

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	Initial findings from the first round of the Schools Study survey comparing students from Morwell schools with those from other Latrobe Valley schools. Report: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0006/1636476/schools-study-analysis-of-round-1-key-quantitative-data-v1.0.pdf Research summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0009/1766070/Schools-Study-Year-1-key-findings-summary-v1-170627.pdf

8. Hazelinks	Sep 2017	<p>Analysis of emergency presentations and hospital admission data 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 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> <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</p>
13. Older People	Nov 2017	<p>Abstract about older people as active participants in disaster responses.</p> <p>Conference Proceeding: Carroll & Walker (2017). Beyond vulnerability: Older people as active participants in disaster responses. Presented at the 50th 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</p>
14. All	Nov 2017	<p>3rd Annual Report</p> <p>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</p>

Updated 25 November 2020

15. Community Wellbeing	Dec 2017	<p>Paper on the politics of loss and hope in the Latrobe Valley, drawing on information from the Community Wellbeing interviews and focus groups.</p> <p>Academic paper: https://www.anzrsai.org/assets/Uploads/PublicationChapter/AJRS-23.3-pages-421-to-446.pdf</p>
16. Community Wellbeing	Dec 2017	<p>Video summary on the major role that social media played during the Hazelwood mine fire.</p> <p>Video link: http://hazelwoodhealthstudy.org.au/research-areas/community-wellbeing/ and https://youtu.be/LVwQBvaNgtM</p>
17. Early Life Follow-up	Jan 2018	<p>Volume 1 technical report on ELF survey data completed by parents of 548 children sampled across the Valley and born between 2012 and 2015.</p> <p>Report: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0009/1636452/elf-vol-1-cohortdescription_parentreportedoutcomes-v1.2.pdf</p> <p>Research summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0006/1766085/20180201-HHS-ELF-Volume-1-Research-Summary.pdf</p>
18. Hazelinks	Mar 2018	<p>Hazelinks technical report describing the association between PM_{2.5} and data from the MBS (health service use) and PBS (pharmaceutical dispensation).</p> <p>Report: currently removed from the HHS website for revisions to be made.</p> <p>Research Summary: currently removed from the HHS website for revisions to be made.</p>
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 4 above). There was no Research Summary prepared to accompany this paper.</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.</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>

Updated 25 November 2020

<p>23. Community Wellbeing</p>	<p>Nov 2017 May 2018</p>	<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>
<p>24. Early Life Followup</p>	<p>August 2018</p>	<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-coalmine-smoke-exposure#abstract also cited on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/presentations</p>
<p>25. Early Life Followup</p>	<p>August 2018</p>	<p>Abstract on smoke exposure during infancy and lung function submitted to ISEE 2018.</p> <p>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</p>
<p>26. Psychological Impacts (Adult)</p>	<p>August 2018</p>	<p>Paper summarising the findings from qualitative interviews with adult Morwell residents on the social and psychological impacts of the event.</p> <p>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</p> <p>Research summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0009/1766079/20180605-adults-Psych-stream-research-summary-4.pdf</p>
<p>27. Hazelinks</p>	<p>August 2018</p>	<p>Abstract on PM_{2.5} and PBS data submitted to ISEE 2018</p> <p>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)</p>
<p>28. Hazelinks</p>	<p>August 2018</p>	<p>Abstract on PM_{2.5} and Medicare health service data submitted to ISEE 2018.</p> <p>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)</p>
<p>29. Psychological Impacts (Schools)</p>	<p>Sep 2018</p>	<p>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.</p> <p>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</p> <p>Research summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0010/1766080/20180910-Psychological-Impacts-Stream-Specialist-School-Interviews-Research-Summary.pdf</p>

Updated 25 November 2020

<p>30. Psychological Impacts (Schools)</p>	<p>Sep 2018</p>	<p>Analysis of round 1 Schools Study interviews on the impacts of the mine fire on students.</p> <p>Academic publication: Berger et al (2020) "Children's Perspectives on the Impact of the Hazelwood Mine Fire and Subsequent Smoke Event". Child & 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>
<p>31. Early Life Follow-up</p>	<p>Oct 2018</p>	<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>
<p>32. Early Life Follow-up</p>	<p>Oct 2018</p>	<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_v1.1.1.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>
<p>33. Early Life Followup</p>	<p>Nov 2018</p>	<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>
<p>34. Psychological Impacts (Adult)</p>	<p>Nov 2018</p>	<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 (extracted deidentified data).</p> <p>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 publication: 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://www.sciencedirect.com/science/article/pii/S0269749118335279?via%3Dihub. 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>

<p>41. Psychological Impacts (Schools)</p>	<p>March 2019</p>	<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. As of 03/03/2020 the article has not been published in a journal. TO BE UPDATED</p> <p>Research Summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0007/1766104/Research-Summary-Schools-Study-Round-2-Interviews.pdf</p>
<p>42. Community Wellbeing</p>	<p>May 2019</p>	<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>
<p>43. Early Life Follow-up</p>	<p>May 2019</p>	<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” 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; 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>
<p>44. Early Life Follow-up</p>	<p>May 2019</p>	<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>
<p>45. Early Life Followup</p>	<p>May 2019</p>	<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>

Updated 25 November 2020

<p>46. Respiratory</p>	<p>July 2019</p>	<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>
<p>47. Hazelinks</p>	<p>Oct 2019</p>	<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://academic.oup.com/ije/article-abstract/49/1/80/5607294?redirectedFrom=fulltext. 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>No Research Summary for this publication as a previous Research Summary was produced for the preceding technical report (see row 18 above)</p>
<p>48. Cardiovascular</p>	<p>Oct 2019</p>	<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>
<p>49. Cardiovascular</p>	<p>Oct 2019</p>	<p>Paper aiming to measure any association between mine fire PM_{2.5} and CVD risk factors.</p> <p>Academic paper: Betts et al (2020) "Markers of cardiovascular disease among adults exposed to smoke from the Hazelwood coal mine fire" to be submitted to the Australian Journal of Environmental Research and Public Health. TO BE UPDATED.</p> <p>Research Summary: https://hazelwoodhealthstudy.org.au/_data/assets/pdf_file/0015/2011830/CVD-Blood-Vessel-Health-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>
<p>50. Adult Survey</p>	<p>Oct 2019</p>	<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>

Updated 25 November 2020

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:</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. 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 Environmental Pollution. 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>
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 Archives of Disease in Childhood. Available by subscription at 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>

Updated 25 November 2020

<p>58. Early Life Followup</p>	<p>Dec 2019</p>	<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>
<p>59. Adult Survey</p>	<p>Dec 2019</p>	<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>
<p>60. Hazelinks</p>	<p>Jan 2020</p>	<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>
<p>61. Early Life Followup</p>	<p>Feb 2020</p>	<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>
<p>62. Cardiovascular</p>	<p>March 2020</p>	<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>
<p>63. Hazelinks</p>	<p>April 2020</p>	<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>

Updated 25 November 2020

<p>64. Adult Survey</p>	<p>April 2020</p>	<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>
<p>65. Psychological Impacts (Schools)</p>	<p>April 2020</p>	<p>Paper describing linked NAPLAN data.</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”. Pre-print freely available at https://psyarxiv.com/unms5/. Pre-print link provided on the HHS website at https://hazelwoodhealthstudy.org.au/study-findings/publications. Paper to be submitted to Psychological Trauma: Theory, Research, Practice, and Policy. TO BE UPDATED</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>
<p>66. Respiratory Stream</p>	<p>May 2020</p>	<p>Abstract describing the association between PM_{2.5} and COPD submitted to the American Thoracic Society Annual Meeting 2020. Nb. the Meeting has been 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 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.</p>
<p>67. Early Life Followup</p>	<p>June 2020</p>	<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>
<p>68. Respiratory Stream</p>	<p>July 2020</p>	<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. “Long term impact of coal mine fire smoke on lung mechanics in exposed adults”. 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. Paper under review by the journal Thorax. TO BE UPDATED.</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>

Updated 25 November 2020

<p>69. Hazelinks</p>	<p>August 2020</p>	<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. Submitted to the journal Environmental Health Perspectives. 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>
<p>70. Respiratory Stream</p>	<p>August 2020</p>	<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" to be submitted to Thorax. 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. TO BE UPDATED</p> <p>Research Summary: https://hazelwoodhealthstudy.org.au/data/assets/pdf_file/0007/2351095/Research-Summary_RespStream_COPD-paper.pdf</p>
<p>71. Adult Survey/ Psych Impacts</p>	<p>Oct 2020</p>	<p>Paper describing the association between psychological distress and respiratory symptoms in the context of the mine fire.</p> <p>Academic paper: Samuel et al "Associations between self-reported respiratory symptoms and psychological distress following exposure to a landscape fire" approved by DHHS on 9 November 2020.</p> <p>Conference proceeding: Poster accepted for TSANZ Vic 2020.</p> <p>No Research Summary released with this publication as it does not address a HHS research question.</p>
<p>72. Adult Psych Impacts</p>	<p>Nov 2020</p>	<p>Paper and abstract describing psychological distress in young adults.</p> <p>Academic paper: O'Donohue et al "The psychological impacts of a smoke event on young adults compared to other aged adults in Victoria, Australia". Submitted to DHHS 11 November 2020. To be submitted to the Journal of Environmental Psychology.</p> <p>Conference Proceeding: abstract to be submitted for consideration by the 4th International Childhood Trauma Conference, which will be held in Melbourne, Australia from the 30th of May to the 4th of June 2021.</p>
<p>73. Adult Psych Impacts</p>	<p>Nov 2020</p>	<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. Submitted to DHHS November 2020. Awaiting approval.</p> <p>Research Summary: Submitted to DHHS November 2020. Awaiting approval.</p>
<p>74. Early Life Followup</p>	<p>Nov 2020</p>	<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. To be submitted to DHHS November 2020</p>