

Hazelwood Mine Fire Health Study

Scientific Reference Group Meeting 2/2018

Thursday 13 December 3.00-4.00pm

Meeting Room 2, Level 2, 553 St Kilda Road

and by Zoom

MEETING NOTES

1. In attendance

Professor Ross Coppel (chair), Professor Michael Abramson, Professor Judi Walker, Professor Alexander McFarlane, Associate Professor Rebecca Kippen, Professor Rory Wolfe, Dr Melita Keywood, Dr Jillian Blackman, Dr Beth Edmondson, Dr Sharon Harrison (meeting notes)

2. Apologies

Associate Professor Jane Ford, Dr Michael Keating, Professor Anna Hansell, Professor Michael Ackland, Associate Professor Graeme Zosky, Professor John McNeil

3. Welcome & introductions

New SRG member Beth Edmondson introduced herself. Beth Edmondson is based at Federation University in Gippsland and led an interdisciplinary team of researchers in collaborative co-design in developing the Latrobe Health Innovation Zone Charter.

4. Conflict of Interest

No conflicts of interest were declared.

5. Minutes of previous meeting

The minutes of Meeting 1/2018 on 23 July 2018 were accepted without amendment.

6. Reports

6.1. *4th Annual Report and Stream Progress Overview (Att. 1 and Att. 2)*

It was noted that the 4th Annual Report had been circulated to members for information. The SRG continues to operate as expected, with researchers seeking feedback from particular members in relation to reports within their area of expertise.

Jill Blackman and Michael Abramson went through Attachment 2, providing an overview of the progress of each of the Study Streams in Year 4 of the Study.

Jill Blackman advised that she is working on a profile paper on the Adult Survey cohort for the International Journal of Epidemiology.

Amanda Johnson is starting work on the analysis of Adult Survey data on housing type, looking at the relationship between PM_{2.5} exposure, housing type and respiratory symptoms.

Jill Blackman reported that the MBS/PBS reports are currently being updated, after there was a query regarding the time series analysis. An omission in the R Code was identified and, as a consequence, the MBS/PBS reports and associated papers are being updated. The PBS paper has now been resubmitted, but the team is still working on updating the MBS time series analysis.

Michael Abramson advised that he had consulted with Rory Wolfe regarding this issue. It was noted that the gold standard used in the pharmaceutical industry is that data is analysed by two statisticians working independently. A second statistician, Jonathan Broder, has now been appointed to assist biostatistician Caroline Gao and will undertake checking of code.

JB reported that the Schools Study has completed two rounds of data collection (surveys conducted in 2015 and 2017), also qualitative interviews and that the Stream has also received an extraction of NAPLAN data for the Latrobe Valley. The Psychological Impacts Stream will undertake follow up of the Adult Survey, via surveys/interviews with participants in 2019.

Jill Blackman reported that the Early-Life-Follow-up Stream has surveyed 500 families. The team completed Respiratory and CV testing in 2017. Monthly symptom diaries are also being collected from participating families. Anonymous data for Victoria received from the Victorian Perinatal Data Collection and household dust samples have also been collected. The ELF Stream has been very active with analysis and the preparation of reports.

The Community Wellbeing Stream is currently finalising 3 reports, covering community perceptions during the mine fire event, communication during and after the mine fire, and community rebuilding activities. The Community Wellbeing Stream's photographic exhibition 'Our Hopes for the Future of Morwell' was exhibited at Queen's Hall at the Parliament of Victoria in May 2018 and in the later part of 2018 at the Mid-Valley Shopping Centre.

The Older People Stream merged with the Community Wellbeing Stream this year.

The SRG discussed the request from DHHS for an update to the Recruitment report and how the Study Streams are addressing recruitment issues.

Jill Blackman reported that the Study is adjusting project plans to address shortcomings in recruitment numbers. The area of greatest concern has been the Schools Study which achieved a recruitment rates of 15% in the first data collection round in 2015. The Schools Study has adapted by extending its mixed methods approach to incorporate a greater volume of qualitative data. This has provided a rich dataset. A further adaptation by the Schools Study has been the exclusion of Year 9 students from the second round of data collection. The recruitment of Year 9 students was quite difficult in round 1. In round 2 the recruitment of new Year 3 students has proven to be difficult, possibly because parents whose children were aged 3-4 at the time of the mine fire are less concerned about the effects of the mine fire event now.

In the Adult Survey around a third of those who were eligible were recruited. An important adaptation by the researchers has been to extend the use of administrative health datasets to provide supplementary information regarding the health of the broader population.

Ross Coppel encouraged researchers to consider writing papers on the methodology of the HHS, providing synthesis on how to approach studies of similar events in the future.

Jill Blackman noted that she is currently working on a cohort paper for the Adult Survey.

Michael Abramson advised that he had co-chaired Protecting Public Health Following Environmental Health Disasters group session at the Global Health Summit in Berlin in October.

Other presentations at this session included:

- Engaging Communities and Building Trust in Times of Uncertainty – Heidi J. Larson
- Long Term Follow-up of the World Trade Center and Hurricane Sandy – Shao Lin
- Community Recovery Following a Mass Chlorine Leak – Erik Svendsen
- Sequelae of an Earthquake, Tsunami and Nuclear Crisis: 6 Years and a Half after March 11, 2011 - Shunichi Fukuhara

Michael Abramson noted that John McNeil is keen for the group to continue their collaboration.

Judi Walker reported that she has recently received enquiries following the catastrophic fires in northern Queensland. Specific areas of interest were policy directions and changes at Commonwealth, State and Local government level.

7. Hazelinks Data Linkage – Ambulance Victoria Report (Att. 5)

Jill Blackman reported that the Ambulance Victoria Report has been approved by DHHS and was released on 11 December 2018 with a media release. Yuming Guo has made media appearances this week.

Researchers found an overall increase of 15% in ambulance call outs and a 41% increase in respiratory attendances.

8. Schools Study – paper on round 1 interviews (Att. 6)

Jill Blackman reported that the Schools Study team has written a paper ‘Children’s perspectives on the impact of the Hazelwood mine fire and subsequent smoke event’. This paper draws on the Round 1 interviews.

9. Early Life Follow-up

Michael Abramson reported on the findings of the ELF Stream. Researchers found no association between coal mine fire-attributable PM_{2.5} and fetal growth or gestational maturity outcomes. However, there was weak evidence that gestational diabetes mellitus was an effect modifier in the relationship between maternal PM_{2.5} exposure and birth weight. Babies born to exposed gestational diabetic mothers were 97 grams heavier per 10 µg/m³ increase in PM_{2.5} exposure (95%CI 74, 120 grams).

10. Clinical Streams

Michael Abramson reported that clinical testing for the Respiratory and Cardiovascular Streams was completed this year. A total of approximately 500 participants were tested in each Stream.

Participants from Morwell were more symptomatic and were also a bit older. The analysis of the clinical data is continuing.

Victorian Public Health Medical Training Scheme intern Juliana Betts has worked on the CV Stream data with Danny Liew and Dion Stub. The findings are all negative in relation to the primary study end points (change in FEV₁ over time, change in CRP over time) or secondary endpoints (changes in ECG findings over time, changes in other cardiovascular biomarkers over time).

Juliana Betts' findings indicate a high proportion of participants have hypertension that it is undiagnosed and undermanaged.

Sinjini Biswas has reviewed the ECGs and has not identified substantive differences in endothelial function.

Michael Abramson suggested that given that clinical testing had not found differences in primary or secondary CV endpoints, CV Stream participants should be followed up passively through health datasets. Ross Coppel agreed that this is a sensible approach, recommending that work should be undertaken to communicate with stakeholders, informing them about the future plans for the CV Stream and socialising the idea that passive follow-up will be undertaken rather than further clinical testing rounds.

It was reported that Bruce Thompson will take up an appointment as Dean of Health Sciences at Swinburne University in January 2019. He will continue his involvement in the Study after he takes up his new appointment.

Ross Coppel noted that the new head of the Stephen Nicholls head of the Victorian Heart Hospital will commence soon and suggested that HHS researchers make contact with him.

11. Governance – Ministerial Advisory Committee, Latrobe Health Advocate

Ross Coppel reported that he has tried to coordinate a time for meet with the Ministerial Advisory Committee but has not set up a time to meet with them.

Michael Abramson reported that the MAC submitted its report in August. The MAC's sole line of reporting is to the Health Minister. Following the Victorian State Election in November 2018, Jenny Mikakos has been appointed Health Minister.

Judi Walker reported that the MAC members are seeking to establish two-way communication between the MAC and the Study. The MAC is preparing a workplan for 2019 and plans to invite representatives of the individual Research Streams to meet with the MAC. A list of discussion points will be provided to guide discussion.

Judi Walker reported that the Latrobe Health Advocate was appointed in May and is meeting regularly with representatives of the Study. The Latrobe Health Advocate, as well as representatives of the Environment Protection Authority, Latrobe Health Assembly and

Emergency Management Victoria were involved in the HHS Annual Communication Engagement session in Morwell in August.

12. Other Business

Beth Edmondson outlined her previous involvement in the establishment of a Charter for the Health Innovation Zone and in evaluating the creation of the Innovation Zone.

Ross Coppel requested that Psychological Impacts Stream be added as a standing agenda item under Clinical Streams.

Ross Coppel reported that Aron Shlonsky has been appointed as the new head of the Social Work Department and that he is happy to organise an introduction.

13. Next Meeting

Ross Coppel suggested that there are two options with respect to the date of the next SRG meeting (March/April 2018 ahead of the rebid or June or July after the rebid), advising that he will leave it up to the Study researchers to decide when they would prefer to hold the next meeting.