

## Cardiovascular diseases in Croatia: Why do we need a cardiovascular diseases national plan?

 Verica Kralj\*

 Petra Čukelj

Croatian Institute of Public Health, Zagreb, Croatia

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\***ADDRESS FOR CORRESPONDENCE:** Verica Kralj, Hrvatski zavod za javno zdravstvo, Rockefellerova 7, HR-10000 Zagreb, Croatia. / Phone: +385-98-326-685 / E-mail: [verica.kralj@hzjz.hr](mailto:verica.kralj@hzjz.hr)

**ORCID:** Verica Kralj, <https://orcid.org/0000-0002-4623-828X> • Petra Čukelj, <https://orcid.org/0000-0002-2292-2167>

Cardiovascular diseases (CVDs) are the leading public health problem both globally and in Croatia, responsible for 18.6 million deaths every year. More than a third of deaths in the EU, 1.8 million, are due to CVDs, and 60 million of EU citizens live with some form of the disease. Subsequently, due to very high financial costs (in the EU, 210 billion Euros yearly) CVDs present an enormous burden to society and the economy. Research has shown that CVDs are largely preventable, and the biggest reductions in mortality rates are recorded in western European countries that invested resources in both prevention measures and treatment; but CVDs remain the leading cause of mortality, with rates reaching a plateau in some countries. Although more common in older people, CVDs are also common in younger age groups: 20% of all preventable deaths (deaths in people under 65 years of age) in the EU are due to CVDs.

Every year in Croatia more than 20 000 people die from CVDs. Mortality rates are decreasing, but with a standardized rate of 572.8 (per 100 000 population) for CVD mortality we are still above the EU average of 367.6. Compared to neighboring countries, Croatia has a higher mortality rate than Slovenia (393.6), Austria (362.9), Italy (270.7), and lower than Hungary (714.8). Although geographically a Mediterranean country, high CVD mortality rates in Croatia are more similar to those in Eastern and Central Europe.

In 2021 a total of 23 184 (13 199 women, 9 985 men) persons died from CVDs in Croatia (37 % of all deaths). Leading diagnostic groups were ischemic heart disease and cerebrovascular diseases, with 12.5% and 8.0% share in total mortality, respectively.<sup>1-3</sup>

COVID-19 pandemic brought on some changes in CVDs epidemiology; in 2020 and 2021 we saw a slight increase in mortality, with concurrent drop in hospital discharges - similar results are seen in other European countries.

Patients with CVDs and CVD risk factors are identified as being under increased risk for COVID-19 morbidity and mortality. Due to reallocation of health care resources during the pandemic, access to emergency treatment was more difficult. Fear of getting infected with COVID-19 also delayed help seeking, and these factors combined led to delays in diagnostics and treatment. We still do not know the effect that the long-term effects of both COVID-19 infection and delays in CVDs treatment will have on CVDs morbidity and mortality, and this requires a coordinated systemic response from both policy makers and health care professionals.

With that in mind, European Alliance for Cardiovascular Health presented the Cardiovascular Health Plan on May 16, 2022. The European Commission recognized the magnitude of the problem and supported the initiative. The goal of the Plan is to reduce the number of premature deaths from CVDs by a third, improve access to cardiovascular risk assessment for all, establish multidisciplinary care and improve the quality of life. The focus should be on primary and secondary prevention with early diagnosis and equal access to diagnostics, treatment and rehabilitation services. At the same time, Member States are called to establish national plans for cardiovascular health.<sup>4</sup>

CVDs are a global epidemic that endangers lives, health and quality of life. Despite the recent trends of decreasing age standardized mortality rates, we can expect further increase in CVDs burden due to increased prevalence, better treatment, and survival.

This public health problem was further aggravated during the pandemic, highlighting the need for comprehensive, structured and mandatory prevention, early diagnosis, treatment and rehabilitation programs.

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