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Education:

Dec 1983: B.S. Economics, Carnegie Mellon University
May 1985: M.S. Statistics, Carnegie Mellon University
Sept 1988: Ph.D. Statistics, Carnegie Mellon University

Experience:

Oct 1988 – July 1989: Mathematical Statistician, Office of Prices and Living Conditions, Bureau of Labor Statistics, Washington, DC.
Sept 1989 - Dec 1990: Postdoctoral fellow, Harvard School of Public Health, Department of Biostatistics
Jan 1991 – Dec 1992: Associate Research Scientist, New England Research Institutes
Jan 1993 – July 1996: Research Scientist, New England Research Institutes
Aug 1996 - June 2001: Senior Research Scientist, New England Research Institutes
July 2001 – Dec 2004: Research Associate Professor, Division of Preventive and Behavioral Medicine, Department of Medicine, University of Massachusetts Medical School
July 2004 – present: Assistant Professor, Graduate School of Nursing, University of Massachusetts Medical School
Jan 2005 – present: Associate Professor, Division of Preventive and Behavioral Medicine, Department of Medicine, University of Massachusetts Medical School
July 2005 – present: Adjunct Associate Professor, Clinical & Population Health Research Program, Graduate School of Biomedical Sciences, University of Massachusetts Medical School

Teaching:

- Advanced Statistical Analysis of Data, Graduate School of Nursing, University of Massachusetts Medical School, Summer 2004-present
- Epidemiology and Biostatistics: Skills for Critical Reading of the Medical Literature, Physician, Patient, and Society Course, University of Massachusetts Medical School, Fall 2002-present (small group leader)
- Co-supervisor of student's independent study, Graduate School of Nursing, University of Massachusetts Medical School, Fall 2004
- Member of doctoral dissertation committee for students in the Graduate School of Nursing, University of Massachusetts Medical School and College of Nursing & Health Sciences, University of Massachusetts Boston, Fall 2003-present.
- Faculty development: co-instructor of workshops on grant writing in clinical research, University of Massachusetts Medical School, 2002-present. Also mentor two assistant professors at University of Massachusetts Medical School, 2004-present.

Professional Service:

- Member of Committee on Law and Justice Statistics, American Statistical Association, 1990-1995.
- Member of Advisory Board, Dept. of Statistics, Carnegie Mellon University, 1992-1995.
- Journal reviewer: *Journal of the American Statistical Association*, 1993-5; *American Journal of Epidemiology*, 1998, 2001; *American Journal of Public Health*, 1994-7; *Journal of Health and Social Behavior*, 1996; *Menopause*, 1996, 2001, 2006; *Annals of Epidemiology*, 1998; *Journal of Statistical Computation and Simulation*, 2000; *Journal of Clinical Endocrinology and Metabolism*, 2003-4; *American Journal of Public Health*, 2004; *Circulation*, 2004-6; *Journal of Clinical Epidemiology*, 2004; *Journal of Women's Health*, 2004-5; *Maturitas*, 2004; *Statistics in Medicine*, 2004; *Environmental Science & Technology*, 2005; *Social Science and Medicine*, 2006; *Women & Health*, 2006.
- Ad hoc reviewer of grant applications: National Heart, Lung, and Blood Institute, 1993-1999; National Institute of Dental and Craniofacial Research, 2000-2001.
- Abstract reviewer for Congress of Epidemiology, 2001.
- Abstract reviewer for North American Menopause Society's annual scientific meetings, 2005-2006.
- Member of Data and Safety Monitoring Board, Acupuncture Treatment and Menopausal Hot Flashes study, Wake Forest University Medical School, 2004-2005.
- Chair of Safety Monitoring Board for observational studies (program project) of falls, pain, function, fracture, foot disorders in 800 elderly participants, Hebrew Rehabilitation Center for Aged (HRCA) / Harvard Research Nursing Home (RNH) Project, Boston, 2005-2006.

Honors:

- Andrew Carnegie scholarship, 1980-1981
- Richard King Mellon National Merit 4-year scholarship, 1980-1983
- National Science Foundation graduate fellowship, 1984-1987
- Frank Wilcoxon prize (best applications paper in *Technometrics*), 1992
- Young Investigator Award, North American Menopause Society, 1996
- Presenter in Research Advances session, Fourth Annual Congress on Women's Health, 1996

Professional Memberships:

- American Statistical Association
- International Biometric Society
- North American Menopause Society

Journal Publications:

Crawford SL, DeGroot MH, Kadane JB, Small MJ. Modeling lake chemistry distributions: approximate Bayesian methods for estimating a finite-mixture model. *Technometrics* 1992;34:441-453.

McGraw SA, McKinlay JB, Crawford SL, Costa LA, Cohen DL. Health survey methods with minority populations: some lessons from recent experience. *Ethnicity and Disease* 1992;2 (Summer):273-287.

Crawford SL, Johnson WG, Laird NM. Bayes analysis of model-based methods for nonignorable nonresponse: Harvard Medical Practice Survey. In *Case Studies in Bayesian Statistics*, eds. C. Gatsonis, J. Hodges, R.E. Kass, and N. Singpurwalla, New York: Springer-Verlag, 1993.

Smith KW, McGraw SA, Crawford SL, Costa LA, McKinlay JB. Estimates of human immunodeficiency virus infection risk among Latino adolescents in two New England cities. *American Journal of Public Health* 1993;83:1395-1399.

Tennstedt SL, Crawford SL, McKinlay JB. Kinship tie versus coresidence: predictors of patterns of care. *Journals of Gerontology: Social Sciences* 1993;48:S74-S83.

Tennstedt SL, Crawford SL, McKinlay JB. Is family care on the decline? a longitudinal investigation of the substitution of formal long-term care services for informal care. *The Milbank Quarterly* 1993;71:601-624.

Crawford SL. An application of the Laplace method to finite mixture distributions. *Journal of the American Statistical Association* 1994;89:259-267.

Crawford SL, McGraw SA, Smith KW, McKinlay JB, Pierson JE. Do blacks and whites differ in their use of health care for symptoms of coronary heart disease? *American Journal of Public Health* 1994;84:957-964.

Davidson H, Feldman PH, Crawford S. Measuring depressive symptoms in the elderly. *Journal of Gerontology: Psychological Sciences* 1994;49:P159-P164.

Johannes CB, Crawford SL, Posner JG, McKinlay SM. Longitudinal patterns and correlates of hormone replacement therapy use in middle-aged women. *American Journal of Epidemiology* 1994;140:439-452.

McKinlay JB, Crawford S, McKinlay SM, Sellers DE. On the reported gender difference in coronary heart disease: an illustration of the social construction of epidemiologic rates. In *Women, Behavior, and Cardiovascular Disease*, eds. N.S. Czajkowski, D. Robin-Hill, and T.P. Clarkson, US DHHS, Public Health Service, Washington, D.C., NIH Pub. No. 94-3309, 1994, pp. 223-252.

Skinner KM, Tennstedt SL, Crawford SL. Do characteristics of informal caregivers affect the length of hospital stay for frail elders? *Journal of Aging and Health* 1994;6:255-269.

Smith KW, McGraw SA, Crawford SL, McKinlay JB. Do blacks and whites differ in reporting Rose questionnaire angina? results of the Boston Health Care Project. *Ethnicity and Disease* 1994;3:278-289.

Crawford SL, Tennstedt SL, McKinlay JB. A comparison of analytic methods for non-random missingness of outcome data. *Journal of Clinical Epidemiology* 1995;48:209-219.

Crawford SL, Tennstedt SL, McKinlay JB. Longitudinal care patterns for disabled elders: a Bayesian analysis of missing data. In *Case Studies in Bayesian Statistics, Vol. 2*, eds. C. Gatsonis, J. Hodges, R.E. Kass, New York: Springer-Verlag, 1995, pp. 293-308.

Jette AM, Tennstedt S, Crawford S. How does formal and informal community care affect nursing home use? *Journal of Gerontology: Social Sciences* 1995;50:S4-S12.

McKinlay JB, Crawford SL, Tennstedt. The everyday social and physical impacts of providing informal care to dependent elders. *Journal of Aging and Health* 1995;7(4):497-528.

Brambilla DJ, McKinlay SM, McKinlay JB, Weiss SR, Johannes CB, Crawford SL, Longcope C. Does collecting repeated blood samples from each subject improve the precision of estimated steroid hormone levels? *Journal of Clinical Epidemiology* 1996;49;3:345-350.

Jette AM, Crawford SL, Tennstedt SL. Toward understanding ethnic differences in late life disability. *Research on Aging* 1996;18:292-309.

Johannes CB, Crawford SL, Longcope C, McKinlay SM. Bleeding patterns and changes in the perimenopause: a longitudinal characterization of menstrual cycles. *Clinical Consultations in Obstetrics and Gynecology* 1996;8:9-20.

Longcope C, Crawford S, McKinlay S. Endogenous estrogens: relationships between estrone, estradiol, non-protein bound estradiol and hot flashes and lipids. *Menopause* 1996;3:77-84.

Tennstedt S, Harrow BS, Crawford S. Informal care vs. formal services: changes in patterns of care over time. *Journal of Aging and Social Policy* 1996;7:71-91.

Avis NE, Crawford SL, McKinlay SM. Psychosocial, behavioral, and health factors related to menopause symptomatology. *Women's Health: Research on Gender, Behavior, and Policy* 1997;3(2):103-120.

Crawford SL, Jette AM, Tennstedt SL. Test-retest reliability of self-reported disability measures in elders. *Journal of the American Geriatrics Society* 1997;45:338-341.

Davidson H, Folcarelli PH, Crawford S, Duprat LJ. The effects of health care reforms on job satisfaction and voluntary turnover among hospital-based nurses. *Medical Care* 1997;35:634-45.

Johannes CB, Crawford SL, McKinlay JB. Interviewer effects in a cohort study: results from the Massachusetts Women's Health Study. *American Journal of Epidemiology* 1997;146:429-38.

Sellers DE, Crawford SL, Bullock K, McKinlay JB. Understanding the variability in the effectiveness of community heart health programs: a meta-analysis. *Social Science and Medicine* 1997;44:1325-1339.

Jette AM, Assmann SA, Rooks D, Harris BA, Crawford S. Interrelationships among disablement concepts. *The Journals of Gerontology: Medical Sciences* 1998;53A:M395-M404.

Stellato R, Crawford S, McKinlay S, Longcope C. Can follicular stimulating hormone be used to define menopause? *Endocrine Practice* 1998;4:137-141.

Crawford SL, Johannes CB. The epidemiology of cardiovascular disease in postmenopausal women. *Journal of Clinical Endocrinology and Metabolism* 1999;84:1803-1806.

Johannes CB, Crawford SL. Menstrual bleeding, hormones and the menopausal transition. *Seminars in Reproductive Medicine* 1999;17(4):299-309.

Avis NE, Stellato R, Crawford S, Johannes C, Longcope C. Is there an association between menopause status and sexual functioning? *Menopause* 2000;7(5):297-309.

Crawford SL, Casey VA, Avis NE, McKinlay SM. A longitudinal study of weight and the menopause transition: results from the Massachusetts Women's Health Study. *Menopause* 2000;7(2):96-104.

Harlow SD, Crawford SL, Greendale GA, Sommer B. Self-defined menopausal status in a multi-ethnic sample of midlife women. *Maturitas* 2000;36:93-112.

Johannes CB, Crawford SL, Woods J, Goldstein RB, Tran D, Mehrotra S, Johnson KB, Santoro N. An electronic menstrual cycle calendar: comparison of data quality with a paper version. *Menopause* 2000;7(3):200-208.

Avis NE, Crawford S. SWAN: what it is and what we hope to learn. *Menopause Management* 2001;10:8-15.

Avis NE, Crawford S, Stellato R, Longcope C. A longitudinal study of hormone levels and depression among women transitioning through menopause. *Climacteric* 2001;4(3):243-9.

Avis NE, Stellato R, Crawford S, Bromberger J, Ganz P, Kagawa-Singer M, Cain V. Is there a menopausal syndrome? Menopause status and symptoms across ethnic groups. *Social Science and Medicine* 2001;52:345-356.

Gold EB, Bromberger J, Crawford S, Samuels S, Greendale GA, Harlow SD, Skurnick J, Neer R, Sherman S. Factors associated with age at natural menopause in a multi-ethnic sample of midlife women. *American Journal of Epidemiology* 2001;153(9):865-74.

Matthews KA, Abrams B, Crawford S, Miles T, Neer R, Powell LH, Wesley D. Body weight in mid-life women: relative influence of menopause, hormone use, and ethnicity. *International Journal of Obesity and Related Metabolic Disorders* 2001;25(6):863-73.

Crawford SL, Johannes CB, Stellato RK. Assessment of digit preference in self-reported year at menopause: choice of an appropriate reference distribution. *American Journal of Epidemiology* 2002;156(7):676-83.

Frayne SM, Crawford SL, McGraw SA, Smith KW, McKinlay JB. Help-seeking behaviors of blacks and whites dying from coronary heart disease. *Ethnicity and Disease* 2002;7(2):77-86.

Gemmel A, Tavares M, Alperin S, Soncini J, Daniel D, Dunn J, Crawford S, Braveman N, Clarkson TW, McKinlay S, Bellinger DC. Blood lead level and dental caries in school-age children. *Environmental Health Perspectives* 2002;110(10):A625-30.

Lasley BL, Santoro N, Gold EB, Sowers MF, Crawford S, Weiss G, McConnell DM, Randolph JF. The relationship of circulating dehydroepiandrosterone, testosterone and estradiol to stages of the menopausal transition and ethnicity. *Journal of Clinical Endocrinology and Metabolism* 2002;87(8):3760-7.

Bullock K, Crawford SL, Tennstedt SL. Caregiving and employment: an exploration of African-American caregivers. *Social Work* 2003;48(2):147-162.

Davidson SM, Davidson H, Miracle-McMahill H, Oakes JM, Crawford S, Blumenthal D, Valentine DP. Utilization of services by chronically ill people in managed care and indemnity plans: implications for quality. *Inquiry* 2003;40(1):57-70.

Santoro N, Crawford SL, Allsworth JE, Gold EB, Greendale GA, Korenman S, Lasley BL, McConnell D, McGaffigan P, Midgely R, Schocken M, Sowers M, Weiss G. Assessing menstrual cycles using urinary hormone assays. *American Journal of Physiology – Endocrinology and Metabolism* 2003;284(3):E521-30.

Sowers MF, Crawford S, Cauley J, Stein E. Lp(a), insulin and androgenism in pre- and perimenopausal women from five race/ethnic groups: the SWAN Study. *American Journal of Cardiology* 2003;92:533-7.

Stafford RS, Davidson S, Davidson H, Miracle-McMahill H, Crawford S, Blumenthal D. Chronic disease medication use in managed care and indemnity insurance plans. *Health Services Research Journal* 2003;38(2):595-612.

Avis NE, Crawford S, Manuel J. Psychosocial problems among younger women with breast cancer. *Psycho-Oncology* 2004;13:295-308.

Gold EB, Block G, Crawford S, LaChance L, FitzGerald G, Miracle-McMahill H, Sherman S. Diet and smoking in relation to physical menopausal symptoms: baseline results from the Study of Women's Health Across the Nation. *American Journal of Epidemiology* 2004;159:1189-99.

Santoro N, Lasley B, McConnell D, Allsworth J, Crawford S, Gold EB, Finkelstein JS, Greendale GA, Kelsey J, Korenman S, Luborsky JL, Matthews K, Midgley R, Powell L, Sabatine J, Schocken M, Sowers MF, Weiss G. Body size and ethnicity are associated with menstrual cycle alterations in women in the early menopausal transition: The Study of Women's Health Across the Nation (SWAN) Daily Hormone Study. *Journal of Clinical Endocrinology and Metabolism* 2004;89(6):2622-31.

Avis NE, Crawford S, Manuel J. Quality of life among younger women with breast cancer. *Journal of Clinical Oncology* 2005;23:3322-3330.

Matthews K, Sowers MF, Derby C, Stein E, Miracle-McMahill H, Crawford S. Ethnic differences in cardiovascular risk factor burden among middle-aged women: Study of Women's Health Across the Nation. *American Heart Journal* 2005;149(6):1066-73.

Santoro N, Torrens J, Crawford S, Allsworth JE, Finkelstein JS, Gold EB, Korenman S, Lasley BL, Luborsky JM, Sowers MF, Weiss G. Correlates of androgen production in mid-life women: the Study of Women's Health Across the Nation (SWAN). *Journal of Clinical Endocrinology and Metabolism* 2005;90(8):4836-45.

Carmody J, Crawford S, Churchill L. A pilot study of the feasibility of mindfulness-based stress reduction for hot flashes. *Menopause* 2006;13(5):760-9.

Crandall CJ, Crawford SL, Gold EB. Vasomotor symptom prevalence is determined by polymorphisms in sex steroid-metabolizing enzymes and receptors. *American Journal of Medicine* 2006;119(9 Suppl 1):S52-S60.

Crawford SL. Correlation and regression (invited manuscript). *Circulation* 2006;114:2083-2088.

Crawford SL. The roles of biologic and non-biologic factors in cultural differences in vasomotor reporting measured by surveys (invited manuscript). *Menopause*, in press.

Harlow SD, Cain K, Crawford S, Dennerstein L, Little R, Mitchell ES, Nan B, Randolph J, Taffe J, Yosef M. Evaluation of four proposed bleeding criteria for the onset of late menopausal transition. *Journal of Clinical Endocrinology and Metabolism* 2006;91(9):3432-8.

Howland LC, Storm DS, Crawford SL, Ma Y, Gortmaker SL. Negative Life Events: Risk to Health-Related Quality of Life in Children and Youth with HIV Infection. In press, *Journal of the Association of Nurses in HIV Care*.

Hsia J, Langer RD, Manson JE, Kuller L, Johnson KC, Hendrix SL, Pettinger M, Heckbert SR, Greep N, Crawford S, Eaton CB, Kostis JB, Caralis P, Prentice R. Conjugated Equine Estrogens and the Risk of Coronary Heart Disease. *Archives of Internal Medicine* 2006;166(3):357-65.

Ma Y, Olendzki BC, Chiriboga D, Rosal MC, Sinagra E, Crawford S, Hafner AR, Pagoto SL, Magner RP, and Ockene IS. PDA-Assisted Low Glycemic Index Dietary Intervention for Type 2 Diabetes: A Pilot Study. *European Journal of Clinical Nutrition* 2006;60(10):1235-43.

Manuel J, Walsh SR, Crawford S, Lawrence RH, Farmer DF, Hege A, Phillips K, Avis NE. Younger women's perceptions of coping with breast cancer: a mixed methods approach. In press, *Cancer Nursing*.

Matthews KA, Santoro N, Lasley B, Chang Y, Crawford S, Pasternak RC, Sutton-Tyrrell K, Sowers MF. Relation of cardiovascular risk factors in women approaching menopause to menstrual cycle characteristics and productive hormones in the follicular and luteal phases. *Journal of Clinical Endocrinology and Metabolism* 2006;91(5):1789-1795.

Meyer PM, Zeger SL, Harlow SD, Sowers MF, Crawford SL, Luborsky JL, Janssen I, McConnell DS, Randolph JF, Weiss G. Characterizing modes of variation of daily urinary hormone profiles for women at mid-life using functional data analysis. In press, *American Journal of Epidemiology*.

Puglia GD, Freeman LM, Rush JE, King RGP, Crawford SL. Use of a flow-mediated vasodilation technique to assess endothelial function in dogs. *American Journal of Veterinary Research* 2006;67(9):1533-1540.

Randolph J, Crawford S, Dennerstein L, Cain K, Harlow SD, Little R, Mitchell ES, Nan B, Taffe J, Yosef M. The ReSTAGE project: The value of annual serum follicle-stimulating hormone concentration as a marker of the late menopausal transition in conjunction with bleeding characteristics and hot flashes. *Journal of Clinical Endocrinology and Metabolism* 2006;91(8):3034-3040.

Santoro N, Brockwell S, Johnston J, Crawford SL, Gold EB, Harlow SD, Matthews KA, Sutton-Tyrrell K. "Doctor, when is this going to end?" Helping women predict the onset of their final menses – SWAN, the Study of Women's Health Across the Nation. In press, *Menopause*.

Sowers MFR, Wilkin MK, Crawford S, McConnell DS, Randolph JF Jr, Gold EB, Lasley B. Selected diet and lifestyle factors are associated with estrogen metabolites in a multi-racial population of women. *The Journal of Nutrition* 2006;136:1588-1595.

Book Chapters:

McKinlay SM, Crawford SL. Menopause: demographic aspects. In: *Estrogens and Progestogens in Clinical Practice*, eds. IS Fraser, RPS Jansen, RA Lobo, MI Whitehead. London: Churchill Livingstone, 1999, pp. 617-626.

Crawford SL. Methodologic challenges in the study of menopause. In: *Menopause: Biology and Pathobiology*, eds. RA Lobo, J Kelsey, R Marcus. San Diego: Academic Press, 2000, pp. 159-174.

Sowers M, Crawford S, Sternfeld B, Morganstein D, Gold E, Greendale G, Evans D, Neer R, Matthews K, Sherman S, Lo A, Weiss G, Kelsey J. Design, survey, sampling and recruitment methods of SWAN: a multi-center, multi-ethnic, community-based cohort study of women and the menopausal transition. In:

Menopause: Biology and Pathobiology, eds. RA Lobo, J Kelsey, R Marcus. San Diego: Academic Press, 2000, pp. 175-188.

Avis NE, Crawford S, Johannes CB. Menopause. In: *Handbook of Women's Sexual and Reproductive Health*, eds. GM Wingood and RJ DiClemente. New York: Kluwer Academic/Plenum Publishers, 2002, pp. 367-391.

Johannes CB, Crawford SL. Discussion, Menopause and urogenital disorders. In: *A Life Course Approach to Women's Health*, eds. D Kuh and R Hardy. Oxford University Press, 2002.

Avis N, Crawford S. Menopause: Recent research findings. In: *The Baby Boomers Grow Up: Contemporary Perspectives on Midlife*, Whitbourne S, Willis S, eds. Mahwah, NJ: Lawrence Erlbaum. In press.

Invited Presentations:

Crawford SL, Johnson WG, Laird NM. Bayes analysis of model-based methods for nonignorable nonresponse: Harvard Medical Practice Survey. Presented at 1st Workshop on Bayesian Statistics in Science and Technology: Case Studies, Pittsburgh, October 1991.

Crawford SL. Methodological issues in using menstrual and endocrine data: race / ethnicity / statistical concerns. Presented at the Staging of Reproductive Aging Workshop, Park City, Utah, July 22-24, 2001.

Crawford SL. Measuring hot flashes through surveys in different ethnicities / cultures. Presented at workshop on Cross-cultural Comparisons of Midlife, Aging, and Menopause (NIH-sponsored workshop), Cambridge, Massachusetts, May 10-12, 2006.

Podium Presentations:

Crawford SL, Tennstedt SL, McKinlay JB. A comparison of missing-data methods when missingness is non-random. Presented at the Annual Meeting of the Gerontological Society of America, New Orleans, Nov. 19-23, 1993.

Crawford SL, Tennstedt SL, McKinlay JB. Substitution of formal for informal care in the elderly. Presented at the 1993 American Statistical Association Winter Conference, Fort Lauderdale, January 1993.

Crawford SL, McKinlay JB, Tennstedt SL. The advantages of longitudinal versus cross-sectional data: a case study. Presented at the Annual Meeting of the Gerontological Society of America, Atlanta, Nov. 18-22, 1994.

Crawford SL, Jette AM, Tennstedt SL. Test-retest reliability over time of disability measures in elders. Presented at the Annual Meeting of the Gerontological Society of America, Los Angeles, Nov. 15-19, 1995.

Crawford SL, McKinlay JB, McKinlay SM. Is the midlife increase in coronary heart disease in women attributable to menopause or normal aging? Presented at the Annual Meeting of the American Public Health Association, Epidemiology Section, San Diego, October 29-November 2, 1995.

Crawford SL, Casey VA, Avis NE, McKinlay SM. The relative roles of behavioral factors and menopause in weight gain. Presented at the American Psychological Association Conference on Psychosocial and Behavioral Factors in Women's Health: Research, Prevention, Treatment, and Service Delivery in Clinical and Community Settings, Washington, DC, Sept. 19-21, 1996.

Crawford SL, Casey VA, Avis NE, McKinlay SM. The relative roles of behavioral factors and menopause in weight gain. Presented at the Annual Meeting of the North American Menopause Society, Chicago, Sept. 26-28, 1996.

Crawford SL, McKinlay SM. The relative importance of hormone replacement therapy in bone mineral density levels. Presented at the 4th Annual Congress on Women's Health, Washington, DC, June 18-19, 1996.

Crawford SL for the SWAN Research Group. Study of Women's Health Across the Nation: overview of study design. Presented at the 50th Annual Meeting of the Gerontological Society of America, Cincinnati, Nov. 14-18, 1997.

Crawford SL, Johannes CB, Bradsher JE, McKinlay SM. Precursors of surgical menopause. Presented at the International Interdisciplinary Conference on Women & Health: Realizing a Gender-Sensitive Health Care, Amsterdam, Netherlands, June 25-27, 1997.

Crawford SL, Johannes CB, Stellato RK, McKinlay SM. The relationship between dehydroepiandrosterone sulfate (DHEAS), bone mineral density (BMD), and menopause status. Presented at the Annual Meeting of the Society for Epidemiologic Research, Edmonton, Canada, June 12-14, 1997.

Crawford SL for the SWAN Research Group. Study of Women's Health Across the Nation: overview of study design. Presented at the 51st Annual Meeting of the Gerontological Society of America, Philadelphia, Nov. 20-24, 1998.

Poster Presentations:

Crawford SL, Tennstedt SL, McKinlay JB. Longitudinal care patterns for disabled elders: a Bayesian analysis of missing data. Presented at the 2nd Workshop on Bayesian Statistics in Science and Technology: Case Studies, Pittsburgh, October 1993.

Crawford SL, McKinlay SM, Johannes CB. A validation of self-reported date of last menstrual period using menstrual calendars. Presented at the Annual Meeting of the North American Menopause Society, San Francisco, Sept. 21-23, 1995.

Crawford SL, McKinlay SM, Johannes CB. The relative importance of hormone replacement therapy in cardiovascular disease risk. Presented at the American Heart Association Scientific Conference on Hormonal, Metabolic, and Cellular Influences on Cardiovascular Disease in Women, San Diego, Oct. 19-21, 1995.

Crawford SL, McKinlay SM, McKinlay JB, Johannes CB. The impact of smoking on the association between menopause and cardiovascular disease risk. Presented at the American Heart Association Scientific Conference on Hormonal, Metabolic, and Cellular Influences on Cardiovascular Disease in Women, San Diego, Oct. 19-21, 1995.

Crawford SL, Johannes CB, Stellato RK, McKinlay SM. The relationship between DHEAS, bone mineral density, and menopause status. Presented at the Annual Meeting of the Gerontological Society of America, Washington, DC, Nov. 17-21, 1996.

Crawford SL, Johannes CB, Bradsher JE, McKinlay SM, Harrow BS. General health care use as a precursor of hysterectomy. Presented at the 14th Annual Meeting of the Association for Health Services Research, Chicago, June 15-17, 1997.

Crawford SL, Johannes CB, McKinlay SM. The relationship between menopause status, alcohol, and lipids. Presented at the 4th International Conference on Preventive Cardiology, Montreal, Canada, June 29-July 3, 1997, and at the 8th Annual Meeting of the North American Menopause Society, Boston, Sept. 4-6, 1997.

Crawford SL, McKinlay SM, Neer R. Imputation methods to handle changes in bone densitometers. Presented at the Annual Scientific Session of the American College of Epidemiology, Boston, Sept. 21-23, 1997.

Crawford S, Harlow S, Greendale G, Sommer B. Determinants of self-defined menopause status. Presented at the Annual Meeting of the North American Menopause Society, Toronto, Sept. 16-20, 1998.

Crawford SL, Johannes CB, McKinlay SM. Sex hormone binding globulin, estrogen, and cardiovascular disease risk in mid-aged women. Presented at the 51st Annual Meeting of the Gerontological Society of America, Philadelphia, Nov. 20-24, 1998.

Crawford SL, Johannes C, Avis N for the SWAN Research Group. Study of Women's Health Across the Nation (SWAN): overview of study design. Presented at the 10th Annual Meeting of the North American Menopause Society, New York, Sept. 23-25, 1999.

Crawford SL, Johannes CB, McKinlay SM. Estrogen status versus androgenicity in cardiovascular disease risk factors in mid-aged women. Presented at the American Heart Association's 39th Annual Conference on Cardiovascular Disease Epidemiology and Prevention, Orlando, Mar. 24-27, 1999.

Crawford SL, McKinlay SM, McKinlay JB. Menopause versus normal aging in cardiovascular disease risk in mid-aged women. Presented at the 15th International Scientific Meeting of the International Epidemiological Association, Florence, Italy, Aug. 31-Sept. 4, 1999.

Crawford SL, Johannes CB, Bradsher J, Stellato RK, Sherman S, Samuels S. Digit preference in year at menopause: data from the Study of Women's Health Across the Nation. Presented at the Annual Scientific Session of the American College of Epidemiology, Atlanta, Sept. 24-26, 2000.

Crawford S, Johannes C, Sherman S, Samuels S. Digit preference in self-reported year at menopause. Presented at the 11th Annual Meeting of the North American Menopause Society, Orlando, Sept. 7-9, 2000.

Crawford SL, Johannes CB, Miracle-McMahill H, Derby C. Sex hormone binding globulin, estrogen, and blood pressure and lipids in mid-aged women. Presented at the Annual Meeting of the North American Menopause Society, New Orleans, Oct. 4-6, 2001.

Crawford SL, Harlow S, Gold E, Bromberger J, Lasley B, Luborsky J, Weiss G. Hormones and concurrent menstrual characteristics in early perimenopause. Presented at the Congress of Epidemiology, Toronto, June 13-16, 2001.

Crawford SL, Harlow S, Gold E, Bromberger J, Lasley B, Luborsky J, Weiss G. Hormones and concurrent menstrual characteristics in early perimenopause. Presented at the 4th International Symposium on Women's Health and Menopause, Washington, DC, May 19-23, 2001.

Crawford S, Avis N, Kelsey J, Gold E, Santoro N. Is annual measurement of hot flashes sufficiently frequent in perimenopause? Presented at the Annual Meeting of the North American Menopause Society, Washington, DC, October 2004.

Current Research Grants/Contracts:

Study of Women's Health Across the Nation (SWAN): Cooperative agreement funded by National Institute on Aging. Multi-site, multi-ethnic longitudinal study of menopause and health in mid-aged women. Principal Investigator of University of Massachusetts subcontract for statistical analyses.

Injury Free Coalition for Kids: Dissemination of a Model Injury Prevention Program for Children and Adolescents: Grant funded by Robert Wood Johnson Foundation. The Injury Free Coalition for Kids is a national network of medical sites devoted to decreasing the incidences of injuries in children aged 19 years old and younger. University of Massachusetts Medical Center is one of two designated implementation sites for the New England region. Senior Statistician.

Estrogen Metabolism, Menopause, and Health: Grant funded by National Institute on Aging. This project will assess prospectively the contribution of estrogen metabolism to selected human health measures in women transitioning the menopause. Health measures include vasomotor symptoms, age at menopause, lipids and thrombosis, and bone mineral density. The study will utilize stored serum and urine samples from an existing large, multi-ethnic study. Principal Investigator of University of Massachusetts subcontract for statistical analyses.

Yoga for Hyperkyphosis Trial: Grant funded by National Institute on Aging. This project will conduct a single blind, randomized controlled trial of yoga, intended to improve posture, physical function, and quality of life in older persons with hyperkyphosis. Principal Investigator of University of Massachusetts subcontract for statistical analyses.

Soy Isoflavones for Menopausal Symptoms: Grant funded by National Center for Complementary and Alternative Medicine. The purpose is to conduct a pilot placebo-controlled randomized clinical trial of soy isoflavones for the treatment of menopausal hot flashes. Statistician.

Mindfulness-Based Stress Reduction for Hot Flashes: Grant funded by National Center for Complementary and Alternative Medicine. This project will conduct a pilot randomized trial of mindfulness-based stress reduction for hot flashes in menopausal women experiencing seven or more moderate-to-severe hot flashes per day. Statistician.

Past Research Grants/Contracts:

SWAN Repository: Grant funded by National Institute on Aging. Repository of serum, plasma, and urine specimens from SWAN subjects, providing a research resource for SWAN investigators and other members of the scientific community. Principal Investigator of University of Massachusetts subcontract for statistical support, participation in Repository Oversight Committee.

Staging Reproductive Aging in Five Cohorts: Grant funded by National Institute on Aging. The purpose is to evaluate a staging system for reproductive aging, to identify when a woman enters and completes key phases of reproductive life. The study will compare five of the world's largest cohort studies of menstrual function during the menopausal transition for reliability, reproducibility, and

representativeness of the proposed staging system. Principal Investigator of University of Massachusetts subcontract for statistical analyses.

SWAN Secondary Data Analyses: Grant funded by Office of Research on Women's Health. Secondary analyses of menopausal symptoms following cessation of use of hormone replacement therapy. Senior statistician.

Quality of Care for Chronically Ill Persons: Grant funded by Robert Wood Johnson (NERI is a subcontractor). Comparison of quality of care for chronically ill persons in fee-for-service insurance versus managed care, using insurance claims data, medical records, and survey instruments. Principal investigator of NERI subcontract for data management, statistical effort.

ProCycle: Electronic Calendar Data Collection: Small Business Innovative Research Grant, Phase II, funded by National Institute of Child and Human Development. Comparison of performance, data quality of paper and electronic modes of data collection for daily data on premenstrual syndrome and fertility. Senior Statistician.

Urinary Incontinence Trials Network: Cooperative agreement funded by National Institute of Diabetes and Digestive and Kidney Diseases. Multi-site randomized clinical trial of surgical treatments for urinary incontinence in women. Co-Principal Investigator and Senior Statistician for the Coordinating Center.

Electronic Headache Diary: Small Business Innovative Research Grant, Phase I. Pilot test of daily data collection on headaches using hand-held computers. Senior Statistician.

Massachusetts Women's Health Study: RO1 funded by National Institute on Aging. Longitudinal study of menopause and health in mid-aged women. Senior Statistician.

Age-Related Decline in Sexuality: RO3 funded by National Institute on Aging. Longitudinal study of sexual functioning and its correlates in mid-aged women from the Massachusetts Women's Health Study. Senior Statistician.

Breast Cancer in Younger Women: RO1 funded by National Cancer Institute. Assessment of an intervention to improve quality of life in breast cancer patients aged 50 and younger. Senior Statistician.

Roybal Center: Program project funded by National Institute on Aging. Evaluate several interventions aimed at increasing exercise, reducing fear of falling in community-dwelling elders. Senior Statistician.

Frail Elder Study: RO1 funded by National Institute on Aging. Longitudinal study of community-dwelling elders and their primary caregivers, to assess patterns of disability and caregiving. Senior Statistician.

Springfield Elder Study: RO1 funded by National Institute on Aging. Cross-sectional study of racial/ethnic (African American, non-Hispanic Caucasian, Puerto Rican) differences in disability and care-patterns among community-dwelling elders. Senior Statistician.

Boston Health Care Project: RO1 funded by National Heart, Lung, and Blood Institute. Cross-sectional study of racial (African American/Caucasian) and gender differences in coronary heart disease symptoms, health-care seeking, and health-care receipt. Senior Statistician.