Linking Lifestyles to Public Health

By Sushma Palmer, DSc

On the eve of the 21st century, Europe remains sharply divided on two fundamental human rights--health and longevity. On the same continent, while the Swedes and the Swiss enjoy among the highest longevity and quality of life in the world, populations in the NIS and CEE face a public health crisis, with life expectancy that is five to 20 years shorter than that of their Western European (and American) counterparts. Russian male life expectancy at present is 57 years compared to over 74 for Swedes and over 72 for American males. This puts Russian men on a par with India and Egypt.

The leading causes of death in CEE and the NIS are the same as in most other European countries: cardiovascular diseases and cancer. However, the region's overall age-adjusted death rate for all diseases exceeds 1,000 per 100,000, compared with below 900 in Western Europe and just over 800 in the United States. For almost all the leading causes of death, especially circulatory diseases, the CEE-NIS average is worse than that of Western Europe or the United States. These differences are most striking in middle-aged adults.

What accounts for these trends? A large part of the mortality and life expectancy gap may be explained by an extremely high prevalence of known risk factors in CEE-NIS, and a consequent epidemic of cardiovascular disease in middle-aged males. Tobacco smoke; a high-fat, high-salt and low antioxidant vitamin diet; alcohol abuse and lack of exercise are the main lifestyle factors held accountable by international authorities for much of this disparity.

Tobacco smoke alone accounts for half of the difference in mortality. Between the 1950s and mid-1980s, ischaemic heart disease mortality in men aged 45-54 years in former Czechoslovakia became twice as high as in Austria, compared to the 1950s when it had been the same in both countries. Recent World Bank analysis also suggests that air pollution may account for up to 9 percent of the gap in mortality between the Czech Republic and Western Europe, and a lesser proportion in other former socialist countries. Low access to food and good quality health care and re-emergence of once-stalled infectious diseases are also considered important players in the East-West mortality divide.

But these gloomy statistics nearly obscure the fact reversing this trend may not only require investment in high-tech, sophisticated equipment and pricey pharmaceuticals, but also in cost-effective community-based intervention aimed especially at primary prevention, private voluntary sector development, use of mass media for positive social impact and professional training exchanges. Among these, raising public awareness of personal steps to improve health, and motivating policy makers to adopt progressive policies deserve high priority.

In the United States, Australia and elsewhere, heart attack rates have fallen some 40 percent in the last three decades due to improved diagnosis and treatment--but also in no small measure because of increased public awareness through television, newspapers and other educational programs that have motivated people to improve their diets, reduce smoking and exercise regularly. Most Russians, Poles and others in the region are still struggling to accept the link between smoking and lung cancer, diet and heart disease.

A combination of the following epidemiological, clinical and nutritional findings related to lifestyle contribute to a high-risk profile for the region.

Cigarette smoking has long been rampant in NIS and CEE. Twice as many Central European as Western European middle-aged men die due to tobacco-related diseases today, and those killed by tobacco in middle age lose an average of 20 to 25 years of life. Russia ranks near the top in smoking rates in the industrialized world. With 50 to 60 percent of Russian men smoking, the influx of the Western tobacco giants into this region is threatening the welfare of

women and children, who are the latest targets of tobacco advertising, and in whom tobacco-related death rates are already beginning to show a rise. Especially dangerous is the increasing prevalence of smoking among Russian children and adolescents. Currently in Moscow, for example, 14 percent of fifth grade boys and 53 percent of boys and 28 percent of girls in the tenth grade smoke.

Food consumption trends in CEE-NIS show both excesses and deficiencies, and are also cause for alarm. Recent Food Balance sheet data over the last three decades from the Food and Agriculture Organization of the United Nations (FAO) showed that Hungary had the highest per capita availability within Europe for energy from total fats and for meat, poultry, and eggs, reflecting increased animal fat intake, and that Central Europe as a whole showed the largest increases. In contrast, the availability of cereals, legumes and potatoes has declined in this region.

Fat intake in the region has nearly doubled in the last 50 years, as has the consumption of high-salt foods. Total fat intake ranges from 40-45 percent of calories, with 70-80 percent of those calories coming from saturated fat--the primary dietary risk factor for cardiovascular diseases. Total serum cholesterol on average in these populations exceeds the upper recommended limit, hypertension exceeds 20 percent in the population, and obesity reaches the 40 percent mark in middle-aged women in many countries.

Limited data show low plasma levels of retinol (vitamin A) and tocopherol (vitamin E) and low dietary intake of vitamin C in Hungary and Poland compared with western European populations. Some explain a high proportion of the variation in coronary heart disease mortality by the level of dietary antioxidant vitamins.

Food shortages and malnutrition are also a growing problem in many countries in the region. The prevalence of anemia among young women is growing, reaching 40 to 50 percent in Central Asia.

The perception that alcohol abuse--one of the major risk factors for high chronic disease morbidity and premature mortality--is higher in Central Europe and Russia than in Western Europe and the United States is not supported by international data, perhaps because of underreporting of home consumption, although death rates from cirrhosis in this region are nearly double those in the European Union. Higher consumption of alcohol would be expected to increase mortality from accidents and injuries--both of which are higher in the East than in the West. Sample surveys in Russia indicate that alcohol is implicated in more than 50 percent of deaths from accidents, poisonings and injuries. Alcohol related morbidity and mortality may well account for some 25 percent of the gap in life expectancy.

According to the World Bank, the impact of environmental pollution on life expectancy in heavily polluted areas of CEE exacerbates the impact of poor health care and a lifestyle characterized by high-risk behaviors. Life expectancy in rural areas of Poland has been on par with that of urban areas in recent years, a highly unusual demographic trend associated with the fact that environmental pollution is concentrated in urban areas. In the Czech Republic, there is good evidence that dust and sulfur dioxide pollution increase the risk of infant mortality. Moreover, life expectancy in the Czech Republic is lower in regions affected by heavy air pollution. Recent evidence from studies to estimate the impact of respirable dust on overall mortality in CEE imply that the effect is likely to be substantial. Overall, the World Bank estimates that approximately 9 percent of the mortality gap between the East and the West can be accounted for by environmental pollution.

The enormity of the public health crisis faced by CEE and the NIS points to a special challenge to national governments and international assistance agencies to promote proactive public health policies, monitor the population's health, and institute health care reform focused on improving health through population-based interventions.

WHO's Eurohealth program has targeted the following six areas in support of the countries of CEE and the NIS: health policy, health care reform, women's and children's health, infectious diseases, non-communicable diseases and the promotion of better health, and environmental health. Numerous international agencies including The European Union, UNICEF and the World Bank, along with the governments of the United States, Canada, Japan, Switzerland, Germany, Italy, the Netherlands, the United Kingdom and others across Europe are trying to address similar priorities by providing crucial assistance to address the health care needs of the CEE and NIS.

Experience in many Western nations provides strong indication that modest changes in lifestyle-factors could substantially reduce the risk of the major causes of death and disability in CEE and the NIS. By fostering a new understanding of public health and preventive medicine, both governmental bodies and non-governmental organizations can help citizens adopt healthier lifestyles. But to help make these habits last a lifetime, governmental bodies themselves must give public health policy reform a priority on the national agenda.

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