

Overview of a combined NNAI deployment health dataset

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ABSTRACT

Background

The Near North Area of Influence (NNAI) data set consists of information collected from three separate studies of ADF deployments to Bougainville, East Timor and the Solomon Islands. These studies are part of the Deployment Health Surveillance Program, a research program funded by the Department of Defence and with scientific input from the Department of Veterans' Affairs. The studies were conducted between 2007 and 2008 by the Centre for Military and Veterans' Health (CMVH). Studies have also collected cancer incidence and mortality data.

Methods

Collectively 5,911 people responded to questionnaires about their general health and deployment experiences. Respondent consent was requested to link these data to Defence medical records and to return to Australia (RtAPS) and post-deployment (POPS) screening records from Psychology Research and Technology Group (PRTG) files. These data were obtained from 4579 people (77%) for their medical records and 4225 people (71%) agreed to linkage with their psychological screening records.

Results

Combination of the information from the three deployment studies has produced a larger data set than the separate deployment studies. The direct consequence of having information about a greater number of people is the increased power to answer questions about military health. Further, it allows for comparisons between perceived exposures during the three deployments and comparison of subsequent physical and mental health outcomes for the deployed personnel. As examples of the potential value of the questions that can be answered, we present a brief outline of three suites of data analyses based on this newly created combined NNAI data set.

What are the frequencies and patterns of recent symptoms reported by the Australian Defence Force in the Near North Area of Influence Health Studies?

A number of international studies have reported on the prevalence and patterns of a broad range of symptoms in military populations deployed to different locations. The results from the combined NNAI data set were used to assess the reported health symptoms in these personnel. Comparisons with the international studies will be drawn.

Do multiple military deployments have an adverse effect upon health?

Deployment information was obtained for 4475 people from PMKeyS, ADFPay and Allotment Certificate databases. This was linked to health outcome data from the NNAI combined dataset. Comparisons were made between deployment categories relating to the number of times and to the total time a person had been deployed. A second categorisation was undertaken based on a threshold of operational tempo that has been shown to increase the risk of adverse effects from deployment.

Are there differences in mental health depending upon where, when and who asks the questions?

Analysis demonstrates that mental health, as measured by the Post Traumatic Stress Disorder Checklist – Civilian (PCL-C) and Kessler 10 (K10), differs depending upon whether the data are collected as part of routine Defence Return to Australia Psychological Screens (RtAPS) or collected by CMVH.

Future work

CMVH is currently refining the analyses that have been described. In addition to these investigations, a number of other areas of study have been identified as candidates for consideration using the NNAI combined dataset. As custodians of the NNAI combined dataset, CMVH recognizes the potential value of this resource and welcomes discussion about collaboration using these de-identified data.