

Productivity losses for cancer-related mortality in Ireland: Projecting from 2011 to 2030

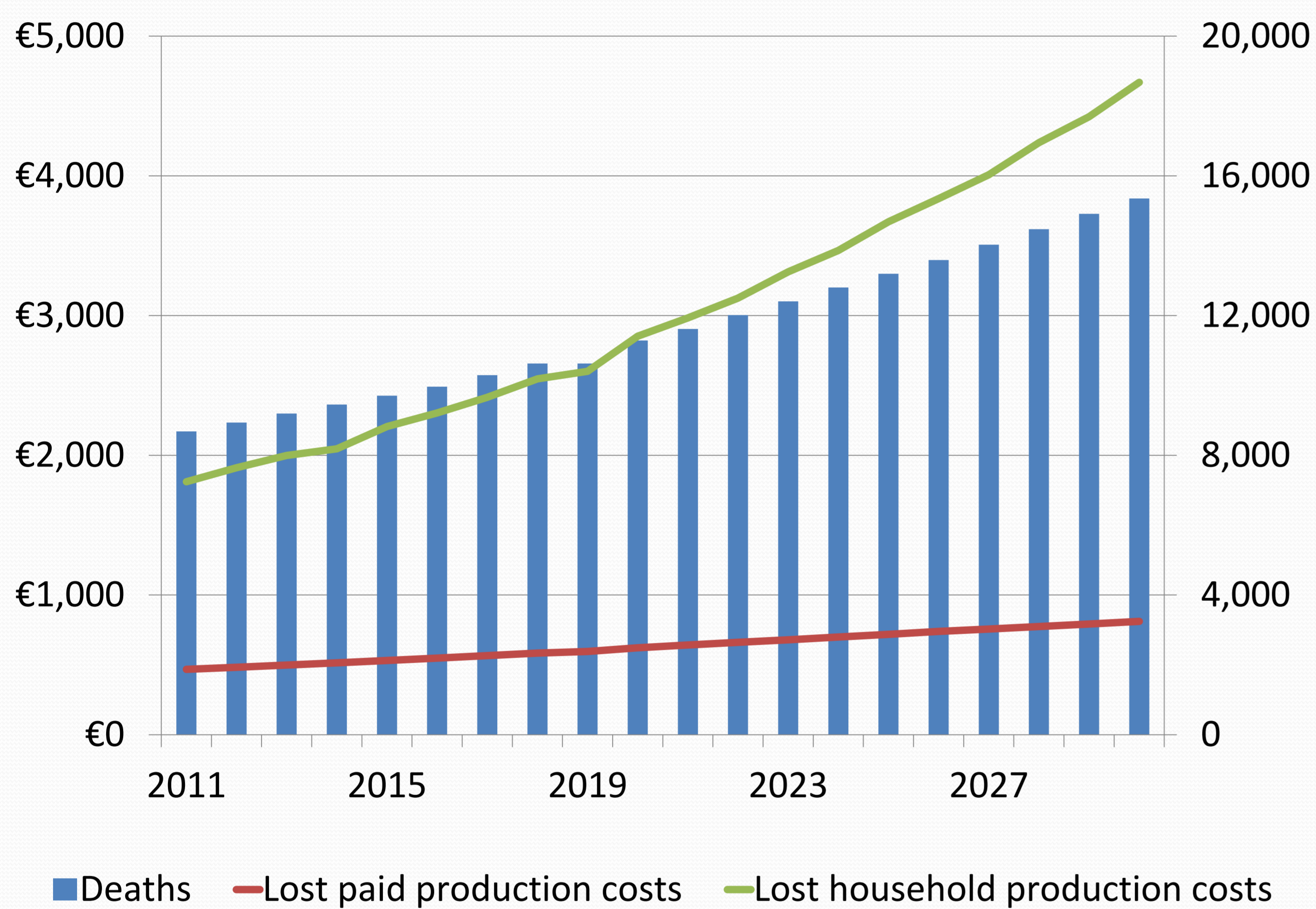
Alison Pearce¹, Cathy Bradley², Paul Hanly³, Audrey Alforque Thomas⁴, Ciaran O'Neill⁴, Michal Molcho⁴, Linda Sharp⁵, the ICE Award Investigators

¹National Cancer Registry Ireland; ²Virginia Commonwealth University; ³National College of Ireland; ⁴National University of Ireland Galway; ⁵Newcastle University

Introduction

When individuals stop working due to cancer this represents a loss to society – the loss of productivity. **The aim of this analysis was to estimate productivity losses associated with premature mortality from cancer in Ireland from 2011 to 2030.**

Figure 1. Projected number of deaths & lost productivity costs, 2011-2030



Methods

An incidence-based Human Capital Approach was used to estimate lost productivity due to cancer deaths between 2011 and 2030.

National cancer registry data provided cancer mortality rates, and the Central Statistics Office has produced projections for population growth, life expectancy, labour force participation, unemployment rates and earnings. Both paid work and unpaid household activities, such as caring for others, volunteering and housework were included.

Sensitivity analyses tested assumptions around future cancer mortality rates, estimating the impact of an ongoing 1% reduction in cancer mortality rates per year for the next 20 years.

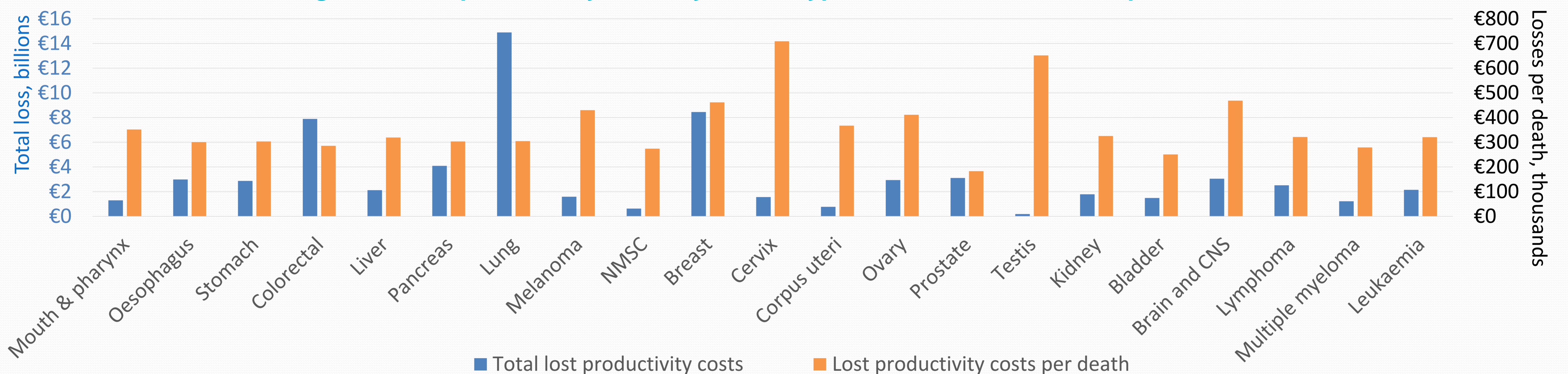
Results

The 233,000 projected cancer deaths in Ireland between 2011 and 2030 will result in lost productivity valued at €73 billion; €13 billion (18%) in paid work and €60 billion (72%) in household activities (Figure 1).

High incidence cancers, such as lung, colorectal and breast, incur the highest productivity losses overall. However, cancers of the testis, cervix and brain have highest losses per death because of higher mortality in younger, working-age, individuals (Figure 2).

An annual 1% reduction in mortality over the next 20 years would reduce the productivity lost due to cancer by €8.5 billion.

Figure 2. Lost productivity costs by cancer type – total costs and costs per death



Conclusions

Society incurs substantial productivity losses as a result of cancer-related mortality, particularly when household production is included. These results highlight that cancers with higher mortality among younger working-age people can result in large productivity losses. Our estimates complement measures of disease burden such as incidence, mortality and survival, as valuable input to resource allocation decisions in cancer prevention and control in Ireland.

Contacts

For more information about this research, please contact Dr Alison Pearce

National Cancer Registry Ireland: W: www.ncri.ie

T: @IrishCancerReg

E: a.pearce@ncri.ie

Personal:

W: www.alisonpearce.net

T: @aliepea

Download this poster:



Funding: This work was funded by a Health Research Board Interdisciplinary Capacity Enhancement Award (ICE/2012/9), which funds post-doctoral fellowships for Alison Pearce and Audrey Thomas. The NCRI is funded by the Department of Health.