DESCRIBING THE THREE CANCER GROUPS

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Background

Previous work has proposed a model to cluster the majority of cancers into three cancer groups based on an analysis of survival rates refined by clinical insight[1]. They include:

- **Group 1: Longer-term survival** with five-year survival over 80%. For this group peoples' cancer is generally identified and treated successfully in an acute episode of cancer treatment. However, many will live with physical, practical, financial and/or emotional consequences of cancer or its treatment. This means the focus should be on recovery and long-term quality of life. For example, reducing over-treatment and supporting return to work.

- **Group 2: Intermediate survival**. Cancers that are often treatable but not curable and typically have multiple lines of on-going treatment. There are shared characteristics with other long-term conditions. The timing of the acknowledgement that cancer is likely to be life-limiting and the transition to end of life care is critical.

- **Group 3: Shorter-term survival** with over half of people dying within a year of diagnosis. Acute cancer episodes, treatment and palliative care dominate in this group.

The cancer types in each group are indicated in figure 2. This poster shows how by applying the numerical framework to the latest cancer statistics we enhance the analysis.

Methods

New survival, incidence, prevalence, stage at diagnosis and mortality data are collated from statistical publications and analysed through the three cancer groups framework.

We also analyse 4-year (2012 to 2015) cancer prevalence in England by stage at diagnosis[2]. This data for 10 common cancers[3] describes 58,500 people living up to 4 years with a cancer that was diagnosed at stage 4. 45% (26,500) are in the year of their diagnosis which leaves 32,000 between 1 and 4 years post diagnosis. Of this 17,200 are between 2 and 4 years post diagnosis. These numbers are likely to be under estimates as there are a further 71,000 people living up to 4 years post a cancer diagnosis but the registry doesn't contain information about their stage at diagnosis.

Results

The estimated proportion of people living with cancer in each of the three cancer groups is shown in figure 1.

Figure 2 shows 4 year prevalence in England by cancer type arranged into the three cancer groups. Even though it only shows 4 years follow up there are still visible differences between the three cancer groups.

Figure 1: Estimated share of the cancer population in each cancer group

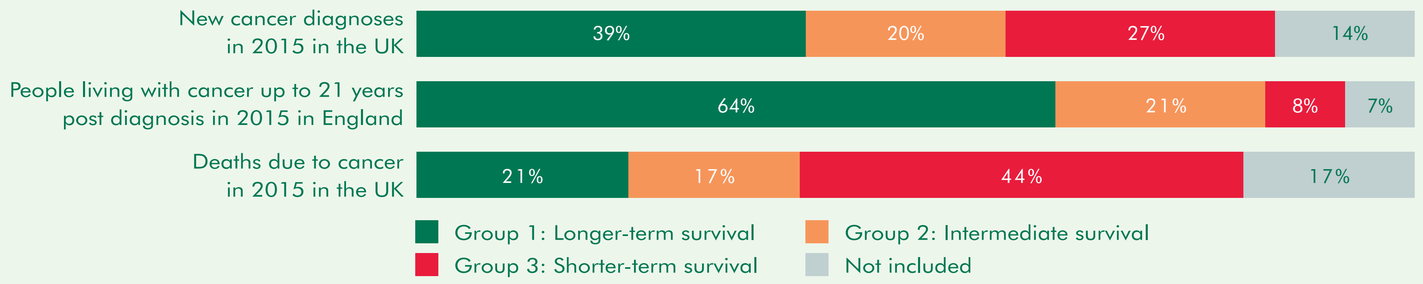
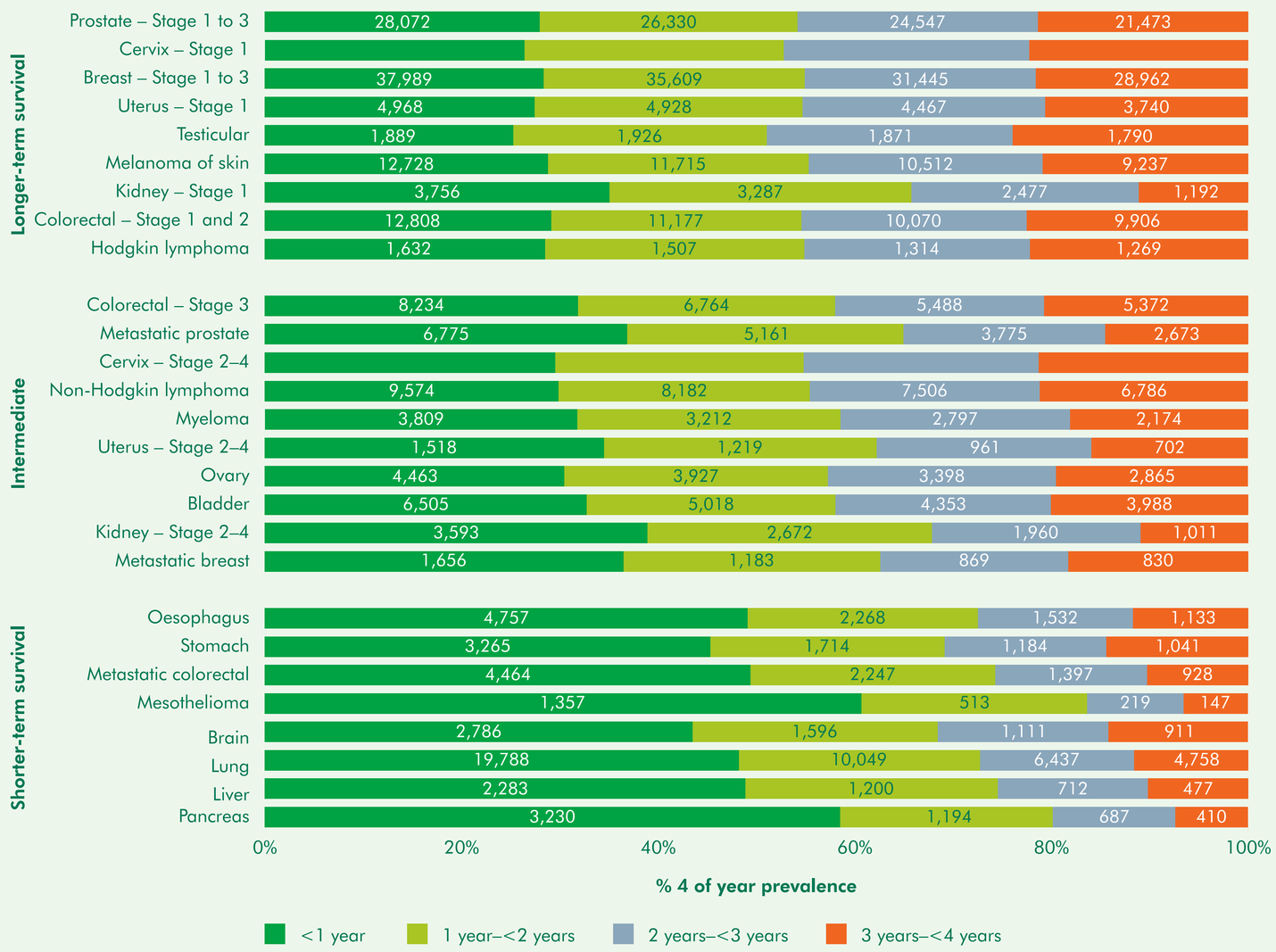


Figure 2: 4 year prevalence by time since diagnosis in England in 2015



Those with unknown stage at diagnosis are excluded from the chart. This ranges from 25% of people living with kidney cancer to 7% of people living with cancer of the uterus. For cervical cancer the numbers are not shown on the graph because England data is limited so the numbers are crudely estimated using survival rates and stage at diagnosis data from Northern Ireland[4].

Conclusions

Every person with cancer has unique needs shaped by a multitude of factors, including co-morbidities and patient preferences. However, there needs to be a high-level view of potential care requirements to support service planning.

Needs for people living with cancer often change with time since diagnosis and this change can be most dramatic in the initial few years after diagnosis. For example, for the 105,000 people within the first year after diagnosis of a longer-term survival cancer we believe many will be having an acute episode of treatment. Also there are 98,000 people who are 1 to 2 years post diagnosis who may be in a recovery phase.

For those with a shorter-term survival cancer half of people living up to 4 years post diagnosis are in their first year of cancer. For these people many will need to strike a balance between treatment and palliative care. There are 44,000 people who are over a year post diagnosis with a shorter-term survival cancer. Even for pancreatic cancer there are 2,300 people living one to four year post diagnosis (and 4,200 living one to 21 years post diagnosis). This may be a minority but it is still a population in need of specialist services.

For cancers in the intermediate survival group there are 97,000 people in the intermediate groups who are over a year since their cancer diagnosis but under four years post diagnosis. These people will have had a year of diagnosis, treatment and/or consequences of cancer. At the end of this year, they may be adjusting to living with a cancer that treatment is partly able to control but not eradicate and contending with the realisation that despite living a year since diagnosis, ultimately a cancer death is a strong possibility. This population are likely to need specialist support.

References
1. https://www.macmillan.org.uk/_images/three-cancer-groups_tcm9-297577.pdf
2. Transforming Cancer Services Team for London, NHS, National Cancer Registry and Analysis Service, PHE and Macmillan Cancer Support. 2017. Cancer Prevalence in England: 21 year prevalence by demographic and geographic measures and additional tables.
3. Bladder, female breast, colorectal kidney, renal pelvis and ureter, lung, trachea and bronchus, melanoma of skin, non-Hodgkin lymphoma, ovary, prostate and uterus.
4. www.qub.ac.uk/research-centres/nicr/CancerInformation/official-statistics/BySite

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