

Fourth Study of Mortality and Cancer Incidence in Aircraft Maintenance Personnel (4th MCIS)

- A follow-up data study to determine whether F-111 Deseal/Reseal (DSRS) maintenance personnel experience different rates of mortality or cancer than comparison groups

Study and comparison groups:

- Study population of 1,655 DSRS personnel
- Amberley comparison group of 7,407 personnel (RAAF non-maintenance personnel not involved with F-111 DSRS)
- Richmond comparison group of 9,230 personnel (RAAF maintenance personnel not involved with F-111 DSRS)

Research organisation:

Australian Institute of Health and Welfare (AIHW)

Funded by:

Department of Veterans' Affairs

Key findings:

Mortality (1999-2012)

The F-111 DSRS group had:

- statistically significant 27% lower mortality compared to the Amberley comparison group
- statistically non-significant 6% lower mortality compared to the Richmond comparison group

Cancer Incidence (1982-2010)

The F-111 DSRS personnel were diagnosed with 149 cancers combined during 1982-2010, representing:

- statistically significant higher incidence of cancer - 23% higher than the Amberley comparison group and 30% higher than the Richmond comparison group
- statistically significant higher incidence of specific types of cancer:
 - Non-Hodgkin lymphoma compared to the Amberley group (11 cases diagnosed)
 - lung cancer compared to the Richmond comparison group (13 cases diagnosed)
 - eye cancer compared to both comparison groups (4 cases diagnosed)

Small numbers mean caution should be used in interpreting these findings.



Australian Government

Department of Veterans' Affairs

Fourth Study of Mortality and Cancer Incidence in Aircraft Maintenance Personnel: A continuing study of F-111 Deseal/Reseal personnel

This study is the fourth in a series of studies to assess whether Royal Australian Air Force (RAAF) and civilian aircraft maintenance personnel involved with F-111 Deseal/Reseal (DSRS) experience different rates of mortality or cancer compared to other RAAF personnel who were not exposed.

The F-111 DSRS, to correct fuel leaks in Australia's F-111 aircraft fleet at RAAF Base Amberley, began in 1974. Work ceased in early 2000 due to health concerns among DSRS personnel. Special health care arrangements were put in place in 2001 and the Study of Health Outcomes in Aircraft Maintenance Personnel (SHOAMP) was also undertaken. A series of inquiries and government responses led to development of 'Tier classifications' by the Department of Veterans' Affairs (DVA) and Department of Defence in 2005 to help identify personnel for health care and compensation. These arrangements were broadened in 2010.

The 4th MCIS is part of the SHOAMP. It compared the mortality and the cancer incidence of 1,655 F-111 DSRS personnel with 7,407 RAAF Amberley personnel and 9,230 RAAF Richmond personnel. An independent Scientific Advisory Committee provided expert guidance and oversight of the study.

The 4th MCIS found that involvement in the DSRS programs was associated with a statistically significant 27% decrease in mortality compared with the Amberley comparison group. The mortality of DSRS personnel was similar to the mortality of the Richmond comparison group.

Involvement in the DSRS programs was associated with a statistically significant 23% to 30% increase in the overall rate of cancer diagnosis compared with both comparison groups.

Statistically significant higher incidence was found for three specific cancer types in the 4th MCIS analysis: non-Hodgkin lymphoma, lung cancer and eye cancer. However, the low numbers, particularly for eye cancers, means that caution should be used in interpreting these findings.

Sub-group analysis was undertaken for 193 firefighters in the DSRS group, showing lower than expected rates of cancer and mortality than the Australian male population. These results are not statistically significant. Due to the small numbers, results for this sub-group are only available at the broadest level.

The 4th MCIS has added statistical strength to trends noticed in earlier MCIS. The 4th MCIS added information from 'Tier classifications' to identify more personnel in the study group.

The key findings of the 4th MCIS report are underpinned by the most complete study population available and a robust comparative analysis methodology. However, there are some potential confounding effects and biases that may lead to incorrect estimation of the true effect of DSRS exposure. These relate to differing health monitoring of the study and comparison populations, voluntary selection, unknown risk factor profiles, and the varied nature of chemical exposures. The impact of these limitations cannot be quantified but is suggested by the higher incidence of most types of cancer among the DSRS group. It is unlikely that this finding is due to a single set of exposures.

A 3rd MCIS Update, using the same study population as previous MCIS with updated mortality and cancer incidence data, is included in the study report to supplement the key findings of the 4th MCIS. Although not strictly comparable, the 3rd MCIS Update showed a broadly similar pattern of results. The findings validate the special support already in place for the study group.

Support

In addition to statutory compensation arrangements available to all veterans, special compensation and health care arrangements continue to be available through DVA for F-111 DSRS workers. These arrangements also include presumptive liability and health care for 31 conditions, including cancer. Counselling is also available to F-111 DSRS workers and their families.

For more information about the 4th MCIS report or to check eligibility, visit:

www.dva.gov.au/benefits-and-payments/f-111-fuel-tank-maintenance

Or contact DVA:

Metropolitan callers: 133 254

Regional callers: 1800 555 254

Email: generalenquiries@dva.gov.au

The Veterans and Veterans Families Counselling Service (VVCS) provides free and confidential, nation-wide counselling; call 1800 011 046 (24/7) or visit www.vvcs.gov.au.