# DATA ANALYTICS AND RESEARCH TEAM

#### **ABOUT US**

We're a team of data scientists, statisticians, methodologists, data engineers, and research professionals dedicated to using our skills for health services research.



### CAPABILITIES

- **Grant Development Support** We can advise on methods, provide feedback on methods sections of grants, provide scope estimates to include in grants, power analyses with assumptions, and provide a write-up of analytic approaches for grant proposals.
- **Study Design** We can support with study design including survey review, randomized control and/or pragmatic trials, and observational/longitudinal studies.
- **Data Management** We can develop data pipelines, develop analytic datasets, automate processes, design new data models, and monitor data quality.
- Statistical Analyses We can develop regression, hierarchical models, interrupted time series, propensity score matching and/or weighting, survival analysis, difference-in-difference, principal components analysis, and more! We can also collaborate on clear, concise, and meaningful reporting of findings tailored to the audience.
- Predictive Modeling, Bias Mitigation, and Clinical Decision Tools We are passionate about building models that are fair, equitable, and evaluated for potential harm before being deployed. We can also utilize novel, applied modeling methodologies such as regression, random forests, explainable boosting machines, time series analysis, cluster analysis, simulation, scorecard development, and more! We can partner to develop Clinical Decision Tools!
- **Manuscript Development** Our team enjoys co-authoring manuscripts as an intellectual partnership.

## **DATA SUPPORT**

- Insurance Claims Data Our team members are trained and experienced in working with healthcare claims. We can advise on methods, data quality, and lessons learned from working with these data including NC Medicaid, Blue Cross Blue Shield NC, and NC State Health Plan.
- **Electronic Health Records** Sheps is now an Honest Broker for the UNC Data Warehouse. For projects at the Sheps Center, we can support you with the TraCS submission, we can pull the data for the study, and we can analyze the data. We are also familiar with OMOP.
- Others (Birth and Death Certificates, Immunization Records, Hospital Discharge and HCUP data) –
  We are experienced in working with a variety of health-related data and can support your project in
  obtaining a DUA to work with these datasets. We can also support the analysis and linkage of several of
  these data sources.
- **Publicly Available Datasets** We work with Census ACS data and HRSA Area Health Resource files to bring in social determinants of health and other area information.

## **CONNECT WITH US**

WEBSITE: https://www.shepscenter.unc.edu/data/

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