

REBECCA B. N. CONWAY

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HIGHLIGHTS & SKILLS

- Diabetes epidemiologist, research emphasis on vascular complications of diabetes
- 46 publications, 30 as first author, 9 as senior author, *h*-index=20, *i10*-index=25
- Director of validation committee responsible for conducting validation studies of West Virginia University's (WVU) clinical data warehouse's repurposing of EHR data for research
- Proficiency in SAS statistical programming and analysis, familiarity with STATA, SPSS, and R
- Clinical bioinformatics data analysis
- WVU's bioinformatics consultant for researchers requesting use of EHR data
- Designing and conducting clinical epidemiology research studies
- Extensive experience with large clinical and population data sets
 - Epidemiology of Diabetes Complications (EDC) Study
 - Southern Community Cohort Study
 - C8 Health Project
 - Shanghai Women's Health and Shanghai Men's Health Studies
 - Synthetic Derivative: Vanderbilt University Medical Center's de-identified EHR
 - Integrated Data Repository, WVU's clinical data warehouse

Data analysis skills

- Survival analysis
- Longitudinal data analysis
- ROC curve analysis
- Time-dependent ROC analogues
- Residual analysis
- Change analysis
- Temporal trends analysis
- Mixed models

Certifications

- SAS Certified Specialist: Base Programming Using SAS 9.4 (SAS Institute, replaced the SAS Base Programmer Certification)
- SAS Certified Associate: Programming Fundamentals Using SAS 9.4 (SAS Institute)

EDUCATION

- 2008 **THE UNIVERSITY OF PITTSBURGH**, Pittsburgh, Pennsylvania
PhD in Epidemiology
- 2004 **UNIVERSITY OF NORTH TEXAS HEALTH SCIENCE CENTER**, Fort Worth, Texas
M.P.H. concentration in Epidemiology
- 2000 **THE UNIVERSITY OF BIRMINGHAM**, Birmingham, United Kingdom
M.A. in TESL / TEFL (an applied linguistics degree)
- 1999 **ANDREWS UNIVERSITY**, Berrien Springs, Michigan
B.S. in General Studies

P R O F E S S I O N A L E X P E R I E N C E

- 2022-Present **UNIVERSITY OF COLORADO SCHOOL OF PUBLIC HEALTH, ANSCHUTZ MEDICAL CAMPUS, Aurora, CO**
Associate Professor: Carry our epidemiology research projects in the LEAD Center, the Barbara Davis Research Center, and the Laboratory for Analytic & Computational Epidemiology (LACE); Teach Epidemiology.
- 2021-Present **AMERICAN ACADEMY OF EPIDEMIOLOGY, INC., Tyler, Texas**
Director: Conduct the operating affairs of this epidemiology and biostatistics firm.
- 2017-2020 **UNIVERSITY OF TEXAS HEALTH SCIENCE NORTHEAST, Tyler, Texas**
Associate Professor: Conducted research on risk factors for late complications in Type 1 and Type 2 diabetes. I also served as the diabetes epidemiologist on our institutions CDC Diabetes Control and Prevention program. I worked with large clinical and epidemiological population studies, including the Southern Community Cohort Study, the Synthetic Derivative, and the WVU Medicine Clinical Data Warehouse.
- 2012-2017 **WEST VIRGINIA UNIVERSITY, Morgantown, West Virginia**
Assistant Professor: Served as epidemiologist and clinical informatics consultant for the WV Clinical and Translational Science Institute; investigate risk factors for late complications in Type 1 and Type 2 diabetes; taught approximately one course per year
- Clinical Research Design, Epidemiology, and Biostatistics (CREDB): As the sole epidemiologist in this core of the West Virginia CTSI (IDEA-CTRU), I served as the epidemiology consultant to researchers requesting epidemiology/biostatistical consulting for their projects. I also served as the clinical informatics consultant to whom researchers requesting EHR data are referred in order to help focus their data requests and shape their study designs prior to receipt of data. Finally, I created and directed the validation committee charged with developing and validating disease phenotype algorithms for selecting data from WVU's EHR and clinical data warehouse. The first project of this validation committee was the validation of the Extract, Load, and Transform (ELT) process used to extract data from WVU Medicine's two EHRs into its clinical data warehouse. This ELT validation project has resulted in one manuscript. Our most recent project, where we validated the linkage of WVU Medicine's entire EHR with the National Death Index, the Social Security Death Master File, and the West Virginia state Department of Health and Human Services vital statistics records, was recently accepted for publication.
- Synthetic Derivative Clinical Informatics Research: Using the Synthetic Derivative, the deidentified copy of Vanderbilt University Medical Center's Electronic Health Record, I have been investigating the predictive utility of HbA1c in fracture risk in geriatric patients with diabetes. This work has resulted in one published manuscript. A second paper, investigating racial disparities in the relationship of glycemic control with fracture risk was also recently accepted for publication. Work with the Synthetic Derivative began while a postdoctoral fellow at Vanderbilt and has continued.
- Southern Community Cohort Study: The Southern Community Cohort Study is a large cancer cohort focusing on racial disparities in cancer outcomes. Using the Southern Community Cohort Study, a population of approximately 85,000 low income African Americans and Whites, I have been investigating disparities in diabetes complications and mortality outcomes. Recently my work with the cohort has expanded into the

interplay of diabetes and cancer in the cohort, specifically investigating liver, pancreatic and kidney cancer. Thus far my work with this population has resulted in seven publications and another submitted publication currently under review.

C8 Health Project: The C8 Health Project is a community-based study to investigate the effects of exposure to perfluorooctanoic acid (C8) contaminated drinking water. Containing approximately 70,000 participants, 9% of whom had diabetes, it also provided an excellent resource to study diabetes and diabetes related metabolic disorders and their risk factors. My work on this project was funded by a grant from the Eye Foundation of America. The project began as an investigation of metabolic syndrome risk factors in otherwise healthy children and cardiovascular risk factors in children with Type 1 diabetes. This has evolved to focus on the relationship of perfluoroalkyl substances with end organ complications of diabetes. Thus far my work on this project has resulted in eight published manuscripts.

Health Science Technology Academy: The Health Science Technology Academy (HSTA) of West Virginia University. HSTA is a NIH R25 Science Education Partnership Award, targeting underserved 9th through 12 grade West Virginia high school students. For this five-year award cycle, the emphasis was community based participatory research (CBPR), the students carry out research in their own community. This program targets health disparities by 1) addressing education and income disparities by moving these underserved children through the secondary and tertiary educational pipeline, 2) primordial prevention through teaching health literacy and health interventions to these youth, and 3) community based participatory research conducted by these students. My role in HSTA was as a faculty instructor to rising 11 graders for their one week during the biomedical summer camp. During that week, for approximately 40 class hours, my students were taught epidemiology using the concept of the pediatric metabolic syndrome. They also designed and carried out an epidemiology study on themselves and their peers.

2009-2012

VANDERBILT UNIVERSITY, Nashville, Tennessee

Postdoctoral Research Fellow: Investigated risk factors for and outcomes in Type 1 and Type 2 diabetes. Working with the Shanghai Women's and Shanghai Men's Health Studies, two population studies with a combined sample size of approximately 130,000, I investigated anthropometric and puberty related risk factors for the incidence of Type 2 diabetes in middle-aged and elderly Chinese. Using the Southern Community Cohort Study, I investigated disparities in mortality outcomes in approximately 85,000 African Americans and Whites with Type 1 or Type 2 diabetes.

Principal Investigator: Noninvasive Skin Spectroscopy Study of Diabetic Peripheral Neuropathy. This study investigated at the relationship of a non-invasive measure of advanced glycation end products (AGEs) with neuropathy and nerve fiber morphology.

Co-Investigator: Epidemiology of Diabetes Complications Study (EDC): Phase II Noninvasive Skin Spectroscopy Substudy for Diabetes Complications. This study investigated the relationship of AGEs with complications of Type 1 diabetes in two diverse clinical research populations

Principal Investigator: Study of Adverse Effects of Dysglycemia by Age in Diabetes. PThis ongoing study, which was initiated while a postdoctoral fellow at Vanderbilt University, uses Vanderbilt University Medical Center's deidentified EHR (the Synthetic Derivative) to examine the relationship of glycemic control with complications of diabetes and how this varies by age groups.

2004-2009 **THE UNIVERSITY OF PITTSBURGH**, Pittsburgh, Pennsylvania
Research Coordinator: Epidemiology of Diabetes Complications Study (EDC): Phase II

*Investigator: Epidemiology of Diabetes Complications Study (EDC): Phase II
Noninvasive Skin Spectroscopy Substudy for Diabetes Complications*

*Site Research Coordinator: A Prospective, Multi-Center,
Paired Data, Cohort Screening Trial Comparing the Scout Noninvasive
Screening Device to the Fasting Plasma Glucose Test in Patients
Screened for Type 2 and Pre-Diabetes*

*Graduate Student Research Assistant: Recruit study participants, assist with medical
exams, code survey data, analyze data, and follow-up mortality cases for the
Epidemiology of Diabetes Complications Study. Recruit study participants, conduct
scans in participants' homes, measuring skin fluorescence, an indirect measure of
advanced glycation end products. Analyze skin fluorescence data.*

*Teaching Assistant: Teaching assistant for Seminar in Epidemiology and Public Health
Presentation.*

CURRENT RESEARCH SUPPORT

PI: Rebecca BN Conway

Title: *Epidemiology Assessments for the White River Junction Concern*

Dates: 8/2021-12/2021

Epidemiology Assessments for the White River Junction Concern

The major goal of this contract is to investigate whether the reported breast cancer concern represents a true cancer cluster

Funding Source: Department of Veterans Affairs contract #36C24121P0881

Amount: \$66,400

Role: PI

COMPLETED RESEARCH SUPPORT

PI: Manda Hall

Subcontract PI: Paul McGaha

Dates 6/2016-6/2024

Title: *Implementation of a Hypertension Management. Program: State and Local Public Health
Actions to Prevent Obesity, Diabetes, Heart Disease and Stroke Prevention and Public Health
Fund (PPHF), Department of Health and Human Services, Centers for Disease Control and
Prevention*

Funding agency: Centers for Disease Control and Prevention (U58DP004838-04)

Amount: \$497,450

Role: Epidemiologist; percent effort: 10%

PI: Sally Hodder

Title: West Virginia University IDEA-CTR

Dates: 2/2013-7/2017

The major goals of the project are to expand the infrastructure for, and practice of, clinical and translational research to a level competitive for a Clinical and Translational Science Award (CTSA)

Funding Source: National Institute of General Medical Sciences (U54 GM 104942)

Amount: \$19,581,898

Role: Epidemiologist; percent effort: 20%

PI: Ann Chester

Title: Teaching to Learn: WV-HSTA Students take Community Based Participatory Research (CBPR) to their Communities (5R25 0D010495)

The goal of this project is to create a novel design to improve health literacy and biomedical science education in hard to reach, under-served Appalachian populations

Funding Source: National Institutes of Health (R25 0D010495) and the West Virginia State Legislature

Amount: \$1,316,581

Role: Biomedical Health Science and Technology Academy (HSTA) faculty; percent effort: 10%

PI: Matthew Gurka, Mark deBoer

Title: An Ethnicity-Specific MetS Severity Score to Assess Risk: The Jackson Heart Study

Dates: 8/2014 - 10/2015

Funding Source: National Institutes of Health/National Heart Lung and Blood Institute

Amount: \$1,916,469

Role: Co-I; percent effort: 10%

PI: Rebecca Baqiyyah Conway

Title: Diabetes and Obesity Study

The aim of this project is to assess the prevalence of obesity and diabetes mellitus and their risk factors in West Virginia and Ohio residents exposed to perfluorooctanoic acid contaminated drinking water.

Dates: 4/2013 - 6/2014

Funding Source: Eye Foundation of America and Ross Research Fund

Amount: \$18,500

PI: Rebecca Baqiyyah Conway

Title: Noninvasive Skin Spectroscopy Study of Diabetic Peripheral Neuropathy

Dates: 2/14/2011 - 8/17/2012

Funding Source: Vanderbilt Institute for Clinical and Translational Research

Amount: \$1960

SCIENTIFIC JOURNAL REVIEWER

Annals of Internal Medicine

Diabetes Care

European Journal of Endocrinology

Journal of Diabetes and Its Complications

Diabetes Technology and Therapeutics

BMC Endocrine Disorders

Pediatric Diabetes

Journal of Pediatrics

American Journal of Kidney Diseases

Obesity

British Journal of Cancer

PLoS One
Microcirculation
African Journal of Laboratory Medicine
European Journal of Clinical Nutrition
Asia Pacific Journal of Clinical Nutrition
Environmental Research

SECTION EDITOR/EDITORIAL BOARD

Section Editor, Current Diabetes Reports, 2015-Present
Associate Editor, BMC Endocrine Disorders 2018-Present

EXTERNAL GRANT REVIEWER

National Institutes of Diabetes, Digestive and Kidney Diseases
Kidney, Nutrition, Obesity and Diabetes,
Population Sciences and Epidemiology Integrated Review Group
Ad hoc reviewer, February 2013

National Institutes of Health
Member Conflict Panel 1: Population Sciences and Epidemiology
Ad hoc reviewer, February 2014

OTHER PROFESSIONAL ACTIVITIES

Southern Community Cohort Study Publications Committee member

American Diabetes Association's Epidemiology subgroup planning committee for the 2016 and 2017 Annual Scientific Sessions

Symposium Chair for "*Epidemiology of Kidney Disease in Diabetes*", 2016 American Diabetes Association Annual Scientific Sessions, June 14, 2016

Abstract grader, 2017 American Diabetes Associations Scientific Sessions

Abstract grader, 2016 American Diabetes Associations Scientific Sessions

Abstract grader, 2015 Annual Meeting of the American College of Epidemiology

Grand Award Judge, Intel International Science and Engineering Fair 2015

Panel Discussion Facilitator, "Using Collaboration to Answer Research Questions", the WVCTSI Research Summit on Obesity and Related Diseases. May 16, 2014

PUBLICATIONS

1. **Conway B** and Rene A. Obesity as a disease: no light-weight matter. *Obesity Reviews* 2004; 5(3):145-151.
2. Costacou T, Edmundowicz D, Prince CT, **Conway B**, Orchard TJ. Progression of coronary artery calcification in type 1 diabetes. *American Journal of Cardiology* 2007; 100(10):1543-1547.
3. **Conway B**, Miller R, Costacou T, Fried L, Kelsey S, Evans R, Edmundowicz D, Orchard T. Double Edged Relationship of Adiposity with Coronary Artery Calcification in Type 1 Diabetes. *Diabetes and Vascular Disease Research* 2007; 4:332-339.
4. **Conway B**, Fried L, Orchard T. Hemoglobin and Overt Nephropathy Complications in Type 1 Diabetes. *Annals of Epidemiology* 2008; 18 (2):147-155.
5. **Conway B**, Costacou T, Orchard T. Is Glycaemia or Insulin Dose the Stronger Risk Factor for Coronary Artery Disease (CAD) in Type 1 Diabetes? *Diabetes and Vascular Disease Research* 2009; 6 (4):223-230.
6. **Conway B**, Miller R, Costacou T, Fried L, Kelsey S, Evans R, Orchard T. Adiposity and Mortality in Type 1 Diabetes. *International Journal of Obesity* 2009; 33 (7):796-805.
7. **Conway B**, Evans R, Fried L, Kelsey S, Edmundowicz D, Orchard T. Free Fatty Acids are Associated with Pulse Pressure in Women, but not Men, with Type 1 Diabetes. *Metabolism* 2009; 58 (9):1215-1221.
8. **Conway B**, Miller R, Klein R, Orchard T. Prediction of Proliferative Diabetic Retinopathy with Hemoglobin Level. *Archives of Ophthalmology* 2009; 127:1494-1499.
9. **Conway B**, Miller R, Orchard T. Are Hemoglobin Levels Elevated in Type 1 Diabetes? *Diabetes Care* 2010; 33(2): 341-343.
10. **Conway B**, Miller R, Costacou T, Fried L, Kelsey S, Evans R, Orchard T. Temporal Patterns in Overweight and Obesity in Type 1 Diabetes. *Diabetic Medicine* 2010; 27(4):398-404.
11. **Conway B**, Matter N, Maynard J, Edmundowicz D, Orchard T. Skin Fluorescence Correlates Strongly with Coronary Artery Calcification Severity in Type 1 Diabetes. *Diabetes Technology and Therapeutics* 2010; 12(5): 339-345.
12. **Conway BN**, Aroda VR, Maynard JD, Matter N, Fernandez S, Ratner RE, Orchard TJ. Skin Intrinsic Fluorescence Correlates with Autonomic and Distal Symmetrical Polyneuropathy in Individuals with Type 1 Diabetes. *Diabetes Care* 2011; 34 (4):1000-1005.

13. **Conway B**, Xiang Y-B, Villegas R, Zhang X, Li H, Wu X, Yang G, Gao Y-T, Zhang W, Shu X-O. Hip Circumference and the Risk of Type 2 Diabetes in Middle-aged and Elderly Men and Women: the Shanghai Women and Shanghai Men's Health Studies. *Annals of Epidemiology* 2011; 21 (5): 358-366.
14. **Conway B**, Maynard J, Orchard T. Comment on: Sun et al. Protection from Retinopathy and other Complications in Patients with Type 1 Diabetes of Extreme Duration: the Joslin 50-year Medalist Study. *Diabetes Care* 2011; 34:968-974.
15. **Conway BN**, May ME, Signorello LB, Blot WJ. The Mortality Experience of a Low Income Population with Young-Onset Diabetes. *Diabetes Care* 2012; 35 (3):542-548.
16. **Conway B**, Shu X-O, Zhang X, Xiang Y-B, Cai H, Li H, Yang G, Gao Y-T, Zheng W. Age at Menarche, the Leg Length to Sitting Height Ratio, and Risk of Diabetes in Middle-Aged and Elderly Chinese Men and Women. *PLoS ONE* 2012;7 (3):e30625.
17. **Conway BN**. Comment on: Elevated Transferrin Saturation and Risk of Diabetes: Three population-based studies. *Diabetes Care* 2012; 7(3): e30625.
18. **Conway BN**, May ME, Blot WJ. Mortality among Low-income African Americans and Whites with Diabetes. *Diabetes Care* 2012; 35 (11): 2293-2299.
19. **Conway BN**, Aroda VR, Maynard JD, Matter N, Fernandez S, Ratner RE, Orchard TJ. Skin Intrinsic Fluorescence is Associated with Coronary Artery Disease in Individuals with Long Duration of Type 1 Diabetes. *Diabetes Care* 2012; 35 (11): 2331-2336.
20. Aroda VR, **Conway BN**, Fernandez SJ, Matter NI, Maynard JD, Orchard TJ, Ratner RE. Cross-Sectional Evaluation of Noninvasively-Detected Skin Intrinsic Fluorescence and Mean Hemoglobin A1c in Type 1 Diabetes. *Diabetes Technology and Therapeutics* 2013; 15 (2): 117-123.
21. **Conway B**, Peltier A. Diabetic Neuropathy. In Escher AP, Li A (Eds), *Type 1 Diabetes* 2013. InTech: Rijeka, Croatia. ISBN: 980-953-307-711-1.
22. **Conway BN**, Elasy TA, May ME, Blot WJ. Mortality by Race among Low-income Adults with Early-onset Insulin-treated Diabetes. *Diabetes Care* 2013; 36 (10):3107-3112.
23. Alshaarawy O*, Zhu M, Ducatman A, **Conway B**, Andrew M. Polycyclic Aromatic Hydrocarbon Biomarkers and Serum Markers of Inflammation. A Positive Association that is more Evident in Men. *Environmental Research* 2013; 126: 98-104.
24. Alshaarawy O*, Zhu M, Ducatman AM, **Conway B**, Andrew ME. Urinary Polycyclic Aromatic Hydrocarbon Biomarkers and Diabetes Mellitus. *Occupational and Environmental Medicine*. 2014; 71 (6):437-441.
25. Weber K*, Fischl AF, Murray PJ, **Conway BN**. Effect of BMI on Cardiovascular and Metabolic Syndrome Risk Factors in an Appalachian Pediatric Population. *Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy* 2014; 7:445-453.
26. **Conway BN**, May ME, Fischl A, Frisbee J, Blot WJ. Cause-specific Mortality in Low-income African Americans and Whites with Type 2 Diabetes. *Diabetic Medicine* 2015; 32: 33-41.

27. Dodd K*, Murray PJ, Fischl A, Costacou T, **Conway B**. Overweight, Obesity, Perfluorooctanoic Acid Exposure and Cardiovascular Risk Factors in an Appalachian Pediatric Population with Diabetes. *Jacobs Journal of Obesity*. 2016; 2 (1): 025.
28. **Conway B**, Long D, Figaro MK, May ME. Glycemic Control and Fracture Risk in Elderly Patients with Diabetes. *Diabetes Research and Clinical Practice*. 2016; 115: 47-53.
29. **Conway B**, Innes K, Long D. Perfluoroalkyl Substances and Beta Cell Deficient Diabetes. *Journal of Diabetes and Its Complications* 2016; 30 (6): 993-998.
30. Williams A*, LaSala PR, **Conway B**. Case Study Investigating Two Cases of Neonatal Salmonellosis. *Clinical Case Reports and Reviews* 2016; DOI: 10.15761/CCRR.1000240.
31. Denney MJ, Long DM, Armistead MG*, Anderson JL, **Conway BN**. Validating the Extract, Transform, Load Process Used to Populate a Large Clinical Research Database. *International Journal of Medical Informatics*. 2016; 94: 271-274.
32. **Conway B**, Bot W. Letter to the Editor of Circulation in response to: "Sex Differences in the Cardiovascular Consequences of Diabetes Mellitus". American Heart Association website: Guidelines and Statements. http://professional.heart.org/professional/GuidelinesStatements/Correspondence/UCM_320919_Correspondence.jsp August 18, 2016.
33. Williams A*, **Conway B**. Effect of High Density Lipoprotein Cholesterol on the Relationship of Serum Iron and Hemoglobin with Kidney Function in Diabetes. *Journal of Diabetes and Its Complications* 2017; 31 (6): 958-963.
34. **Conway B**, Han X, Munro H, Gross A, Shu X-O, Hargreaves M, Zeng W, Powers A, Blot W. The obesity epidemic and rising diabetes incidence in a low-income racially diverse US cohort. *PLoS One* 2018; 13 (1); e0190993.
35. **Conway B**, Lopes-Virella M, Blot W. Late Adulthood Mortality among Black and White Survivors of Type 1 Diabetes by Age at Diabetes Diagnosis. *Diabetic Medicine* 2018; 35 (6): 729-736. doi: 10.1111/dme.13617
36. George C*, Ducatman AM, **Conway B**. Increased Risk of Respiratory Diseases in Adults with Type 1 and Type 2 Diabetes. *Diabetes Research and Clinical Practice* 2018; 142: 46-55.
37. **Conway BN**, Badders AN*, Costacou T, Arthur JM, Innes KE. Perfluoroalkyl Substances and Kidney Function in Chronic Kidney Disease, Anemia and Diabetes. *Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy* 2018; 11:707-716.
38. Honda-Kohmo K, Hutcheson R*, Innes KE, **Conway BN**. Perfluoroalkyl Substances are Inversely Associated with Coronary Heart Disease in Adults with Diabetes. *Journal of Diabetes and Its Complications* 2019; 33(6): 407-412.
39. Hutcheson R*, Innes K, **Conway B**. Perfluoroalkyl Substances and Likelihood of Stroke in Persons with and without Diabetes. *Diabetes and Vascular Disease Research* 2020. Jan-Feb 2020;17(1):1479164119892223.
40. Figaro MK, Long DM, May ME, Ndetan H, Cook A, **Conway RB**. Racial Variation in the Relationship of Glycemic Control with Fracture Risk in Elderly Patients with Diabetes. *Diabetes Metabolic Syndrome and Obesity: Targets and Therapy* 2020; 13: 4153-4155.

41. Tomaszewski EL*, Orchard TJ, Hawkins M, **Conway BN**, Buchanich JM, Maynard J, Songer T, Costacou T. Skin intrinsic fluorescence scores are a predictor of all-cause mortality risk in type 1 diabetes: The Epidemiology of Diabetes Complications Study. *J Diab Comp* 2021;35(2):107770.
 42. **Conway RB**, Sudenga S, McClain D, Blot WJ. Diabetes and Liver Cancer Risk: a stronger effect in Whites than Blacks? *J Diab Comp* 2021; 35 (3):107816
 43. **Conway RB**, Armistead MG, Denney MJ, Smith GS. Validating matching of patients in the linkage of a large hospital system's EHR with state and national death databases. *Applied Clinical Informatics* 2021: 82-89.
 44. **Conway RBN**, Peltier A, Figaro MK. Diabetes and Constipation. *J Diab Comp* 2021; 35 (2): 107799.
 45. Tomaszewski E*, Orchard T, Hawkins M, **Conway RBN**, Buchanich J, Maynard J, Songer T, Costacou T. Predictors of change in skin intrinsic fluorescence in type 1 diabetes: The Epidemiology of Diabetes Complications study. *Journal of Diabetes Science and Technology* 2021. May 15;19322968211014337. doi: 10.1177/19322968211014337. Online ahead of print.
 46. Muhimpundu S, **Conway BN**, Andersen SW, Lipworth L, Steinwandel MD, Blot WJ, Shu XO, Sudenga SL. Racial Differences in Hepatocellular Carcinoma Incidence and Risk Factors Among a Low Socioeconomic Population. *Cancers* 2021; 13 (15):3710.
- *Student

INVITED TALKS

1. "Free Fatty Acids in Heart Disease and Diabetes". Endocrine Grand Rounds, Vanderbilt University, Nashville, TN. January 12, 2010.
2. "Hemoglobin and Diabetic Retinopathy". Dana Center for Preventative Ophthalmology, Wilmer Eye Institute, Johns Hopkins University, Baltimore, MD. March 15, 2013.
3. "Hemoglobin in Nephropathy and Retinopathy in Type 1 Diabetes: Observations from the Pittsburgh Epidemiology of Diabetes Complications Study." Renal Grand Rounds, West Virginia University, Morgantown, WV. June 18, 2013.
4. "Mortality Outcomes in Low-income African Americans and Whites with Diabetes: Results from the Southern Community Cohort Study." Department of Epidemiology Seminar Series, University of Pittsburgh, Pittsburgh, PA. January 9, 2014.
5. "Mortality Outcomes in African Americans and Whites with Diabetes: Results from the Southern Community Cohort Study". Center for Genomics and Personalized Medicine Seminar Series, Wake Forest School of Medicine, Winston-Salem, NC. September 30, 2015.
6. "Electronic Health Records as Research Tools". WVCTSI Boot Camp Series, West Virginia University, Morgantown, WV. February 26, 2016.
7. "Confounding and its statistical adjustment" and "Fundamental Measures of Disease Frequency and Association in Prospective Studies". Jackson Scholars Seminar, Jackson State University. April 1, 2016.

ORAL PRESENTATIONS AT NATIONAL AND INTERNATIONAL SCIENTIFIC MEETINGS

1. **Conway B**, Miller R, Costacou T, Fried L, Kelsey S, Evans R, Edmundowicz D, Orchard T. Double Edged Relationship of Adiposity with Coronary Artery Calcification in Type 1 Diabetes. *Diabetes* 56 (S1): A129. 67th Annual American Diabetes Association Scientific Sessions, June 2007.
2. Orchard T, **Conway B**. Are Hemoglobin Levels Elevated in Type 1 Diabetes? 43rd Annual Meeting of the European Diabetes Epidemiology Group of the European Association of the Study of Diabetes, April 2008.
3. **Conway B**, Rachel M, Costacou T, Fried L, Evans R, Kelsey S, Orchard T. Adiposity and Mortality in Type 1 Diabetes: A Complex Interplay of Factors. *Diabetes* 57 (S1): A9. 68th Annual American Diabetes Association Scientific Sessions, June 2008.
4. **Conway B**, Costacou T, Orchard T. Is Glycemia or Insulin Dose the Stronger Risk Factor for Coronary Artery Disease in Type 1 Diabetes? American Heart Association Fellows Research Day 2009, February 2009
5. Aroda V, Matter N, Aly R, **Conway B**, Maynard J, Orchard T, Ratner R. Noninvasive Measurement of Advanced Glycation End Products Correlates with Chronic Glycemic Exposure in Patients with Type 1 and Type 2 Diabetes. *Diabetes* 58 (S1). 69th Annual American Diabetes Association Scientific Sessions, June 2009.
6. **Conway B**, May ME, Signorello LB, Blot WJ. All-cause and Cause-specific Mortality by Race in Low Income Blacks and Whites with Type 2 Diabetes. *Diabetes* 61 (S1): A79. 72nd Annual American Diabetes Association Scientific Sessions, June 2012.
7. **Conway B**, Blot W. *Diabetes and Liver Cancer Risk—A Stronger Effect in Whites than Blacks?* *Diabetes* 2018; 67 (S1). 77th Annual American Diabetes Association Scientific Sessions, June 2018.

ABSTRACTS AND POSTERS

1. **Conway B**, Fried L, Costacou T, Orchard T. Hematocrit Predicts End Stage Renal Disease (ESRD) and Non-ESRD Mortality in Type 1 Diabetes with Overt Nephropathy. *Diabetes* 2005; 54 (S1): A551.
2. **Conway B**, Costacou T, Orchard T. Time Trends in Overweight and Obesity in Type 1 Diabetes and Their Association with Mortality. *Diabetes* 55 (S1): A382. Poster presentation at the 66th Annual American Diabetes Association Scientific Session, June 2006.
3. **Conway B**, Costacou T, Orchard T. Being Overweight is Associated with a Decreased Risk of Complications in Type 1 Diabetes (T1D). *Diabetes* 2006; 55 (S1): A531.

4. **Conway B**, Fried L, Orchard T. Autonomic Neuropathy Predicts Hematocrit Levels in Diabetic Kidney Disease. *Journal of the American Society of Nephrology* November, 2006. Poster presentation at the 39th Annual Renal Week of the American Society of Nephrology.
5. **Conway B**, Miller R, Costacou T, Fried L, Kelsey S, Evans R, Edmundowicz D, Orchard T. Association of Coronary Artery Calcification with Adiposity Varies by Age and Gender in Type 1 Diabetes. Poster presentation at Science 2006- The University of Pittsburgh, October 2006.
6. **Conway B**, Miller R, Klein R, Orchard T. High Hemoglobin Predicts Long-term Incidence of Proliferative Retinopathy in Type 1 Diabetes. *Diabetes* 56 (S1): A823. Poster presentation at the 67th Annual American Diabetes Association Scientific Sessions, June 2007.
7. **Conway B**, Miller R, Fried L, Kelsey S, Edmundowicz D, Evans R, Orchard T. Obesity, Free Fatty Acids, and Type 1 Diabetes: the fasting state revisited. Poster presentation at Science 2007- The University of Pittsburgh, October 2007.
8. **Conway B**, Miller R, Costacou T, Fried L, Kelsey S, Evans R, Edmundowicz D, Orchard T. Double Edged Relationship of Adiposity with Coronary Artery Calcification in Type 1 Diabetes. Poster presentation at the Infinite Possibilities Conference at North Carolina State University, Raleigh, North Carolina, November 2007.
9. **Conway B**, Wang J, Ediger M, Orchard T. Skin Fluorescence and Type 1 Diabetes: A New Marker of Complication Risk. *Diabetes* 57 (S1): A287. Poster presentation at the 68th Annual American Diabetes Association Scientific Sessions, June 2008.
10. Maynard J, **Conway B**, Orchard T, Matter N. Non-invasive Skin Fluorescence Indicates Cumulative Glycemic Exposure. Poster presentation at the 44th European Association for the Study of Diabetes Annual Meeting, September 2008.
11. **Conway B**, Matter N, Maynard J, Orchard T. Skin Fluorescence Detects Progression of Coronary Artery Calcification. *Diabetes* 58 (S1). Poster presentation at the 69th Annual American Diabetes Association Scientific Sessions, June 2009.
12. **Conway B**, Evans R, Fried L, Kelsey S, Edmundowicz D, Orchard T. Free Fatty Acids are Associated with Pulse Pressure in Women, but not Men, with Type 1 Diabetes. *Diabetes* 58 (S1). Poster presentation at the 69th Annual American Diabetes Association Scientific Sessions, June 2009.
13. Fischl A, **Conway B**, Orchard T. Time Trends in Intensive Insulin Therapy and Self Monitoring in Type 1 Diabetes. *Diabetes* 58 (S1). Poster presentation at the 69th Annual American Diabetes Association Scientific Sessions, June 2009.
14. Aroda V, Matter N, **Conway B**, Aly R, Maynard J, Orchard T, Rattner R. Noninvasive Measurement of Advanced Glycation End Products Correlates with Macrovascular Complications in Patients with Type 1 or Type 2 Diabetes. *Diabetes* 58 (S1). Poster presentation at the 69th Annual American Diabetes Association Scientific Sessions, June 2009.

15. Orchard T, **Conway B**. Free Fatty Acids are Associated with an Increased Q-T Interval in Men, but not Women, with Type 1 Diabetes. Poster presentation at the 45th European Association for the Study of Diabetes, September 2009.
16. **Conway B**, Matter N, Maynard J, Orchard T. Skin Intrinsic Fluorescence Correlates with Autonomic and Distal Symmetrical Polyneuropathy. *Diabetes* 59 (S1). Poster presentation at the 70th Annual American Diabetes Association Scientific Sessions, June 2010.
17. **Conway B**, May M, Signorello L, Blot W. The Mortality Experience of a Low SES Population with Young-Onset Diabetes: The Southern Community Cohort Study. *Diabetes* 60 (S1). Poster presentation at the 71st Annual American Diabetes Association Scientific Sessions, June 2011.
18. **Conway B**, Aroda V, Maynard J, Ratner R, Orchard T. Skin Intrinsic Fluorescence is Independently Associated with Coronary Artery Disease in Individuals with Long Duration Type 1 Diabetes. *Circulation* 2012; 125: Suppl 10: AP024. Poster presentation at the Epidemiology and Prevention/Nutrition, Physical Activity and Metabolism 2012 Scientific Sessions of the American Heart Association. March 13, 2012
19. **Conway B**, May ME, Myers I, Maynard JD, Artibee K, Blot WJ, Peltier A. Skin Intrinsic Fluorescence is Associated with Nerve Fiber Morphology and Conduction Velocity in Persons with Diabetic Neuropathy. *Diabetes* 61 (S1). Poster presentation at the 72st Annual American Diabetes Association Scientific Sessions, June 2012.
20. **Conway B**, Elasy TA, May ME, Blot JW. Mortality by Race in Type 1 Diabetes. *Diabetes* 62 (S1). Poster presentation at the 73rd Annual American Diabetes Association Scientific Sessions, June 2013.
21. **Conway B**, Evans RW, Orchard T. Evaluation of the Association between the Free Fatty Acid to Serum Albumin Ratio with the Time to Cardiac Repolarization. *Circulation*. 2014;129: AP005. Poster presentation at the Epidemiology and Prevention/Nutrition, Physical Activity and Metabolism 2014 Scientific Sessions of the American Heart Association. March 18, 2014.
- *22. Weber K, Fischl AF, Murray PJ, **Conway B**. The Effect of BMI on Cardiovascular and Metabolic Syndrome Risk Factors in an Appalachian Pediatric Population. *Circulation*. 2014;129: AP239. Poster presentation at the Epidemiology and Prevention/Nutrition, Physical Activity and Metabolism 2014 Scientific Sessions of the American Heart Association. March 20, 2014.
- *23. Weber K, Murray PJ, Fischl AF, **Conway B**. Overweight and CVD Risk Factors in an Appalachian Pediatric Diabetes Population. *Diabetes* 63 (S1). Poster presentation at the 74th Annual American Diabetes Association Scientific Sessions, June 2014.
- *24. Weber K, **Conway B**, Maynard J, Orchard T. The Association of NAT2 with CAC and CAD in a Population of Individuals with Type 1 Diabetes. *Diabetes* 2014; 63 (S1). 2543-PO.
25. **Conway B**, Long DM, May ME. Glycemic Control and Fracture Risk in Geriatric Patients with Diabetes. *Diabetes* 63 (S1). Poster presentation at the 74th Annual American Diabetes Association Scientific Sessions, June 2014.
26. **Conway B**, Innes K. Inverse Relationship between Environmental Contaminant Perfluorooctane Acid and Coronary Heart Disease in Diabetes. *Circulation* 2015; 131: AP011. Poster presentation at the

Epidemiology and Prevention/Nutrition, Physical Activity and Metabolism 2015 Scientific Sessions of the American Heart Association. March 3, 2015.

27. Gurka M, **Conway B**, Andrew M, Burchfiel C, DeBoer M. Additive Interactions and Metabolic Syndrome. Oral Presentation at the Eastern North American Region International Biometric Society (ENAR), March, 2015.
28. **Conway B**, Costacou T, Innes K, Arthur J. Environmental Contaminant Perfluorooctane Sulfonate and Kidney Function by Diabetes Status. *Diabetes* 2015; 64 (S1):LB6. Late Breaking poster presentation at the 75th Annual American Diabetes Association Scientific Sessions, June 2015.
29. **Conway B**, May ME. Inverse Relationship between Serum Iron and Kidney Function in Adults with Diabetes. *Diabetes* 2015; 64 (S1). Poster presentation at the 75th Annual American Diabetes Association Scientific Sessions, June 2015.
30. **Conway B**, Costacou T. Perfluoroalkyl Acids and Stroke Risk in Persons with and without Diabetes: a salutatory effect of high oxygen carrying capacity environment contaminants. *Circulation* 2016; 133 (S1): AP061. Poster presentation at the Epidemiology and Prevention/Nutrition, Physical Activity and Metabolism 2016 Scientific Sessions of the American Heart Association. March 2016.
31. **Conway B**, Giacobbi P, Drenowatz C, Blair S, Hand G. Association of Energy Flux with Change in Cardiovascular Risk Factors in Weight Stable Individuals. *Circulation* 2016; 133 (S1): AP139. Poster presentation at the Epidemiology and Prevention/Nutrition, Physical Activity and Metabolism 2016 Scientific Sessions of the American Heart Association. March 2016.
32. **Conway B**, Allred N, Freedman B, Bowden D. *NAT2* and Coronary Artery Calcification in African American and European Americans with Type 2 diabetes. *Diabetes* 2016; 65 (S1): A431. Poster presentation at the 76th Annual American Diabetes Association Scientific Sessions, June 2016.
33. **Conway BN**, Lopes-Virella MF, Blot WJ. Late Adulthood Mortality among Black and White Survivors of Type 1 Diabetes by Age at Diabetes Diagnosis. *Diabetes* 2016; 65 (S1): A412. Moderated poster presentation at the 76th Annual American Diabetes Association Scientific Sessions, June 2016.
34. Innes K, **Conway B**. Perfluoroalkyl Substances and Beta-Cell Deficient Diabetes. *Diabetes* 2016; 65 (S1): A412. Moderated poster presentation at the 76th Annual American Diabetes Association Scientific Sessions, June 2016.
- *35. Williams A, **Conway B**. Hemoglobin and eGFR by Diabetes Status: Effect of High Capacity Oxygen Carriers. *Diabetes* 2016. Late Breaking poster presentation at the 76th Annual American Diabetes Association Scientific Sessions, June 2016.
36. **Conway B**. Munro H, Han S, Blot B. Differential Impact of Obesity on Diabetes Risk among Low-Income Blacks and Whites. *Diabetes* 2017 (S1). Poster presentation at the 77th Annual American Diabetes Association Scientific Sessions, June 2017.
37. **Conway B**, Innes K, Costacou T, Arthur J. Perfluoroalkyl Substances and Kidney Function in Chronic Kidney Disease, Anemia, and Diabetes. *Diabetes* 2017; 66 (S1). Poster presentation at the 77th Annual American Diabetes Association Scientific Sessions, June 2017.

38. Huseynova K, **Conway B**. Risk of 30-Day Myocardial Infarction and Mortality after Vascular Surgery. *Diabetes* 2017; 66 (S1). Moderated poster presentation at the 77th Annual American Diabetes Association Scientific Sessions, June 2017.

*39. George C, **Conway B**. Increased Risk of Respiratory Disorders in Adults with Diabetes. *Diabetes* 2017; 66 (S1). Poster presentation at the 77th Annual American Diabetes Association Scientific Sessions, June 2017.

40. **Conway B**, Blot W. *Racial Variation in the Relationship of Diabetes with Pancreatic Cancer Risk*. *Diabetes* 2018; 67 (S1). Poster presentation at the 78th Annual American Diabetes Association Scientific Sessions, June 2018.

***Student first-authored presentation and publication**

41. **Conway B**, Blot W. BMI and Long-Term Mortality in a Population with Young and Older-Onset Diabetes. *Diabetes* 2019; 68 (S1). Poster presentation at the 79th Annual American Diabetes Association Scientific Sessions, June 2019.

42. **Conway B**, Hudson A, McClain D, Blot W. Increased Pancreatic Cancer Risk Associated with Dietary Iron in Whites, but not Blacks with Diabetes. *Diabetes* 2020; 69 (S1). Poster presentation at the 80th Annual American Diabetes Association Scientific Sessions (virtual), June 2020.

42. Campos E, Keenan H, Lopes-Virella M, Blot W, Conway B. Extreme Survival in Low SES Population with Early-onset Diabetes. *Diabetes* 2020; 69 (S1). Poster presentation at the 80th Annual American Diabetes Association Scientific Sessions (virtual), June 2020.

TECHNICAL REPORTS

Conway RBN, Rizzo NS. Final Report: Phase II Assessment Breast Cancer Incidence Concern at White River Junction VA Medical Center (WRJ VAMC, Vermont, December 31, 2021.

NEWSLETTERS

Conway BN, Moss AH. Supportive Care Needs of Dialysis Patients: where clinicians, social workers, and dialysis facilities can work together better. Renal Works, May 26, 2016. Newsletter of the National Renal Administrators Association.

<http://newsmanager.commpartners.com/nraarw/issues/2016-05-26.html>

MEDIA AND OTHER PUBLICATIONS

October 17, 2014. WHUR's The Daily Drum. Radio interview about the 2014 Ebola outbreak

July 2016 NPR: Public Health Minute. Diabetes Risk Factors.

<https://soundcloud.com/publichealthminute/diabetes-risk-factors-dr-bawjiyyah-conway>

MEMBERSHIPS IN PROFESSIONAL AND SCIENTIFIC SOCIETIES

American Diabetes Association	2005-Present
American Heart Association	2010-Present
American College of Epidemiology	2015-2017
American Statistical Association	2007-2009
American Medical Informatics Association	2016-Present

EPIDEMIOLOGY TEACHING EXPERIENCE

Courses Taught:

1. EPID 601-001 “Public Health Epidemiology, 3 credit hours, Fall 2014. Live course
2. EPID 601-002 “Public Health Epidemiology”, 3 credit hours, Fall 2014. Online course
3. EPID 601-007 “Public Health Epidemiology”, 3 credit hours, Fall 2014. Online course
4. EPID 710 “Advanced Principles of Epidemiology”, 3 credit hours, Fall 2015
5. EPID 611 “Concepts and Methods of Epidemiology”, 3 credit hours, Fall 2015 and Fall 2016.
6. Directed 3-credit hour independent study class in SAS programming, Summer 2013 and Spring 2015. Students took certification exam and received SAS certification at the end of the semester.
7. **PBHL 5342 “Epidemiology 1”**, 3 credit hours, Fall 2017; Fall 2018; Fall 2019 Live course
8. EPBI 6335 Epidemiology of Infectious Disease. 3 credit hours, Fall 2018 Live course
9. EPBI 6333 Public Health Surveillance Methods. 3 credit hours, Spring 2020 Hybrid course

Other Epidemiology Teaching Activities:

1. Teaching assistant for Seminar in Epidemiology and Public Health, University of Pittsburgh, Spring 2006.
2. Guest Lecture for EPI 321 “Applied Epidemiologic Methods in Regression I: Binary Data”. Lecture title: “Introduction to Longitudinal Data Analysis”. Vanderbilt University, November 29, 2011.
3. Lecturer for “Clinical Tropical Medicine and Travelers’ Health” course. Lecture title: “Basic Measures of Morbidity and Mortality”. West Virginia University, June 12, 2013.
4. Lecturer for Translational Cardiovascular Sciences. West Virginia University, August 1, 2013.
5. Lecturer for Translational Cardiovascular Sciences. West Virginia University, August 6, 2013.
6. Guest Lecturer for EPID 610 “Principles of Epidemiology”. Lecture title: “Mortality: Another Measure of Frequency”. West Virginia University, August 27, 2013.
7. Guest Lecturer for EPID 610 “Principles of Epidemiology”. Lecture title: “Standardization”. West Virginia University, September 3, 2013.
8. Guest Lecturer for BIOS 623 “Biostatistical Consulting”. West Virginia University, February 24, 2014.
9. Epidemiology Practicum Preceptor for Jonathan Herczyk, Spring 2014.

10. Lecturer for “Clinical Tropical Medicine and Travelers’ Health” course. Lecture title: “Basic Measures of Morbidity and Mortality”. West Virginia University, June 11, 2014.

11. Course Instructor for “Epidemiology of Pediatric Energy Balance Disorders and Metabolic Syndrome”, summer camp course for HSTA high school students the summer between the 10th and 11th grade. Two one-week courses at 24 hours instructional time per course as part of Grant R25 0D010495.

12. Guest Lecturer for PUBH 659 “Public Health Foundations”. Lecture title “Essential Principals in Epidemiology”. West Virginia University, February 9, 2016.

13. Guest Lecturer for PUBH 659 “Public Health Foundations”. Lecture title “Essential Principals in Epidemiology”. West Virginia University, September 7, 2016.

STUDENTS ADVISED AND DISSERTATION COMMITTEES

Dissertation Committee: Omayma Alshaarawy, MD, PhD, Srinivas Teppala, MD, and Virginia Cadenhead, RN, MSN, PhD.

Advised the following MPH students: Lindsay Mason, Katelynn Weber (Dodd), Jonathan Herczyk, Holly McGennis, Sarah Singh, Morgan Nickerson, Caitlin Montgomery, Spencer Murdock, Ashley Williams, Chelsey George, Ramata Barry, Dana Dandeneau, Francisco Parra, Arlene Montes, Miranda Pierce, Eric Campos.

INTERESTS AND HOBBIES

Hanji picture making: this is a Korean craft using only handmade paper and glue to create pictures and scenes. I learned this craft while living and working in Korea.

Beginning June, 2020 I had a legal name change and began going by Rebecca as my first name. Publications prior to that will not contain that name.