table 1. Prevalence of Lifestyle and Biological Risk Factors in Slovenia, overall, and separately for men and women (in %). Data from the Registry of Individuals at High CVD Risk (operating in support of the Nationwide Programme on Primary CVD Prevention), n=416.490, men=214.331 (51.5%), women 202.159 (age groups: men 35-65, women 45-70), if not indicated differently. Most of the data presented were collected in the period 2002-2012.

<i>Risk Factor</i>	<i>overall</i>	<i>men</i>	<i>women</i>
Smoking	24.3	29.2	19.2
Overweight	71.0	76.6	65.2
Obesity	27.2	26.7	27.8
*Nutrition – adults, 25-64 y.of age (2012)			
- consumption of fruits – at least 1 unit, 1x every day	53.4	41.7	65.3
- consumption of vegetables – at least 1 unit, 1x every day	39.1	30.9	47.4
Physical inactivity (<= 1x/week 30 min)	43.6	42.1	45.1
**Salt intake (g/day) (2007)	12.4	14.3	11
Risky alcohol consumption	7.4	12.2	3.2
Hypercholesterolemia (total cholesterol >5.0 mM)	66.2	63.2	69.2
High blood pressure (RR > 140/90 mmHg)	32.5	33	32.1
High fasting glucose (>6.0 mM)	19.1	22.1	16.0
High absol.coronary risk (>20% in 10 years – assessed by FRS)	21.5	27.7	18.8
***Children overweight / obesity, 7-18 years of age (2011)		boys	girls
- overweight		19.9	17.2
- obesity		7.5	5.5

Sources:

* http://www.cindi-slovenija.net/images/stories/cindi/trgovina/izzivi_desetletje_cindi_14.pdf (in Slovene only)

**http://www.mz.gov.si/fileadmin/mz.gov.si/pageuploads/mz_dokumenti/delovna_podrocja/javno_zdravje/petric/Nacio_akcijski_nacrt_za_zmanj_uziv_soli_v_prehrani_preb_Slo_2010-2010.pdf (in Slovene only)

*** http://www.drustvo-antropologov.si/AN/PDF/2012_1/Anthropological_Notebooks_XVIII_1_Kovac.pdf

Table 2. Cardiovascular mortality indicators in Slovenia – standardised death rates (SDR), by gender (2013).

<i>Indicator</i>	<i>overall</i>	<i>men</i>	<i>women</i>
SDR – circulatory diseases	208.94	256.41	171.69
SDR – circulatory diseases. 0-64 years of age	29.14	45.46	12.57
SDR - ischemic heart disease (2013)	58.95	90.49	35.82
SDR - ischemic heart disease, 0-64 years of age	14.61	25.03	4.05
SDR – stroke	52.36	61.23	45.22
SDR – stroke, 0-64 years of age	6.23	8.61	3.82
Relative share of mortality due to CVD	38.8	32.0	45.5

Source: National Institute of Public Health of the Republic of Slovenia, <http://www.nijz.si> (in Slovene only)

This significant public health problem being the cause of high cardiovascular mortality and morbidity called for the creation and development of a programme aiming to improve the situation. A decision was made to design a strategic model of the population approach to tackling and reducing the spread and manifestation of the behavioural risk factors. The model was supposed to include the application of the methods for organisational partnership, the provision of health care services and the appropriate legislation/policies in various social circumstances, such as at the place of work, in schools, health institutions or wider social groups, as well as of education, monitoring, and quality management.

III. Main actors and Prevention methods

Health promotion is an area in which several institutions are involved. There is a national coordinator for health promotion, responsible for health promotion at the national level. As of 2009 there are several initiatives, most notably those by the Ministry of Health and the NIPH-RS, intended to strengthen this field. A special department was established at the NIPH-RS and an extensive survey coordinated by the Ministry of Health to obtain improved data on the prevalence of chronic diseases and lifestyles, in order to allow for more appropriate input into the planning of health promotion over the following years. Unfortunately, due to the overall economic crisis and lack of resources in all public sectors this has not been performed yet.

Health promotion and education programmes are also implemented at the primary health care level by nurses and other health care professionals working in health care centres. Programmes that have been established since the 1990s in cooperation with WHO – such as the Countrywide Integrated Non-communicable Disease Intervention (CINDI) Programme and the Healthy Schools project – have become nationwide initiatives, although they operate at the level of local communities, cities and schools.

In 2001, the Ministry of Health started the development of the National Programme for Primary Prevention of Cardiovascular Diseases, which is still implemented as being one of the core activities at the Primary Health Care level until then. In the period from 2003 – 2007 the modernised National Nutrition Policy and the Strategy for Health Enhancing Physical Activity were developed and adopted at the level of the national governmental resolution. Both documents are intended for the entire Slovenian society with specified standpoints and strategic recommendations for various social environments and groups. These policies are in no way restricted solely to the government, its institutions and the public sector as such, but offer and guide, through their provisions, good examples to the private sector as well.

Partnership: strong coalitions are of vital importance to ensure a success in efforts to deal with CVD prevention. This mission has been recognised and a **Slovenian Forum on CVD Prevention** was founded in 2000. Within its common framework and under the auspices of the Slovenian Society of Cardiology, numerous public institutions, organisations, scientific and patients' societies joined their forces, namely: the Working Group on CVD Prevention and Rehabilitation of the Slovenian Society of Cardiology, Societies of Angiology, Neurology, Hypertension, and Endocrinology of the Slovene Medical Society; the Ministry of Health of the Republic of Slovenia and its Directorate for Prevention; the National Institute of Public Health; Project for the Prevention of Chronic Non-communicable Diseases – CINDI Slovenia; Slovenian Heart Foundation, as well as the patients' organisations - the National Union of Coronary Clubs and Societies of Slovenia, Association of Patients after Heart Surgery, and the Slovenian Union of Diabetics Societies.

IV. Main Prevention activities

Activities at population level. In the period 2002-2004, important health promotion projects were implemented in nine Slovenian health regions. These projects were conducted and coordinated at the national level under the common framework titled "Living Healthy". Their initial results were quite encouraging, involving high numbers of participants. These projects have, in various regions of the country, encompassed over 25,000 Slovenian citizens.

Among the campaigns on health protection and promotion the following activities can be mentioned:

- Project "MURA – Investment in Health and Development in Pomurje region", which was initiated and supported by the MoH of the Republic of Slovenia. The main aim of the project was to achieve the understanding of health as a development capital of a particular (less developed) region and to set up a quicker and better growth as a basis of better public health.
References:
http://ec.europa.eu/health/ph_determinants/socio_economics/documents/slovenia_rd01_en.pdf
<http://www.federsanita.anci.fvg.it/convegni/la-salute-in-tutte-le-politiche/relazioni/buzeti.pdf> (*in Slovene only*)
- "Let's enjoy ourselves – by exercise and healthy food consumption", a campaign organised and conducted by the Ministry of Health (set of TV shows accessible at: http://cindi-slovenija.net/index.php?option=com_content&task=view&id=126&Itemid=129 (*in Slovene only*))
- "Quit smoking and win", led by CINDI Slovenia
http://cindi-slovenija.net/index.php?option=com_content&task=view&id=141&Itemid=75 (*in Slovene only*)
- "Exercise for health", joint project of CINDI Slovenia and the Sports Union of Slovenia
http://cindi-slovenija.net/index.php?option=com_content&task=view&id=133&Itemid=66 (*in Slovene only*)
- "Recipe for Healthy Living", by the national Olympic Committee of Slovenia
http://issuu.com/olmypicslo/docs/oks_zgibanka_2015.6_f233c3260e9414/1?e=0

At schools. Slovenia joined the European Network of Health Promoting Schools with 12 pilot schools already in 1993. The project is still going on and is supported by the Ministry of Health and the Ministry of Education, Science and Sport while the National Institute of Public Health acts as the national coordinating center. Currently 324 institutions are involved (257 primary schools, 60 secondary schools, and 7 student homes).

Reference: <http://www.nijz.si/slovenska-mreza-zdravih-sol> (*in Slovene only*)

At the workplace. Interventions at the workplace are still also one of the very poorly exploited possibilities to influence the behavioural patterns of employees. During the last decade there was in Slovenia a meaningful implementation of an excellent project known

as "Fit for work" (where the first among the big enterprises joined was the "Talum" – the Aluminium Plant at Kidričevo in the North-Eastern part of Slovenia). Within the framework of this project, many additional Slovenian commercial and non-commercial labour organisations (including the University Medical Centre of Ljubljana where the project already started) are expected to undertake the promotion and implementation of the various elements of an active healthy lifestyle.

Reference: website of the Slovenian "Fit for Work": <http://www.cilizadelo.si> (*in Slovene only*)

Activities at individual level: the Nationwide Programme on Primary Prevention of CVD

The population-oriented programmes for the CVD risk reduction must also involve health care providers. Under the leadership of the Slovenian Society of Cardiology the [European Guidelines on CVD Prevention in clinical practice](#) were successively translated and adapted from the first version being published in 1994. At the 1st plenary meeting of the Slovenian Forum on CVD Prevention (2000) the decision was reached to initiate a nationwide cardiovascular screening and primary prevention programme designed to offer a simple and appropriate approach on early detection and management of individuals at high CVD/NCD risk.

This programme now covers all adults in the 45-70 age group for females and the 35-65 age group for males (according to data of 2001, these age groups comprised exactly 395,317 males and 380,363 females). However, the programme is supposed to include also all the rest of the adult population (outside the defined age groups) with prominent manifestation of any of the major CVD risk factors: smoking, obesity, diabetes, hypertension, as well as too large intake of alcohol.

It is based on the implementation of four relatively simple and practical steps (see also figure 1):

1. Selection of priority screening visits on the basis of a simple postal questionnaire.
2. Systematic invitation to selected individuals.
3. Preventative screening visit including the global CVD risk assessment and intervention planning.
4. Intervention – decisions made on eventual need of additional diagnostics and/or measures for changing the individual CVD risk profile - based on therapeutic lifestyle change advice/education; if necessary, the decision is made on treatment with medications.

The implementation of the programme is carried out at the entire territory of the Republic of Slovenia and involves all general practitioners (GPs) / family doctors in practices within the primary health care being responsible for their assigned population (approx. 970 of physicians altogether). The programme is all the time based on the recommendations brought by the fifth joint task force of the European Society of Cardiology and other societies on cardiovascular disease prevention in clinical practice ([European Guidelines on CVD Prevention in clinical practice](#)). All the contractors with the public Health Insurance Institute at the primary health care level were (and still are) obliged to perform certain amount of cardiovascular risk screening visits per year, encompassing up to 20 % of the total adult population in the predefined age groups (men 35 – 65 years of age, and women 45 – 70 years of age).

Its consistent implementation falls under the responsibility of:

- the nationally appointed prevention programme leader.
- the two national coordinators, one responsible for the effective performance of the screening programme as such, and another one responsible for the therapeutic lifestyle change programme implementation
- the regionally appointed medical doctors / coordinators (specialists in general/family medicine), having a primary role of supervisors and motivators, as well as
- the regionally appointed specialists of public health (from regional Public Health Institutes)

The data obtained are sent via internet to a centrally located, nationally defined and run Registry of Individuals at Risk for Cardiovascular Diseases. Encrypted personal data (on-line) input is possible either directly, or by sending it through e-mail. The legally appointed administrator for this database is the University Medical Centre Ljubljana, and its CVD Prevention Unit at the Department of Vascular Medicine.

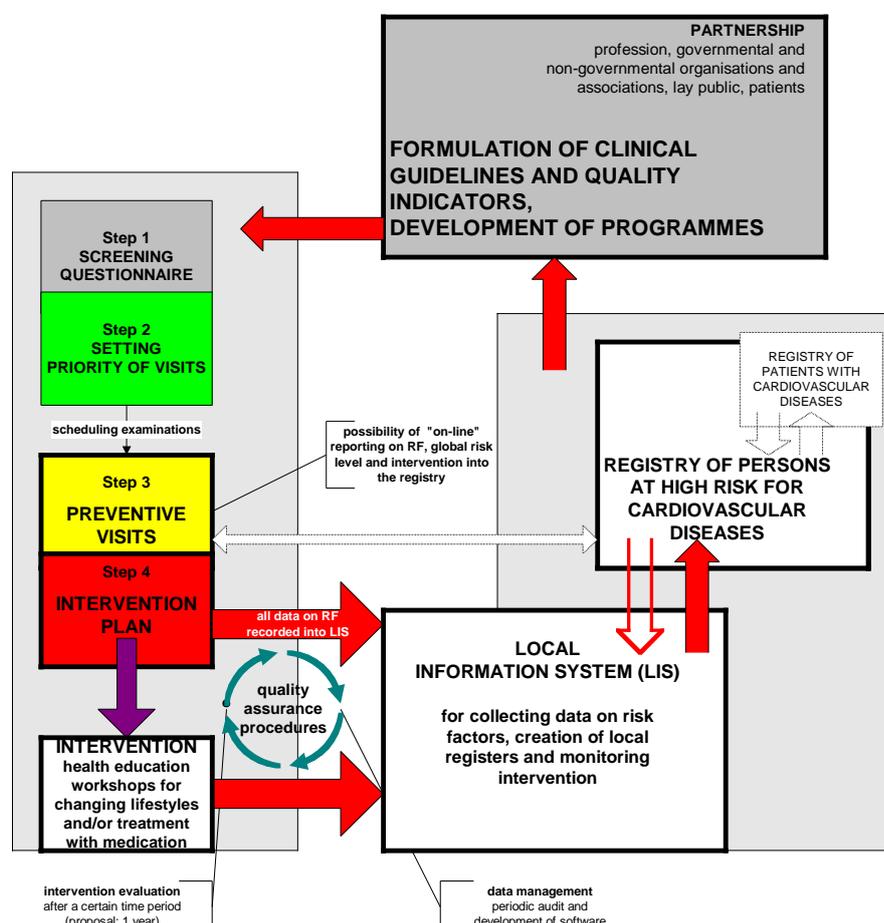


Figure 1. Schematic presentation of the major elements and organisation of the Nationwide Programme on Primary Prevention of CVD.

Source: Fras Z, *et al.* Nacionalni program primarne preventivne srčno-žilnih bolezni – zgodba o uspehu? (Nationwide Programme on Primary CVD Prevention – a success story?) In: Vrbovšek S, Luznar N, Maučec Zakotnik J, eds. Skupaj varujemo in krepimo zdravje – kaj smo dosegli v prvih osmih letih? Zbornik prispevkov. (Proceedings of the Joint meeting of performers of the Nationwide Programme on Primary CVD Prevention.) Ljubljana: National Institute of Public Health, 2009. p. 13-26. http://www.cindi-slovenija.net/images/stories/dokumenti/Zbornik_skupajvarujemozdravje_09.pdf (in Slovene only). (Copyright: Slovenian Nationwide Programme on Primary CVD Prevention).

Risk assessment within the framework of the programme:

Outcomes of the preventative screening visits performed in the period 2002 – 2012: a total of 1.044.133 screening visits were performed during the first 11 years. The present analysis encompasses the data on CVD risk factors screening from the National Registry (n=416.455, 214,316 males, 202,139 females) for the period 2003 to 2012. Various forms of manifest CVD (heart attack, angina, stroke or peripheral arterial disease) were found in 5.1% of the cases. The prevalence of major risk factors is high: 24.9% smoke, high total cholesterol (TC) is present in 64,8%, hypertension in 31,2%, 69,7% are overweight and 26,1% obese. Adult Slovenians are insufficiently physically active; it was found that only 15.4 % are physically active at moderate intensity 5 times a week or more, while as many as 42.8 % of screened individuals are active less than once a week or completely inactive. Overall 22,3% adults were found as to be at high absolute coronary risk (>20% during the next 10 years).

Risk management at local health centers:

By the end of 2012, 7.477 long and 26.523 short therapeutic lifestyle change (TLC) counselling workshops were performed, and altogether 351.525 participants were involved in various TLCI workshops. Follow-up sub-study performed in 2009 encompassed 146,863 individuals (72,335 males, and 74,528 females) and showed a significant decrease in some of the major risk factors (RF) (e.g. the prevalence of high TC (> 5mM) decreased from 73.1 to 69.2% in women, and 67.6 to 58.3% in men).

These interventions (in the form of group and/or individual treatments) are carried out at local Health Education Centres (HECs) which have been set up at the most of the health centres throughout the country. There are 61 state appointed HECs all over Slovenia, being active from 2002 on. At each of the HEC there is a team of health professionals (medical doctor(s), registered nurses and/or other types of health care professionals - health educators, sports professionals (or physiotherapists), and at the majority of places psychologists are attracted to participate as well. All of them have to attend a specific kind of training to qualify for this work, organised within the framework of specially organised »Schools for the Promotion of Health and the Prevention of Chronic Non-Communicable Diseases«. They are constantly updating their knowledge and skills in advanced training courses organised by the Centre for NCD Prevention of the NIPH. The HEC teams (currently 435) are at present being enlarged by increasing nurse resources in order to take better and structured care mainly of patients with various chronic diseases, as well as prevention.

Group treatment with the aim of healthy lifestyle counselling is carried out in the following sets of workshops:

- A. "short" workshops (2-4 x 95 minutes, 1x/per week)
 - 1. module: Promotion of Health
 - 2. module: Physical fitness
 - 3. module: Risk Factors
- B. "long" LCA workshops (4-12 x 60-120 minutes, 1x/per week or month)
 - 1. workshop: "Healthy Weight Loss"
 - 2. workshop: "Healthy Nutrition"
 - 3. workshop: "Physical Fitness"
 - 4. workshop: "Yes, I quit smoking"

To be conducted, each individual workshop should be attended by at least 10 people, except for the “Healthy Weight Loss” workshop, which has to include at least 15 people.

Nacionalni program primarne preprečitve srčno-žilnih bolezni

Spoznavate in osvojite možnosti za boljše življenje!

PROGRAMI SVETOVANJA ZA ZDRAVJE

Ohranjanje zdravja

Test hoje

Dejavniki tveganja

Zdrava prehrana

Da, opuscam kajenje

Zdravo hujšanje

Telesna dejavnost – gibanje

Individualno svetovanje

Dobota	Dejavniki tveganja				Učinki			
	Slabša dejavnost	Višja telesna dejavnost	Prekomerno uživanje alkohola	Prekomerno uživanje sladkorja	Višja krvni tlak	Višji sladkor v krvi	Višji holesterol v krvi	Zdravje
	DA / NE	DA / NE	DA / NE	DA / NE	DA / NE	DA / NE	DA / NE	DA / NE
	DA / NE	DA / NE	DA / NE	DA / NE	DA / NE	DA / NE	DA / NE	DA / NE
	DA / NE	DA / NE	DA / NE	DA / NE	DA / NE	DA / NE	DA / NE	DA / NE
	DA / NE	DA / NE	DA / NE	DA / NE	DA / NE	DA / NE	DA / NE	DA / NE

Programov svetovanja za zdravje se lahko udeležite v:

Zdravstvenem centru _____

Ime _____

Prejeto informacije po telefonu _____

Udeležite se programov svetovanja za zdravje v vašem zdravstvenem domu.

Figure 2. A leaflet showing in summary the contents of the therapeutic lifestyle change counselling (workshops, individual sessions) being provided at the local Health Education Centers. (Copyright: Slovenian Nationwide Programme on Primary CVD Prevention).

In the period from 2002 to 2012, altogether 7,477 long, and 26,523 group counselling workshops were performed in HECs with approximately 3000 short workshops and 750-800 long workshops annually. In all over 350,000 participants have been registered. Within the framework of individual healthy lifestyle counselling, selected GPs/family medicine specialists carry out individual sessions for persons who would like to quit smoking and for those who are willing to give up risky consumption of alcoholic beverages. Individual counselling consists of at least 5 sessions, each lasting 15 minutes.

Coordination, monitoring, and audit with advice activities

The coordination of TLC counselling / health education activities, organised through various types of workshops in HECs, is currently the responsibility of the Centre for Health Promotion and Chronic NCD Prevention of the Slovenian NIPH. So far, during the nearly 15 years period of time, within the Schools for the Promotion of Health and Prevention of Chronic NCD over 1,200 health professionals and educators from the fields of health promotion and NCD prevention were trained, who consequently spread their knowledge and experience among their colleagues, as well as the lay public. With their help we set up so-called “Local Groups on Health Promotion and NCD prevention” in all of the Slovenian regions. Members of these groups performed enormous amount of activity for the health promotion and NCD prevention. They have proven themselves in the area of mutual cooperation and in networking with all the other public sectors and societal structures which can have a positive impact on public health.

Significant changes in CVD epidemiology – major contribution of the programme

The standardised death rate due to circulatory diseases dropped significantly during the past 20+ years. In Slovenia this rate dropped from 444,9 to 218,4 deaths per 100,000 inhabitants. Due to the combined effects of efficient CVD prevention (as well as the acute

cardiovascular care) the important epidemiological health indicators significantly improved during the period after the systematic Nationwide Primary CVD Prevention Programme was introduced. The standardised death rate (SDR) due to ischemic heart disease decreased by 32,4%, from 94,1 to 63,6 deaths per 100,000 between 2003 and 2010, and further to 58,9 in 2013. It is of special importance, that during the period of 1990 – 2010 also the premature mortality due to circulatory diseases dropped significantly, with the steepest decline observed after the systematic primary CVD prevention measures were introduced. Besides, in 2009 Slovenia enters a “club” of few of the EU countries where the SDR due to CVD in males decreased below the SDR of cancer.

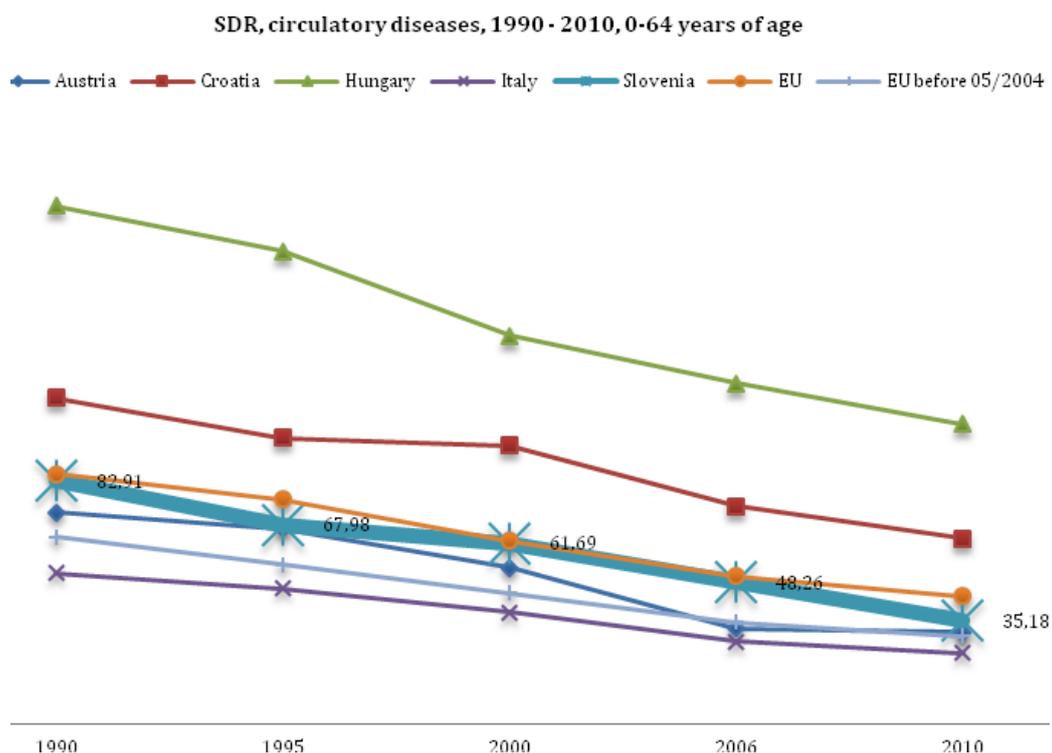


Figure 3. During the period of 1990 – 2010, a significant decline was observed in premature standardised death rate due to circulatory diseases, and the steepest decline is observed after the systematic nationwide primary CVD prevention programme was introduced (after 2002).

Source: Fras Z. Communication at Slovene National Forum on CVD Prevention, 2013 (Copyright: Slovenian Nationwide Programme on Primary CVD Prevention).

Summary - conclusion

During the last 12 years, we developed and implement one of the most comprehensive nationwide and universally accessible primary CVD prevention programmes, even according to international standards. To the best of our knowledge, the programme contains most of the basic elements needed for effective work in this highly demanding field. The data show the overall worrying situation on CVD RF prevalence in Slovenia, while on the other hand also a very positive impact of universally accessible nationwide screening and systematic TLCI within the Primary CVD Prevention Programme. A cautious further implementation of this comprehensive project and its further quality improvement

will certainly justify the invested funds and pay off the endeavors of all of the involved partners.

Web references:

http://cindi-slovenija.net/images/stories/cindi/trgovina/programi_svetovanja_zlozenka.pdf (*in Slovene only*)

<https://register.cindi-slovenija.net> (*in Slovene only*)

V. Cardiac rehabilitation

For whom

Patients groups involved in cardiac rehabilitation are:

1. patients after myocardial infarction,
2. patients after various types of cardiac surgery, and
3. patients with chronic heart failure.

There are no strict age limits for inclusion into the existing programmes of cardiac rehabilitation; the referrals depend on the functional and rehabilitation potential assessment performed by the referring specialist.

By whom and how

Rehabilitation is provided at all three levels of health care, that is, the primary, secondary and tertiary levels. Rehabilitation can be generally divided into three types: medical, professional and social. Rehabilitative teams are composed differently at the different levels.

Rehabilitation at the secondary and tertiary care level includes, above all, programmes of cardiovascular medical rehabilitation provided in hospitals, spas or special rehabilitation centres – where the early phase stationary as well as the out-patient rehabilitation, mainly after the acute myocardial infarction (at the Preventive Cardiology Unit, established more than 30 years ago at the Department of Vascular Medicine, Division of Medicine, at the University Medical Centre Ljubljana – in the centre of the state) are provided.

Most of the patients after acute myocardial infarction (AMI) and cardiac surgery are rehabilitated in spas (Terme Šmarješke Toplice in the South-East, Health Resort Radenci in the North-East and/or special rehabilitation centers, e.g. rehabilitation unit at Terme Portorož at the coastal region). There is one centre at the local hospital of Topolšica (historically the hospital dealt mostly with pulmonary disease patients) where a small volume rehabilitation unit for mainly patients with chronic heart failure is running.

The secondary prevention including rehabilitation is provided according to the National Guideline on Secondary Prevention and Rehabilitation after Myocardial Infarction, developed first in 2004 and renewed in 2009, by the nationally appointed multidisciplinary group of professionals, including also representatives of patients. Training is provided through the meetings and workshops organised mainly by the Working Group on Preventive Cardiology of the Slovenian Society of Cardiology. The majority of topics are always covered by specialists coming from the only centre organised at the tertiary level, namely Preventive Cardiology Unit at the University Medical Centre Ljubljana. The lifelong self-care is complemented by the regional / local units of the Slovene Association of Coronary Clubs, which are widely spread all over the country.

Audit and costs

The system of quality control is set internally, by each centre itself, and the publication of the results stay solely by them, in most case by periodical analysis of practice and presentation at the local/national meetings (and/or publications/journals). The quality indicators are set in accordance with the national guideline. They are not obliged to report on the outcomes to any central body (or registry), which is the shortcoming.

External audit is sporadic, and mostly not primarily focused on the contents, but more on the professional and/or financial performance.

The referrals to early phase cardiac rehabilitation after the AMI and/or cardiac surgery was almost universally accessible (up to 90% of patients after an AMI or cardiac surgery) and covered by the state Health Insurance Institute funds for many years. There are no extra costs (even in the form of co-payment) for patients until now, and the centres are not marketing their rehabilitation services to “acute” patients as to be paid out of the pocket. However, the referrals and payment went very smoothly until the beginning of 2014, when its provision / payments by the compulsory health insurance fund was significantly cut due to lack of the resources. For the past year and a half the Slovenian Society of Cardiology, together with Health Care provides fight for improvement and return to previous practice and standard provision of care.

VI. The Future

Needs

Cardiovascular health promotion and CVD prevention

The nationally coordinated campaigns already developed and successfully provided in the past should be encouraged to stay as the continuous cornerstones of cardiovascular health promotion at the national levels. The same stays valid for the nationwide primary CVD prevention programme, aimed to screen the adult population on CVD risk factors and absolute risk as well providing the therapeutic lifestyle change group and individual counseling. As for the secondary prevention the strategic plan to establish the nationwide network of secondary CVD prevention facilities (at the secondary care level) providing out-patient cardiac rehabilitation services as well was already developed, discussed and endorsed by the scientific/professional societies – it was first adopted as a strategic document by the National Forum on CVD prevention already in 2008, and again raised to a concern by the health care authorities and health insurance institute in 2013. This project proposal includes the quality assurance, control and improvement activities, mainly operated through the development and execution of the National Registry of Patients with CVD, which would be the best complementary to the existing National Registry of Individuals at high CVD risk. Besides the care to be offered by the providers within the HC system itself, it includes the project on the provision of services performed by the network of units / groups of the Association of Coronary Clubs – for this kind of support of the life-long self-care the project envision the introduction of special type of vouchers to be delivered to patients by the various types of insurance institutions (compulsory and/or additional voluntary health insurance).

Cardiac rehabilitation

Already in 2007, the Working Group on Preventive Cardiology and Cardiac Rehabilitation of the Slovenian Society of Cardiology developed detailed recommendations on all 3 phases of cardiac rehabilitation, supported by the alliance of various state institutions, professional societies, as well as the patients' organisations, organised within the National Forum on CVD Prevention (running under the auspices of the Slovenian Society of Cardiology from 2000 on). This document emphasized primarily the priority role and further development of the network of out-patient CVD rehabilitation units, where the rehabilitation care should be carried out by the multidisciplinary teams. This network is planned to operate at all hospitals (both regional and university) basically taking care of patients with AMI. As well, the rehabilitation processes for special groups of cardiovascular patients (including those with peripheral arterial disease and heart failure) were determined. In addition, a model of future shared care of patients post-MI (see Figure below) was agreed, which will fit within the network of so-called "reference clinics", being spread at the primary health care during past few years. According to the vision of the writing group this network would also provide the necessary ground for the establishment of the National Registry of CVD patients. Unfortunately, due to the general economic crisis and overall lack of resources, the project has not been executed yet.

Possibilities

The best possibilities to encircle the comprehensive approach to the entire span of CVD prevention in Slovenia is to implement the described comprehensive and systematic, integrated national programme on CVD prevention, developed by the profession (being

organised in the strategic alliance), and already endorsed by the national forum, in which almost all relevant institutions and societies are represented. Important to mention, there is a separate project being carried at present, and coordinated by the National Institute of Public Health (supported by the grant from the Norway Financial Mechanism), called “Together for Health”, in which the integrated secondary prevention CVD care provided by the joint action of primary (health centres) and secondary HC institutions are to pilot the comprehensive approach to secondary CVD prevention.

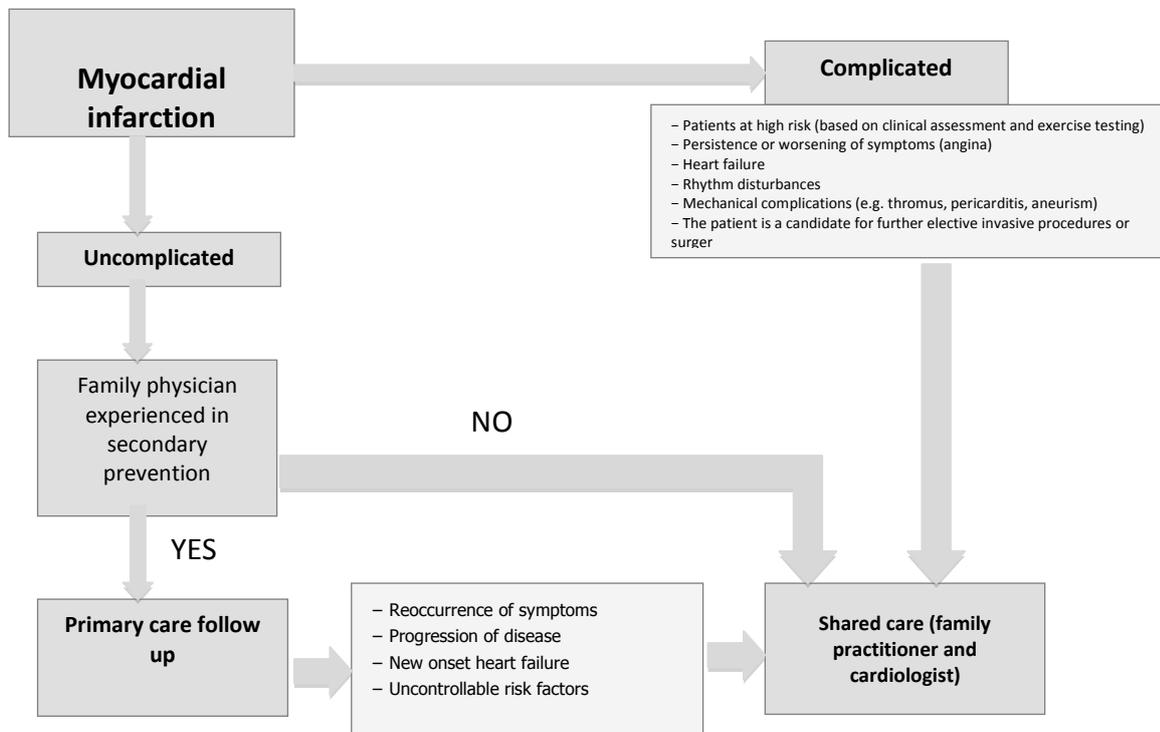


Figure 4. Model of shared care follow-up of patients post MI.

Source: Keber I, Fras Z, Gužič Salobir B, Jug B, Šabovič M, Vodopivec Jamšek V. Rehabilitacija in sekundarna preventiva po srčnem infarktu. Slovenska nacionalna smernica. = National Guideline on Secondary Prevention after Acute Myocardial Infarction. First edition 2004, amended 2009. Ljubljana: Ministry of Health, Republic of Slovenia, 2004. p. 1-84. (Copyright: Ministry of Health, Republic of Slovenia).

Obstacles

The main two obstacles for more successful implementation of effective CVD prevention and rehabilitation care in Slovenia at the system level are:

- the general lack of resources (financial, as well as in the form of needed workforce), and
- the obvious fragmentation of HC providers in view of the need for systematic and coordinated care provision.

The latter calls for a kind of a strategic decision at the MoH level and instructions provided. The action should be supported by the effective execution by the insurers and all HC providers involved.

Plans

The main plans for the coming next five years stay in accordance with the implementation of plans described in the section on needs (see above):

- continuous provision of well established CVD health promotion campaigns and prevention programmes,
- establishment of the nationally coordinated, monitored and supervised network of out-patient facilities for the provision of integrated secondary CVD prevention (including rehabilitation),
- the provision of support to life-long self-care for patients with CVD.