# Satya Surbhi, PhD

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#### ACADEMIC APPOINTMENTS

#### **Primary Appointments**

- 2017 Present Assistant Professor, Center for Health System Improvement, College of Medicine, University of Tennessee Health Science Center
- 2019 Present **Director** of Measurement and Reporting, Diabetes Wellness and Prevention Coalition Registry and Practice-Based Research Network

#### **Affiliated Appointments**

2018 – Present Assistant Professor, Institute for Health Outcomes and Policy, College of Graduate Health Sciences, University of Tennessee Health Science Center

#### **EDUCATION AND TRAINING**

2016-2017	Postdoctoral Fellow,	Center for Health St	ystem Improvement.	, UTHSC, Mem	phis, TN

- 2012 2016 **Doctor of Philosophy** in Health Outcomes and Policy Research, UTHSC, Memphis, TN Dissertation Title: *Medication Nonadherence, Health Care Utilization, and SafeMed Care Transitions Model Impact in Super-utilizers.*
- 2008 2011 **Master of Science** in Pharmacy Administration, St. John's University, Queens, NY Thesis Title: *Hypertension Diagnosis, Treatment, and Control in Diabetic Patients.*
- 2003 2007 Bachelor of Pharmacy, Manipal Academy of Higher Education, Karnataka, India

#### AWARDS

2015–2016 PhRMA Foundation Pre-Doctoral Fellowship Award in adherence improvement
2016 UTHSC College of Graduate Health Sciences Travel Award
2013 Drug Information Association student poster travel award

#### **PROFESSIONAL MEMBERSHIPS**

- 2014 Present Academy Health
- 2010 Present International Society for Pharmacoeconomics and Outcomes Research (ISPOR)

#### NON-ACADEMIC EMPLOYMENT

- Summer 2015 **Graduate Intern**-Enterprise Research and Analytic Development, **CVS Health**, Northbrook, IL Project: Value of adherence interventions using Markov cohort simulation model
  - Used cost benefit models to examine the value of adherence improvement interventions at different points on the medication adherence trajectory
- 2008

#### Business Development Manager, Boehringer Ingelheim, India Pvt. Ltd.

Worked in the marketing and sales department and promoted medications including Actilyse<sup>®</sup> (alteplase), Metalyse<sup>®</sup> (tenecteplase), and Aggrenox<sup>®</sup> (aspirin/extended-release dipyridamole) for the treatment of ischemic stroke and myocardial infarction

## 2007 Territory Manager, Cipla Ltd, India

• Worked in the marketing and sales department and promoted generic HIV medications to the physicians

## **TEACHING EXPERIENCE**

- Health System Seminar, HOPR 830: Co-Instructor with Dr. Jim Bailey. Health Outcomes and Policy Research. College of Graduate Health Sciences, University of Tennessee Health Science Center. Spring 2020.
- Introduction to Health Disparities, BIOE 729: Guest lecturer. Health Outcomes and Policy Research. College of Graduate Health Sciences, University of Tennessee Health Science Center. Spring 2020 and 2021.

## **INVITED LECTURES**

• Economic evaluation of health care programs. Pediatric Fellow Research Week 2019. University of Tennessee Health Science Center.

## EDITORIAL APPOINTMENTS

#### **Grant Reviewer**

- Reviewer, Maryland Industrial Partnership Program (MIPS), University of Maryland, MA, June 2018
- Co-Reviewer, Health Research Board (HRB), Republic of Ireland, March 2017

#### **Editorial Board**

• Academic Editor, PLOS ONE

#### **Ad Hoc Reviewer**

- Scientific Reports
- American Journal of Managed Care
- BMJ Open
- Annals of Internal Medicine
- Preventing Chronic Disease
- Medical Care

- International Journal of Pharmacy Practice (IJPP)
- INQUIRY
- Journal of American Pharmacists Association (JAPhA)
- ClinicoEconomics and Outcomes Research
- Value in Health
- Pharmacy Practice
- Journal of Pharmaceutical Health Services Research (JPHSR)
- Expert Review of Pharmacoeconomics & Outcomes Research
- Journal of Medical Economics
- Journal of Managed Care & Specialty Pharmacy (JMCP)
- Research in Social and Administrative Pharmacy
- PLOS ONE

#### **Abstract Reviewer**

- Academy Health Annual Research Meeting, 2021
- International Society for Pharmacoeconomics and Outcomes Research (ISPOR) Europe, 2018
- Academy of Managed Care Pharmacy (AMCP), 2017

#### **GRADUATE STUDENT MENTORING**

- 2021-Present PhD Advisor, Kimberly Williams, Health Outcomes and Policy Research, UTHSC
- 2021-Present PhD Advisor, Deborah Ogunsanmi, Health Outcomes and Policy Research, UTHSC
- 2020-Present PhD Committee Member, Leigh McCormack, Health Outcomes and Policy Research, UTHSC
- 2019-Present PhD Committee Member, Bianca M. Jackson, Health Outcomes and Policy Research, UTHSC
- 2018-Present PhD Committee Member, Ming Chen, Health Outcomes and Policy Research, UTHSC
- 2018-Present PhD Committee Member, Sohul Ahmed Shuvo, Health Outcomes and Policy Research, UTHSC
- Summer 2020 **Primary Mentor**, Aditya Shah, NIH Summer Research Scholars Program, UTHSC
- Summer 2019 Co-Mentor, Sierra Gaffney, NIH Summer Research Scholars Program, UTHSC
- Summer 2018 Primary Mentor, Rosita Nnenna Ekem, NIH Summer Research Scholars Program, UTHSC
- Summer 2018 Co-Mentor, Emily Morgan Mylhousen, NIH Summer Research Scholars Program, UTHSC
- 2017-2018 Supervisor, Ankur A. Dashputre, Health Outcomes and Policy Research, UTHSC

#### SERVICE

- 2021 Member of the search committee for the Chair of the Department of Diagnostic and Health Sciences and Associate Dean for Academic, Faculty, and Student Affairs for the College of Health Professions
- 2021 Member of the Institute for Health Outcomes and Policy (IHOP) Executive Committee

#### **RESEARCH FUNDING**

#### Ongoing

AOTF Awards Health Services Research Grant Zachry (PI)

Inequities in Access and Impact of Post-Stroke Home Occupational Therapy Services in a Statewide Medicaid Population. The goal of this study is to examine racial, gender, and geographic inequities in access and utilization of post-stroke home-based occupational therapy (OT) and impact of post-stroke home-based OT on readmissions.

Role: Co-Investigator

#### 1U18 HS27952-01 AHRO Bailey (PI)

3/1/2021-02/29/2024 Tennessee Heart Health Network: Implementing Patient-Centered Practices in Primary Care to Improve Cardiovascular Health. The goal of this project is to leverage existing infrastructure by identifying and implementing appropriate evidence-based interventions to improve quality and outcomes of cardiovascular care across Tennessee.

Role: Co-Investigator

University of Tennessee Health Science Center and University of Memphis CORNET (Collaborative Research 09/1/2020-08/31/2021 Network) Surbhi (PI) The Impact of the COVID-19 Pandemic on Racial, Gender, and Socioeconomic Disparities in Access to Care and Health Outcomes among Patients with Ambulatory Care Sensitive Conditions. The goal of this study is to examine the effects of the different phases of the COVID-19 pandemic on access to care, health outcomes, and cost of care for adults in the Mid-South region of US with ambulatory care sensitive conditions. Role: Principal Investigator

#### PhRMA Foundation Surbhi (PI)

Improving Adherence through Full Subsidy and Direct Delivery of Essential Medications for Medicaid Super-Utilizers. The goal of this pilot randomized controlled trial is to demonstrate the feasibility of an intervention involving full medication subsidy and/or bedside and home delivery of medications to improve medication adherence and quality of life while reducing preventable inpatient and ED use and costs among Medicaid super-utilizers.

Role: Principal Investigator

#### Completed

PCORI Bailey (PI) 01/1/2016-04/30/2021

Improving Self-Care Decisions of Medically Underserved African-Americans with Uncontrolled Diabetes: Effectiveness of Patient-Driven Text Messaging versus Health Coaching. The goal of this study is to compare how well Motivational Messages, Diabetes Wellness Coaches, and usual care with diabetes education materials provided at the doctor's office work to help African-American adults with uncontrolled diabetes improve diabetes self-care decisions. Role: Co-Investigator

PhRMA Foundation

Pre-Doctoral Fellowship in Adherence Improvement Surbhi (PI) 08/1/2015-07/31/2016 Medication Nonadherence, Health Care Utilization, and SafeMed Care Transitions Model Impact in Superutilizers. This grant provided one year of support for completing PhD dissertation work. Role: Principal Investigator

07/01/2021-06/30/2023

11/01/2020-10/31/2021

#### PEER-REVIEWED PUBLICATIONS (Accepted or Published)

(\*denotes Mentee)

- Chen M\*, **Surbhi S**, Bailey JE. Association of Weight Loss with Type 2 Diabetes Remission among Adults in Medically Underserved Areas: A Retrospective Cohort Study. Accepted by the American Journal of Health Promotion. June 2021.
- Surbhi S, Tolley EA, Cossman RE, Dashputre A, Bailey JE. Refining a traditional urban-rural classification approach to better assess heterogeneity of treatment effects in patient-centered outcomes research. Accepted for publication at MethodsX. March 2021.
- Tolley EA, **Surbhi S**, Bailey JE. Using preliminary data and prospective power analyses for mid-stream revision of projected group and subgroup sizes in pragmatic patient-centered outcomes research. *Data in Brief*. 2020.106529
- Lin Y, Bailey JE, **Surbhi S**, et al. Effect of Continuity of Care for Patients with Obesity-Associated Chronic Conditions: Protocol for a Multisite Retrospective Cohort Study. *JMIR Res Protoc* 9(9): e20788.
- Bailey JE, **Surbhi S**, Gatwood J, et al. The management of diabetes in everyday life study: Design and methods for a pragmatic randomized controlled trial comparing the effectiveness of text messaging versus health coaching. *Contemp Clin Trials*. 2020:106080.
- Surbhi S, Brooks IM, Shuvo SA, et al. A mid-South chronic disease registry and practice-based research network to address disparities. *Am J Manag Care*. 2020;26:e211-e8.
- Surbhi S, Graetz I, Wan JY, Gatwood J, Bailey JE. Medication nonadherence, mental health, opioid use, and inpatient and emergency department use in super-utilizers. *Am J Manag Care*. 2020;26(3):e98-e103.
- Dashputre AA\*, **Surbhi S**, Podila PSB, Shuvo SA, Bailey JE. Can primary care access reduce health care utilization for patients with obesity-associated chronic conditions in medically underserved areas? *J Eval Clin Pract*. 2020.
- Bailey JE, **Surbhi S**, Wan JY, Munshi KD, Waters TM, Binkley BL, Ugwueke MO, Graetz I, Effect of Intensive Interdisciplinary Transitional Care on Quality, Outcomes, and Costs for High-Need, High-Cost Patients. *J Gen Intern Med.* 2019 Sep;34(9):1815-1824.
- Surbhi S, Graetz I, Wan JY, Gatwood J, Bailey JE. The Effect of Opioid Use and Mental Illness on Chronic Disease Medication Adherence in Superutilizers. *J Manag Care Spec Pharm.* 2018 Mar;24(3):198-207.
- Nault Connors JD, Binkley BL, Graff JC, **Surbhi S**, Bailey JE. How patient experience informed the SafeMed Program: Lessons learned during a Health Care Innovation Award to improve care for super-utilizers. *Healthc (Amst)*. 2018.
- Surbhi S, Munshi KD, Bell PC, Bailey JE. Drug therapy problems and medication discrepancies during care transitions in super-utilizers. *J Am Pharm Assoc (2003)*. 2016;56(6):633-642 e631.
- Bailey JE, **Surbhi S**, Bell PC, Jones AM, Rashed S, & Ugwueke MO. SafeMed: Using pharmacy technicians in a novel role as community health workers to improve transitions of care. *J Am Pharm Assoc (2003)*. 2016;56(1):73-81.
- Jamison JJ, Wang J, Surbhi S, et al. Impact of Medicare Part D on Racial and Ethnic Minorities. Divers

Equal Health Care. 2016;13(5):326-333.

- Wang J, **Surbhi S**, Zhang Z, Spivey CA, Burns MC. Historical trend of racial and ethnic disparities in meeting Medicare medication therapy management eligibility in non-Medicare population. *Res Social Adm Pharm.* 2014;10(6):904-917.
- Wang J, **Surbhi S**, Kuhle JW. Receipt of Angiotensin-Converting Enzyme Inhibitors or Angiotensin II Receptor Blockers among Medicare Beneficiaries with Diabetes and Hypertension. *J Pharm Health Serv Res.* 2014;5(1):67-74.

#### **PUBLICATIONS (Under review or in preparation)**

- Finocchio T, Surbhi S, Madlock-Brown C. Time to Development of Overt Diabetes, Macrovascular, & Microvascular Complications Among Patients with Prediabetes: A Retrospective Cohort Study. Submitted to American Journal of Health Promotion, August 2021.
- Surbhi S, Harris LJ, Box A, Bailey JE. Association of Chronic Opioid Therapy with Emergency Department Visits and Hospitalizations among Super-Utilizers. Submitted to the Journal of General Internal Medicine, August 2021.
- Ekem RN\*, Harris LJ, Bailey JE, **Surbhi S**. Patient Preferences for Using Emergency and Primary Care for Non-Urgent Conditions in Medically Underserved Areas. In preparation to be submitted to the Journal of the National Medical Association.

#### PRESENTATIONS

#### **Podium Presentations**

- Shuvo SA\*, Gatwood J, Tolley EA, **Surbhi S**, Kaplan C, Bailey JE. Differences in Adherence and Healthcare Utilization between Users of Analog Vial, Analog Pen, and Human Insulin. Accepted at the International Society for Pharmacoeconomics and Outcomes Research (ISPOR) 2021 conference, virtual podium presentation in a prerelease session.
- Chen M\*, **Surbhi S**, Bailey JE. Is Primary Care Utilization Associated with Remission of Type 2 Diabetes in a Medically Underserved Areas in the American South? Podium presentation at the Society of General Internal Medicine 2020 Southern Regional Meeting at New Orleans, LA.
- Ekem RN\*, **Surbhi S**, Harris LJ, Bailey JE. Patient Preferences for Using Emergency and Primary Care for Non-Urgent Conditions in Medically Underserved Areas. Podium presentation at the Society of General Internal Medicine 2019 Southern Regional Meeting at Houston, TX.
- Mylhousen EM\*, Tolley EA, **Surbhi S**, Smith PA, Riordan CJ, Bailey JE. Effectiveness of a Brief Intervention to Increase Rapid Primary Care Follow-up among African American Patients with Uncontrolled Diabetes. Podium presentation at the Society of General Internal Medicine 2019 Southern Regional Meeting at Houston, TX.
- Shuvo SA\*, **Surbhi S**, Dashputre A, Bailey JE. Association of Access to Primary Care with Healthcare Utilization Among Medically Underserved Patients with Diabetes. Podium presentation at Academy Health 2018 annual research meeting, Seattle, WA.

- Surbhi S, Graetz I, Wan JY, Harris LJ, Bailey JE. Receipt of Opioids from Multiple Providers and Associated Inpatient and Emergency Department Use among Super-Utilizers. Oral presentation at the Society of General Internal Medicine 2018 Southern Regional Meeting at New Orleans, LA.
- Bailey JE, **Surbhi S**, Bell P, Jones A, Rashed S. A Novel Expanded Role for Certified Pharmacy Technicians As Community Health Workers Improving Transitions of Care. Podium presentation at Academy Health 2015 annual research meeting, Minneapolis, MN.

#### **Poster Presentations**

- Surbhi S, Dobalian A, Melton-Fant CE, Powell PM, Lenihan CB, Kamble KS, Bailey JE. Impact of the COVID-19 Pandemic on Healthcare Utilization among Medically Underserved Patients with Ambulatory Care Sensitive Conditions. Accepted for poster presentation at the Academy Health Annual Research Meeting; June 14-17, 2021; virtual meeting.
- Surbhi S, Chen M, Shuvo SA, Price-Haywood E, Shi L, Mann J, Lin Y, Le PL, Burton JH, Bailey JE. Does Continuity of Care Protect Patients with Obesity-Associated Chronic Conditions from Hospitalizations and Emergency Department Visits? Poster accepted at the Society of General Internal Medicine Southern Regional Meeting; February 24, 2021; virtual meeting.
- Shah AS\*, **Surbhi S**. Impact of Area-Level Social Determinants of Health on Clinical Outcomes and Healthcare Utilization. Accepted for poster presentation at AMA Research Symposium. December 2020; virtual meeting.
- Surbhi S, Chen M, Shuvo SA, Bailey JE. The Effects of Continuity of Care on Hospitalizations and Emergency Department Visits in Patients with Obesity-Associated Chronic Conditions. Abstract accepted for poster presentation at the Society of General Internal Medicine 2020 annual meeting, Birmingham, AL.
- Brooks IM, Riordan CJ, **Surbhi S**, Shuvo SA, Bailey JE. The Diabetes Wellness and Prevention Coalition Registry: A practice-based Research Network for Applied Health Care Research, 2018 Delta Clinical and Translational Health Disparities Conference, University of Mississippi Medical Center, Jackson MS.
- Dashputre AA\*, **Surbhi S**, Podila PSB, Bailey JE. Characteristics of Adult Patients With Obesity Associated Chronic Conditions. Poster presentation at 2018 Graduate Research Day, UTHSC, Memphis, TN.
- Surbhi S, Shuvo SA, Brooks IM, Dashputre A, Bailey JE. Utilizing Diabetes, Wellness, and Prevention Coalition Registry to Improve Quality of Care for Patients with Diabetes. Accepted for poster presentation at American Medical Informatics Association (AMIA) 2018 clinical informatics conference, Scottsdale, AZ.
- Surbhi S, Bailey JE, Graetz I, Wan JY. Medication Nonadherence, Mental Illness, and Opioid Use and Inpatient and Emergency Department Use in Super-Utilizers. Poster presentation at Academy Health 2017 annual research meeting, New Orleans, LA.
- Surbhi S, Bailey JE, Graetz I, Wan JY. Predictors of Medication Nonadherence in Super-Utilizers with Multiple Chronic Conditions and Polypharmacy. Poster presentation at Academy Health 2016 annual research meeting, Boston, MA.
- Bailey JE, Graetz I, Munshi KD, **Surbhi S**, Wan JY, Waters TM. Cost Savings Associated with Participation in the Safemed Program, an Innovative Care Transitions Program for Super-Utilizers with Multiple Chronic Conditions. Poster presentation at Academy Health 2015 Annual Research Meeting,

Minneapolis, MN.

- Surbhi S, Bailey JE, Chang C. Incremental Direct Medical Expenditures Associated with COPD among the Adult Population: A Two-Part Regression Approach. Poster presentation at Academy Health 2014 annual research meeting, San Diego, CA.
- Wang J, Qiao Y, **Surbhi S**. Historial Trend in the Disparity Implications of Applying Medicare MTM Eligibility Criteria among the Non-Medicare Population. Poster presentation at Academy Health 2013 annual research meeting, Baltimore, MD.
- Surbhi S, Wang J. Receipt of Angiotensin-Converting Enzyme Inhibitors or Angiotensin II Receptor Blockers among Medicare Beneficiaries with Diabetes. Poster presentation at Drug Information Association 2013 annual meeting, Boston, MA.
- Marler J, Howard-Thompson A, Wang J, Armstrong H, Elliott W, **Surbhi S**, Sterling J, Wells L, George C. Effect of diabetes education provided by student pharmacists in a community pharmacy on diabetes knowledge and glycosylated hemoglobin in patients with diabetes. Poster presentation at Tennessee Society of Health-System Pharmacists (TSHP) 4<sup>th</sup> annual meeting, TN.
- Surbhi S, Mackey ML. Screening, Treatment and Control of Hypertension in Diabetic Patients using Outpatient Visit Data. Poster presentation at 2011 International Society for Pharmacoeconomics and Outcomes Research (ISPOR) 16<sup>th</sup> annual international meeting, Baltimore, MD.
- Surbhi S, Mackey ML. The Prevalence and Use of Potentially Inappropriate Medication in the Elderly Population using National Nursing Home Survey (NNHS). Poster presentation at 2010 International Society for Pharmacoeconomics and Outcomes Research (ISPOR) 15<sup>th</sup> annual international meeting, Atlanta, GA.