

BIOGRAPHICAL SKETCH

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NAME: Love, Thomas E.

eRA COMMONS USER NAME (credential, e.g., agency login): TELOVE

POSITION TITLE: Professor, Department of Medicine and Department of Epidemiology & Biostatistics

EDUCATION/TRAINING (*Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.*)

INSTITUTION AND LOCATION	DEGREE	Completion Date MM/YYYY	FIELD OF STUDY
Columbia College, Columbia University, NY NY	A.B.	05/1988	Mathematics & Education
Teachers College, Columbia University	M.A.	05/1989	Mathematics Education
Teachers College, Columbia University	M.S.	05/1990	Mathematics Education
Wharton School, University of Pennsylvania	M.S.	06/1992	Statistics
Wharton School, University of Pennsylvania	Ph.D.	06/1994	Statistics

A. Personal Statement

Dr. Love is a Fellow of the American Statistical Association (ASA) and has wide experience with applying and teaching statistical methods including propensity score methods. Dr. Love has led courses at clinical and statistical meetings on propensity scores, on cluster randomized trials and on related topics in causal effects, for which he has won numerous teaching awards, and has given multiple workshops for the ASA. He is a past Chair of ASA's Health Policy Statistics Section, and of the International Conference on Health Policy Statistics. He is an Associate Editor of *The American Statistician*, and has served as Editor of *Health Services Research & Outcomes Methodology*, and as chair of a NIH special emphasis panel on statistical methods. He directs the Data Center for Better Health Partnership, a collaborative of primary care providers, hospitals, health systems, and those who pay for and receive care in Northeast Ohio providing transparent information on care and outcomes for over 190,000 adults living with chronic disease.

B. Positions and Honors**APPOINTMENTS**

1994-2007 Assistant Professor, Department of Operations, Weatherhead School of Management, CWRU.
 2001-2007 Assistant Professor, Department of Medicine, School of Medicine, CWRU
 2001- Director, Biostatistics and Evaluation Unit. Center for Health Care Research & Policy.
 2007- Director, Data Center, Better Health *Greater* Cleveland (also member of Executive Team).
 2007-2012 Associate Professor, Department of Medicine, School of Medicine, CWRU.
 2009-2012 Associate Professor, Department of Epidemiology and Biostatistics, CWRU.
 2012- Professor, Department of Medicine, School of Medicine, CWRU. (Primary appointment)
 2012- Professor, Department of Epidemiology & Biostatistics, CWRU.

HONORS

1991, 1994 Murray Prize for Excellence in Teaching (1991) and Bursk Prize for Outstanding Graduate Student (1994), Department of Statistics, The Wharton School.
 1998-1999 Finalist for Outstanding Teaching Award, Weatherhead School of Management
 2003, 2006 Outstanding Short Course (with RD Cebul and NV Dawson), Society for Medical Decision Making (Propensity Analysis – '03, Cluster Randomized Trials – '06)

2004	Best Educational Contribution Award, CWRU School of Medicine
2009	Outstanding Reviewer Award, <i>Journal of Educational & Behavioral Statistics</i>
2005, 2009, 2010	Scholarship in Teaching Award, CWRU School of Medicine
2013	Fellow, American Statistical Association
2015	Nominee, John S. Diekhoff Award for Distinguished Graduate Student Teaching, CWRU

SELECTED SCHOLARLY SERVICE

2005-	Associate Editor, <i>The American Statistician</i>
2007	Synthesis Group Presenter (Propensity Methods), NCCAM Complexity Workshop
2007-2015	Co-Director, Biostatistics Epidemiology & Research Design Core, Cleveland CTSC
2008	Member, NIH / NCCAM Special Study Section related to Observational Studies
2010	Chair, Health Policy Statistics Section, American Statistical Association
2010	NIH / HSOD Study Section (Temporary Member)
2009-2011	Co-Chair, 9 th International Conference on Health Policy Statistics
2009-2014	Associate Editor, <i>Health Services Research and Outcomes Methodology</i>
2010-	Community Health Status Assessment, Cuyahoga County HIP Project
2011-	Design & Analysis Working Group, National COPTR Consortium
2012	NIH / Study Section in Response to U54 Common Fund Collaboratory Center Proposals
2013	NIH / Review Panel for NCCAM Clinical Studies R34
2012-2015	Chair, NIH / Special Emphasis Panel / SRG for NIDCR R03 (ZDE1 JR 23) [6x to date]

C. Contribution to Science

- Electronic Health Records and Better Health Partnership.** A major thrust of my work over the past eight years has been related to the activities of Better Health Partnership (formerly Better Health Greater Cleveland), an independent organization dedicated to improving the health of people in Northeast Ohio living with chronic disease. I have led the Better Health Data Center from its inception, and our work has been sponsored in part by the Robert Wood Johnson Foundation as part of their Aligning Forces for Quality initiative. Since 2007, *Better Health's* primary care partners have jointly measured, publically reported, and substantially improved measures of care and outcomes in adult patients with common and costly chronic conditions, specifically, diabetes, hypertension and heart failure. In our most recent (and 15th) Community Health Checkup, we describe achievement and improvement in 68 primary care practices (726 providers) in nine health systems in the region. In addition to our 15 Checkup reports (available through betterhealthpartnership.org/data) and related data briefs, we have published several articles studying the improvement of chronic care in the region, and the important role of electronic health records in transforming measuring care effectively.

 - Cebul RD **Love TE** Jain AK Hebert CJ Electronic Health Records and Quality of Diabetes Care. *New England Journal of Medicine* 2011, 365, 825-833. <http://healthpolicyandreform.nejm.org/?p=15235> [PMID: [21879900](https://pubmed.ncbi.nlm.nih.gov/21879900/)]
 - Love TE** Cebul RD Einstadter D Jain AK Miller H Harris CM Greco PJ Husak SS Dawson NV Electronic medical record-assisted design of a cluster-randomized trial to improve diabetes care and outcomes. *J Gen Internal Med* 2008, 23: 383-391. [doi:10.1007/s11606-007-0454-3](https://doi.org/10.1007/s11606-007-0454-3) [PMID: [18373134](https://pubmed.ncbi.nlm.nih.gov/18373134/)]
 - Cebul RD **Love TE** Einstadter D Petrulis AS Corlett JR MetroHealth Care Plus: Effects of a prepared safety net on quality of care in a Medicaid expansion population. *Health Aff (Millwood)* 2015 Jul 1, 34(7): 1121-30. [doi:10.1377/hlthaff.2014.1380](https://doi.org/10.1377/hlthaff.2014.1380) [PMID: [26153306](https://pubmed.ncbi.nlm.nih.gov/26153306/)]
 - Kaelber DC Waheed R Einstadter D **Love TE** Cebul RD Use and perceived value of Health Information Exchange: One Public Healthcare System's Experience. *Am J Managed Care*, 2013, 19: SP337-SP343. <http://www.ajmc.com/publications/issue/2013/2013-11-vol19-sp> [PMID: [24511888](https://pubmed.ncbi.nlm.nih.gov/24511888/)]
- Observational Studies of Patients with Heart Failure.** For more than ten years, I have been working in collaboration with Ali Ahmed MD, Associate Chief of Staff for Health and Aging, Washington DC VA Medical Center on a wide range of projects looking at epidemiology, outcomes and quality of care provided to older adults with heart failure. Originally, our work focused on prevalence and correlates of medication usage in this population, and has expanded over the years to apply propensity score methods (principally 1:1 matching, supplemented by formal sensitivity analyses) to secondary data

analyses investigating the impact of several different interventions, including both the main and ancillary DIG trials (more on these in Contribution 3, below), the Cardiovascular Health Study, and the OPTIMIZE-HF trial. This has led to dozens of joint publications – four examples from this collaboration are highlighted below.

- a. Ahmed A **Love TE** Sui X Rich MW Effects of angiotensin-converting enzyme inhibitors in systolic heart failure patients with chronic kidney disease: A propensity score analysis *J Card Fail* 2006; 12: 499-506. [PMID: [16952782](#)]
- b. Ahmed A Young JB **Love TE** Levesque R Pitt B A propensity-matched study of the effects of chronic diuretic therapy on mortality and hospitalization in older adults with heart failure. *Int J Cardiology* 2008, 125: 246-53. [PMID: [17706809](#)]
- c. Deedwania P Patel K Fonarow GC Desai RV Zhang Y Feller MA Ovalle F **Love TE** Aban IB Mujib M Ahmed MI Anker SD Ahmed A Prediabetes is not an independent risk factor for incident heart failure, other cardiovascular events or mortality in older adults. Findings from a population-based cohort study. *Int J Card* 2013; 168: 3616-22. [PMID: [23731526](#)]
- d. Patel K Fonarow GC Ekundayo OJ Aban IB Kilgore ML **Love TE** Kitzman DW Gheorghide M Allman RM Ahmed A Beta-blockers in older patients with heart failure and preserved ejection fraction: Class, dosage and outcomes. *Int J Cardiology* 2014, 173: 393-401. [PMID: [24703206](#)]

3. **Disparities and Access to Care.** Since I came to the Center for Health Care Research and Policy in 2001, I have participated in a steady stream of health services research into disparities in care and access, starting with some methodological work, developing appropriate risk adjustment tools and psychometric assessments, as well as mentoring several trainees through projects focused on health outcome disparities. This includes work with Jennifer Bailit on identifying the appropriate role for race as part of meaningful case mix adjustment in studying rates of cesarean deliveries, measuring disparities effectively across languages in psychometric work with Joseph Sudano and others involved in this project, and work with two PhD students (David Litaker, and more recently Nicholas Schiltz) assessing issues of disparities and access to care through the study of large databases. Relevant publications include:

- a. Bailit JL **Love TE** The role of race in cesarean rate case mix adjustment. *Am J Obstet Gynecol* 2008; 198(1): 69: e1-5. [PMID: [17905177](#)]
- b. Sudano JJ Perzynski A **Love TE** Lewis SA Murray PM Huber G Ruo B Baker DW Measuring disparities: Bias in the Short Form-36v2 among Spanish-speaking Medical Patients. *Medical Care* 2011; 49: 480-8. [PMID: [21430580](#)]
- c. Litaker D Koroukian SM **Love TE** Context and health care access: Looking beyond the individual. *Medical Care* 2005, 43: 531-540. [PMID: [15908847](#)]
- d. Schiltz NK Koroukian SM Singer ME **Love TE** Kaiboriboon K Disparities in access to specialized epilepsy care. *Epilepsy Research* 2013, 107: 172-180. [doi:10.1016/j.eplepsyres.2013.08.003](https://doi.org/10.1016/j.eplepsyres.2013.08.003) [PMID: [24008077](#)]

4. **Digoxin usage in patients with heart failure.** Some of the work with Dr. Ahmed and his many collaborators over the years that has received substantial attention are our studying the use of digoxin, initially in the context of secondary analyses of the DIG (Digitalis Investigation Group) main and ancillary trials. Our subsequent analyses (Citations a-c) described several new results. We found no digoxin-associated effect on mortality or hospitalizations in ambulatory patients with mild to moderate diastolic HF and normal sinus rhythm receiving ACE-inhibitor and diuretics. In another study, serum digoxin concentration appeared important – those with SDC between 0.5 and 09 ng/mL showed digoxin-associated reductions in mortality and hospitalizations in all HF patients, even those with diastolic HF. At higher SDC levels, digoxin was associated with reductions in HF hospitalizations but not mortality or all-cause hospitalizations. Chronic diuretic use, on the other hand, was associated with increases in long-term mortality and hospitalizations. More recently (citation d), we showed that in 921 well-matched pairs of Medicare beneficiaries hospitalized with systolic heart failure, the member of each pair who received a discharge digoxin prescription showed lower 30-day all-cause hospital readmission rates, which appear to be maintained at 12 months, and were not associated with higher mortality – which is a promising start, should these findings be confirmed in randomized trials.

- a. Ahmed A Rich MW Fleg JL Zile MR Young JB Kitzman DW **Love TE** Aronow WB Adams KF Gheorgiade M Effects of digoxin on morbidity and mortality in diastolic heart failure: The ancillary Digitalis Investigation Group Trial. *Circulation* 2006, 114: 397-403. [PMID: [16864724](#)]
- b. Ahmed A Husain A **Love TE** Gambassi G Dell'Italia LJ Francis GS Gheorgiade M Allman RM Meleth S Bourge RC Heart failure, chronic diuretic use, and increase in mortality and hospitalization: An observational study using propensity scores. *Eur Heart J* 2006, 27: 1431-1439. [PMID: [16709595](#)]
- c. Ahmed A Rich MW **Love TE** Lloyd Jones DM Aban IB Colucci WS Adams KF Gheorghide M Digoxin and reduction in mortality and hospitalization in heart failure: A comprehensive post hoc analysis of the DIG trial. *Eur Heart J* 2006, 27: 178-186. [PMID: [16339157](#)]
- d. Ahmed A Bourge RC Fonarow GC Patel K Morgan CJ Fleg JL Avan IB **Love TE** Yancy CW Deedwania P van Veldhuisen DJ Filippatos GS Anker SD Allman RM Digoxin use and lower 30-day all-cause readmission for Medicare beneficiaries hospitalized for heart failure. *Amer J Medicine* 2013, 127: 61-70. [doi:10.1016/j.amjmed.2013.08.027](https://doi.org/10.1016/j.amjmed.2013.08.027) [PMID: [24257326](#)]

Complete List of Published Work in MyBibliography:

<http://www.ncbi.nlm.nih.gov/sites/myncbi/1-i2zywBma9AZ/bibliographahy/48415155/public/?sort=date&direction=ascending>

D. Research Support

Ongoing Research Support

1U01HL103622 Moore and Borawski (Co-PI)

2010 Jul 1 – 2017 Jun 30

COPTR: Targeting Obesity and Blood Pressure in Urban Youth

Childhood obesity, often associated with elevated blood pressure, causes morbidity and may cause early death. This research assesses three behavioral approaches to treating obesity and reducing blood pressure in urban youth and examines the influence of the school-community environment on the interventions' impact.

Role: Co-Investigator

PCORI: Improving Healthcare Systems – Mental/Behavioral Health

Using a Teachable Moment Communication Process to improve Outcomes of Quit Line Referrals

Flocke (PI)

2016 Feb 1 – 2019 Jan 31

This study will compare the effectiveness of two approaches for delivering smoking cessation advice in the primary care setting. Our aims include improving delivery and documentation of smoking cessation advice and assistance to socially and economically disadvantaged patients, using an approach integrated into the EHR, testing the effect of combining the two approaches on process, QL referral, and smoking outcomes, and examining narratives to better understand the referral experience and identify improvements.

Recently Completed Research Support

Robert Wood Johnson Foundation Cebul (PI)

2013 May 1 – 2015 Apr 30

Aligning Forces for Quality 4.0 / Better Health *Greater Cleveland*

Competing renewal of RWJF support for Greater Cleveland's Aligning Forces for Quality initiative that adds metrics on hospital utilization for ambulatory care sensitive conditions, new payment reform activities and planning to sustain the program's established measurement, reporting and improvement programs.

Role: Director, Data Center; Chair, Information Management Committee

KRR0244990A1 Davis (PI)

2012 Jun 1 – 2017 May 31

NIH: Clinical and Translational Science Award (CTSA) (BERD)

The goal of the Cleveland CTSA is to establish a novel and academic home to train leaders for the nation's multidisciplinary clinical and translational sciences workforce.

Role: Co-Director, BERD Core (9/17/2007 to 12/31/2009, 9/1/2010 – 5/31/2015)