

BIOGRAPHICAL SKETCH

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NAME: Lewis, Steven A.

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

POSITION TITLE: Biostatistician

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 <i>(if applicable)</i>	Completion Date MM/YYYY	FIELD OF STUDY
The Ohio State University, Columbus, OH	BS	06/1984	Mathematical Sciences
University of Cincinnati, Cincinnati, OH	MBA	03/1993	Business Administration
University of Cincinnati, Cincinnati, OH	MS	06/2002	Statistics

A. Personal Statement

As a Biostatistician at the Center for Health Care Research and Policy, a Case Western Reserve University-affiliated center, I have been responsible for conducting statistical analyses using clinical data sets for both observational studies and clinical trials; maintaining and managing large databases for Center projects; supporting pilot research and grant preparation for faculty and trainees; providing statistical consulting services; and supporting faculty in teaching activities, especially with regard to introductory level biostatistics and statistical programming courses. I have taught courses in both SAS and R programming and am a SAS Certified Advanced Programmer. With regard to statistical methods, my training and experience includes expertise in secondary data analysis, generalized linear regression modeling, nonparametric methods, categorical data analysis, multivariate methods, longitudinal data analysis, and power/sample size determination.

1. Stevens T, Conwell DL, Zuccaro G Jr, Lewis SA, Love TE. [The efficiency of endoscopic pancreatic function testing is optimized using duodenal aspirates at 30 and 45 minutes after intravenous secretin.](#) Am J Gastroenterol. 2007 Feb;102(2):297-301. Epub 2006 Nov 13. PubMed PMID: 17100964.
2. Gunzler DD, Perzynski A, Morris N, Bermel R, Lewis S, Miller D. [Disentangling Multiple Sclerosis and depression: an adjusted depression screening score for patient-centered care.](#) J Behav Med. 2015 Apr;38(2):237-50. doi: 10.1007/s10865-014-9574-5. Epub 2014 Jun 1. PubMed PMID: 24880636.
3. Bolen SD, Chandar A, Falck-Ytter C, Tyler C, Perzynski AT, Gertz AM, Sage P, Lewis S, Cobabe M, Ye Y, Menegay M, Windish DM. [Effectiveness and safety of patient activation interventions for adults with type 2 diabetes: systematic review, meta-analysis, and meta-regression.](#) J Gen Intern Med. 2014 Aug;29(8):1166-76. doi: 10.1007/s11606-014-2855-4. Epub 2014 Apr 15. Review. PubMed PMID: 24733301; PubMed Central PMCID: PMC4099447.
4. Sudano JJ, Perzynski A, Love TE, Lewis SA, Murray PM, Huber GM, Ruo B, Baker DW. [Measuring disparities: bias in the Short Form-36v2 among Spanish-speaking medical patients.](#) Med Care. 2011 May;49(5):480-8. doi: 10.1097/MLR.0b013e31820fb944. PubMed PMID: 21430580; PubMed Central PMCID: PMC3078179.

B. Positions and Honors

Positions and Employment

1985 - 1988	Classification Specialist, Hamilton County Sheriff's Office, Cincinnati, OH
1988 - 1991	Product & Systems Analyst, American Financial Corp., Cincinnati, OH
1991 - 1993	Tutor, Tutorial Services, University of Cincinnati, Cincinnati, OH
1994 - 1999	Market Research Specialist, Nationwide Ins., Columbus, OH
1999 - 2000	Market Research Analyst, Bank One Corp., Columbus, OH
2000 - 2002	Teaching Assistant, Math Department, University of Cincinnati, Cincinnati, OH
2002 - 2004	Statistical Analyst, Medpace Inc., Cincinnati, OH
2004 -	Biostatistician, MetroHealth Medical Center, Cleveland, OH.

Other Experience, Professional Memberships

2002 -	Member, American Statistical Association
2006 -	Biostatistics & Evaluation Unit, Center for Health Care Research and Policy, Case Western Reserve University at MetroHealth Medical Center
2007 -	Clinical Translational Science Consortium, Member, Biostatistics, Evaluation, and Research Design (BERD) Core.

Honors

1991 - 1993	Albert C. Yates Fellow and Scholar
2000 - 2002	Graduate Teaching Assistantship Award (Statistics), University of Cincinnati
2009 -	Best Paper Presentation Award, "Trends in Rehabilitation Therapist Workforce in Underserved Areas 1980 – 2000," Association of Academic Physiatrists (AAP) Annual Meeting, 2009.

C. Contribution to Science

1. Work in the area of late-stage cancer and older patients came about as a result of collaborations with a social scientist with a specialty in gerontology. Assessing the patterns and predictors of engagement in an intervention as well as describing the perceived involvement of primary care physicians (PCPs) and/or oncologists in cancer care are just a few examples of research questions specific to a trial with a coping and communication intervention for older patients with late-stage cancer. In all, middle-aged patients averaged more monthly contacts when compared to elderly patients, and African-Americans had higher levels of blunting and family discord; more PCP involvement was associated with higher patient satisfaction. My role on the study consisted largely of managing enrollment, intervention, chart review, and survey data and performing statistical analyses specific to patient and family caregiver engagement within the intervention arm of the study.
 - a. O'Toole E, Step MM, Engelhardt K, **Lewis S**, Rose JH. [The role of primary care physicians in advanced cancer care: perspectives of older patients and their oncologists.](#) J Am Geriatr Soc. 2009 Nov;57 Suppl 2:S265-8. doi: 10.1111/j.1532-5415.2009.02508.x. PubMed PMID: 20122026.
 - b. Rose JH, Bowman KF, Radziewicz RM, **Lewis SA**, O'Toole EE. [Predictors of engagement in a coping and communication support intervention for older patients with advanced cancer.](#) J Am Geriatr Soc. 2009 Nov;57 Suppl 2:S296-9. doi: 10.1111/j.1532-5415.2009.02517.x. PubMed PMID: 20122033.

2. In the area of Physical Medicine and Rehabilitation (PM&R), the adequacy of medical facilities as well as the supply of workers to manage the demand for patient services is often a concern. I have been active in studies that seek to answer these questions. From such studies it is believed that there are mal-distributions of therapists in traditionally underserved areas and appropriate ambulatory care could be an important factor in reducing the number of hospitalizations for patients with spina bifida relative to others. My role on these studies largely consisted of analyzing data from large databases and stratified samples as well as generating graphical displays for presentation purposes. The work on trends in rehabilitation therapist workforce in underserved areas was given the best paper presentation award at the AAP meeting of 2009.
 - a. Wilson RD, **Lewis SA**, Murray PK. [Trends in the rehabilitation therapist workforce in underserved areas: 1980-2000](#). J Rural Health. 2009 Winter;25(1):26-32. doi: 10.1111/j.1748-0361.2009.00195.x. PubMed PMID: 19166558.
 - b. Wilson R, **Lewis SA**, Dicianno BE. [Targeted preventive care may be needed for adults with congenital spine anomalies](#). PM R. 2011 Aug;3(8):730-8. doi: 10.1016/j.pmrj.2011.05.021. PubMed PMID: 21871417.
3. Mode preferences and access to dialysis are important factors to consider for patients who are contemplating kidney dialysis treatment choices. Studies that I have worked on in this area suggest that dialysis decision-making could possibly be associated with readiness for medical treatment, dialysis knowledge, and physician involvement; and, in metropolitan areas, peritoneal dialysis and home hemodialysis utilization increased with increased travel distance to the closest home dialysis facility. My role on studies in this area was as a biostatistician.
 - a. Prakash S, Coffin R, Schold J, **Lewis SA**, Gunzler D, Stark S, Howard M, Rodgers D, Einstadter D, Sehgal AR. [Travel distance and home dialysis rates in the United States](#). Perit Dial Int. 2014 Jan-Feb;34(1):24-32. doi: 10.3747/pdi.2012.00234. PubMed PMID: 24525595; PubMed Central PMCID: PMC3923689.
 - b. Prakash S, McGrail A, **Lewis SA**, Schold J, Lawless ME, Sehgal AR, Perzynski AT. [Behavioral stage of change and dialysis decision-making](#). Clin J Am Soc Nephrol. 2015 Feb 6;10(2):197-204. doi: 10.2215/CJN.05560614. Epub 2015 Jan 15. PubMed PMID: 25591499; PubMed Central PMCID: PMC4317741.

Complete List of Published Work in MyBibliography:

<http://www.ncbi.nlm.nih.gov/myncbi/collections/bibliography/47938138/>

D. Research Support

Ongoing Research Support

UI1-TR000439 Davis (PI)

06/1/12-05/31/17

NIH

Role: Biostatistician, BERD Core

Cleveland Clinical Translational Science Collaborative – (BERD) Biostatistical, Epidemiology and Research Design

Overall goals: To collaborate with CTSC research investigators on the design and analysis of CTSC pilot projects, educational activities and clinical investigators.

KRR0244990A1 Davis (PI)

9/17/07-5/31/17

NIH: Clinical and Translational Science Award

(CTSA) (BERD)

Role: Instructor

Overall goals: 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.

KL2-TR000440 Davis (PI)

6/29/12-5/31/17

NIH

Role: Biostatistician

Cleveland Clinical Translational Science Collaborative

Overall goals: The goal of this grant is to enable junior faculty to become independently funded investigators.

HRSA SPNS H97HA27429-01-00 Avery (PI) 08/01/14-7/31/18

System-level Workforce Capacity Building for Integrating HIV Primary Care in Community Health Care Settings

Role: Biostatistician

Overall goals: A demonstration project implementing the collaborative care model for depression in the MetroHealth Medical Center HIV clinic.

Racial and Ethnic Approaches to Community Health(REACH) HIP-C / BHP

Halko (PI)

4/1/15-9/30/17

Role: Biostatistician

Overall goals: Coordinate data sources from MetroHealth sites, conduct analyses of internal survey results over time, and evaluate changes in blood pressure based on targets for groups of patients across the various sites and across time.

U01 CKD BioCon Schelling (PI)

7/1/15 – 6/30/20

Role: Statistician

Identification of CKD and CVD biomarkers

Overall goals: The goal of this grant is to identify biomarkers for prediction of CKD progression and CVD incidence in diabetic cohorts.

HIS-1503-29879 PCORI Flocke (PI) 2/1/2016-1/31/2020

Using a teachable moment communication process to improve outcomes of quitline referrals

Role: Statistical Programmer and Biostatistician

Overall goals: This project will implement a multilevel intervention to increase effective referrals to the state quitline by using a systems based e-referral and combining it with a teachable moment approach to brief tobacco cessation counseling. The findings from this study will be useful to clinicians, patients, health care

systems, health insurance plans, and policy makers informing the implementation of patient centered referral systems that impact the tobacco cessation outcomes.

1 R01 HD084564-01A1 Wilson (PI) 9/1/2016-5/31/2021

Multimodal Treatment for Hemiplegic Shoulder Pain

Role: Statistical Programmer and Biostatistician

Overall goals: This is a multi-site, placebo controlled, double-blinded RCT to determine if multimodal treatment of HSP with PNS + PT is more efficacious for pain relief than PNS or PT alone. Measures of pain, pain interference with ADLs, QoL, shoulder biomechanics, and measures of central sensitization (pain thresholds, secondary hyperalgesia, and temporal summation) will be measured.

1 R21 AR069226-01A1 Hillard/Singer (PI) 9/1/2016-8/31/2019

Cell-based Therapy in RA: Proof of Concept

Role: Biostatistician

Overall goals: Cell-based Therapy in RA: Proof of Concept

Completed Research Support

Myers-Reyes (PI)

07/01/15-06/30/16

Rainbow Babies and Children's Foundation

Role: Biostatistician

Fellowship Research Award Program in Pediatrics (FRAP)

Overall goals: To determine United States-based pediatrics residents' knowledge and experiences working with children with attention-deficit hyperactivity disorder and autism spectrum disorder through an email survey.

NIH/NIAMS Co-Investigator (Akkus overall PI) 10/01/11-8/31/15

Diagnosis of Crystallopathies via Raman Spectroscopy

Overall goals: The aims of this project are to determine the sensitivity and specificity of bench top Raman Spectroscopy using clinical samples and to ready the team for proposing to test the use of this technology first in a clinical trial and then in the real world.

Pfizer

7/1/13-6/30/15

EMR for Vaginal Atrophy

Overall goals: Utilization of the Electronic Medical Record to evaluate vaginal atrophy, sexual dysfunction, and Lower urinary tract symptoms in a geriatric primary care population, measuring impact of screening and treatment on quality of life.

Avery (PI)

08/01/11-12/31/13

AIDS Funding Collaborative and the O'Neill Foundation Local Foundations

Overall goals: Start-up funds to develop and pilot a community-wide clinical information system and interface between Cleveland-area institutions providing HIV care with the goal of optimizing individual and population health for people living with HIV/AIDS.

Role: Programmer, Biostatistician

07-N230-5024 Rose (PI)

09/25/07-09/24/12

DHHS, HRSA Bureau of Health Professions

National Training and Coordination Collaborative (NTACC)

Overall goals: The NTAC, headquartered at the Department of Medicine and the Center for Health Care Research and Policy, MetroHealth Campus of Case Western Reserve University, provides technical assistance and evaluation consultation and training to leadership in Geriatric Education Centers nationwide.

Role: Statistician

R01 CAH1082828 Rose (PI)

09/19/03 - 06/30/11 NCE

NIH-NCI

Aging and Supportive Care in Advanced Cancer

Overall goals: To conduct a randomized clinical trial to test age differences in patient engagement in a coping and communication intervention. Associations between age, level of engagement in the intervention, care practices and quality of life outcomes will be examined in a longitudinal design.

Role: Biostatistician

SAMPLE