ISSN No. 2456-4400
Int J Med Lab Res 2021, 6(2):55-60

IJMLR International Journal of Medical Laboratory Research

REVIEW ARTICLE

A STUDY ON BELARUS COUNTRY'S CORONARY HEART DISEASES CASES

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Received: 29 May, 2021/Revision: 23 June, 2021 /Accepted: 14 July, 2021

ABSTRACT: Coronary heart disease (CHD) was a major problem in many developing countries during the twentieth century. Belarus is dealing with an increasing burden of noncommunicable diseases (NCDs), with coronary heart disease (CHD) now being the leading cause of death. Despite a downward trend in Belarus' (CHD) mortality rates over the last decade, the country's all-cause mortality rate remains significantly higher than the European average. Scaling up population-based interventions is one of the main prospects for better prevention and regulation of (CHD) in Belarus. To address these issues, both at the population level and the level of individual programmes, action is required. Saturated fat (SFA), polyunsaturated fat (PUFA) al-6 (n-6) and trans-fat (TFA) all influence the risk of coronary heart disease (CHD), but there is no clear attributable mortality of coronary heart disease (CHD) by country, age, gender, or time period. Assume that the heart's beating capacity has been reduced to the point where the circulatory system is unable to adequately circulate blood. In that case, the lungs are more likely to swell with air, causing breathing difficulties. There may be a rapid increase in heart disease (acute heart failure) or a slow and steady increase (chronic heart failure). The goal of this study is to profile coronary heart disease in Belarus, as well as mortality rates and risk factors, to determine future directions for lowering death rates.

KEYWORD: Coronary Heart Disease, Belarus, Cardiovascular Diseases, Noncommunicable Diseases.

INTRODUCTION:

Reduced life expectancy at birth and premature mortality among working-age men are major public health concerns in Belarus. The non-communicable diseases (NCDs), which involve coronary heart diseases, cancer, cardiac attack, and stroke, blame for 89% of all fatalities. Premature mortality related to NCDs (i.e., between the ages of 30 and 70, the probability of dying from cardiovascular disorders (CVDs), asthma, cancer, or chronic respiratory disorder) is 26 percent (Silva da Costa, Ribeiro da Silva, Jakubowski, Nogueira, & panorama, 2018), implying a person has a one in four likelihood of dying by the age of 70. This rises by roughly a third for men and about two-fold for women [1]. CVDs accounted for 63 percent of death among NCDs, of which the major proportion is ischaemic heart disease (IHD) and stroke, respectively the first and second reasons since 1990 for years of loss of life (YLLs) (Fig. 1).

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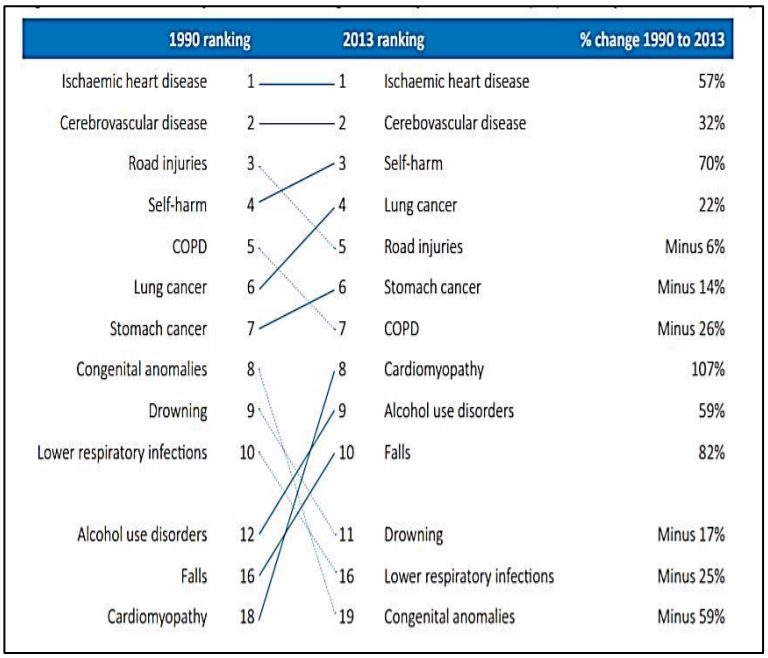

Figure 1 Premature mortality in Belarus. Leading causes of years of life lost (YLL) due to premature mortality [2]

The main reason for the reduction in CVD mortality is improvements in the prevalence of the disease. In the WHO MONICA project, the incidence of the coronary incident resulted in a 79% decrease in the overall CHD mortality in men and 65% for women [3]. The cumulative vulnerability is determined both by the prevalence and death rate. The risk of altering risk factors, such as cigarettes, low physical activity, depression and dyslipidemia, adverse lifestyle, obesity, and diabetes, is calculated [4]. These measures are based on this. In addition to the amount drunk, the form of consumption was linked to an increased risk of cardiovascular diseases, regardless of risks to typical cardiovascular diseases. Alcohol was also linked to an increased incidence of cardiovascular disease [5].

The fact that the financing of the programme was withdrawn in the recent past could indicate a drop in the Belarusian health system, as Belarus demonstrated progress in reducing the CVD mortality by State "Cardiology" policy, adopted by the Council of the Ministries of the Republic of Belarus in 2011. In the first instance, work was carried out to minimize and detect progression of cardiovascular disease (CVDs), integrate emergent medical innovation in the management of ACP patients, improve clinical practice and enhance cardiovascular disorder management. With health and education organizations' efforts in the last two decades to prevent the escalation of CVD, for the first time in the last two decades the total incidence of CVDs has stabilized, with approximately 45-50% of children and teenagers now aware of the values of a better lifestyle, and with approximately 90% of younger adults and adults not having a healthier lifestyle

Factors of Risk in CVD

Age, sex, blood lipids, higher blood pressure, diabetes, obesity and smokiness, and primordial hazard factors like physical inactivity and poor healthy diet, are traditional or major risks identified in the Framingham Heart Study. These factors were later expanded by a range of factors such as, inter alia, stress, depression, limited social support and air pollution, which included behavioural, psychosocial and environmental factors. Extensive epidemiological studies have found that novel risk factors such as clinical and subclinical inflammation, microalbuminuria, high lipoprotein A and prothrombotic factors have been identified. However, more than 80 percent of the population-level excess risk of CHD could be explained by the traditional risk factors [6]. CVD risk prediction models can identify individuals who need more aggressive preventive and clinical interventions. A health promotion strategy for individuals and people can prevent or reduce most of the key risk factors [7].

The CEE/CIS region is anticipated to have a high prevalence of cardiovascular risk factors, including high rates of male smoking (Figure2) and high alcohol use in Europe and around the world [8]. In the CEE/CIS and Europe, hypertension and unhealthy nutrition contribute greatly to the burden of CVD [9]. The CEE/CIS has the highest level of ASDRs as a

result of high blood pressure, cholesterol, plasma glucose and body mass index combined worldwide. In the entire European area, but not in the CEE/CIS, hypercholesterolemia, where Mellitus and obesity (men) were risin has declined[10].

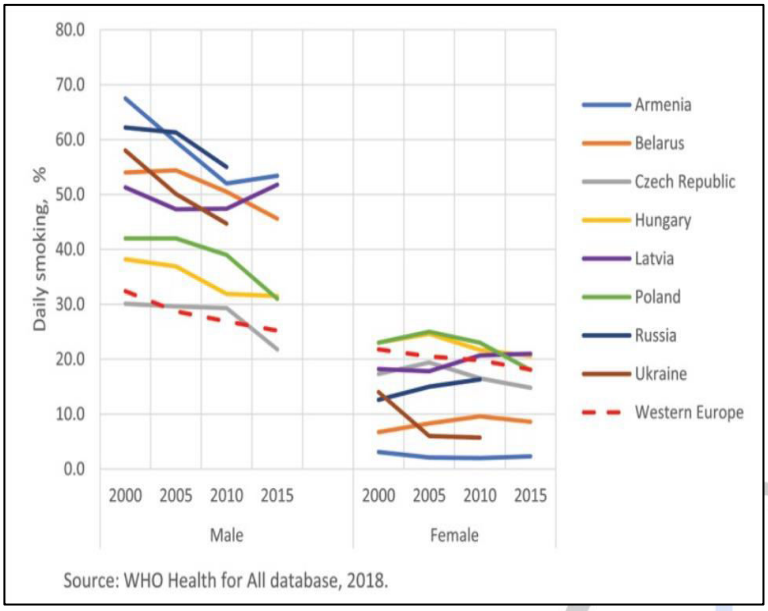

Figure.2 Changes in prevalence of daily smoking in selected countries in Europe, by sex, 2000–2015

In a recent systematic review, the intake of fruits in CEE/CIS populations has been constantly lower than in western Europe but the intake of vegetables has been consistently different [11]. In the region, physical exercise seems to be less prevalent in CEE countries but there are loopholes to monitor physical activity levels. There has been a decrease in children's physical activity. Education also seems to be modulating physical activity in various directions. While moderate alcohol use has been linked to lower CVD rates, excess alcohol use can raise CVD rates. The excessive CVD burden in CEE could certainly not be explained by alcohol consumption alone[12].

Ideal Cardiovascular Health Concept

The preventing vision as just the absence of disease was converted in a paradigm shift called an "a quiet revolution"[13]. Positive health emphasizes an optimal health condition which is more than just the lack of physical, mental or emotional disease. It, therefore, extends beyond preventive treatment and includes what is referred to as primordial preventative measures, which are prevention of risk factors via lifestyle changes before they occur, as discussed further in this article. Positive health is in line with the American Heart Association (AHA) concept of ideal cardiovascular health[14]. The best combination of seven healthy behaviours and health factors determines the ideal CV health in the absence of CVD in keeping with a positive health vision. A person must have all 7 mg/dL at the ideal level, I no smoking within the last year, physical activity, dietary health that is conducive to heart health, total untreated cholesterol <200mg/dL, untreated blood pressure < 120/80mm Hg, BMI <25kg/m2 and untreated fasting plasma-glucose <100mg/dL to meet their definition of ideal cardiovascular health. The idea of ideal cardiovascular health can be utilized to assess and define strategic objectives, although not without limitations [15].

Literature Review

Several of the contributing factors to the probability of coronary heart disease (CHD) were highlighted by epidemiological trials [16]. There are several environmental and biological risk factors known. However, whether an improvement in any of these factors will reduce sudden death is still uncertain. Primary evasion has the characteristics of rationality in one degree and is an essential field for further study. In general, the effects of the disease are initially monitored so that the disease itself can be adequately recognized and avoided, if possible. The main advantage to medical doctors has been the partial reactions that have always followed the treatment to a more important problem; for example, the death rate of acute myocardial infarction in hospitals has decreased dramatically. A partial treatment looks as if sudden heart death is feasible [17].

In addition to its ageing population, the high number of disabled people in Belarus is contributing to the increase in the number of CVDs and a decrease in the number of CVD-related deaths. According to MoH11, 50 394 people in 2011, 7.3 percent higher than in 2010, were found newly to have been impaired. In 2010, 47 417 adolescents were aged 18 years and older, up 7.8 percent from 2010. In the 2011 active community, the number of newly identified disabled persons was 21 011, 1.7 per cent higher than in 2010. Bloodstream disorders (40.3 percent) are the major cause of disability[18, 19].

The study implements a secondary research design. To give a clear picture of coronary heart disease the WHO (2018), the country of Belarus is extracted and re-analyzed. The survey is designed statistically for researchers, health workers and anyone with an interest in coronary cardiovascular disease. This is the latest study to examine the causes, effects and incidents of disease.

The latest data published in 2018 show that 56.130 or 50.12 percent of all deaths were overall in Belarus as a consequence of coronary heart disease. Belarus holds seventh place in the world at an age-adjusted rate of mortality, 306.02 of 100,000 (Table 1).

Table.1 Findings

Deaths	Percentage (%)	Rate	World Rank
56,130	50.12	306.02	7

CONCLUSIONS AND FUTURE SCOPE:

The scope and aim of this coronary heart disease investigation in Belarus have been contained in only a WHO survey. While health systems are changing, there have been significant improvements and momentum. Despite this, there are many risks, and it is necessary to look at ways of controlling coronary disorder and stroke. There is a risk of territorial loss for patients who receive urgent treatment admission. A number of potential problems, including the fact that most individuals participated and managed their risk factors poorly, were discovered by researchers. Many steps to reducing cardiovascular risk factors are being taken at different levels in the community. We must apply to each of these reasons the prevention of tobacco, safe living campaigns and the diagnosis of high blood pressure and diabetes. Belarus has made some progress in regulating alcohol, but it remains one of Europe's countries with the greatest intake of per capita alcohol. Studies have shown that alcohol is usually an inconspicuous but unnecessary visitor to public health strategies and the burden of stroke reduction.

The European region is considered a 'natural epidemiologic laboratory' which offers lessons for everyone due to its huge diversity. However, it may not be sufficient to adapt to the CVD burden in CEE/CIS, a zone with significantly different mortality and prevalence risk factor trends, and with little data to adapt to known effective interventions. In order to improve cardiovascular health in the area, new innovative solutions have to be sought. Adapted to these efforts, local contexts, idiosyncrasies, traditions, social factors, and equality implications should be taken into account. A comprehensive strategy would balance approaches based on individuals and populations by multi-sectoral interventions aimed both at the healthcare system and at the roots of society. In addition, primary and secondary prevention should also be taken into consideration to achieve the greatest possible advances in cardiovascular health, to attain people who face a high risk or who have an established illness. In addition to selected expensive treatment, the cost-effective secondary prevention strategies should be prioritized which benefit some but constrain finance in financing other measures.

The lack of longitudinal epidemiological studies in the region should also be addressed in future efforts. The participation of European and international cohort consortiums could greatly benefit from such studies. This can lead to the development and cross-fertilization of scientific cooperation in implementing preventive strategies.

The ongoing mortality gap between East-West of CVD shows that the current efforts to solve this problem are not enough. CVD surveillance and risk factors are urgently required, local politicians and the public become better aware of the problem, priority is given to funding for CVD prevention and population-based interventions to reduce CVD's burden. If that is not achieved, short-term and medium-term overwhelming healthcare expenses will undermine already limited economic resources and create a vicious circle. After all, CEE would not spend sufficient money on CVD prevention at its most expensive choice.

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Cite of article: Patel M. A study on Belarus country's coronary heart diseases cases. *Int. J. Med. Lab. Res.* 2021;6(2):55–60. http://doi.org/10.35503/IJMLR.2021.6207

CONFLICT OF INTEREST: Authors declared no conflict of interest
SOURCE OF FINANCIAL SUPPORT: Nil
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