Favorable trends in cancer mortality in the European Union but no room for complacency

My colleagues and I reported in this journal in 2003 that during the life span of the ‘Europe Against Cancer’ program, cancer mortality in the (then it was 15) Member States of the European Union (EU) had started to decline and that the estimated number of deaths in 2000 was 940 510 which was 9.0% fewer than the 1 033 083 deaths expected on the basis of application of the age-specific mortality rates from the mid-1980s to the 2000 population [1]. When all the mortality data for 2000 were eventually available (and only Belgium is still an estimate with 1997 being the most recent year for which data are available), there were 935 219 cancer deaths in the EU which is 9.5% fewer than expected. These declines have been confirmed subsequently [2].

In this issue of the Annals of Oncology, Bosetti et al. [3] present confirmation that these downward trends are continuing in the enlarged Member States of the EU (26 since Cyprus did not have data available). It is wonderfully reassuring to gaze at the downward trends in mortality rates in almost all forms of cancer in Figure 1 (for men) and Figure 2 (for women) of this article. Now there can be more emphasis placed on the cancer sites which are exceptions where the mortality rates are rising. Notable among these are liver and pancreas cancer in both men and women and the dramatic increases taking place in lung cancer in women.

These continual upward trends are now more prominent when mortality rates from all other forms of cancer are in decline [3]. This decline was previously demonstrated by Quinn et al. [4] who made statistical forecasts of the trends in the EU-15 until 2020. While rates of most cancers were predicted to fall, in some countries rates in men were set to stabilize. While this was good news, it was tinged with the sad realization that the stable rate achieved among men would be twice as high in Hungary as it would be in Sweden [4].

The high rates are just part of the frightening picture of health disparities between ‘old’ Europe (EU-15 defined here as the first 15 Member States of the EU: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, The Netherlands, Portugal, Spain, Sweden and UK) and ‘new’ Europe (EU-10 defined here as Bulgaria, Czech, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia).

Professor Witold Zatonski (Warsaw) has undertaken and completed a major study in the region of Central and Eastern Europe (HEM Closing the Gap Project, EC action number 2003121), demonstrating that there is a huge gap in health between the (EU-10) new accession countries in Central and Eastern Europe and the (EU-15) Member States in Western and Northern Europe. At the beginning of the 21st century, the extent of inequality in health status between new EU members from Central and Eastern Europe and the old EU members can be exemplified by the following comparative data. In the year 2002, the life expectancy in men in the Baltic countries of Latvia, Estonia and Lithuania is ~12 years less than in the nearby Sweden. Cardiovascular mortality is five times higher in Bulgarian women (351/100 000) than in French women (69/100 000). Lung cancer among Polish men (77/100 000) is nearly four times more frequent than among Swedish males (20/100 000). The death rates from liver cirrhosis in Hungarian (65/100 000) or Romanian (52/100 000) men are >10 times higher than in men from The Netherlands (4.4/100 000) or from Greece (5.3/100 000). Finally, fatal injuries among men in the Baltic States (Lithuania 219/100 000, Latvia 210/100 000 and Estonia 206/100 000) are about seven-fold higher than in The Netherlands (31/100 000) and UK (33/100 000). While the EU moves to a Single Europe, there is an obvious two-speed track in public health which requires urgent and serious attention.

The issue is compounded by the ageing of the population in the EU. In the EU, the population of the (then current) 25 Member States in 2000 was ~500 million. This figure will remain fairly unchanged until 2015 but the population will be distinguished by a 22% increase in the number of persons aged >65 and a 50% increase in the number of persons aged >80 by 2015. Given the strong association with cancer incidence (and mortality) and age, this will lead to a substantial increase in the cancer burden [3]. For example, in 2000, there were 1.122 million cancer deaths recorded in the EU and if the rates remained unchanged (i.e. the age-specific mortality rates remained fixed at 2000 levels), then the number of cancer deaths would be expected to rise to 1.405 million. Even taking into account the forecast rates deriving from the downward trends, it could be expected that there would be 1.249 million cancer deaths in 2015 [4]. There was an increase in the estimated number of cases of cancer diagnosed in Europe (all Europe not only EU) of 300 000 from 2004 [5] to 2006 [6].

The decreasing risk of dying from cancer of most forms in the EU is a major success but does not allow any room for complacency. The disparity between the health status in the populations of Western and Northern Europe (EU-15) compared with Central and Eastern Europe (EU-10) requires significant and urgent remedial intervention. There is an urgent need to undertake research in Central and Eastern Europe to identify the causes of the excess cancer (and
other chronic disease) rates, to monitor through time changes in biomarkers of chronic disease in response to public health policy and, at the same time, to create resources for capacity building in research and training of researchers in the broad region. In addition, it is beyond time to take action to be in a position to cope with the increasing cancer burden which will arise throughout Europe due to the ageing population.

P. Boyle

International Agency for Research on Cancer, 150 Cours Albert Thomas, 69372 Lyon Cedex 08, France
(E-mail: director@iarc.fr)

references