

Death rates from prostate cancer predicted to decline overall in EU but rise in Poland

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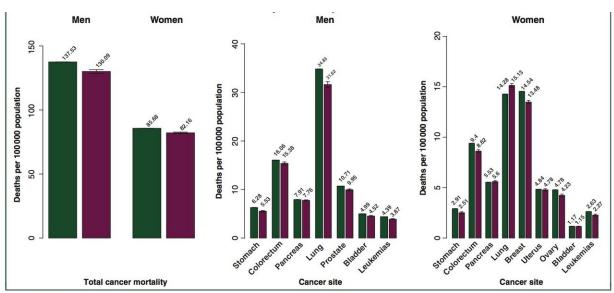


Figure 1. Bar-plots of age-standardised (world population) death rates per 100 000 persons for the year 2015 (left columns) and predicted rates for 2020 (right columns) with 95% prediction intervals for total cancers and 10 major cancer sites in EU men and women.

Bar-plots of age-standardized death rates per 100,000 people a year in 2015 and predicted rates in 2020 for all cancers and 10 major cancer sites in EU men and women. Credit: Annals of Oncology

Death rates from prostate cancer are predicted to fall in 2020 in the EU, largely due to better diagnosis and treatment, according to new research published in the leading cancer journal *Annals of Oncology* today.

In the latest predictions for <u>cancer</u> deaths in the EU for 2020,



researchers led by Carlo La Vecchia (MD), Professor at the School of Medicine, University of Milan (Italy), show that since 2015 there has been a 7% reduction in deaths from prostate cancer, with a predicted age standardised rate for 2020 of 10 men per 100,000 of the population. A total of 78,800 men are predicted to die from the disease this year.

Poland is the only EU country where <u>death rates</u> from prostate cancer are not falling; instead the researchers predict a rise of 18% since 2015: an age standardised death rate of 15 per 100,000 men, with 6,100 men predicted die from it by the end of 2020.

Prof La Vecchia said: "Poland started with the lowest death rate from prostate cancer between 1970 to 1974, but then rates increased up to the year 2000, stabilised for a while and then rose again up to 2020. So Polish prostate cancer death rates are now the highest predicted. This is difficult to explain. It is possible that the recent relatively <u>high rates</u> are due to delayed adoption of modern diagnosis and treatment.

"Across the EU as a whole, the key message from these prostate cancer death rates is to adopt up-to-date surgery and radiotherapy techniques, together with newer androgen deprivation therapy. This may have a relevant impact on prostate cancer mortality even in the absence of cure, since a proportion of elderly men may survive long enough to die from other causes. The prostate specific antigen test, PSA, may also play a role, but it is difficult to quantify this at present. It has major impact on incidence, but an unquantified impact on death rates."

Although prostate cancer death rates are declining, the actual numbers of men dying from the disease are predicted to increase due to the EU's aging populations. In 2015 74,998 died from the disease, compared to 78,800 predicted to die in 2020.

This pattern is seen in the predicted death rates and actual numbers of



deaths for all cancers in the EU and for the ten major cancers analysed in more detail. The researchers predict that death rates from all cancers will decline by 5% in men and 4% in women between 2015 and 2020, giving death rates of 130 per 100,000 and 82 per 100,000 respectively; but the predicted numbers of deaths will increase by 5%, reaching 1,428,000 by the end of this year: 798,700 in men and 630,100 in women.

The researchers looked at cancer death rates in the EU 28 Member States as a whole and also in the six largest countries—France, Germany, Italy, Poland, Spain and the UK—for all cancers, and, individually, for stomach, intestines, pancreas, lung, breast, uterus (including cervix), ovary, prostate, bladder and leukaemias for men and women. This is the tenth consecutive year the researchers have published these predictions. Prof La Vecchia and his colleagues collected data on deaths from the World Health Organization from 1970 to 2016.



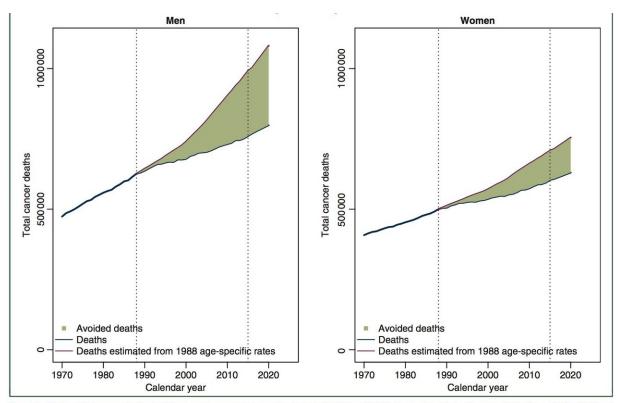


Figure 5. Total avoided cancer deaths for EU men and women between the top rate in 1988 and 2020; observed numbers of cancer deaths from 1970 to 2015 and predicted cancer deaths from 2016 to 2020; estimated numbers of total cancer deaths by applying 1988 age-specific peak mortality rate.

During the 32-year period 5 685 000 cancer deaths have been avoided (3 796 000 in men and 1 889 000 in women). In 2020 alone the number of cancer deaths predicted to be avoided are 282 000 in men and 124 000 in women for a total of 406 000.

Total avoided cancer deaths for EU men and women between the top rate in 1988 and 2020. Credit: Annals of Oncology

Prof La Vecchia said: "Overall cancer death rates in Poland are predicted to be 28% higher than the EU average for men and 21% for women. This gap between central-eastern and western Europe is due to patterns in tobacco consumption, but also to a slower adoption of up-to-date prevention, disease management and treatment.

"In the EU as a whole, cancer death rates for men are falling. More than half of this is due to declines in death rates from tobacco-related cancers. These include not only <u>lung cancer</u>, which accounts for over a third of the decline, but also cancers such as head and neck and bladder



cancers. In other words, it is due to fewer European men smoking, which started a few decades ago."

However, death rates are rising in women for cancers of the lung and pancreas; there is a predicted increase of 6% in death rates for lung cancer between 2015 and 2020 (15.1 deaths per 100,000 and about 100,000 deaths) and an increase of 1.2% in pancreatic cancer (5.6 deaths per 100,000 and 46,200 deaths). Death rates from lung cancer among women overtook those from breast cancer in 2016 and this trend is continuing. The researchers predict the death rate from breast cancer this year will be 13.5 per 100,000 (95,900 deaths), down 7.3% from 2015.

Prof La Vecchia said: "Death rates from lung cancer in women have been increasing persistently in the EU over the past decade, although the rate of increase is now slowing. Between 2010 and 2020 female lung cancer rates in the EU increased from about 13 to over 15 per 100,000. In the absence of effective intervention on tobacco smoking in women, the overall rate will probably reach 16 or 17 per 100,000 in 2030 and only level off in the subsequent decade."

Co-author, Dr. Eva Negri, a senior researcher at the University of Milan, said: "There are some differences between countries in female lung cancer death rates. For instance, French and Spanish rates are rising more than British or Italian ones. This again reflects smoking habits in different generations of women in various countries and underlines the importance of convincing women to give up smoking, not only in Poland or the UK, which now have the highest rates, but also in France or Spain, which still have relatively low overall rates. This will help to control the persistent epidemic of lung and other tobacco-related cancers in women.

"Tobacco remains the main cause of cancer mortality in Europe, accounting for around 20% of total predicted cancer deaths; the marked



decline in the deaths in men compared to women reflects the differences in past smoking habits between the two sexes."

The researchers predict that compared to a peak rate of cancer deaths in 1988, over 5.7 million cancer deaths will be avoided in the EU in the 32-year period up to 2020. In 2020 alone, a total of 406,000 deaths from cancer are predicted to be averted (282,000 in men and 124,000 in women). For prostate cancer, 462,000 deaths will have been prevented over the 32-year period and 40,000 in 2020 alone.

Co-author, Fabio Levi (MD), Emeritus Professor at the Faculty of Biology and Medicine, University of Lausanne (Switzerland), said: "Pancreatic cancer trends remain unfavourable across Europe. Control of tobacco and action on overweight, obesity and diabetes could improve such trends. No relevant advances have been observed in the diagnosis and treatment of this cancer, which has a particularly poor prognosis. Therefore, greater investment in research is required."

More information: G. Carioli et al, European cancer mortality predictions for the year 2020 with a focus on prostate cancer, *Annals of Oncology* (2020). DOI: 10.1016/j.annonc.2020.02.009

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