Comparison of cancer survival in New Zealand and Australia (2006-2010)

Phyu Aye (MPH student)¹
J.Mark Elwood (Professor, Cancer Epidemiology) ¹
Vladimir Stevanovic (Principal Technical Specialist)²

¹ School of Population Health, University of Auckland, New Zealand
² Health and Disability Intelligence Unit, New Zealand Ministry of Health
### Background

Comparison of cancer mortality and incidence in New Zealand and Australia.

Skegg DC¹, McCredie MR.


Alafeishat L, Elwood M¹, Ioannides S.

<table>
<thead>
<tr>
<th>“Excess” deaths in NZ</th>
<th>1996-97</th>
<th>2000-07</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women</td>
<td>616 (17.5%)</td>
<td>568 (15.1%)</td>
</tr>
<tr>
<td>Men</td>
<td>215 (5.6%)</td>
<td>197 (4.7%)</td>
</tr>
</tbody>
</table>
Aim

To explore the differences in cancer survival between NZ and Australia to address the possible reasons for survival discrepancies.
Methods

- Population-based cancer survival data
  - New Zealand Cancer Registry
  - Australian Institute of Health and Welfare

- The relative survival rates (RSRs) up to 10 years after diagnosis
  - 1, 5, and 10 year RSRs

- Analysis: z-test
  - all cancers combined and individual sites
  - males and females
Findings
Survival for all cancer combined, in New Zealand and in Australia, patients diagnosed in 2006-2010
5 year RSRs for all cancer combined

Women: 63% NZ vs 67% Australia
Men: 61% NZ vs 65% Australia

≈ 364 deaths (12.2%) for women, and
341 deaths (11.7%) for men
annually in 5 years from diagnosis, taking into account background mortality from other causes
Estimated number of representing annual deaths for all cancers combined in 5 years from diagnosis (Abdel-Rahman et al., 2009)

Male
- Total: 4431
- Expected: 1521
- Excess: 2911
- Avoidable: 341

Female
- Total: 4010
- Expected: 1015
- Excess: 2995
- Avoidable: 364
- Significantly **lower** survival in NZ
  - 15 out of 24 cancer sites for men
  - 17 out of 26 for women
  - including *bowel, lung, female breast, and prostate*

- Significantly **higher** survival in NZ
  - *Chronic lymphocytic leukemia* for men
  - *Acute myeloid leukemia* for women

- Most significant differences @ initial years after diagnosis
Reasons

Cancer care
Incidence & mortality
Distribution of types of cancer
Age distribution

Early diagnosis
Conclusion

Differences in cancer survival

→ Cancer care

→ Early diagnosis
Thank you!