

CURRICULUM VITAE

Name: Beverly June Levine

Education:

1985 A.B. Princeton University, Princeton, New Jersey (Sociology/Psychology)
1987 A.M. University of Pennsylvania, Philadelphia, Pennsylvania (Demography)
1997 Ph.D. University of North Carolina, Chapel Hill, North Carolina (Epidemiology, minor in biostatistics)

Postdoctoral Positions:

1997-98 Research Fellow in Medicine, Harvard Medical School, Boston, MA
1998-2001 Instructor in Medicine, Harvard Medical School, Boston, MA
2001 Assistant Professor of Medicine, Harvard Medical School, Boston, MA
2001-2005 Assistant Professor of Epidemiology, University of North Carolina at Chapel Hill
2004-2005 Mellon Fellow, Duke University
2004-current Adjunct Assistant Professor of Social Medicine, University of North Carolina at Chapel Hill
2005-2008 Associate Professor, Public Health Education, University of North Carolina at Greensboro
2008-current Adjunct Associate Professor, Public Health Education, University of North Carolina at Greensboro
2010-current Research Associate, Wake Forest University Medical School
2010-current Independent consultant/contractor, Centers for Disease Control and Prevention, Atlanta GA

Other Professional Positions:

1990-92 Statistical Programmer, Stanford Center for Research in Disease Prevention, Stanford Medical School, Palo Alto, California
1994-96 Statistical Programmer, Carolina Breast Cancer Study, Lineberger Cancer Center, University of North Carolina, Chapel Hill, North Carolina

Awards and Honors:

1985 Phi Beta Kappa, Princeton University
1985 Undergraduate Senior Thesis Award, Department of Sociology, Princeton University
1986-87 William Penn Academic Fellowship, University of Pennsylvania
1992 Joseph E. Pogue Fellowship for Graduate Study, University of North Carolina
1996 Carolina Society of Fellows Dissertation Fellowship
1997 Society for Epidemiologic Research Abraham Lilienfeld Student Prize Award (national competition)

1998 University of North Carolina at Chapel Hill Bernard Greenberg Dissertation Award
(awarded annually to best dissertation in the School of Public Health)

Grant Information

1998-2000 NIH/NCI - Principal investigator
Predicting individual occurrence of breast cancer

1999-2001 NIH/NCI - Co-investigator
Risk factors for breast cancer among younger nurses

2000-2001 NIH/NCI - Co-investigator
Prospective study of diet and cancer in women

2002-2003 American Cancer Society – Principal investigator
Modeling the health risks and benefits of hormone replacement therapy and tamoxifen

2002-2004 NIH/NICHD-Junior faculty trainee, UNC BIRCWH Career Development Program

2006-2009 NIH/NIAMS Biostatistician
Sex hormone-mediated knee laxity and knee stability

2012-current NIH/NCI-Statistical programmer, research associate
Cancer survivorship postdoctoral training grant

2013-2015 NIH/NHLBI-Statistical programmer, research associate
Women's Health Initiative Extension, Southeast Regional Center

Report of Teaching

1. Local Contributions
 - a. Harvard School of Public Health

1998, 1999, 2000, 2001 Principles of Screening (30-35 students)
 - b. UNC-Chapel Hill School of Public Health

2002, 2003, 2004, 2005 Fundamentals of Epidemiology (55-65 students)
2002, 2003, 2004 History and Philosophy of Epidemiology (25-30 students)
2004 Methodologic properties of screening and diagnostic tests (15-20 students)
2005-2010 Invited guest lectures, Advanced Epidemiologic Methods
2005-2015 Invited guest lectures, Doctoral Seminar in Epidemiology
 - c. UNC-Greensboro Department of Public Health Education

2006, 2007 Public health statistics (30-40 students)
2006, 2007, 2008 Foundations of research methods in public health (philosophy of science/statistics seminar) (4-6 students)
students)
2007, 2008 Quantitative research methods in public health (4-8 students)
 - d. UNC-Chapel Hill School of Medicine

2008 Medicine and Society –required of all first-year medical school students (16 students in section)

- e. Wake Forest University School of Medicine
2011-2015 Epidemiology (CPTS 720) invited guest lecturer on cancer screening

2. Regional and National Contributions

Invited Presentations

- 1997 Population attributable fraction for established breast cancer risk factors
Abraham Lilienfeld Student Paper Prize presentation
Society for Epidemiologic Research Annual Meeting
Edmonton, Canada
- 1998 Population attributable risk vs. individual risk: the case of breast cancer (invited seminar)
National Cancer Institute
Rockville, MD
- 1998-2001 Reporting health risk information to the public (invited lecture)
Harvard summer session for science and health journalists
Kaiser Family Foundation and Harvard School of Public Health
Boston, MA
- 1999 Understanding cancer risk (invited presentation)
Cancer Control in the New Millennium conference
Massachusetts Department of Public Health and Dana Farber Cancer Institute
Boston, MA
- 1999 The problem with individual risk (invited plenary talk)
Breast Cancer Risk Communication Workshop (American Cancer Society)
Hilton Head, SC
- 1999-2001 Understanding and communicating the results of medical studies
National Press Foundation
Washington, DC
- 2000 Putting risk in perspective
Cancer Control 2000 conference
Massachusetts Department of Public Health and Dana Farber Cancer Institute
Boston, MA
- 2002 Breast cancer risk prediction: What is it worth? (invited plenary talk)
Department of Defense 10-year Anniversary Era of Hope Meeting
Orlando, FL
- 2002-2013 Understanding medical research (annual invited lecture)
Kaiser Family Foundation internship program for science and health journalists
Washington DC
- 2004 The problem with individual risk (invited plenary talk)
Cancer Risk Prediction Models: Workshop on Development, Evaluation, and Application
National Cancer Institute
Washington, DC
- 2004 The numbers are the easy part: questions of interpretation and usefulness of population attributable fractions (invited presentation)
Estimating the Contribution of Lifestyle-Related Factors to Preventable Deaths: a Workshop sponsored by the Institutes of Medicine, the Centers for Disease Control and Prevention, and the National Academy of Sciences
Washington, DC
- 2005 Individual risk (Invited epidemiology/biostatistics seminar presentation)

- National Cancer Institute
Rockville, MD
- 2006 When is a population attributable fraction meaningful? Some essential causal considerations (invited opening talk)
Centers for Disease Control and Prevention/Institute of Medicine conference on Estimating the Health Burden of Obesity
Centers for Disease Control and Prevention
Atlanta, GA
- 2007 Challenges in using risk factors to target high-risk individuals (invited presentation)
Centers for Disease Control and Prevention
Atlanta, GA
- 2008-2015 Exploring the concept of risk (two-day invited short course)
Centers for Disease Control and Prevention, CDC University
Atlanta, GA
- 2009 The limits of individualized prevention (invited speaker)
National Academy of Sciences, Institute of Medicine Committee on Women's Health
Washington, DC
- 2009 Limits to statistical and mathematical modeling for public health and health policy (Two-day meeting for 200 medical and public health scientists—was invited speaker and invited co-chair)
Centers for Disease Control and Prevention
Atlanta, GA
- 2011-2014 Fundamentals of Probability and Statistics (three-day invited short course)
Centers for Disease Control and Prevention, CDC University
Atlanta, GA
- 2015 Linear regression modeling with PROC REG (two-day invited short course)
Centers for Disease Control and Prevention, CDC University
Atlanta, GA
- 2015 More than one right answer? Questioning the benefits of cancer screening
Surgery Grand Rounds, Wake Forest University School of Medicine

Bibliography

Original Articles

1. Frank E, Altman D, Winkleby MA, Rockhill B, Fortmann SP. Predictors of physicians' smoking cessation advice. *JAMA* 1991;266:3139-44.
2. Frank E, Winkleby MA, Fortmann SP, Rockhill B, Farquhar J. Improved cholesterol-related knowledge, behavior and plasma cholesterol levels in adults during the 1980s. *JAMA* 1992;268:1566-72.
3. Winkleby MA, Rockhill B, Fortmann SP, Jatulis D. The medical origins of homelessness: risk factors preceding initial loss of shelter in 1437 homeless adults. *Am J Public Health* 1992;82:1394-8.
4. Winkleby MA, Rockhill B. Comparability of Hispanic self-identification and Spanish surname coding. *Hispanic Journal of Behavioral Sciences* 1992;14:487-95

5. Winkleby MA, Fortmann SP, Rockhill B. Changes in cardiovascular risk factors by educational level: the Stanford Five-City Project. *Prev Med* 1992;21:592-601.
6. Winkleby MA, Fortmann SP, Rockhill B. Health-related risk factors in a sample of hispanics and whites matched on sociodemographic characteristics. *Am J Epidemiol* 1993;137:1365-75.
7. Winkleby M, Fortmann SP, Rockhill B. Cigarette smoking trends in adolescents and young adults: the Stanford Five-City Project. *Prev Med* 1993;22:325-34.
8. Frank E, Winkleby MA, Fortmann SP, Rockhill B, Farquhar J. Improved cholesterol-related knowledge, behavior and plasma cholesterol levels in 12-24 year olds during the 1980's. *Am J Prev Med* 1993;9:168-74.
9. Taylor CB, Jatulis DE, Winkleby MA, Rockhill B, Kraemer HC. Effects of lifestyle on body mass index change. *Epidemiology* 1994;5:599-603.
10. Hertz-Picciotto I, Rockhill B. Validity and efficiency of approximation methods for tied survival times in Cox regression. *Biometrics* 1997;53:1151-1156.
11. Rockhill B, Weinberg CR, Newman B. Use and misuse of population attributable fraction. *Am J Public Health* 1997;88:15-19.
12. Rockhill B, Weinberg CR, Newman B. Population attributable fraction estimation for established breast cancer risk factors: considering the issues of high prevalence and unmodifiability. *Am J Epidemiol* 1998;147:826-833.
13. Millikan RC, Pittman G, Newman B, Tse CK, Rockhill B, Savitz D, Moorman PG, Bell D. Cigarette smoking, N-acetyl transferase 1 (NAT1) and 2 (NAT2) and breast cancer risk. *Cancer Epidemiol Biomarkers Prev* 1998;7:371-379.
14. Rockhill B, Moorman PG, Newman B. Age at menarche, time to regular cycling, and breast cancer. *Cancer Causes Control* 1998;9:447-453.
15. Rockhill B, Willett WC, Hunter DJ, Manson JE, Hankinson SE, Spiegelman D, Colditz GA. Physical activity and breast cancer risk in a cohort of young women. *J Natl Cancer Inst* 1998;90:1155-1160.
16. Rockhill B, Willett WC, Hunter DJ, Manson JE, Hankinson SE, Colditz GA. A prospective study of recreational physical activity and breast cancer risk. *Arch Intern Med* 1999; 159: 2290-2296.
17. Rockhill B, Colditz GA, Rosner B. Bias in breast cancer analyses due to error in age at menopause. *Am J Epidemiol* 2000; 151: 404-408.
18. Rockhill B, Kawachi I, Colditz GA. Individual risk prediction and population-wide disease prevention. *Epidemiol Rev* 2000; 22: 176-180.
19. Rockhill B. The privatization of risk. *Am J Public Health* 2001; 91: 365-368.

20. Rockhill B, Spiegelman D, Byrne C, Hunter DJ, Colditz GA. Validation of the Gail et al. model of breast cancer risk: Implications for primary prevention. *J Natl Cancer Inst* 2001; 93: 358-366.
21. Rockhill B, Willett WC, Manson JE, Leitzmann MF, Stampfer MJ, Hunter DJ, Colditz GA. Physical activity and mortality: a sixteen-year prospective analysis among women. *Am J Public Health* 2001; 91: 578-583.
22. Manson J, Rockhill B, Resnick M, Shore E, Nadelson C, Horner M, Tarbell N, Carr P. Gender differences in career progress and satisfaction in an academic medical center. *Clin J Wom Health* 2002; 2: 95-104.
23. Rockhill B, Byrne C, Rosner B, Louie MM, Colditz GA. Breast cancer risk prediction with a log-incidence model: Evaluation of accuracy. *J Clin Epidemiol* 2003; 56: 856-861.
24. Kim DJ, Rockhill B, Colditz GA. Validation of the Harvard Cancer Risk Index: a prediction tool for individual cancer risk. *J Clin Epidemiol* 2004; 57: 332-40.
25. Rockhill B. Theorizing about causes at the individual level while modeling effects at the population level: implications for prevention. *Epidemiology* 2005; 16: 124-129.
26. Levine DW, Dailey MM, Rockhill B, Tipping D, Naughton MJ, Shumaker SA. Validation of the Women's Health Initiative Rating Scale in a multicenter controlled clinical trial. *Psychosomatic Med* 2005; 67: 98-104.
27. Levine DW, Rockhill B. I remember you: independence and the binomial model. *Teaching Statistics* 2006; 28: 44-48.
28. Levine B. What does the population attributable fraction mean? *Preventing Chronic Disease* 2007; available from http://www.cdc.gov/pcd/issues/2007/jan/06_0091.htm.
29. Levine B. Toward a broader notion of community. *Pers Biol Med* 2007; 50: 124-135.
30. Levine B, Levine DW. How accurately could we screen for individual risk? Using summary data to examine discriminatory accuracy of a risk marker. *Prev Med* 2007; 45: 342-347.
31. Levine B. Estimating attributable fractions for the obesity-mortality associations: addressing the other causality question. *International J Obesity* 2008; 32 Suppl 3: S4-7.
32. Shultz SJ, Nguyen AD, Levine BJ. The relationship between lower extremity alignment characteristics and anterior knee joint laxity. *Sports and Health* 2009; 1: 54-60.
33. Newcomer Appaneal R, Levine BJ, Perna FM, Roh JL. Measuring post-injury depression among male and female competitive athletes. *J Sport Exer Psych* 2009; 31: 60-76.
34. Maruti SS, Willett WC, Feskanich D, Levine B, Rosner B, Colditz GA. Physical activity and premenopausal breast cancer: an examination of recall and selection bias. *Cancer Causes Control* 2009; 20:549-558.
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36. Nguyen A-D, Boling MC, Levine B, Shultz SJ. Relationships between lower extremity alignment and the quadriceps angle. *Clin J Sports Med* 2009; 18: 1507-1514.
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38. Shultz SJ, Levine B, Nguyen A-D, Kim H, Montgomery M, Perrin D. A comparison of cyclic variations in anterior knee laxity, genu recurvatum, and general joint laxity across the menstrual cycle. *J Orthopedic Res* 2010; 28: 1411-1417.
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40. Avis NE, Levine B, Naughton MJ, Case LD, Naftalis E, Van Zee KJ). Age-related longitudinal changes in depressive symptoms following breast cancer diagnosis and treatment. *Breast Cancer Res Treat.* 2013 139:199-206.
41. Sohl SJ, Levine B, Case LD, Danhauer SC, Avis NE. Trajectories of illness intrusiveness domains following a diagnosis of breast cancer. *Health Psychol.* 2014; 33(3): 232-41.
42. Sohl SJ, Levine B, Avis NE. Evaluation of the Quality of Life in Adult Cancer Survivors (QLACS) scale for early post-treatment breast cancer survivors. *Qual Life Res.* 2015; 24(1): 205-12.
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Reviews, Letters, Chapters, and Editorials

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2. Tomeo CA, Colditz GA, Willett WC, Giovannucci E, Platz E, Rockhill B, Dart H, Hunter DJ. Harvard Report on Cancer Prevention, Volume 3: Prevention of colon cancer in the United States. 1999; 10: 167-180.
3. Rockhill B, Giovannucci EL. Editorial for article by Soliman et al. Cancer mortality rates in Menofeia, Egypt: comparison with US mortality rates. *Cancer Causes Control* 1999;10: 345-347.
4. Dart H, Austin B, Blum R, Rockhill B, Colditz G, editors. *The Breast Cancer Compendium*, a publication prepared for The Susan G. Komen Breast Cancer Foundation, 1999.
5. Willett WC, Rockhill B, Hankinson SE, Hunter D, Colditz GA. Non-genetic factors in the causation of breast cancer. In: Harris JR, Lippman ME, Morrow M, Osborne CK, editors. *Diseases of the Breast*, 2nd

Edition. Philadelphia: Lippincott Williams & Wilkins, 2000.

6. Rockhill B, Colditz GA, Kaye J. Re: Risks and benefits of chemoprevention with tamoxifen [letter]. *J Natl Cancer Inst* 2000; 92: 657.
7. Rockhill B. Population attributable proportion in familial occurrence of preeclampsia [letter]. *Epidemiology* 2000; 11: 482.
8. Rockhill B, Colditz GA. Behavior and risk of chronic disease. Report prepared by invitation of Institute of Medicine for inclusion in their monograph *Health and Behavior: Research, Practice, and Policy*. National Academy of Sciences, 2000.
9. Rockhill B, Colditz GA. Smoking as a cause of cancer. In: *Cancer Prevention: The Causes and Prevention of Cancer, Volume I*. Edited by Graham A. Colditz and David Hunter. Boston: Kluwer Academic Publishers, 2000, pp. 3-16.
10. Rockhill B, Colditz GA. Physical activity and cancer prevention. In: *Cancer Prevention: The Causes and Prevention of Cancer, Volume I*. Edited by Graham A. Colditz and David Hunter. Boston: Kluwer Academic Publishers, 2000, pp. 219-234.
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12. Colditz GA, Samplin-Salgado M, Ryan CT, Dart H, Fisher L, Tokuda A, Rockhill B. Harvard Report on Cancer Prevention, Volume 5: Fulfilling the potential for cancer prevention: policy approaches. *Cancer Causes Control* 2002; 13: 199-212.
13. Rockhill B. Re: Proteomic patterns in serum and identification of ovarian cancer (letter). *Lancet* 2002; 360: 169.
14. Hall SA, Rockhill B. Race, poverty, affluence and breast cancer (letter). *Am J Pub Health* 2002; 92: 1559.
15. Colditz GA, Ryan CT, Dart CH III, Datta G, Fisher L, Rockhill B. Quantifying the contribution of risk factors to cancer incidence and the estimated reduction in cancer burden through selected risk factor modifications. In Curry SJ, Byers T, Hewitt M, editors. *Fulfilling the Potential of Cancer Prevention and Early Detection* Washington, DC: The National Academies Press, 2003.
16. Rockhill B. Smoking and breast cancer. In *The Health Consequences of Tobacco Use: A Report of the Surgeon General*. Rockville, MD: US Department of Health and Human Services, Public Health Service, Office of the Surgeon General, 2004.
17. Rockhill B. Prevalence of major cardiovascular disease risk factors (letter). *JAMA* 2004; 291: 299.
18. Rockhill B. Importance of disclosure of patent application (letter). *Lancet* 2004; 364: 577-8.
19. Willett WC, Rockhill B, Hankinson SE, Hunter D, Colditz GA. Non-genetic factors in the causation of breast cancer. In: Harris JR, Lippman ME, Morrow M, Osborne CK, editors. *Diseases of the Breast*, 3rd Edition. Philadelphia: Lippincott Williams & Wilkins, 2004.

20. Rockhill B. The message is rarely simple: the J-curve and beyond (invited commentary). *Int J Epidemiol* 2004; Advance Access DOI 10.1093/ije/dyh273.
21. Rockhill B. Letter re: Gail and Pfeiffer, "On criteria for evaluating models of absolute risk." *Biostatistics* 2005 6: 500-502.
22. Rockhill B, Weed DL. Improving epidemiology's contribution to cancer prevention. In Schottenfeld D, Fraumeni JF Jr., *Cancer Epidemiology and Prevention*, Third Edition. New York: Oxford University Press, 2006.
23. Levine B. Re: Projecting individualized absolute invasive breast cancer risk in African-American women (letter.) *Journal of the National Cancer Institute* 2008; 100: 683-684.
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26. Levine B. A question too complex for statistical modeling (letter.) *Am J Public Health* 2011; 101:773.
27. Levine B, Steinberg KK. Letter re: Proposed shift in screening for breast cancer. *JAMA* 2015; 313(5):525.

Journals reviewed for:

American Journal of Epidemiology
 American Journal of Preventive Medicine
 Cancer Causes and Control
 Environmental Health Insights
 Epidemiology
 International Journal of Obesity
 JAMA
 Journal of Clinical Epidemiology
 Journal of the National Cancer Institute
 International Journal of Obesity
 Preventing Chronic Disease
 Preventive Medicine
 Statistics in Medicine