

Hazelwood Health Study outputs which are publicly available

Stream	Release Date	Details of outputs to date and link (if applicable) to publicly available document
1. All	Nov 2015	1 st Annual Report. Report: "Hazelwood Health Study Annual Report 1" available at https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0003/1636311/hhsannualreport_final121115_v1.0.pdf
2. Community Wellbeing	July 2016	Abstract about social media use, presented at the 2016 ANZCA conference. Conference Proceeding: Yell et al (2016) "Communities, authority and trust in the Fifth Estate: Social media use during the Hazelwood coalmine fire". Delivered at the 2016 Australia and New Zealand Communication Association Conference on <i>Creating Space in the Fifth Estate</i> , Newcastle, 6-8 July. Cited on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/presentations
3. All	Nov 2016	2 nd Annual Report Report: "Hazelwood Health Study Annual Report 2" available at https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0008/1636424/hazelwood-health-study-2nd-annual-report-v1.1-1.pdf
4. Exposure Assessment	Feb 2017	CSIRO report on the modelling of the smoke exposure providing information on PM _{2.5} and CO and other chemical exposures for the mine fire period. Report: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0009/1636434/hazelwood_airqualitymodelling_december2016_final.pdf Research summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0003/1766055/Summary_AirQualityModelling_v1.1_13Feb2017.pdf
5. Older People	Feb 2017	Review of the impact of the Hazelwood mine fire on older people living in the Morwell community in the context of policy-driven decisions made at the time. Policy Review Report: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0004/1636384/policy-review-older-people-v1.0-website.pdf Policy Brief: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0011/1766072/Policy-Brief-Older-People-v1.1.pdf
6. Older People	May 2017	Abstract on older people and communications in future disaster events submitted to Australia and New Zealand Disaster and Emergency Management Conference. Conference Proceeding: Walker & Carroll (2017) Communications in future disaster events: best practice policy for older people. Presented at the Australia and New Zealand Disaster and Emergency Management Conference, Gold Coast May 2017. (Cited on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/presentations)

7. Psychological Impacts (Schools)	Jun 2017	<p>Initial findings from the first round of the Schools Study survey comparing students from Morwell schools with those from other Latrobe Valley schools.</p> <p>Report: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0006/1636476/schools-study-analysis-of-round-1-key-quantitative-data-v1.0.pdf</p> <p>Research summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0009/1766070/Schools-Study-Year-1-key-findings-summary-v1-170627.pdf</p>
8. Hazelinks	Sep 2017	<p>Analysis of deidentified emergency presentations and hospital admission data (1st extraction) during the smoke event compared with before and after the fire.</p> <p>Report: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0004/1636483/2018-08-20-Hospital-analysis-extract-1-technical-report.ver1.2.pdf</p> <p>Research summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0008/1766069/20170904-Hospital-Admissions-research-summary.pdf</p>
9. Adult Survey	Sep 2017	<p>First round of analysis comparing 3096 Morwell and 960 Sale residents who completed the HHS Adult Survey. Technical Report Volume 1.</p> <p>Report: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0006/1636395/hhsadultsurveyvol1_report_v1.1-compressed.pdf</p> <p>Research summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0007/1766077/20170904-Adult-Survey-research-summary.pdf</p>
10. Hazelinks	Sep 2017	<p>Analysis of cancer incidence data registered from 2009-2013 in Latrobe City compared to the surrounding LGAs to set the baseline for future comparisons.</p> <p>Report: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0003/1636482/20170919-cancer-analysis-data-extraction-technical-report-v1.0-1.pdf</p> <p>Research summary: https://www.monash.edu/_data/assets/pdf_file/0005/1766075/20170919-Baseline-Cancer-Analysis-research-summary-1.pdf</p>
11. Community Wellbeing	Sep 2017	<p>Paper on the use of social media during the Hazelwood mine fire.</p> <p>Academic paper: Yell & Duffy (2018) "Community Empowerment and trust: social media use during the Hazelwood mine fire." In the Australian Journal of Emergency Management available at https://knowledge.aidr.org.au/resources/ajem-apr-2018-community-empowerment-and-trust-social-media-use-during-the-hazelwood-mine-fire/. Full text also available at https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0010/1986931/Community-Empowerment-and-Trust_Yell-and-Duffy_ajem-33-2-21.pdf</p> <p>Citation and link also shown at https://hazelwoodhealthstudy.org.au/study-findings/publications</p>
12. Older People	Nov 2017	<p>Abstract describing the Older People Stream policy review.</p>

		Conference Proceeding: Walker (2017). The impact of the Hazelwood mine fire in Australia on older people: review of policy-driven decisions made at the time. Aging and Society : Seventh Interdisciplinary Conference, UC Berkeley, USA, November 2017. Cited on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/presentations
13. Older People	Nov 2017	Abstract about older people as active participants in disaster responses. Conference Proceeding: Carroll & Walker (2017). Beyond vulnerability: Older people as active participants in disaster responses. Presented at the 50 th Australian Association of Gerontology (AAG) National Conference, Perth, WA November 2017. Available at https://www.aag.asn.au/documents/item/2003-on-page-37 . Cited on the HHS website https://hazelwoodhealthstudy.org.au/study-findings/presentations
14. All	Nov 2017	3 rd Annual Report Report: "Hazelwood Health Study Annual Report 3" available at https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0003/1636419/hazelwood-health-study-3rd-annual-report_v1.2.pdf
15. Community Wellbeing	Dec 2017	Paper on the politics of loss and hope in the Latrobe Valley, drawing on information from the Community Wellbeing interviews and focus groups. Academic paper: https://www.anzrsai.org/assets/Uploads/PublicationChapter/AJRS-23.3-pages-421-to-446.pdf
16. Community Wellbeing	Dec 2017	Video summary on the major role that social media played during the Hazelwood mine fire. Video link: http://hazelwoodhealthstudy.org.au/research-areas/community-wellbeing/ and https://youtu.be/LVwQBvaNgtM
17. Early Life Follow-up	Jan 2018	Volume 1 technical report on ELF survey data completed by parents of 548 children sampled across the Valley and born between 2012 and 2015. Report: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0009/1636452/elf-vol-1-cohortdescription_parentreportedoutcomes-v1.2.pdf Research summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0006/1766085/20180201-HHS-ELF-Volume-1-Research-Summary.pdf
18. Hazelinks	Mar 2018	Hazelinks technical report describing the association between PM _{2.5} and data from the MBS (health service use) and PBS (pharmaceutical dispensation). Report: https://www.hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0010/2324908/Hazelinks-MBS-PBS-Technical-Report-Version-2.0.pdf . Research Summary: https://www.hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0009/2324907/Hazelinks-MBS-and-PBS-Time-Series-Research-Summary-v2.0.pdf

19. Hazelinks	May 2018	<p>Abstract on deidentified hospital emergency presentations and admissions presented at ATS 2018.</p> <p>Conference Proceeding Abramson et al (2018). "Emergency Presentations and Hospital Admissions Following Exposure to Smoke from a Coal Mine Fire". Available at: https://www.abstractsonline.com/pp8/#!/4499/presentation/14343 (To be listed in a new section of the HHS website)</p>
20. Adult Survey	May 2018	<p>Abstract on Adult Survey self-reported asthma and respiratory symptoms presented at ATS 2018.</p> <p>Conference Proceeding: Abramson et al (2018). "Adults Exposed to Coal Mine Fire Smoke Report More Asthma and Respiratory Symptoms than Those Not Exposed". Available at: https://www.abstractsonline.com/pp8/#!/4499/presentation/19606 (To be listed in a new section of the HHS website)</p>
21. Hazelinks	July 2018 & March 2020	<p>Paper describing the association between mine fire PM_{2.5} and deidentified hospital emergency presentations and admissions (based on findings previously presented in the technical report (row 8 above).</p> <p>Academic paper: Guo et al (2020) The association of coal mine fire smoke with hospital emergency presentations and admissions: Time series analysis of Hazelwood Health Study" in Chemosphere, available at https://www.sciencedirect.com/science/article/pii/S0045653520308602. Citation also shown at https://hazelwoodhealthstudy.org.au/study-findings/publications.</p> <p>No Research Summary for this publication as a previous Research Summary was produced for the preceding technical report (see row 8 above)</p>
22. Early Life Followup	July 2018	<p>Abstract on children's lung health submitted to the Australia & New Zealand Society of Respiratory Science and the Thoracic Society of Australia and New Zealand (ANZSRS/TSANZ) Annual Scientific Meeting, July 2018.</p> <p>Conference Proceeding: Shao J et al. (2018). An assessment of early life exposure to coalmine fire smoke and children's lung health (abstract TOL 003). Available at https://doi.org/10.1111/resp.13267 and cited on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/presentations</p>
23. Community Wellbeing	Nov 2017 May 2018	<p>A travelling photographic exhibition featuring images generated by local community groups and residents symbolising their hopes for the future of Morwell.</p> <p>Exhibition photos: https://hazelwoodhealthstudy.org.au/media/our-hopes</p> <p>Exhibition catalogue: https://hazelwoodhealthstudy.org.au/data/assets/pdf_file/0005/2073362/Updated-Catalogue-Final.pdf</p>
24. Early Life Followup	August 2018	<p>Abstract describing the association between smoking during pregnancy and early development atherosclerosis, presented to the European Cardiology Congress 2018.</p> <p>Conference proceeding: Zhao et al (2018) Smoking during pregnancy significantly increases the risk of early atherosclerosis: a study from coalmine smoke exposure [abstract] available at https://esc365.escardio.org/Congress/ESC-Congress-2018/Best-Posters-6-Best-Posters-in-preventive-cardiology/176295-smoking-during-pregnancy-significantly-increases-the-risk-of-early-atherosclerosis-a-study-from-</p>

		coalmine-smoke-exposure#abstract also cited on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/presentations
25. Early Life Followup	August 2018	Abstract on smoke exposure during infancy and lung function submitted to ISEE 2018. Conference proceeding: Shao et al (2018) Exposure to Smoke from a Coal Mine Fire during Infancy and Lung Function Three Years after the Event. Available at https://ehp.niehs.nih.gov/doi/10.1289/isesisee.2018.P02.1800 and cited on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/presentations
26. Psychological Impacts (Adult)	August 2018	Paper summarising the findings from qualitative interviews with adult Morwell residents on the social and psychological impacts of the event. Academic paper: Jones et al 2018 "Experiences of a prolonged coal-mine fire. In Disaster Prevention and Management. Available by subscription https://doi.org/10.1108/DPM-05-2018-0145 . Pre-print version freely available at https://research.monash.edu/files/252507394/252145312_oa.pdf Research summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0009/1766079/20180605-adults-Psych-stream-research-summary-4.pdf
27. Hazelinks	August 2018	Abstract on PM _{2.5} and PBS data submitted to ISEE 2018 Conference Proceeding: Johnson et al (2018) Fine particulate matter and medications dispensed during and after a brown coal mine fire: a time series analysis. Presented at the International Society of Exposure Science and International Society for Environmental Epidemiology 2018 Joint Annual Meeting. 26–30 August 2018, Ottawa, Canada. Available at https://ehp.niehs.nih.gov/doi/10.1289/isesisee.2018.P02.1550 (To be listed in a new section of the HHS website)
28. Hazelinks	August 2018	Abstract on PM _{2.5} and Medicare health service data submitted to ISEE 2018. Conference Proceeding: Johnson et al (2018) Brown coal mine fire-related fine particulate matter and medical service utilisation in Australia: a time series analysis. Presented at the International Society of Exposure Science and International Society for Environmental Epidemiology 2018 Joint Annual Meeting, Ottawa, Canada, 26–30 August 2018. Available at https://ehp.niehs.nih.gov/doi/10.1289/isesisee.2018.O02.04.19 (To be listed in a new section of the HHS website)
29. Psychological Impacts (Schools)	Sep 2018	Paper on the perception of staff from a specialist school on the impacts of the smoke and relocation on students and staff at the school. Academic paper: Berger et al (2018) "Disaster Impacts on Students and Staff from a Specialist, Trauma-Informed Australian School" in Journ Child Adol Trauma. Available by subscription at https://doi.org/10.1007/s40653-018-0228-6 . Full text freely avail on pre-print server at: https://doi.org/10.31234/osf.io/agdb5 Link also provided at https://hazelwoodhealthstudy.org.au/study-findings/publications Research summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0010/1766080/20180910-Psychological-Impacts-Stream-Specialist-School-Interviews-Research-Summary.pdf
30. Psychological Impacts (Schools)	Sep 2018	Analysis of round 1 Schools Study interviews on the impacts of the mine fire on students. Academic publication: Berger et al (2020) "Children's Perspectives on the Impact of the Hazelwood Mine Fire and Subsequent Smoke Event". Child &

		<p>Youth Care Forum. Available by subscription from: https://doi.org/10.1007/s10566-020-09551-8.</p> <p>Pre-print version available at https://doi.org/10.31234/osf.io/8mhxf (also https://psyarxiv.com/8mhxf/)</p> <p>Link also provided at https://hazelwoodhealthstudy.org.au/study-findings/publications</p> <p>Research summary: https://hazelwoodhealthstudy.org.au/data/assets/pdf_file/0004/1766083/20180906-Psychological-Impacts-Stream-Childrens-perspectives.pdf</p>
31. Early Life Follow-up	Oct 2018	<p>ELF Technical Report Volume 2 reporting on the clinical assessments looking at the relationship between smoke exposure and respiratory functioning.</p> <p>Technical Report: Link provided at https://hazelwoodhealthstudy.org.au/data/assets/pdf_file/0003/2052516/ELFVol-2-Lung-Function-Testing-v1.1.pdf</p> <p>Research summary: One Research Summary which combines the findings from ELF Volumes 2 and 3 is available at https://hazelwoodhealthstudy.org.au/data/assets/pdf_file/0005/1766102/ELF-vols-2_3-Research-Summary.pdf</p>
32. Early Life Follow-up	Oct 2018	<p>ELF Technical Report Volume 3, reporting on the clinical assessments looking at the relationship between smoke exposure and cardiovascular functioning.</p> <p>Technical Report: Zhao et al (2018) "The Latrobe Early Life Follow-up (ELF) Cohort Study Volume 3 Investigation of possible associations between coal mine fire emissions and vascular outcomes in the ELF cohort three years after the fire" Link provided at https://hazelwoodhealthstudy.org.au/data/assets/pdf_file/0006/2150547/ELF-Cohort-Study_Volume-3-CV-Report_v1.1.pdf</p> <p>Research summary: One Research Summary which combines the findings from ELF Volumes 2 and 3 is available at https://hazelwoodhealthstudy.org.au/data/assets/pdf_file/0005/1766102/ELF-vols-2_3-Research-Summary.pdf</p>
33. Early Life Followup	Nov 2018	<p>Abstract presented to the American Heart Association Scientific Sessions 2018 on normal ranges of IMT in young children.</p> <p>Followed by a paper on this same subject, submitted to Pediatric Cardiology.</p> <p>Conference Proceeding: Zhao et al, (2018) Feasibility and Normal Ranges of Arterial Intima-Media Thickness and Stiffness in 2-Year-Old Children. Available at https://www.ahajournals.org/doi/10.1161/circ.138.suppl_1.13237 and cited on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/presentations</p> <p>Academic paper: Zhao et al (2019). "Feasibility and Normal Ranges of Arterial Intima-Media Thickness and Stiffness in 2-Year-Old Children: A Pilot Study" in Pediatric Cardiology. Available by subscription at https://link.springer.com.ezproxy.lib.monash.edu.au/content/pdf/10.1007/s00246-019-02088-1.pdf. Cited on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/publications.</p>
34. Psychological Impacts (Adult)	Nov 2018	<p>Paper on adult psychological outcomes which combined analysis of Adult Survey findings with follow up face to face interviews.</p> <p>Academic paper: Maybery et al (2020) "A mixed-methods study of psychological distress following an environmental catastrophe: the case of the Hazelwood open-cut coalmine fire in Australia" in Anxiety, Stress, & Coping. Available by paid subscription at https://www.tandfonline.com/doi/abs/10.1080/10615806.2019.1695523</p>

		<p>Full text also available on a preprint server at: https://psyarxiv.com/euj96/ Citation also shown at https://hazelwoodhealthstudy.org.au/study-findings/publications</p> <p>Research summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0004/1766101/Psych-stream-mixed-methods-research-summary-V2.pdf</p>
35.All	Nov 2018	<p>4th Annual Report</p> <p>Report: "Hazelwood Health Study Annual Report 4" available at https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0006/1636251/hhs-4th-annual-report-v1.0.pdf</p>
36.Hazelinks	Dec 2018	<p>Report on risk of ambulance attendances during the Hazelwood mine fire compared with before and after the event (1st extraction, deidentified data). Report version 1.0 placed on https://hazelwoodhealthstudy.org.au/study-findings/study-reports in Dec 2018 but removed in Feb 2020 for revisions to be made.</p> <p>Report version 1.1 listed on https://hazelwoodhealthstudy.org.au/study-findings/study-reports in March 2020 as being available upon request by calling 1800 985 899 or emailing contact@hazelwoodhealthstudy.org.au</p> <p>Research summary: available at https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0003/1766100/Ambulance-attendances-during-the-Hazelwood-mine-fire.pdf</p> <p>Refer row 63 for the academic paper based on these findings.</p>
37. Early Life Follow-up	Dec 2018	<p>Paper on birth outcomes in the Latrobe Valley following the mine fire based on analysis of anonymous Victorian Perinatal Data Collection records.</p> <p>Academic paper: Melody et al (2019) Maternal exposure to fine particulate matter from a coal mine fire and birth outcomes in Victoria, Australia. Published in Environment International .Full text available at https://doi.org/10.1016/j.envint.2019.03.028 and citation shown at https://hazelwoodhealthstudy.org.au/study-findings/publications</p> <p>Research summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0009/1766097/Birth-outcomes-using-anonymous-Victorian-Perinatal-Data-Collection-Records.pdf</p>
38. Adult Survey	Jan 2019	<p>Second round of analysis on the Adult Survey looking at the relationship between level of smoke exposure and health outcomes. Technical Report Volume 2.</p> <p>Report: Ikin et al (2019) Hazelwood Health Study Adult Survey Volume 2: The relationship between Hazelwood mine fire smoke exposure and health outcomes. Available on the HHS website at: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0008/1636460/hazelwoodhealthstudy-adult-survey-volume-2-report-v1.1.pdf</p> <p>Research summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0006/1766094/20190123-Adult-Survey-Volume-2-Research-Summary.pdf</p>
39. Psychological Impacts (Schools)	March 2019	<p>Report on the second round of face to face interviews with students participating in the Schools Study tracking ongoing impacts.</p> <p>Report: Allen et al (2019) Hazelwood Health Study Schools Study: Report of Round 2 Qualitative Findings available on the HHS website at https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0011/1766135/Schools-Study-Round2-Interviews.pdf</p>

		<p>Research summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0007/1766104/Research-Summary-Schools-Study-Round-2-Interviews.pdf</p>
40. Hazelinks	March 2019	<p>Paper based on revised analysis of PBS data (see row 18 above) assessing the relationship between smoke exposure and medication dispensing.</p> <p>Academic paper: Johnson et al (2019) "Fine particulate matter exposure and medication dispensing during and after a coal mine fire: A time series analysis from the Hazelwood Health Study". Available by subscription at https://doi.org/10.1016/j.envpol.2018.12.085. Citation also shown at https://hazelwoodhealthstudy.org.au/study-findings/publications with readers advised to email contact@hazelwoodhealthstudy.org.au to request a full copy of the paper.</p> <p>No Research Summary for this publication as a previous Research Summary was produced for the preceding technical report (see row 18 above)</p>
41. Psychological Impacts (Schools)	March 2019	<p>Paper on the first round of the Schools Study combining analysis of survey and interview findings.</p> <p>Academic paper: Maybery et al (2019) The psychological impact and experiences of children following the Hazelwood mine fire and subsequent smoke event. Preprint version available at https://psyarxiv.com/rw657 Cited on the HHS website at: https://hazelwoodhealthstudy.org.au/study-findings/publications.</p> <p>Subsequently, this paper has been extensively revised and re-titled "Posttraumatic stress among school-aged students following a mine fire." The revised manuscript has been published by the <i>Journal of Aggression, Maltreatment and Trauma</i> and is available at www.tandfonline.com/doi/abs/10.1080/10926771.2023.2228240.</p> <p>Research Summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0007/1766104/Research-Summary-Schools-Study-Round-2-Interviews.pdf</p>
42. Community Wellbeing	May 2019	<p>CWB Stream Technical Report Volume 1 (Version 1.0 of this report replaced with version 2.0 in October 2019)</p> <p>Report: Yell et al (2019) Community Wellbeing Stream Report Volume 1: Community perceptions of the impact of the smoke event on community wellbeing and of the effectiveness of communication during and after the smoke event. Cited on the HHS website at https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0018/2052540/CW-Report-Volume-1_v2.0.pdf</p> <p>Research Summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0006/1766103/community-perceptions-of-the-impact.pdf</p>
43. Early Life Follow-up	May 2019	<p>Paper on the relationship between mine fire smoke and risk of pregnancy-related health outcomes incl gestational diabetes.</p> <p>Academic paper: Melody et al (2019) "Maternal exposure to fine particulate matter from a large coal mine fire is associated with gestational diabetes mellitus: A prospective cohort study" published in <i>Environmental Research</i> and available by subscription at https://doi.org/10.1016/j.envres.2019.108956 Full citation shown on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/publications;</p>

		<p>website viewers invited to request a copy of the paper by emailing contact@hazelwoodhealthstudy.org.au</p> <p>Research Summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0006/1795830/Research-Summary-ELF-Exposure-to-mine-fire-smoke-and-the-risk-of-pregnancy-related-health-problems.pdf</p> <p>Abstract submitted to the World Congress of Epidemiology 2020 (which was cancelled)</p>
44. Early Life Follow-up	May 2019	<p>ELF Technical Report Volume 4 on updated analysis of birth outcomes using additional information provided by parents and maternal health data.</p> <p>Report: Melody et al (2019) https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0004/2052517/Latrobe-ELF-tech-report-volume-4_v1.0.pdf</p> <p>Research Summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0004/2052562/Research-Summary-ELF-Repeat-analysis-of-birth-outcomes.pdf</p> <p>Abstract submitted to the World Congress of Epidemiology 2020.</p>
45. Early Life Followup	May 2019	<p>Abstract on nitrogen dioxide and lung function, submitted to the American Thoracic Society Scientific Meeting,</p> <p>Conference Proceeding: Shao et al (2019) “Ambient Nitrogen Dioxide Exposure During Infancy Influences Respiratory Mechanics in Preschool Years [Abstract]” published in the American Journal of Respiratory and Critical Care Medicine available by paid subscription at https://doi.org/10.1164/ajrccm-conference.2019.199.1_MeetingAbstracts.A7058. Cited on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/presentations</p>
46. Respiratory	July 2019	<p>Paper examining whether exposure to smoke from the mine fire is associated with respiratory symptoms, asthma control and decline in lung function.</p> <p>Academic paper: Taylor et al (2019) “Is asthma associated with exposure to smoke from a coal mine fire?” Pre-print available at: https://www.biorxiv.org/content/10.1101/631317v1 Pre-print citation and link provided on HHS website shown at https://hazelwoodhealthstudy.org.au/study-findings/publications Nb. as of 17/3/20, this paper was yet to be published in a scientific journal.</p> <p>Research Summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0019/1840024/Research-Summary-Respiratory-Stream-Lung-Function-and-Asthma-Impacts.pdf</p>
47. Hazelinks	Oct 2019	<p>Paper describing revised analysis (see row 18 above) of the association between PM_{2.5} and Medicare health service use.</p> <p>Academic paper: Johnson et al. (2020) “Coal-mine fire-related fine particulate matter and medical-service utilization in Australia: a time-series analysis from the Hazelwood Health Study” in the International Journal of Epidemiology. Full text available by subscription at https://doi.org/10.1093/ije/dyz219. Citation shown on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/publications and readers may request a full copy by emailing contact@hazelwoodhealthstudy.org.au</p>

		No Research Summary for this publication as a previous Research Summary was produced for the preceding technical report (see row 18 above)
48. Cardiovascular	Oct 2019	<p>Paper aiming to estimate the prevalence of hypertension in the cohort and identify predictors of hypertension management (does not address any research question about the impact of the mine fire)</p> <p>Academic paper: Betts et al (2020) "Factors associated with hypertension and its management among older rural Australians" published in the Australian Journal of Rural Health (May 2020) 28(4), 399-407. Full text available by subscription at https://doi.org/10.1111/ajr.12634. Citation shown on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/publications and readers may request a full copy by emailing contact@hazelwoodhealthstudy.org.au</p> <p>Research Summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0016/2011831/CVD-Hypertension-Research-Summary.pdf</p> <p>The Research Summary invites readers to request the full copy of the paper by calling 1800 985 899 or emailing contact@hazelwoodhealthstudy.org.au</p>
49. Cardiovascular	Oct 2019	<p>Paper aiming to measure any association between mine fire PM_{2.5} and CVD risk factors.</p> <p>Academic paper: Betts et al (2021) "Markers of cardiovascular disease among adults exposed to smoke from the Hazelwood coal mine fire" published in the International Journal of Environmental Research and Public Health, 18(4), 1587. Cited on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/publications and freely available at https://doi.org/10.3390/ijerph18041587.</p> <p>Research Summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0015/2011830/CVD-Blood-Vessel-Health-Research-Summary-1.pdf</p>
50. Adult Survey	Oct 2019	<p>Abstract submitted to the European Respiratory Society International Congress on PM_{2.5} and chronic cough.</p> <p>Conference Paper: Abramson et al (2019) "Chronic cough is related to cumulative PM_{2.5} and exposure from a coal mine fire [abstract]" available at https://erj.ersjournals.com/content/54/suppl_63/PA4455 and cited on the HHS website https://hazelwoodhealthstudy.org.au/study-findings/presentations</p>
51. Respiratory	Nov 2019	<p>Abstract describing the association between PM_{2.5} and COPD based on adult Respiratory Stream clinic data. Submitted to the ATS 2020.</p> <p>Conference Proceeding: Prasad SR, Borg B, Gao CX et al (2020) Chronic Obstructive Pulmonary Disease Is Associated with Exposure to Fine Particles from a Coal Mine Fire [abstract]. Accepted as an e-poster for inclusion in the American Thoracic Society 2020 Virtual meeting. Also published in the American Journal of Respiratory and Critical Care Medicine; 201:A7835. https://www.atsjournals.org/doi/abs/10.1164/ajrccm-conference.2020.201.1_MeetingAbstracts.A7835</p>
52. Exposure Assessment	Nov 2019	<p>Paper written by CSIRO describing the modelling of PM_{2.5} data.</p> <p>Academic paper: Luhar et al (2020) Modelling smoke distribution in the vicinity of a large and prolonged fire from an open-cut coal mine. Atmospheric Environment, 117471. Available from http://www.sciencedirect.com/science/article/pii/S1352231020302089.</p>

		<p>Citation shown on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/publications</p> <p>No Research Summary for this paper as it replicates CSIRO's modelling report and Research Summary described in Row 4 above.</p>
53.All	Nov 2019	<p>5th Annual Report</p> <p>Report: "Hazelwood Health Study Annual Report 5" available at https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0009/2052828/HHS-5th-Annual-Report-v-1.0-with-Appendices.pdf</p>
54.Adult Survey/ Psychological Impacts	Dec 2019	<p>Paper describing the association between PM_{2.5} and symptoms of distress and contributing factors</p> <p>Academic paper: Broder et al (2020) "The factors associated with distress following exposure to smoke from an extended coal mine fire" published in <i>Environmental Pollution</i> 266, 115131. Available by paid subscription at https://doi.org/10.1016/j.envpol.2020.115131 or http://www.sciencedirect.com/science/article/pii/S0269749119373907. To request a free copy of the paper call 1800 985 899 or email contact@hazelwoodhealthstudy.org.au.</p> <p>Research Summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0009/2052585/Long-term-psychological-health-following-the-Hazelwood-mine-fire.pdf</p>
55.Community Wellbeing	Dec 2019	<p>CWB Stream Technical Report Volume 2 on the community perceptions of effectiveness of community rebuilding activities.</p> <p>Report: Yell et al (2019) Community Wellbeing Stream Report Volume 2: Community perceptions of the effectiveness of community rebuilding activities https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0009/2059236/CW-Report-Volume-2_version-1.0.pdf</p> <p>Research Summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0003/2058960/Research-Summary-Community-perceptions-of-the-effectiveness-of-community-rebuilding-activities.pdf</p>
56.Early Life Followup	Nov 2019	<p>Paper describing association between smoke and health service and medication usage in children.</p> <p>Academic paper: Shao et al (2020) "Exposure to air pollution during the first 1000 days of life and subsequent health service and medication usage in children" published by <i>Environmental Pollution</i>. Available by subscription at https://doi.org/10.1016/j.envpol.2019.113340. Full citation shown on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/publications; website viewers invited to request a copy of the paper by emailing contact@hazelwoodhealthstudy.org.au</p> <p>Research Summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0010/2052568/ELF-Research-Summary-GP-visits-and-medication-use.pdf</p>
57.Early Life Followup	Dec 2019	<p>Paper describing the association between exposure to coal mine fire and tobacco smoke, and subclinical vascular function in young children.</p> <p>Academic paper: Zhao et al 2019 "Early life exposure to coal mine fire and tobacco smoke affect subclinical vascular function" published in <i>Archives of Disease in Childhood</i>. Available by subscription at</p>

		<p>https://adc.bmj.com/content/early/2019/12/20/archdischild-2019-317528. Full citation shown on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/publications; website viewers invited to request a copy of the paper by emailing contact@hazelwoodhealthstudy.org.au</p>
58. Early Life Followup	Dec 2019	<p>Technical Report, Research Summary and paper describing the association between PM_{2.5} and common illnesses like coughs, colds and asthma based on parent-reported monthly diaries.</p> <p>Report: Willis et al (2019) Latrobe Early Life Follow-up (ELF) Cohort Study Volume 6. The impact of exposure to coal mine fire smoke in early life on parent-reported indicators of childhood atopic and respiratory illness. Version 1.0. Available upon request by calling 1800 985 899 or emailing contact@hazelwoodhealthstudy.org.au</p> <p>Academic paper: Willis et al (2020) "Respiratory and atopic conditions in children two to four years after the 2014 Hazelwood coalmine fire" in the Medical Journal of Australia, 2020, vol 213(6), pp 269-275. Freely available at https://doi.org/10.5694/mja2.50719. Link also shown on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/publications</p> <p>Research Summary: available on the HHS website at https://hazelwoodhealthstudy.org.au/data/assets/pdf_file/0011/2052569/2019.09-Monthly-diary-summary-for-participants-.pdf</p> <p>The Research Summary invites readers to request the full copy of the technical report by calling 1800 985 899 or emailing contact@hazelwoodhealthstudy.org.au</p>
59. Adult Survey	Dec 2019	<p>Paper based upon the Adult Survey, respiratory symptoms, building materials and PM_{2.5}</p> <p>Academic paper: Johnson et al (2019) Associations between Respiratory Health Outcomes and Coal Mine Fire PM_{2.5} Smoke Exposure: A Cross-Sectional Study. In the International Journal of Environmental Research and Public Health. Available at https://www.mdpi.com/1660-4601/16/21/4262 Also cited on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/publications</p>
60. Hazelinks	Jan 2020	<p>Technical report describing the association between mortality, the mine fire period and PM_{2.5}.</p> <p>Report: v1.0 submitted to DHHS in November 2019 and resubmitted as v1.1 in February 2020. Report and accompanying Q and A document freely available on the Hazelwood Health Study website at https://hazelwoodhealthstudy.org.au/study-findings/study-reports</p> <p>Research Summary: https://hazelwoodhealthstudy.org.au/study-findings/fact-sheets-and-summaries</p>
61. Early Life Followup	Feb 2020	<p>Paper describing association between smoke and lung function in young children.</p> <p>Academic paper: Shao et al (2020) "Early life exposure to coal mine fire smoke emissions and altered lung function in young children" in <i>Respirology</i>. Available by subscription at https://doi.org/10.1111/resp.13617. Full citation shown on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/publications; website viewers invited to request a copy of the paper by emailing contact@hazelwoodhealthstudy.org.au</p>

62. Cardiovascular	March 2020	<p>Paper describing the relationship between diet quality scores and cardiometabolic risk factors in regionally-dwelling older Australian adults with increased cardiovascular risk.</p> <p>Academic paper: Owen et al (2020) Recommended Intake of Key Food Groups and Cardiovascular Risk Factors in Australian Older, Rural-Dwelling Adults. Published in <i>Nutrients</i>. Freely available at https://www.mdpi.com/2072-6643/12/3/860/htm and on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/publications</p> <p>As this publication does not address a Hazelwood Health Study research question, a HHS Research Summary has not been prepared.</p>
63. Hazelinks	April 2020	<p>Paper describing the association between PM_{2.5} and deidentified ambulance data (based on analysis previously presented in the technical report (see row 36 above).</p> <p>Academic paper: Gao Et Al "Impact of acute exposure to mine fire emitted PM_{2.5} on ambulance attendances: a time series analysis from the Hazelwood Health Study" in <i>Environmental Research</i>, 110402. Available by subscription at https://doi.org/10.1016/j.envres.2020.110402. For a free copy of this article, please email contact@hazelwoodhealthstudy.org.</p> <p>No Research Summary as findings were previously presented (see row 36)</p>
64. Adult Survey	April 2020	<p>Paper describing the establishment, recruitment and followup of the HHS adult cohort.</p> <p>Academic paper: Ikin et al "Cohort Profile: The Hazelwood Health Study adult cohort" in the <i>International Journal of Epidemiology</i>. Available by subscription at https://doi.org/10.1093/ije/dyaa083. Cited on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/publications. A free copy of the paper can be requested by emailing contact@hazelwoodhealthstudy.org.au</p> <p>No Research Summary released with this publication as it does not present new findings.</p>
65. Psychological Impacts (Schools)	April 2020	<p>Paper describing Schools Study participants, linked NAPLAN data and CRIES measures.</p> <p>Academic paper: Berger at al "The Impact of a Mine Fire and Smoke Event on Academic Outcomes for Primary and Secondary School Students" in <i>Psychological Trauma: Theory, Research, Practice, and Policy</i>. Available by subscription at www.doi.org/10.1037/tra0001179. Pre-print freely available at https://psyarxiv.com/unms5/. Pre-print link provided on the HHS website at www.hazelwoodhealthstudy.org.au/study-findings/publications.</p> <p>Research Summary: https://hazelwoodhealthstudy.org.au/data/assets/pdf_file/0018/2232054/20201606-NAPLAN-The-Impact-of-a-Mine-Fire-and-Smoke-Event-on-Academic-Outcomes-for-Primary-and-Secondary-School-Students.pdf</p>
66. Respiratory Stream	May 2020	<p>Abstract describing the association between PM_{2.5} and COPD submitted to the American Thoracic Society Annual Meeting 2020. Nb. the Meeting was replaced with ATS Virtual. The abstract has been accepted and published.</p> <p>Conference Proceeding: Prasad et al (2020) Chronic Obstructive Pulmonary Disease Is Associated with Exposure to Fine Particles from a Coal Mine Fire [abstract]. <i>American Journal of Respiratory and Critical Care Medicine</i>; 201:A7835. Available at</p>

		https://www.atsjournals.org/doi/abs/10.1164/ajrccm-conference.2020.201.1_MeetingAbstracts.A7835 . Also cited on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/presentations .
67. Early Life Followup	June 2020	<p>Paper describing the establishment, recruitment and followup of the HHS Early Life Followup cohort.</p> <p>Academic paper: Melody et al. "Cohort Profile: The Hazelwood Health Study Latrobe Early Life Follow-Up (ELF) Study" in the <i>International Journal of Epidemiology</i> 2020. Available by subscription https://doi.org/10.1093/ije/dyaa136. Cited on the website at https://hazelwoodhealthstudy.org.au/study-findings/publications. A free copy of the paper can be requested by emailing contact@hazelwoodhealthstudy.org.au.</p> <p>No Research Summary released with this publication as it does not present new findings.</p>
68. Respiratory Stream	July 2020	<p>Paper and conference abstract describing the association between PM_{2.5} and lung mechanics using the forced oscillation technique (FOT) in the adult Respiratory Stream.</p> <p>Academic paper: Holt et al. (2021) "Long term impact of coal mine fire smoke on lung mechanics in exposed adults" in <i>Respirology</i>. Available by subscription at https://onlinelibrary.wiley.com/doi/10.1111/resp.14102. Pre-print version freely available at https://doi.org/10.1101/2020.10.14.20213009. Pre-print link also cited on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/publications.</p> <p>Conference Proceeding: Holt et al Altered lung mechanics after coal mine fire smoke exposure in adults. Abstract accepted by ERS International Virtual Congress 2020. In <i>European Respiratory Journal</i>, 56(suppl 64), 3146. https://doi.org/10.1183/13993003.congress-2020.3146</p> <p>Research Summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0008/2351096/Research-Summary_RespStream_FOT-paper.pdf</p>
69. Hazelinks	August 2020	<p>Paper describing the describing the association between PM_{2.5} and linked ambulance attendance data in consented Adult Survey participants.</p> <p>Academic paper: Broder et al. Long-term impact of exposure to coalmine fire emitted PM_{2.5} on emergency ambulance attendances: Hazelwood Health Study. (2021) Published by <i>Chemosphere</i>. Available by subscription at doi.org/10.1016/j.chemosphere.2021.132339. Cited on the HHS website and a free copy of the paper can be requested by emailing contact@hazelwoodhealthstudy.org.au.</p> <p>Research Summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0012/2351100/Hazelinks-Research-summary_linked-ambulance-paper.pdf</p>
70. Respiratory Stream	August 2020	<p>Paper describing the association between PM_{2.5} and COPD, T_{lco} and symptoms in adult Resp Stream participants. Same findings as those presented in the abstract at row 66 above.</p> <p>Academic paper: Prasad et al. "Chronic Obstructive Pulmonary Disease is associated with exposure to fine particles from a coal mine fire" published by the journal <i>Annals of the American Thoracic Society</i>. Available by subscription</p>

		<p>at www.atsjournals.org/doi/10.1513/AnnalsATS.202012-1544OC. Pre-print version freely available at https://doi.org/10.1101/2020.10.14.20213009. Cited on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/publications.</p> <p>Research Summary: https://hazelwoodhealthstudy.org.au/data/assets/pdf_file/0007/2351095/Research-Summary_RespStream_COPD-paper.pdf</p>
71. Adult Survey/ Psych Impacts	Oct 2020	<p>Paper describing the association between psychological distress and respiratory symptoms in the context of the mine fire. Not a Hazelwood Health Study research question.</p> <p>Academic paper: Samuel et al "Associations between self-reported respiratory symptoms and psychological distress following exposure to a landscape fire" 2021 published in <i>Stress and Health</i>. Available by subscription at https://doi.org/10.1097/EE9.0000000000000042. Cited on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/publications. A free copy of the paper can be requested by emailing contact@hazelwoodhealthstudy.org.au</p> <p>Conference proceeding: Poster accepted for TSANZ Vic 2020. Cited on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/presentations.</p> <p>No Research Summary released with this publication as it does not address a HHS research question.</p>
72. Adult Psych Impacts	Nov 2020	<p>Paper and abstract describing psychological distress in young adults.</p> <p>Academic paper: O'Donohue et al (2022) "The psychological impacts of a smoke event on young adults compared to other aged adults in Victoria, Australia". Published in the <i>Int Jnl Risk Reduction</i>. Freely available at www.doi.org/10.1016/j.ijdr.2021.102727</p> <p>Conference Proceeding: abstract accepted for presentation at the 4th International Childhood Trauma Conference held in Melbourne, Australia in August 2022.</p> <p>No Research Summary released with this publication.</p>
73. Adult Psych Impacts	Nov 2020	<p>Technical report describing the initial analysis of data from the 2019-2020 Mental Health and Wellbeing Follow-up Survey.</p> <p>Report: Carroll M. et al (2020). Hazelwood Health Study Technical Report. 2019-2020 Mental Health and Wellbeing Follow-up Survey: A follow-up to the 2016-2017 Adult Survey investigating the ongoing psychological health of adults who lived in Morwell during the 2014 Hazelwood mine fire. Freely available on the Hazelwood Health Study website at https://hazelwoodhealthstudy.org.au/study-findings/study-reports</p> <p>Research Summary: Research-Summary-Mental-Health-Follow-up-Report-07122020.pdf (hazelwoodhealthstudy.org.au)</p>
74. Early Life Followup	Nov 2020	<p>Technical report describing the sources of air pollution to which ELF families were exposed.</p> <p>Report: Chappell K et al (2020) The Latrobe Early Life Follow-up (ELF) Cohort Study Volume 5. A description of sources of air pollution inside and outside the home environments of children in the Latrobe ELF Cohort. Available on the Hazelwood Health Study website at</p>

		https://hazelwoodhealthstudy.org.au/data/assets/pdf_file/0010/2424871/ELF-Report-Vol-5_Version1.0.pdf No Research Summary released with this publication as it does not address a HHS research question.
75. Early Life Followup	Nov 2020	Paper describing the association between respiratory and cardiovascular function in young children. Academic paper: Hemstock E et al (2021). Associations between respiratory and cardiovascular function in early childhood. Published by the journal <i>Respirology</i> and cited on the HHS website at www.hazelwoodhealthstudy.org.au/study-findings/publications . Available by subscription at https://doi.org/10.1111/resp.14117 or a free copy of the paper can be requested by emailing contact@hazelwoodhealthstudy.org.au . No Research Summary released with this publication as it does not address a HHS research question.
76. All	Nov 2020	6 th Annual Report Report: "Hazelwood Health Study Annual Report 6" available at https://hazelwoodhealthstudy.org.au/data/assets/pdf_file/0006/2452866/HHS-6th-Annual-Report-v1.0.pdf
77. Respiratory Stream	Dec 2020	Paper describing the characteristics of e-cigarette users. Academic paper: Lee WK et al (2021) Are E-cigarette use and vaping associated with increased respiratory symptoms and poorer lung function in a population exposed to smoke from a coal mine fire? Published in <i>Respirology</i> and cited on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/publications . Available by subscription at https://doi.org/10.1111/resp.14113 or a copy of the paper can be requested by emailing contact@hazelwoodhealthstudy.org.au . No Research Summary released with this publication as it does not address a HHS research question.
78. Psych Impacts Schools	Feb 2021	Paper describing analysis of deidentified NAPLAN data Academic paper: Gao CX et al (2023). Evaluating the impact of Hazelwood mine fire event on students' educational development with Bayesian interrupted time-series hierarchical meta-regression. Published in March 2023 by the journal <i>PLoS ONE</i> and freely available at https://doi.org/10.1371/journal.pone.0281655 . A preprint version is also available at https://doi.org/10.1101/2021.03.28.21254516 . Cited on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/publications . Research Summary: https://hazelwoodhealthstudy.org.au/data/assets/pdf_file/0004/2560378/Deidentified-NAPLAN_Research-Summary.pdf
79. Hazelinks	March 2021	Paper describing hospital admission data linked to Adult Survey participants. Academic paper: Xu R et al (2021) Long-term impacts of coal mine fire emitted PM _{2.5} on hospitalization: a longitudinal analyses of the Hazelwood Health Study. Published by the <i>International Journal of Epidemiology</i> and available at https://doi.org/10.1093/ije/dyab249 . Cited on the website at https://hazelwoodhealthstudy.org.au/study-findings/publications . A copy of the paper can be requested by emailing contact@hazelwoodhealthstudy.org.au .

		<p>Research Summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0007/2552263/Linked-Hospital-Paper-Research-Summary.pdf</p>
80. Cardiovascular	April 2021	<p>Paper describing the flow mediated dilatation results from CVD Stream round 1 clinical testing.</p> <p>Academic paper: Mundisugih et al (2021) "Vascular responses among adults exposed to smoke from the Hazelwood coal mine fire". Published in <i>Vascular Health and Risk Management</i> and freely available at www.doi.org/10.2147/VHRM.S339439. Cited on the website at https://hazelwoodhealthstudy.org.au/study-findings/publications.</p> <p>No Research Summary released with this publication because the findings are very similar to those previously reported (refer row 49 above).</p>
81. Adult Psych Impacts	May 2021	<p>Literature review exploring the psychological outcomes for young adults after disaster events</p> <p>Academic paper: O'Donohue et al (2021) "Psychological outcomes for young adults after disastrous events: A mixed-methods scoping review". Published by Social Science & Medicine. Available by subscription https://doi.org/10.1016/j.socscimed.2021.113851.</p> <p>No Research Summary released with this publication as it does not address a HHS research question.</p>
82. Hazelinks	June 2021	<p>Paper describing the results from the previously release mortality report (refer row 60 above).</p> <p>Academic paper: Dimitriadis et al (2021) "Exposure to mine fire related particulate matter and mortality: A time series analysis from the Hazelwood Health Study" published in <i>Chemosphere</i>. Available by subscription at https://doi.org/10.1016/j.chemosphere.2021.131351. The more detailed report (refer row 60 above) and a FAQ document is freely available on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/study-reports.</p> <p>Research Summary: the Research Summary for the previously released report (refer row 60 above) is available on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/fact-sheets-and-summaries.</p>
83. Adult Psych Impacts	July 2021	<p>Paper based on mental health related ambulance, emergency department presentations & hospital admissions.</p> <p>Academic paper: Carroll et al (2022) "Impacts of coal mine fire-related PM_{2.5} on the utilisation of ambulance and hospital services for mental health conditions" published in <i>Atmospheric Pollution Research</i>. Available by subscription at: https://doi.org/10.1016/j.apr.2022.101415. A free pre-print version of this paper (not externally peer reviewed) is available at https://psyarxiv.com/hgv7t/</p> <p>Research Summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0009/2745873/Research-Summary_AdultPsych_HospitalAmbulance.pdf</p>
84. Hazelinks	July 2021	<p>A short paper regarding the incidence of cancer in the 5 years after the Hazelwood mine fire.</p> <p>Academic paper: Yu et al (2021) "Impacts of high concentration, medium duration coal mine fire related PM_{2.5} on cancer incidence: 5-year follow-up of</p>

		<p>the Hazelwood Health Study". Published by <i>Environmental Health Insights</i>. Freely available at https://journals.sagepub.com/doi/10.1177/11786302211059722. Cited on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/publications.</p> <p>Research Summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0008/2718962/Research-Summary_linked-cancer-5years-v1.0-1.pdf</p>
85. Adult Psych Impacts	July 2021	<p>Paper exploring the ongoing psychological distress associated with exposure to smoke during the 2014 Hazelwood coal mine fire. This is based on the previously released Technical report describing the initial analysis of data from the 2019-2020 Mental Health and Wellbeing Follow-up Survey (refer row 73).</p> <p>Academic paper: Carroll et al (2022) "An exploration of the trajectory of psychological distress associated with exposure to smoke during the 2014 Hazelwood coal mine fire". Published by the <i>International Journal of Hygiene and Environmental Health</i>. Freely available until 16 April 2022 at https://authors.elsevier.com/c/1eel8574Px5z6b. Available by subscription at https://doi.org/10.1016/j.ijheh.2022.113946. Cited on the website at https://hazelwoodhealthstudy.org.au/study-findings/publications. A pre-print version of this paper (not externally peer reviewed) is available at https://doi.org/10.31234/osf.io/tz5c4</p> <p>Research Summary: the Research Summary for the previously released report (refer row 73 above) is available on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/fact-sheets-and-summaries</p>
86. All	Nov 2021	<p>7th Annual Report</p> <p>Report: "Hazelwood Health Study Annual Report 7" available at https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0011/2834399/HHS-7th-Annual-Report-v1.0.pdf</p>
87. Hazelinks	Dec 2021	<p>A short commentary describing findings in regard to the association between PM_{2.5} exposure and Emergency Department presentations linked to Adult Survey participants.</p> <p>Academic paper: Smith et al "Long-term impact of exposure to the 2014 Hazelwood coal mine fire on emergency department presentations in Australia". Published by <i>Environmental Research</i>. Freely available at https://doi.org/10.1016/j.envres.2023.115440</p> <p>Research Summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0009/2881458/Linked-emergency-dept-presentations.pdf</p>

88. Early Life Followup	March 2022	<p>Based on the ELF Study's round 2 clinical data, this abstract describes the association between in-utero PM_{2.5} exposure and lung mechanics 7 years later.</p> <p>Conference proceeding: Hemstock et al "Prenatal exposure to emissions from a coalmine fire and childhood lung function." Accepted for presentation at three conferences; the Centre for Air Pollution, Energy and Health Research Symposium in May 2022 (oral presentation); the International Society for Environmental Epidemiology Asia and Western Pacific Chapter & International Society for Exposure Science in Asia Chapter in June 2022 (poster); the 34th Annual Conference of the International Society for Environmental Epidemiology in September 2022 (poster). The abstract is available at https://ehp.niehs.nih.gov/doi/abs/10.1289/isee.2022.P-0422. Formal citations not yet available.</p> <p>The poster is available on the HHS website at https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0005/3078446/Poster_HemstockEtAl_2022_ELF-PrenatalPM-exposure_lung-function.pdf.</p> <p>Research Summary: NA</p>
89. Early Life Followup	March 2022	<p>An abstract describing the association between in-utero and infant PM_{2.5} exposure and subsequent hospital emergency department presentations and admissions.</p> <p>Conference proceeding: Ziou et al "Early life exposure to coal smoke and hospital visitation: findings from a data linkage cohort study". Accepted and presented as a poster at the 2022 Annual conferences of the International Society for Environmental Epidemiology. Awaiting formal citation. The abstract is available at https://ehp.niehs.nih.gov/doi/abs/10.1289/isee.2022.P-0441</p> <p>The poster is available on the HHS website at https://www.monash.edu/hazelwood-health-study/study-findings/presentations?a=3076583</p> <p>Research Summary: NA</p>
90. Early Life Followup	March 2022	<p>An abstract describing the association between in-utero and infant PM_{2.5} exposure, and subsequent primary care medical service use and prescribed medications.</p> <p>Conference proceeding: Ziou et al "Prenatal and early postnatal exposure to air pollution associations with primary care and prescription usage". Accepted and presented as a poster at the 2022 Annual conferences of the International Society for Environmental Epidemiology. Awaiting formal citation. The poster is available on the HHS website at https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0011/3076589/Poster_ZiouEtAl_ISEE2022_544_PM-exposure_Primary-care_prescriptions.pdf</p> <p>Research Summary: NA</p>
91. Adult Psychological Impacts	April 2022	<p>A paper describing explore the role of Hazelwood mine fire-related posttraumatic stress, and general psychological distress, in the presentation of physical symptoms such as pain, fatigue, shortness of breath and gastrointestinal problems experienced during the 2019-2020 Black Summer bushfires.</p> <p>Academic paper: Gao et al "Somatic symptoms, psychological distress and trauma in response to climate disasters: lessons from the 2014 Hazelwood mine fire and 2019-20 Black Summer bushfires." Published by <i>BMC Public</i></p>

		<p><i>Health</i> in August 2023 and freely available at https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-023-16501-1.</p> <p>Research Summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0006/2997033/May-2022-Physical-symptoms.pdf</p>
92. Early Life Followup	July 2022	<p>A paper based on the ELF Study round 2 clinical assessments, describing the lack of an association between in utero exposure to mine fire smoke and lung function 7 years later.</p> <p>Academic paper: Hemstock et al (2023) "No association between in utero exposure to emissions from a coalmine fire and post-natal lung function." Published in April 2023 by <i>BMC Pulmonary Medicine</i> and freely available at www.bmcpulmed.biomedcentral.com/articles/10.1186/s12890-023-02414-7</p> <p>Research Summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0009/2999232/July-2022-Childhood-lung-function.pdf</p>
93. Early Life Followup	Sept 2022	<p>Abstract describing longitudinal analysis of ELF Study round 1 and 2 FOT and IMT data.</p> <p>Conference proceeding: Hemstock et al (2023). "The Health Impacts of Exposure to Air Pollution in Early Childhood". Presented to the Annual Scientific Meeting for Leaders in Lung Health & Respiratory Science scheduled for 25-28th March 2023. Proceedings published by <i>Respirology</i>, 28: 28-109. www.doi.org/10.1111/resp.14459.</p> <p>Research Summary: NA</p>
94. Early Life Followup	Sept 2022	<p>Manuscript describing early life exposure to mine fire smoke and associated emergency department presentations and hospital admissions.</p> <p>Academic paper: Ziou et al (2022). "Contrasting health outcomes following a severe smoke episode and ambient air pollution in early life: Findings from an Australian data linkage cohort study of hospital utilisation." Accepted in October 2023 for publication in <i>Environmental Health Perspectives</i>.</p> <p>Research Summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0020/3110843/November-2022-Emergency-department-visits-and-hospital-admissions-among-exposed-infants.pdf</p>
95. Respiratory Stream	Oct 2022	<p>Abstract describing adult Respiratory Stream round 1 clinic MBNW results.</p> <p>Conference proceeding: McCrabb et al (2023) "Increased conductive ventilation heterogeneity following exposure to coal-mine fire smoke." Presented to the <i>Annual Scientific Meeting for Leaders in Lung Health & Respiratory Science</i> scheduled for 25-28th March 2023. Proceedings published by <i>Respirology</i>, 28: 28-109. www.doi.org/10.1111/resp.14459.</p> <p>Research Summary: NA</p>

96. Respiratory Stream	Nov 2022	<p>Abstract describing longitudinal change in lung function based on adult Respiratory Stream round 1 and round 2 clinics.</p> <p>Conference proceeding: Holt et al (2023). "Change in Lung Function After Exposure to Smoke from a Mine Fire: A Clinical Follow-up" presented as a poster at the 2023 <i>Annual Conference of the American Thoracic Society</i>.</p> <p>Research Summary: NA</p>
97. All	Nov 2022	<p>8th Annual Report</p> <p>Report: "Hazelwood Health Study Annual Report 8" available at https://hazelwoodhealthstudy.org.au/study-findings/study-reports</p>
98. Early Life Followup	Nov 2022	<p>Manuscript describing results from deidentified extracts of MBS and PBS data for babies.</p> <p>Academic paper: Ziou et al (2023) "Primary and pharmaceutical care usage concurrent associations with a severe smoke episode and low ambient air pollution in early life". Published by <i>Science of the Total Environment</i> and freely available at https://doi.org/10.1016/j.scitotenv.2023.163580.</p> <p>Research Summary: https://hazelwoodhealthstudy.org.au/study-findings/fact-sheets-and-summaries</p>
99. Adult Survey	Feb 2023	<p>Abstract describing the association between mine fire PM and risk of COVID.</p> <p>Conference proceeding: Lane et al (2023) "Long-term risk of COVID-19 after extreme smoke exposure" presented at the European Respiratory Society (ERS) 2023 International Congress and the Australasian Epidemiological Association (AEA) 2023 Annual Scientific Meeting.</p> <p>Research Summary: NA</p>
100. Adult Survey	March 2023	<p>Paper describing the association between mine fire smoke exposure and vulnerability to COVID-19 infection, severity and mortality.</p> <p>Academic paper: Lane et al (2023) "Long term effects of extreme smoke exposure on COVID-19: A cohort study" published by <i>Respirology</i> and available at https://onlinelibrary.wiley.com/doi/abs/10.1111/resp.14591. A preprint version is also available at https://www.medrxiv.org/content/10.1101/2023.04.12.23288500v1.</p> <p>Research Summary: www.hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0010/3268549/2023-May-Long-Term-effect-of-smoke-on-Covid-19-Vulnerability.pdf</p>
101. Early Life Followup	March 2023	<p>Paper describing the trajectory of FOT results between rounds 1 and 2 clinical data collection</p> <p>Academic paper: Hemstock et al (2023) "Lung function changes in children exposed to mine fire smoke in infancy" under final stages of review with <i>Respirology</i>.</p> <p>Research Summary: www.hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0011/3268487/M</p>

		ay-2023-Lung-function-changes-in-children-exposed-to-mine-fire-smoke-in-infancy.pdf
102. Adult Psychological Impacts	April 2023	<p>Paper describing the trajectory of IES-R scores from round 1 (Adult Survey) to round 2 (Adult Psychological Stream Followup Survey)</p> <p>Academic paper: Smith et al (2023) "Sociodemographic circumstances, health, and life experience shape posttraumatic distress trajectories among individuals exposed to smoke during a large-scale coal mine fire." Published in April 2023 by the <i>J Traumatic Stress</i>. Freely available at https://doi.org/10.1002/jts.22923</p> <p>Research Summary: www.hazelwoodhealthstudy.org.au/data/assets/pdf_file/0005/3053876/August-2022-Distress-Trajectories.pdf</p>
103. Respiratory Stream	April 2023	<p>Paper describing a systematic review of the literature on PM exposure and COVID-19 infections, severity and death.</p> <p>Academic paper: Sheppard et al (2023) "Particulate matter air pollution and COVID-19 infection, severity, and mortality: A systematic review and meta-analysis" published by <i>Science of The Total Environment</i>. Freely available at https://onlinelibrary.wiley.com/doi/10.1002/jts.22923 and https://doi.org/10.1016/j.scitotenv.2023.163272</p> <p>No Research Summary released with this publication as it does not address an HHS research question.</p>
104. Early Life Followup	April 2023	<p>Abstract and paper describing allergic sensitisation in smoke exposed children.</p> <p>Academic paper: Ziou et al (2023) "Exposure to air pollution concentrations of various intensities in early life and allergic sensitisation later in childhood" under review with <i>BMC Pulmonary Medicine</i>.</p> <p>Conference Proceeding: Ziou et al (2023) "Allergic sensitisation following early life exposure to the Hazelwood mine fire" presented to the Australian Public Health Conference 2023 (26-28 September 2023).</p> <p>Research Summary: www.hazelwoodhealthstudy.org.au/data/assets/pdf_file/0007/3344911/June-2023-Allergies-in-children-seven-years-after-the-mine-fire.pdf</p>
105. Adult Respiratory Stream	May 2023	<p>Manuscript describing ventilation heterogeneity using multibreath nitrogen washout (MBW) in adults.</p> <p>Manuscript: McCrabb et al (2023) "Ventilation heterogeneity is increased in adults exposed to coal mine fire-related PM_{2.5}." Freely available on the preprint server medRxiv at www.doi.org/10.1101/2023.06.08.23291105. Under review with <i>Respirology</i>.</p> <p>Research Summary: https://hazelwoodhealthstudy.org.au/data/assets/pdf_file/0009/3452841/2023-MBW-The-impact-of-coal-mine-fire-smoke-on-lung-ventilation-in-adults-Results-from-the-Respiratory-Stream..pdf</p>

106. Adult Survey	June 2023	<p>Abstract and paper describing longitudinal self-reported respiratory symptoms in adults, collected in 2017 and 2022, and their interaction with COVID-19.</p> <p>Abstract: Lane et al (2023) "Respiratory symptoms after coalmine fire and pandemic: a longitudinal analysis of the Hazelwood Health Study adult cohort" accepted for presentation at AEA 2023 and APSR 2023.</p> <p>Manuscript: Lane et al (2023) "Respiratory symptoms after coalmine fire and pandemic: a longitudinal analysis of the Hazelwood Health Study adult cohort". Submitted to <i>Occupational and Environmental Medicine</i> and a preprint version is freely available on medRxiv at https://www.medrxiv.org/content/10.1101/2023.08.23.23294510v1.</p> <p>Research Summary: https://hazelwoodhealthstudy.org.au/__data/assets/pdf_file/0011/3403955/2023-Self-reported-respiratory-health.pdf</p>
107. Respiratory Stream	August 2023	<p>Paper describing FeNo (airway inflammation) results from Round 2 of the adult Respiratory Stream.</p> <p>Manuscript: Kress et al (2023) "PM_{2.5} from a coal mine fire has little to no long-term impact on eosinophilic airway inflammation" submitted to <i>Environmental Research Letters</i>.</p> <p>Research Summary: one combined Research Summary for rows 107 and 108, under review with DH.</p>
108. Respiratory Stream	August 2023	<p>Paper describing paper lung function at R2 and change in lung function since R1.</p> <p>Manuscript: Holt et al (2023). "Lung function may recover after exposure to smoke from a coal mine fire: cohort study" awaiting DH approval (7/9/2023).</p> <p>Research Summary: one combined Research Summary for rows 107 and 108, under review with DH.</p>
109. Early Life Follow Up	Sept 2023	<p>Paper describing vascular health in smoke-exposed young children and 3- and 7-year followup.</p> <p>Manuscript: Hemstock et al (2023). "Increased vascular stiffness in children exposed <i>in utero</i> but not children exposed postnatally to emissions from a coalmine fire" in preparation for submission to <i>Environmental Epidemiology</i>.</p> <p>Research Summary: https://hazelwoodhealthstudy.org.au/study-findings/fact-sheets-and-summaries</p>
110. Community Wellbeing	Nov 2023	<p>Paper exploring the unequal mobilities of smoke and people, drawing on concepts of mobility justice and emergency mobilities to reflect on the political dimensions of uneven mobility in times of crisis.</p> <p>Manuscript: Duffy et al (2023). "The social justice issues of smoke im/mobilities." Published in November 2023 by the Australian Geographer and available at https://doi.org/10.1080/00049182.2023.2256595.</p> <p>Research Summary: N/A</p>

111. Adult Psychological Impacts and Community Wellbeing	Nov 2023	<p>Paper investigating associations between smoke exposure, psychological distress, sociodemographic circumstances and perceptions of community wellbeing using the CWI.</p> <p>Manuscript: Carroll et al (2023). "Predictors of residents' perspectives on the wellbeing of their community in the aftermath of a prolonged coalmine fire" submitted to DH for approval to release.</p> <p>Research Summary: submitted to DH for approval to release.</p>
112. Community Wellbeing	Nov 2023	<p>Paper investigating optimal communication during complex disasters with health impacts.</p> <p>Manuscript: Yell S et al (2023) "Learning lessons in disaster communication: From the Hazelwood mine fire to the COVID-19 pandemic." To be submitted to <i>Communication Research and Practice</i>.</p>
113. Hazelinks	Nov 2023	<p>Paper investigating the long-term effects of the mine fire smoke on hospital and ambulance use – deidentified data extractions.</p> <p>Manuscript: Lane T et al (2023) "Long-term effects of a coalmine fire on hospital and ambulance use: an interrupted time series study" in final stages of drafting</p>
114. Cancer	Nov 2023	<p>Paper investigating cancer survival to end 2019 using deidentified Victoria-wide data (excluding Melbourne).</p> <p>Manuscript: Lane t et al (2023) "Survival among cancer patients after coalmine fire: Analysis of registry data in regional Victoria, Australia" in final stages of drafting.</p>