

## **Areas of Faculty Expertise and Interest, and Potential Topics for Professional Papers Master of Public Health, Department of Public Health**

### **Primary Advisors**

#### **Rashmita Basu**

- COVID-19 pandemic and the US healthcare system/public health strategies
- Long-term care delivery, costs, and quality of care
- COVID-19 pandemic and the future of US nursing homes
- Outcomes and reimbursements of post-acute care use by Medicare beneficiaries
- Growth in the long-term care market - how it influences individuals' care seeking behavior
- Financing, delivery, and public health investment decision-making
- Family characteristics and informal care for older adults in US-Medicaid enrollment and Medicare home health care use

#### **James Clifford**

- Genetic epidemiology
  - Twin studies
  - GWAS
  - Polygenic scoring (e.g., PRS-CSX, LDpred)
  - Gene-Environment interaction (GxE)
- Substance use disorders
  - Tobacco - Particularly new and emerging tobacco products (e.g., E-cigarettes, Heat-Not-Burn products)
  - Alcohol
- Methodological innovation
  - Statistical modeling
  - Algorithms for genetic data (e.g., GW-SEM)
- Psychological epidemiology
  - Internalizing-Externalizing continuum
  - Comorbidities with substance use

#### **Doyle Cummings**

- Improving Hypertension Control in Vulnerable Populations
- Role of telehealth in improving access to care in rural areas
- The emotional consequences of treatment/regimen maintenance in diabetes patients
- The cardiovascular outcomes associated with medication therapies in at-risk patients
- Measuring patterns of treatment intensification for hypertension
- Lipid lowering treatment use in patients with stroke
- Racial disparities in hypertension and diabetes

### **Marla Hall**

- Patient-provider communication
- Cultural competence academic preparation and continuing education
- Diet and physical activity behaviors among minority and/or rural populations
- Barriers to healthy eating and physical activity among minority and/or rural populations
- Access to and utilization of health services and screenings among minority and/or rural populations
- Health promotion and education activities within community settings

### **Greg Kearney**

- Environmental/Occupational studies
- Climate change
- Respiratory health (COPD and/or asthma)
- Public health surveillance (infectious, chronic diseases, clusters)
- Occupational exposures among Latino tree trimmers
- Toxic Release Inventory and Environmental Justice in ENC
- Medicaid reimbursement for home-based asthma visits – Making a case for caseworkers in N.C.
- Mercury exposure and fish consumption patterns among underserved populations in ENC

### **Aaron Kipp**

- Stigma related to HIV, tuberculosis, and/or substance use (have data on community survey of social determinants related to TB care from project in South Africa)
- HIV and substance use (particularly marijuana or opioids)
- Access to and retention in care or treatment (particularly for HIV, TB, substance use)
- COVID-19 prevention, prevalence, and incidence (have data on community cohort of COVID-19 in Pitt county)
- Other infectious diseases

### **Suzanne Lazorick**

- Childhood obesity
- School-based interventions for childhood obesity
- Quality improvement in treatment of childhood obesity
- Assessment of health behavior change in young adolescents
- Sleep, nutrition, physical activity and technology use behaviors in young adolescents
- Program evaluation of school-based intervention for childhood obesity

### **Suzanne Lea**

- Data from GenX Exposure Study: Human health effects of unregulated chemical substances in public drinking water (multiple topics)
- Qualitative Data Analysis: Disaster recovery and community resilience after H. Matthew and H. Florence
- Descriptive Data Analysis: Preferences for communication after a hurricane
- Quantitative Data Analysis: COVID-19 among young adults (multiple topics)
- Descriptive Data Analysis: chronic kidney disease among Latinx in eastern NC
- Descriptive and Longitudinal Data Analysis: Cancer rates in eastern North Carolina

### **Ruth Little**

- Community Based Diabetes Management Programs
- Palliative Care and Hospice
- Long Term Care Quality
- Quality measures and outcomes across health care settings
- Long Term Care Operation & Delivery: Quality/Staffing/ Survey
- Substance Abuse Prevention/Prescription Drug misuse

### **Huabin Luo**

- Public health system research
- Oral health care access
- Preventive diabetes care access and quality
- Nursing home care quality
- Risk factors of Alzheimer' disease and related dementia

### **Kavita Mosalpuria**

- Health Services Research – include topics such as health service utilization, health service expenditures, telehealth, and health care access which may be for prevention or treatment of specific diseases
- Tobacco Regulatory Science – Includes commercial tobacco and/or nicotine use, prevention, control, policy analysis, economic analysis, behavioral changes, and tobacco-related disparities
- Health care disparities and inequities – in health service utilization, health service expenditures, tobacco-use related, tobacco and/or nicotine cessation services disparities, and intersectional inequalities
- Prevention Medicine Research – includes topics such as immunization, cardiovascular disease prevention programs, cancer prevention, social determinants of health, commercial determinants of health, health perception & knowledge, health communications, etc.
- Implementation Science – Surveillance, monitoring, and evaluation of public health programs, health policies, and disease prevention programs
- Methodology – quantitative analysis, qualitative analysis, mixed methods, and geospatial mapping using ArcGIS
- Datasets – Medical Expenditure Panel Survey, Health Information National Trends Survey, Population Assessment of Tobacco and Health study, National Health Interview Survey, National Readmission Database by Healthcare Cost & Utilization Project, Tobacco Longitudinal Mortality Study, Behavioral Risk Factor Surveillance System, American Community Survey, etc.

### **Stephanie Pitts**

- Examine associations between healthy food access among local residents, and outcomes such as fruit/vegetable purchase and consumption, sugary beverage purchase and consumption, and skin carotenoid status.
- Conduct a mixed-methods study to examine effectiveness of a Produce Prescription Program.
- Examine associations between healthy food access, and outcomes such as fruit/vegetable purchase and consumption, sugary beverage purchase and consumption, and skin carotenoid status.
- Conduct a mixed-methods study to examine effectiveness of a Produce Prescription Program.
- Examine critical constructs of nutrition security and associations with diet and health outcomes

## **Lok Pokhrel**

*January 08, 2023*

- Risk Assessment of legacy and emerging contaminants
- Human health risk assessment (HERA) of legacy and emerging contaminants
- Nanotoxicology (Human Toxicology and Ecotoxicology)
- Sustainable nano-based technology development (e.g., nanopesticides, antiviral therapeutics, antibacterial agents)
- Water quality assessment in the changing world
- Hospital acquired infections (HAIs), antibiotic resistance and multidrug resistant organisms (AR/MDROs)
- Environmental health and occupational safety
- Sustainable food production, food quality and safety
- Sustainability and green chemistry

## **Sinan Sousan**

- Agricultural airborne exposure assessment
- Electronic cigarette exposure assessment
- COVID-19 exposure assessment
- Respirator protection assessment
- Personal exposure assessment
- Use of low-cost sensors for airborne exposure assessment
- Heat exposure assessment
- UV exposure assessment

## **Nancy Winterbauer**

- Partnership evaluation – African American community engagement in response to COVID-19 - qualitative
- Organization and functions of health educators in NC local health departments - qualitative
- Volunteerism – lit review

## **Content Advisors**

### **William Irish (Brody School of Medicine)**

- Identification of important prognostic factors of disease progression and clinical outcomes, including validation of biomarkers
- Developing statistical models and assessing their clinical utility
- Analysis of non-randomized comparative effectiveness studies using multivariable adjustment methods
- Evaluating factors that affect access to surgical care
- Health-outcomes following kidney transplantation
- Surgical oncology outcomes research using publicly available databases, such as the National Cancer Database and the SEER database

### **Mark Moss (School of Dental Medicine)**

- Strengthening community engagement to improve oral health in CSLC communities
- Tracking the impact of ECU School of Dental Medicine on oral health workforce distribution and access to care in NC
- Collaborative research between primary care physicians and dentists to improve health in high-risk populations. Specific interests: diabetes/prediabetes; pregnancy; and young children with high blood lead levels.
- Addressing sugar-sweetened beverage consumption in general - what works for public health

### **Wanda Wright (School of Dental Medicine)**

- Tobacco cessation
- Oral health related quality of life
- Cultural competency training for health professionals
- Access to care
- Health disparities