

Reports of deaths in the Latrobe Valley claimed to be related to the Hazelwood Coal Mine fire

health

September 2014

Voices of the Valley (VoTV) undertook an analysis of death notices for the Latrobe Valley in the local newspaper the Latrobe Valley Express. This was to try to see whether there was an increase in death rates due to the Hazelwood mine fire.

Their analysis showed a 40% increase in death notices in the newspaper in March 2014, compared to the average in March for the years 2010 to 2013. However, other years and months show lots of variability. In April, for example, there was a 21% decrease. This effect is sometimes seen in heatwaves, where deaths which would have occurred soon in the future are brought forward by the heat event. VoTV also requested data from the Registry of Births, Deaths and Marriages (RBDM), but did not receive these official data prior to forwarding the analysis of death notices to the Inquiry Board. The official data from the RBDM has now been provided to the VoTV, as well as to the Department of Health.

In the table below, the actual number of deaths **from all causes** is presented by month. This includes the period of the fire (February to March) and the whole period January to June. The number for 2014 is then compared to the average for the preceding 5 years - 2009 to 2013.

The VoTV estimate of a 40% increase in deaths in March is not supported by the RBDM data. In March across all of the four postcodes, the number of deaths was 62, which was a 21% increase above the previous five year average. However, the 62 deaths were exactly equivalent to the number in 2009, the last heatwave year.

Looking at the two months in which the fire occurred (February-March) there was a decrease of 19%. For the period January to June, there was an increase of 11%. However, the absolute number of deaths (88) is very similar to deaths in the years 2012 (89), 2010 (91) and 2009 (86).

If any effects were to be caused by the fire, then it would be expected to be seen primarily in Morwell, which was most directly affected by the smoke but there was a decrease in deaths in Morwell during February and March.

There is no evidence that the data from the RBDM shows anything other than yearly variability. Newspaper death notices and RBDM data take no account of age and sex in the deaths, or cause of death and other external factors such as heatwaves and influenza seasons. A more detailed analysis of the data including these factors is needed to make any further comment on the cause of any observed increase.

In 2014 Victoria experienced one of the most severe heatwaves on record. Although the four days of extreme heat were in January, overall the summer was the third hottest summer on record, and extreme heat conditions were also experienced on the weekend of 8-9 February. It is well known that heat, particularly sustained high temperatures, can cause increased mortality in the most vulnerable individuals. This may explain some of the 2014 data.

The Department will attempt to obtain these further data to inform further analysis and also intends to request an opinion from a university public health unit on the analysis.

Table 1: RBDM deaths from all causes

Morwell 3840	2009	2010	2011	2012	2013	Average 2009-13	2014	Difference
Feb – March	41	26	22	28	19	27.2 ¹	22	- 19%
Jan – June	86	91	67	89	64	79.4 ²	88	+11%
Churchill 3842	2009	2010	2011	2012	2013	Average 2009-13	2014	Difference
Feb – March	8	8	4	2	6	5.6 ¹	7	+25%
Jan – June	20	14	15	9	16	14.8 ²	10	- 32%
Moe 3825	2009	2010	2011	2012	2013	Average 2009-13	2014	Difference
Feb – March	27	29	32	28	35	30.2 ¹	40	+32%
Jan – June	100	96	99	95	107	99.4 ²	132	+33%
Traralgon 3844	2009	2010	2011	2012	2013	Average 2009-13	2014	Difference
Feb – March	41	29	28	31	24	30.6 ¹	43	+40%
Jan – June	117	94	86	104	103	100.8 ²	109	+8%

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¹ Relates to average data over a 2 month period February – March

² Relates to average data over a 6 month period January - June