Lifespan of New Zealand Second World War veterans from one large cemetery: the case for a national-level study

Nick Wilson, Glyn Harper

For veterans of the Second World War (WW2), most studies suggest long-term adverse impacts on their health, especially if they had been prisoners of war (POWs). But such studies do not always find that these veterans had an increase in all-cause mortality, possibly due to the ‘healthy soldier effect’ (references available on request). For New Zealand, being a veteran of the First World War (WW1) has been associated with a reduced lifespan, but such a study has never been performed for WW2 veterans. This is despite adverse morbidity impacts being described in this group from survey data, psychiatric studies (eg, by Macleod) and interview data. Indeed, in 1946 there were 22,846 WW2 personnel receiving war pensions for service-related disabilities, and in the 1945–1946 year the New Zealand Government spent £58,302 on medical treatment of war pensioners. The detailed study by Parr reported that many veterans “came home with invisible wounds”. It recorded that in 1985 more than 10,000 of these veterans were officially recognised as suffering from “nervous system disabilities” (Parr, p14), with cases of post-traumatic stress disorder and alcohol abuse. So to commence some initial exploration of the lifespan issue, we examined an administrative dataset which already had the age of deaths for WW2 veterans buried at a large New Zealand cemetery.

Methods

We obtained an administrative dataset (in Excel) of the names, date of burial and age of death of war veterans buried in the veterans section of a large urban cemetery (Taita Lawn Cemetery, Naenae, Lower Hutt City). We then cross-checked the names (and military service numbers where available) with the online Cenotaph database held by Auckland Museum. This allowed us to exclude veterans who were also in other wars and who were in the military forces of other countries.

To further minimise the chance of the veteran also being a WW1 veteran, we also only included the age cohorts born between 1905 and 1928 (ie, they would at the most only be aged 13 years in the last year of WW1 [1918] and those born in 1928 would only turn 17 in the last year of WW2 [1945], a year below the legal admission age). The Cenotaph data also supplied status on having been a POW or not, and if the veteran had served in the Māori Battalion.

We created a synthetic cohort matched to each real veteran in the dataset with an assigned lifespan value based on that of the average New Zealand man who was born in the same year and being alive in 1946 (ie, the year after the one when the war ended). These values have all been estimated for five-year intervals by a large Statistics NZ (SNZ) study and we interpolated the values for birth years in between the five-year values provided by SNZ.

Results

As detailed in Table 1, this cohort of veterans had a significantly lower lifespan relative to the SNZ estimates for the matched synthetic cohort of New Zealand males born in the same year and being alive in 1946 (ie, a 4.9-year deficit; 68.5 vs 73.4 years). Within the veteran cohort there was also a significantly lower lifespan for those in the Māori Battalion and for those who were not buried next to their spouse/partner. But there was no significant difference by former POW status (albeit based on small numbers).
Discussion

The apparent lifespan deficit for these WW2 veterans (relative to estimates of lifespan from national lifetables) is plausible, given the international and New Zealand literature concerning the long-term health impacts of being a WW2 veteran. Although a small percentage of WW2 veterans are still currently alive, their deaths in the future are unlikely to make much impact on such results (eg, there could be men who joined in the last year of the war [1945] at age 18 years [born in 1927] who were aged 92 years in 2019).

Instead, the much larger methods limitation with this analysis is that this is just one cemetery which may not be nationally representative. Even though the deprivation maps of the Lower Hutt City and Upper Hutt City\(^6\) areas suggest a broad mix of socioeconomic groups, it could still be that the veteran population tended to reside in the more deprived areas in these cities. The movement of men to the Hutt Valley after WW2 for work may also mean that those buried in this cemetery reflect a cohort born in quite different rural and urban settings from around New Zealand.

Given these limitations, these results should be seen as very tentative and more as a demonstration of what could be studied if a more appropriate sample was used, eg, a random selection of all the New Zealand military personnel. Such work would need to be well resourced, as extensive archival and genealogical database work is required to establish the dates of birth and death of each veteran. Even more work would be required to collect data on occupational class, military rank, if wounded, and marital status (the latter given the interesting results above that having a spouse may be associated with a lifespan benefit). Such further analysis with a nationally representative sample seems important if New Zealand society is to obtain a better understanding of the full impact of this major war.

Table 1: Lifespan results for the veteran cohort for male New Zealand military personnel involved in WW2 from one large New Zealand cemetery.

<table>
<thead>
<tr>
<th>Specific population</th>
<th>Mean age (years) at death (SD)</th>
<th>Median age (years) at death</th>
<th>P-value</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full veteran cohort (n=702) (New Zealand military who participated in WW2 but no other wars, though we included those who were also in J Force, the New Zealand military force occupying Japan in 1946 to 1948).</td>
<td>68.5 (11.0)</td>
<td>68</td>
<td>&lt;0.0001 (Kruskal-Wallis test for two groups)</td>
<td>For birth years 1905 to 1928, median birth year = 1917 (ie, age 22 years at the start of WW2 in 1939)</td>
</tr>
<tr>
<td>Synthetic comparison cohort with nationally representative lifespans calculated from the SNZ lifetables (matched to the birth cohort of the 702 veterans, for life expectancy in 1946).</td>
<td>73.4 (SD not meaningful)</td>
<td>73.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prisoner of war (n=53)</td>
<td>68.8 (10.1)</td>
<td>68</td>
<td>0.869 (ANOVA)</td>
<td>Many of these men were taken prisoner in Crete in 1941</td>
</tr>
<tr>
<td>Not a prisoner of war (n=649)</td>
<td>68.5 (11.1)</td>
<td>68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participation in the Māori Battalion (ie, likely of Māori ethnicity) (n=16)</td>
<td>60.6 (9.3)</td>
<td>57</td>
<td>0.0034 (ANOVA)</td>
<td></td>
</tr>
<tr>
<td>Not in the Māori Battalion (n=686) (nearly all European, but includes some Māori in other military units)</td>
<td>68.7 (11.0)</td>
<td>68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buried next to spouse/partner (n=287)*</td>
<td>72.3 (10.0)</td>
<td>73</td>
<td>&lt;0.00001 (ANOVA)</td>
<td></td>
</tr>
<tr>
<td>Not buried next to spouse/partner (n=415)</td>
<td>65.9 (11.0)</td>
<td>65</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*The dataset included details about if a female spouse/partner was buried in linked plots labelled “1” and “2” beside each other (for simplicity we excluded those cases of a man buried next to a man in linked plots, though in some cases the relationship was detailed, eg, being brothers).
Competing interests:
Nil.

Acknowledgements:
Chris Gousmett, Corporate Information Manager, Hutt City Council, who kindly provided the cemetery dataset on veterans.

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REFERENCES: