Private Health Insurance and Socioeconomic Inequalities in Cancer Screening

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Differences in cancer screening utilisation related to socioeconomic status exist in Ireland. These differences, or inequalities, contribute to differences in morbidity and mortality across socioeconomic groups. Using data from SLAN 2007, pro-rich inequalities, as measured by concentration indices, are observed for population-based breast cancer screening and opportunistic cervical, colorectal and prostate cancer screening in Ireland. Concentration indices are also decomposed to identify the underlying factors explaining inequality. Private health insurance coverage was the largest contributor to inequalities for colorectal and prostate cancer screening and the second largest for breast cancer screening, which was publically funded at the time.

Key words: cancer screening; inequalities; concentration index; decomposition; insurance.

INTRODUCTION

Until recently Ireland lagged significantly behind other countries in Europe in the implementation of organised population-based cancer screening programmes. Only breast cancer screening had a centrally organised, publically funded, invitational population-based screening programme in place. Each of the other cancer screenings were organised opportunistically and screening depended upon the individual and their clinician organising a screen. The organisation of screening impacts upon how individuals engage with screening. Individuals from many groups, such as those from lower socioeconomic groups, may have greater barriers and costs (both pecuniary and non-pecuniary) when attempting to screen in comparison to their more affluent peers, especially for opportunistic screening. Measuring and understanding inequalities in cancer screening is of great importance, especially for cervical and colorectal cancers where incidence and mortality rates are far greater for those in lower socioeconomic groups. Reducing inequalities in cancer screening can therefore subsequently reduce inequalities in cancer mortality and help reduce the overall burden of cancer.

APPROACH AND FINDINGS

Concentration indices (CI) are used to measure socioeconomic inequalities in cancer screening utilisation. CIs are similar to Gini coefficients (which measure income inequalities), and measure how cancer screening utilisation is distributed across individuals who differ according to their socioeconomic position in the population. Equivalised household income is used as the socioeconomic ranking variable for measuring the CI. CIs are bounded between -1 and +1 which 0 representing no inequality and a CI>0 representing a pro-rich inequality where cancer screening is disproportionately consumed by richer individuals. CIs can be readily compared across populations and cancer screens. They can also be partitioned into the underlying determinants which are causing the inequalities, such as education, social class or private health insurance, using decomposition analyses.

Walsh et al (2012) was one of the first studies to investigate socioeconomic inequalities in cancer screening in Ireland using these techniques using data from the Survey of Lifestyle, Attitudes and Nutrition in Ireland (SLAN) 2007. Figure 1 illustrates the estimated CI for each cancer screen and highlights that large socioeconomic inequalities exist in Ireland. Regardless of the screening programme in place, no statistical differences in inequalities between cancer screens are observed, regardless of the organisation of screening programme in place. Following the decomposition analyses, private health insurance was the second largest contributor to breast cancer screening inequality explaining 18% of the observed inequality, even though screening was invitational and free for all women regardless of their insurance status. Private insurance was the largest contributor to colorectal and prostate cancer screening inequality.

Figure 1. Inequalities as measured by concentration indices

CONCLUSIONS AND POLICY IMPLICATIONS

Large pro-rich socioeconomic inequalities exist for cancer screening in the Republic of Ireland as measured by concentration indices. The implementation of population-based cancer screening for breast cancer failed to eradicate inequalities, in large part due to the importance of private health insurance in accessing treatment within the mixed public-private Irish health care system. The results highlight that private health insurance is the biggest, or one of the biggest, contributors to cancer screening inequalities in Ireland. Addressing inequalities in screening, specifically for cervical and colorectal cancer, should be a main priority of policymakers in Ireland as reductions in screening inequalities could greatly reduce inequalities in cancer mortality and reduce the overall burden of the disease.

REFERENCES