

DR LOUISA FLANDER

Centre for Epidemiology & Biostatistics
Melbourne School of Population & Global Health, Level 3/207 Bouverie Street,
The University of Melbourne VIC 3010 Australia

QUALIFICATIONS

- 2001 *M.A. Fine Arts (Photography)* Royal Melbourne Institute of Technology
1981 *Ph.D. Anthropology* University of Colorado
1976 *M.A. Anthropology* George Washington University, Washington D.C.
1973 *B.A. (Distinction) Anthropology* George Washington University, Washington D.C.

PROFESSIONAL EXPERIENCE

2007— University of Melbourne, Centre for Epidemiology & Biostatistics, Melbourne School of Population Health, *and* Centre for Excellence in Risk Analysis/Centre of Excellence for Biosecurity Risk Analysis, School of Botany, *Senior Research Fellow*

1989-2006 University of Melbourne, Department of Public Health, *Senior Research Fellow, Senior Lecturer*, Coordinator Postgraduate epidemiology training; School of Botany, *Specialist lecturer* environmental health risk assessment; Department of General Practice & Public Health, Sessional teaching; *Senior Research Officer*, Dept of Medicine Epidemiology Research Unit

2014 Group exhibition, Claire Layman Art Gallery

2001 Solo exhibition, Royal Botanic Gardens

1999 Group exhibition, National Photographic Purchase Award

1994-99 Photographer (self-employed); Commercial, and conservation commissions; archival catalogue permanent exhibition, Australian Jewish Museum

1988-89 Monash Medical School, *Senior Lecturer*, Department of Social and Preventive Medicine; Respiratory Services, Alfred Hospital, *Research Fellow*; Health Department Victoria, Social Biology Resources Centre, & Victorian AIDS Council, *Consultant*, workshop facilitations for health professionals

1982-87 University of California, San Francisco, *Postdoctoral Fellow and Assistant Professor*, Department of Epidemiology & International Health, cancer epidemiology laboratory & Medical Anthropology Program

1977-81 University of Colorado Health Sciences Center, Denver, *Research Assistant*, Cardiovascular Pulmonary Research Lab; College of St. Francis, Joliet, Illinois, *Instructor*, Nursing Education; University of Colorado, Boulder, Colorado, *Research Assistant*, Institute of Behavioral Science

1972-75 Smithsonian Institution, Washington, D.C. *Graduate Research Fellow*, Museum of Natural History; George Washington University, Washington, D.C. *Lecturer*, College of General Studies; *Research Assistant*, Department of Medicine

RESEARCH GRANTS & CONTRACTS

10. 2014-2016 Colorectal cancer screening: Uptake and outcomes. Jenkins M, Boussioutas A, Flander L, Ait Ouakrim D, Winship I, Win AK, National Health and Medical Research Council, \$582 722.
9. 2010-12 What do people in mutation-carrying families understand about bowel cancer gene testing, personal risk and prevention behaviours? Jenkins M, Flander L, Keogh L, Gaff C, Victorian Cancer Agency, \$497 755.
8. 2010-12 Improving expert prediction of improbable, potentially catastrophic environmental risks. Flander L, Dixon W. Department of Primary Industries, Fisheries Victoria, \$45 000.
7. 2009-11 Tools to Assess and Understand the Relative Risks of Indirect Potable Reuse Projects, Nellor M, Soller J, Fox P, Flander L, Water ReUse Foundation (U.S.A.), \$15 000 (USD).

6. 2009-11 Optimising the allocation of resources for defending marine protected areas against invasive species. McCarthy, M.A., Boxshall, A., Beilin, R.I., Flander, L. ARC LP, \$350 000.
5. 2007-09 Expert judgment of environmental health risks from exposures to contaminants in urban water systems. Hopper, J., Reuter, M., Langford, J. ARC DP, \$282 000. (Flander, L., named Senior Research Fellow).
4. 2006-8 Quantifying stormwater risks and benefits. Mitchell, G., Ashbolt, N., Flander, L. Victorian Water Trust, SmartWater Fund, \$427 000.
3. 2005-7 Hazard identification, risk assessment and decision analysis for conservation and management of Australian marine parks. Burgman, M., Boxshall A., Beilin, R., and Flander L. ARC LP, \$176 043
2. 2002-3 Review of thalassaemia screening in Australia from a public health perspective. J Hopper L Flander, A Fletcher, D Gertig. DHS, \$50 000
1. 2002 Water quality and public health issues in the Yarra Ranges National Parks Catchment Areas. Parks Victoria Research Partners Program, Flander, L., \$2000

PUBLICATIONS AND MONOGRAPHS

36. Flander L, Ugoni A, Keogh L, Ait Ouakrim D, Win A, Gaff C, Winship I, Jenkins M. Genetic test declining and high cancer risk perception in DNA mismatch repair gene mutation families. *Asia-Pac J Clin Oncol* 2014; 10(Suppl. 8):168.
35. Flander L, English D. Review of Birth Deaths & Marriages Victoria (BDMV) mortality data for the Latrobe Valley and the time of the Hazelwood coal mine fire in Morwell. Department of Health, Victoria. 2014.
34. Addison P, Flander L, Cook C. Are we missing the boat? Current uses of long-term biological monitoring data in the evaluation and management of marine protected areas. *Journal of Environmental Management* (accepted for publication 20 Oct 2014).
33. Flander L, Speirs-Bridge A, Rutstein A, Niven H, Win AK, Ouakrim DA, Hopper JL, Macrae F, Keogh L, Gaff C, Jenkins M. Perceived versus predicted risks of colorectal cancer and self-reported colonoscopies by members of mismatch repair gene mutation-carrying families who have declined genetic testing. *J Genet Couns.* 2014 Feb;23(1):79-88. doi: 10.1007/s10897-013-9614-2. Epub 2013 Jun 9
32. Fox P, Lim SJ, Flander L, Speirs-Bridge A, Skrepnik G, Soller J, Nellor M. Tools to Assess and Understand the Relative Risks of Indirect Potable Reuse and Aquifer Storage & Recovery Projects, Volume 3: Predicting Future Contaminants of Concern for Indirect Potable Water Reuse. Water ReUse Foundation and Bureau of Reclamation (U.S.A.), 2013: WRF-060018.
31. Ait Ouakrim, Lockett T, Boussioutas A, Keogh L, Flander L, Hopper J, Jenkins M. Predictors of screening participation for people at familial-risk of colorectal cancer: A systematic review. *American Journal of Preventive Medicine*, 2013, 44(5): 496-506.
30. Ait Ouakrim D, Lockett T, Boussioutas A, Keogh L, Flander LB, Winship I, Giles GG, Hopper JL, Jenkins MA. Screening practices of Australian men and women categorized as "at or slightly above average risk" of colorectal cancer. *Cancer Causes Control.* 2012 Nov;23(11):1853-64. doi: 10.1007/s10552-012-0067-y. Epub 2012 Sep 26.
29. Flander L, Dixon W, McBride M., Burgman M. Facilitated expert judgment of environmental risks: Acquiring and analysing imprecise data. *International Journal of Risk Assessment and Management*, 2012, 16(4):199-212
28. Wintle B, Mascaro S, Fidler F, McBride M, Burgman M, Flander L, Saw G, Twardy C, Lyon A, Manning B. The Intelligence Game: Assessing Delphi groups and structured question formats. *Proceedings of the Fifth Australian Security and Intelligence Conference*, 2012:14-27. SRI Perth
27. Ait Ouakrim D, Boussioutas A, Lockett T, Winship I, Giles G, Flander L, Keogh L, Hopper JL, Jenkins M. Screening practices of unaffected people at familial risk of colorectal cancer. *Cancer Prev Res* 2012;5:240-247
26. Burgman M, McBride M, Ashton R, Speirs-Bridge A, Flander L, Wintle B, Fidler F, Rumpff L, Twardy C. Expert Status and Performance. *PLoS ONE* 2011 6(7): e22998. doi:10.1371/journal.pone.0022998.
25. Burgman M, Carr A, Godden L, Gregory R, McBride M, Flander L, Maguire L. Redefining expertise and improving ecological judgement. *Conservation Letters* 2011; 4:81-87.

24. Keogh L, McLaren B, Maskiell J, Niven H, Rutstein A, Flander L, Gaff C, Hopper J, Jenkins M. How do individuals decide whether to accept or decline an offer of genetic testing for colorectal cancer? *Hereditary Cancer Clin Prac*, 9(Supp 1):17, 2011.
23. Speirs-Bridge A, Fidler A, McBride M, Flander L, Cumming G, Burgman M. Reducing overconfidence in the interval judgments of experts. *Risk Analysis* 2010; 30:512-523.
22. Hutton J, Dent A, Buykx P, Burgess S, Flander L, Dietze P. The characteristics of acute non-fatal medication related events attended by ambulance services in the Melbourne Metropolitan Area 1998-2002. *Drug and Alcohol Review* 2010; 29:53-58.
21. Flander, L. Strategies for Risk Communication: Evolution, Evidence, Experience. *Quarterly Review of Biology* 2009; 84(2):217.
20. Carey, J., Beilin, R., Boxshall, A., Burgman, M., Flander, L. Risk-based approaches to deal with uncertainty in a data-poor system: Stakeholder involvement in hazard identification for marine national parks and marine sanctuaries in Victoria. *Risk Analysis* 2007; 27:271-281.
19. Green R, Flander L, Velik-Lord M. Evidence-based landscape design principles for hospital-park systems: A literature review for the Royal Children's Hospital redevelopment in Royal Park, Melbourne. University of Melbourne, Report prepared for Department of Human Services, Victoria, 2006.
18. Hatt BE, Flander L, Mitchell VG. Quantifying stormwater recycling risks and benefits: Heavy metals review. Institute for Sustainable Water Resources, Monash University, Report 06/04, 2006.
17. Jenkins MA, Dharmage SC, Flander L, Douglass JA, Ugoni AM, Carlin JB, Sawyer SM, Giles GG, Hopper JL. Parity and decreased use of oral contraceptives as predictors of asthma in young women. *Clinical and Experimental Allergy* 2006; 36:609-613.
16. Cantwell K, Dietze P, Flander L. Relationship between alcohol use and naloxone dose in heroin overdose patients in the prehospital setting. *Resuscitation* 2005; 65:315-319.
15. Flander, L., Fletcher, A., Gertig, D., Hopper, J.L. Thalassaemia screening in Victoria from a public health perspective. Department of Human Services, Victoria. 2003.
14. Flander L., Tulips and freesias. *The Interior* 1998; 2(1):4.
13. Jenkins, M.A., Hopper, J.L., Bowes, G., C Jenkins, J.B., Flander L., Giles, G.G. Factors in childhood as predictors of asthma in adult life. *Brit Med J* 1994; 309:90-93.
12. Jenkins, M.A., Hopper, J.L., Flander L., Carlin, J.B., Giles, G.G. The associations between childhood asthma and atopy, and parental asthma, hay fever and smoking. *Paediatric and Perinatal Epidemiol* 1993; 7:67-76.
11. Hopper, J.L., Carlin, J.B., Macaskill, G.T., Derrick, P.L., Flander L., Giles, G.G. Incorporation of twins in the regressive logistic model for pedigree disease data. *Acta Genet Med Gemell* 1990; 39:173-180.
10. Jenkins M.A., Flander L., Isaac, D., Abramson, M., Bowes, G. Ethnic differences in the use of resources in a community health centre. *Community Health Studies* 1989; 13:375.
9. Flander L. Health care for AIDS health care workers. *Medical Journal of Australia* 1988; 149:564-565.
8. Holly, E.A., Petrakis, N.L., Friend, N.F., Sarles, D.L., Lee, R.E., Flander L. Mutagenic mucus in the cervix of smokers. *Journal of the National Cancer Institute* 1986;76:983-986.
7. Petrakis, N.L., Wiesenfeld, S.L., Flander L. Possible influence of age on the heterozygous cerumen phenotype. *American Journal of Physical Anthropology* 1986; 69:437-440.
6. Corruccini, R.S., Whitley, L.D., Kaul, S.S., Flander L., Morrow, C.A. Facial height and breadth relative to dietary consistency and oral breathing in two populations (north India and U.S.) *Human Biology* 1985; 57:151-161.
5. Flander L. Recent Books in Osteology and Paleopathology. *Medical Anthropology Quarterly* 1983; 14:27-28 (review).
4. Flander L., Corruccini, R.S. Shape differences in the sacral alae. *American Journal of Physical Anthropology* 1980; 52:399-403.
3. Flander L. Isolated kiva burial. *In Excavations at Mancos Canyon*, by R.T. Euler. Mesa Verde Regional Research Center, University of Colorado 1978 (monograph).
2. Flander L. Osteological analysis of six burials. United States National Park Service, New Mexico 1978 (monograph).
1. Flander, L. Univariate and multivariate methods for sexing the sacrum. *American Journal of Physical Anthropology* 1978; 49:103-110.

CONFERENCE PROCEEDINGS

23. Genetic test declining and high cancer risk perception in DNA mismatch repair gene mutation families. Paper presented at the World Cancer Congress, Melbourne, December 2014.
22. Genetic test declining and high cancer risk perception in DNA mismatch repair gene mutation families. Best of the Best Poster presented at the Clinical Oncology Society of Australia Annual Meeting, Melbourne, December 2014.
21. Decliners of hereditary colorectal cancer genetic tests: Risk perception, screening decisions and clinical implications. Paper presented at the Familial Aspects of Cancer Research & Practice Conference, Mantra NSW, August 2014.
20. Decliners of hereditary colorectal cancer genetic tests: Risk perception & screening decisions. Plenary paper presented at the European Society of Human Genetics, European Meeting on Psychosocial Aspects of Genetics, Milan, May 2014.
19. "Magical thinking" in high risk cancer families: Perceived risks of colorectal cancer by members of DNA mismatch repair gene mutation families who have declined genetic testing. Poster presented at the Society for Risk Analysis Annual Meeting, Baltimore, December 2013.
18. High risk perception and low risk prevention in high risk cancer families. Poster presented at the Society for Risk Analysis Annual Meeting, San Francisco, December 2012.
17. Chemical contaminants in recycled waste water: Using experts' knowledge to judge risks under uncertainty. (Invited paper) presented at the 2nd Annual Association of Biosafety for Australia & New Zealand, Brisbane, October 2012.
16. Predicting pharmaceutical compound removals after recycled water treatment. Invited paper presented at the 3rd Symposium "What's in our water: The significance of trace organic compounds." CSIRO & Australasian Society for Ecotoxicology, Canberra, November 2010.
15. Risk perception in families with a colorectal cancer mismatch repair mutation: Introducing a new tool. Poster presented at the Familial Aspects of Cancer Research & Practice Conference, Mantra NSW, August 2010.
14. Expert judgment of pharmaceutical drugs in recycled water for indirect potable reuse. Presented at the 137th Annual Meeting of the American Public Health Association. Philadelphia, November 2009.
13. Expert uncertainty in recycled water health risk assessment. Paper presented at the Annual Conference of the Society for Risk Analysis. Boston, November 2008.
12. Expert elicitation of chemical exposures and outcomes using uncertainty analysis. Paper presented at the Annual Conference of the Australian and New Zealand Chapter of the Society for Risk Analysis. Canberra, October 2008.
11. Water, heat, disease and public health; Climate Change and Rural Health Symposium, Melbourne (Invited presentation). Climate Adaptation Science and Policy Initiative (University of Melbourne) and Menzies Foundation. Melbourne, August, 2007.
10. Expert and community judgment of health risks from recycled water, Public Health Association of Australia, Annual Conference, Perth, 2005.
9. Building understanding about evidence-based practice (Invited presentation), St. John Ambulance Australia, Annual Conference, Melbourne, 2005.
8. Ambulance epidemiology: How to use what we know to find out what we don't know (Invited presentation), Australian College of Ambulance Professionals, Annual Conference, Melbourne, 2004.
7. Delivery of epidemiology subjects by distance mode, PHERP Innovations Conference, Canberra 2003.
6. Tulip madness (Invited presentation). Image and Text Conference, RMIT Faculty of Art, Design and Communication, 2001
5. Use of medical resources at the North Richmond Family Care Centre, 1988. Public Health Association of Australia, Annual Meeting 1989.
4. Ethnic differences in asthma morbidity in children and adults living in Hawaii. Proc of the 111th Annual Meeting of the American Public Health Association 1983; 181.
3. Genetic predisposition and cultural adaptation explain population differences in pediatric asthma. American Journal of Physical Anthropology 1983; 60:193.

2. Influence of chronic respiratory allergy on orofacial growth. *American Journal of Physical Anthropology* 1982; 57:188.
1. Log-linear analysis of ethnicity, migration and childhood asthma. Proc of the 108th Annual Meeting of the American Public Health Association 1980; 200.

PROFESSIONAL COMMUNITY SERVICE

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| 2015— | Reviewer, <i>Cancer, Epidemiology, Biomarkers and Prevention</i> |
| 2015— | Reviewer, <i>International Journal of Environmental Research and Public Health</i> |
| 2014— | Scientists in Schools partner, CSIRO Scientists and Mathematicians in Schools Program |
| 2014— | Sexual Harrassment Adviser, Fairness and Diversity Unit, University of Melbourne |
| 2013— | Board member, Society for Risk Analysis Australia New Zealand (<i>ex officio</i>) |
| 2013— | Reviewer, <i>Conservation Biology</i> |
| 2012— | Lecturer, VCE health and human development, St John Senior College Preston VIC |
| 2012— | Reviewer, <i>Risk Analysis</i> |
| 2011— | Reviewer, <i>Science of the Total Environment</i> (Elsevier) |
| 2010— | Promotions Panel Observer, Fairness and Diversity Unit, University of Melbourne |
| 2009— | Lecturer, VCE health and human development, Preshil School, Kew VIC |
| 2009— | Reviewer, Children's Research Foundation |
| 2008— | Reviewer, Australian Research Council |
| 2004— | Reviewer, <i>Medical Journal of Australia</i> |
| 2004— | Reviewer, Oxford University Press, public health and epidemiology texts |
| 2005— | Contributor, Biology for VCE, B. Evans et al., 4 th ed., 5 th ed., Heinemann |
| 2004 | Lecturer, VCE health and human development, Kyneton Secondary College VIC |
| 2003— | Reviewer, National Heart Foundation (Australia) |
| 2003— | Lecturer and Postgraduate External Examiner, RMIT |
| 2003-05 | Consultant, Paramedic training, Australian College of Ambulance Professionals |
| 2003-04 | Member, University of Melbourne Centre for Water Research Steering Committee |
| 2002-04 | Curriculum innovations development, Dept of Health & Aged Care (CoA) |
| 2002-03 | Consulting Editor, Health Policy Unit, Ministry of Health Republic of Vietnam |
| 2002 | AusAID scholarship interviews, Vietnam, Faculty of MDHS, University of Melbourne |
| 2001-05 | Academic Advisory Committee, Office for Environmental Programs, University of Melbourne |
| 2000 | Mentor, Academic Women, Equal Opportunity Unit, University of Melbourne |
| 1985-89 | Reviewer <i>American Journal of Human Biology, American Journal of Physical Anthropology, Human Organization</i> , National Science Foundation (USA) |
| 1984 | Public lecturer, American Cancer Society (California) |

HONORS AND AWARDS

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| 2014 | University of Melbourne, Outstanding Contribution Award, Human Resources |
| 1982-85 | National Institute of Health (USA) Postdoctoral Traineeship |
| 1982 | University of California San Francisco Teaching Grant |
| 1981 | Smithsonian Institution Project Grant |
| 1980 | American Association for the Advancement of Science Mass Media Fellowship |
| 1978-79 | National Institute of Health (USA) Predoctoral Traineeship |
| 1974 | Smithsonian Institution Graduate Research Fellowship |
| 1972 | National Science Foundation (USA) Research Fellowship, Honorable Mention |
| 1972 | Phi Beta Kappa National Honour Society |

PROFESSIONAL DEVELOPMENT

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| 2005 | Hanover Family Services, homeless primary students tutor programme (Melbourne). |
| 2005 | Environmental health risk assessment. Short course (National Research Centre for Environmental Toxicology, Queensland Health). |
| 2005 | Water for a sustainable future: The role of recycling. Workshop (RMIT, University of California, Los Angeles). |
| 2004 | Epidemiologic methods for health services research. Short course (Johns Hopkins University) |
| 2002 | Epidemiological methods. Short course (K Rothman, University of Tasmania). |

Hazelwood Inquiry
Louisa Flander, PhD
Faculty of Medicine, Dentistry and Health Sciences, University of Melbourne
31 August 2015

I am an epidemiologist and Senior Research Fellow in the Centre for Epidemiology & Biostatistics, Melbourne School of Population and Global Health at the University of Melbourne. I lead research, win grants and publish primarily in our colorectal cancer screening research program, examining the role of personal risk and judgments on health behaviours. I collaborate and publish with environmental risk scientists in the Faculty of Science at the University of Melbourne, examining expert judgment of environmental risks in situations of highly uncertain outcomes. I have held a full-time (0.80 to 1.0 FTE) research appointment funded by external grants since 2007.

My postgraduate training was in physical anthropology/human biology (MA, research fellowship at the Smithsonian Museum of Natural History; PhD, University of Colorado, dissertation on asthma epidemiology). My postdoctoral research training in cancer epidemiology at the University of California, San Francisco, focused on the role of carcinogens in laboratory models of genetic changes in bacteria and mammals.

I joined the University of Melbourne's Faculty of Medicine in 1989, where I held a part-time research appointment and contributed strategically to the initial successful funding of the Tasmanian Asthma Study and the Breast Cancer Family Study led by Prof John Hopper. From 1997 to 2005 I held a part time teaching appointment in the Faculty's Department of Public Health, during which time I taught the foundation epidemiology subjects for the Master of Public Health (average QoT 4.0), and coordinated the Graduate (and later Postgraduate) Diploma in Epidemiology and Biostatistics, prior to its restructure as a Master's level course. I created and managed the Faculty's teaching and research participation in the University's foundation interdisciplinary Master's of Environmental Science, and have since 2000 maintained ongoing teaching and research collaborations with the Environmental Science programs in the Faculty of Science.

I became an Australian citizen in 1990.

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