



ASSESSMENT OF THE DYNAMICS OF MORBIDITY AND MORTALITY FROM CARDIOVASCULAR DISEASES IN THE REPUBLIC OF UZBEKISTAN (REVIEW ARTICLE)

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Abstract:

This review article analyzes the incidence of morbidity and mortality from cardiovascular diseases (CVDs) worldwide, including Uzbekistan. The tasks for decreasing the mortality, morbidity and disability from CVDs before the state cardiology services have also been studied.

Keywords: High technology medical aid, cardiovascular diseases, mortality, morbidity and others.

INTRODUCTION. Cardiovascular diseases (CVDs) are one of the leading problems of both medical and socio-economic spheres. Due to the significant prevalence in the population, high probability of the development of frequent severe complications, leading to disability and mortality of the population [31, 32, 45]. Adherence of one person of working age to cardiovascular pathology, leads not only to personal tragedy, but also to significant social and economic damage to the whole society due to a sharp loss of working capacity, expenses for treatment, rehabilitation and recovery of this patient's health [22, 23, 45].

According to the World Health Organization (WHO) over the past 15 years, CVDs still retain their leading position among the causes of mortality and disability in both adults and young adults. It is important to take into account the annual mortality from cardiovascular diseases (CVD), which is about 17.7 million people, which is 31% of all cases of mortality worldwide [23, 24]. Numerous studies have shown that circulatory system diseases (CVD) are responsible for 4,300,000 deaths annually in Europe, and in developed European Union (EU) countries more than 2,000,000 deaths, accounting for 48% and 42% of all deaths, respectively [19, 20, 21, 23, 45].

Countries with an increased risk of CVD include Russia, Albania, Algeria, Armenia, Azerbaijan, Belarus, Egypt, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Macedonia, Moldova, Tajikistan, Ukraine and Uzbekistan. In Russia, the group of CVD diseases occupies the first position in the structure of the main causes of mortality, while accounting for more than half of all cases. According to the latest statistics, in 2018,

with a total mortality rate of 1240 per 100 thousand population, the mortality rate from cardiovascular pathologies was 573.6 per 100 thousand population with a share of 46.3% [31, 32, 46, 50]. The lethality rate in Russia decreased by 22% in 2022 in comparison with 2021 and according to Rosstat data in the period from January till December the lethality rate in 2020 was 2.124 mln. people, and in the same period of 2021 the lethality rate was registered in 2.445 mln. people respectively [33, 35, 45]. In Kazakhstan, the incidence of CVD has also been increasing over the past 10 years, with mortality from CVD increasing by 18.8% in 2020 (193.8 per 100,000 population) and another 17.1% in 2021 (226.9 per 100,000 population) [24, 25, 26, 30, 41]. When examining the statistical rates of these diseases, a number of data were revealed. Every two seconds one person under the age of 70 dies from non-communicable diseases. According to C.D. Fryar, in the U.S., angina attacks in patients are noted every 40 seconds (more than 805,000 cases are registered annually) of which 605,000 attacks are first occurring, and 200,000 attacks are recurrent [3, 6, 8, 18, 27]. In Europe, about 85,000,000 people suffer from various types of CVD, of which 49,000,000 are residents of the European Union and more than 6.1 new cases of CVD are registered per year [4, 5, 9, 41].

As indicated by the results of WHO studies, the Republic of Uzbekistan, as well as other countries of the world, belongs to the countries with high risk of CVD development. Statistical studies indicate mortality in Uzbekistan from noncommunicable diseases in 2019 exceeded 83.5%, amounting to 702.8 per 100 thousand population, of which CVD mortality accounts for 60.3%



[14, 16, 17, 25, 29, 32]. The mortality from CVS in 2021 was 61.7% (107,666 out of a total of 174,500), among which male patients aged 18-74 years had twice as many deaths as female patients [1, 2, 7, 12, 22, 25].

When studying the overall lethality rates by regions of the Republic of Uzbekistan for the period of 2021, the following data were found: 174541 deaths were registered throughout the republic, of which the highest rates were in Karakalpakstan (8756), in Andijan (16409), in Bukhara (9129), in the Kashkadarya region (14,981), Namangan (13,542), Samarkand (18,808), Surkhandarya (12,786), Tashkent city (18,892), Tashkent province (18,121), Ferghana (18,703) [1, 22, 45].

In January-March 2022, 40.4 thousand deaths were registered, the mortality rate per 1000 population was 4.6 ppm, and compared to 2021, it decreased by 0.1 ppm (in January-March 2021 the rate was 4.7 ppm). Of the total number of registered deaths in January-March 2022, 61.5% were circulatory diseases, 6.7% - neoplasms, 9.2% - respiratory diseases, 4.4% - accidents, poisonings and injuries, 3.6% - digestive diseases, 1.5% - infectious and parasitic diseases and 13.1% - other diseases. By age groups for January-March 2022 14.1% of deaths occurred among young people under 20, 20-59 years old, 24.7% among those aged 40-59, and 61.2% among those aged 60 and over. According to the statistics from 01.01.2022 to 30.09.2022. 74109 deaths in Uzbekistan are attributed to HIP and the mortality rate from HIP fell from 61.7% to 56.2% compared to 2021 [1, 27, 33, 39]. About 23.6 million people are projected to die from CVD by 2030, but the individual prognosis may change positively or negatively depending on the diagnostic-therapeutic and prophylactic measures undertaken [15, 21, 23, 45]. The tactics of measures aimed at the diagnosis, prevention and treatment of CVD, in general, depends on the global problems of the population, such as the need for long-term treatment, the high cost of drugs and high-tech medical care (HCT) to treat a particular disease, the rehabilitation of patients after inpatient and outpatient treatment, which lead to significant financial costs for the state and the population [10, 11, 13, 17].

Currently in Uzbekistan, 782,000, or 2.4% of the population are recipients of pensions and benefits as persons with disabilities (of which 376,000 are persons with Group I and II disabilities). It should be noted that, among children and adults, CVD causes about 20% of deaths and more than 80% of disabilities, in the adult population from 28 to 60 years of age. The minimum allowance for disability per year is 7,464,000 per patient. The payment of an allowance per year to a legal representative caring for a disabled child under 18 years of age who requires nursing care is 6,000,000 [42, 44, 45, 48].

If one looks at data as of November 2022, the disability rate among children with congenital heart disease (CHD) is 6%, which translates into 46,920 children (approximately 30 billion UZS) per year. The legal representative caring for them is paid (about 25 billion soums) per year. Accordingly, if you count it on the basis of 18 years, it turns out a very impressive sum, and without taking into account the direct economic damage. The adult population registered as disabled because of HES is 4%, which, in turn, is 31,280 people of working age (195 billion soums) a year [22, 25]. It is necessary to emphasize the existence of direct and indirect economic damage, the reduction of which is one of the leading principles of VMM.

Direct economic damage is the cost of material, financial, informational and other resources (from 10,000 to 2,500,000 soums) used in the process of providing medical care to the population [44, 45].

Indirect economic damage - economic losses associated with the payment of temporary disability benefits, disability pensions, the number of un-lived working years of life (from 17 million to 50 million), a decrease in the production of gross domestic product (GDP), the payment of allowances to legal representatives engaged in caring for a person with a disability [45, 47].

The greatest economic damage is felt among the able-bodied population due to temporary or permanent disability. Workers who have lost the ability to work do not participate in the production of GDP, and the state spends money on providing them with medical care, payment of sick leave, payment of disability pensions, training for the disabled in connection with retraining and various other benefits of a social nature [44, 48].

Whereas by paying 1/5 of one year of disability allowance for VMP, it will be possible to save the state budget on all categories of both direct and indirect economic damage by 70-85%. It is especially important to emphasize that the IAP will help save the state budget both from the aforementioned point of view and from the point of view of the annual financial provision of disability benefits for patients. In children, the provision of VMM is in 90% of cases the most productive, which in the future allows to maintain the ability to work and will lead to a reduction in disability in each cell of society, affecting the social status and well-being of other members of the family. That in turn prevents psycho-emotional and socio-economic instability in the family [37, 38, 40, 44, 45, 51]. In the last 10 years our state has introduced substantial investments in health care. But even this has not fully helped to improve the situation, as they were not large-scale, not carried out by highly effective organizational, financial and economic measures. With the level of development of health care in the Republic of



Uzbekistan lagging behind the level of health care in developed countries - much stronger than in other key sectors of the economy [22, 24, 34, 36, 44].

CONCLUSIONS: Summarizing all this, it can be confidently noted that the introduction of VMP, as a new step in the health care system, will comprehensively help to affect the statistics of living standards and disability in our Republic. Thanks to the introduction in the cardiology profile of VMP in the health care sector, mortality rates are significantly reduced, the quality of life of patients is improved, the number of disabilities is reduced, and the life expectancy of patients with CVD is increased. This will lead to an increase in the population's demand for IAP [48, 49, 50, 53, 56].

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