



## Mortality and cancer incidence among male volunteer Australian firefighters

### The Challenge

In Australia, there are currently an estimated 180,000 volunteer firefighters providing service to rural and some periurban areas. This study examined the mortality and cancer incidence of male volunteer firefighters. During firefighting, firefighters are exposed to a number of hazardous materials and there was little or no existing published evidence about the mortality or cancer risk for these types of volunteer firefighters.

### How the PHRN infrastructure helped

The Australian Institute of Health and Welfare (AIHW) linked the cohort to the National Death Index (NDI) and the Australian Cancer Database (ACD) to obtain mortality and cancer outcomes. At the time of linkage, the NDI was nationally complete to 30 November 2011 for cause of death coding. The ACD was nationally complete to 31 December 2010, except for one state, which was complete only until the end of 2009.

### The Result

Volunteer firefighters have a reduced risk of mortality and cancer incidence compared with the general population, which is likely to be a result of a 'healthy-volunteer' effect and, perhaps, lower smoking rates. The study did recommend a follow-up of the cohort because the cohort was relatively young, with small numbers of deaths and cancers to date, and further follow-up time will increase statistical power, especially for the type of incident analyses.

### Authors/Contributors and Reference

Glass DC, Del Monaco A, Pircher S, et al. Mortality and cancer incidence among male volunteer Australian firefighters. *Occup Environ Med* 2017;74:628-638