

Abstract

African American communities and Historically Black Colleges/Universities (HBCUs) face unique COVID-related challenges. Maximization of public health efforts in these communities is critical to address the COVID-19 infection and mortality disparity. The goal of this project is to understand primary barriers to COVID-19 testing, contact tracing, and vaccination among African Americans. The specific aims of the proposed research are: (1) To investigate acceptability and barriers for COVID-19 testing, contact tracing, and vaccination among African American students at an HBCU (North Carolina Central University); and (2) Assess and describe student nurses' experience in community health settings with patients' acceptability and barriers to COVID-19 related testing, tracing, vaccine uptake in low-income African American communities. The research will seek to gain insight from African Americans from two unique perspectives through student focus groups and routine home health visits in a low-income community. Both will investigate barriers to COVID-19 testing, contact tracing, and vaccine uptake.

We are proposing a cross-sectional study that uses focus groups with African American students from specific populations. Students across varying classifications will be targeted, with one being comprised of nursing students to evaluate the variability of perspectives for students who have had further education about health promotion and communicable illness. This comparison will help to inform development of educational material for COVID-19 prevention. An established community health setting where senior nursing students conduct home visits geared toward health promotion education, will be used to assess African American residents' attitudes about COVID-19 testing, tracing, and vaccination.

We will use quantitative analysis to analyze demographic characteristics in correlation with COVID-19 testing, tracing, and immunization acceptability and perceived barriers. Qualitative analysis will be used to summarize themes and perspective gained from focus groups. Transcript analysis and coding will allow us to describe students' acceptability and barriers to COVID-19 testing, tracing, and immunization acceptability.

Acceptability and Barriers to COVID-19 Testing, Tracing, and Immunization Among African American Students and Residents in Low-Income Communities

Specific Aims

Universities across the globe have planned and will institute various mitigation strategies surrounding the coronavirus pandemic to allow for the safe return of students to campus, in residential buildings, classrooms, labs, libraries, and other facilities. Historically black colleges and universities (HBCUs) face additional challenges and with fewer resources.

The mission of HBCUs is to provide undergraduate and graduate degrees to African American students, especially those who may not otherwise have such an opportunity. The majority of HBCUs have fewer resources than other colleges and universities. They rely heavily on student tuition, have small endowments, and apply and receive fewer research grants from institutions such as the NIH, CDC, or NSF. HBCUs are at heightened risk for COVID-19 transmission because the COVID-19 pandemic disproportionately impacts persons from minority ethnic groups. An April 2020 Morbidity and Mortality Weekly Report (MMWR) found that Black patients with COVID-19 accounted for a disproportionate number of hospitalizations and death, 33% and 92.3 per 100,000, respectively (CDC, 2020). A review of COVID-19 testing in New York City found that communities comprised of predominantly Black populations, were less likely to receive COVID-19 testing, yet the likelihood of a positive test was higher (Borjas, 2020). Factors that likely exacerbate the infection disparity in Black communities include living in more densely populated areas and multi-generational households, being employed in service industries, systemic inequalities, and limited access to care (CDC, 2020). Many minority students attending HBCUs may be the first person in their family to enroll in college and come from these environments.

College students, in general, living on campus are more likely to suffer from illnesses stemming from living in close quarters, especially communicable diseases. Complicating factors include the increased stressors of college and a lack of illness prevention practices by students. Black/African American students comprised 87% of the 2019 undergraduate freshman class North Carolina Central University. As universities and communities prepare for fall 2020 with the forecasted second wave of COVID-19, strategies to protect the health and safety of underserved and minority communities are paramount.

An undeniable resource needed in response to the COVID-19 public health crisis, is the availability of testing and contact tracing made broadly available. Testing and contact tracing are essential disease control measures that prevent on going transmission of infectious diseases. If contact tracing is not done in a culturally congruent manner to reach students in the unique environment of an HBCU, it could severely sabotage this critical activity. Furthermore, once an immunization to prevent COVID-19 is made widely available, uptake in the Black community and HBCUs in particular can be an effective method to minimize the disparity of infection, related complications, and death. To achieve herd immunity protection from an illness that can spread through a population, like coronavirus, an estimated 80% of the population needs to be immune to the virus (Grossman, 2020). Data from the 2017 seasonal flu vaccine uptake showed that 37% of Black adults and 20.5% of Black adolescents were vaccinated (Kunzmann, 2019).

Therefore, efforts to close the disparity gap require exploring effective ways to bring COVID-19 testing and prevention to underserved populations, and to do so must identify and navigate pre-existing barriers. This proposal aims to collect information from minority students attending an HBCU and leveraging nursing students' community health clinical rotation to accomplish the following specific aims:

1. Investigate acceptability and barriers for COVID-19 testing, contact tracing, and vaccination among African American students at an HBCU (North Carolina Central University).
2. Assess and describe student nurses' experience in community health setting with patients that addresses acceptability and barriers to COVID-19 related testing, tracing, vaccine uptake in low-income African Americans communities.

Research Strategy

Overview: This cross-sectional study has two components that each will provide insight about COVID-19 among African Americans from unique perspectives. Both research activities will investigate barriers to COVID-19 testing, contact tracing, and vaccine uptake. We will conduct several focus groups with specific student populations (e.g., incoming freshman). The second piece involves enhancing nursing students' required rotation in community health with COVID-19-related research.

Student Focus Groups: As students matriculate through college, they continue to gain new knowledge, but importantly, they develop cognitively and learn how to think independently, create, and produce. Thus, the focus groups will account for these transitions. The specific focus groups will comprise: 1) incoming freshman; 2) upper class students living in residential dorms; 3) upper class students who live off campus; and 4) nursing students (independent of the other nursing component of the research). Given that nursing students receive education about health and this virus, comparing their discussion to that of their peers will inform development of student health education materials for COVID-19 prevention. Other eligibility criteria include identifying as African American or Black, between 18-25 years of age, enrolled at NCCU as undergraduate, speak English, and able to provide informed consent. Each focus group will include 10-12 students. Given that NCCU has a large student body, and only 36 non-nursing students will participate, recruitment will be targeted instead of widely advertised, such as in one wing of one dorm.

An experienced moderator will facilitate the groups and use a guide to lead the discussions, developed by the investigators (and other knowledgeable faculty) and tailored for each focus group. Each guide will address the primary research questions related to barriers, acceptability, and uptake of COVID-19 testing, contact tracing, and immunization. The focus groups will be audio-recorded and transcribed for qualitative analysis. Dr. Baker will observe and take notes. The meetings will take place in a location on campus that conforms to the social distanced requirements and last approximately 60-90 minutes. All students will receive a mask if they don't have or didn't bring one. They will each receive a \$10 incentive such as coupons for food vendors on campus (e.g, Chik-Fil-A or Subway.)

Nursing students' community health rotation: The NCCU Department of Nursing has an established a formal relationship with the Durham Housing Authority that allows nursing students to complete their clinical rotation in community health. Senior nursing students enrolled in the Community Health Nursing course will be assigned to a Durham Housing Authority site for a total of 6 weeks. While on site, the students make home visits geared towards assessing resident health needs, performing blood pressure screenings, and provide health promotion education on variable topics as determined by assessment. The reach and severity of the coronavirus pandemic calls for including COVID-19 in home assessments. We will leverage this established setting to investigate COVID-19 and enhance nursing students' training related to educating their patients. Senior nursing students, with the oversight of a public health nursing faculty member, will assess residents' attitudes about COVID-19 while performing their routine home health interventions. After the visit, the nursing student and faculty member will debrief about the visit and document the COVID-19 related findings using a combination of quantitative and qualitative methods. They will complete a survey describing the patient's demographics, comorbidities, and closed ended questions (to be developed) assessing their perspective about the likelihood that the patient would seek COVID-19 testing, cooperate with contact tracers, and get vaccinated.

Quantitative Data Analysis: A student research assistant will create and enter quantitative data in Qualtrics for statistical analysis. The quantitative analyses will include descriptive statistics of demographic and morbidity characteristics and identifying characteristics that are correlated with COVID-19 testing and immunization acceptability and perceived barriers. The secondary goal of analysis is to identify barriers to implementing testing and immunization for African American communities as an approach to minimizing health promotion and infection disparities in these populations.

Qualitative Data Analysis: Data analysis will begin immediately following the first focus group discussion has been transcribed. With will allow time to evaluate and modify the focus group moderator guide as needed. All focus groups will be transcribed using an outside vendor and then reviewed by the PI by listening to digital recordings. The goal of data analysis will be to describe the students’ expressed acceptability of COVID-19 testing, contact tracing and immunization; and barriers to these functions as discussed by the students in each focus group. A secondary goal of analysis will be to identify similarities and differences between student groups, particularly the variability of responses from nursing students who receive education about health promotion and communicable diseases in their undergraduate curriculum. Student demographic data, living arrangements, classification, and major will be summarized using descriptive statistics. Further analysis will examine for relationships between demographic characteristics and acceptability to COVID-19 related prevention measures.

After each transcription is reviewed, we will begin by summarizing the discussion and students’ attitudes and beliefs surrounding COVID-19 testing, contact tracing, and immunization. Each group will be summarized independently. Next, each transcript will be reviewed to identify common topics that arose from the conversation, with the goal of identifying topic codes that can be used to identify themes across all student groups. These topic codes will be used to create a code book with defining exemplars and criteria for inclusion/exclusion. Transcripts will then be reviewed a third time and topic codes will be assigned to participant statements. This process will be completed for each focus group transcript and findings from each will help to refine and expand the codebook. After all focus group transcripts have been reviewed, summarized, and coded, the data will be imported into a statistical software for analysis.

Future Funding and Implications. Until the development of a vaccine to prevent COVID-19, testing and education will remain important to prevent mass spread of the virus, especially for African American and other disadvantaged groups. By leveraging pre-established community partnerships, the collected information will help researchers and healthcare providers mitigate barriers to testing and prevention in African American communities. Findings will be written and disseminated promptly to inform future testing and health promotion interventions specific to African American communities. As advancements are made on the front of COVID-19, methods to maximize widespread testing and promote future vaccine uptake for African Americans will be needed. Information gained from this project will provide a starting point of establishing trust and acceptance to health initiatives in African American communities

Proposed Budget

Item	Cost
Student focus groups	
PPE (masks and sanitizer)	\$500
Refreshments	Excluded \$500
Incentives \$10 food coupon for 48 participants	\$480
Moderator	\$1000
Transcription	\$1000
Salary support	
Principle Investigator Effort (Brittany) – Summer x 1.5 months	\$11,666.67
Principle Investigator (Brittany) – 10% Workload support for fall 2020 + 35% fringe	\$5833.33
Principle Investigator Effort (Irene Doherty) 15% for 6 months + 35% fringe	\$7290
Student research assistant 100 hours \$12/hour	\$1200
Miscellaneous office supplies	\$300
Total Budget Requested	\$29,770

TOTAL CARES BUDGET REQUEST: 28,790

References

- Borjas, G. (2020). Demographic Determinants of Testing Incidence and COVID-19 Infections in New York City Neighborhoods. doi: 10.3386/w26952
- COVID-19 in Racial and Ethnic Minority Groups. (2020, April 22). Retrieved May 30, 2020, from <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/racial-ethnic-minorities.html>
- Grossman, L. S., Pharmacist, J., & Roebuck, P. (2020, May 13). When a Covid-19 vaccine is available, all Americans should get it. Retrieved May 31, 2020, from <https://www.statnews.com/2020/05/12/covid-19-vaccine-all-americans-should-get-it/>
- Kunzmann, K. (2019, January 2). Black Teens Less Likely to Get Flu Shots Than Whites, Hispanics. Retrieved May 29, 2020, from <https://www.mdmag.com/medical-news/black-teens-less-likely-to-get-flu-shots-than-whites-hispanics>
- National Survey on College Students & Flu. (2019, November 6). Retrieved May 30, 2020, from <https://www.nfid.org/infectious-diseases/national-survey-on-college-students-flu/>

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.
 Follow this format for each person. **DO NOT EXCEED FIVE PAGES.**

NAME: Brittany Andrea Baker, DNP, APRN, FNP-C

eRA COMMONS USER NAME (credential, e.g., agency login): bbaker21

POSITION TITLE: Clinical Assistant Professor

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	Completion Date MM/YYYY	FIELD OF STUDY
East Carolina University	DNP	12/2018	Nursing
Duke University	MSN	01/2012	Nursing – Family Practitioner
Bowie State University	BSN	08/2008	Nursing

A. Personal Statement

As a nurse providing patient care for more than 10 years both in community and acute care settings, it is my belief that we must “meet people where they are”. As a full-time educator for the last 4 years, my philosophy has not changed. I strive to create a learning environment that is rigorous but one which considers the individual student. In my years of clinical practice, I worked in medical-surgical nursing, providing care to patients during the immediate post-operative period. As a family nurse practitioner, I continued my patient care in the outpatient setting. My focus continued to be on helping clients to manage acute illness, but with more emphasis on health promotion and disease prevention. In the clinical setting, my quality improvement initiatives focused on interventions to improve nursing care of the hospitalized elderly population and on helping to improve client health outcomes through provider education. As an educator, I have been able to utilize my clinical expertise to implement interactive teaching and learning strategies for undergraduate nurses. I am also working to incorporate health promotion and disease prevention for minority students by exploring the process of integrating general health, well-being, and psychosocial supports for minority college students.

B. Positions and Honors

- 2019 – Present: Undergraduate Program Coordinator, North Carolina Central University
- 2019 – Present: Clinical Assistant Professor, North Carolina Central University
- 2016 – 2019: Lecturer, North Carolina Central University
- 2015 – Present: Family Nurse Practitioner CVS Minute Clinic
- 2012 – 2015: Practitioner/Clinic Manager, Target Clinic
- 2008 – 2013 Clinical Nurse II, Duke University Hospital
- 2011 – 2012 Clinical Instructor (ADN), Durham Tech Community College

C. Contributions to Science

Arbes, S., Sever, M., Mehta, J., Collette, N., **Thomas, B.**, Zeldin, D. (2005). Exposure to indoor Allergens in day-care facilities; Results from 2 different North Carolina counties. *Journal of Allergy and Clinical Immunology*, 116 (1), 133 – 139.

Baker, B. and Pantoja, H. (2015). Treatment recommendations for influenza after 48 hours of symptom onset. *Contemporary Clinic*, 1 (3), 2 – 6.

Baker, B. Antibiotic Stewardship: What Providers and Patients Need to Know. Oral Presentation in the Telehealth Presentation Series, College of Behavioral and Social Sciences, NC Central University, Durham, NC, January 28, 2020.

D. Additional Information: Research Support and/or Scholastic Performance

Enhancing Provider Education to Increase HPV Vaccination Rates in Adolescents

Brittany A. Baker

Paper submitted in partial fulfillment of the requirements for the degree of Doctor of Nursing Practice

East Carolina University College of Nursing

November 2018

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Doherty, Irene A.		POSITION TITLE Research Scientist (Epidemiologist / Biostatistician)	
eRA COMMONS USER NAME idoherty			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
Simmons College, Boston MA (now University)	BS	1988	Mathematics/Sociology
University of California Berkeley, Berkeley, CA	MPH	1998	Epidemiology/Biostatistics
University of California Berkeley, Berkeley, CA	PhD	2004	Epidemiology
University of North Carolina at Chapel Hill, School of Medicine, Chapel Hill, NC	Postdoctoral fellow	2007	Infectious diseases

A. Personal Statement

I am an Epidemiologist and Biostatistician with more than 20 years of experience in academia, private industry and as a freelancer for a diversity of diseases in collaboration with multidisciplinary investigators. My first experience conducting health disparities research dates back to before pursuing graduate degrees as a Project Manager in the Coordinating Center to launch two longitudinal multi-center studies of the natural history of HIV disease progression among women. The sites were in the poorest inner cities nationwide. In addition to AIDS, impoverished women suffered numerous injustices and health disparities. Since then, most my research has focused on the structural, social, contextual, and sexual network determinants that give rise to the disproportionate burden of sexually transmitted infections (STIs), HIV, and unintended pregnancy in rural and urban settings among underserved racial/ethnic minorities. Populations include African American women and adolescents, young African American men who have sex with men (MSM), Latinx adolescents in San Francisco and HIV-infected women in South Africa with substance abuse.

The inspiration for the proposed pilot study is a result of conducting socio-sexual network research using data collected by Disease Intervention Specialists (DIS) working for the NC state health department. DIS meet with each index case newly diagnosed with syphilis, HIV, or both to elicit contacts and then conduct contact tracing, partner notification, and testing. To construct networks, we reviewed and abstracted data from DIS records for a heterosexual syphilis outbreak and the ongoing co-epidemics of syphilis and HIV among MSM. DIS responsibilities are labor-intensive requiring unique skills to coax information from people about their partners and subsequent tracing for notification and testing. They also facilitate linking newly diagnosed HIV patients into clinical care. Each narrative written by DIS documenting their progress tells a story about the challenges of finding partners and the context in which transmission took place. DIS are often confronted with people who suffer from an array of other social and health disparities such as alcohol or substance abuse, incarceration history, transactional sex, unemployment, or homelessness. Although contact tracers for COVID-19 working in underserved African American communities are not likely to encounter risk behaviors associated with STIs, COVID-19 transmission does not take place in a vacuum. They will face patients and contacts with other unmet needs that preceded the pandemic as well as direct consequences of it (e.g., unemployment from hourly jobs). In light of the prevailing social and health inequalities coupled with the upending of society from COVID-19, it is critical that newly hired contact tracers understand the challenges and have sensitivity while working in low income communities to succeed at their job and curb COVID-19 transmission.

Positions and Employment

1989–1991	Research Associate, Epidemiology Resources Inc., Newton, MA
1992–1996	Senior Research Associate, New England Research Institutes, Watertown, MA
1996–1998	Project Coordinator/Graduate Student Researcher, School of Public Health, University of California, Berkeley, Berkeley, CA
1998	Graduate Student Instructor (Biostatistics), School of Public Health, University of California, Berkeley
1998–2000	Graduate Student Researcher, California Department of Public Health, Office of AIDS, Sacramento and Berkeley CA
1999–2004	Co-Investigator/Project Director, University of California San Francisco, San Francisco, CA
2004–2007	Postdoctoral Fellow, School of Medicine, University of North Carolina at Chapel Hill
2007–2013	Assistant Professor, School of Medicine, University of North Carolina at Chapel Hill
2013–2016	Senior Epidemiologist, RTI International, Research Triangle Park, NC
2016-2017	Epidemiologist contractor, UCB Biosciences, Research Triangle Park, NC
2017-2018	Freelancer: literature reviews, statistical analysis, manuscripts, grant proposals
2018	Senior Consultant, Complete HEOR Solutions, New Wales PA, and New Delhi India
2019 – present	Research Scientist, North Carolina Central University, Durham NC

Honors

1987–1988	Simmons College Honors Academy
2015	RTI International Authorship Awards: Career Author; Highly Cited Author; Highly Published Author

Other Experience and Professional Memberships

2010 - 2015	Society for Epidemiologic Research
2008 - 2016	International Network for Social Network Analysis
2008 - 2016	American Sexually Transmitted Diseases Association
2014 - 2015	American Public Health Association

2013 - 2018 Member, Editorial Board for *Sexually Transmitted Diseases*

2013 - 2017 Member, Editorial Board for *AIDS and Behavior*

C. Contributions to Science**Social determinants and sexual networks**

As part of my doctoral training, I led the publication of an invited review for a supplemental issue of the *Journal of Infectious Diseases*. This targeted review presented basic principles of social network analysis and how they translate to sexual networks and subsequent STI transmission. The publication also describes how societal determinants such as the growth of the internet facilitated finding partners and proliferates rapid growth of sexual networks. This paper has been cited in ~ 300 publications.

Doherty, I. A., Padian, N. S., Marlow, C., & Aral, S. O. (Invited Review). (2005). Determinants and consequences of sexual networks as they affect the spread of sexually transmitted infections. *Journal of Infectious Diseases*, 191(Suppl. 1), S42–S54. doi:10.1086/425277 PMID15627230

HIV and syphilis outbreaks and public health contact tracing

Outbreaks and sustained co-epidemics of HIV and syphilis have plagued predominately minority populations in the southeast for decades. UNC has collaborated with the NC state and local health departments to abstract data routinely collected by Disease Intervention Specialists who perform contact tracing, partner notification, among newly diagnosed cases. These data permit compilation of sexual networks to investigate infectious disease transmission dynamics, how they relate to spatial epidemiology, and distinguishing between simultaneous, isolated, and hidden outbreaks.

Doherty IA, Serre ML, Gesink-Law D, Adimora AA, Muth SQ, Leone PA, Miller WB Sexual networks, surveillance, and geographical space during syphilis outbreaks in rural North Carolina, *Epidemiol* 2012 Nov;(6)845–51. PMID 20037041

Doherty, I. A., Leone, P. A., Sena, A. C., Torrone, E. A., & Hightow, L. B. (2007, July). *Does HIV-syphilis co-infection fuel transmission of HIV? Evidence from a sexual network in rural North Carolina, USA*. Poster presented at International Society of Sexually Transmitted Diseases Research Conference, Seattle, WA.

Phylogenetic HIV, sexual transmission, and networks,

An emerging advancement combines public health network data with HIV phylogenetic data. With pilot funds at UNC and RTI, we compiled a dataset from health department records and HIV genotyping (which is now routinely collected) to identify potential missing network partnerships on the basis genetically similar strains.

Pasquale, D.K., **Doherty I.A**, Sampson, L.A., Hué S, Leone PA, Sebastian J, Ledford, SL., Eron, J.J., Miller, W. C. Dennis. Leveraging Phylogenetics to Understand HIV Transmission and Partner Notification Networks. *JAIDS Journal of Acquired Immune Deficiency Syndromes* 2018 78(4): 367-375

Pasquale, D.K., **Doherty I.A**, Miller, W. C., Powers, K.A., Leone P.A. ,Sampson, L.A., Ledford, S.L., Sebastian J., Eron, J., Dennis, A.M. (2020) Factors Associated with HIV Infections Linked in Genetic Clusters But Disconnected in Partner Tracing. *Sexually Transmitted Diseases* Vol 47(2): 80-87

Sexual network structure, dynamics, and STI transmission

Having concurrent sexual partnerships increases risk of both acquisition and onward transmission of STIs. Sexual mixing within and between “high” and “low” risk individuals also impacts STI spread. I developed a mathematical microsimulation that modeled the *joint* effects of sexual mixing patterns and concurrency on the risk of STI. It demonstrated that sexual mixing facilitates dissemination of STIs, whereas concurrency expedites transmission by shortening the time between sexual contacts. The manuscript continues to be relevant as it has been cited ~100 times including ~20 times ten years after publication.

Doherty, I. A., Shiboski, S., Ellen, J. M., Adimora, A. A., & Padian, N. S. (2006). Sexual bridging socially and over time: A simulation model exploring the relative effects of mixing and concurrency on viral sexually transmitted infection transmission. *Sexually Transmitted Diseases*, 33(6), 368–373. PMID 16721330. doi:10.1097/01.olq.0000194586.66409.7a

Other publications related to partnership dynamics stemming from several studies data including a case-control study, longitudinal study, public health department surveillance records, and cross-sectional surveys.

Doherty IA, Schoenbach VJ, Adimora AA. Sexual mixing patterns and heterosexual HIV transmission among African Americans in the southeastern United States. *J Acquir Immune Defic Syndr* 2009; 52:114-20. PMID: PMC2741169

Doherty IA, Adimora AA, Muth SQ, Serre ML, Leone PA, Miller WB. Comparison of sexual mixing patterns for syphilis in endemic and outbreak settings. *Sex Transm Dis* 2011 38(5): 378-384. PMID 21217418

Doherty IA, Minnis A, Auerswald CL, Adimora AA, Padian NS. Concurrent partnerships among adolescents in a Latino community: the Mission District of San Francisco, California. *Sex Transm Dis* 2007; 34:437-43. PMID 17195772

Doherty IA, Schoenbach VJ, Adimora AA. Condom use and duration of concurrent partnerships among men in the United States. *Sex Transm Dis* 2009; 36:265-72. PMID: PMC2741169

Substance abuse, violence, and women and adolescents

Other health disparities from my past research address drug and alcohol use, gang violence, and reproductive health among adolescents and women.

Doherty, Irene A., F. A. Browne, and W. M. Wechsberg. “Think Inside the Box: The Heterogeneity of ‘in Risk’ Among ‘at Risk’ Female African American Adolescents in North Carolina.” *Journal of Racial and Ethnic Health Disparities*, April 15, 2020. <https://doi.org/10.1007/s40615-020-00739-1>.

Wechsberg, W. M., **Doherty, I. A.**, Browne, F. E., Kline, T. L., Carry, M. PhD, Raiford, J. L., Herbst, J. H. (2015) Gang membership and marijuana use among African American female adolescents in North Carolina. *Journal of Substance Use and Rehabilitation*, 6, 141

Wechsberg WM, **Doherty IA**, Myers B, Morgan-Lopez AA, Emanuel A, Carney T, Kline TL, Zule WA. Contextualizing gender differences and methamphetamine use with HIV prevalence within a South African community. *Int J Drug Policy* 2014; 25(3): 583-90 doi 10.1016/j.drugpo.2013.10.016

McCoy SI, Jewell NP, Hubbard A, Gerdtz CE, **Doherty IA**, Padian NS, Minnis AM. A trajectory analysis of alcohol and marijuana use among Latino adolescents in San Francisco, California. *J Adolesc Health*. 2010 Dec;47(6):564-74. PMID 21094433

Minnis A. M., **Doherty, I. A.**, Kline T. L, Zule WA, Myers B, Carney T, Wechsberg WM. (2014) Relationship power, communication, and violence among couples: Results of a cluster-randomized HIV prevention study in a South African township. *International Journal of Women's Health*, 7, 517–525

Minnis AM, Moore JG, **Doherty IA**, Rodas C, Auerswald C, Shibowski S, Padian NS. Gang exposure and pregnancy incidence among female adolescents in San Francisco: evidence for the need to integrate reproductive health with violence prevention efforts. *Am J Epidemiol* 2008; 167:1102-9. PMCID: PMC3402096

D. Research Support

5U54MD012392 (P.I. Deepak Kumar)

01/03/2019-present

National Institute on Minority Health and Health Disparities

RCMI Center for Health Disparities Research

The North Carolina Central University (NCCU) established a RCMI - Center for Health Disparities (RCHDR) to conduct cutting edge research for addressing health disparities. The Center is a collaborative effort within multiple NCCU units and is housed at the Julius L. Chambers Biomedical/Biotechnology Research Institute (BBRI). Focusing on basic and behavioral biomedical research, the Center will leverage resources and partnerships at the neighboring institutions in the Research Triangle area, community based organizations and the nationwide RCMI Translational Research Network (RTRN).

Selected Completed Research Support

1UL1TR001111 CTSA, University of North Carolina at Chapel Hill

07/01/14–07/31/16

and RTI International pilot study funds (UNC-RTI partnership)

Integrating HIV Phylogenetics and Sexual Networks to Inform HIV Prevention (I.A. Doherty and A.Dennis)

This study assessed the feasibility of integrating HIV phylogenetic analyses into HIV disease control practices to inform development of targeted interventions that interrupt ongoing transmission. This pilot study will investigate the overlap of sexual networks linkages and phylogenetic transmission clusters among patients newly diagnosed with HIV in Wake County, NC.

Role: Co-Principal Investigator

5 R01 AI067913-03 (Miller)

6/2006–5/2012

NIH/NIAID

Spatial Epidemiology of Syphilis and Gonorrhea in North Carolina

University of North Carolina Chapel Hill, School of Medicine

We used modern geostatistical methods to develop improved methods of STI surveillance and investigate core areas of transmission and investigated how the development of an outbreak of syphilis in North Carolina over space and time relates to the formation and growth of the sexual network.

Role: Investigator

R03 DA026737-02 (Doherty)

5/2009–4/2011

NIDA

University of North Carolina Chapel Hill, School of Medicine

The Nexus of Drugs, Sex Networks, HIV and Syphilis in Young African American MSM

Young adult African American men who have sex with men in North Carolina are experiencing rapidly expanding contemporaneous epidemics of HIV infection, syphilis, and drug use. The sexual networks are complex and span across metropolitan, suburban, and rural areas. We abstracted data from public health records to characterize these networks, which informed the development of new interventions and the improvement of existing ones to reduce morbidity and mortality among these young people.

Role: Principal Investigator

5UR6PS000665 (Wechsberg)

3/2013–9/2013

Centers for Disease Control and Prevention

Adopting and Demonstrating the Adaptation of Prevention Techniques for Persons at Highest Risk of Acquiring or Transmitting HIV (ADAPT-2)

The major goals of this project were to determine the efficacy of an adapted evidence–based behavioral intervention for sexually active African American adolescent females who have dropped out of school or are enrolled in an alternative school program and who report using alcohol and/or drugs.

Role: Investigator

