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The State of Cardiovascular Disease in the Kyrgyz Republic

Ryskul B. Kydyralieva

The National Center of Cardiology and Internal Medicine named after academician M.Mirrahimov at Ministry of Health of the Kyrgyz Republic, Bishkek

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Short Report

According to the Republican Medical Informational Centre[1] of the Kyrgyz Republic, cardiovascular disease (CVD) was the leading cause of death in 2011, representing half (50.1 %) of all deaths.

Figure 1: The structure of the reasons of death rate of the Kyrgyz Republic population (according to Republican medical and informational centre, 2011)

In 1991, the death rate from CVD was 261.9 (per 100,000 population), while in 2011 this reached 326.3, a 24.5% increase.

More than eighteen thousand people in Kyrgyzstan die from CVD each year, over 50 every day.[1,2] The primary cause of death as related to CVD is coronary heart disease (80% of all CVD mortality, including acute myocardial infarction), followed by cerebrovascular diseases.

Figure 2: Death rate of the Kyrgyz Republic population from different cardiovascular diseases

Kyrgyzstan has the sixth highest CVD mortality in Eurasia following Russia, Byelorussia, Ukraine, Kazakhstan and Moldova. It is first in the Eurasian region on the standardized parameter of mortality from stroke at 88.5 cases per 100,000. [2,3,4]

Figure 3: Standardized death rate from cerebrovascular diseases (per 100,000 population, WHO, 2004)

Figure 4: Standardized death rate from coronary heart diseases (per 100,000 population, WHO, 2004)

It is especially alarming that CVD death rates are increasing among young and able-bodied people.[1,2] From 1991 to 2010, CVD mortality increased by 40.5% and 18.1 % in age categories 30-39 and 40-59, respectively.

Figure 5: Death rate from cardiovascular diseases in Kyrgyzstan, ages 30-39.

Figure 6: The death rate from cardiovascular diseases in Kyrgyzstan, ages 40-59.

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CVD is not only the leading cause of death in Kyrgyz population; it causes a large percentage of premature disability. CVD accounts for 19.6% of all disability cases, exceeding similar disability parameters for other diseases.[1,2]

Figure 7: Structure of premature disability of the Kyrgyz Republic population (according to Republican medical and informational centre, 1998-2011)

Using estimation methods of economic efficiency, we calculated economic losses connected to cardiovascular diseases in Kyrgyzstan. Analysis revealed that economic damage from premature death and physical disability from CVD in Kyrgyzstan totaled more than 14 billions soms (around 360 million US Dollars) in 2007.[5] As reflected, the healthcare system must be reorganized to combat cardiovascular diseases and stop the deterioration of Kyrgyz health. In doing so, we may prevent serious economic and social consequences of these diseases.

Taking into account the data outlined above, combating CVD in the Kyrgyz Republic is one of the key directions and priorities of national programs to reform public health. These programs, entitled "Manas Taalimi" (2006-2011)[6] and “DenSooluk” (2012 – 2016) are supported by the Government of the Kyrgyz Republic.

These program implementations are performed in four key directions, including:

- Integrating republic-level cardiology service systems, program monitoring, and evaluation.[7]
- Increasing the preventive work within the general population and providing training to identify key CVD prevention principles as well as CVD treatment and complications. Empowering communities to join the fight against CVD, including institutions of local self-government, non-governmental organizations, etc.[8]
- Improving awareness and knowledge among family doctors, nurses, and medical assistants regarding methods to combat CVD.[9]
- Introducing modern technologies of diagnostics, treatment, and prevention of CVD into public health practice.

Organizing public health programs to combat CVD at the Republic level will provide opportunities to lower the death rate from cardiovascular diseases,[10,11,12,13] promote significant improvement of health state of Kyrgyz people, and prolong their longevity and productivity.

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Figure 1: The structure of the reasons of death rate of the Kyrgyz Republic population (according to Republican medical and informational centre, 2011)

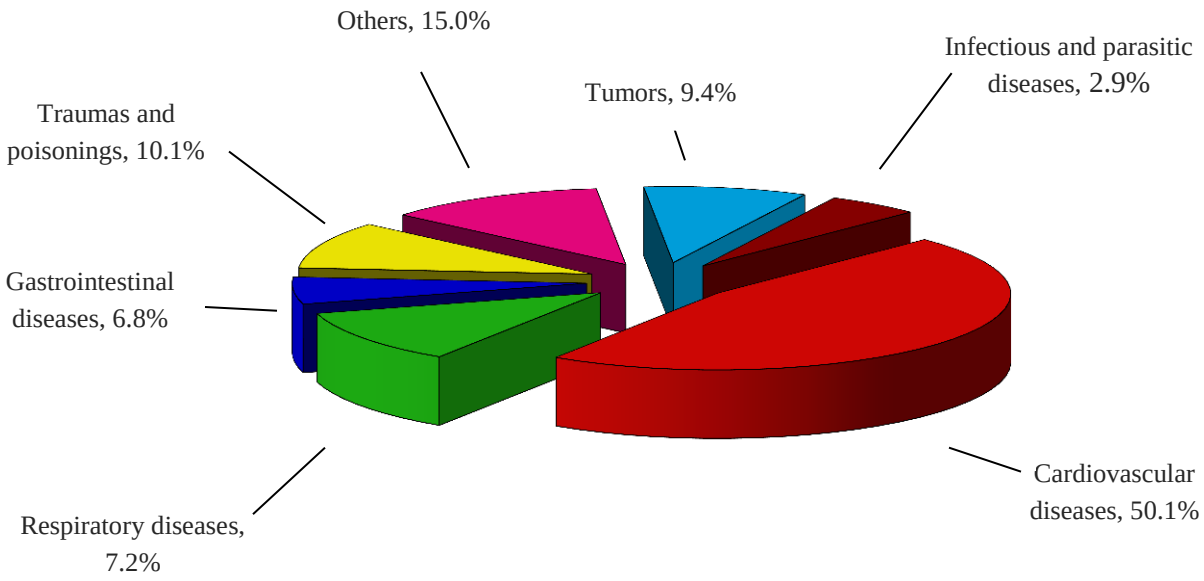

Figure 2: Death rate of the Kyrgyz Republic population from different cardiovascular diseases

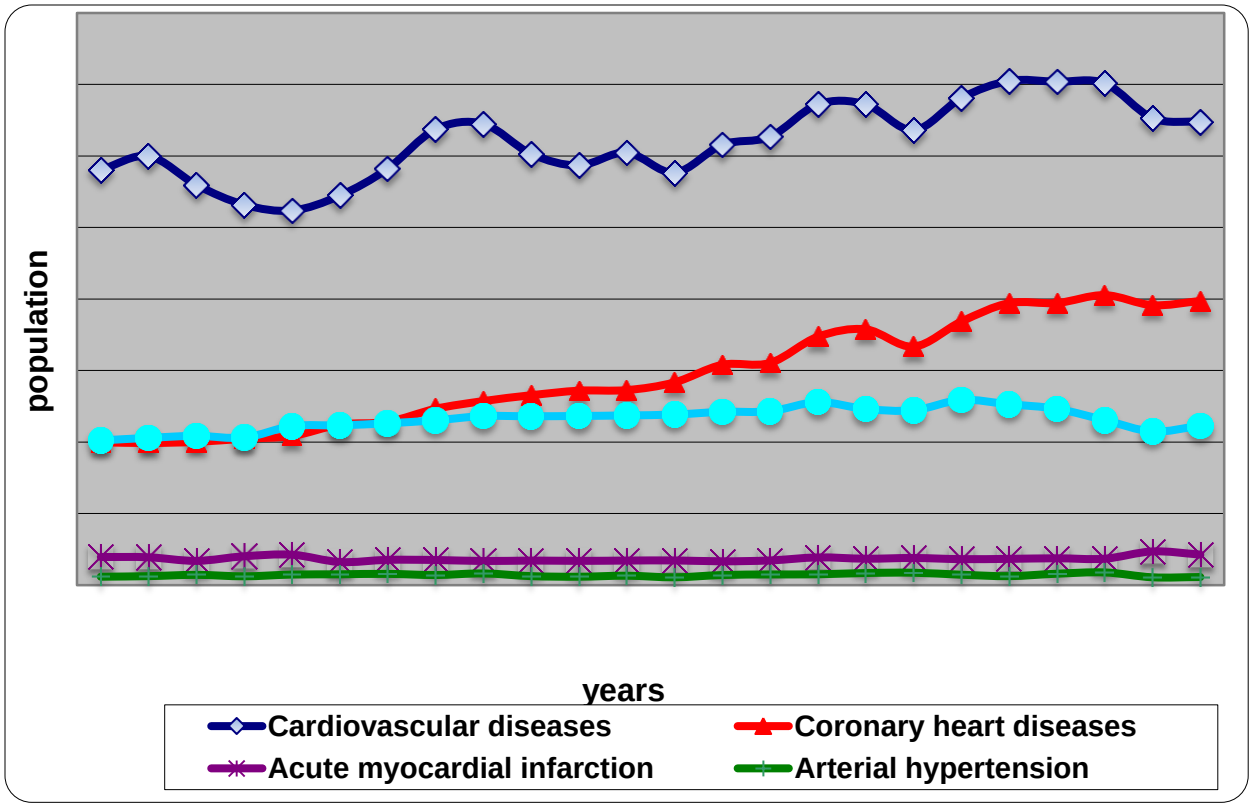

Figure 3: Standardized death rate from cerebrovascular diseases (per 100,000 population, WHO, 2004)

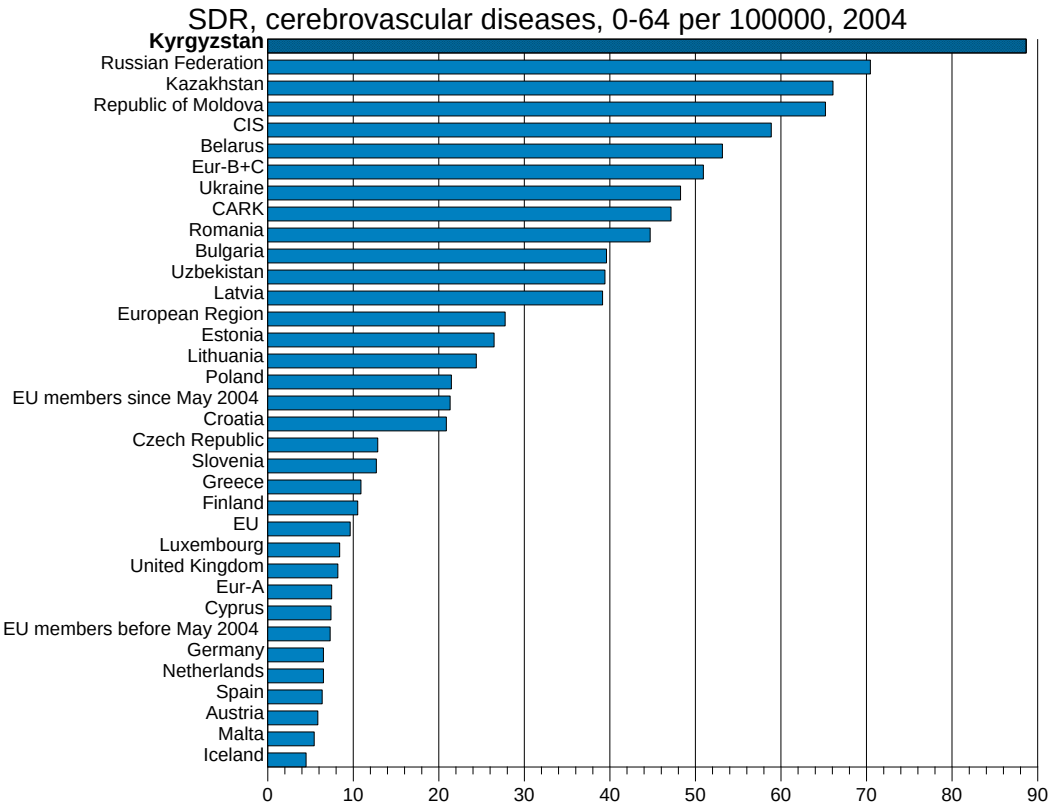

Figure 4: Standardized death rate from coronary heart diseases (per 100,000 population, WHO, 2004)

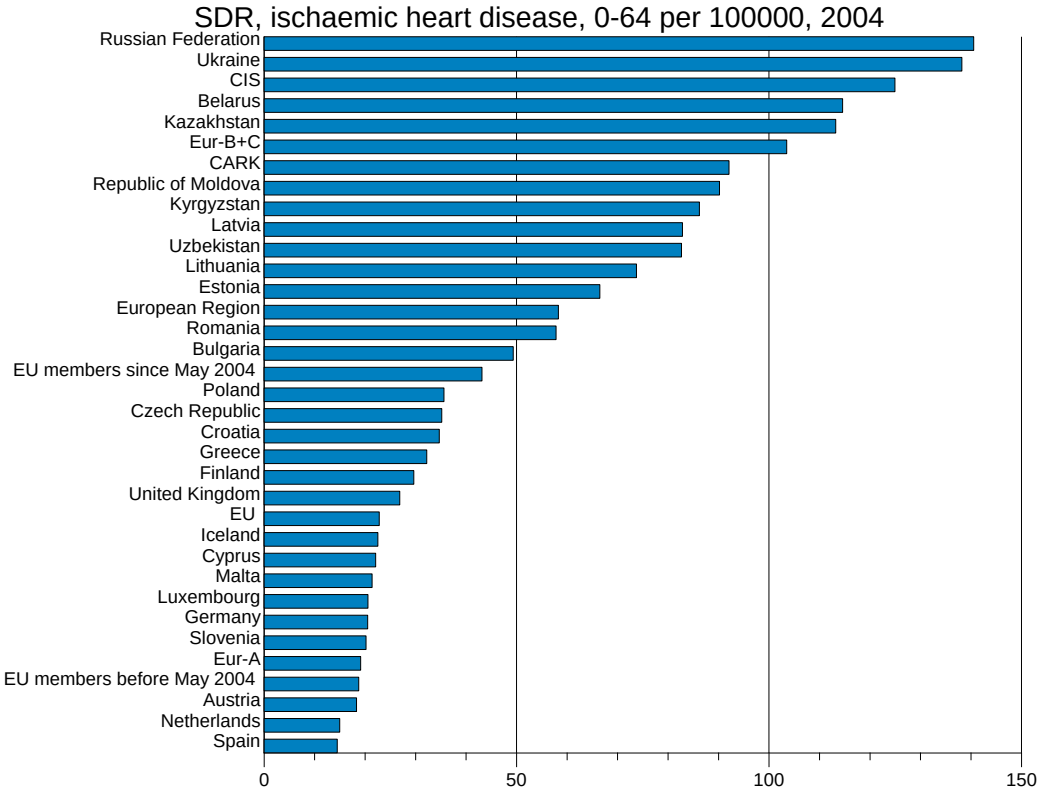

Figure 5: Death rate from cardiovascular diseases in Kyrgyzstan, ages 30-39.

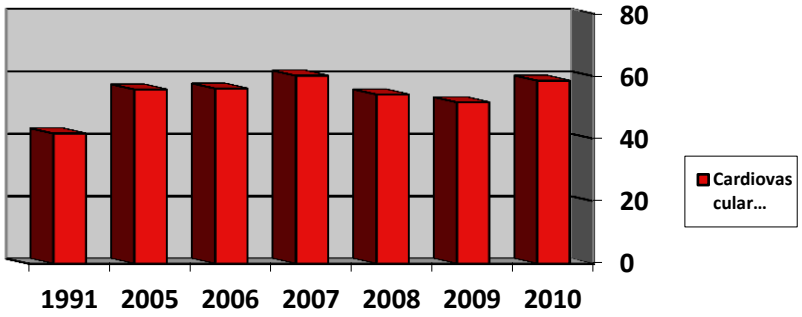

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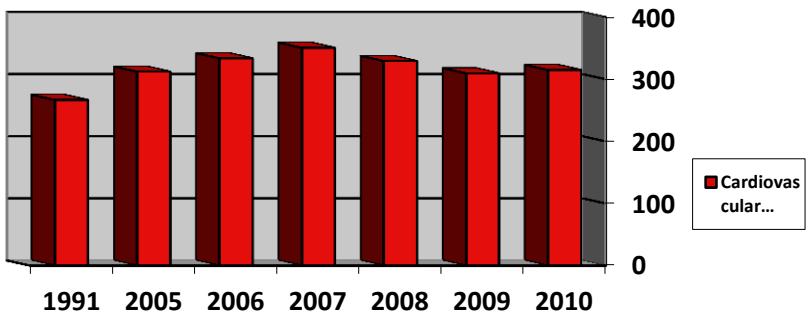
Figure 6: The death rate from cardiovascular diseases in Kyrgyzstan, ages 40-59.



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