

Biostatistics Collaboration Center

23 Faculty & Staff



Mission: to support investigators in the conduct of high-quality, innovative health-related research by providing expertise in biostatistics, statistical programming, and data management.

Who we work with



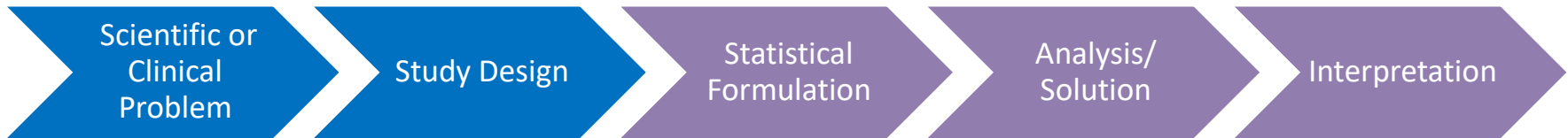
Clinicians
Basic Scientists
Social Scientists
Allied Health
Startups

Faculty
Postdocs
Residents
Students
Staff

What do we do?



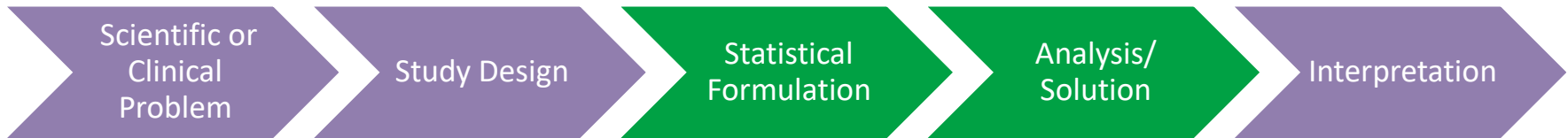
What do we do?



Translate clinical and scientific questions into a statistical framework and answerable hypotheses

Design and power studies that will answer those questions

What do we do?



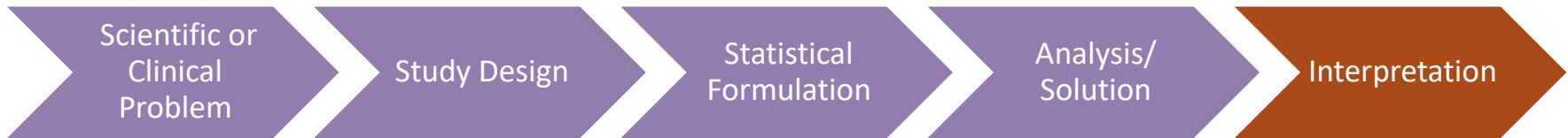
Oversee data collection and management

Interim reports, data quality checks

Develop statistical analysis plans

Analyze data

What do we do?



Interpret findings

Prepare results, tables, figures for publication

Write statistical analysis portion of *Methods* section

Write/revise *Results* section

What can we do?

Many areas of expertise, including:

- Bayesian Methods
- Big Data
- Bioinformatics
- Causal inference
- Clinical trials
- Cluster analysis
- Database design
- Genomics
- Longitudinal data
- Machine learning
- Missing data
- Reproducibility
- Statistical genetics
- Survival analysis
- Wearable data

Many types of software, including:





Original Investigation | Emergency Medicine

Emergency Department Vestibular Rehabilitation Therapy for Dizziness and Vertigo

A Nonrandomized Clinical Trial

Howard S. Kim, MD, MS; Jacob M. Schauer, PhD; Ann K. Kan, MS; Joshua B. Alinger, MD, PhD; Kyle J. Strickland, PT, DPT; Alexander Garreau, PT, DPT; Danielle M. McCarthy, MD, MS; Zachary B. Taylor, MPH; Ivy L. Fishman, BA; Kayla M. Muschong, BS; Heidi R. Roth, PT, DHS

Abstract

IMPORTANCE Dizziness symptoms account for nearly 2 million annual emergency department (ED) visits and present a diagnostic challenge for clinicians. Most dizziness research has focused on improving guideline-concordant care among clinicians, with little focus on developing patient-centered interventions to improve dizziness-related disability.

OBJECTIVE To examine the feasibility of ED vestibular rehabilitation therapy (ED-VeRT) using a protocolized diagnostic classification algorithm and collection of longitudinal patient-reported outcomes.

Key Points

Question What is the feasibility of offering vestibular therapy for patients presenting to the emergency department (ED) with dizziness and collecting longitudinal patient-reported outcomes?

Findings In this nonrandomized clinical trial of 125 patients with dizziness, ED

BCC Contributions:

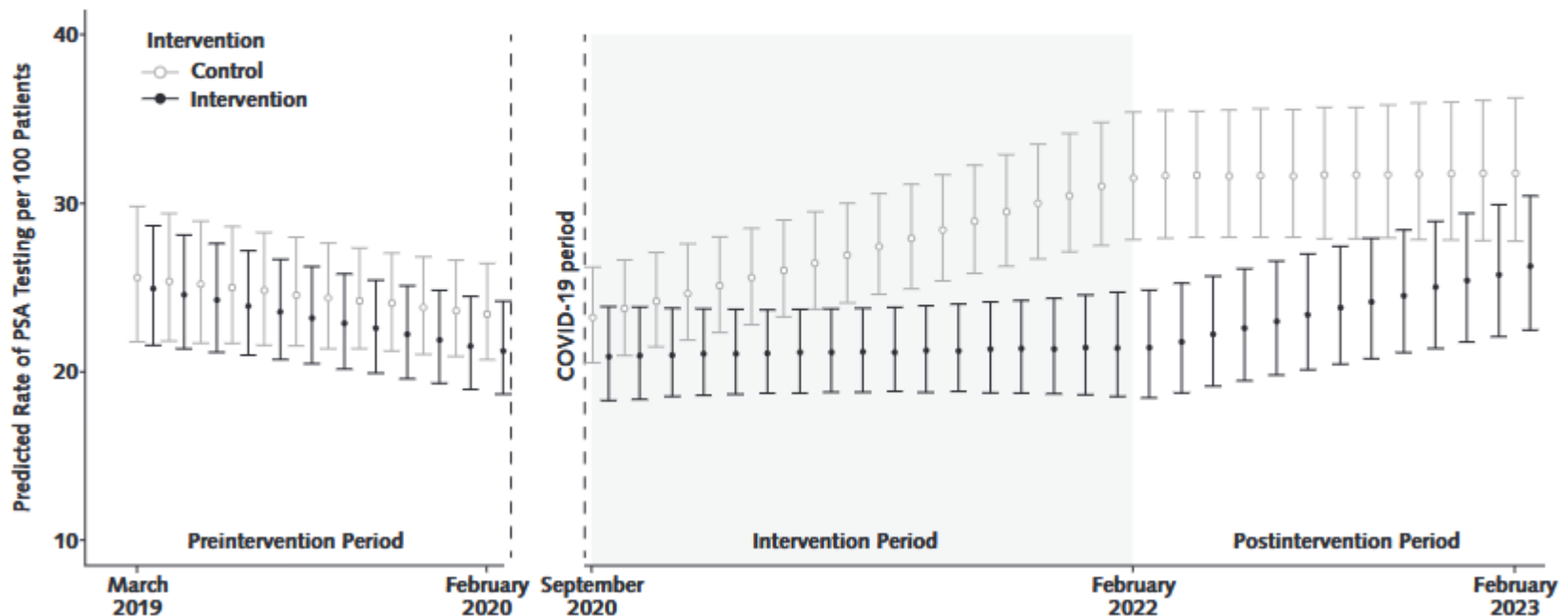
Study design, statistical analysis plan, data cleaning, statistical analysis, missing data, manuscript writing

Letters | 11 February 2025

Persistence of Effects of Behavioral Interventions on Reducing Overuse of Care in Older Patients After Discontinuation

Author: Lucia C. Petito, PhD   Tiffany Brown, MPH, Jason N. Doctor, PhD , Craig R. Fox, PhD , Ji Young Lee, MS , and Stephen D. Persell, MD, MPH  [AUTHOR, ARTICLE, & DISCLOSURE INFORMATION](#)

Figure. Model-based monthly rates of PSA overtesting, urinalysis or urine culture done without indication, and diabetes overtreatment before, during, and after the BEAGLE trial intervention.



Biostatistics Centers and Cores

Overview



Biostatistics Collaboration Center (BCC)

- Supports **non-cancer** research at NU
- Subsidized by FSM
- Director: Leah Welty

Quantitative Data Sciences Core (QDSC)

- Supports **cancer-related** research at NU
- Free to Lurie Cancer Center (LCC) members
- Director: Masha Kocherginsky

Northwestern University Data Analysis and Coordinating Center (NUDACC)

- Supports prospective, **multicenter research**
- Regulatory, sample tracking, data coordination, data analysis

Biostatistics Collaboration Center

REQUEST AN APPOINTMENT

Come talk to us for an hour – we can learn about your work and how we might be able to help. It's covered by the FSM Office for Research, and the wait is not long!

Writing a grant?

- ✓ Power/sample size
- ✓ Statistical analysis plan
- ✓ Co-Investigator

Help with analysis? Constructing a database?

- ✓ Develop statistical analysis plan (no cost)
- ✓ Hourly charge for analysis (\$150 - \$360/hour)

Biostatistics Collaboration Center

REQUEST AN APPOINTMENT



Thank you!

<https://www.feinberg.northwestern.edu/sites/bcc/index.html>