



Baština Akademije nauka i umjetnosti Bosne i Hercegovine

Proceedings from the International Symposium MITRAL VALVE DISEASES IN CHILDREN AND ADULTS

Mesihović Dinarević, Senka

2017

Akademija nauka i umjetnosti Bosne i Hercegovine

<https://bastina.anubih.ba/items/277e5d34-78be-4eda-a47a-9d08cfdc5d4e>

Preuzeto s Baštine Akademije nauka i umjetnosti Bosne i Hercegovine

<https://bastina.anubih.ba/>

AN OVERVIEW OF THE TRENDS OF CARDIOVASCULAR DISEASES IN BIH

Aida Ramić-Čatak

Institute for Public Health of the Federation of BiH

Corresponding author:

Aida Ramić-Čatak

Institute for Public Health of the Federation of BiH

Maršala Tita 9, 71000 Sarajevo

Bosnia and Herzegovina

e-mail: a.ramic@zzjzfbih.ba

Language editor for English language: Adnan Arnautlija

Translator for Bosnian language: Adnan Arnautlija

Language editor for Bosnian language: Irma Grebović-Muratović



Abstract

Aim: The aim of this paper is to assess the available data sources on the trends of cardiovascular diseases (CVDs) and related risk factors in Bosnia and Herzegovina (BiH), in comparison with data from some of the neighbouring countries and the European Region average of the World Health Organization (WHO). **Background:** Mortality and morbidity from cardiovascular diseases in BiH are influenced by interaction of different socio-economic factors, metabolic and behavioural risk factors. **Methods:** Analysis of trends of CVDs mortality in BiH in the 2005-2014 period, with use of available data from the Agency for Statistics of BiH, entity Institutes for Public Health and the results of the population surveys conducted and analysed for BiH. **Comparison of CVD mortality trends and risk factor exposure in BiH with the recent data for CVD trends in neighbouring countries and WHO average for the European Region.** **Results:** The analysis showed that more than half of the population in BiH is dying from CVDs, while hypertension, overweight/obesity, lack of physical activity, alcohol and tobacco consumption contribute as main risk factors. CVD mortality and risk factor exposure are above the average of neighbouring countries and the WHO average for the European region. **Conclusion:** Emerging trends in morbidity and mortality from cardiovascular diseases are one of the major public health challenges in BiH. Preventive oriented health services, mainly at primary health care, should be supported by health promotion interventions directed towards whole population and groups under risk.

Key words: cardiovascular diseases, risk factors, Bosnia and Herzegovina

Introduction

Noncommunicable diseases (NCDs) with particular overview on the CVDs as strategic public health priority are underlined by WHO in the Health 2020 policy framework, Global Action Plan for prevention and control of NCDs 2013-2020 and furthermore in the UN Sustainable Development Goals 2015-2030 (1-4).

Noncommunicable diseases (NCDs) remain a major public health challenge all over the globe, with dominant role of cardiovascular diseases (CVDs), cancer, diabetes and chronic respiratory diseases, responsible for the largest share of diseases burden, premature deaths and disability (5).

The European Region of World Health Organization (WHO) has the highest burden of noncommunicable diseases worldwide, while cardiovascular diseases and cancer cause almost three quarters of mortality in the Region. Reinforcing the evidence that at least 80% of all NCDs and CVDs are preventable, cross-country surveys show that alcohol consumption, smoking, overweight and obesity are leading CVD risk factors responsible for premature mortality in most of the member States of the WHO European region (5).

Over the last two decades, Bosnia and Herzegovina (BiH) has gone through numerous and complex changes in demographic, socio-economic, political, cultural and environmental determinants.

Similarly to other countries in the Region, BiH is faced with globalization and urbanization life trends, often associated with consumption of unhealthy diets that are high in energy, saturated fats, salt and sugar, overweightness, less physical activity, alcohol and tobacco consumption, all of which have serious implications on the health of population.

The objective evaluation of socio-economic and health consequences of cardiovascular disease trends in Bosnia and Herzegovina remains a challenge for public health because of the absence of a single registry for cardiovascular diseases in BiH.

Aim

The aim of this paper was to assess the trends of cardiovascular diseases (CVDs) and related risk factors in the population of Bosnia and Herzegovina, through the analysis of available national databases as well the results of population surveys recently implemented in Bosnia and Herzegovina. Furthermore, this paper is aimed to assess the trends of CVDs in BiH in comparison with neighbouring countries and WHO average for the European Region.

Methodology

As a part of comparative and descriptive assessment, the most recent data were used from Agency for Statistics of BiH, entity Institutes for Public Health, as well the results of recent population surveys in terms of health risks of population in BiH. In terms of international comparison, most recent CVDs data and leading risk factors are assessed for Croatia, Montenegro, Serbia, Slovenia, the Former Yugoslav Republic of Macedonia and the average of WHO European Region (6-9).

Results

Similarly to other countries, the trends of increasing morbidity and mortality from cardiovascular diseases in BiH are caused by interaction of different socio-economic factors, metabolic and behavioural risk factors.

Over the last two decades, demographic statistics showed a permanent trend of declining birth-rate and increasing mortality in BiH. Birth-rate in BiH has significantly decreased, from 12.8‰ in 1996 to 7.9‰ in 2014, while mortality increased from 6.9‰ in 1996 to 7.9‰ in 2014, which resulted in negative natural growth in BiH, -0.3‰ in 2007 to -1.5‰ in 2014 (6).

Over the last 50 years, mortality from CVDs in BiH increased by about six times among the population of Bosnia and Herzegovina. According to data of the Agency for Statistics of BiH, total number of deaths caused by CVDs has increased from 2984 in 1965 to 17858 in 2014. Furthermore, the analysis of CVD mortality in BiH for period 2005-2014 showed a persistent rising trend in CVD mortality, from 17.700 deaths in 2005 to 17930 deaths in 2014, with continuous trend of more women dying from circulatory diseases compared to men. In terms of total deaths, more than half of the BiH population (53.2%) are dying from cardiovascular diseases, among which the dominant diseases are strokes, cardiomyopathy, heart failure and acute myocardial infarction (Graph 1).

In terms of international comparison, the share of circulatory diseases of 53.2% in total deaths in BiH is above the average for neighbouring countries, and above the 45.3% average of the WHO European Region in 2013 (Graph 2).

Prevalence of raised blood pressure in adults in BiH is above the average of some of the neighbouring countries, and is above the average of WHO European Region. In 2014, prevalence of raised blood pressure in adults (18 years and over) in BiH was 28.4%, in comparison with 23.3% for the WHO European Region, and the trend is present in both sexes, with 30.9% in males

and 25.9% in females in BiH, compared to 27.1% in males and 19.7% in females in the WHO European Region (Graph 3).

Prevalence of population with fasting glucose > 7.0 mmol/l (18 years and over), in 2014 shows no significant cross country differences, with 10.4% in males and 8.8% in females in BiH, which is slightly above some neighbouring countries and the average of 9.0% in males and 7.6% in females of the WHO European Region (Graph 4).

Latest available data shows that alcohol consumption continues to be a public health challenge which contributes to CVD morbidity and mortality among the population of BiH. Recorded alcohol consumption per capita among the population of 15 years and older (in litres of pure alcohol) in BiH in 2010 was 4.6, compared to WHO European average of 8.8.

Also, the percentage of population with heavy episodic drinking in the past 30 days was 6.5% which is under the 16.2% average of the WHO European Region (Graph 5).

Tobacco is still the largest addiction disease in all sex and age population groups in BiH, with a significant influence on CVD morbidity and mortality and the health status of population in BiH.

Results of cross-country population surveys in 2013 show that current smoking prevalence in population 15 years and over in BiH is 39.2%, with 48.3% prevalence in males and 30.8% in females, which is significantly above the neighbouring countries and the average of WHO European Region with 28.3% in total, 37.7% in males and 20.1% in females (Graph 6).

Discussion

Trends of CVDs in BiH are included in the national morbidity and mortality statistical system, with lack of single registry for CVDs. Monitoring of exposure to CVD risk factors in BiH is covered by periodical population surveys, as significant evidence for evaluation of health related knowledge and behaviour of population as well the quality of health care.

Assessment of available data on CVDs confirmed that the proportion of all deaths due to circulatory diseases in BiH is above the average of neighbouring countries as well the WHO European Region average.

Prevalence of hypertension in BiH as a main CVD risk factor is above the average of neighbouring countries as well the WHO European Region average, in total population and females, while in males it is below average of the neighbouring countries and above the WHO European Region average.

Prevalence of population in BiH with fasting glucose > 7.0 mmol/l (18 years and over) is close to neighbouring countries and slightly under average of the WHO European Region.

Alcohol consumption seems to be not a significant CVD risk factor in BiH. Heavy episodic drinking of population (15 years and over) in past 30 days in 2010 was under the average of neighbouring countries and under the average of the WHO European Region.

Tobacco consumption is the largest risk factor for CVDs in BiH. Total smoking prevalence is above the WHO European Region average and all neighbouring countries except Serbia, while smoking prevalence in males in BiH is above all the neighbouring countries and average of the WHO European Region.

Conclusion

Emerging trends in morbidity and mortality from cardiovascular diseases are one of the major public health challenges in BiH, causing significant rates of premature deaths, disability and reduced ability to work, and increasing costs within the health and social care system.

CVDs prevention as a part of systematic monitoring of NCDs should include preventive services at all levels of health care. Metabolic and behaviour risk assessment in primary health care services is essential, through development of appropriate registry, monitoring system and diagnostic and therapeutic protocols for CVDs as a part of all levels of health care (10).

Preventively oriented health services should be supported by health promotion interventions directed towards whole population, aimed to increase their knowledge and change their attitude and behaviour related to CVDs and health risk factors.

Furthermore, enforcement of legislative measures such as restrictions of smoking and exposure to second-hand smoking through increases in tobacco prices, health warnings, smoke-free environments, and a complete ban on all forms of tobacco promotion are advised.

Reduction of the harmful use of alcohol should be supported through increases in alcohol taxes, enforcing advertising bans and restricted access to retailed alcohol.

Finally, promotion of healthier diets through food pricing, labelling and marketing controls and daily physical activity, may significantly prevent

premature deaths, morbidity and disability due to cardiovascular diseases of population in BiH (11, 12).

References

1. Health 2020: a European policy framework supporting action across government and society for health and well-being, 2013 WHO Regional Office for Europe, available from: www.euro.who.int/publications
2. Action Plan for implementation of the European Strategy for the Prevention and Control of Noncommunicable Diseases 2012–2016, WHO Regional Office for Europe, available from: www.euro.who.int/publications
3. Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020. Geneva: WHO; 2013 available from: <http://apps.who.int>
4. UN Sustainable Development Goals 2015-2030
5. Noncommunicable Diseases Progress Monitor 2015, WHO Regional Office for Europe, available from: www.euro.who.int/nmh/publications/ncd-progress-monitor-2015/en/
6. Agency for statistics of BiH, available from: www.bhas.ba
7. Study of the health status of the population of Federation BiH, Institute for Public Health of the Federation of BiH, 2012, available from: www.zzjzfbih.ba
8. The main indicators of the Global Monitoring framework (GMF) of Noncommunicable Diseases 2016, WHO Regional Office for Europe, available from: www.euro.who.int/publications
9. WHO Report on the Global Tobacco Epidemic 2015, available from: http://www.who.int/tobacco/global_report/2015/en/
10. Country experiences in integrated policy development for the prevention and control of noncommunicable diseases 2015, WHO Regional Office for Europe, available from: www.euro.who.int/publications
11. WHO Framework Convention on Tobacco Control. Geneva: WHO; 2003, available from: <http://www.who.int/tobacco>
12. Vienna Declaration on Nutrition and Noncommunicable Diseases in the Context of Health 2020. Copenhagen: WHO Regional Office for Europe; 2013, available from: <http://www.euro.who.int/data/assets>

PREGLED TRENDOVA KARDIOVASKULARNIH BOLESTI U BiH

Sažetak

Cilj: Cilj ovog rada je procijeniti dostupne izvore podataka o trendovima kardiovaskularnih bolesti (KVB) i s njima povezanih faktora rizika u Bosni i Hercegovini, u poređenju s nekim od susjednih država i prosjekom Evropske regije Svjetske zdravstvene organizacije (SZO). **Pozadina:** Mortalitet i morbiditet od kardiovaskularnih bolesti u BiH uzrokovani su interakcijom različitih socio-ekonomskih faktora, metaboličkih i ponašajnih faktora rizika. **Metode:** Analiza stopa smrtnosti od KVB-a u BiH u periodu 2005–2014, uz korištenje dostupnih podataka iz Agencije za statistiku Bosne i Hercegovine, entitetskih zavoda za javno zdravstvo i rezultata istraživanja stanovništva koja su provedena i analizirana za BiH.

Poređenje trendova smrtnosti od KVB-a i izloženosti faktorima rizika u BiH s najnovijim podacima za KVB trendove u susjednim zemljama i prosjeku SZO za regiju Evrope.

Rezultati: Analiza je pokazala da više od polovine stanovništva u BiH umire od KVB-a, dok hipertenzija, višak kilograma / gojaznost, nedostatak fizičke aktivnosti, konzumiranje alkohola i duhana doprinose kao glavni faktori rizika. Mortalitet od KVB-a i izloženost faktorima rizika iznad su prosjeka susjednih zemalja i prosjeka SZO za Evropu.

Zaključak: Trendovi morbiditeta i mortaliteta od kardiovaskularnih bolesti su jedan od glavnih izazova za javno zdravstvo u BiH. Preventivno orijentisane zdravstvene usluge, uglavnom u primarnoj zdravstvenoj zaštiti, trebaju biti podržane kroz intervencije promocije zdravlja, usmjerene na cjelokupno stanovništvo i rizične grupe.

Ključne riječi: kardiovaskularne bolesti, faktori rizika, Bosna i Hercegovina

