Analysis aims

This study examines the perspectives of Morwell residents regarding the impact of the fire. Of particular interest were the social and psychological impacts of the event which was of both long duration and of anthropogenic (man-made) origin.

Meet the team

Dr Rebecca Jones
Ms Sarah Lee
Prof Darryl Maybery
Prof Alexander McFarlane

The Hazelwood Health Study is a collaborative program of research led by the Monash University Schools of Public Health and Preventive Medicine and Rural Health in partnership with Federation University, the Menzies Institute for Medical Research at the University of Tasmania, the University of Adelaide and the CSIRO.

Background

The fire in the Morwell open cut brown coal mine adjacent to the Hazelwood Power Station blanketed the town of Morwell and the surrounding area in smoke and ash for six weeks in February and March 2014. The smoke event was recognised as one of the most significant air quality incidents in Victoria’s history, with the concentration of smoke contaminants reaching high levels.

The smoke event caused considerable community concern within Morwell and the broader community. In response to these concerns, and following extensive community consultation, the Hazelwood Health Study was established to examine the impacts of the mine fire. The HHS involves multiple research streams targeting different health outcomes and different vulnerable groups.

What we found

There were a range of reactions to the fire from those without a great deal of concern to those who were very preoccupied in an ongoing manner about what happened. The Morwell residents with greatest distress focused their concerns upon fear and confusion during the event, the perceived health effects of the smoke, anger towards authorities and loss of a sense of community and security. One of the significant ways in which people managed these responses was to normalise the event. The long duration and man-made origin of the event created deep uncertainty which exaggerated the impact of the fire. The Morwell interviewees indicated the importance of providing clear and understandable quality information to residents during and after such disasters.
What we did

Interviewees were selected from Morwell residents who were 18 years and older at the time of the mine fire and who had participated in the HHS Adult Survey. An initial subgroup of 70 people was randomly selected in a way which ensured that both men and women of different ages were invited. Methods used to recruit participants included mail, follow up emails and phone calls. Twenty-six people who could be contacted and consented were interviewed. Most (82%) were aged between 40 and 69 years, with only a few aged 20-39 or 70+. Interviews followed a semi-structured, face to face format. The first part of the interview was designed to prompt recall of the event and of its impacts and the second part focussed on coping both at the time and since the event. Questions included, "What effects did the mine fire have on you at the time?", "Does what happened still affect you?" and "What, if anything, helped you handle the effects of the fire?". Interviews varied in length from 15 minutes to one hour 20 minutes with the majority of interviews being between 30 minutes and one hour.

Considerations

Key strengths of the study include the relatively large qualitative sample and the recruitment of men and women of different ages. However, those who could be contacted and who agreed to participate may have been biased towards residents who were more opinionated about the event. Further, the views of people younger than 40 were not well represented. The interviews were conducted with participants almost three years after the event. While this may have adversely impacted recall of the event it also was able to elicit longer term impacts. Finally, the health impact of the fires need to be considered in the context of the background mental and physical health of the community.

Where to from here

This research comprises just one part of the HHS Psychological Impacts Stream. Future activities for this stream include the resurveying of Adult Survey participants and analysis of data recently collected from Latrobe Valley school children. Integration of this work with that of the HHS Community Wellbeing Stream will facilitate knowledge about how best to support recovery in the community.

This research was funded by the Victorian Department of Health and Human Services.