Ryan C. Ramphul
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UNDERGRADUATE EDUCATION:

The University of Texas at Austin 2008
- B.A. Geography and Urban Studies (Double Major)
- Minor: Architecture

GRADUATE EDUCATION:

The University of Texas at Austin 2010
- M.S. Community and Regional Planning
- Professional Report: "An Analysis of Ways to Maximize the Efficiency of the NEPA Environmental Process at the Texas Department of Housing and Community Affairs"

The University of Texas Health Science Center at Houston School of Public Health 2020
- Ph.D. Management and Policy Sciences
- Minor: Epidemiology
- Breadth: Bioinformatics
- Dissertation: "Using Spatial Methods to Better Understand Food Insecurity and SNAP Participation in Texas"

ACADEMIC & ADMINISTRATIVE APPOINTMENTS:

Assistant Professor, Tenure Track, UTHealth Houston School of Public Health
- Member, Center for Healthy Communities (CHC)
- Member, Center for Spatial Temporal Modeling for Applications in Population Sciences (CSMAPS)

Lecturer, Rice University
Commissioner, Harris County Asian American and Pacific Islander (AAPI) Commission
State Health Policy Fellow, University of Texas Chancellor's Office/National Academy of Medicine

HONORS, AWARDS, AND DISTINCTIONS

2025 National Cancer Institute Early Investigator Advancement Program (EIAP), Selected Participant.
2026 UTHealth Houston School of Public Health Excellence in Teaching Award Recipient.

PROFESSIONAL SERVICE AND SCIENTIFIC REVIEW ACTIVITIES

2024 National Institutes of Health (NIH), Center for Scientific Review (CSR), Ad Hoc Reviewer, Social and Environmental Determinants of Health (SEDH) Study Section.
2026 National Institutes of Health (NIH), Center for Scientific Review, Ad Hoc Reviewer, Cancer and Hematologic Disorders (CHD) Study Section.

INTERNATIONAL PUBLIC HEALTH ACTIVITIES

UTHealth Office of Global Health Initiatives Educational Cooperation Agreement with Guyana Ministry of Health (2026-Present)
- Leading development of an institutional partnership between UTHealth Houston and the Guyana Ministry of Health focused on public health education, workforce development, Geographic Information Systems (GIS), and collaborative capacity-building initiatives.
- Facilitating engagement among governmental, academic, and public health stakeholders to establish a sustainable framework for long-term global health collaboration.
- Supporting the development of educational exchange, training, and technical assistance opportunities to strengthen public health infrastructure and workforce capacity in Guyana.

CURRENT TEACHING RESPONSIBILITIES:

Guest Lecturer – "PHM 1112 Community Needs Assessment"

- Approximately 30+ students
- Every fall/spring semester since 2018
- Develop and teach a multi-session introductory Geographical Information Systems (GIS) Science workshop, aimed at equipping students with the basics of spatial analysis and cartography.

Instructor – PH2926 "Fundamentals and Applications of GIS"

- 38+ students
- Every fall since 2021
- This course teaches basic concepts of GIS and common methods of spatial analysis that are important across all components of public health: environmental sciences, epidemiology, health planning and policy, health promotion, global health, etc. Through a combination of lectures, hands-on labs, and student projects, this course gives an overview of computer-based mapping and introduces basic techniques for spatial analysis.
- Overall rating of instructor effectiveness for this course = 4.80/5.0

Guest Lecturer – "SBMI5380: Public Health Informatics" (UT School of Biomedical Informatics)

- Approximately 15+ students
- Fall 2022
- Develop and teach an introductory Geographical Information Systems (GIS) Science workshop, aimed at equipping students with the basics of spatial analysis and cartography.

Guest Lecturer – "PH2998 - Using Mobile Health Tech in Public Health"

- Approximately 10+ students
- Fall 2022/ Spring 2023
- Develop and teach an introductory Geographical Information Systems (GIS) Science workshop, aimed at equipping students with the basics of spatial analysis and cartography.

UTHealth Community Action Poverty Simulator (CAPS) Facilitator and Curriculum Contributor

- Every year since 2023
- Facilitate interdisciplinary Community Action Poverty Simulator (CAPS) sessions for students, faculty, and community partners, providing experiential learning focused on poverty, systems thinking, and social determinants of health.
- Contribute to development and refinement of simulator curriculum, facilitator materials, and educational content.

Instructor – HEAL 376 (Rice University Department of Kinesiology) "Fundamentals and Applications of GIS"

- Approximately 20+ students
- Every spring semester since 2024
- This course teaches basic concepts of GIS and common methods of spatial analysis that are important across all components of public health: environmental sciences, epidemiology, health planning and policy, health promotion, global health, etc. Through a combination of lectures, hands-on labs, and student projects, this course gives an overview of computer-based mapping and introduces basic techniques for spatial analysis.

Instructor – PH2775L Epidemiologic Methods in Population Health Differences

- 30+ students
- Every spring semester since 2025
- This course provides an overview of health trends and differences across population groups in the US. Special emphasis is given to epidemiologic methods and perspectives in research studies that examine demographic patterns, mortality and life expectancy, and biological, environmental, and social factors that may contribute to population-level differences in health outcomes.

CURRENT GRANT SUPPORT:

2023-2028 Geospatial Approaches for Early Melanoma Detection (GAMED) in Texas

- In this project we aim to use data-driven approach to creating statistical models that predict which areas may have the most late-stage melanomas in the future, and identifying the multi-level factors associated with the late-stage melanoma diagnosis in Texas. We then plan to identify PCPs in high melanoma burden areas who are interested in learning about skin cancer, and deploy our multimodal educational intervention program, tailored to the social and community patient context, to clinical sites in those communities.
- Funding agency: University of Texas MD Anderson Cancer Center (MDACC)/Cancer Prevention & Research Institute of Texas (CPRIT)
- Funding amount: $824,945
- Role: Co-I

2023 – 2028 Center for Transformative Community-Driven Research to Prevent Obesity-related Cancer

- The Active Living After Cancer (ALAC) program is an evidence-based physical activity program, adapted for minority and medically underserved survivors, that teaches participants behavioral and cognitive skills to increase physical activity. We propose a health promotion interweaving approach, testing the ALAC program integrated within Be Well Acres Homes, a place-based cancer prevention initiative.
- Funding agency: University of Texas MD Anderson Cancer Center (MDACC)/National Cancer Institute/NIH/DHHS (NCI)
- Funding amount: $1.8M
- Role: CO-I

2025-2026 Evaluating the Impact of an Urban Farm and Produce Prescription Program on Community Health

- This project evaluates the effectiveness of urban farming initiatives and produce prescription programs in improving nutritional access and health outcomes within the community.
- Funding agency: Episcopal Health Foundation (EHF)
- Funding amount: $60,000
- Role: PD/PI

2025-2026 Promoting Firearms Safe Storage and Reducing Gun Thefts in Texas

- This project aims to implement and evaluate strategies for safe firearm storage to reduce gun thefts and associated violence in Texas.
- Funding agency: Office of the Governor (OG)/US Department of Justice (DOJ)
- Funding amount: $90,700
- Role: Co-I

2025-2026 Climate vulnerability and heat island effects on physical activity in persistent poverty areas

- This study examines the impact of urban heat islands and climate vulnerability on physical activity patterns within socioeconomically disadvantaged neighborhoods.
- Funding agency: University of Texas MD Anderson Cancer Center (MDACC)/National Cancer Institute/NIH/DHHS (NCI)
- Funding amount: $7,560 Role:
- PD/PI

2026 – 2027 National Academy of Medicine / UT Chancellor's Health Policy Fellowship

- Selected as a National Academy of Medicine State Health Policy Fellow through the UT Chancellor's Health Policy Fellowship, providing protected effort for state and federal health policy leadership development and experiential policy training.
- Funding agency: National Academy of Medicine / UT System
- Role: Fellow

2026–2029 GIS Capacity Building and Public Health Infrastructure Development in Guyana

- This initiative supports the expansion of Geographic Information Systems (GIS) capacity within the Guyana Ministry of Health through workforce development, health facility mapping, spatial decision-support tools, and public health data modernization activities.
- Funding agency: ESRI Global Public Health Grant Program
- Role: PI

COMPLETED GRANT SUPPORT

2020 – 2023 Fort Bend County COVID-19 Analytics

- Analytics to understand person, place, time, trends, and disparities, as they relate to COVID-19, to inform public health action and policy in Fort Bend County.
- Funding agency: Fort Bend County Public Health
- Funding amount: $122,757
- Role: CO-I

2020 – 2024 Addressing COVID-19 Testing Disparities in Vulnerable Populations Using a Community Just in Time Adaptive Intervention (Phases I and II)

- To help reduce COVID-19-related health disparities in vulnerable populations in Texas, a multi-institutional team of researchers led by The University of Texas Health Science Center at Houston (UTHealth) identify disease hotspots and testing deserts in three racially diverse areas, and then develop and evaluate intervention strategies to increase COVID-19 testing.
- Funding agency: NIH-RADxUP
- Funding amount: $2,975,652
- Role: CO-I

2021 – 2023 Texas Epidemic Public Health Institute

- TEPHI is a collaborative agency with partnerships across numerous state agencies, including; the Texas Department of State Health Services (TDSHS), Texas Division of Emergency Management (TDEM), local health departments, the Centers for Disease Control and Prevention (CDC), academic institutions, business entities, and community organizations. These partnerships allow for the collection of viewpoints and needs from diverse groups, the creation of a comprehensive state preparedness and response plan, and the strategic placement of key resources and people around the state.
- Funding agency: Office of the Governor

- Funding amount: $27,732,456
- Role: CO-I

2021– 2023 Community-Based Workforce Development and Mobilization to Increase COVID-19 Vaccination Equity in Texas

- The purpose of the program is to establish, expand, and sustain a public health workforce to prevent, prepare for, and respond to COVID-19. This includes mobilizing community outreach workers, which includes community health workers, patient navigators, and social support specialists, to educate and assist individuals in accessing and receiving COVID-19 vaccinations.
- Funding agency: Health Resources & Services Administration/DHHS (HRSA)
- Funding amount: $10M
- Role: CO-I

2021 – 2023 Texas SARS-CoV-2 Variant Network

- Creating a statewide COVID-19 variant monitoring program, by partnering with academic and commercial testing labs and leveraging Texas-based laboratories and a large national Genome Center to conduct rapid and high throughput SARS-CoV-2 sequencing and analysis for Texas. A network including DSHS, commercial partners and academic institutions will enable an efficient and comprehensive approach to identify the presence of known variants of concern (VOC) and will provide the capability to identify new variants as they emerge.
- Funding agency: Texas Department of State Health Services
- Funding amount: $15,000,000
- Role: CO-I

2022 – 2024 CCPH Needs Assessment and Community Health Improvement Plan

- This effort is aimed at getting the Cameron County Public Health Department accredited by the Public Health Accreditation Board
- Funding agency: Cameron County Public Health (CCPH)/Centers for Disease Control & Prevention/DHHS (CDC)
- Funding amount: $100,000
- Role: CO-I

2022 – 2024 Joint Center on Geospatial Analysis and Health

- The goal of this project is to create the Joint Center on Geospatial Analysis and Health (JCoGAH), whose mission is to enhance access to spatial analysis essential to research, policy analysis, and public health practice at UTHealth and MD Anderson. The Center will serve as a resource to researchers, public health practitioners, and community-based organizations, in Greater Houston and across the State of Texas, who seek to utilize spatial analysis to improve and inform their work in population health.
- Funding agency: UTHealth – MD Anderson Population Health Initiative
- Funding amount: $200,000
- Role: CO-PI

2023 – 2023 San Antonio Metro Health Division Food Insecurity Assessment Deliverables 1 and 2

- This effort is aimed at identifying socioeconomic and systemic characteristics of communities in San Antonio experiencing food insecurity and informing decision-making about policies and actions to promote community food security, taking into consideration existing assets as well as gaps in resources and services.

- Funding agency: San Antonio Metro Health Division
- Funding amount: $72,000
- Percent effort: 25%
- Role: PI

2023 – 2024 San Antonio Metro Health Division Food Insecurity Assessment Deliverable 3

- The objective of this study is to better understand the lived experience of food insecurity in San Antonio. To accomplish this, we will work with the San Antonio Food Insecurity Workgroup, which consists of community members, representatives from local organizations, and relevant stakeholders, on a massive city-wide data collection effort involving focus groups, community conversations, and surveys.
- Funding agency: San Antonio Metro Health Division
- Funding amount: $100,000
- Percent effort: 20%
- Role: PI

2023 –2024 Harris Health PCORI HSII Capacity Building

- The goal of this initiative is establishing a healthcare-academic institutional partnership to develop an integrated joint platform for improved health services delivery and outcomes with the goal of improved health equity.
- Funding agency: Harris Health System (HHS)/Patient-Centered Outcomes Research Institute (PCORI)
- Funding amount: $306,913
- Role: CO-I

2023 – 2025 MD Anderson Cancer Control Platform Geospatial Service Contract

- The purpose of this service contract is to provide MD Anderson's Cancer Control platform geospatial analysis support for it's placed-based initiatives.
- Funding agency: MD Anderson Cancer Control Platform
- Funding amount: $200,000
- Percent effort: 15%
- Role: PI

2023 – 2025 External Evaluation of Texas Child Health Mental Health Consortium Initiatives

- This project focuses on assessing the impact and effectiveness of mental health care initiatives for children across Texas.
- Funding agency: Texas Child Mental Health Care Consortium (TCMHCC)
- Funding amount: $737,193
- Role: CO-I

2024 – 2025 Heart Disease and Stroke Prevention Innovative Program

- This initiative aims to develop and implement innovative strategies to reduce the burden of heart disease and stroke in Texas.
- Funding agency: Texas Department of State Health Services (DSHS)
- Funding amount: $444,446
- Role: CO-I

2024 – 2025 Aging Research Award

- Exploring the Influence of Neighborhood and Environmental Characteristics on Physical and Psychosocial Wellbeing in Older Adults: Analysis Using Data from the CART Study
- Funding agency: Cizick School of Nursing
- Funding amount: $40,000
- Percent effort: 15%
- Role: PI

2024 – 2025 MD Anderson Acres Homes™ Cancer Prevention Collaboration Pilot Project Program
- Exploring the Interplay Between Area-Level Food Insecurity, Urbanicity-rurality, Persistent Poverty, and Cancer-Related Health Outcomes in Texas
- Funding agency: MD Anderson Cancer Control Platform
- Funding amount: $75,000
- Percent effort: 15%
- Role: PI

PENDING / SUBMITTED PROPOSALS

2027–2029 Geospatial Optimization of AED Placement and CPR/AED Training to Improve Outcomes from Out-of-Hospital Cardiac Arrest
- This project evaluates the geospatial distribution of automated external defibrillators (AEDs) and identifies areas with high incidence of witnessed cardiac arrest and low bystander CPR rates to inform targeted placement of AEDs and community-based CPR/AED training interventions.
- Funding Agency: Laerdal Foundation
- Role: Co-Investigator

2026-2029 Gulf Offshore Legacy Oil and Gas Infrastructure: Orphaned Wells
- This project proposes the development of geospatial tools and predictive models to identify, monitor, and assess public health and environmental risks associated with orphaned and abandoned offshore oil and gas infrastructure.
- Funding Agency: National Academies Gulf Research Program
- Funding Amount: Pending
- Role: PI

2026-2031 Mobile Stroke Units for All: A National Strategy for Geospatially Optimized and Cost-Effective Prehospital Stroke Care
- This proposal seeks to optimize deployment of Mobile Stroke Units across the United States through geospatial modeling and economic evaluation to improve equitable access to life-saving stroke treatment.
- Funding Agency: National Institutes of Health (NIH)
- Funding Amount: Pending
- Proposal Status: Submitted
- Role: PI

PRIOR PROPOSALS / NOT FUNDED

2021 – 2023 Assessing knowledge, attitudes, and beliefs about COVID-19 and vaccinations in pregnant women using Avababy, an online, interactive tool
- With the “Avababy” approach we aim to couple locational data captured through the Avababy avatar’s interaction with participants, including information on participant perceptions about

vaccines, allowing us to perform area-level spatial analysis, potentially illuminating neighborhoods that show vaccine hesitancy versus neighborhoods that show willingness.
- Funding agency: Baylor College of Medicine (BCM)/National Institutes of Health/DHHS (NIH)
- Proposal status: Submitted/ Not funded
- Funding amount: $101,897
- Role: CO-PI

2023 – 2025 Geospatial Analysis of Type-Specific ED Visits to a Safety Net County Hospital System
- This project is a secondary data analysis of emergency department visits to the Harris Health System in 2021 and 2022. The overall aim of this research is to better understand the geographical aspects of different types of ED visits in relation to neighborhood characteristics.
- Funding agency: Agency for Healthcare Research & Quality/DHHS (AHRQ)
- Proposal status: Submitted/Not funded
- Funding amount: $99,540
- Role: PI

2023 – 2025 WIC Wayfinder Initiative
- The primary goal of this project is to increase WIC enrollment among Harris County's uninsured and means-tested publicly insured (Medicaid, CHIP, etc.) populations, by creating an outreach campaign aimed at facilitating Health Equity Collective (HEC) member organizations to refer uninsured and means-tested publicly insured populations, who may be eligible for WIC to "WIC Wayfinders," a team of navigators who can help them enroll and utilize WIC benefits.
- Funding agency: USDA
- Proposal status: Submitted/Not funded
- Funding amount: $821,938
- Role: PI

2023 – 2025 The WIC Wayfinder Initiative II
- This research aims to understand the effect of the WIC Wayfinder Program, a comprehensive program offering free WIC navigation services, on WIC enrollment and retention in Harris County. It also aims to compare the effectiveness of the program on enrollment and retention when offered at safety-net/low-cost clinical settings versus food distribution sites (food pantries, food distributions, etc.).
- Funding agency: The Robert Wood Johnson Foundation Healthy Eating Research (HER)
- Proposal status: Submitted LOI/ Not invited to submit full proposal
- Funding amount: $200,000
- Role: PI

2023 – 2025 The SNAP to the Future Pilot
- This research aims to investigate the factors contributing to underutilization of SNAP benefits for online grocery purchases and home delivery in the Acres Homes neighborhood of Houston
- Funding agency: Acres Homes Cancer Prevention Partnership
- Proposal Status: Submitted/Not funded
- Funding amount: $75,000
- Role: PI

2023 – 2026 The Houston PAP Project: Prevenir, Ayudar, Poder - cervical cancer screening, education and treatment to underserved Hispanic women

- We established a pilot program in 2018 to provide free cervical cancer screening to a predominantly Hispanic population in urban Houston. We aimed to evaluate the socioeconomic neighborhood factors which affect our patients in order to better assist them.
- Funding agency: Cancer Prevention & Research Institute of Texas (CPRIT)
- Proposal status: Submitted/Not funded
- Funding amount: $1,478,715
- Role: Co-Investigator

2023 – 2028 ComPASS Coordinating Center to Advance Health Equity

- The goal of the ComPASS Coordinating Center (CCC) at UTHealth Houston is to provide innovation, design, data capture and management, statistical, epidemiological, research, and scientific expertise, as well as capacity building and training resources and leadership to oversee all program activities implemented as part of the NIH Community Partnerships to Advance Science for Society (ComPASS) Program.
- Funding agency: NIH
- Proposal status: Submitted
- Funding amount: $23M
- Role: Co-I

2023 – 2028 Texas Emerging Infections Program (EIP)

- The creation of a network of population-based centers of excellence established through state public health departments collaborating with academic institutions, local health departments, public health and clinical laboratories, infection control professionals, healthcare providers, and CDC for special surveillance and applied public health research.
- Funding agency: CDC
- Proposal status: Submitted
- Funding amount: $50M
- Role: Co-I

2024 – 2025 Implementing Mobile Stroke Units

- We aim to utilize AI and geospatial analysis optimize the route of a mobile stroke unit.
- Funding agency: PCORI
- Proposal Status: Submitted/Not funded
- Funding amount: $2.5M
- Role: CO-I

2024 – 2025 Optimizing the Census of Substance Use Providers in Texas - Deliverable 3

- This project aims to enhance the accuracy and comprehensiveness of the census of substance use providers across Texas. By optimizing data collection and mapping efforts, the initiative sought to provide better insights into the availability and distribution of substance use treatment resources throughout the state
- Funding agency: APHA
- Proposal status: Submitted/Not funded
- Funding amount: $167,716
- Role: PI

2024 – 2025 The WIC Wayfinder Initiative II

- This research aims to understand the effect of the WIC Wayfinder Program, a comprehensive program offering free WIC navigation services, on WIC enrollment and retention in Harris County. It also aims to compare the effectiveness of the program on enrollment and retention when offered at safety-net/low-cost clinical settings versus food distribution sites (food pantries, food distributions, etc.).
- Funding agency: The Robert Wood Johnson Foundation Healthy Eating Research (HER)
- Proposal status: Submitted LOI/ Not invited to submit full proposal
- Funding amount: $200,000
- Role: PI

2025 – 2028 Investigating Geospatial and Retrospective Exposure Factors Associated with Early-Onset Gastrointestinal Cancers

- This study aims to identify environmental and exposure-related risk factors contributing to the rising incidence of early-onset gastrointestinal cancers. By leveraging geospatial analysis and retrospective data, the project sought to uncover potential geographic patterns and risk factors to inform cancer prevention strategies in Texas.
- Funding agency: Cancer Prevention & Research Institute of Texas (CPRIT)
- Proposal status: Submitted/Not funded
- Funding amount: $271,729
- Role: PI

2025 – 2026 Addressing Transportation Barriers in the Colonias Listening Sessions, Hidalgo and Starr Counties

- Community-engaged qualitative study addressing transportation inequities affecting health access in South Texas colonias.
- Funding agency: Methodist Healthcare Ministries (MHM)
- Proposal status: Submitted (under review)
- Funding amount: $76,582 (Direct $69,620 / Indirect $6,962)
- Role: Co-Investigator

2025 – 2026 FreshRx: A Systems Alignment Approach to Prevent Type 2 Diabetes in Houston's Second Ward

- This study aligns clinical and community systems to prevent diabetes through coordinated food prescription programs.
- Funding agency: Small Places / Robert Wood Johnson Foundation (RWJF)
- Proposal status: Submitted (under review)
- Funding amount: $107,427 (Direct $93,415 / Indirect $14,012)
- Role: Co-Investigator

2026 – 2031 Geospatial and Environmental Determinants of Colorectal Cancer Incidence and Severity in Texas

- This R01 integrates Texas Cancer Registry data with geospatial, social, and environmental datasets to identify neighborhood-level determinants of colorectal cancer (CRC) incidence, early-onset disease, and late-stage diagnosis across Texas. The project applies Bayesian spatial modeling to quantify contextual and exposure-based contributors to CRC disparities and inform targeted prevention and screening strategies
- Funding agency: National Cancer Institute (NCI) / National Institutes of Health (NIH)
- Funding amount: Pending (Direct ≈ $2 million)

- Proposal status: Submitted/Not Funded
- Role: PI

2026 – 2031 Geospatial, Genetic, and Behavioral Determinants of Cardiovascular Disease Risk in the United States

- This R01 leverages the NIH All of Us Research Program to examine how place-based exposures, behavioral and psychosocial factors, and genetic susceptibility jointly shape cardiovascular disease risk and outcomes. The study will quantify independent and interacting effects of social and environmental context on cardiovascular risk factors and mortality, advancing precision public health through integrated geospatial and genomic analysis
- Funding agency: National Heart, Lung, and Blood Institute (NHLBI) / National Institutes of Health (NIH)
- Funding amount: Pending (Direct ≈ $2 million)
- Proposal status: Submitted/Not Funded
- Role: MPI

2026-2027 MedPull: AI-Enabled Intake Modernization for Low-Literacy Patients

- MedPull is an AI-assisted, mobile-first platform designed to reduce literacy, language, and navigation barriers during healthcare intake by transforming paper and PDF intake forms into guided, multilingual workflows. The project seeks to improve healthcare access, reduce administrative burden, and support patients with limited health literacy or limited English proficiency.
- Funding Agency: UT REAL Health AI Pilot Program
- Funding Amount Requested: $350,000
- Proposal Status: Submitted / Not Funded
- Role: PI

2026-2027 Understanding the Shifting Environment of Coverage and Benefits in Texas Following Federal Policy Changes

- This project proposed to quantify the effects of recent federal policy changes on health insurance coverage, healthcare access, benefit design, and population health outcomes in Texas. The study would leverage administrative, demographic, and geospatial data to identify populations most affected by changes in coverage and eligibility.
- Funding Agency: Episcopal Health Foundation
- Proposal Status: Submitted/Not Funded
- Role: PI

2026-2028 High-Resolution Satellite-Based Assessment of Air Pollution and Colorectal Cancer Severity in Texas

- This R21 integrates Texas Cancer Registry data with NASA-derived environmental datasets to identify neighborhood-level determinants of colorectal cancer (CRC) incidence, early-onset disease, and late-stage diagnosis across Texas.
- Funding agency: National Cancer Institute (NCI) / National Institutes of Health (NIH)
- Funding amount: Pending (Direct ≈ $275,000)
- Proposal status: Submitted/Not Funded
- Role: PI

PUBLICATIONS:

A. Refereed Original Articles in Journals

- Chen, A., Revere, L., & **Ramphul, R.** (2016). Assessing the proximity relationship of walk-in clinics and primary-care physicians. Journal of Ambulatory Care Management, 39(4), 325–332. https://doi.org/10.1097/JAC.0000000000000152
- Kahr, M. K., Suter, M. A., Ballas, J., Ramin, S. M., **Ramphul, R**., Monga, M., Lee, W., & Griffin, E. N. (2016). Geospatial analysis of food environment demonstrates associations with gestational diabetes. American Journal of Obstetrics and Gynecology, 214(1), 110.e1–110.e9. https://doi.org/10.1016/j.ajog.2015.08.048
- Kahr, M. K., Suter, M. A., Ballas, J., **Ramphul, R**., Lubertino, G., Hamilton, W. J., & Aagaard, K. M. (2016). Preterm birth and its associations with residence and ambient vehicular traffic exposure. American Journal of Obstetrics and Gynecology, 215(1), 111.e1–111.e10. https://doi.org/10.1016/j.ajog.2016.01.171
- Tortolero, G. A., Brown, M. R., Sharma, S. V., de Oliveira Otto, M. C., Yamal, J. M., **Ramphul, R.,** & Boerwinkle, E. (2021). Leveraging a health information exchange for analyses of COVID-19 outcomes including an example application using smoking history and mortality. PLOS ONE, 16(6), e0247235. https://doi.org/10.1371/journal.pone.0247235
- Liu, L., Ni, Y., Beck, A. F., Brokamp, C., **Ramphul, R. C.**, Highfield, L. D., & Kanjia, M. K. (2021). Understanding pediatric-surgery cancellation: Geospatial analysis. Journal of Medical Internet Research, 23(9), e26231. https://doi.org/10.2196/26231
- Mofleh, D., Almohamad, M., Osaghae, I., Bempah, S., Zhang, Q., Tortolero, G., **Ramphul, R**., & Sharma, S. V. (2022). Spatial patterns of COVID-19 vaccination coverage by social vulnerability index and designated COVID-19 vaccine sites in Texas. Vaccines (Basel), 10(4), 574. https://doi.org/10.3390/vaccines10040574
- Tortolero, G. A., de Oliveira Otto, M. C., **Ramphul, R**., Yamal, J. M., Rector, A., Brown, M., & Boerwinkle, E. (2022). Examining social vulnerability and the association with COVID-19 incidence in Harris County, Texas. Frontiers in Public Health, 9, 798085. https://doi.org/10.3389/fpubh.2021.798085
- **Ramphul, R**., Highfield, L., & Sharma, S. (2023). Examining neighborhood-level hot and cold spots of food insecurity in relation to social vulnerability in Houston, Texas. PLOS ONE, 18(3), e0280620. https://doi.org/10.1371/journal.pone.0280620
- Crain, E. **R., Ramphul**, R., Butler, A., Huang, X. C., Minard, C. G., Redondo, M. J., & DeSalvo, D. J. (2023). Social determinant-of-health impact on diabetes device use and clinical outcomes in youth with type 1 diabetes. Pediatric Diabetes, 2023, 4751595. https://doi.org/10.1155/2023/4751595
- Nyachoti, D. O., Ranjit, N., **Ramphul, R**., Whigham, L. D., & Springer, A. E. (2023). Association of social vulnerability and COVID-19 mortality rates in Texas between March 15 2020 and July 21 2022: An ecological analysis. International Journal of Environmental Research and Public Health, 20(21), 6985. https://doi.org/10.3390/ijerph20216985
- **Ramphul, R.**, Zamorano, A. S., Upadhyay, S., Desai, M., & Bauer, C. (2024). Spatiotemporal analysis of HPV vaccination and associated neighborhood-level disparities in Texas — an ecological study. Frontiers in Public Health, 12, 1418526. https://doi.org/10.3389/fpubh.2024.1418526
- Jibowu, M., Nolan, M. S., **Ramphul, R**., Essigmann, H. T., Oluyomi, A. O., Brown, E. L., … & Gunter, S. M. (2024). Spatial dynamics of Culex quinquefasciatus abundance: Geostatistical insights from Harris County, Texas. International Journal of Health Geographics, 23(1), 26. https://doi.org/10.1186/s12942-024-00385-4
- Portillo, E. N., Quiñones, C., Foughty, Z. C., **Ramphul, R**., Morrow, A. T., Fisher, K., & Russell, E. A. (2024). Communities disproportionately affected by carbon monoxide exposure after Winter

Storm Uri. The Journal of Pediatrics: Clinical Practice, 13, 200114. https://doi.org/10.1016/j.jpedcp.2024.200114

- Sandoval, M. N., Mikhail, J. L., Fink, M. K., Tortolero, G. A., Cao, T., **Ramphul, R**., & Boerwinkle, E. (2024). Social determinants of health predict readmission following COVID-19 hospitalization. Frontiers in Public Health, 12, 1352240. https://doi.org/10.3389/fpubh.2024.1352240
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B. Non-refereed Publications

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- **Ramphul, R.,** Devora, A., Hurliman, R., Pyne, J., Gunderson, C. (2023). The San Antonio Food Insecurity Assessment and User Guide for Web-based Tools Built to Collect and Visualize Data Related to Food Insecurity in Bexar County. UTHealth Houston School of Public Health

- **Ramphul, R**., Devora, A., Hurliman, R., Gunderson, C. (2023). The San Antonio Food Insecurity Assessment Law and Policy Review and Policy Change Framework. UTHealth Houston School of Public Health
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- Texas Children's Hospital. (2025). Texas Children's Hospital 2025 Community Health Needs Assessment. Texas Children's Hospital.
- Texas Children's Hospital. (2025). Texas Children's Hospital 2025 Community Health Needs Assessment Implementation Strategy. Texas Children's Hospital.
- Texas Children's Hospital Austin Campus. (2026). Texas Children's Hospital Austin Campus 2026 Community Health Needs Assessment. Texas Children's Hospital.

ABSTRACTS AND PRESENTATIONS:

A. Abstracts

- **Ramphul, R.,** McNeill, L. H., Sharma, S. V., & Pomeroy, M. (2017, November). A pilot study utilizing churches as an effective food co-op to provide consistent access to fresh fruits and vegetables in food desert neighborhoods. Presented at the American Public Health Association (APHA) Annual Meeting & Expo, Atlanta, GA.
- **Ramphul, R**., Rodrigues, M., & Young, G. (2019, November). How a pediatric organization utilized data and multidisciplinary collaborations to make area schools Heart Safe. Presented at the APHA Annual Meeting & Expo, Philadelphia, PA.
- Ricondo, S. A., Wiemann, C., **Ramphul, R**., Hergenroeder, A. C., & Sebastian, M. (2020). Distance to care as a predictor of loss to follow-up in adolescent eating disorder treatment. Journal of Adolescent Health, 66(2), S27–S28 (Abstract presentation).
- Goulding, A. N., **Ramphul, R. C**., Sangi-Haghpeykar, H., & Aagaard, K. M. (2021). 837 Is neighborhood deprivation predictably associated with adverse birth outcomes? American Journal of Obstetrics & Gynecology, 224(2), S521.
- Goulding, A. N., **Ramphul, R. C**., Seferovic, M., & Aagaard, K. M. (2021). 1101 Is social vulnerability associated with COVID-19 among pregnant women? American Journal of Obstetrics & Gynecology, 224(2), S678–S679.
- Goulding, A., Aagaard, K., Brown, M., & **Ramphul, R.** (2022, January). Examining the role of social vulnerability and environmental justice in neighborhood-level hot spots of COVID-19. Presented at the Society for Maternal–Fetal Medicine (SMFM) Annual Pregnancy Meeting, Austin, TX.
- Portillo, E., Russell, E., Foughty, Z., Fisher, K., Morrow, A., Quiñones, C., Hooli, S., Harding, S., **Ramphul, R**., & Camp, E. (2022). Communities affected by carbon-monoxide exposure after Winter Storm Uri. Presented at the Pediatric Academic Societies (PAS) Annual Meeting, Denver, CO.
- Nguy, L., **Ramphul, R**., Bauer, C., & Zamorano, A. (2022). Identifying HPV-vaccination initiation hot and cold spots and associated factors in Texas. Presented at the Western Association of Gynecologic Oncologists Annual Meeting, Park City, UT.
- Villanueva, M., Zamorano, A. S., **Ramphul, R**., Lucci, J., Nugent, E., Parsons, L. P., & Guerra, R. (2022). An urban pilot project to increase cervical-cancer screening: Are we helping the people who need it? Gynecologic Oncology Reports, 44, S24 (Abstract presentation).
- **Ramphul, R**., Hardy, M., Rai, S., & Boerwinkle, E. (2023, June). Using dashboards to visualize data on SARS-CoV-2 variants in Texas. Presented at the Council of State and Territorial Epidemiologists (CSTE) Annual Conference, Salt Lake City, UT.

- **Ramphul, R**., Bauer, C., & Zamorano, A. (2023, November). Spatiotemporal analysis of neighborhood HPV-vaccination rates and associated disparities in Texas. Presented at the APHA Annual Meeting & Expo, Atlanta, GA.
- Nyachoti, D. O., Ranjit, N., **Ramphul, R**., Whigham, L., & Springer, A. E. (2023, November). Association of social vulnerability and COVID-19 mortality rates in Texas: An ecological analysis. Presented at the APHA Annual Meeting & Expo, Atlanta, GA.
- Ramphul, R. (2024, September). Integrating geospatial analysis into Acres Homes persistent-poverty pilot projects. Presented at the Persistent Poverty Initiative Annual Meeting, Stanford University, Stanford, CA

B. Presentations

- **Ramphul, R**., McNeill, L. H., Sharma, S. V., & Pomeroy, M. (2017, November). A pilot study utilizing churches as an effective food co-op to provide consistent access to fresh fruits and vegetables in food desert neighborhoods. Presented at the American Public Health Association (APHA) Annual Meeting & Expo, Atlanta, GA.
- **Ramphul, R**. (2018, October). Using GIS to guide hospital outreach efforts after Hurricane Harvey. Presented at the ESRI Health and Human Services GIS Conference, Redlands, CA.
- **Ramphul, R**., Rodrigues, M., & Young, G. (2019, May). A spatial look at key health needs in the Houston area — a children's hospital perspective. Presented at the ESRI Public Health and Human Services Seminar Series, Houston, TX.
- **Ramphul, R**. (2019, July). Using GIS to optimize pediatric care delivery with mobile clinics in Houston. Presented at the ESRI Annual Meeting and Expo, San Diego, CA.
- **Ramphul, R.** (2019, November). A spatial look at community health needs in Houston. Presented at the Center for Epidemiology & Population Health Research Seminar, Baylor College of Medicine, Houston, TX.
- **Ramphul, R**. (2022, October). How two institutions partnered to democratize geospatial data. Presented at the Healthier Texas Summit, Austin, TX.
- **Ramphul, R.,** Hardy, M., Rai, S., & Boerwinkle, E. (2023, June). Using dashboards to visualize data on SARS-CoV-2 variants in Texas. Presented at the Council of State and Territorial Epidemiologists (CSTE) Annual Conference, Salt Lake City, UT.
- **Ramphul, R**., Bauer, C., & Zamorano, A. (2023, November). Spatiotemporal analysis of neighborhood HPV-vaccination rates and associated disparities in Texas. Presented at the APHA Annual Meeting & Expo, Atlanta, GA.
- **Ramphul, R**. (2024, September). Integrating geospatial analysis into Acres Homes persistent-poverty pilot projects. Presented at the Persistent Poverty Initiative Annual Meeting, Stanford University, Stanford, CA.
- **Ramphul, R**. (2024, November 22). Exploring non-medical drivers of health through geospatial analysis. Presented at the Houston Area GIS Day 2024, Houston, TX.
- **Ramphul, R**., Bess, K., McPherson, H., & John, J. (2025, March 28). A geospatial look at the nexus between housing and health in Greater Houston. Presented as part of the panel "Building Shared Opportunities: Health and Housing" at the 2025 Texas Community Development Conference, Grand Galvez, Galveston, TX.
- **Ramphul, R**., Lee, J., Liu, Y., Chen, Y., McNeill, L., Basen-Engquist, K., & Rechis, R. (2025, April). Persistent poverty and geographic disparities in colorectal cancer risk: A Bayesian spatial analysis in Texas. Poster presented at the American Association for Cancer Research (AACR) Annual Meeting, Baltimore, MD
- Joseph, K. M., Chapa, L., Block, K., Bednar, E., Bello, R., **Ramphul, R.** (2025, September 26–27). From analysis to action: Informing public health care through strategic landscape mapping.

Poster presented at the Society for Public Health Education (SOPHE) Annual Conference, San Marcos, TX (SOPHE 2025).

- **Ramphul, R**. (2025, October). Optimizing distribution of mobile stroke units in Texas: A geospatial perspective. Invited presentation at the PRE-hospital Stroke Treatment Organization (PRESTO) International Webinar Series, virtual session.
- **Ramphul, R.** (2025, November 2). Geospatial analysis of Polycystic Ovarian Syndrome (PCOS) and associated neighborhood factors in Texas. Oral presentation in the session "Centering Lived Experience and Structural Contexts in Gynecologic and Reproductive Health" at the American Public Health Association (APHA) Annual Meeting & Expo, Women's Caucus, Washington, DC.
- **Ramphul, R.** (2025, November 21). Mapping colorectal cancer risk in Texas: Geospatial perspectives on social determinants and persistent poverty. Oral presentation at Houston Area GIS Day 2025, Houston, TX.
- **Ramphul, R**. (2026, November). Building Public Health GIS Capacity in South America: Lessons from an International Partnership with Guyana. Presented at Houston Area GIS Day 2026, Houston, TX. Accepted presentation
- **Ramphul, R**. (2026, November). Area-Level Food Insecurity Rates and Colorectal Cancer Risk in the United States. Oral presentation accepted at the American Public Health Association (APHA) Annual Meeting & Expo, 2026.