

## Cancer Control in Central and Eastern Europe

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In the last decade, cancer mortality has declined by approximately 1% per year in both sexes in most areas of the world, including higher- and lower-income regions [1].

However, as remarked by Vrdoljak et al. [2], appreciable differences in cancer incidence and mortality persist throughout various areas of the world, including Europe. In the 1990s, after the end of nonmarket economies in most of Central and Eastern Europe, the overall difference in cancer mortality between Central/Eastern and Western Europe was approximately 50% in men and 30% in women, and it was more than 100% across extremes for males. In fact, in the year 2000, total cancer mortality was 258.5 deaths per 100,000 men in Hungary and 122.0 per 100,000 men in Sweden [3].

Some of these differences are due to risk factor exposure (i.e., greater tobacco and alcohol consumption), which caused exceedingly high lung, upper digestive, and respiratory tract cancer mortality in Central and Eastern Europe [4–10]. Some of the excess in Central and Eastern Europe is due to the greater prevalence of *Helicobacter pylori* infection and dietary aspects, which imply persistently elevated gastric cancer mortality [11].

In Central and Eastern Europe, persistent delays and inadequacies in cancer management exist as well. These include inadequacies in screening and early diagnosis, which are reflected in persistently high cervical cancer rates in those areas of the continent [7, 12].

Furthermore, mortality from several cancers highly curable with medical therapies including testicular cancer [7, 13], Hodgkin's lymphomas [6, 7] and leukemias [10, 14] remains higher in Central and Eastern Europe compared with Western Europe [7], but also compared with North America and selected major countries of South America, including Brazil and Argentina [15]. Likewise,

although some decline in breast cancer mortality—another neoplasm largely amenable to cure—has been observed in recent years in Central and Eastern Europe [16], this decline has been smaller than that in Western Europe.

The correlation between health expenditure and mortality-to-incidence ratio throughout Europe addressed by Vrdoljak et al. [2] suggests that health expenditure plays a major role in the control of cancer mortality. An increase in cancer control expenditure would most likely have a favorable effect on cancer mortality in Central and Eastern Europe. However, it is now clear that countries such as Brazil and Argentina, with gross national per capita products comparable to or, in some instances, lower than those in several Central and Eastern European countries, have achieved a better management in highly treatable cancers, such as Hodgkin's lymphoma [15] than that achieved by several countries in Central and Eastern Europe. Besides expenditure, therefore, several measures aimed at improving clinical management (addressing gaps in specialty training and facilities from pathological diagnosis to multidisciplinary treatments), and optimizing cancer control (such as antismoking measures), as outlined by Vrdoljak et al. [2], are required to reduce cancer rates in Central and Eastern Europe to levels comparable with those in other high-income countries.

More than a generation has now passed since the end of nonmarket economies in Central and Eastern Europe. It is time for this area of the continent to close the gap in cancer incidence and mortality rates with Western Europe and other high-income areas of the world [17, 18].

### DISCLOSURES

The authors indicated no financial relationships.

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**EDITOR'S NOTE:** See the related article, “Cancer Control in Central and Eastern Europe: Current Situation and Recommendations for Improvement,” by Eduard Vrdoljak, Gyorgy Bodoky, Jacek Jassem et al., on page 1183 of this issue.