

Objective. The aim of this analytical review is to analyze cardiovascular disease (CVD) mortality and its trends from 1990 to 2022 in the countries of the Commonwealth of Independent States (CIS).

Methods. This review analyzes data from CIS countries belonging to the Eastern European and Central Asian regions. The study employed data from the research group of the “Global Burden of Disease” (GBD) project. The GBD generates time series of comprehensive health metrics, including CVD prevalence, cause-specific mortality rates (CSMR), years of life lost (YLLs), years lived with disability (YLDs), and disability-adjusted life years (DALYs). Based on GBD results, we analyzed CVD mortality from 1990 to 2022 in the Central Asian and Eastern European regions, whose countries joined the CIS in 1991–1994.

Results. In 2022, the age-standardized CVD mortality rates among CIS countries in the Central Asian region ranged from 331.8 to 542.3 per 100,000 population. The 1.6-fold difference between the minimum and maximum rates indicates high variability within the region. From 1990 to 2022, over 32 years, CVD mortality in the Central Asian region decreased by 16.5 %. Among the CIS countries in Eastern Europe in 2022, the age-standardized CVD mortality rates ranged from 215.0 (Estonia) to 553.0 (Ukraine) per 100,000 population; the difference between the minimum and maximum rates was more than 2.6-fold. Over 32 years, CVD mortality in these countries decreased by 24.3 %. Eastern European countries ranked first among 21 global regions in terms of age-standardized CVD mortality in both 1990 and 2022. Across all CIS countries over the entire observation period, CVD mortality decreased on average by 20.4 %. This reduction is three times smaller compared to Western European countries, where the decrease amounted to 60.2 %.

Conclusion. Over the past decades, a substantial global decline in CVD mortality has been observed. This trend is more pronounced in regions with high levels of economic development compared to countries with lower economic levels, which include the CIS countries of Central Asia and Eastern Europe. To reduce cardiovascular morbidity and mortality in the CIS countries, it is necessary to develop effective, innovative, and widely accessible preventive, diagnostic, therapeutic, and rehabilitative technologies for CVD prevention and control.