Curriculum Vitae of Fay Johnston

Menzies Institute for Medical Research, University of Tasmania,

SUMMARY

Fay Johnston is a public health physician, environmental epidemiologist and sessional general practitioner. Her research program focusses on environmental determinants of health and the implications of these determinants for public health policy and clinical practice. A key area of expertise is the health impacts of outdoor air pollution from landscape fires. She has been active in this research area for the last 15 years, and is an active member of several international collaborations in the area of landscape fires, air quality and health. Current work focuses on the public health and clinical impacts of smoke from bushfires and planned burns, the long term health implications of early life exposure to coal fire smoke, interventions to reduce the public health impacts of severe smoke episodes and winter air pollution from wood heaters, and health impacts of heatwaves and aero-allergens.

CURRENT POSITIONS

2013-

Senior Research Fellow, Head of the Environment and Health Research Group. Menzies Institute for Medical Research, University of Tasmania. Supported by an Australian Research Council Discovery Early Career Research Fellowship.

Current main research areas: Dr Johnston is the lead investigator on the following projects.

The Latrobe Early Life Follow up (ELF) Study

This is the child health and development stream of the Hazelwood Mine Fire Health study, a long term research program commissioned by the Victorian Government to investigate potential health impacts of an episode of severe air pollution generated by an open cut coal mine fire in the Latrobe valley of Victoria in 2014. The ELF study has two components. The first is establishing a cohort of infants born in the two years before and after the time of the fire to follow through future years, and the second is a large state wide data linkage study to evaluate the impact of the fire on perinatal health outcomes.

Fires, Smoke and People. This international program of work is investigating the relative health impacts of planned burns and severe bushfires and forest fires in the context of bushfire management in Australia and Canada.

AirRater, An air sensing network to protect Tasmanians' health

We are exploring new ways to reduce the public health impacts of air pollution from wood heaters and fires, and developing novel systems for surveillance and health alerts to enable individuals and public agencies to better manage environmental health hazards in Tasmania, including heat cold and pollen counts.

Previous key research contributions: (1) Demonstrating that interventions to reduce the number of wood heaters and improve outdoor air quality in the city of Launceston also reduced mortality; (2) Characterising the global mortality impacts from all landscape fire activity and tropical deforestation fires in particular; (3) Demonstrating how clinically important health outcomes occur at particle concentrations well below current national standards.

Service and policy contributions: Expert member of the National Ambient Air Quality Working Group. Expert contributor to international guidelines on public health responses to severe fire smoke events (2014). Medical and scientific advisor to Tasmanian Asthma Foundation. Advisor Tasmanian government agencies on air quality information and public health alerts.

2012-Specialist Medical Advisor, Public Health Services, Department of Health and Human Services Tasmania. Senior public health specialist position. *Roles:* Development of local and national communicable and environmental health policy, oversight of implementation of Tasmanian policy and intersectoral action for the management of blood borne viruses. Represents Tasmania on national committees including the Blood Borne Viruses and STI Standing Sub-Committee; Clinical oversight of the public health response to notifications of issues of potential public health concern including specific communicable diseases and environmental health hazards in Tasmania; Supervision and training of public health registrars and epidemiologists; Teaching public health medicine and environmental epidemiology at undergraduate and post graduate levels.

2010-Sessional Clinical General Practice, Tasmanian Aboriginal Centre.Roles: Clinical practice and primary health care, supervision and training of General
Practice registrars. Teaching and support of nurses and Aboriginal Health Workers.

PREVIOUS POSITIONS

2012	Research Fellow. Rural Clinical School, University of Tasmania. Research position
2008-2011	NHMRC Practitioner Training Research Fellow. Menzies Institute for Medical Research. Research collaborations focussed on the population health impacts of global environmental change including extreme heat events, increasing wildfires and severe pollution episodes from bushfires and other sources of biomass smoke.
2010- 2011	Specialist Medical Advisor (Public Health). Tasmanian Department of Health and Human Services. <i>Roles:</i> Preparation of evidence review, background document and draft guideline and policy document for short term elevations in particulate air pollution. Working with a team of data management officers, epidemiologists and public health nurses to direct communicable disease and immunisation policy, respond to notifiable diseases, investigate disease outbreaks and contribute to environmental health policy.
2001-2009	Clinical General Practice. Private sessional general practice at the University Medical Centre Darwin 2001-7, and Newdegate St Health Centre Hobart 2008-9.
2004 -2007	NHMRC PhD Scholar. Menzies School of Health Research, Darwin NT. Full time PhD research in environmental epidemiology that included a cohort study and several time-series studies examining the health impacts of bushfire smoke.
2001- 2004	Primary Health Care Research Advisor. Academic research/teaching position with the Centre for Remote Health. A joint centre of Charles Darwin University and the Flinders University of South Australia. <i>Roles:</i> Research. Established the <i>Healthy Country Healthy People</i> project which identified links between Indigenous health status and the management of natural and cultural resources, supported primary care practitioners with individual projects; Teaching. Co-ordinated Masters subjects 'Public Health Theory and Methods' and 'Epidemiology and Control of Communicable Diseases'; Supervised a PhD candidates, GP registrars, MPH students and advanced medical trainees with the Australasian Faculty of Public Health Medicine.
2000- 2004	Consultant in public health and health research. Private consultancies conducted for: (1) The Top End Division of General Practice: Tropical Health and Immunisation programs; (2) The Cooperative Research Centre for Aboriginal and Tropical Health and the Menzies School of Health Research: A review of health research in the

	Northern Territory; (3) The NT Department of Lands Planning and Environment: Assessment of the health risks to the population of Darwin from seasonal
	exposure to bushfire smoke.
1999 - 2000	Public Health Specialist. Centre for Disease Control. NT Department of Health and Community Services. <i>Roles:</i> (1) Acting Head Surveillance and Immunisation Section Evaluated and implemented immunisation policy for the NT, investigated disease outbreaks, updates local protocols for disease surveillance and outbreak control and supervised staff and public health nurses and registrars; (2) Medical Officer - TB and Leprosy Control. Follow up of tuberculosis and leprosy patients, staff screening, prison and community screening and treatment.
1997–1998	Rural Medical Officer. NT Department of Health and Community Services. Clinical and public health services to remote Indigenous communities including primary and emergency care, aerial retrievals and public health programs.
1997	Acting Head Surveillance and Immunisation, Northern Territory. Department of Health and Community Services. See Public Health Specialist (1999) description above.
1995 –	Epidemiology Registrar. Centre for Disease Control, Northern Territory
1997	Department of Health and Community Services and National Centre for Epidemiology and Population Health, Canberra. This was a Public health and epidemiology training position. Major projects included (1) the design, implementation and evaluation of a surveillance system for influenza, investigating influenza outbreaks and contributing to national influenza pandemic planning; (2) Evaluating the community wide use of injectable penicillin for controlling outbreaks of acute post streptococcal glomerulonephritis in Indigenous communities; and (3) Designing, implementing and evaluating a tobacco smoking intervention in a remote Indigenous community.
1993-1995	Rural Medical Officer. Katherine and Darwin Rural Health Districts. Roles as described above (1997).
1992	Anaesthetic Registrar. Royal Darwin Hospital locum position providing emergency and elective anaesthetic services.
1991	Senior House Officer, Anaesthetics and Intensive Care. Scarborough General Hospital. North Yorkshire, England. Full time training position in anaesthetics and intensive care medicine.
1990	Rural General Practice Registrar. Royal Australian College of General Practitioners. Three month position as full time locum support for rural practitioners. South Australia. Medical Officer. Concurrent part time clinical services for: The Aboriginal Medical Service, Adelaide. The Second Storey, youth health service, Adelaide, and the Accident and Emergency Department of Flinders Medical Centre.
1989	Rural Medical Officer. NT Department of Health and Community Services, Roles as described above (1997). Regional Co-ordinator of the general practice training program, Royal Australian College of General Practitioners.
1988	Resident Medical Officer. Royal Darwin Hospital. NT Department of Health. Hospital rotations in paediatrics, emergency medicine and obstetrics.
1987	Intern. Royal Darwin Hospital. NT Department of Health. Hospital rotations in clinical medicine, surgery, emergency medicine and psychiatry.

QUALIFICATIONS

2008	Doctor of Philosophy, (environmental epidemiology) Menzies School of Health Research, Institute of Advanced Studies, Charles Darwin University.
1999	Fellowship of the Australasian Faculty of Public Health Medicine, Royal Australasian

	College of Physicians
1998	Fellowship of the Australian College of Rural and Remote Medicine
1997	Master of Applied Epidemiology. National Centre for Epidemiology and Population Health, Australian National University
1987	Bachelor of Medicine and Surgery, Flinders University of South Australia
1992	Diploma in Anaesthesia, Royal College of Anaesthetists (UK)
1990	Diploma in Obstetrics, Royal Australian College of Obstetricians and Gynaecologists
1994	General Practice Certificate, Royal Australian College of General Practitioners
2007	Certificate - Expedition Medicine, Drysdale Institute of Technical and Further Education, Tasmania
1993	Certificate - Early Management of Severe Trauma, Royal Australian College of Surgeons
1990	Certificate - Family Planning, Family Planning Federation of Australia

AWARDS AND FELLOWSHIPS

2015-16	International Visiting Research Scholarship. Peter Wall Institute for Advanced Studies, University of British Columbia. (\$CAD10,000)
2013-17	ARC Discovery Early Career Researcher Award DE 130100924 (\$375,000)
2008-11	NHMRC Health Practitioner Research Training Fellowship 490057 (0.6 FTE \$164,400)
2008	Finalist. Australian Museum Eureka Prize for Environmental Research
2005-07	NHMRC Postgraduate PhD Scholarship 333417 (\$75,035)
2006	Australasian Epidemiology Association. Student award for abstract presented. ASM 2006
2005	Australasian Epidemiology Association. Student award for abstract presented. ASM 2005
2005	Royal Australian College of General Practitioners and the National Asthma Council joint award for the best presentation on asthma ASM, Darwin, 2005.

GRANTS

2015-16	Johnston FH, Bowman DMJS, Wheeler A, Williamson G, Haberle S, and Innis J. AirRater – An air sensing network to improve Tasmania's health. Awarded by Sense T a partnership between UTAS, CSIRO and the Australian and Tasmanian Governments (\$842, 957).
2014-17	Johnston FH. A long term study of child health and development following the 2014 Hazelwood Coal Mine Fire. A stream of the Hazelwood Mine Fire Study. State Government of Victoria, Department of Health via Monash University (\$1,418,883)

2017-16	Reich B, Broome R, Cope M, Fann N, Johnston FH , Morgan G, Rappold A. Estimating fire smoke related health burden and novel tools to manage impacts on urban populations. US Department of the Interior (Joint Fire Science Program) (\$US299,986)
2014	Johnston FH , Dennekamp M, Dharmage S, Marks G. Respiratory impacts of early life exposure to smoke pollution from a burning open cut coal mine: enrolment and exposure charaterisation of a unique cohort. Centre for Air quality and health, Research and Evaluation, a NHMRC Centre of Research Excellence (\$40,000) 2014-15
2013-16	Johnston FH, Bowman DMJS, Abramson MJ, Price OF, Morgan GG, Dennekamp M, Henderson SB, Fogarty L, Quigley S, Torre P. <i>Bushfires, smoke, and people: assessing the</i> <i>risks and benefits from planned burning on the urban-rural interface.</i> ARC Linkage Project Grant LP130100146 (\$559,330)
2013-14	Johnston FH, Morgan GG and Marks G. Improving the Environment in Rural Communities. Centre for Air quality and health, Research and Evaluation, a NHMRC Centre of Research Excellence (\$20,000) 2012-2013
2012-16	Johnston FH , Abramson M, Dennekamp M, Lyth A, Morgan G, Jalaludin B, Marks G. <i>Smoke Impacts on Community Health and Social Perceptions</i> . Department of Sustainability and Environment, Victoria. (\$540,000).
2012	Johnston FH. Pollution, pollen and health. Research Enhancement Grant Scheme. J 20883 University of Tasmania (\$20,000)
2012	Johnston FH, Dennekamp M, Morgan G and Marks G. Biomass smoke, air quality and health outcomes. Centre for Air quality and health, Research and Evaluation, a NHMRC Centre of Research Excellence (\$20,000) 2012-2013
2011-16	Marks G et al. Understanding and ameliorating the human health effects of exposure to air pollution: from knowledge to policy and public health practice. Centre of Excellence in Air Pollution. University of Sydney (\$2,411,828) (Associate Investigator)
2010	Johnston FH, Bowman D; Williamson G. University of Tasmania Grant-Visiting Fellowships & Visiting Scholarships. Grant number J0018237, (\$5,065)
2008-11	Bowman D, Johnston FH , Morgan G and Price O. <i>Understanding the impacts of landscape burning and biomass smoke in Australian towns and cities.</i> Australian Research Council. Grant number LP0882048, (\$440,000)
2006-7	Burgess P, Johnston F , Connors C, Robinson G, O'Dea K and McDermott R. <i>The Aboriginal and Torres Strait Islander Adult Health Check: A strategy for health equity in remote areas</i> . National Health and Medical Research Council. Project grant 333421 (\$341,975)
2005-6	Esler D, Johnston F, Connors C and Nagel P. <i>Sadness and Heart Disease</i> National Health and Medical Research Council project grant 333420 (\$29,650)
2004-6	Bowman D, Johnston F , Burgess P, Lee T, O'Dea K, Whitehead P, Zhang Y. <i>Sustainable northern landscapes and the nexus with Indigenous health.</i> Land and Water Australia NTU7 (\$384,804)
2005	Johnston F, Bowman D and Vickery AJ. <i>Healthy Country Healthy People</i> . Australian Institute of Aboriginal and Torres Strait Islander research (\$18,798)
2003-7	Bowman D, Parry D, Pilotto L, Baillie R, Johnston F , Gras J, Price O. <i>Bushfire smoke and the relationship between human and landscape health.</i> Australian Research Council linkage grant. LP034543 (\$395,000)
1996	Johnston F. The Maningrida Be Smoke Free Project. Australian Government Department of Health. (\$20,000)
1996	Johnston F. The Maningrida Be Smoke Free Project. Rotary Club of Darwin (\$2000)

PUBLICATIONS

Edited book

Johnston FH. Editor. *Tropical Health in the Top End: An introduction for health practitioners.* Top End Division of General Practice. Darwin. Jan 2003.

Book Sections

Johnston FH, Burgess, P. and Bowman, DMJS. *A case for Indigenous natural resource management and health.* Pp.91-95 in Luckert, M., Campbell, B., Gorman, J. and Garnett, S.T. (eds.) The Case for Investment in Indigenous Natural Resources Management in the Wet/Dry Tropics of the Northern Territory. Charles Darwin University Press, Darwin. 2007. 107 pp.

Published online database

Haberle S, Stevenson J, Rule S, **Johnston F**, and Bowman D. (2014): Weekly pollen count data for the suburb of Casuarina, Darwin, NT. ACEAS. <u>doi:10.4227/05/5344EE4AF0F9B</u>

Manuscripts submitted

Huynh QL, **Johnston FH**, Blizzard L, Thomas H Marwick T, Negishi K. The association of ambient particulate matter with heart failure incidence and readmissions.

Manuscripts under review

Melody S and **Johnston FH**. Coal mine fires and human health: what do we know? International Journal of Coal Geology

Reid C, Brauer M, **Johnston FH**, Jerret M, Balmes J, Elliot C. Critical review of health impacts of wildfire smoke exposure and causality determination. Environmental Health Perspectives

Johnston O, Todd JJ, Williamson G, **Johnston FH**. Community-wide distribution of a catalytic device to reduce winter ambient fine particulate matter from residential wood combustion. Journal of Exposure Science and Environmental Epidemiology.

Publications in peer reviewed journals

Haikerwal, A., Reisen F, Sim M, Abramson M, Meyer C, **Johnston FH**, Dennekamp M. "Impact of smoke from prescribed burning: Is it a public health concern?" Journal of the Air & Waste Management Association 2015;65(5): 592-598.

Beggs PJ, Katelaris CH, Medek D, **Johnston FH,** Burton PK, Campbell B, Jaggard AK, Vicendese D, Bowman DMJS, Godwin I, Huete AR, Erbas B, Green BJ, Newnham RM, Newbigin E, Haberle SG and Davies JM. Differences in grass pollen allergen exposure across Australia. Australian and New Zealand Journal of Public Health, 2015;39: 51–55. doi: 10.1111/1753-6405.12325

Bowman DMJS, **Johnston FH**. Book Review. Gender and Wildfire: Landscapes of Uncertainty by C. Eriksen. Geographical Research 2015; 53(2): 227-228.

Johnston FH, Purdie S, Jalaludin B, Martin K, Henderson S, Morgan G. Air pollution events from forest fires and emergency department attendances in Sydney, Australia 1997-2006: a case-crossover analysis. Environmental Health. 2014, 13:105 DOI: 10.1186/1476-069X-13-105. www.ehjournal.net/content/13/1/105

Bowman D, Johnston FH. Bushfires, economics and pyrogeography. Geographical Research 2014;(52):340–343.

Roos CI, Bowman DMJS, Balch JK, Artaxo P, Bond WJ, Cochrane M, **Johnston FH** et al. Pyrogeography, historical ecology, and the human dimensions of fire regimes. Journal of Biogeography 2014 41(4): 833-836.

Haberle SG, Bowman DMJS, Newnham RM, **Johnston FH**, Beggs PJ, et al. The Macroecology of Airborne Pollen in Australian and New Zealand Urban Areas. PLoS ONE 2014;9(5): e97925. doi:10.1371/journal.pone.0097925

Johnston FH and Bowman DMJS. Bushfire smoke – an exemplar of coupled human and natural systems. Geographical Research 2014; 52(1):45–51 DOI: 10.1111/1745-5871.12028

Wilson LA, Morgan GG, Hanigan IC, **Johnston FH**, Abu-Rayya H, Broome R, Gaskin C, Jalaludin B. The impact of heat on mortality and morbidity in the Greater Metropolitan Sydney Region: a case crossover analysis. Environmental Health 2013:12:98 doi:10.1186/1476-069X-12-98

Martin KL, Hanigan IC, Morgan GG, Henderson SB and **Johnston FH.** Air pollution events from vegetation fires and their association with hospital admissions in Sydney, Newcastle and Wollongong, Australia,1994-2007. Australian and New Zealand Journal of Public Health 2013;(37)3: 238–243

Johnston FH, Hanigan IC, Henderson SB and Morgan GG. Evaluation of interventions to reduce air pollution from biomass smoke on mortality in Launceston, Australia: retrospective analysis of daily mortality, 1994-2007. BMJ 2013;346:e8446

Price OF, Williamson GJ, Henderson SB, **Johnston FH**, Bowman DMJS. The relationship between particulate pollution levels in Australian cities, meteorology, and landscape fire activity detected from MODIS hotspots. *PLOS One 2012;7(10)*

Henderson SB and **Johnston FH.** Measures of forest fire smoke exposure and their associations with respiratory health outcomes. *Current Opinion in Allergy and Clinical Immunology* (invited review) 2012;12(3): 221-227

Johnston FH, Henderson SB, Chen Y, Randerson JT, Marlier M, DeFries RS, Kinney P, Bowman DMJS, and Brauer M. Estimated global mortality attributable to smoke from landscape fires. *Environmental Heath Perspectives* 2012;120(5): doi:10.1289/ehp.1104422

Johnston F H, Hanigan IC, Henderson SB, Morgan GG and Bowman DMJ S. Extreme air pollution events from bushfires and dust storms and their association with mortality in Sydney, Australia 1994-2007. *Environmental Research* May 2011; 111: 811–816

Johnston FH, Hanigan IC, Henderson SB, Morgan GG, Portner T, Williamson G and Bowman DMJS. Creating an integrated historical record of extreme bushfire smoke events in Australian cities from 1994 to 2007. 2011:61:390-398 *Journal of the Air and Waste Management Association*.

Bowman DMJS, Balch J, Artaxo P, Bond WJ, Cochrane MA D'Antonio, DeFries, **Johnston FH**, Keeley JE, Krawchuk MA, Kull CA, Mack M, Moritz MA, Pyne S, Roos CI, Scott A, Sodhi NS, Swetnam TW. The human dimension of fire regimes on Earth. *Journal of Biogeography* 2011(12):2223-2236.

Johnston FH, Williamson GJ and Bowman DMJS. Monitoring smoke from vegetation fires for public health: a review. *Air Quality and Climate Change* May 2010;44(2):17-21

Johnston FH. Bushfires and human health in a changing environment *Australian Family Physician* 2009;38:720-725.

Burgess CP, **Johnston FH**, Berry H, McDonnell J, Yibarbuk D, Gunabarra, Milaren A, Bailie RS. Healthy Country Healthy People: Indigenous health outcomes and 'Caring for Country'. *Medical Journal of Australia* 2009;190 (10): 567-572

Johnston FH, Hanigan IC, and Bowman DMJS. Pollen loads and allergic rhinitis in Darwin, Australia: A potential health outcome of the grass-fire cycle. *EcoHealth* 2009; 6:99-108.

Bowman DMJS, Balch JK, Artaxo P, Bond WJ, Carlson JM, Cochrane MA, D'Antonio CM., DeFries RS, John DC, Harrison SP, **Johnston FH**, Keeley JE, Krawchuk MA, Kull CA, Marston JB, Moritz MA, Prentice IC, Roos CI, Scott AC, Swetnam TW, van der Werf GR and Pyne SJ. Fire in the Earth System. *Science* 2009: 324(5926):481 – 484

Garnett ST, Sithole B, Whitehead PJ, Burgess CP, **Johnston FH**, Lea T. Healthy country, healthy people: policy implications of links between Indigenous human health and environmental condition in tropical Australia. *Australian Journal of Public Administration* 2009;68(1):1-14

Hanigan IC, **Johnston FH** and Morgan GG. Vegetation fire smoke, indigenous status and cardio-respiratory hospital admissions in Darwin, Australia, 1996-2005. *BMC Environmental Health* August 2008;7:42.

Esler D, Johnston FH, Thomas D, Davis B. The validity of a depression screening tool modified for use with Aboriginal and Torres Strait Islander people. *Aust N Z J Public Health.* 2008.

Johnston FH. Jacklyn S, Vickery A, and Bowman DMJS. Ecohealth and the Aboriginal testimony of the nexus between human health and place. *Ecohealth*. Dec 2007: 4(4):489-499

Johnston FH, Bailie R, Pilotto L and Hanigan I. Ambient biomass smoke and cardio-pulmonary hospital admissions. *BMC Public Health*. Sep 2007;7(1):240

Hanigan I and **Johnston FH.** Respiratory hospital admissions are associated with ambient airborne allergens in Darwin, Australia 2004-2005. *Clinical and Experimental Allergy* 2007;37(10):1556-65)

Esler D, Johnston FH and Thomas D. Sadness and heart disease. *Australian and New Zealand Journal of Public Health* 2007;31(3):259-63

Stevenson J, Haberle SG, **Johnston FH** and Bowman DMJS. Seasonal distribution of pollen in the atmosphere of Darwin, tropical Australia: preliminary results. 2007; *Grana* 46 (1):1-6

Bowman DMJS, Dingle JK **Johnston FH**, Parry D, and Foley M. Seasonal patterns in biomass smoke pollution and the mid-20th century transition from Aboriginal to European fire management in northern Australia. *Global ecology and Biogeography* 2007;16(2):246-256

Johnston FH, Webby R, Pilotto L, Bailie R, Parry D, and Halpin S. Vegetation fires, particulate air pollution and asthma: a panel study in the Australian monsoon tropics. *International Journal of Environmental Health Research*. 2006;16(6):391-404

Burgess CP **Johnston FH** Bowman DMJS and Whitehead PJ. Healthy Land: Healthy People? Exploring the health benefits of Indigenous Natural Resource Management. *Australian and New Zealand Journal of Public Health*. 2005;29(2):117-121

Bowman D and Johnston FH. Wildfire smoke, fire management and human health. *EcoHealth* 2(1) 2005; Jan 2(1):76-80

Johnston FH, Morris PS, Speare R, McCarthy J, Currie B, Ewald D, Page W and Dempsey K. Strongyloidiasis: A review of the evidence for Australian practitioners. *Australian Journal of Rural Health*. 2005(13):247–254

Grundy J and **Johnston FH**. Building the research capacity of primary care providers: development of the primary health care research evaluation and development project in the Northern Territory. *Australian Journal of Primary Heath* 2003;Vol 9 (1)):9-17

Johnston F, Kavanagh A. Bowman D. Scott R. Bushfire smoke and asthma: an ecological study *Med J Aust* 2002;176:535-538 http://www.mja.com.au/public/issues/176_11_030602/joh10756_fm.html

Johnston FH, Kavanagh A. Bowman D. Scott R. Serial correlation and confounders in time-series in air pollution studies *Med J Aust* 2002;177:397-8

Johnston FH. Carapetis J. Patel MS. Wallace T. Spillane P. Evaluating the use of penicillin to control outbreaks of acute post-streptococcal glomerulonephritis. *Pediatric Infectious Disease Journal*. 1999;18(4):327-32

Johnston FH, Beecham R, Dalgleish P, Malpraburr T, Pascoe G. The Maningrida 'Be Smoke Free' Project. *Health Promotion Journal of Australia* 1998;8(1):12-17

Bowden F. Bastion I. **Johnston FH**. A Community Based Control Program for Sexually Transmitted Diseases in the Northern Territory. *Australasian and New Zealand Journal of Public Health* 1997; 21:519-23

Carapetis J. Johnston FH. Nadjamerrick J. Kariupen J. Skin Sores in Aboriginal Children. *Journal of Paediatrics and Child Health* 1995;31:563

Johnston FH, Krause V, Miller N, Barclay L. An outbreak of influenza B among workers on an oil rig. *Communicable Diseases Intelligence* 1997;21(8):106

Johnston FH. Tropical Influenza Surveillance. Communicable Diseases Intelligence 1996;20(12):282-3

Johnston FH. Connors C. Krause V. Early Influenza in the Northern Territory. *Communicable Diseases Intelligence* 1995;19(9);20810

Johnston FH. Death in the desert. Aust Fam Physician. 1995 Nov;24(11):2143; (letter)

Reports

Johnston FH and Marks GG. *A review of the Carbon Monoxide response protocol for the Hazelwood coal fire.* A rapid response commissioned by the Environment Protection Agency of Victoria.

Johnston FH *Proposed short term air quality objectives for landscape management burning in Tasmania*. A discussion document prepared for the Tasmanian Government Department of Health and Human Services. March 2011.

Johnston FH *Meet the evidence: Bushfires and burn-offs. How harmful is the smoke? What should you advise your patients?* Division News. 2009 (Newsletter of General Practice South) page 7.

Johnston FH and Barker S. *Health Research in the Northern Territory. Researcher and health service provider perspectives.* Cooperative Research Centre for Aboriginal and Tropical Health. Darwin. August 2001.

Johnston FH *An assessment of the health risks of exposure to bushfire smoke for the population of Darwin.* NT Department of Lands Planning and Environment. Darwin. July 2001

INVITED PRESENTATIONS

Keynotes

Johnston FH. Fire, Smoke and health: Major air quality issues from global to local. (2014) Invited keynote presentation. Environmental Health Australia, Tasmanian State Meeting, Launceston Sept 2014

Johnston FH. *Bushfire management in Australia: Issues and challenges at the urabn/rural interface.* Bushfire smoke symposium. 2011 Edith Cowan University. Perth, West Australia. April 28-29

Johnston FH and Bowman D. National Rural Health Alliance Conference. Alice Springs *Fire landscapes and health.* March 2005

Other invited presentations

Johnston FH. Royal Society London. *Fire and Mankind: Smoke particles, air pollution and population Health.* September 16-17 2015. see <u>https://royalsociety.org/events/2015/09/fire-and-mankind/</u>

Johnston FH. Royal Society London. *Contradiction, conflict and compromise: addressing the many dimensions of sustainability in human-fire-climate relationships.* Discussion leader, Royal Society satellite meeting, 18-19 September 2015

Johnston FH. Sahlgrenska Academy, Gothenburg University. *Biomass smoke management and human health in Australia and Sweden*. September 2015

Johnston FH. International Union against Tuberculosis and Lung Disease *Impact of smoke from crop burning and forest fires on health in the Asia-Pacific Region.* Sydney Sept 1-4 2015.

Johnston FH, Menzies Institute for Medical Research. Fires smoke and your health. Public lecture April 2015

Johnston FH Science Meets Parliament (Tasmania). *Fire science and human health.* Invited after dinner speaker to the 2014 Parliamentary Dinner in honour of Science Week. Parliament House Hobart. December 2014

Johnston FH. Office of Environment and heritage Air Quality Policy Planning day. Sydney, September 2014. *Biomass smoke and health: implications for environmental policy.*

Johnston FH. National Air Pollution Symposium *Biomass smoke and health: state of the evidence and research gaps.* CSIRO July 2014

Johnston FH. *The Australian landscape fire project*. International symposium on the health effects of biomass smoke. BC Lung Association, Vancouver Canada. March 10-11 2011

Johnston FH. Epidemiological studies of biomass smoke and cardiovascular outcomes. BC Lung Association, Vancouver Canada. March 10-11 2011

Johnston FH, Henderson SB, Chen Y, Randerson JT, Marlier M, DeFries RS, Kinney P, Bowman DMJS, and Brauer M, *Estimated global human mortality from landscape fire smoke*. American Association for the advancement of Science. Invited seminar presentation. Annual Scientific Meeting, Vancouver, Feb14-19, 2012.

PUBLISHED CONFERENCE ABSTRACTS

Lyth A, Spinaze A, **Johnston FH**. Community Health Risk Perceptions on Planned Burning: Bolstering the Risk Management and Communication Evidence Base (accepted). Public Health Congress. Hobart September 2015

Dennekamp M, Reisen F, Wheeler A, Gwini S, Johnston FH. The health effects of planned burns on communities in Victoria, Australia (accepted). International Society for Environmental Epidemiology. 2015

Johnston FH, Johnston O, Todd JJ, Williamson G, Installation of a Catalyst to Reduce Winter Air Pollution in Perth, TAS. Clean Air Society of Australia and New Zealand

Purdie S, Morgan G, Jalaludin B, Martin K, Hanigan I, Henderson S, **Johnston FH** Severe Air Pollution Events from Bushfires and ED Presentations Sydney, 1996- 2007 International Society for Environmental Epidemiology. Seattle, August 2014

Johnston FH, Williamson G, Bowman DMJS and Haberle S. *Pollen concentrations and hospital ED presentations and admissions for cardiorespiratory conditions in Hobart October 2007- December 2010.* International Congress of Aerobiology. Sydney, September 2014.

Johnston FH, Hanigan IC, Henderson SB and Morgan GG. *Wood smoke pollution and mortality rates in Launceston, Australia, 1994-2007: an intervention study*. International Society for Environmental Epidemiology. Basel, September 2013

Johnston FH, Hanigan IC, Henderson SB and Morgan GG. *Biomass air pollution control on mortality rates in Launceston, Australia, 1994-2007: an intervention study.* Australasian Public Health Congress. Adelaide, Australia 10-13 May 2012

Johnston FH, Henderson SB, Chen Y, Randerson JT, Marlier M, DeFries RS, Kinney P, Bowman DMJS, and Brauer M, *Estimated global human mortality from vegetation fire smoke*. International Society for Environmental Epidemiology, Annual Scientific Meeting, Barcelona, Sept14-16, 2011. Epidemiology 2011.

Johnston FH, Hanigan IC, Martin K, Henderson SB, Morgan GG. *Extreme air pollution events from bushfires and cardio-respiratory hospital admissions in Sydney, Australia 1994-200*. International Society for Environmental Epidemiology, Annual Scientific Meeting, Barcelona, Sept14-16, 2011. Epidemiology S 2011.

Morgan GG, Hanigan IC, Abu-Rayya H, Gaskin C, **Johnston FH**, Lloyd G, Broome R and Jalaludin B. The effect of heat waves on mortality and hospital admissions in Sydney, 1994-2009. International Society for Environmental Epidemiology, Barcelona, September 2011

Johnston FH, Hanigan IC, Henderson SB, Morgan GG and Bowman DMJS. *The association between mortality and air pollution events from bushfires and dust storms in Sydney, 1994-2007.* Royal College of Physicians Annual Scientific Meeting. Darwin, May 2011

Johnston FH, Ivan Hanigan IC, Henderson SB, Morgan GG and Bowman DMJS. *Preliminary Results from the Australian Landscape Fire Smoke Project*. International Society for Environmental Epidemiology. Annual Scientific Meeting. Seoul Korea Sept 2010.

Johnston FH and Hanigan IC *Tropical plant pollens and allergic rhinitis in Darwin, Australia 2004-2005.* Thoracic Society of Australian and New Zealand. Annual Scientific meetig. Darwin Australia 5-8 April 2009.

Hanigan IC, Johnston FH, Morgan GG, Dingle JK and Bowman DMJS. Assessing the Relationship Between Exposure to Vegetation Fire Smoke and Hospital Admissions when Empirical Air Quality Measurements are Limited: Darwin, Australia, 1996-2005. International Society for Environmental Epidemiology. Pasadena USA Oct 12-16 2008.

Johnston FH, Bailie R and Pilotto L. *Bushfire smoke, health and fire management.* Meeting of the Australasian Fire Authorities Council and the Bushfire Co-operative Research Centre. Hobart Sept 2007

Johnston FH, Hanigan I and Morgan G. *Vegetation Fire Smoke, Indigenous Status and Cardio-respiratory Hospital Admissions in Darwin, Australia, 1996-2005.* International Union of Air Pollution and Environmental Protection Association, September 2007.

Johnston FH, Bailie R, Pilotto L and Hanigan I. *Bushfire smoke and hospital admissions in the Australian monsoon tropics.* Annual Scientific Meeting Australasian Epidemiology Association. Melbourne, September 2006.

Johnston FH. Bowman D. Jacklyn S, and Vickery A. *Aboriginal testimony about health and place.* International Geography Union Meeting. Brisbane. June 2006

Johnston FH, Webby R, Bailie R, Pilotto L, Parry D and Halpin S. *Environmental factors associated with asthma symptoms and medication use in tropical Australia*. Annual Scientific Meeting Australasian Epidemiology Association. Newcastle, October 2005.

Johnston FH, Webby R, Bailie R, Pilotto L, Parry D and Halpin S. *Is the tropical dry season smoke haze a health hazard for people with asthma?* Royal Australian College of General Practitioners Annual Scientific Meeting. Darwin. October 2006

Johnston FH and Bowman D. Annual Scientific Meeting of International Society for Environmental Epidemiology *Biomass burning and respiratory illness in the tropical savannas of Australia* Perth September 2003

Johnston FH and Bowman D. Seminar. National Centre for Epidemiology and Population Health, Australian National University, Canberra *Biomass burning and human health* August 2003

Johnston FH, Kavanagh A, Bowman D, Scott R. *Is smoke pollution form bushfires an important public health hazard for the population of Darwin?* Royal College of Physicians NT Annual Scientific Meeting. Darwin September 2001

Johnston FH, Pascoe B, Beecham R, Dalgliesh P. *The Maningrida 'Be Smoke Free' project*. Ninth National Health Promotion Conference, Darwin, 18-20 May 1997.

Johnston FH, Patel M, Carapetis J. *Does penicillin control outbreaks of acute post streptococcal glomerulonephritis?* Royal Australasian College of Physicians. Annual Scientific Meeting. Aukland 7-9 May 1997

Johnston FH, Krause V. *When should outbreaks of Influenza be Expected in Tropical Australia?* Options for the Control of Influenza III. International Scientific Meeting Cairns, Australia. 1996

Johnston FH. Carapetis J. Wallace T. Patel M. *Mass Administration of Penicillin in Outbreaks of Acute Poststreptococcal Glomerulonephritis - A Public Health Dilemma.* Australasian Society of Infectious Disease Annual Scientific Meeting. Broome April 1996