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**ETHNIC AND SOCIOECONOMIC INEQUALITIES IN  
BREAST CANCER SURVIVAL**

**A thesis by publications presented in partial fulfilment of the  
requirements for the degree of**

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## **Abstract**

There are likely to be many contributing factors to inequalities in cancer survival. The most commonly theorised are: differences in access to cancer care, screening, diagnosis, quality of care and treatment; biological differences; lifestyle/behavioural differences; and differences in comorbidities. To investigate explanations for inequalities in survival for women with breast cancer, a conceptual model was used to illustrate potential pathways, and studies conducted to isolate which pathways could explain ethnic and socioeconomic differences in survival.

The substantive body of this work comprises a systematic review, and analyses of datasets from England and New Zealand. Firstly, breast cancer survival differences between ethnic minority and majority groups are reviewed to examine the relationship between social determinants and behavioural factors. Secondly, inequalities by socioeconomic position (SEP) in screen-detected breast cancer survival in the South West of England are presented to examine social determinants and healthcare systems. Next, prognostic factors for New Zealand women with breast cancer by ethnicity and SEP are presented to examine the relationship between social determinants and biological factors. Finally, two separate analyses examine the relationship between ethnicity and SEP respectively, and biological factors and healthcare systems, as determinants of breast cancer survival in New Zealand.

SEP was found to explain a sizeable proportion of ethnic inequalities in breast cancer survival; however other factors were also identified as important. The largest contributors to ethnic inequalities appear to be factors associated with access to timely healthcare. There are considerable SEP inequalities in breast cancer survival, which are independent of ethnicity. A large proportion of the observed deprivation-gap in breast cancer survival can be accounted for by early detection.

Efforts to eliminate inequalities in breast cancer survival should focus on increasing attendance at breast screening for women of lower SEP. However efforts should also be made to ensure equal access through the secondary care system to address the attenuated survival inequalities that remained even among screen-detected women. Both timely access to and through healthcare will likely have an important impact on ethnic survival disparities. Biological tumour differences, which indicate breast cancer subtype, do not appear to explain survival inequalities, between women of different ethnicity or different SEP.

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