

# Reports of deaths in the Latrobe Valley related to the Hazelwood coal mine fire

Updated: 22 October 2014

**Update:** This factsheet has been updated to include a summary of the detailed analysis of deaths in the Latrobe Valley undertaken by the University of Melbourne.

In February and March 2014, a large fire burned for 45 days in the Hazelwood coal mine in Morwell. Smoke and ash affected air quality in Morwell as well as other areas of the Latrobe Valley.

Community concern about health impacts from the smoke was high and will be the subject of a long term health study commissioned by the Department of Health.

Recent media reports suggesting the mine fire may have contributed to eleven deaths earlier this year have again raised residents' concern about the impact the mine fire has had on their health.

The Department has obtained the figures from Births, Deaths and Marriages Victoria (BDM Victoria) to investigate this concerning claim. We recognise the local communities have worked hard to recover and rebuild after this major fire and we understand the importance to the community, of having access to accurate and clear information.

To those who have recently suffered the loss of a partner, family member or friend, we acknowledge this must be a very distressing and difficult time and sincerely hope that you receive this information with the respect it was given.

## What information has the Department gathered about deaths in the Latrobe Valley?

BDM Victoria was asked to provide information about the number of people who died in the Latrobe Valley in the first six months of 2014 (including the fire period), and for the same period for the past five years (2009 to 2013).

The number of deaths were provided for the postcodes of:

- Morwell (3840)
- Traralgon (3844)
- Churchill (3842)
- Moe (3825).

## What did the figures tell us?

Death rates are known to vary from population to population or year to year, even when the underlying risks remain the same. Unfortunately, as a rule of statistics, this variation is greatest when population numbers are relatively small (such as those seen in populations bounded by postcodes).

The number of deaths in one population compared to another will be affected by the number of people in each, their age distribution, gender and general health.

### Morwell

The highest exposure of fine particles from the smoke was in Morwell, especially in the southern part of Morwell. Therefore any impact of the mine fire would be expected to be most pronounced in Morwell.

**However, for February and March 2014, there were 22 deaths; this is 19 per cent lower than the average for same period over the previous five years (27).**

In Morwell, 88 deaths were recorded in January to June 2014, which was similar to those recorded in 2012 (89), 2010 (91) and 2009 (86).

### Traralgon

There were 43 deaths during February and March 2014 in Traralgon. Between 2009 and 2013 the number of deaths for this period ranged between 24 (in 2013) and 41 (in 2009).

For January to June 2014, 109 deaths were recorded in Traralgon. Between 2009 and 2013 the number of deaths for this period ranged between 86 (in 2011) and 117 (in 2009).

### Churchill

The numbers of recorded deaths were very small for this postcode, which reflects its small population. For January to June 2014, 10 deaths were reported. Between 2009 and 2013 the number of deaths for this period ranged between 9 (in 2012) and 20 (in 2009).

## Moe

There were 40 deaths recorded during February and March 2014 in Moe and surrounding areas in postcode 3825. Between 2009 and 2013 the number of deaths for this period ranged between 27 (in 2009) and 35 (in 2013).

For January to June 2014, 132 deaths were recorded in Moe. Between 2009 and 2013 the number of deaths for this period ranged between 95 (in 2012) and 107 (in 2013).

### What did the Melbourne University analysis find?

The analysis by experts from the Centre for Epidemiology and Biostatistics, Melbourne School of Population and Global Health, included assessment of the aggregated death data across the four postcodes of Morwell, Churchill, Moe and Traralgon, as well as examining the Morwell postcode.

They found that while a small increase in the overall number of deaths for the first 6 months occurred, they “cannot conclude that the 2014 mortality observed is due to any single cause, or whether it has occurred by chance alone.” (p3).

Under limitations, they state they “did not take external factors such as local weather conditions into account in these analyses. Analysis of the cause of deaths for this period would be required to explore common risk factors.” Also that they “..have no information on the underlying age/sex distribution of these localities, or of the recent demographic changes in these communities, both trends that could underlie the mortality observed in 2014.” (p3).

## The impact of heatwaves

Heat, particularly sustained high temperatures can cause increased number of deaths in the most vulnerable people, such as older people, and those with some chronic medical conditions.

In January 2014, Victoria experienced the third hottest summer on record. In addition, the weekend of 8 and 9 of February were extreme heat conditions.

## How are deaths reported?

There are many factors that can influence the overall number of deaths in any geographic area. This includes those related to individuals - such as their age, sex and underlying health. It can also be influenced by external factors, like a heatwave or other issues such as influenza seasons or accidents. Ideally, if this information is available, it should be incorporated into any analysis to enable accurate conclusions to be drawn as to whether changes in death rates can be linked with a specific event or cause.

BDM Victoria keeps permanent records of all births, adoptions, marriages and deaths in the state of Victoria.

They collect and provide statistics including the number of deaths per postcode in Victoria each year.

## What does this mean for our long term health?

As Morwell was directly impacted by the smoke, health effects caused by the mine fire would be expected to be seen in this population. During the time when the fire occurred, there was no increase in the number of deaths in Morwell.

In recognition of community concern and to answer questions about long term health impacts, the Department of Health is commissioning a long term health study.

## Where can I get more information?

- ⊗ For a copy of the Melbourne University report or to access more health information go to: [www.health.vic.gov.au/hazelwood](http://www.health.vic.gov.au/hazelwood)
- ⊗ For information about Births, Deaths and Marriages Victoria go to: [www.bdm.vic.gov.au](http://www.bdm.vic.gov.au) or call 1300 369 367 between 8.30am and 4.30am weekdays.
- ⊗ For any concerns about your health, see your doctor or call Nurse-On-Call on 1300 60 60 24.