

Project brief – Hazelwood mine fire death data analysis

On 9 February 2014 a grass fire, believed to have been deliberately lit, spread to disused areas of the coal mine at the Hazelwood power station complex near Morwell in the Latrobe Valley. The fire was unusual in two important respects:

- the substrate for the fire was brown coal, rather than vegetation;
- the fire burned at the same location and intermittently exposed the adjacent town of Morwell to smoke for over four weeks.

The fire was brought under control and the mine was handed back to its owners on 25 March 2014. During the time of the fire the region experienced periods of high levels of smoke which impacted on local air quality.

Many Morwell citizens and other residents of the Latrobe Valley were adversely affected by the fire and vulnerable residents were urged to relocate until air quality improved. A large number of people reported having respiratory and other health-related problems as a result of the conditions.

On 11 March 2014, the Premier of Victoria Denis Napthine, announced an independent inquiry into the circumstances of the Hazelwood mine fire, including the emergency response and the support provided to Morwell residents and other affected communities.

An interim report on the health impacts of the fire was prepared for the Board of Inquiry and included an analysis of a range of health service data. However, the report did not include any analysis of deaths in the region during the period of the fire.

The Board of Inquiry provided its final report, including 18 recommendations, to the Governor of Victoria on 29 August 2014. The report was tabled in Parliament on 2 September 2014.

The Hazelwood Mine Fire Inquiry officially closed its office on Friday, 5 September 2014.

The Victorian Government has announced its intention to reopen the Hazelwood Mine Fire Inquiry, with the express purpose of determining whether excess deaths occurred as a result of the fire. The formal terms of reference relating to this have not yet been released.

Accordingly, the department is seeking assistance in reviewing mortality statistics from the period during the Hazelwood coalmine fire to determine whether there were:

- excess deaths in the area/s affected by smoke from the coalmine fire, and adjacent areas, ie the four postcodes 3840 (Morwell), 3842 (Churchill), 3825 (Moe) and 3844 (Traralgon)
- if there were a statistically significant excess of deaths, could these be reasonably attributable to the Hazelwood coal mine fire and the smoke emitted.

Data has been obtained from the Registry of Births, Deaths and Marriages which include age, sex and cause of death for the above four postcodes and relevant time periods. Where relevant and possible, the analysis undertaken should take account of confounders/effect modifiers such as age and sex, comorbidities, seasonality, geography (topography, distance from mine etc), SES, meteorological factors (temperature (noting the heat wave which occurred in Victoria in January 2014 and was estimated to have resulted in 167 excess deaths), prevailing winds), and other sources of smoke or particulate matter (bushfires, industrial pollution) etc.

The Department is able to supply data on the air quality monitoring undertaken by the Environment Protection Authority during that period, and temperature records from the Bureau of Metereology.

In addition, the Department is seeking a critical analysis of the paper *Analysis of death data during the Morwell mine fire*. Barnett, Adrian 2014 (working paper) (unpublished).

Outputs:

1. A report on the analysis of the expanded data set from the Registry of Births, Deaths and Marriages.
2. A critical appraisal of the paper *Analysis of death data during the Morwell mine fire*. Barnett, Adrian 2014 (working paper) (unpublished). (attached).

Timelines:

Draft report by Monday 23 February. Final report by Monday 2 March.

Client:

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