
BIOGRAPHICAL SKETCH

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NAME Mayer-Davis, Elizabeth J.	POSITION TITLE Professor, Department of Nutrition Professor, Department of Medicine		
eRA COMMONS USER NAME (credential, e.g., agency login) mayerdavis			
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	MM/YY	FIELD OF STUDY
University of Tennessee	B.S.	1980	Dietetics
University of Colorado School of Medicine	M.S.	1986	Public Health
University of California, Berkeley	Ph.D.	1992	Epidemiology

A. Personal Statement

I am formally trained in both epidemiology and nutrition. I have focused my career in the area of diabetes, including the epidemiology and natural history of type 1 and type 2 diabetes in children and adults. In addition, my research has involved examinations of several other cardiometabolic risk factors, such as dyslipidemia, hypertension, and inflammation. Much of my research has addressed how diet and physical activity impact the risk for development of diabetes, hypertension and other cardiometabolic risk factors. I am currently the Principal Investigator for the Carolina site of the SEARCH for Diabetes in Youth study, and serve as the national chairperson for this large multi-center study. As such, I have considerable expertise working with trans-disciplinary teams on issues related to cardiometabolic risk. Dr Liese and I have collaborated over many years, and I am highly qualified to provide expertise related to the proposed work to more fully understand the role of neighborhood on cardiometabolic risk status.

B. Positions

1990-93 Epidemiologist, Kaiser Permanente Medical Group, Inc., Oakland, California
1994-97 Assistant Professor, Epidemiology, Wake Forest University Winston-Salem, North Carolina
1994-97 Director, Nutrition Epidemiology Research Program, Department of Public Health Sciences
University of South Carolina, School of Public Health, Columbia, SC:
1997-2002 Associate Professor, Department of Epidemiology & Biostatistics
2002-01/2008 Professor, Department of Epidemiology & Biostatistics
2003-01/2008 Director, Center for Research in Nutrition and Health Disparities
2005-01/2008 Associate Chair, Department of Epidemiology & Biostatistics
02/2008 - Adjunct Professor, Department of Epidemiology & Biostatistics
University of North Carolina at Chapel Hill:
02/2008- Professor, Department of Nutrition
11/2009- Professor, Department of Medicine

Selected Recent Memberships and Honors

2002-present NIH/NIDDK Special Emphasis Review Panels
2004-2005 American Diabetes Association, Council on Epidemiology and Prevention, Chair
2005-present American Diabetes Association, Board of Directors
2005-present SEARCH for Diabetes in Youth (CDC/NIDDK funded) Study Chairperson
2011- American Diabetes Association, President for Health Care and Education

Professional Credential

1980-present Registered Dietitian

C. Selected Peer-reviewed Publications (Selected from over 100 peer-reviewed publications)

1. **Mayer-Davis EJ**, D'Agostino R Jr, Karter AJ, Haffner SM, Rewers MJ, Saad M, Bergman RN. Intensity and amount of physical activity in relation to insulin sensitivity: The Insulin Resistance Atherosclerosis Study. *JAMA* 1998;279: 669-74.
2. Liese AD, **Mayer-Davis EJ**, Chambless LE, Folsom AR, Sharrett AR, Brancati FL, Heiss G. Elevated fasting insulin predicts incident hypertension: the ARIC study. *Atherosclerosis Risk in Communities Study Investigators. J Hypertens.* 1999 Aug;17(8):1169-77.
3. **Mayer-Davis EJ**, Vitolins MZ, Carmichael SL, Hemphill S, Tsaroucha G, Rushing J, Levin S. Validity and Reproducibility of a Food Frequency Interview in a Multi-Cultural Epidemiologic Study. *Annals of Epidemiology* 1999; 9:314-24.
4. **Mayer-Davis EJ**, Kirkner GJ, Karter AJ, Zaccaro DJ. Metabolic predictors of five-year change in weight and waist circumference in a tri-ethnic population: the Insulin Resistance Atherosclerosis Study. *American Journal of Epidemiology* 2003;157:592-601.
5. **Mayer-Davis EJ**, Rifas-Shiman SL, Zhou L, Hu FB, Colditz GA, Gillman MW. Breast Feeding and Risk for Childhood Obesity: Does Maternal Diabetes or Obesity Status Matter? *Diabetes Care* 2006;29(10):2231-7.
6. The Writing Group for the SEARCH for Diabetes in Youth Study Group. **Incidence of Diabetes in Youth in the United States.** *JAMA* 2007;297:2716-24.
7. Albers JJ, Marcovina SM, Imperatore G, Snively BM, Stafford J, Fujimoto WY, **Mayer-Davis EJ**, Petitti DB, Pihoker C, Dolan L, Dabelea DM. Prevalence and determinants of elevated apolipoprotein B and dense LDL in youth with type 1 and type 2 diabetes. *The Journal of Clinical Endocrinology & Metabolism* 2008;93:735-742.
8. **Mayer-Davis EJ.** Type 2 Diabetes in Youth: Epidemiology and Current Research Towards Prevention and Treatment. *J Am Diet Assoc* 2008;108:S45-S51.
9. Günther AL, Liese AD, Bell RA, Dabelea D, Lawrence JM, Rodriguez BL, Standiford DA, **Mayer-Davis EJ.** Association between the dietary approaches to hypertension diet and hypertension in youth with diabetes mellitus. *Hypertension* 2009 Jan;53(1):6-12.
10. **Mayer-Davis EJ**, Bell RA, Dabelea D, D'Agostino RB, Jr, Imperatore G, Lawrence JM, Liu LL, Marcovina SM for the SEARCH for Diabetes in Youth Study Group. Introduction to Diabetes Care Supplement The Many Faces of Diabetes in American Youth: Type 1 and Type 2 Diabetes in Five Race and Ethnic Populations. *The SEARCH for Diabetes in Youth Study. Diabetes Care* 2009;32:S99 – S101. PMID: PMC2647691
11. **Mayer-Davis EJ**, Ma B, Lawson A, D'Agostino RB Jr, Liese AD, Bell RA, Dabelea D, Dolan L, Pettitt DJ, Rodriguez BL, Williams D; SEARCH for Diabetes in Youth Study Group. Cardiovascular Disease Risk Factors in Youth with Type 1 and Type 2 Diabetes: Implications of a Factor Analysis of Clustering. *Metabolic Syndrome and Related Disorders* 2009;7(2):89-95.
12. Greenbaum CJ, Anderson AM, Dolan LM, **Mayer-Davis EJ**, Dabelea D, Imperatore G, Marcovina S, Pihoker C, for the SEARCH Study Group. Preservation of Beta Cell Function in GAD65ab Positive Youth with Diabetes. *Diabetes Care* 2009;32:1839 – 1844. PMID: PMC2752937.
13. Liese AD, Bortsov A, Günther Anke LB, Dabelea D, Reynolds K, Standiford D, Liu L, Williams DE, **Mayer-Davis E**, D'Agostino, RB, Jr., Bell R, Marcovina S. Association of DASH diet with cardiovascular risk factors in youth with diabetes: The SEARCH for Diabetes in Youth Study. *Circulation.* 2010 Apr 5;123(13):1410-7. Epub 2011 Mar 21. PMID: 21422385
14. Liese AD, Lawson A, Song HR, Hibbert JD, Porter DE, Nichols M, Lamichhane AP, Dabelea D, **Mayer-Davis EJ**, Standiford D, Liu L, Hamman RF, D'Agostino RB Jr. Evaluating geographic variation in type 1 and type 2 diabetes mellitus incidence in youth in four US regions. *Health Place.* 2010 May;16(3):547-56. PMID: 20129809.
15. Bortsov A, Liese AD, Bell RA, Dabelea D, D'Agostino, Jr. RB, Hamman RF, Klingensmith GJ, Lawrence JM, Maahs DM, McKeown R, Marcovina SM, Thomas J, **Mayer-Davis EJ.** Correlates of Dietary Intake in Youth with Diabetes: Results from the SEARCH for Diabetes in Youth Study. *J Nutr Educ Behav.* 2011 Mar-Apr;43(2):123-9. Epub 2011 Jan 26. PMID: 2127675

Ongoing Research Support

1-U18-DP002708-01 Mayer-Davis (PI)

10/01/2010 - 09/30/2015

CDC, Also supported by NIH / NIDDK

SEARCH for Diabetes in Youth 3: Carolina Site

This is the third 5-year funding cycle for this multi-center project that comprises the largest epidemiologic study of childhood diabetes in the US. The project encompasses the SEARCH Registry Study for surveillance of trends in incidence and clinical presentation of diabetes diagnosed in individuals under age 20 years, and the SEARCH Cohort Study focused on the development of complications of diabetes and the impact of processes of care on overall health and well-being of youth with diabetes. Dr Mayer-Davis is also national study co-chair.

Role: PI

R01DK077949 (Mayer-Davis)

04/01/2008 – 03/31/2012

NIH/NIDDK

Nutrition and Metabolic Status in Diabetic Youth: SEARCH Ancillary Study

Purpose: SNAS uses both cross-sectional and longitudinal designs, with the overall study goal being to examine associations of nutritional factors with 1) the progression of insulin secretion defects, and 2) the presence of CVD risk factors in youth with DM.

Role: PI

R21DK 085483 (Mayer-Davis)

03/15/2010 – 02/28/2012

NIH/NIDDK

DMHEALTH: Feasibility of a Cell-phone Adherence Trial for Underserved T1DM Youth

Purpose: The goal of this pilot and feasibility project is to develop and test a diabetes self-management intervention that integrates efficacious behavioral interventions including parenting communication support and effective current communication technologies to improve diabetes self-management and health outcomes among especially in poor and minority youth.

Role: co-PI with Michael Seid of Cincinnati Children's Hospital

R18DK067312 (Davis)

08/01/2004 - 06/30/2010

NIH/NIDDK

(no cost extension)

Bridging Barriers to Diabetes Care with Telemedicine

The goal of this randomized clinical trial is to evaluate the effectiveness of a comprehensive diabetes self-management intervention that utilizes telemedicine to improve adherence to American Diabetes Association Clinical Practice Guidelines for adults with Type 2 diabetes living in rural South Carolina.

Role: Co-PI

Completed Research Support

U01 DP000254 01 (Mayer-Davis)

10/01/2005 - 09/30/2010

CDC, Also supported by NIH / NIDDK

SEARCH for Diabetes in Youth 2: Carolina Site

The purpose of this project is to maintain a network of standardized surveillance systems of childhood diabetes that will be targeted towards accurate documentation of the prevalence and incidence of specific diabetic phenotypes among diverse populations. This network was previously developed during the South Carolina Diabetes Child & Adolescent Registry (SEARCH) study. Dr. Mayer-Davis is also SEARCH 2 National Study Chair. Role: PI

(no grant number)

6/01/2003 - 02/28/2009

NIH/NIDDK, Subcontract to Wake Forest University

Look AHEAD (Diet Assessment Center)

This study will address questions of macronutrient intake in relation to cardiovascular risk factors and clinical events in persons with type-2 diabetes under conditions of either usual care or intensive weight loss

intervention. USC holds a subcontract for the study wide dietary assessment and is responsible for the collection, quality control, and analysis of dietary data from the 20 clinical centers nationwide. Role: PI

R-04-0000 (Mayer-Davis)

05/01/2003 - 01/31/2008

NIH/NIDDK, Subcontract to George Washington University
Diabetes Prevention Program Outcomes Study (DPPOS)

Evaluate approaches to the primary prevention of non-insulin dependent diabetes mellitus. USC holds a subcontract for the study wide dietary assessment and is responsible for the collection, quality control, and analysis of dietary data from the 27 clinical centers nationwide. Role: PI

RFA-DK/02009 (McKeown)

10/01/2002 - 08/31/2007

NIH/NIDDK

Exploring Diabetes and Depression In Youth (EDDY)

EDDY, an ancillary study to the CDC/NIDDK funded project entitled SEARCH for Diabetes in Youth, focused on depression and diabetes in 10- to 19-year-old youths at two ethnically diverse sites. This case-cohort allowed investigation of the complex association between diabetes and depression in three major ethnic groups. We examined the mutual impact of depression on diabetes management, glucose control, quality of life, and complications, as well as the impact of Diabetes Mellitus disease burden on the risk for depressions. Role: Co-Investigator

R01 DK059184-01A2 (Mayer-Davis)

12/01/2002 - 11/30/2006

NIH/NIDDK, Subcontract to the University of Colorado

Defining Diabetes in Youth

This was a study of the demographic, behavioral, metabolic, and genetic characteristics of various types of diabetes that occur in children and an evaluation, in a case-control design, of risk factors for the various types of diabetes in youth with a focus on etiology of type 2 diabetes in this age group. The study was an ancillary study to the SEARCH national project. Role: PI