Country report Croatia – December 2015

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Health care l Risk factors l Prevention methods l Prevention activities l Cardiac rehabilitation l Future

I. Structure of Health care in Croatia

Structure

The health care system in Croatia is mainly financed by the Croatian National Health Insurance i.e. health service in Croatia is accessible to all the Croatian citizens. Private institutions particularly stationary departments and hospitals are few and mostly financially dependent on their contracts with the National Health Insurance, as there is not enough private money to finance healthcare services, except out-patient institutions. Beside public and private, healthcare is divided in primary and secondary health care. Primary health care includes Family medicine, Paediatrics, Gynaecology and Obstetrics, School and University Medicine and partly Dentistry, and secondary health care includes all the other specialties together with in-hospital part of Paediatrics and Gynaecology and Obstetrics.

In Croatia, which has a population of about 4.5 million, the estimated number of cardiologists is nine per 100.000 inhabitants. However there are some other physicians dedicated partially to cardiac problems and therefore Croatian Cardiac Society's membership exceeds 500.

Despite the fact that better cardiovascular prevention is highly needed, it is still not a priority on governmental level. The government invests many efforts to maintain a broad access to diagnostic and curative medicine. A highly socialised health system has been always considered as among most important political priorities, despite a relative low Gross Domestic Product (GDP) and economic problems country faces with. Prevention has never been a priority in Croatian health policies, despite frustration of medical professionals promoting health prevention. The Croatian Cardiac Society is continuously trying to raise awareness of the importance of cardiovascular prevention, facing with many problems, including usually only declarative support by politicians and often ignorance from important mass media.

Finances

Prevention campaigns are partially payed by the government, but more and more by foundations and group initiatives. The Croatian Heart House/Foundation is a recent example of successful fundraising activities aimed to prevent illness and promote cardiovascular health.

Most of medications are payed entirely by the (public) National Insurance Institute, but there are some medications that need individual's co-payment, e.g. novel oral anticoagulants. The co-payment and its amount are under continuous negotiations between representatives of the government and pharmaceutical companies, sometimes even the Cardiac Society and other medical societies' representatives. There are very few private insurance companies that offer additional health insurance packages, which include covering of medications that would otherwise need individual co-payment.

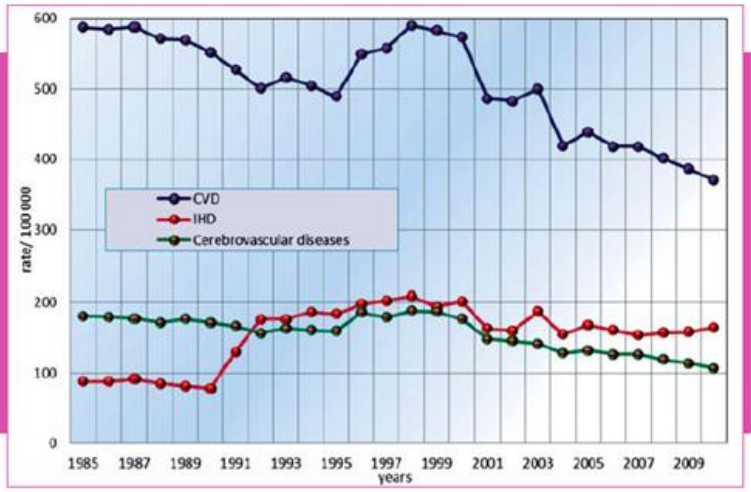
Cardiac rehabilitation is covered by the National Health Insurance for well-defined groups of cardiac patients. Outpatient rehabilitation is fully reimbursed for patients who suffered from myocardial infarction. Furthermore, inpatient rehabilitation is fully reimbursed for patients after cardiac surgery, including coronary, valve and congenital surgery as well as heart transplantation and implantable left ventricular devices or artificial heart.

II. Risk factor statistics

CVD Mortality

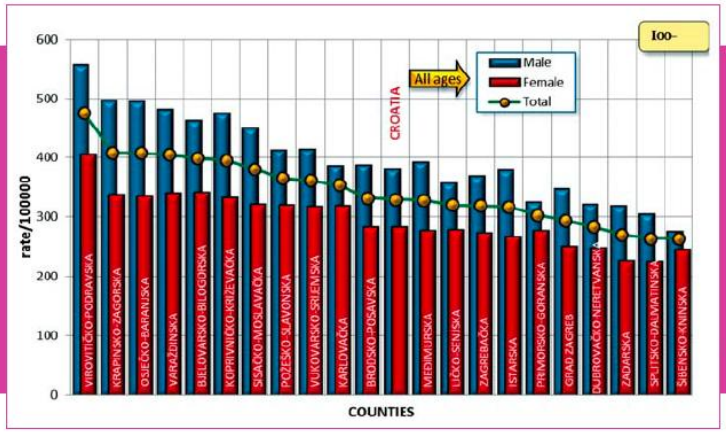
Figure 1.
Age standardized mortality rates for cardiovascular diseases for all ages in Croatia, 1985-2010.

CVD = cardiovascular diseases, IHD = ishaemic heart disease



Source: WHO, Health for All, 2013.

Figure 2.
Age standardized mortality rates for cardiovascular diseases for all ages in Croatian counties, 2011.



Source: Croatian Central Bureau of Statistics, Croatian National Institute of Public Health.

Reference: Cardiologia CROATICA 2013;8(10-11):375

Percutaneous Coronary Intervention (PCI) resources

Croatia has at the moment 13 PCI centres, which means that the number of PCI centres per 1 million inhabitants is almost 3 (2.88/1 mil.). Zagreb has 6 PCI centres, all except one 24/7 available for primary PCI in STEMI and high risk STEMI patients. Rijeka, Split, Zadar, Dubrovnik, Osijek and Slavonski Brod each have one PCI centre, all of them included in primary PCI network 24/7. Karlovac has another PCI centre which is small and not included in primary PCI programme.

Main CVD risk factors

Prevalence of smoking is about 30%. Many young people start smoking in the age of their puberty. Smoking is still socially accepted and anti-smoking campaigns are not strong enough. Less than one fourth of adults are physically active according to the ESC guidelines' recommendations. The Croatian Survey on Hypertension showed that the prevalence of hypertension in the adult population was 37% percent and that a proper

hypertension treatment was widely neglected. Diabetes type 2 increases in prevalence, consecutively to increasing obesity and unhealthy lifestyles. Hyperlipidaemia is a common finding in general population, familiar dyslipidaemia is regularly not recognised and treated and use of lipid lowering drugs, particularly within primary prevention is underused.

For further information visit these sites:

- www.kardio.hr (Croatian language only)
- www.zaklada-hks.hr (Croatian language only)
- www.hzjz.hr (English version available)
- www.stampar.hr (English version available)

III. Main actors and Prevention methods

Who delivers?

General practitioners are the basis of the Croatian health system and should be more responsible and more actively involved in prevention programmes, but also better educated about prevention strategies and treatment of cardiovascular risk factors and morbidities. Cardiologists are fewer in Croatia in comparison with western European countries except UK, but in the UK there is much more developed primary care and cardiac nursing, both actively involved in cardiovascular prevention.

Where?

Prevention programmes are delivered in primary care and specialised rehabilitation centres. Hospitals are involved particularly in secondary prevention, but within their out-patient activities also active in primary prevention. Croatia still has not started upon nurse-based programmes but some private institutions are dedicated to cardiovascular prevention.

Guidance

The Croatian Cardiac Society adopted entirely the the ESC Guidelines on CVD Prevention in clinical practice, and takes care about its implementation and dissemination. They are included in education of cardiology residents and updating cardiologists and cardiac nurses, but also presented to all the potential stakeholders of cardiovascular prevention.

Quality control

There is no structured and fully established system for auditing efforts and results in CVD prevention. In a rudimentary manner, there are auditing attempts from the Croatian Institute for Public Health. Mostly, potential effects of CVD prevention programmes in Croatia can be estimated only indirectly and post hoc, i.e. by interpreting epidemiological data.

IV. Main Prevention activities

Campaigns

- Heart Keepers – first national cardiovascular prevention and health promotion e-campaign (Croatian Heart House/Foundation, Croatian Cardiac Society)
- Health Cities' Project (School of Public Health Andrija Stampar, University of Zagreb School of Medicine)
- National Campaign "CRASH" – reduction of salt intake (Croatian Society for Hypertension, Croatian Cardiac Society, Croatian Atherosclerosis Society, Croatian Academy of Medicial Sciences)
- Sudden Cardiac Death – the commonest direct cause of death: how to prevent it, how to resuscitate? (Croatian Heart House/Foundation, Croatian Cardiac Society)
- Atrial Fibrillation – an unrecognized cardiovascular risk in a society (Croatian Cardiac Society and Croatian Heart House/Foundation)
- World Heart Day – each year since it's beginning (Croatian Cardiac Society, Croatian Heart House/Foundation and partners)
- Heart Health Month – since 2012, each year in May (Croatian Heart House/Society, Croatian Cardiac Society, Croatian Society of Cardiovascular Nursing)

Projects

TASPIC CRO

EUROASPIRE I-IV

(Prof. Davor Milicic, Prof. Zeljko Reiner)

Education

Cardiovascular prevention is a part of obligatory education of medical students during the collegium Internal Medicine. It is also included in several elective courses as well as within few innovative courses during Medical Studies, such as Clinical Decision Making, Basics of the Art of Medicine, Health and Body Culture. There are postgraduate courses on Croatian universities that all include cardiovascular prevention as an important content.

Distance teaching from cardiologists for family physicians will be assured within the Heart Keepers Campaign, starting from January 2016.

V. Cardiac rehabilitation

For whom

Out-patient rehabilitation is fully payed by the government for patients after myocardial infarction. In-patient cardiac rehabilitation is fully reimbursed for patients after cardio surgical procedures. There are no age limits.

By whom and how

In Zagreb there is a well established and efficient Out-patient Rehabilitation Clinic, dealing mostly with patients who suffered from myocardial infarction. Out-patient rehabilitation can be performed and fully reimbursed also for patients after cardiosurgical operation. However, cardiosurgical patients are mostly rehabilitated in stationary institutions, two of wich are specialized for cardiac and cardiosurgical patients: Thalassotherapia Institute in Opatija nad Krapinske Toplice. There are some other public rehabilitation centres not exclusively specialized for cardiac patients, where some patients also undergo rather successful rehabilitation programmes. Private centres are more focused on orthopaedic and neurological rehabilitation, but there is also a possibility for a good quality cardiac rehabilitation programmes in such institutions. In scenarios other than post myocardial infarction and post cardiac surgery, other indications for cardiovascular rehabilitations are usually not covered by the public money.

Audit and costs

There is no centralised system for specific auditing rehabilitation programmes, however each institution should periodically undergo a general audit procedure. Furthermore, there is no structured and systemic outcome control of performed cardiovascular rehabilitation. Patients except for a 3 weeks' out-patient rehabilitation after myocardial infarction and 3 weeks's stationary rehabilitation after cardiac surgery, should entirely pay or co-pay for their cardiac rehabilitation for other reasons.

VI. The Future

Needs

The main strategic need is to broadly involve media and political stakeholders in cardiovascular prevention and rehabilitation local and national strategies and programmes. Raising awareness of importance of following the guidelines in preventing cardiovascular morbidity and mortality is crucial for a more effective public cardiovascular prevention and rehabilitation.

Possibilities

Possibilities for success depend on a broad national awareness of cardiovascular preventative possibilities and people's healh education which should be significantly improved. Smoking restriction on all public places is mandatory. Promoting physical activity and health diets could bring a great preventative potential. Hypertension and diabetes should be screened diagnosed and treated in early phase. Familiar dyslipidaemia as the commonest inherited metabolic disorder should be early diagnosed and treated as well, as that can prevent cardiovascular incidents in younger age groups. Conclusively, tackling the most important cardiovascular risk factors in the future will certainly be the main reason for decrease of cardiovascular morbidity and mortality.

Obstacles

The main obstacles for implementing prevention and rehabilitation programmes in the coming years are lack of general interest for health themes and ignorance of the media and citizens towards a necessity of implementing cardiovascular preventative strategies, which are essential for reducing the burden of cardiovascular diseases in Croatia.

Plans

Croatian Cardiac Society and Croatian Heart House/Fondation are the most influential representatives of cardiovascular medicine in Croatia. Only by continuous efforts and by inviting and stakeholders, patients and other citizens to participate in preventative programmes, some positive changes in cardiovascular mortality and morbidity can be expected in the future. A five year period should be long enough to change unhealthy lifestyles and reduce and treat most important cardiovascular risk factors in the Croatian population.