

4 Conclusions

This study followed a cohort of male veterans of the Korean War from 1982 to 1999 to investigate their cancer incidence patterns and to compare these patterns to those experienced by males of the same age in the Australian community. The analysis included comparisons by Service category (Navy, Army and RAAF) and by veterans' duration of service in Korea. In addition, analysis was extended to estimate the contribution of smoking to cancer patterns.

The data analyses were done under two population Scenarios. Scenario 1 excludes a group of veterans who have not been in contact with DVA since the Korean War and were not found on the Australian Electoral Roll. This group is included in Scenario 2.

The following conclusions can be made from the data presented in this report:

- This study found that between 1982 and 1999 there have been 3,543 cases of cancer among 15,041 veterans of the Korean War who were alive as at 1982. The main cancers diagnosed in Korean War veterans were prostate (21% of all cancers), lung (19%), colon (8%), melanoma (7%), rectum (6%) and head & neck (5%).
- Under both population Scenarios, the overall incidence of cancer experienced by male Korean War veterans between 1982 and 1999 was higher than the expected incidence based on the Australian community rates. Under population Scenario 1, veterans experienced a 23% greater incidence of all cancers than expected based on the rates for the Australian community, while the incidence was 13% more than expected under population Scenario 2.
- Under population Scenario 1, analyses indicate that male Korean War veterans developed smoking-related cancers – lung, head & neck, larynx and oesophagus cancers – at a level higher than expected in the Australian community. The expected incidence of these cancers under population Scenario 2 was less than under population Scenario 1 but significantly higher than expected based on the Australian community rates.
- Under population Scenario 1, the incidence of prostate, colon, rectum and melanoma cancers was significantly higher than expected. However, under population Scenario 2, although the observed incidence of these cancers was higher than expected, the excess was not statistically significant.
- Of the smoking-related cancers, the elevated rates among veterans compared to the Australian community could be explained by smoking alone as long as it could be accepted that smoking prevalence among veterans was particularly high. In the case of head & neck cancers, a smoking prevalence among veterans of 100% could not explain the level of elevation in this cancer, suggesting that other causes may be involved.
- When the data were classified by Service type, both Navy and Army personnel experienced a significantly higher incidence of total cancers compared to the Australian community rate, whereas those who served in the RAAF showed no significant difference.
- Veterans who served in the Army experienced a higher incidence of cancer than expected for a wider range of cancers, compared with veterans who served in the Navy or RAAF. This pattern was consistent for both population Scenarios.

- The incidence of smoking-related cancers – lung, larynx, oesophagus and head & neck cancers – that was significantly higher than expected among veterans in general, was also significantly higher among those who served in the Army. Among Army veterans under population Scenario 2, head & neck, lung and larynx cancers were also significantly different from that expected. Among Navy veterans, of the smoking-related cancers, only lung and head & neck cancers showed an incidence significantly different from the expected incidence, and this was consistent under both population Scenarios.
- Among those who served in the Navy, under both Scenarios the incidence of prostate cancer was significantly higher than the expected incidence based on the Australian community rate. Army and RAAF veterans showed no statistically significant difference in the incidence of prostate cancer.
- The observed incidence of melanoma cancer was significantly higher than expected among RAAF veterans under both population Scenarios. This was not indicated among Navy or Army veterans of the Korean War.
- The incidence of all cancers observed among Army veterans who served in the Korean War increased as the duration of service moved from the short duration category to the medium duration category. There was no further increase in cancer incidence for those in the long duration of service category. Due to small numbers of Navy veterans in the short and long duration categories and the associated small numbers of cancer incidence, it was not possible to declare any statistical association between duration of service and cancer outcome for Navy veterans.
- Over 58% of veterans who had developed cancer between 1982 and 1999 had died by 1999. Of these veteran deaths, 69% resulted from the same cancers experienced by them. Particularly notable are lung (89%), pancreas (89%), oesophagus (81%), liver (80%), brain (87%) and leukaemia (73%) cancers, which contributed greatly to the death toll of the Korean War veterans.