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Center for Health Care Research and Policy (CHRP) Speed Rounds

PHRI Seminar: June17, 2022

Objectives

- Help you meet the CHRP researchers
- Share key CHRP Highlights
- Discuss CHRP research
- Have Fun!!!

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Population Health Research Institute Organizational Diagram

PHRI Advisory Council
(CWRU, VA, UH, CCF, BHP, Community Partner, MHS)

PHRI - 2020
Director: Dr. Bolen
Manager: Ms. Dolata
Admin: Ms. Zebrowski

MHS Operations (PHII/I4Hope; Service Lines, Academic Departments)

Co-Directors of Education: Drs. Thornton and Caron

Division of Biostatistics and Data Sciences
Director: Dr. Love

Collaborating Faculty

Center for Clinical Informatics, Research and Education (CCIRE) - 2011
Director: Dr. Kaelber

Center for Health Care Research and Policy (CHRP) - 1994
Director: Dr. Bolen

Center for Reducing Health Disparities (CRHD) - 2004
Directors: Drs. Sehgal and Thornton

I4HOPE Director of Research and Evaluation (50%)

CHRP TEAM

Kirsten Eom

Jordan Fiegl

Julie Fisher

Stephen Ganocy

Anita Gonzalez

Mary Ellen Lawless

Hannah Hill

Janeen Leon

Alice Liskay

Siobhan Martin
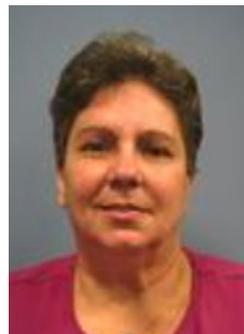
Maria Pry

Cathy Sullivan

Charles Thomas

Maria Zebrowski

Steven Lewis

Stephanie Kanuch

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CHRP Mission

1. Improve the health of the public by conducting research that improves access to health care, increases the quality and value of health care services, and informs health policy and practice; and
2. Lead education and training programs that promote these goals.

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CENTER FOR HEALTH CARE RESEARCH & POLICY (CHRP)

Avery	AIDS United 7411151199	TOT Study (Avery-PI)	$30,000	12/15/19-1/31/21
Berg	PHRI Pilot Award	Investigating socioeconomic disparities in slow and fast aging: Exploiting residual blood samples to examine sociomedical risk and resilience in a pediatric analytic cohort		10/1/2021-9/30/2022
Bolen	Centers for Disease Control and Prevention NU58DP006586-01-00	Racial and Ethnic Approaches to Community Health (REACH) (Halko-PI) / (Bolen-Project Lead)	$377,705*	9/30/2018-9/29/2023
Bolen	Ohio Dept. of Medicaid RES515503 RES515499	Hypertension Quality Improvement Project State and Federal (Konstan, Bolen-PI's)	$154,489	7/3/2019 – 6/30/2021
Bolen	Ohio Dept. of Medicaid ODM202216	Ohio Cardiovascular and Diabetes Health Collaborative—Cardi-OH (Konstan, Bolen-PI's)	$242,274	7/3/2019 – 6/30/2022
Bolen	Ohio Dept. of Medicaid ODM202216	Diabetes Quality Improvement Project—Federal and State (Konstan, Bolen-PI's)	$255,181	7/3/2019 – 6/30/2022
Bolen, Caron	Agency for Healthcare Research & Quality U18HS027944	Heart Healthy Ohio (Bolen, Caron-MPI's)	$4,139,237	1/1/21 – 12/31/23
Caron	Health Resources and Services Administration (HRSA) T0BHP28557	Primary Care Training and Enhancement: Physician Faculty Development (Caron-PI) Primary Care Training and Enhancement: Physician Faculty Development Supplemental (Boltri-PI) / (Caron-Site PI)	$1,794,259	7/1/2015 – 6/30/2021
Caron	HRSA T13HP31899	Primary Care Training and Enhancement: Training Primary Care Champions (Caron-PI)	$780,289	9/1/2018 – 8/31/2023
Caron	HRSA G0098-A	Primary Care Practice Transformation Fellowship. NEOMED HRSA Supplemental (Boltri-PI) / (Caron-Site PI)	$43,159	7/1/2019 – 6/30/2021
Caron	University of New Mexico 75Q80120C00003	AHRQ ECHO National Nursing Home COVID-19 Action Network (Arora-PI) / (Caron-Site PI)	$800,000	9/24/20 – 3/31/21

Gunzler	National Institute of Nursing Research NR019306	Elucidating Symptoms Clusters in Multiple Sclerosis Using Patient Reported Outcomes and Unsupervised Machine Learning (Briggs, Gunzler-Co-PI's)	$54,519	8/24/21 – 6/30/23
Gunzler	Michael J. Fox Foundation MJFF-020155	Characterizing Phenotypic Trajectories in People with Parkinson's Disease (Briggs, Gunzler-Co-PI's)	$41,808.88	8/1/21 – 7/31/22
Fisher	Ohio Dept. of Health 5750622301	P-COVERDELL REGISTRY YR5 Heart Disease and Stroke Prevention (Liskay-PI)	$220,000	6/30/2021 – 6/29/2022
Perzynski	NIH/NIA RES514175 R01 AG055480	Modeling and Forecasting Atherosclerotic Risk: A Complex Systems Approach (Dalton, Perzynski-PI's)	$242,126	4/1/2019 – 3/31/2022
Perzynski	NIH/NIA R01AG055480-04S1 RES515562	Cardiovascular Risk among Transgender Persons in a Regional Electronic Health Record Registry (Dalton, Perzynski-PIs)	$98,859	8/1/20 – 3/31/22
Perzynski	NIH/NIA R01AG055480-04S1 RES515563	Mechanisms of Cognitive Decline Across Socioeconomic and Clinical Contexts (Perzynski-PI)	$402,453	8/1/20 – 3/31/22
Perzynski	CWRU/Ohio Development Services Agency TECG20200278	Dehydration Risk Sensor (Perzynski-PI)	$49,462	6/1/21 – 5/31/22
Seeholzer	American Cancer Society RSG-18-137-01 6221041399	CHOOSE2QUIT YR 3: Improving Equity in Smoking Cessation for Low-Income Adults (Flocke-PI) / (Seeholzer-Site-PI)	$196,530	8/1/2021 – 7/31/2022

~$11 million in active grants in 2021

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High Impact Policy 2021-22

- Encouraged Ohio Department of Medicaid as part of our Diabetes Quality Improvement Project to cover Diabetes Self-Management Education (DSME) and Diabetes Prevention Program (DPP) as well as remove prior authorization for continuous glucose monitors. (Many of us)
- Participated in National Clinical Care Commission Report to Congress in January 2022 with recommendations on federal programs and policies to better prevent and manage diabetes (Shari)
- FCC Connect2Health Task Force's Panel on Social Determinants of Health (GN Docket No. 22-43) (Adam)
- Panel with Rep. Marcy Kaptur (OH-9) discussing effects of COVID-19 on population health (Adam)
- National Academy of Medicine on patient engagement in research (Anne)
- Panel for the American College of Surgeons Trauma Quality Program. *Practice Guidelines for Spinal Injury*. (Mary Jo)

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Individual Research Projects

Mary Jo Roach, PhD

Associate Professor of Physical Medicine and Rehabilitation

Changes in Internet Use Over Time Among Individuals with Traumatic Spinal Cord Injury

- **Objective** was to investigate changes in total internet and mobile internet use over time and determine how demographic changes related to changes in internet usage.
- Used the National SCI Database for the cross-sectional analysis
- **Sample:** 13,622 persons with traumatic SCI who had follow-up data collected between 2012 and 2018.
- **Main Outcome measure:** Proportion of sample reporting intern use over time.
- **Result:** The proportion of internet users increased from 77.7% in 2012 to 88.1% in 2018. Being older; those with lower annual income, less education, non-White; Hispanic, and men were less likely to use the internet from 2012 to 2018. By 2018, there were no longer differences in internet use based on race, ethnicity, or sex. Mobil internet use increased each year (52.4% to 87.7% from 2012-to 2018).

Rigot Sk, Worobey LA, Boninger ML, Robinson-Whelan, S, **Roach MJ**, Heinemann AW, McKeman G. Arch PM&R, 2022. 103(4);832-839.

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Trauma Indicators in Spinal Cord Injury Rehabilitation Outcomes: A Retrospective Cohort Analysis of the National Trauma Data Bank and National Spinal Cord Injury Database

Text Bar

Objective: To investigate initial emergency department physiological measures of trauma severity in predicting functional outcomes and neurologic recovery in traumatic spinal cord injury.

Method: This was a retrospective analysis of a merged dataset of 5 SCI Model Systems Trauma Registries and their corresponding National SCI Model Systems Database information from 2016-to 2019 (Trauma Module Database).

Sample: 318 traumatic spinal cord injured persons are included in the Trauma Module Database.

Outcome measures: FIM motor score change from admitted to rehabilitation to discharged.

Results: AIS for the spine (Abbreviated Injury Severity Score) predicted discharge FIM motor score. Systolic blood pressure, heart rate, oxygen saturation, need for assisted respiration, and presence of penetrating injury did not predict FIM score improvement.

Shea C, Slocum C, Goldstein R, **Roach MJ**, Griffin R, Chen Y, Zafonte R. Arch PM&R. 2022. 103(4);642-648.

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Environmental Barriers to Access to Care for persons who use a wheelchair for mobility: An Assessment of MH Ambulatory Centers

- An accessibility survey was administered online to all ambulatory care center managers.
- A table of accessibility for each ambulatory center and a table of accessible specialty services available at the centers were developed based on survey results.
- Conducted roll-throughs at Main Campus, Cleveland Heights, Brooklyn Heights, and Parma with persons who use a wheelchair for mobility.
- A flag in the multi-provider chart indicating a patient who uses a wheelchair has an appointment and may need extra accommodations/assistance is being implemented.
- Restroom automatic doors are incorporated in the design for the new outpatient ambulatory clinics on Main Campus with an addition of a Family Restroom.
- Re-arrangement of seating in waiting rooms to accommodate wheelchair space.

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GRANTS SUBMITTED AND GRANTS TO BE SUBMITTED

Clinical Effectiveness of a Wearable Hydration Device; STTR-National Institute on Aging [MJ Roach, J Piktel]

Development of a Screening Tool for Brain Injury in Women who have experienced inter partner violence. R21-National Institute on Mental Health [G Karakurt]

Leveraging Clinical Informatics to Map Long-Term Outcomes in Older Emergency General Surgery Patients. R01- National Institute on Aging [V Ho]

The Health Care and Community Art Collaboration for Improving COVID-18 Vaccine Uptake among Underserved Populations. R01-National Institute on Mental Health [A Perzynski; S Ronis]

Reconciling Cardiovascular Trauma Risk Among Older Adults. PHRI Pilot Grant [M Kelly]

Geocoding of Air Quality in Neighborhoods for persons who use a wheelchair for mobility. Collecting Pilot Data [MJ Roach, A Curtis, M MacMurdo]

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Adam Perzynski, PhD

Associate Professor of Medicine and Sociology with Tenure

Why do SEM Researchers prefer bow hunting?

Fig. 10.4: Autoregressive cross-lagged effects model.
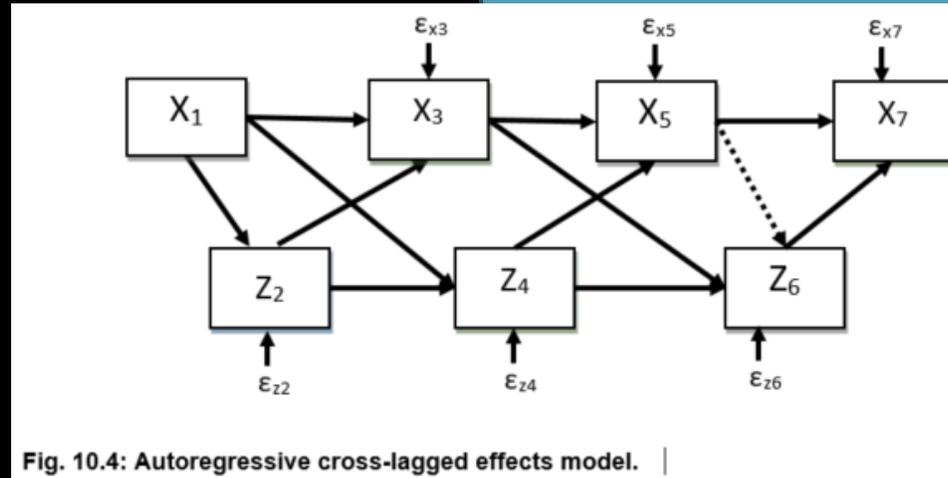
@ATPerzynski

- **CALL FOR AUTHORS:** Dr. Adebambo received a grant to produce a book on Microaggressions, Structural Racism and Allyship; I am assisting as co-editor. *Let us know if you are interested in contributing a chapter.*

- Worked on in past 12 months: *14 extramurally funded projects, 28 peer-reviewed publications (22 published) and 3 book chapters*

- **STTR and R01s pending; P01 Resubmission 10/2023**
  - **Clinical Effectiveness of a Wearable Hydration Device STTR**
  - **Digital Twin Neighborhoods R01:** Open science approach uses EHR data to simulate neighborhood health circumstances and how interventions can reduce community health. Proof of concept manuscript is in development and a pilot study abstract has been submitted to SMDM. Eliminates the need for privacy protections and opens up access to conduct descriptive, exploratory and comparative research using EHR data to anyone.
  - **Community Engagement Arts Studios for Improving COVID-19 Vaccination R01**
  - **Development of Tailored Detection and Secondary Prevention Strategies for Alzheimer's Disease R01**

Digital Twin Neighborhoods are digital replicas of real communities, including biological, social and geographic data and algorithms in a cloud computing environment.
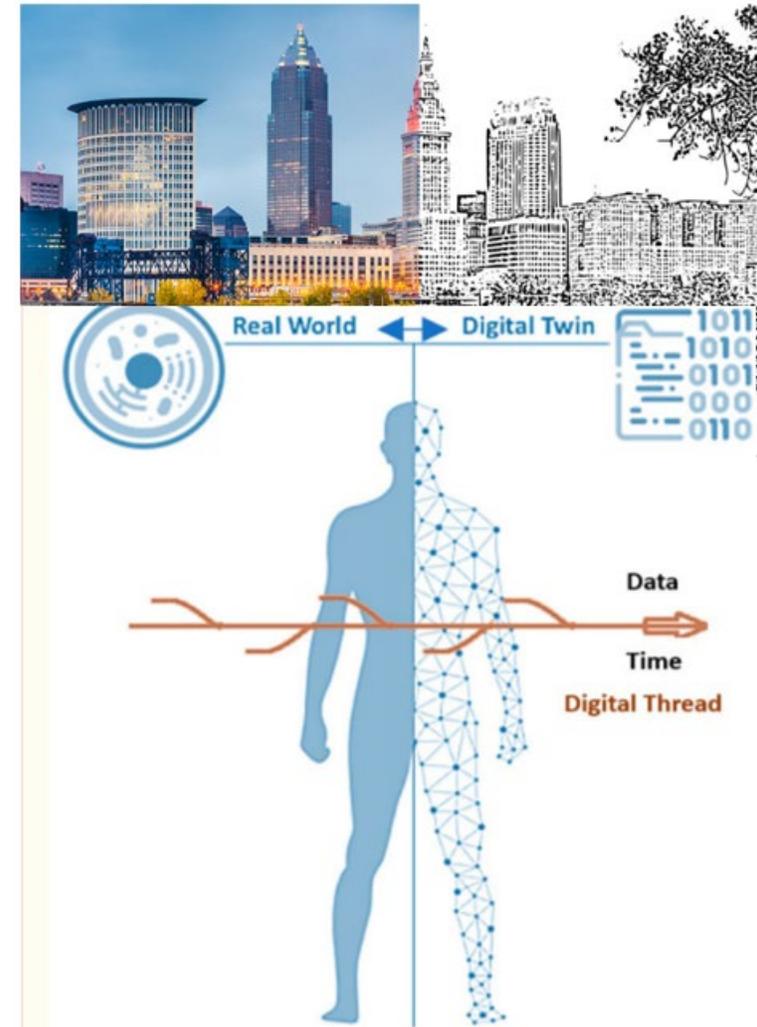
@ATPerzynski

Why do SEM Researchers prefer bow hunting?

We are adept at the use of arrows!
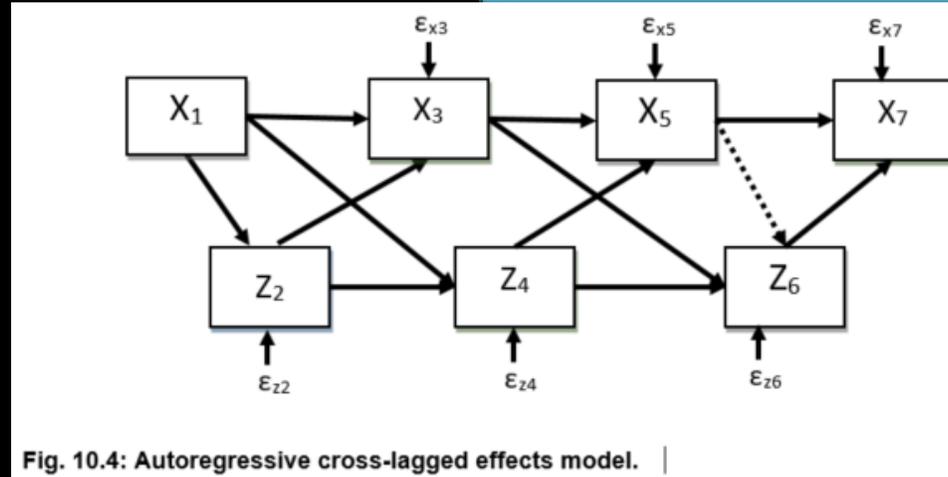
@ATPerzynski

Fig. 10.4: Autoregressive cross-lagged effects model.

Julie Fisher, MHA, BSN, RN, CPHQ

Project Lead, Ohio Coverdell Stroke Program

Ohio Coverdell Stroke Grant

June 30, 2021 through June 29, 2024

Ohio Coverdell Stroke Grant

- The Coverdell Stroke Grant is a grant from the CDC to State Health Departments to collect, measure, and track data to improve the quality of care for stroke patients

- ODH has received the Coverdell grant since 2007, MetroHealth has held the subgrant for the Clinical Consulting Team

- The focus in this grant cycle is on the quality of care for those individuals that are at the highest risk for stroke events and for stroke patients from the onset of stroke symptoms (pre-hospital arena through rehabilitation and recovery

- There is also a focus on identifying disparities and addressing inequities for these patients

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MetroHealth Clinical Consulting Team

- Agnieszka A. Ardelt, MD, PhD, MBA, FAHA
- Tracy Cushler BSN, RN
- Julie Fisher MHA, BSN, RN, CPHQ
- Steve Lewis MPH, MBA
- Alice Liskay, MPA, BSN, RN
- Maria Pry MOL, BSHR, AA
- Melissa Richardson, MSN, RN, SCRN

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Coverdell Grant Quality Improvement Project: Stroke Coach Service

- Quality improvement project being conducted at MetroHealth, in partnership with Better Health Pathways (BHP) HUB to connect our at-risk stroke patients with a Community Health Worker for post-discharge support

- Aim: Increase number of patients at high risk for stroke events or post-acute stroke within clinical and/or community settings that engage with community health workers (CHW) who will act a Stroke Coach for these patients and provide post discharge support

- Priority Populations: Medicaid recipients from three managed care plans (UnitedHealthcare, CareSource, and Buckeye Health Plan) who live in Cuyahoga County that are enrolled in the Stroke Coach Service Project

- Pilot Project: Start date 7/1/2022. Goal to share information with other Coverdell Hospitals/HUBs in Ohio

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Stroke Coach Project PROCESS MAP
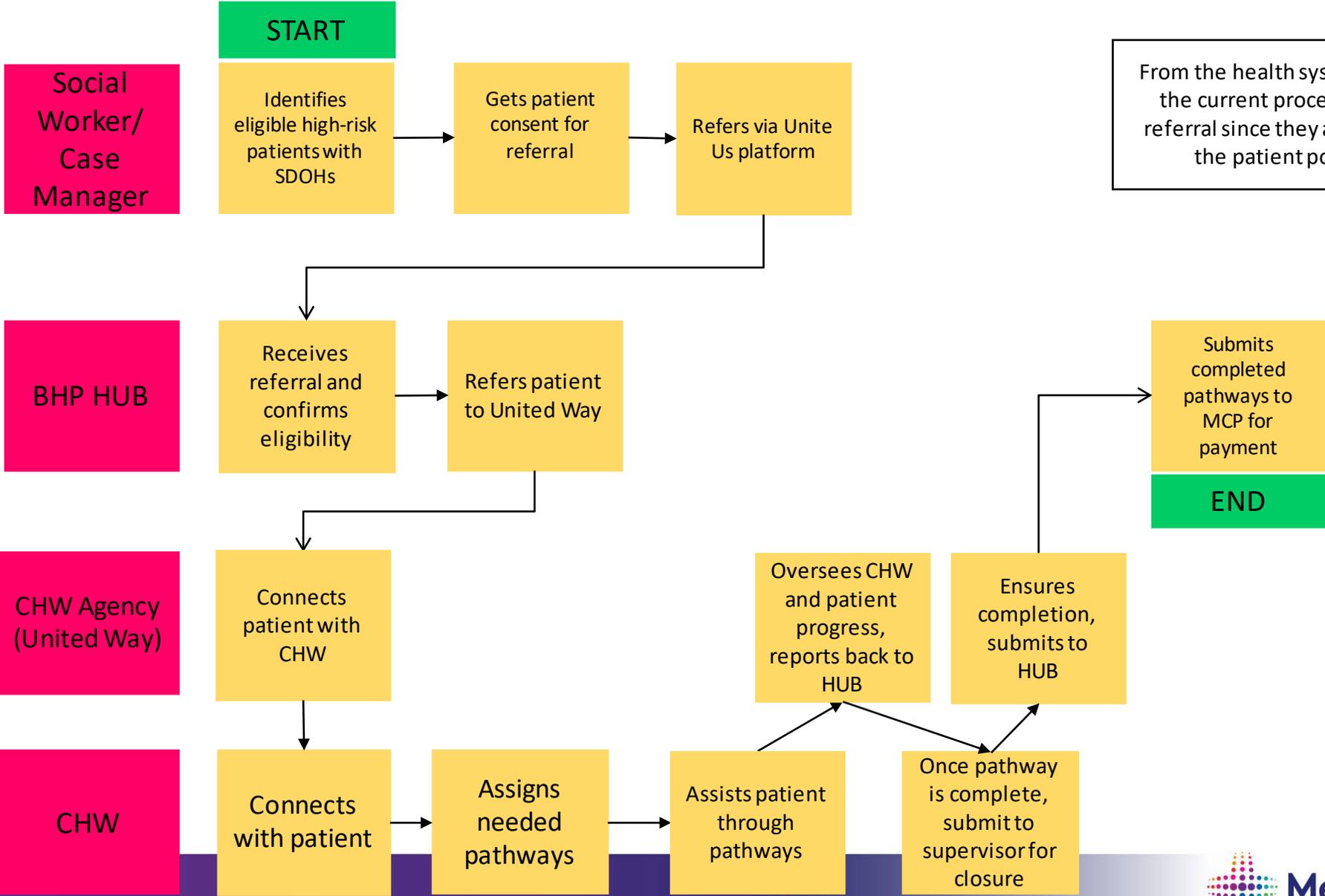
Thomas Love, PhD

Professor of Medicine and Population and Quantitative Health Sciences

Director, Biostatistics and Data Sciences Group, PHRI

Evaluation of Restrictions on Tobacco Sales to those Younger than 21 Years Old in Cleveland

Erika Trapl, Stephanie Pike Moore, Catherine Osborn, Neha Gupta, Thomas E. Love, Tyler G. Kinzy, Audrey Kinsella, Scott Frank

To appear in *JAMA Network Open*

KEY POINTS

Question: Does Cleveland, Ohio's Tobacco 21 policy (increasing the minimum legal purchasing age for tobacco products from 18 to 21 years) equitably impact the adolescent population?

Findings: Prevalence of the most common form of current tobacco use among youth, cigars, declined in the post-legislation period and there was a substantial reduction in the disparities between race/ethnicity, gender and age subpopulations across all tobacco product use types.

Meaning: Reduction in youth tobacco product use overall and tobacco use disparities may drive down adult use over time and diminish tobacco-related health disparities.

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A
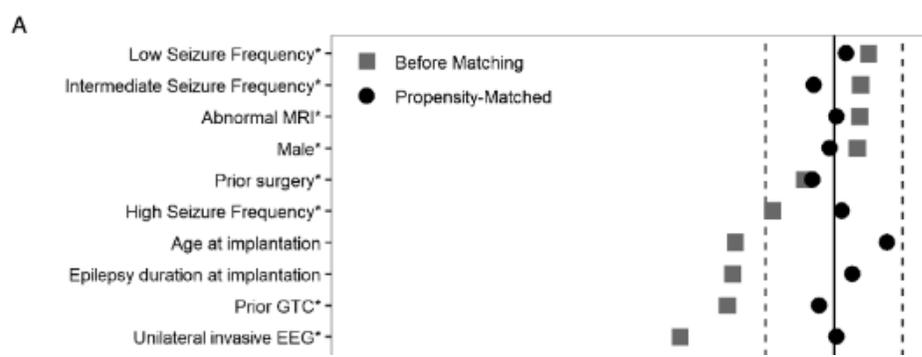
Objective: The aim was to compare the outcomes of subdural electrode (SDE) implantations versus stereotactic electroencephalography (SEEG), the 2 predominant methods of intracranial electroencephalography (iEEG) performed in difficult-to-localize drug-resistant focal epilepsy.

Methods: The Surgical Therapies Commission of the International League Against Epilepsy created an international registry of iEEG patients implanted between 2005 and 2019 with ≥1 year of follow-up. We used propensity score matching to control exposure selection bias and generate comparable cohorts. Study endpoints were: (1) likelihood of resection after iEEG; (2) seizure freedom at last follow-up; and (3) complications (composite of postoperative infection, symptomatic intracranial hemorrhage, or permanent neurological deficit).

Results: Ten study sites from 7 countries and 3 continents contributed 2,012 patients, including 1,468 (73%) eligible for analysis (526 SDE and 942 SEEG), of whom 988 (67%) underwent subsequent resection. Propensity score matching improved covariate balance between exposure groups for all analyses. Propensity-matched patients who underwent SDE had higher odds of subsequent resective surgery (odds ratio [OR] = 1.4, 95% confidence interval [CI] 1.05, 1.84) and higher odds of complications (OR = 2.24, 95% CI 1.34, 3.74; unadjusted: 9.6% after SDE vs 3.3% after SEEG). Odds of seizure freedom in propensity-matched resected patients were 1.66 times higher (95% CI 1.21, 2.26) for SEEG compared with SDE (unadjusted: 55% seizure free after SEEG-guided resections vs 41% after SDE).

Interpretation: In comparison to SEEG, SDE evaluations are more likely to lead to brain surgery in patients with drug-resistant epilepsy but have more surgical complications and lower probability of seizure freedom. This comparative-effectiveness study provides the highest feasible evidence level to guide decisions on iEEG.

Biostatistics and Data Sciences Group

Douglas Gunzler

Charles Thomas

Steven Lewis

Jordan Fiegl

Hannah Hill

Some Other Roles

- MS in Health Care Analytics
- Core courses in
  - Statistical Thinking/Data Science (431-432)
  - Observational Studies (500)
- Chief Data Scientist, BHP
- Incoming Chair for Council of Sections Governing Board, ASA
- AHRQ Study Section: Health Care Research Training

Need something from us? Email Thomas dot Love at case dot edu

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Shari Bolen MD, MPH

Professor of Medicine

Director, Center for Health Care Research and Policy

Director, Population Health Research Institute

About Cardi-OH

Founded in 2017, the mission of Cardi-OH is to improve cardiovascular and diabetes health outcomes and eliminate disparities in Ohio's Medicaid population.

WHO WE ARE: An initiative of health care professionals across Ohio's seven medical schools.

WHAT WE DO: Identify, produce and disseminate evidence-based cardiovascular and diabetes best practices to primary care teams.

HOW WE DO IT: Utilize monthly newsletters and an online repository of resources at Cardi-OH.org, podcasts available on Cardi-OH Radio, and the Project ECHO® virtual training model. Informed by an annual needs assessment.

Learn more at Cardi-OH.org

CARDI·OH
Ohio Cardiovascular and Diabetes Health Collaborative

SCHOOL OF MEDICINE
CASE WESTERN RESERVE UNIVERSITY

In partnership with:

THE OHIO STATE UNIVERSITY
COLLEGE OF MEDICINE

UT
COLLEGE OF MEDICINE AND LIFE SCIENCES
THE UNIVERSITY OF TOLEDO

OHIO UNIVERSITY
Heritage College of Osteopathic Medicine

Northeast Ohio
MEDICAL UNIVERSITY

University of CINCINNATI
FAMILY AND COMMUNITY MEDICINE

Boonshoft School of Medicine
WRIGHT STATE UNIVERSITY

OHIO COLLEGES OF MEDICINE
GOVERNMENT RESOURCE CENTER

Ohio
Department of Medicaid

medtapp

Number of Unique Cardi-OH Website Users per Month Over Time
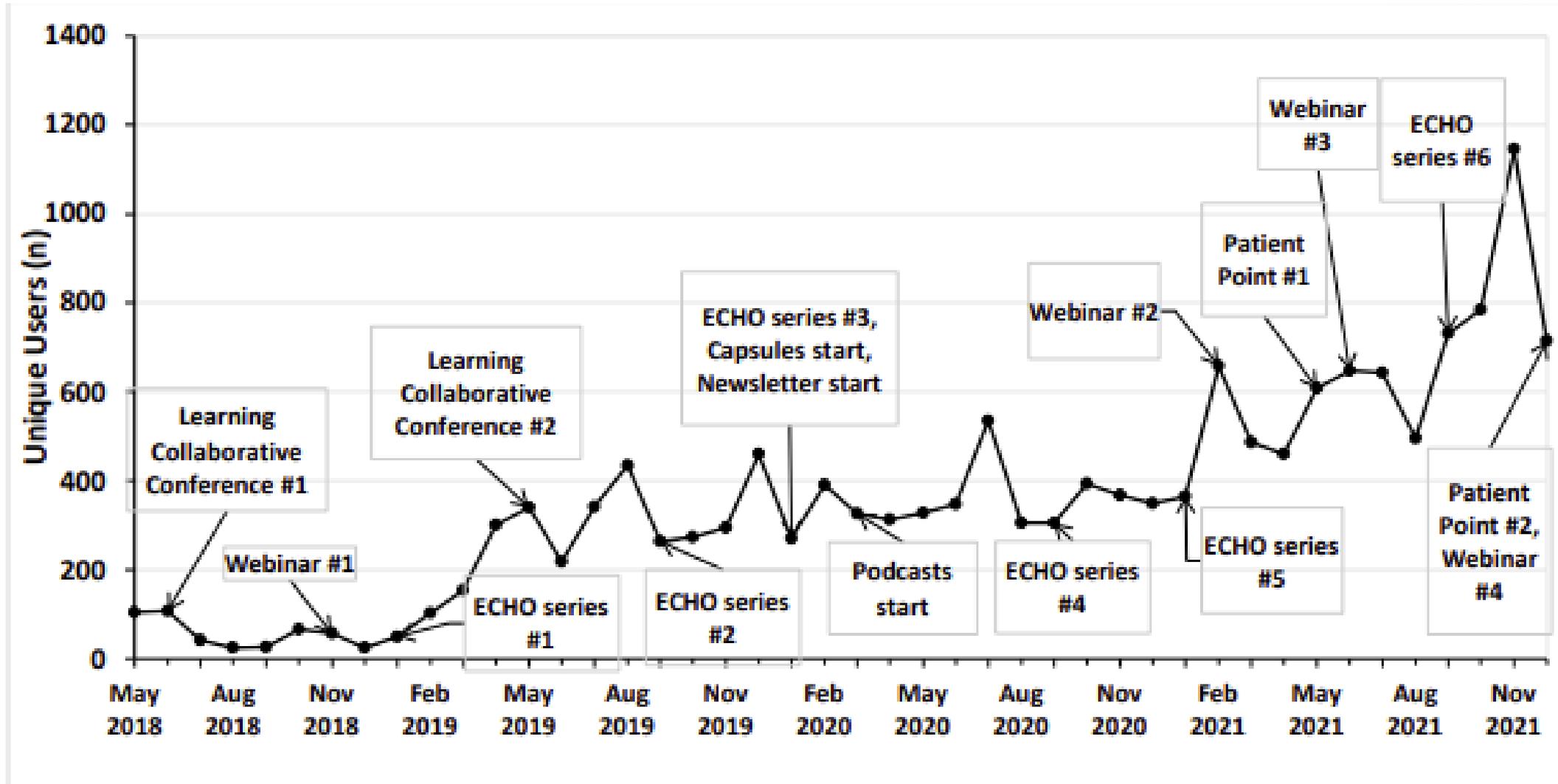
Percentage of Hypertensive Patients with Controlled Blood Pressure (<140/90)

IMPROVED 14.2%

Kickoff Meeting 10/30/2017

Plan, Do, Study, Act Ramps: Repeat Blood Pressure, Timely Follow up, Medication

A few sites report staff changes, absences, momentum loss

Baseline Control Limits for P-Chart

Managed Care Plan Change Package & Action Period call summaries sent to practices

Home Blood Pressure Monitor Flyer, Patient Empowerment Tool, Plan Do, Study Act began

Legend: All Payer BP Control — UCL — Center Line — LCL

UCL = Upper Control Level   LCL = Lower Control Level   Based on Biweekly Measurement Periods

N and control limits represent total Medicaid patients in the data collection period

31

Percentage of Diabetes Patients Whose Most Recent A1c>9%
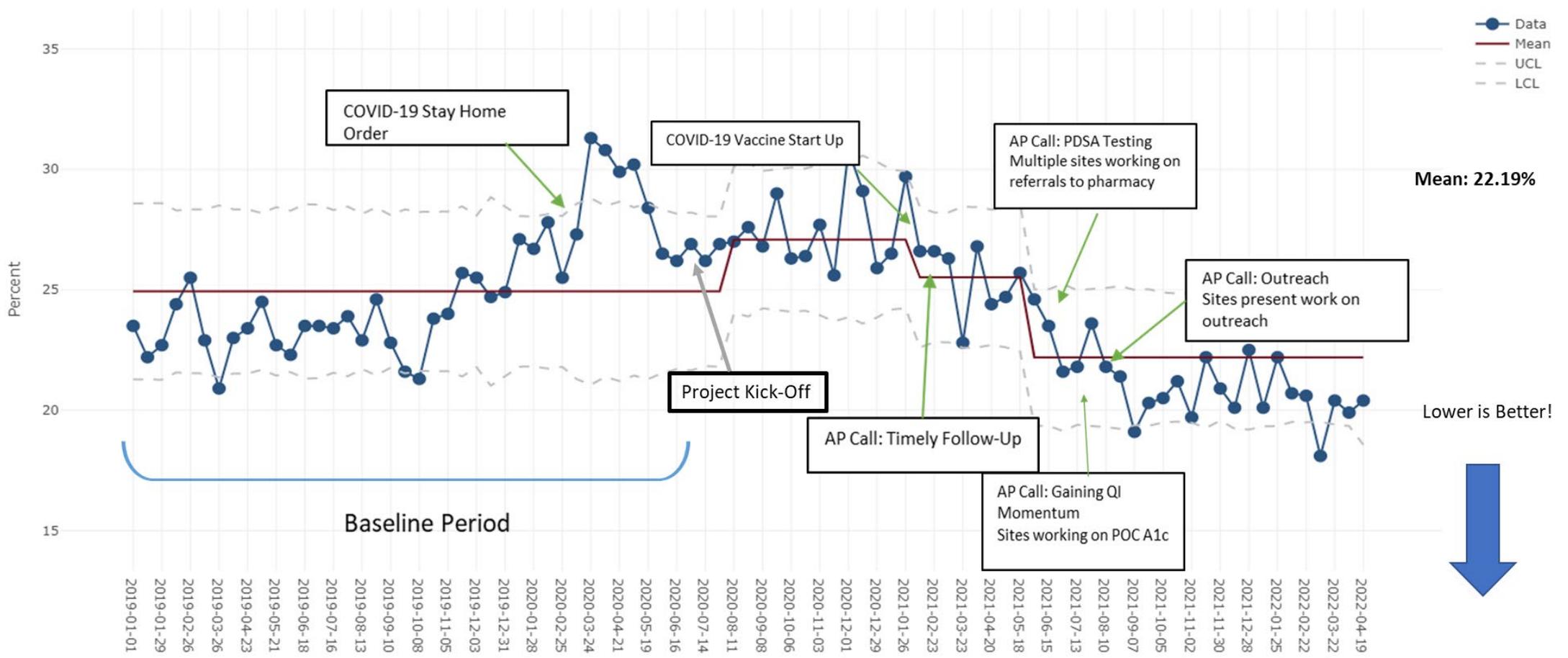
Identifying and Addressing Health Behaviors and Health-related Social Needs

- Project links patients at clinics serving neighborhoods with less resources to the United Way 2-1-1 HelpLink program to provide community resources for self-management and social needs

- Eligible patients include: 1) Kids with overweight/obesity and/or asthma; and 2) Adults with uncontrolled hypertension

Percent of Patients by Need Type (N=134)
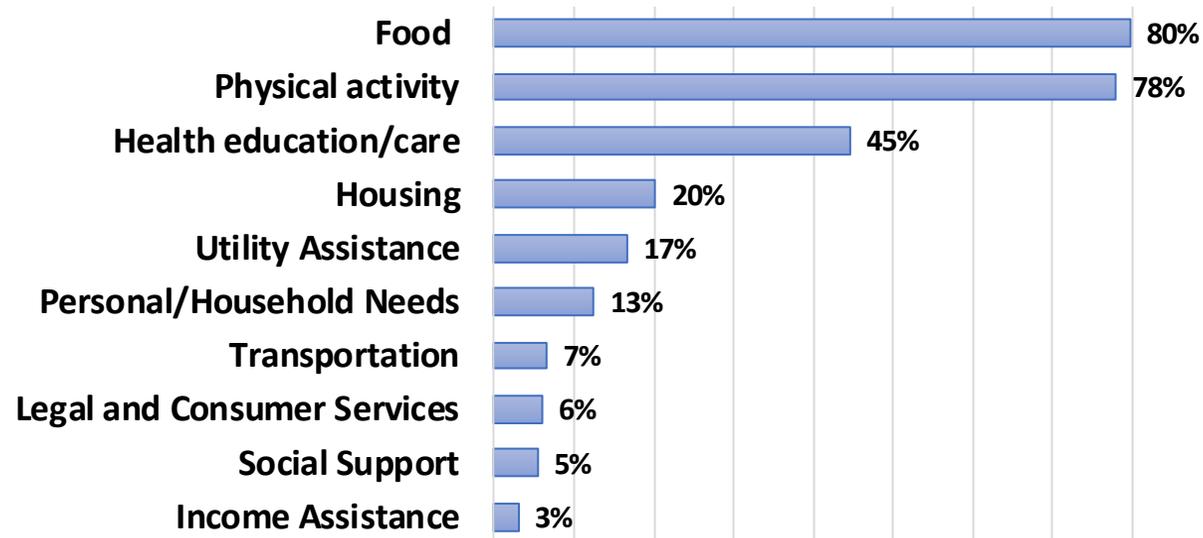
Need Type	Percent
Food	80%
Physical activity	78%
Health education/care	45%
Housing	20%
Utility Assistance	17%
Personal/Household Needs	13%
Transportation	7%
Legal and Consumer Services	6%
Social Support	5%
Income Assistance	3%

Aleece Caron, PhD

Associate Professor of Medicine

Co-Director of Education, PHRI

Heart Healthy Ohio Initiative

Aim 1: Expand our statewide cardiovascular health collaborative (Cardi-OH) and establish a sustainable external QI support infrastructure.

Aim 2: Co-design, implement and evaluate the heart healthy QI intervention overall and by subgroup (e.g., geography, insurance, race/ethnicity)

- Heart healthy intervention is focused on the ABCS (aspirin if indicated, blood pressure control, cholesterol management, and smoking cessation)

Aim 3: Determine factors associated with greater improvements in cardiovascular care at the heart healthy QI project clinics.

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Primary Care Champions

In 2012, The MetroHealth System (PI James Campbell) was awarded a faculty development training grant for the purpose of expanding scholarship

Despite a large number of faculty at MHS and its affiliated community based satellites, few faculty were producing the scholarship to earn promotion to either Associate or Full Professor.

In 2015, MHS was awarded a Primary Care Training Enhancement Grant (PCTE) to expand the training to other primary care specialties including general internal medicine, general pediatrics, internal medicine/pediatrics, and obstetrics and gynecology.

This award also expanded the training to include residents.

In 2019, MHS was awarded the Primary Care Champions grant which expands this training to physicians at Federally Qualified Health Centers(FQHCs)

This also expanded the training to PAs and PA students

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Focus Areas of Training

- The goal of these training programs is to emphasize content and skills critical those current and future primary care team members that provide care for an underserved population.

- (1) improving care of the underserved with training in social, political, economic, cultural, legal and ethical theories with a central focus on reducing health disparities;

- (2) improving knowledge and skills in practice transformation with specific emphasis on
  - (a) Quality Improvement(QI) training and application of QI methods,
  - (b) leadership development training including the development of a business case for practice transformation,
  - (c) professional development(PCTE only)
  - (d) improving data literacy of healthcare teams(Champions only), and
  - (e) patient centered care

PHRI Elective

Medical Students and Residents

Collaboration between PHRI and Population Health Innovation Institute

Experience role and workflow of a population health provider and researcher

Learn about the relationship between health care system, community resources, and community

Develop a population health mini project

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PHRI Fellowship

Apply Now!

2-year fellowship

Prepares clinicians to become independent researchers

- Research methods
- Grant writing
- Publications and presentations
- Clinical Research Scholars Certificate at CWRU

Clinical, research and community-based mentors

Clinical practice at Metro (≤ 30%)

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Doug Einstadter, MD, MPH

Professor of Medicine and Population and Quantitative Health Sciences

A Cross-Sectional Study of SARS-CoV-2 Vaccination Among Employees of an Urban Safety-Net Health Care System

Background: Understanding SARS-CoV-2 vaccination among health care workers is important because they are at high risk for

J. Daryl Thornton, MD, MPH
Sherrie Dixon-Williams, MD, MHS
Anne Huml, MD, MS
Adam Perzynski, PhD
Doug Gunzler, PhD
Doug Einstadter, MD, MPH
The MetroHealth Campus of Case Western Reserve University, Cleveland, Ohio

Characteristic	Persons, n (%)	Unadjusted Probability of Vaccination (95% CI)*	Adjusted Probability of Vaccination (95% CI)†
Age			
18–44 y	4334 (55.1)	0.54 (0.52–0.55)	0.53 (0.52–0.55)
45–64 y	3254 (41.4)	0.62 (0.60–0.64)	0.64 (0.62–0.66)
≥65 y	276 (3.5)	0.70 (0.65–0.75)	0.65 (0.59–0.70)
Sex			
Male	2079 (26.4)	0.66 (0.64–0.68)	0.63 (0.61–0.65)
Female	5786 (73.6)	0.55 (0.54–0.56)	0.57 (0.55–0.58)
Race/ethnicity‡			
White	5232 (70.0)	0.66 (0.65–0.68)	0.65 (0.64–0.67)
Black	1443 (19.3)	0.26 (0.23–0.28)	0.31 (0.29–0.34)
Hispanic	421 (5.6)	0.50 (0.46–0.55)	0.55 (0.50–0.59)
Asian	360 (4.8)	0.78 (0.74–0.83)	0.68 (0.62–0.73)
Other	21 (0.3)	0.52 (0.31–0.74)	0.56 (0.36–0.77)
Job location			
Main campus	6365 (80.9)	0.59 (0.58–0.60)	0.59 (0.58–0.60)
Other site	1500 (19.1)	0.52 (0.49–0.54)	0.54 (0.52–0.57)
Occupation category§			
Physicians, dentists, and psychologists	1058 (13.5)	0.86 (0.84–0.88)	0.81 (0.79–0.84)
Nurses	1825 (23.2)	0.53 (0.51–0.56)	0.54 (0.52–0.56)
NPs and PAs	277 (3.5)	0.69 (0.63–0.74)	0.68 (0.63–0.73)
Therapists	216 (2.7)	0.66 (0.60–0.73)	0.61 (0.55–0.68)
Administrators and executives	1599 (20.3)	0.59 (0.56–0.61)	0.59 (0.57–0.61)
Allied health care	972 (12.4)	0.52 (0.48–0.55)	0.55 (0.52–0.58)
Support staff	909 (11.6)	0.47 (0.44–0.50)	0.53 (0.50–0.57)
Researchers	120 (1.5)	0.73 (0.65–0.80)	0.66 (0.57–0.74)
Facilities staff	533 (6.8)	0.30 (0.26–0.34)	0.35 (0.31–0.40)
Other	356 (4.5)	0.62 (0.57–0.67)	0.56 (0.51–0.61)

STUDY PROTOCOL

The Targeted Management (TEAM) Intervention for Reducing Stroke Risk in African American Men: Rationale and Study Design of a Prospective Randomized Controlled Trial

Carolyn H Still 🆔[1]
Chris Burant[1]
Shirley Moore[1]
Doug Einstadter[2,3]
Cheryl Killion[1]
Charles Modlin[4]
Sophia Sundararajan[5,6]
John D Thornton[3,7]
Jackson T Wright Jr[5,6]
Martha Sajatovic[6,8]

[1]Frances Payne Bolton, School of Nursing, Case Western Reserve University, Cleveland, OH, USA; [2]Center for Health Care Research and Policy, Case Western Reserve University, Cleveland, OH, USA; [3]The MetroHealth System, Cleveland, OH, USA; [4]Glickman Urological and Kidney Institute, Cleveland Clinic, Cleveland, OH, USA; [5]Case Western Reserve University, School of Medicine, Cleveland, OH, USA; [6]University Hospitals Cleveland Medical Center, Cleveland, OH, USA; [7]Center for Reducing Health Disparities, Case Western Reserve University, Cleveland, OH, USA; [8]Department of Psychiatry and of Neurology, Case Western Reserve University, School of Medicine, Cleveland, OH, USA

Background: African American (AA) male survivors of strokes or transient ischemic attacks (TIA) have the highest risk of recurrent stroke when compared to other racial-ethnic men. However, there is a paucity of evidence-based strategies, including organizational, educational, or behavioral interventions, that targets secondary stroke risk reduction in AA men.

Methods: Targeted Management for Reducing Stroke Risk (TEAM) is an ongoing, 6-month prospective, randomized controlled trial that will determine whether a curriculum-guided self-management approach, using peer dyads (men who had a stroke or TIA and their care partners) will improve post-stroke care in AA men.

Results: The study sample will consist of 160 AA men who have experienced a stroke or TIA within 5 years, randomized to TEAM or Wait-list control group. The primary outcome changes in systolic blood pressure (BP) and high-density lipoprotein (HDL), while secondary outcomes include diastolic BP, total cholesterol, low-density lipoprotein, triglycerides, and glycemic control for diabetics. We hypothesize that AA men in TEAM will have significantly lower systolic BP and higher HDL when compared to AA men in the Wait-list control group at 6-month.

Conclusion: Persistent disparities for stroke burden in AA men highlight the need for novel interventions to promote secondary stroke-risk reduction. Building on promising pilot data, TEAM uses a group format, with a nurse and patient co-led intervention focused on AA men and family needs, practice in problem-solving, and attention to emotional and role management. In addition, the TEAM approach may help reduce stroke risk factors and health disparities in AA men.

Clinicaltrials.gov Identifier: NCT04402125.

Keywords: stroke, transient ischemic attack, stroke prevention, African-Americans, health disparities

Urate-lowering therapy for patients with gout on hemodialysis

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Abstract

Objective: Gout is the most common form of inflammatory arthritis and is caused by deposition of monosodium urate crystals resulting from a high burden of uric acid (UA). High UA burden also has been associated with increased morbidity and mortality in the general population and progression to chronic kidney disease. In persons with gout and end-stage renal disease (ESRD), prior studies suggest that UA levels decrease after initiation of hemodialysis (HD). We evaluated UA level and the use of urate-lowering therapies (ULTs) in patients with gout and ESRD on HD.

Methods: We performed a retrospective review of patients with gout and ESRD seen at a large urban public hospital (The MetroHealth System). We extracted data from the medical record (Epic) for patients diagnosed with gout and ESRD on HD. The main outcomes were the UA level and the use of ULTs before and after HD initiation.

Some Other Roles

- **Clinical Research Scholars Program (CRSP), MS and PhD programs**

- **Teaching**

  - **CRSP 401 – Introduction to Clinical Research**

  - **Block One CWRU SOM: Epidemiology and Biostatistics section**

  - **CWRU PA Program: Evidence Based Medicine**

- **Primary Care Champions Mentor**

- **Reviewer for NBME Improving Assessment of EBM Skills**

Douglas Gunzler, PhD

Associate Professor of Medicine and Population and Quantitative Health Sciences

Published March 30, 2021

https://www.routledge.com/Structural-Equation-Modeling-for-Health-and-Medicine/Gunzler-Perzynski-Carle/p/book/9781138574250
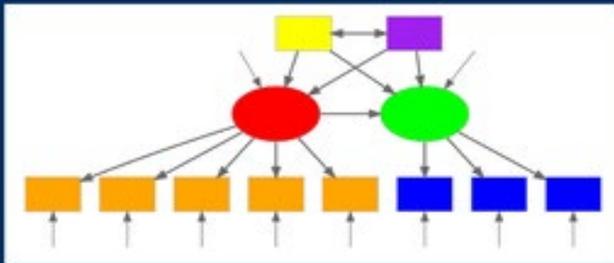
Mixture Modeling

Mixture modeling: probabilistic or regression modeling for identifying unobserved clusters (or subgroups) within a study population

Hypothesis of two or more underlying clusters for a study population.

Finite Mixture of Gaussian Distributions
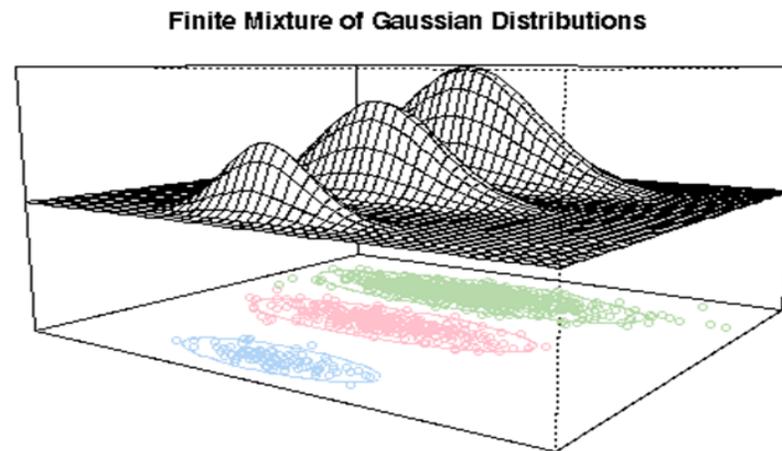
One-class solution is specified and then used as a comparison for solutions of increasing class size until the optimal solution is determined.

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NIH-NINR 1 R56 NR019306-01A1 (Gunzler, Briggs and De Nadai, PI)
[8/24/21-6/30/23]
Elucidating symptoms clusters in multiple sclerosis using patient reported outcomes and unsupervised machine learning

Data extracted from the Knowledge Program© on patients of the Mellen Center, a tertiary multiple sclerosis referral center at the Cleveland Clinic, Cleveland, OH

	n	mean	sd	median	min	max	range	skew	kurtosis
Age	9084	45.83	12.36	46	18	90	72	0.05	-0.44
Timed 25-Foot Walk	4915	8.09	8.75	5.7	2.8	159.8	157	7.18	77.13
PRO for Mobility	6572	1.82	1.83	1	0	6	6	0.8	-0.45
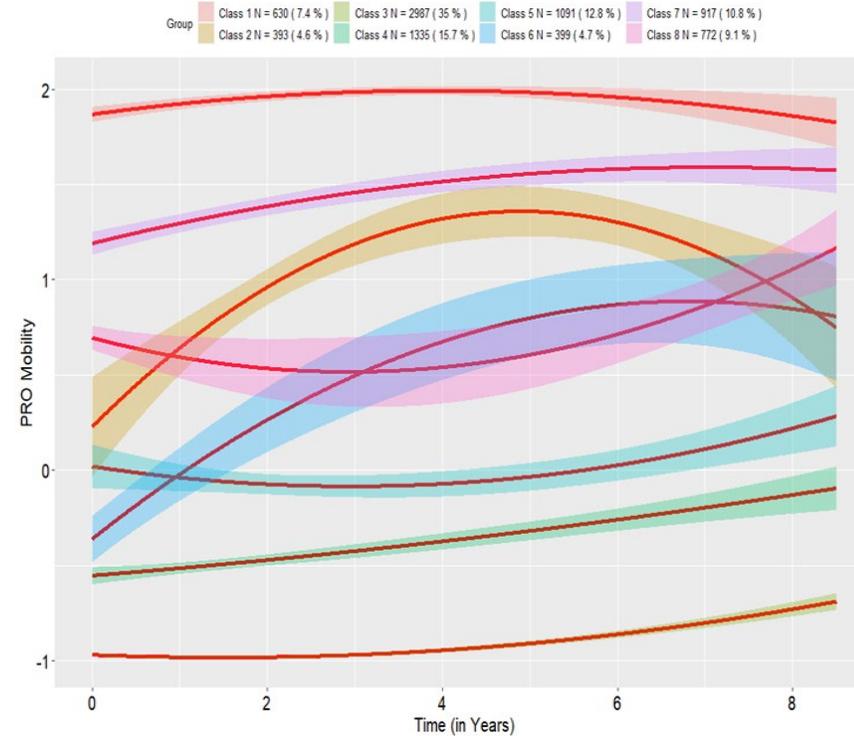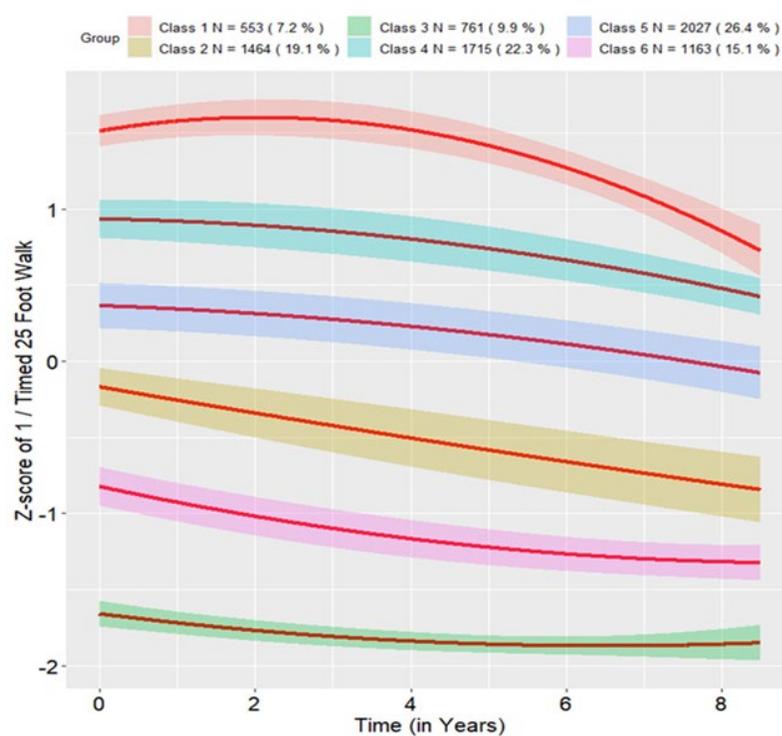
Susan De Luca, MSW, Ph.D.

Clinical Associate Professor of Psychiatry

       Suicide Prevention

              Help seeking attitudes and behaviors

              Upstream Prevention

              Health disparities:

              Latinx, GSM, adolescents/emerging adults, SES

Bullying

[bool-ee-ing]

Aggressive, repetitive behavior that is based on a real and/or perceived power differential. Bullying can happen in person or online and can be perpetrated by one person or many people. The actions involved in the bullying may cause long-term physical, social, and/or psychological damage.

Roughly **1/3 of sexual minority adolescents** (SMA) report **at least** one lifetime **suicide attempt**.
Supportive connections are protective for ideation, yet little is known about this association— especially longitudinally.

Five- step logistic regressions examined the associations of bullying, SMA, and ideation, and how connectedness (parental and school) mediates this from age 9 and 15 (Fragile Families and Child Wellbeing Study; N = 3,023 adolescents).

	SMA	Heterosexual
Daily Bullying (age 9)	22%	13%
Weekly Bullying (age 9)	27%	22%
Daily Bullying (age 15)	7%	2%
Weekly Bullying (age 15)	20%	11%
Suicidal Ideation (age 15)	32%	13%

Parental and school connectedness protected adolescents regardless of sexual orientation for ideation, but parental attachment buffered the effect of SMA ideation more than school connectedness.

De Luca, S. Caramanis, C[**], Zhang, A[**]. (2021). A longitudinal study examining the associations of bullying victimization and suicidal ideation among sexual minority adolescents." *Suicide and Life-Threatening Behavior* 51(6),1138-1147

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Current & Future Projects

Figure 1. Qualitative evidence of negative religious messaging from religious leaders

"I don't believe God designed anybody with that kind of flaw [homosexuality], a moral flaw, a personality flaw like that." - Pastor, Church of God and Christ

"If someone steals, they know that's wrong and there is no question about that; they can separate that and they can understand that. But for homosexuality, I would say again, clearly, I believe it is a sin but the person who is homosexual or gay, they believe that is who they are." - Pastor, Christian Methodist Episcopal

"And if I love you as a brother then I'm going to confront you in love and say the things that you're doing are wrong [homosexuality]." - Pastor, Baptist

"Probably they've [gays and lesbians] experienced a lot of, well, I call it spiritual violence of sort of negating who they are as people." - Reverend, Christian

1R03MH122852-01--Adolescence to adulthood: Factors influencing **trajectories of suicide ideation and attempt** among sexual minorities.
MPI: De Luca & Blosnich 2021-2023

1R21MD018115-01--Getting to Acceptance: Examining **parental help-seeking** as upstream prevention to reduce health disparities for sexual minority adolescents
MPI: De Luca & Blosnich

R01--Examining **faith-based aspects of suicide risk** and prevention for sexual minority populations
MPI: De Luca & Blosnich
(Co-I: Berg, Ganocy, & Perzynski)

R03: Families and Faith: Examining the **roles of parent & adolescent religious affiliation & religiosity** over time among sexual minorities.
PI: De Luca

Figure 1. Sexual orientation-related differences in association of religiosity with past-year suicidal ideation

Legend: Heterosexual, Lesbian/Gay, Bisexual, Questioning
Adjusted Odds Ratio (95% CI) Recent Suicide Ideation
1.38, 1.38, 1.04, 0.91
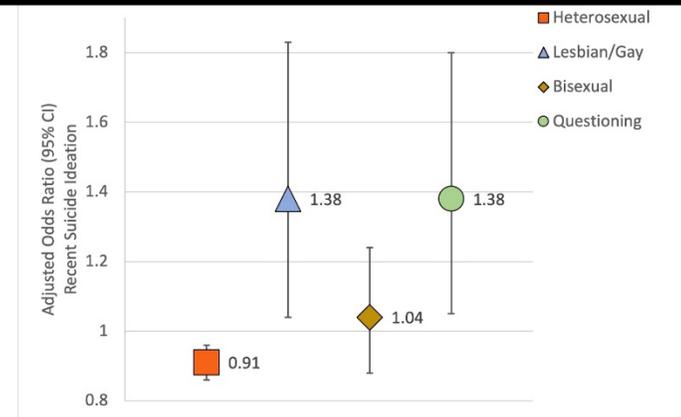
Figure 1. Theoretical Framework for Parental Help-seeking to Child Sexual Minority Disclosure
Adapted from Chrisler, 2017
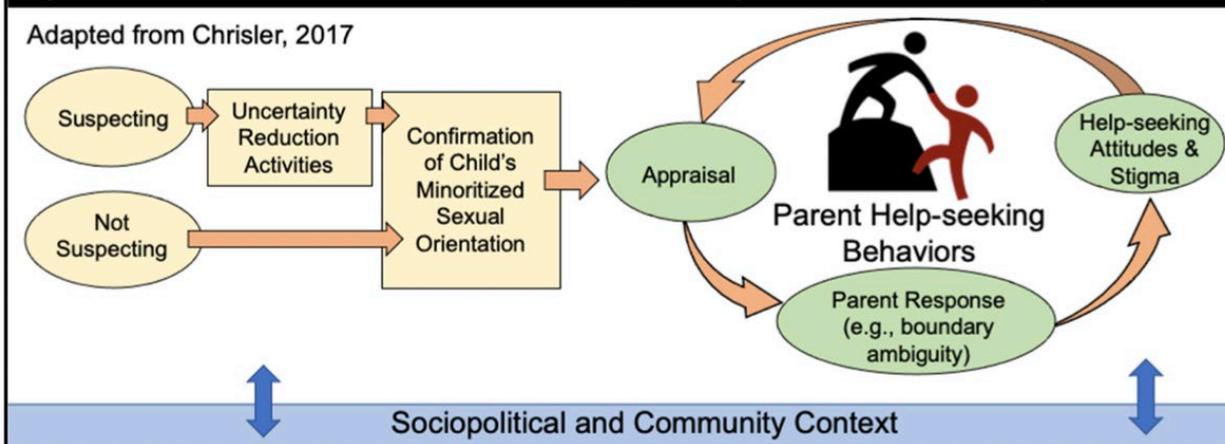
Suspecting → Uncertainty Reduction Activities → Confirmation of Child's Minoritized Sexual Orientation → Appraisal
Not Suspecting →
Parent Help-seeking Behaviors
Help-seeking Attitudes & Stigma
Parent Response (e.g., boundary ambiguity)
Sociopolitical and Community Context

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Kristen Berg, PhD, CRC

Research Scientist

Racialization of U.S. Neighborhoods and Impacts on Child and Family Wellbeing

Investigating Socioeconomic Disparities in Slow and Fast Aging

Summer Institute on Biological Approaches in the Social Sciences

Questions???

Flight of the Valkyries

https://www.youtube.com/watch?v=xHggke6OczY

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