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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**

Doctor of Philosophy

In

Epidemiology

Massey University, Wellington

New Zealand

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2010

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.

Acknowledgements

This thesis would not have been possible without the guidance of my supervisors, Lis Ellison-Loschmann and Mona Jeffreys, who gave much time and energy to help me complete this body of work.

Thank you Lis - for always having an open door, for your continuous advice, and for all the 'relaxing' hours spent in your green chair. Your amazing sense of humour was also appreciated, as without it the whole process would have been very sombre.

Thank you Mona - for your calm logic, unwavering support, and for your friendship over the past years. I cannot believe you stuck with me, through two pregnancies and a move halfway round the world! Thanks also to your beautiful family for 'sharing' you and for making me so welcome while I was there.

I am grateful to Neil Pearce and Jeroen Douwes for giving me the opportunity to do this work, and to the whole CPHR family who supported me throughout.

In particular I would like to thank my fabulous roomy Amanda Eng, who has laboured with me since the very beginning – we started together, and now we are finishing together, which would not have happened without her daily counselling (or chocolate expeditions).

I greatly appreciate the assistance of Andrea 't Mannetje and Elana Curtis in reviewing an earlier draft of this work and providing such insightful feedback.

I would also like to express my gratitude to my friends and family who have always supported and encouraged me.

Table of contents

Abstract.....	i
Acknowledgements.....	iii
Table of contents.....	iv
List of tables.....	v
List of figures.....	vii
CHAPTER ONE.....	1
Introduction.....	2
CHAPTER TWO.....	10
Do lifestyle or social factors explain ethnic/racial inequalities in breast cancer survival? A systematic review and meta-analysis.....	11
CHAPTER THREE.....	42
Socio-economic inequalities in survival from screen-detected breast cancer in South West England: population-based cohort study.....	43
CHAPTER FOUR.....	55
Prognostic factors in women with breast cancer: inequalities by ethnicity and socioeconomic position in New Zealand.....	56
CHAPTER FIVE.....	74
Investigating reasons for ethnic inequalities in breast cancer survival in New Zealand.....	75
CHAPTER SIX.....	94
Investigating reasons for socioeconomic inequalities in breast cancer survival in New Zealand.....	95
CHAPTER SEVEN.....	118
Discussion.....	119
REFERENCES.....	138

List of tables

Table 2.1. Description of studies investigating the effect of health behaviours (smoking, alcohol, BMI) on ethnic inequalities in breast cancer survival.....	20
Table 2.2. Results from studies investigating the effect of health behaviours (smoking, alcohol, BMI) on ethnic inequalities in breast cancer survival.....	21
Table 2.3. Description of studies investigating the effect of socioeconomic factors on ethnic inequalities in breast cancer survival.....	22
Table 2.4. Results from studies investigating the effect of socioeconomic factors on ethnic inequalities in breast cancer survival.....	25
Table 3.1. Description of women diagnosed with invasive breast cancer in the South West region, 2002-2006.....	48
Table 3.2. Five-year relative survival for breast cancer cases in the South West region by screening status	49
Table 3.3. Five-year relative survival for breast cancer cases in the South West region by deprivation quintile	49
Table 3.4. Five-year relative survival for screen-detected breast cancer cases in the South West region by deprivation quintile.....	50
Table 4.1: Distributions of breast tumour characteristics by ethnicity, 1994-2004	62
Table 4.2: Odds ratios for selected tumour features by deprivation.....	65
Table 4.3: Odds ratios for selected tumour features by ethnicity	66
Table 5.1. Distributions of age, deprivation and breast tumour features for women diagnosed 2005-2007 by ethnic group in New Zealand.....	81

Table 5.2. Unadjusted relative survival (RS) and 95% confidence intervals (CI) for demographic and tumour features	82
Table 5.3. Excess mortality hazard ratios (HR) and 95% confidence intervals (CI) for Māori and Pacific women compared with non-Māori/non-Pacific women, modelled on imputed data	86
Table 5.4. Excess mortality hazard ratios (HR) and 95% confidence intervals (CI) for all explanatory variables adjusted for each other, modelled on imputed data and complete case data	87
Table 6.1. Distributions of age, deprivation and breast tumour features by deprivation group in New Zealand	101
Table 6.2. Crude relative survival and 95% confidence intervals for demographic and tumour features relative to the total female population of New Zealand	104
Table 6.3. Excess mortality hazard ratios (HR) and 95% confidence intervals (CI) for women from deprived areas compared with women from affluent areas, modelled on imputed data	108
Table 6.4. Excess mortality hazard ratios (HR) and 95% confidence intervals (CI) for all explanatory variables adjusted for each other, modelled on imputed data and complete case data	109

List of figures

Figure 1.1 Conceptual model of potential pathways influencing ethnic and socioeconomic inequalities in breast cancer survival.....	7
Figure 2.1: Flow diagram showing the selection of papers to be included in the review	18
Figure 2.2: Association between ethnicity (minority vs. majority ethnic groups) and all cause mortality in women with breast cancer.	28
Figure 2.3: Association between ethnicity (minority vs. majority ethnic groups) and breast cancer survival.	30
Figure 5.1 Relative survival and 95% confidence intervals estimated from ethnic-specific life tables for (A) Pacific women compared with non-Māori/non-Pacific women and (B) Māori women compared with non-Māori/non-Pacific women.....	84
Figure 6.1 Relative survival and 95% confidence intervals estimated from deprivation- and ethnic-specific life tables for (a) deprivation group 9-10 (most deprived) compared with deprivation group 1-4 (least deprived), (b) deprivation group 7-8 compared with 1-4 and (c) deprivation group 5-6 compared with 1-4	105
Figure 7.1. Conceptual model of pathways influencing ethnic and socioeconomic inequalities in breast cancer survival.	120