

GEORGE MALDONADO

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EDUCATION

Bachelor of Science 1978	University of California, Los Angeles Major: Psychobiology
Master of Science in Public Health 1982	University of California, Los Angeles Major: Epidemiology
Ph.D. 1990	University of California, Los Angeles Major: Epidemiology; Minor: Biostatistics

PROFESSIONAL EXPERIENCE

Staff Research Associate May 1981 to January 1982	Division of Epidemiology, School of Public Health University of California, Los Angeles
Staff Scientist March 1982 to April 1983	Energy and Environment Division, Science Applications, Inc., Los Angeles, California
Software Documentation Writer June 1983 to August 1990	CADAM INC Burbank, CA
Teaching Assistant January 1987 to June 1987	Division of Epidemiology, School of Public Health University of California, Los Angeles
Assistant Professor September 1990 to June 1997	Division of Environmental and Occupational Health, School of Public Health, University of Minnesota
Associate Professor with tenure July 1997 to present	Division of Environmental Health Sciences, School of Public Health, University of Minnesota
Visiting Professor July 2009	Universidad Austral de Chile, Valdivia, Chile

PEER-REVIEWED PUBLICATIONS

1. Maldonado G, Kraus JF. Variation in suicide occurrence by time of day, day of the week, month, and lunar phase. *Suicide and Life Threatening Behavior* 1991;21:174-187.
2. Maldonado G, Greenland S. Interpreting model coefficients when the true model form is unknown. *Epidemiology* 1993;4:310-318.
3. Maldonado G, Greenland S. Simulation study of confounder-selection strategies. *American Journal of Epidemiology* 1993;138:923-936.
4. Miller RF, Lohman WH, Maldonado G, Mandel JS. An epidemiologic study of carpal tunnel syndrome and HAVS in relation to vibration exposure. *Journal of Hand Surgery* 1994;19A:99-105.
5. Maldonado G, Greenland S. A comparison of the performance of model-based confidence intervals when the correct model form is unknown. Coverage of asymptotic means. *Epidemiology* 1994;5:171-182.
6. Greenland S, Maldonado G. The interpretation of multiplicative-model parameters as standardized parameters. *Statistics in Medicine* 1994;13:989-999.
7. Greenland S, Maldonado G. Inference on collapsibility in generalized linear models. *Biometrical Journal* 1994;36:771-782.
8. Maldonado G. Interpreting epidemiological studies. In W. Draper (Ed.) *Environmental Epidemiology*. Advances in Chemistry Series No. 241, American Chemical Society Books, 1994.
9. Hayden G, Gerberich SG, Maldonado G. Fatal farm injuries: A five year study utilizing a unique surveillance approach to investigate the concordance of reporting between two data sources. *Journal of Occupational and Environmental Medicine* 1995;37:571-577.
10. Tsai P-J, Vincent JH, Mark D, Maldonado G. Impaction model for the aspiration efficiencies of aerosol samplers in moving air under orientation-averaged conditions. *Aerosol Science and Technology* 1995;22:271-286.
11. Bland CJ, Meurer LN, Maldonado G. Determinants of primary care specialty choice. *Academic Medicine* 1995;70:620-641.
12. Bland CJ, Meurer LN, Maldonado G. A systematic approach to conducting a non-statistical meta-analysis of research literature. *Academic Medicine* 1995;70:642-653.
13. Tsai P-J, Vincent JH, Wahl G, Maldonado G. Occupational exposure to inhalable and total aerosol in the primary nickel production industry. *Occupational and Environmental Medicine* 1995;52:793-799.

14. Meurer LN, Bland CJ, Maldonado G. The state of the literature on primary care specialty choice: Where do we go from here? *Academic Medicine* 1996;71:68-77.
15. Maldonado G, Greenland S. Impact of model-form selection on the accuracy of rate estimation. *Epidemiology* 1996;7:46-54.
16. Marbury M, Maldonado G, Waller L. The indoor air and children's health study: Methods and incidence rates. *Epidemiology* 1996;7:166-174.
17. Tsai P-J, Werner MA, Vincent JH, Maldonado G. Worker exposure to nickel-containing aerosol in two electroplating shops: comparison between inhalable and total aerosol. *Applied Occupational and Environmental Hygiene* 1996;11:484-492.
18. Carr P, Maldonado G, Leonard P, Halberg J, Mandel J, Mandel JS, Church T. Mammogram utilization among farm women. *Journal of Rural Health* 1996;12:278-290.
19. Tsai P-J, Vincent JH, Wahl GA, Maldonado G. Worker exposures to inhalable and total aerosol during nickel alloy production. *The Annals of Occupational Hygiene* 1996;40:651-659.
20. Tsai P-J, Vincent JH, Maldonado G, Mark D. The development of the aspiration efficiency predictive model of aerosol samplers. *Journal of Aerosol Science* 1996;27:650.
21. Boyle D, Gerberich SG, Gibson RW, Maldonado G, Robinson RA, Martin F, Renier C, Amandus H. Injury from dairy cattle activities. *Epidemiology* 1997;8:37-41.
22. Marbury M, Maldonado G, Waller L. Lower respiratory illness, asthma, and daycare attendance. *American Journal of Respiratory and Critical Care Medicine* 1997;155:156-161.
23. Klein PJ, Gerberich SG, Gibson RW, Maldonado G, Kruttschnitt C, Larntz K, Renier C. Risk factors for work-related violent victimization. *Epidemiology* 1997;8: 408-413.
24. Mittleman M, Maldonado G, Gerberich SG, Smith GS, Sorock GS. Alternative approaches to analytic designs in occupational injury epidemiology. *American Journal of Industrial Medicine* 1997;32:129-141.
25. Maldonado G, Greenland S. The importance of critically interpreting simulation studies. *Epidemiology* 1997;8:453-456. (Invited commentary.)
26. Stoner TJ, Dowd B, Carr WP, Maldonado G, Church T, Mandel JS. Do vouchers improve breast cancer screening rates? Results from a randomized trial. *Health Services Research*; 1998;33:11-28.
27. Maldonado G, Greenland S. Factoring versus linear modeling in rate estimation: A simulation study of relative accuracy. *Epidemiology* 1998;9:432-435.
28. Sexton K, Waller LA, McMaster RB, Maldonado G, Adgate JL. The importance of spatial effects for environmental health policy and research. *Human and Ecological Risk Assessment* 2002;8:109-125.
29. Maldonado G, Greenland S. Estimating causal effects. *International Journal of Epidemiology* 2002;31:422-429 (with commentaries).

30. Maldonado G, Greenland S. Response: Defining and estimating causal effects. *International Journal of Epidemiology* 2002;31:435-438.
31. Maldonado G, Delzell E, Tyl S, Sever LE. Occupational exposure to glycol ethers and human congenital malformations. *Int Arch Occup Environ Health* 2003;76:405-423.
32. Jurek AM, Greenland S, Maldonado G, Church TR. Proper interpretation of non-differential misclassification effects: expectations versus observations. *International Journal of Epidemiology* 2005;34:680-687.
33. Sathiakumar N, Graff JJ, Macaluso M, Maldonado G, Matthews R, Delzell E. An updated study of mortality among North American synthetic rubber industry workers. *Occup Environ Med* 2005;62:822-829.
34. Graff JJ, Sathiakumar N, Macaluso M, Maldonado G, Matthews R, Delzell E. Chemical exposures in the synthetic rubber industry and lymphohematopoietic cancer mortality. *J Occup Environ Med.* 2005;47:916-32.
35. Singer RS, Ward MP, Maldonado G. Can landscape ecology untangle the complexity of antibiotic resistance? *Nature Reviews Microbiology* 2006;4:943-952.
36. Jurek AM, Maldonado G, Church TR, Greenland S. Exposure-measurement error is frequently ignored when interpreting epidemiologic study results. *European Journal of Epidemiology* 2006;21:871-876.
37. Ruder AM, Waters MA, Carreón T, Butler MA, Davis-King KE, Calvert GM, Schulte PA, Ward EM, Connally LB, Lu J, Wall D, Zivkovich Z, Heineman EF, Mandel JS, Morton RF, Reding DJ, Rosenman KD, Valencia TC, Fajen JM, Lehman E, Levine AJ, Petersen M, Sanderson WT, Schnorr T, Nelson J, Lappe K, Muldoon J, Reilly MJ, Sims A, Irby T, Talaska G, Hornung R, Leary M, Johnson RA, Hillmer T, Maldonado G, Kampa D, Echeverria D, Heyer N. The Upper Midwest Health Study: A case-control study of primary intracranial gliomas in farm and rural residents. *Journal of Agricultural Safety and Health* 2006;12:255
38. Jurek AM, Maldonado G, Greenland S, Church TR. Uncertainty analysis: an example of its application to estimating a survey proportion. *Journal of Epidemiology and Community Health* 2007;61:650-654.
39. Jurek AM, Greenland S, Maldonado G. How far from non-differential does exposure or disease misclassification have to be to bias results away from the null? *International Journal of Epidemiology* 2008;37:382-385.
40. Maldonado G. Adjusting a relative-risk estimate for study imperfections. *Journal of Epidemiology and Community Health* 2008;62:655-663.
41. Jurek AM, Maldonado G, Spector LG, Ross JA. Maternal Vitamin Supplementation and Childhood Leukemia Among Children with Down Syndrome: An Uncertainty Analysis. *Journal of Epidemiology and Community Health*, Feb 2009; 63:168–172.
42. Jurek AM, Lash TL, Maldonado G. Specifying Exposure Classification Parameters for Sensitivity Analysis: Family Breast Cancer History. *Clinical Epidemiology* 2009;1:109-117.

43. Graff JJ, Sathiakumar N, Macaluso M, Maldonado G, Matthews R, Delzell E. The Effect of Uncertainty in Exposure Estimation on the Exposure-Response Relation between 1,3-Butadiene and Leukemia. *International Journal of Environmental Research and Public Health* 2009;6:2436-2455.
44. Jurek AM, Maldonado G, Greenland S. Adjusting for outcome misclassification: the importance of accounting for case-control sampling and other forms of outcome-related selection. *Annals of Epidemiology* 2013;23:129-135.
45. Maldonado G. Toward a clearer understanding of causal concepts in epidemiology. *Annals of Epidemiology* 2013;23:743-749.
46. Lash TL, Fox MP, MacLehose RF, Maldonado G, McCandless LC, Greenland S. Good practices for quantitative bias analysis. *International Journal of Epidemiology* 2014;43:1969-1985.
47. Scott LLF, Maldonado G. Quantifying and adjusting for disease misclassification due to loss to follow-up in historical cohort mortality studies. *International Journal of Environmental Research and Public Health* 2015;12:12834-12846.
48. Jurek AM, Maldonado G. Quantitative bias analysis in an asthma study of rescue-recovery workers and volunteers from the 9/11 World Trade Center attacks. *Annals of Epidemiology* 2016;26:794-801. Awarded Best Paper 2016 in *Annals of Epidemiology*.
49. Maldonado G. The role of counterfactual theory in causal reasoning. *Annals of Epidemiology* 2016;26:681-682.

ARTICLES IN PREPARATION (SELECTED)

1. Maldonado G. The magnitude of confounding varies by target population, exposure effects, baseline risks, and disease-frequency measure. (In revision.)
2. Maldonado G. Individual probability of causation. (In preparation.)

EDITORIALS, COMMENTARIES AND LETTERS

1. Maldonado G, Poole C. More research is needed. *Annals of Epidemiology* 1999;9:17-18. (Invited editorial.)
2. Maldonado G, Phillips CV. Wishful thinking. (Invited editorial.) *Epidemiologic Perspectives & Innovations* 2004, 1:2 doi:10.1186/1742-5573-1-2.
3. Maldonado G. Update: Greenland and Robins (1986). Identifiability, exchangeability and epidemiological confounding. *Epidemiologic Perspectives & Innovations* 2009, 6:3 (4 September 2009)
4. Lash TL, Fox MP, Greenland S, Jurek AM, Hoggatt KJ, Cole SR, Maldonado G, Brooks D, Rothman KJ, Poole C. Re: Promoting Healthy Skepticism in the News: Helping Journalists Get It Right. (Letter.) *Journal of the American Cancer Institute* 2010 doi:10.1093/jnci/djq135.
5. Mandel J, Maldonado G. Comprehensive Medical Monitoring Following Environmental Contamination; Not Ready for Prime Time. (Letter.) *Journal of Occupational and Environmental Medicine* 2010 52:465 pg. 465 DOI: 10.1097/JOM.0b013e3181d97403.

6. Maldonado G. Re: estimating causal associations of fine particles with daily deaths in Boston. *American Journal of Epidemiology* 2016;183:594. (Letter.)
 7. Maldonado G. *Global Epidemiology: The journal*. *Global Epidemiology* 2019;1:1. (Editorial.)
 8. Maldonado G, Cox LA. Causal reasoning in epidemiology: philosophy and logic. *Global Epidemiology* 2020. (Commentary.)
 9. Maldonado G. Missing pieces: Known unknowns in epidemiologic methods. *Global Epidemiology* 2022;10086. (Editorial.)
 10. Rothenberg R, Maldonado G. Can chatbots do epi? *Global Epidemiology* 2023 (in press). (Editorial.)
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BOOK CHAPTERS

Ritchey ME, West SL, Maldonado G. Chapter 37. Validity of Drug and Diagnosis Data in Pharmacoepidemiology. In: Strom BL, Kimmel SE, Hennessy S, editors. *Pharmacoepidemiology*. 6th ed. West Sussex, UK: John Wiley & Sons; 2019.

Ritchey ME, West SL, Maldonado G. Chapter 13: Validity of Pharmacoepidemiologic Drug and Diagnosis Data. In: Strom BL, Kimmel SE, Hennessy S, editors. *Textbook of Pharmacoepidemiology*, 3rd edition, September 2021.

BOOKS IN PREPARATION

1. Maldonado G. *Ideas of Epidemiology*
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PUBLISHED METHODOLOGY ABSTRACTS

1. Maldonado G, Greenland S. Analyzing epidemiologic data with an incorrect model form: Impact on confidence-interval performance. (Abstract) *American Journal of Epidemiology* 1990;132:782.
2. Maldonado G, Greenland S. Analyzing epidemiologic data when the correct model form is unknown: A comparison of the performance of confidence intervals. (Abstract) *Biometric Bulletin* 1991;8:14.
3. Maldonado G, Greenland S. Analyzing epidemiologic data with an incorrect model form: Impact on point estimators. (Abstract) *American Journal of Epidemiology* 1991;134:716-717.
4. Maldonado G, Greenland S. Impact of model-form selection on the performance of confidence intervals. (Abstract) *Biometric Bulletin* 1992;9:17.
5. Maldonado G, Greenland S. A simulation study of confounder-selection strategies. (Abstract) *American Journal of Epidemiology* 1992;136:999.
6. Greenland S, Maldonado G. The interpretation of multiplicative-model parameters as standardized parameters. (Abstract) *American Journal of Epidemiology* 1993;138:664.

7. Maldonado G, Greenland S. When does factoring increase the accuracy of rate estimation? (Abstract) *American Journal of Epidemiology* 1995;141:S68.
8. Maldonado G, Greenland S. Impact of model-form selection on the performance of confidence intervals. (Abstract) *American Journal of Epidemiology* 1996;143:S24.
9. Maldonado G, Greenland S. Interpreting simulation studies of epidemiologic methods. (Abstract) *American Journal of Epidemiology* 1997;145:S56.
10. Maldonado G, Greenland S. Estimating causal effects. (Abstract) *American Journal of Epidemiology* 1998;147:S80.
11. Maldonado G. Informal evaluation of bias may be inadequate. (Abstract) *American Journal of Epidemiology* 1998;147:S82.
12. Maldonado G, Delzell E, Poole C. A unified approach to conducting and interpreting epidemiologic studies of congenital malformations. (Abstract) *American Journal of Epidemiology* 1999;149:S59.
13. Phillips CV, Maldonado G. Using Monte Carlo methods to quantify the multiple sources of error in studies. (Abstract) *American Journal of Epidemiology* 1999;149:S17.
14. Maldonado G, Greenland S. The causal-contrast study design. (Abstract) *American Journal of Epidemiology* 2000; 151:S39.
15. Maldonado G, Greenland S. A method to examine whether error due to misclassification of a binary exposure can explain an association. (Abstract) *American Journal of Epidemiology* 2000; 151:S40.
16. Maldonado G, Greenland S, Phillips C. Approximately nondifferential exposure misclassification does not ensure bias toward the null. (Abstract) *American Journal of Epidemiology* 2000; 151:S39.
17. Maldonado G, Greenland S. The intervention-prediction study design. (Abstract) *American Journal of Epidemiology* 2001;153:S182.
18. Phillips CV, Maldonado G. Providing widely understandable perspective for risks reported in studies. (Abstract) *American Journal of Epidemiology* 2001;153:S272.
19. Maldonado G, Greenland S. The role of the target population in estimating causal effects. (Abstract) *American Journal of Epidemiology* 2002; 153:S35.
20. Jurek A, Maldonado G, Church, TR. Nondifferential exposure misclassification does not always lead to an underestimate of risk. (Abstract) *American Journal of Epidemiology* 2003; 157:S56.
21. Jurek AM, Maldonado G, Greenland S, Church T. Exposure measurement error is frequently ignored when interpreting epidemiologic study results. (Abstract) *American Journal of Epidemiology* 2004.
22. Maldonado G. Quantifying the impact of study imperfections on study results. (Abstract) *American Journal of Epidemiology* 2005;161:S100.

23. Jurek AM, Maldonado G, Ness KK, Leisenring WM, Mertens AC. Choosing among potential comparison groups in an epidemiologic study. (Abstract) *American Journal of Epidemiology* 2006.
 24. Maldonado G. Extending the definition of confounding under a deterministic model of effects. (Abstract) *American Journal of Epidemiology* 2008;167:S114.
 25. Maldonado G. Assumptions, assumptions, assumptions. (Abstract) *American Journal of Epidemiology* 2009.
 26. Maldonado G. Control of confounding: an iffy business. (Abstract) *American Journal of Epidemiology* 2009.
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REPORTS

1. Maldonado G. Suicide in Sacramento County, Ca, 1925-1979: Occurrence by month, day of the week, time of day, holidays, and lunar phases. M.S. thesis, UCLA, 1982.
 2. Maldonado G. Model form misspecification and model form selection: Impact on epidemiologic inference. Ph.D. Dissertation, UCLA, 1990.
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PRESENTATIONS BY G. MALDONADO

1. Maldonado G, Kraus J. An epidemiologic analysis of suicide by month, day, hour, and lunar phases: a test of current scientific beliefs and popular myths. Presented at the 10th Scientific Meeting of the International Epidemiological Association, University of British Columbia, Vancouver, Canada, 1984.
2. Maldonado G, Greenland S. Analyzing epidemiologic data with an incorrect model form: impact on confidence-interval performance. Presented at the 23rd annual meeting of the Society for Epidemiologic Research, Snowbird, Utah, June 14, 1990.
3. Maldonado G. Interpreting epidemiologic studies: Strategies and pitfalls. Presented at the 3M Company, St. Paul, Minnesota, April 16, 1991.
4. Maldonado G, Greenland S. Analyzing epidemiologic data with an incorrect model form: impact on the performance of point estimators. Presented at the 24th Annual Meeting of the Society for Epidemiologic Research, Buffalo, New York, June 11, 1991.
5. Maldonado G, Greenland S. Analyzing epidemiologic data with an incorrect model form: a comparison of the performance of confidence intervals. Presented at the joint meeting of the Institute of Mathematical Statistics and the Western North American Region of the Biometrics Society, Santa Barbara, CA, July 2, 1991.
6. Maldonado G, Greenland S. Analyzing epidemiologic data with an incorrect model form: a comparison of the performance of confidence intervals. Presented at the Division of Biostatistics Seminar Series, University of Minnesota School of Public Health, November 20, 1991.

7. Maldonado G. Interpreting epidemiologic studies. Presented at the 203rd American Chemical Society National Meeting, San Francisco, CA, April 8, 1992.
8. Maldonado G, Greenland S. A simulation study of confounder-selection strategies. Presented at the 25th Annual Meeting of the Society for Epidemiologic Research, Minneapolis, MN, June 12, 1992.
9. Maldonado G, Greenland S. Analyzing epidemiologic data when the correct model form is unknown: Impact of model-form selection on the performance of confidence intervals. Presented at the joint meeting of the Institute of Mathematical Statistics and the Western North American Region of the Biometrics Society, Corvallis, OR, June 16, 1992.
10. Maldonado G, Greenland S. Impact on risk estimation of analyzing epidemiologic data with an incorrect model form: Basic concepts. Presented at the Fourth Annual Meeting of the International Society for Environmental Epidemiology, Cuernavaca, Morelos, Mexico, August 28, 1992.
11. Greenland S, Maldonado G. The interpretation of multiplicative-model parameters as standardized parameters. Presented by G. Maldonado at the 26th Annual Meeting of the Society for Epidemiologic Research, Keystone, Colorado, June 17, 1993.
12. Maldonado G. Selecting an appropriate control group for case-control studies of injuries. Presented at the 121st Annual Meeting of the American Public Health Association, San Francisco, CA, October 27, 1993.
13. Maldonado G, Greenland S. Impact of model-form selection on the accuracy of point estimators. Presented at the joint meeting of the Institute of Mathematical Statistics and the Western North American Region of the Biometrics Society, Los Angeles, CA, June 28, 1994.
14. Maldonado G. Bridging the gap between prior knowledge and statistical modeling. Presented at the Division of Epidemiology Seminar Series, University of Minnesota School of Public Health, October 26, 1994.
15. Maldonado G. The challenge of model selection in epidemiologic analysis. Presented at the Uniformed Services University of the Health Sciences, Bethesda, MD, March 27, 1995; the University of Alabama School of Public Health, Birmingham, AB, March 29, 1995; and the University of South Carolina School of Public Health, Columbia, SC, September 26, 1995.
16. Maldonado G, Greenland S. When does factoring increase the accuracy of rate estimation? Presented at the 28th Annual Meeting of the Society for Epidemiologic Research, Snowbird, Utah, June 23, 1995.
17. Maldonado G, Greenland S. Impact of model-form selection on the performance of confidence intervals. Presented at the 29th Annual Meeting of the Society for Epidemiologic Research, Boston, MA, June 13, 1996.
18. Maldonado G, Greenland S. Interpreting simulation studies of epidemiologic methods. Presented at the Department of Epidemiology, University of North Carolina School of Public Health, Chapel Hill, NC, February 3, 1997.
19. Maldonado G. Estimating causal effects. Presented at the Department of Epidemiology, University of North Carolina School of Public Health, Chapel Hill, NC, April 15, 1997.

20. Maldonado G, Greenland S. Interpreting simulation studies of epidemiologic methods. Presented at the 30th Annual Meeting of the Society for Epidemiologic Research, Edmonton, Alberta, Canada, June 13, 1997.
21. Maldonado G. Estimating causal effects. Presented at the Division of Epidemiology, University of Minnesota of Public Health, Minneapolis, MN, November 5, 1997.
22. Maldonado G, Greenland S. Interpreting simulation studies of epidemiologic methods. Presented at the Department of Epidemiology, University of Alabama at Birmingham School of Public Health, Birmingham, AB, February 27, 1998.
23. Maldonado G, Greenland S. Estimating causal effects. Poster presented at the 31st Annual Meeting of the Society for Epidemiologic Research, Chicago, Illinois, June 26, 1998.
24. Maldonado G. Informal evaluation of bias may be inadequate. Presented at the 31st Annual Meeting of the Society for Epidemiologic Research, Chicago, Illinois, June 26, 1998.
25. Maldonado G. Sensitivity analysis for error due to misclassification of a binary exposure. Presented at the Analytical Methods Seminar, University of Minnesota School of Public Health, Minneapolis, MN, April 14, 1999.
26. Maldonado G, Greenland S. Estimating causal effects. Invited presentation at the symposium "Future of Causes in Epidemiology," 32st Annual Meeting of the Society for Epidemiologic Research, Baltimore, MD, June 10, 1999.
27. Maldonado G, Delzell E, Poole C. A unified approach to conducting and interpreting epidemiologic studies of congenital malformations. Presented at the 32st Annual Meeting of the Society for Epidemiologic Research, Baltimore, MD, June 12, 1999.
28. Maldonado G. Does (your exposure here) cause (your disease here)? Presented at the Division of Environmental and Occupational Health seminar series, University of Minnesota School of Public Health, October 26, 1999.
29. Maldonado G, Greenland S. The causal-contrast study design. Presented at the 33rd Annual Meeting of the Society for Epidemiologic Research, Seattle, WA, June 16, 2000.
30. Maldonado G, Greenland S. A method to examine whether error due to misclassification of a binary exposure can explain an association. Presented at the 33rd Annual Meeting of the Society for Epidemiologic Research, Seattle, WA, June 16, 2000.
31. Maldonado G, Greenland S, Phillips C. Approximately nondifferential exposure misclassification does not ensure bias toward the null. Presented at the 33rd Annual Meeting of the Society for Epidemiologic Research, Seattle, WA, June 16, 2000.
32. Maldonado G, Greenland S. The intervention-prediction study design. Presented at the 34th Annual Meeting of the Society for Epidemiologic Research, Toronto, Canada, June 2001.
33. Maldonado G. Epidemiology expands its limits. Invited presentation, Department of Epidemiology, Boston University School of Public Health, Boston, MA, May 9, 2002.

34. Maldonado G, Greenland S. The role of the target population in estimating causal effects. Presented at the 35th Annual Meeting of the Society for Epidemiologic Research, Palm Desert, CA, June 2002.
35. Maldonado G, Delzell E. Occupational exposure to glycol ethers and congenital malformations: a sensitivity analysis. The International Epidemiological Association XVI World Congress of Epidemiology, Montreal, Canada, August 20, 2002.
36. Maldonado G. From cause to data and back again. Mealey's Daubert Conference, Pasadena CA, November 18, 2003.
37. Maldonado G. Epidemiologic uncertainty analysis. Atrazine Research Meeting. Greensboro, NC, April 7, 2004.
38. Maldonado G. A method for point-of-exposure attribution of foodborne illness: the blending project. Presented at the FoodNet Annual Vision Meeting, Nashville, TN, March 2005.
39. Maldonado G. Quantifying the impact of study imperfections on study results. Presented at the joint meeting of the Canadian Society for Biostatistics and Epidemiology and the Society for Epidemiologic Research, Toronto, Canada, June 29, 2005.
40. Maldonado G. Study design for causal inference. Presented at the FoodNet Annual Vision Meeting, Atlanta, GA, March 1, 2006.
41. Maldonado G. Adjusting a relative-risk estimate for study imperfections. Presented at the FoodNet Annual Vision Meeting, Atlanta, GA, March 1, 2006.
42. Maldonado G. A method for point-of-exposure attribution of foodborne illness. Presented at the FoodNet Annual Vision Meeting, Atlanta, GA, March 1, 2006.
43. Maldonado G. Adjusting a relative-risk estimate for study imperfections: methodological concepts. Presented at Emory University School of Public Health, Department of Epidemiology, March 3, 2006.
44. Maldonado G. Adjusting a relative-risk estimate for study imperfections: example. Presented at Emory University School of Public Health, Department of Epidemiology, April 28, 2006.
45. Maldonado G. Adjusting a relative-risk estimate for study imperfections. Presented at McGill University Department of Epidemiology, Biostatistics and Occupational Health, May 8, 2006.
46. Maldonado G. Extending the definition of confounding under a deterministic model of effects. Presented at the 41st Annual meeting of the Society for Epidemiologic Research, Chicago, IL, June 26, 2008.
47. Maldonado G. Adjusting a relative-risk estimate for study imperfections. Presented at Amgen Department of Global Epidemiology, October 22, 2008.
48. Maldonado G. Estimating causal effects: the target population perspective. University of Minnesota School of Public Health, Division of Health Policy and Management Work In Progress Seminar Series, 4/22/09. (Invited.)

49. Maldonado G. Assumptions, assumptions, assumptions. Presented at the 42nd annual meeting of the Society for Epidemiologic Research, Anaheim, CA, June 24, 2009. (SER symposium that I organized)
50. Maldonado G. Control of confounding: an iffy business. Presented at the 42nd annual meeting of the Society for Epidemiologic Research, Anaheim, CA, June 24, 2009. (SER symposium that I organized)
51. Maldonado G. A unified approach to the design, analysis and interpretation of epidemiologic studies. Presented at the Universidad Austral de Chile, Valdivia, Chile, July 14, 2009.
52. Maldonado G. The role of uncertainty analysis in the interpretation of epidemiologic studies. Presented at the Universidad Austral de Chile, Valdivia, Chile, July 15, 2009.
53. Maldonado G. A simple device for teaching causal concepts. Presented at the 44th Annual Meeting of the Society for Epidemiologic Research, Montreal, June 2011.
54. Maldonado G. Theoretical frameworks for teaching epidemiologic methods. Presented at the 45th Annual Meeting of the Society for Epidemiologic Research, Minneapolis, MN, June 2012. (SER symposium that I co-organized with Rich MacLehose).
55. Maldonado G. Quantitative uncertainty analyses of epidemiologic studies. Presented at Syngenta Crop Protection, Charleston SC, August 2012.
56. Maldonado G. Particulate matter and health: Fundamentals of causal reasoning. Invited oral presentation given at the 41st Annual Summer Meeting of the Toxicology Forum, Colorado Springs, Colorado, July 14, 2015.
57. Maldonado G. Invited presentation to Clinical Practice Council, Allina Health Services, November 16, 2017: "Fundamentals of Causal Reasoning" (invited by Anna Kleckner, one of our former PhD students)
58. Maldonado G. Causal reasoning in epidemiology: philosophy and logic. Invited webinar, HESI Environmental Epidemiology Webinar Series, November 16, 2021.
<https://www.youtube.com/watch?v=32HSNQ4oc1I>
59. Maldonado G, Greenland S. Invited presentation: Comments on the probability-of-causation literature. Center for Truth in Science meeting on the Probability of Causation, May 19, 2022.

PRESENTATIONS BY CO-AUTHORS

1. Boyle, Gerberich, Gibson, Maldonado, Robinson, Martin. Case-Control Study of Cattle Operation-Related Injuries. Division of Safety Research, National Institute for Occupational Safety and Health, Morgantown, Virginia, June 1991.
2. Klein PJ, Gerberich SG, Gibson RW, Maldonado G, Kruttschnitt C, Larntz K, Renier C. Risk factors for work-related nonfatal violent victimization. National Institute for Occupational Safety and Health, Division of Safety Research, Morgantown, West Virginia, June 28, 1991.
3. Boyle, Gerberich, Gibson, Maldonado, Robinson, Martin. Case-Control Study of Cattle Operation-Related Injuries. College of Veterinary Medicine, University of Minnesota, St. Paul, Minnesota. June 1992.
4. Klein PJ, Gerberich SG, Gibson RW, Maldonado G, Kruttschnitt C, Larntz K, Renier C. Use of the National Crime Survey in epidemiology and public health, a case-control study to identify risk factors for work-related victimization. Workshop sponsored by the U.S. Department of Justice; Bureau of Justice Statistics, and the Bureau of the Census, Washington, D.C., July 18, 1991.
5. Klein PJ, Gerberich SG, Gibson RW, Maldonado G, Kruttschnitt C, Larntz K, Renier C. Work-related nonfatal, violent victimization. American Society of Criminology, Annual Meeting, New Orleans, LA, November 5, 1992.
6. Boyle, Gerberich, Gibson, Maldonado, Martin, Robinson, Renier. Case-Control Study of Cattle Operation-Related Injuries. Second World Conference on Injury Control, Atlanta, Georgia, May 1993.
7. Klein PJ, Gerberich SG, Gibson RW, Maldonado G, Kruttschnitt C, Larntz K, Renier C. Work-related nonfatal violent victimization and subsequent injury in the United States from January 1987 to December 1989. Second World Conference on Injury Control, Atlanta, Georgia, May 1993.
8. Klein, Gerberich, Gibson, Maldonado, Kruttschnitt, Larntz, Renier. Work-related violent victimization and consequent injuries. American Public Health Association Annual Meeting, San Francisco, California, October 1993.
9. Pederson J, Garrard J, Madoff R, Maldonado G, Lowry A, Jensen L, Chen V. Prevalence rates of fecal incontinence of elderly people in nursing homes. Annual meeting of the Gerontological Society of America, New Orleans, November 1993.
10. Garrard J, Madoff R, Maldonado G, Pederson J, Lowry A, Jensen L, Chen V. Patient characteristics associated with fecal incontinence in nursing homes. Annual meeting of the Gerontological Society of America, New Orleans, November 1993.
11. Boyle, Gerberich, Gibson, Maldonado, Robinson, Martin. Case-Control Study of Dairy Cattle Operation-Related Injuries. Minnesota Veterinary Medical Association Annual Meeting, Bloomington, Minnesota, February, 1994.

12. Boyle, Gerberich, Gibson, Maldonado, Robinson, Martin. Case-Control Study of Cattle Operation-Related Injuries. American Public Health Association Annual Meeting, Washington, D.C., November 1994.
13. Boyle, Gerberich, Gibson, Maldonado, Robinson, Martin. Case-Control Study of Dairy Operation-Related Injuries. American Public Health Association Annual Meeting, San Diego, California, November 1995.
14. Marbury M, Maldonado G, Waller L. Daycare attendance and the risk of lower respiratory illness. Presented at the 28th annual meeting of the Society for Epidemiologic Research, Snowbird, Utah, 1995. (Abstract appears in American Journal of Epidemiology 1995;141:S75.)
15. Boyle, Gerberich, Gibson, Maldonado, Robinson, Martin. Case-Control Study of Dairy Operation-Related Injuries: Environmental Risk Factors. Third International Conference on Injury, Melbourne, Australia, February 1996.
16. Environmental risk factors for work-related assault injuries among nurses: Part 1. Security measures, administrative policies, and assault prevention training. Presented by S. Lee at the Society for Epidemiologic Research annual meeting, June 1998. (Abstract appears in American Journal of Epidemiology 1998;147:S79.)
17. Environmental risk factors for work-related assault injuries among nurses: Part 2. Staffing patterns and patient characteristics. Presented by S. Lee at the Society for Epidemiologic Research annual meeting, June 1998. (Abstract appears in American Journal of Epidemiology 1998;147:S79.)
18. The role of spatial scale in human health studies. Presented by K. Sexton at the Fourth National Health and Environmental Effects Research Laboratory Symposium on Research Advances in Risk Assessment, April 1998.
19. Phillips CV, Maldonado G. Using Monte Carlo methods to quantify the multiple sources of error in studies. Presented by C. Phillips at the 32st Annual Meeting of the Society for Epidemiologic Research, Baltimore, MD, June 10, 1999.
20. Gabel C, Gerberich SG, Maldonado G. Potential use of case-crossover study designs in injury epidemiology studies. Presented by C. Gabel at the 32st Annual Meeting of the Society for Epidemiologic Research, Baltimore, MD, June 10, 1999. (Abstract appears in American Journal of Epidemiology 1999;149:S12.)
21. Gabel CL, Gerberich SG, Maldonado G. Animal-related injuries to veterinarians: application of the case-crossover design. Presented at the National Occupational Injury Research Symposium, Pittsburgh, PA, October 17-19, 2000.
22. Phillips CV, Maldonado G. Providing widely understandable perspective for risks reported in studies. Presented at the 34th Annual Meeting of the Society for Epidemiologic Research, Toronto, Canada, June 2001.
23. Jurek A, Maldonado G. Exposure-Measurement Error is Frequently Ignored when Interpreting Epidemiologic Study Results. The International Epidemiological Association XVI World Congress of Epidemiology, Montreal, Canada, August 20, 2002.

24. Jurek AM, Maldonado G, Church T. Nondifferential exposure misclassification does not always lead to an underestimate of risk. APHA 131st Annual Meeting (November 15-19, 2003), San Francisco, CA.
25. Sathiakumar N, Graff JJ, Macaluso M, Maldonado G, Matthews R, Delzell E. An updated study of mortality among North American synthetic rubber industry workers. Presented by N Sathiakumar at the 2003 Annual Health Effects Institute conference, May 5, 2003.
26. Phillips CV, Maldonado G. On the nature of random error in epidemiology. Presented by C. Phillips at the 36th Annual Meeting of the Society for Epidemiologic Research, 2003.
27. Jurek AM, Maldonado G, Greenland S, Church T. Exposure measurement error is frequently ignored when interpreting epidemiologic study results. 37th Annual Meeting of the Society for Epidemiologic Research, June 17, 2004, Salt Lake City, UT.
28. Rigdon C, Maldonado G, Church T. Developing a Method for Point-of-Production Attribution of Salmonellosis Cases in the U.S. Presented at the International Symposium on Salmonella & Salmonellosis in Saint-Malo, France, May 10-13, 2006
29. Jurek AM, Maldonado G, Ness KK, Leisenring WM, Mertens AC. Choosing among potential comparison groups in an epidemiologic study. Presented at the 38th Annual Meeting of the Society for Epidemiologic Research, June, 2006, Seattle, WA.
30. Jurek AM, Maldonado G, Ness K, Leisenring W, Mertens A. Choosing among Potential Comparison Groups in an Epidemiologic Study. Presented at the American Public Health Association annual meeting, Boston, MA, November 2006.
31. Rigdon C, Maldonado G. Developing a Method of Point-of-Processing Attribution for Human Salmonellosis in the United States. Presented by Carrie Rigdon, March 5, 2007 at the Minnesota Department of Health, St. Paul, MN.
32. Jurek A, Lash T, Maldonado G. Misclassifying Family Cancer History: Impact on Epidemiologic Study Results. Presented by A. Jurek at the Society for Epidemiologic Research annual meeting, Boston, MA, June 2007.
33. Jurek AM, Maldonado G, Spector LG, Ross JA. Probabilistic sensitivity analysis for maternal vitamin use around the time of pregnancy in a study of children with down syndrome and leukemia. Presented by A. Jurek at the annual meeting of the Society for Epidemiologic Research, Chicago, IL, June 2008.
34. Gädicke P, Maldonado G, Monti G, Muñoz-Zanzi C. Role of common infectious diseases in pregnancy loss of heifers from large intensively managed dry-lot dairies. Presented by P. Gädicke at the World Buiatric Congress, Santiago, Chile, November 2010.
35. Jurek AM, Maldonado G. Correcting for outcome misclassification in case-control studies: application to a birth-certificate study of cleft lip/palate. Presented at the 45th Annual Meeting of the Society for Epidemiologic Research, Minneapolis, MN, June 2012.
36. Scott LLF, Maldonado G. An Assessment of the Impact of Misclassification Error on an Estimate of Effect for Occupational Exposure to TCDD-contaminated Chemicals and Ischemic Heart Disease. Presented at the 26th International Society for Environmental Epidemiology Conference, Seattle, WA, August 24-28, 2014.

37. Scott LLF, Maldonado G. Application of Probabilistic Uncertainty Analysis to Estimate and Correct for Disease Misclassification Due to Loss to Follow Up in a Historical Cohort of Trichlorophenol Workers. Presented at the 26th International Society for Environmental Epidemiology Conference, Seattle, WA, August 24-28, 2014.
 38. Scott LLF, Maldonado G. Use of Uncertainty Analysis to Quantify the Impact of Disease Misclassification Due to Loss to Follow-up on an Estimate of Effect for Occupational Exposure to TCDD-Contaminated Chemicals and Ischemic Heart Disease. Presented at the 47th Annual SER Meeting, Seattle, WA, June 24-27, 2014.
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GRANTS AND CONTRACTS

External

1. Centers for Disease Control (7-91 to 6-93). Title: Occupational Safety and Health Educational Resource Center. Principal investigator: Ian A. Greaves, M.D. Faculty member for Occupational Injury Prevention and Safety Program. Provided methodological direction to the research of students in this program.
2. National Institutes of Health (1-90 to 12-94). Title: Epidemiology of Respiratory Illness and Indoor Pollution. Principal investigator: Marian C. Marbury, Sc.D. Methodological consultant for epidemiologic study of indoor air pollution and respiratory health of children.
3. National Institute for Occupational Safety and Health (9-91 to 9-93) Title: Case-Control Study of Cattle Operation-Related Injuries. Principal investigator: Susan G. Gerberich, Ph.D. Co-investigator on this project.
4. National Institute for Occupational Safety and Health/Centers for Disease Control (6-91 to 6-96). Title: Demonstration Cancer Control Projects for Farmers. Principal investigator: Jack S. Mandel, Ph.D. Co-investigator for this study, which evaluated the effectiveness of prevention programs for skin and breast cancer.
5. Nickel Producers Environmental Research Association (NiPERA) (1-92 to 12-95). Title: Assessment of Aerosol Exposures of Nickel Industry Workers. Principal investigator: James H. Vincent, Ph.D., D.Sc. I served as co-investigator on this project, which developed methods to improve assessment of exposure to nickel-containing aerosols.
6. Centers for Disease Control (CDC) (7-93 to 6-00). Title: Occupational Injury Epidemiology and Control Program. Principal investigator: Susan G. Gerberich, Ph.D. I served as co-program director for this training program, which provided academic and research training in injury epidemiology and injury prevention.
7. National Institute for Occupational Safety and Health/Centers for Disease Control (9-93 to 3-97). Title: Case-Control Study of Primary Neoplastic Gliomas Among Rural Residents in the Upper Midwest. Principal investigator: Jack S. Mandel, Ph.D. I served as co-investigator for the coordinating center for a multi-center case-control study of farming-related exposures and brain cancer. I participated in writing the grant proposal.
8. Health Resources and Services Administration (11-93 to 7-94). Title: Future Directions for Research on Primary Care. Principal investigator: Carole Bland, Ph.D. I served as co-

- investigator on this project, which evaluated and synthesized the current literature regarding physician specialty choice.
9. Agency for Health Care Policy and Research (1-94 to 12-96). Title: Effective Dissemination of AHCPR Guideline: Prevention and Early Management of Pressure Ulcers. Principal investigator: Richard Adelson, DDS. Methodological consultant for randomized trial to test educational strategies for dissemination of clinical guidelines. I participated in writing the grant proposal.
 10. Allina Foundation (7-95 to 12-95). Title: Violence Prevention and Control Research Initiative. Principal investigator: Susan G. Gerberich, Ph.D. I served as co-investigator on this project, which designed and implemented a community- and population-based research initiative.
 11. FMC Corporation (4-95 to 12-96). Title: Case-control/mortality studies at FMC plant, Pocatello, ID. Principal investigator: Jack S. Mandel, Ph.D. I served as co-investigator on a case-control study of lung cancer and non-malignant respiratory diseases.
 12. Allina Foundation (1-96 to 12-96). Title: Risk factors for work related assault among nurses. Principal investigator: Susan G. Gerberich. Co-investigator on a study to evaluate risk factors for work-related assault among nurses. I participated in writing the grant proposal.
 13. National Institute of Environmental Health Sciences (6-97 to 5-03). Title: FIRST Award: Methods for evaluating the validity of GIS studies. Principal investigator on a project to develop methods for quantifying the magnitude of bias (systematic error) in epidemiologic studies. 50% FTE.
 14. National Institutes of Health (4-97 to 3-98). Title: Risk factors for assaults among nurses. Principal investigator: Susan G. Gerberich. Co-investigator on a study to evaluate risk factors for assaults among nurses.
 15. Centers for Disease Control (CDC) (7-97 to 6-02). Title: Occupational Injury Epidemiology and Control Program. Principal investigator: Susan G. Gerberich, Ph.D. I served as co-program director for this training program, which provided academic and research training in injury epidemiology and injury prevention.
 16. National Institutes of Health (3-97 to 2-2000). Title: Occupational cancer surveillance through record linkage. Principal Investigator: Debora J. Boyle. I served as methodological consultant on a study to determine if and when cancer risks can be estimated using record linkage between state cancer surveillance systems and occupational cohorts.
 17. Farm Family Exposure Study Task Force. Title: Farm Family Exposure Study. Principal investigator: Jack Mandel. I served as a co-investigator. 1/99 to 8/99.
 18. Centers for Disease Control and Prevention (10/2002 to 9/2006). Title: Methods for Foodborne Disease Active Surveillance Network. Principal investigator on a project to develop improved methods for analyzing and reporting the results of CDC's FoodNet surveillance system for food-borne disease.
 19. Centers for Disease Control. Title: Supplemental Request for ASPH/CDC Project #S2800-22/23, Methods for Food-borne Disease Active Surveillance Network. Principal investigator. 6-2004 to 5-2005. (Supplemental request to fund Carrie Rigdon's PhD thesis work)

20. USDA NRI-CGP. (11/2004 to 8/2008) Title: Quantitative measurement of antimicrobial resistance gene loads in samples. R. Singer, PI. I served as a co-investigator.
21. National Institutes for Health, National Institute for Occupational Safety and Health. Occupational Injury Prevention Research Training Program. (2007-2020) Purpose: To provide academic and research training relevant to occupational injury epidemiology and control involving a major multidisciplinary collaborative effort (Program Director: Susan Goodwin Gerberich, Ph.D.; Co-Director: Bruce H. Alexander, Ph.D.; Multiple Faculty Members). I served as program faculty.
22. Gerberich S (PI). National Occupational Research Agenda (NORA). (Continuation). I served as program faculty.
23. USDA. Title: Food safety and food defense in the Americas. PI: Randall Singer.
24. Co-investigator on study of health outcomes in taconite workers in Northern Minnesota (PI: Jeff Mandel.)
25. American Petroleum Institute (API) Health Research Group (3/2016 to 3/2017). Title: Methodological challenges in answering causal questions in air pollution research. PI: G. Maldonado.
26. NIOSH . Title: Assessing the Impacts of Epidemiologic Biases in WTC Health Studies. PI: H. Kim. I served as co-investigator. 2017.
27. Elsevier. Title: Global Epidemiology. PI: G. Maldonado. 2019-2021; 2022-2024.

Internal

1. Minnesota Supercomputer Institute Resource Grants (6-90 to 12-90, 1-91 to 6-91, 7-91 to 12-91). Principal investigator on three computer-simulation studies. (Supercomputer Institute Resource Grants are competitive grants that are awarded for six month periods.)
2. University of Minnesota Graduate School Grant-in-Aid of Research, Artistry and Scholarship (12-90 to 12-92). Title: Model misspecification and selection: impact on epidemiologic inference. Principal investigator on several computer-simulation studies of epidemiologic methods.
3. School of Public Health Biomedical Research Support Grant (2-91 to 3-92). Title: The Performance of Strategies for Selecting Models When Analyzing Epidemiologic Data. Principal investigator on computer-simulation studies of the performance of data analysis techniques used in epidemiology.
4. University of Minnesota Graduate School Grant-in-Aid of Research, Artistry and Scholarship (7-91 to 12-92). Title: Development of Computer Simulation Tools for Studying the Performance of Modelling Methods used in Epidemiology. Principal investigator on project to develop tools for future epidemiologic methods research.
5. University of Minnesota Office of International Education Faculty Grant Program (7-92). Grant for international travel to present a paper at the Fourth Annual Meeting of the International Society for Environmental Epidemiology, Cuernavaca, Morelos, Mexico, August 28, 1992.

6. School of Public Health Biomedical Research Support Grant for Equipment (6-92). Principal investigator on grant for equipment to support studies of epidemiologic methods.
7. Minnesota Supercomputer Institute Resource Grant (1-92 to 6-92). Principal investigator on studies of the performance of data analysis techniques used in epidemiology. Title: The Performance of Strategies for Selecting Models When Analyzing Epidemiologic Data. (Supercomputer Institute Resource Grants are competitive grants that are awarded for six month periods.)
8. Minnesota Supercomputer Institute Resource Grant (7-92 to 12-92). Principal investigator on studies of the performance of data analysis techniques used in epidemiology. Title: The Performance of Strategies for Selecting Models When Analyzing Epidemiologic Data. (Supercomputer Institute Resource Grants are competitive grants that are awarded for six month periods.)
9. Minnesota Supercomputer Institute Resource Grant (1-93 to 6-93). Principal investigator on studies of the performance of data analysis techniques used in epidemiology. Title: The Performance of Strategies for Selecting Models When Analyzing Epidemiologic Data. (Supercomputer Institute Resource Grants are competitive grants that are awarded for six month periods.)
10. Division of Environmental and Occupational Health indirect cost recovery grant program (3-93). Principal investigator on a series of methodological studies of modelling methods used in epidemiology. Title: Methods for Modeling Epidemiologic Data.
11. Minnesota Supercomputer Institute Resource Grant (7-93 to 6-94). Principal investigator on studies of the performance of data analysis techniques used in epidemiology. Title: The Performance of Strategies for Selecting Models When Analyzing Epidemiologic Data. (Supercomputer Institute Resource Grants are competitive grants that are awarded for six month or one year periods.)
12. Division of Environmental and Occupational Health indirect cost recovery grant program (3-94). Principal investigator on a study of methods for assessing uncertainties in epidemiologic results. Title: Assessing Epidemiologic Uncertainties.
13. Minnesota Supercomputer Institute Resource Grant (7-94 to 6-95). Principal investigator on studies of the performance of data analysis techniques used in epidemiology. Title: The Performance of Strategies for Selecting Models When Analyzing Epidemiologic Data. (Supercomputer Institute Resource Grants are competitive grants that are awarded for six month or one year periods.)
14. Minnesota Supercomputer Institute Resource Grant (7-95 to 12-95). Principal investigator on studies of the performance of data analysis techniques used in epidemiology. Title: The Performance of Strategies for Selecting Models When Analyzing Epidemiologic Data. (Supercomputer Institute Resource Grants are competitive grants that are awarded for six month periods.)
15. Minnesota Supercomputer Institute Resource Grant (1-96 to 6-96). Principal investigator on studies of the performance of data analysis techniques used in epidemiology. Title: The Performance of Strategies for Selecting Models When Analyzing Epidemiologic Data. (Supercomputer Institute Resource Grants are competitive grants that are awarded for six month periods.)

16. Minnesota Supercomputer Institute Resource Grant (7-96 to 12-96). Principal investigator on studies of the performance of data analysis techniques used in epidemiology. Title: The Performance of Strategies for Selecting Models When Analyzing Epidemiologic Data. (Supercomputer Institute Resource Grants are competitive grants that are awarded for six month periods.)
 17. Children's Cancer Research Fund, University of Minnesota. Uncertainty Analysis for Maternal Vitamin Use around the Time of Pregnancy in a Study of Children with Down Syndrome and Leukemia. PI: AM Jurek. I served as co-investigator.
 18. University of Minnesota College of Veterinary Medicine Hatch Formula Funds. Title: Attributing diverse selection pressures to the emergence and spread of antibiotic resistance. PI: Randall Singer. Co-PI: George Maldonado.
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REVIEWING ACTIVITIES

Referee for American Journal of Epidemiology, Epidemiology, International Journal of Epidemiology, Journal of Occupational Medicine, American Chemical Society Press, Suicide and Life Threatening Behavior, American Journal of Industrial Medicine, Annals of Epidemiology, Epidemiologic Perspectives and Innovations, Journal of Epidemiology and Community Health, Journal of Clinical Epidemiology, International Journal of Environmental Research in Public Health, Social Psychiatry and Psychiatric Epidemiology

1993-97 Review of monograph, "Validity Concepts in Epidemiologic Research" by Sander Greenland.

1995-97 Reviewed portions of textbook "Modern Epidemiology," 2nd Edition, by KJ Rothman and S Greenland.

Reviewed abstracts in "Methods" category for the 1996, 1997, 1998, 1999, 2000, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013 Society for Epidemiologic Research annual meetings.

2008 Reviewed: Lash TL, Fox MP, Fink AK. Applying Quantitative Bias Analysis to Epidemiological Data.

COURSES TAUGHT

- PubH 6140: Occupational and Environmental Epidemiology: S 2021
- PubH 3106 (previously 3100; satisfies a core-course requirement for the undergraduate Public Health minor): Making Sense of Health Studies: S 2010, F 2010, S 2011, F 2011, S 2012, F 2012, S 2013, F 2013, S 2014, F 2014, S 2015, F 2015, S 2016, F 2016, S 2017, F 2017, S 2018, F 2018, S 2019, F 2019, S 2020, F 2020, S 2021, S 2022, F 2022
- PubH 8140: Validity Concepts in Epidemiologic Research: W 1993, W 1994, W 1995, W 1996, W 1997, W 1998, W 1999, F 1999, F 2000, F 2002, F 2003, F 2004, F 2005, F 2006, F 2007, F 2008, F 2009, F 2010, F 2011, F 2012, F 2013

- PubH 8142: Epidemiologic Uncertainty Analysis: S 2004, S 2005, S 2006, S 2008, S 2009, S 2011, S 2012, S 2014
- PubH 8141: Doctoral Seminar in Observational Inference: W 1996, S 1997, F 1997, W 1997, S 1998, F 1998, W 1998, S 1999, F 2000, S 2001, F 2001, S 2002, F 2002, S 2003, F 2006, F 2007, S 2008, S 2010, F 2012, S 2013, F 2021, S 2022
- Epidemiology IV: F 1995, F 1996, F 1997, F 1998
- Occupational Epidemiology: S 1991, S 1992, S 1993, S 1994, S 1995, S 1996, S 1997, S 1998, S 1999, S 2000
- Injury Epidemiology Research Seminar: FWS 1991-92, FWS 1992-93, FWS 1993-94, FWS 1994-95, FWS 1995-96, F 1996
- Ken Rothman's epidemiologic methods course, Boston University School of Public Health: Guest lecture May 8, 2002.
- Epidemiology I (guest lecture on causal inference): F 2003, F 2004, S 2005
- PubH 6806 Principles of Public Health Research (guest lecture on causal inference): F 2006, F 2007, F 2008, F 2009, F 2010
- PubH 6342 Epidemiologic Methods II (guest lecture on epidemiologic uncertainty analysis) S 2007, S 2008
- PubH 6130 Occupational Medicine: Principles and Practice: (guest lecture on causal inference) S 2010, S 2011, S 2012, S 2013, S 2014, S 2015, S 2016
- Adjusting epidemiologic study results for imperfections: validity and uncertainty analysis. Week-long course taught at the Salud Publica & Inocuidad de Alimentos, Primera Escuela Internacional de Verano, Universidad Austral de Chile, Valdivia, Chile (January 2007)

INTERNATIONAL SERVICE

- 2019 – present Editor-in-Chief, *Global Epidemiology*.
- 2004-3/2007 Executive Editor for the journal *Epidemiologic Perspectives & Innovations*
- 4/2007-6/2010 co-Editor-in-Chief for the journal *Epidemiologic Perspectives & Innovations*
- 6/2010-3/2012 Editor-in-Chief for the journal *Epidemiologic Perspectives & Innovations*

UNIVERSITY OF MINNESOTA SERVICE

- Member of the University of Minnesota Committee on the Use of Human Subjects in Research, Health Sciences Committee, 1991/1992, 1992/1993.
- Member of the Division of Environmental and Occupational Health Productivity Measures Committee, 1992-93.
- Member of search committee for tenure-track Assistant Professor, Division of Biostatistics, School of Public Health, 1993 (Lance Waller).
- Chair of search committee for Research Fellow, Division of Environmental and Occupational Health, 1993.
- Chair of search committee for Research Fellow and Research Associate, Division of Environmental and Occupational Health, 1993.
- Chair of search committee for nontenure-track Assistant Professor, Division of Environmental and Occupational Health, School of Public Health, 1994 (Rebecca Johnson).
- Member of search committee for tenure-track Assistant Professor, Division of Environmental and Occupational Health, School of Public Health, 1994 (Patricia McGovern).
- Chair of Division of Environmental and Occupational Health faculty meetings (1995).
- Chair of search committee for nontenure-track Assistant/Associate Professor, Division of Environmental and Occupational Health, School of Public Health, 1995 (Timothy Church).
- School of Public Health RAH committee: member (1997/1998)
- School of Public Health, Division of Epidemiology strategic planning committee for Epidemiology MPH major: member (1999/2000)
- Division of Environmental and Occupational Health admissions committee: member (1995/1996, 1996/1997, 1997/1998, 1998/1999, 1999/2000, 2018/2019)
- Division of Environmental and Occupational Health teaching committee: member (1992/1993, 1993/1994, 1994/1995, 1999/2000)
- Division of Environmental and Occupational Health computer committee: member (1995/1996, 1996/1997, 1997/1998, 1999/2000, 2001/2002)
- Advisor to U Wellness program (2004)
- Division of Epidemiology PhD written examination committee: member (2004/2005)
- Division of Epidemiology MPH curriculum committee: member (2005/2006)
- U of M Faculty Senate (Spring 2003, 2004/2005, 2005/2006, 2007/2008, 2008/2009, 2009/2010, 2013/2014)

- School of Public Health Appointment, Promotions and Tenure Committee: member (1998/1999, 1999/2000, 2000/2001, 2001/2002, 2004/2005, 2005/2006, 2006/2007)
- School of Public Health Faculty Consultative Committee: member (2003/2004, 2012/2013, 2013/2014)
- School of Public Health Faculty Consultative Committee: chair (2004/2005, 2006/2006, 2006/2007, 2007/2008, 2008/2009, 2014/2015)
- Academic Health Center Faculty Consultative Committee: member (2006/2007, 2010/2011)
- Academic Seed Grant review committee: member (2008)
- Member of U of M Senate Judicial Committee 2009-2012; 2012-2015
- Member of the subcommittee of the Senate Judicial Committee (SJC) to revise the SJC's procedures in light of post-tenure review and recent changes to the tenure code: 2012
- Member of the Undergraduate Public Health Minor advisory committee 2011-present
- In charge of Division of Environmental Health Sciences weekly seminar series 2013/2014.
- University of Minnesota Campus Curriculum committee 2014-2018
- Member of University of Minnesota, School of Public Health, subcommittee of the MPH curriculum revision committee to explore the possibility of creating greater harmony between teaching epidemiology and biostatistics: 2016
- University of Minnesota Grant-in-Aid Review Committee, reviewer, 2019
- Chair of search committee for Assistant Professor, Division of Environmental Health Sciences, University of Minnesota School of Public Health 2019 (Gillian Tarr)

AWARDS AND HONORS

- UCLA Alumni Scholarship
 - NIH NRSA Traineeship
 - California Commendation Ribbon with Pendant
 - UCLA and University of Minnesota Delta Omega Societies
 - Best Paper 2016, *Annals of Epidemiology* (Jurek AL, Maldonado G. Quantitative bias analysis in an asthma study of rescue-recovery workers and volunteers from the 9/11 World Trade Center attacks. *Annals of Epidemiology* 2016;26:794-801.)
 - Faculty Excellence Award, Division of Environmental Health Sciences, University of Minnesota School of Public Health, 2008-09
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April 2023