Public Health England

Protecting and improving the nation's health

Stage at diagnosis 2012-2014 and one-year cancer survival in England

National cancer registration and analysis service data briefing

Figure 1 (overleaf) shows the proportion of cancers diagnosed during 2012-14 and associated one-year TNM stage-specific net survival[1], for ten common cancers[2] reported in the Public Health Outcome Framework[3], plus the trend in one-year survival over the last decade.

The completeness of staging data captured by the National Cancer Registration and Analysis Service[4] continues to improve with all but one of the PHOF cancers over 80% complete in 2014 (overall across the ten cancers examined: 87.6%).

Stage specific one-year survival declines markedly with each increase in stage category in some cancers (lung, ovarian, and bladder). In others, there is little decline in stage-specific survival for stages one to three (breast, prostate, and melanoma) with a large decline in survival in stage four. Colorectal, kidney, and uterine cancers follow intermediate patterns. The distribution of stage at diagnosis also varies notably by cancer, for example, between being strongly concentrated in early stages (melanoma) or late stages (lung).

Overall survival has increased in some cancers (including lung, kidney, and ovarian) by over 10% in the last ten years. Comparison of stage specific survival with the proportion diagnosed at each stage will allow the contribution of earlier diagnosis and better stage-specific outcomes to future improvement to be monitored.

Key messages

- Different cancers have very different stage-specific survival and proportions of persons diagnosed at different stages. Interventions to improve patient outcomes need to be targeted appropriately for maximum effect

- Stage completeness at diagnosis continues to improve and is now 88% for ten cancers

FIND OUT MORE

1 Survival for Non-Hodgkin's Lymphoma is excluded on advice of the site-specific clinical reference group

2 Slightly different ICD-10 code groups are used for publication of stage % and survival %. These are for stage/survival%: Bladder C67/C67; Breast (female only) C50/C50; Colorectal C18-20/C18-20; Kidney C64/C64-66&C68; Lung C34/C33-34; Melanoma C43/C43; NHL C82-85/-; Ovarian C56/C56-57; Prostate C61/C61; and Uterine C54/C54-55

3 www.phoutcomes.info/

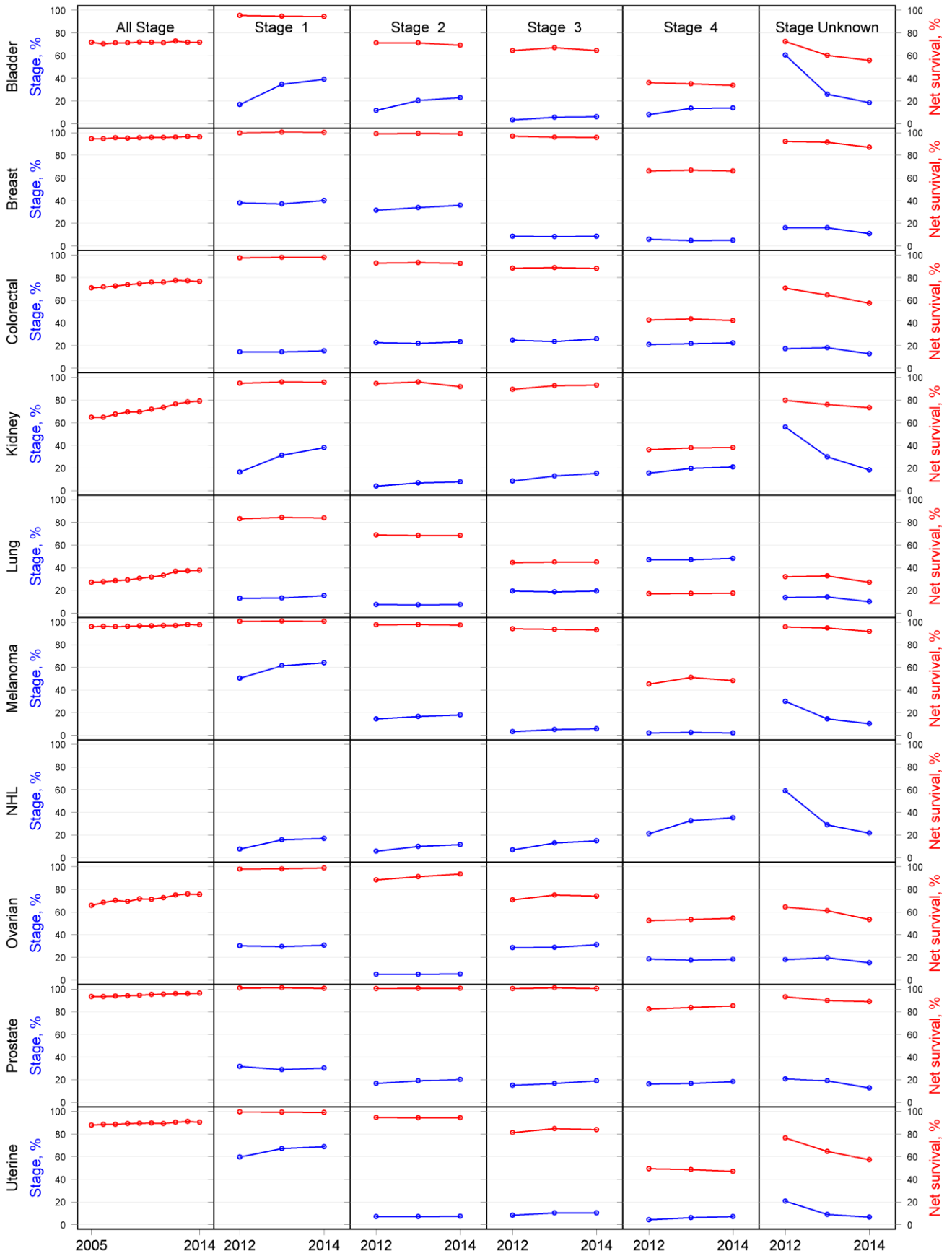4 Available at: www.ncin.org.uk/publications/survival_by_stage

Figure 1: Stage distribution at diagnosis (blue), and one-year net survival (red) for ten cancer types, England, 2012-14 (by stage) and 2005-2014 (all stages combined)