Addressing Health Disparities: Brown University School of Public Health

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ABSTRACT

Health disparities are a public health concern in Rhode Island and around the world. Faculty members and students in the Brown University School of Public Health are working to understand, address, and ultimately eliminate disparities in health and health care affecting diverse populations. Our educational offerings and research efforts are directed toward understanding and addressing the social, cultural, and environmental factors that contribute to these health disparities. Research methods to carry out this work include implementing interdisciplinary, community-based, quantitative and qualitative research with the goal of preventing, reducing, and eliminating health disparities. This article focuses on some of the School’s work with vulnerable communities confronting issues around the following: HIV/AIDS, obesity, nutrition, physical activity and delivery of health services.

KEYWORDS: Brown, Public Health, Disparities, Populations, HIV/AIDS, Obesity, Nutrition, Physical Activity, Aging

INTRODUCTION

The academic departments and research centers of Brown’s School of Public Health are influential voices in the national dialogue on health issues affecting vulnerable populations. Their work makes important contributions to shaping public policy and practice. A major focus of public health research and education is to improve the health of at-risk communities, and addressing health disparities is part of the school’s core mission. A few examples illustrate how faculty and students of Brown’s School of Public Health work to promote population health and reduce health disparities.

HIV/AIDS

Disadvantaged and minority populations carry a disproportional burden of the HIV/AIDS epidemic. HIV Research has a long history at Brown, and, in the School of Public Health, includes many investigators, multiple topic areas, and diverse and innovative research methodologies. The history of HIV research goes back to the mid-1980s, when Vincent Mor, PhD; Ken Mayer MD, PhD and others, with funding from the Robert Wood Johnson Foundation, conducted a national survey of the relationship between immune status and health services utilization. This early effort has evolved into a vibrant interdisciplinary community of researchers focused on HIV prevention, treatment, and policy in domestic and international contexts. Another collaboration across Brown that includes the Alpert Medical School and its affiliated hospitals and partner institutions, is the Lifespan/Tufts/Brown Center for AIDS Research (CFAR), one of 19 national CFAR sites for the National Institutes of Health. This project led by the Alpert Medical School has been continuously funded since 1998 and has stimulated growth of HIV research at Brown.

Several new initiatives in the School of Public Health are informed by the work of CFAR. In 2010, Brown’s Center for Alcohol and Addiction Studies (CAAS) received a Center Grant from the National Institute for Alcohol and Addiction to support a Brown Alcohol Research Center on HIV (ARCH). This project, led by Peter Monti, PhD, seeks to reduce the impact of alcohol on the HIV epidemic by studying the multiple pathways that alcohol impacts HIV morbidity, mortality and transmission. ARCH research projects range from basic science using MRI-based structural and metabolite neuroimaging to determine whether alcohol and its effects on liver function increase effects of HIV on the brain, to clinical trials aimed at reducing alcohol use.1

Another innovative approach to HIV/AIDS research is the work being done by Amy Nunn, ScD, assistant professor of behavioral and social sciences, in the Institute for Community Health Promotion. She uses community partnerships to address health disparities, by engaging clergy and community leaders in HIV testing, treatment and social marketing campaigns. In 2012, she established a comprehensive, neighborhood-based HIV and hepatitis C (HCV) prevention and treatment program called Do One Thing. This program addresses unmet needs for testing and treatment in a Philadelphia neighborhood with high rates of HIV and HCV infection. In 2011, she founded Philly Faith in Action, a coalition of clergy in Philadelphia who work collaboratively to reduce racial disparities in HIV infection. In 2013, Dr. Nunn expanded her work with clergy by establishing Mississippi Faith in Action, a similar coalition based in the heart of the Bible belt in Jackson, Mississippi. Dr. Nunn has shown that these innovative, community-based approaches to HIV
prevention have enhanced linkage and retention in care in some of the most heavily affected communities and neighborhoods in the nation, including inner-city neighborhoods and the Deep South.\textsuperscript{2,3,4,5}

There are currently more than twenty investigators from all four Departments in the School of Public Health who have significant funding for work on HIV/AIDS and related topics.

**OBESITY, NUTRITION, AND PHYSICAL ACTIVITY**

The obesity epidemic is a major public health concern. The areas of obesity, nutrition, and physical activity span the work of many investigators in several of the School of Public Health’s research centers. Faculty and students in The Institute for Community Health Promotion (ICHP) seek to improve health, especially among underserved populations. The ICHP conducts interdisciplinary, community-based participatory research and education to empower individuals, providers, organizations, and communities to practice and promote healthier behaviors, increase resilience, and achieve healthier neighborhood environments.

Akilah Keita, PhD, assistant professor of behavioral and social sciences, investigates neighborhood contexts of diet, physical activity, obesity and obesity-related comorbidities, and neighborhood dynamics resulting from urban revitalization and public health interventions. She is currently funded by a 24-month Robert Wood Johnson Foundation (RWJF) grant through the \textit{New Connections} program, a national program designed to introduce new scholars to the RWJF and expand the diversity of perspectives that inform the Foundation’s programming. The grant will allow Dr. Keita to examine the risk and protective factors for childhood obesity among Southeast Asians. She is working with community leaders to identify how best to address their health concerns.\textsuperscript{6,7,8,9}

The ICHP also leads research funded by the National Cancer Institute, which asks whether providing convenient access to affordable fresh fruits and vegetables — along with educational campaigns, recipes and chef-led demonstrations — will increase produce consumption and improve health. \textit{Live Well Viva Bien}, is a research project that uses multi-level approaches in low-income housing to increase the consumption of fruits and vegetables. This research is a randomized, controlled trial at subsidized housing complexes to study the effectiveness of a multi-component intervention, including fruit and vegetable markets and nutrition education, for residents of low-income, subsidized housing complexes. This initiative has brought the mobile fruit and vegetable markets to eight Rhode Island subsidized housing projects over the last three years and, in a companion study called \textit{Good to Go}, has brought mobile \textit{Fresh to You} markets to 16 worksites.\textsuperscript{9,10}

There is growing recognition among researchers, public health practitioners and policymakers that location and the design of neighborhoods influence health behaviors and health outcomes. Dr. Keita teaches a course that explores the features of community environments and their associations with health behaviors (e.g., physical activity, preventive care, alcohol, and sexual behaviors) and health outcomes (e.g., obesity, cardiovascular disease and mental health). Her expertise is informing a collaboration between the School of Public Health and the Rhode Island School of Design on a project entitled “Place Matters.” This collaboration is focused on the question of how design of neighborhoods can improve population health by promoting healthier behaviors.

**DISPARITIES IN HEALTH CARE**

Disparities in health screenings, treatment and health outcomes, particularly among aging populations has been one focus of work conducted in the Center for Gerontology and Health Care Research. Several research projects have examined how race, neighborhood, or socio-economic status is associated with disparities in quality of care and health outcomes.

Amal Trivedi, MD, PhD, associate professor of health services, policy and practice and associate professor of medicine, studies quality of care and health care disparities, with particular emphasis on the impact of patient and provider incentives on quality and equity of care. In a recent study with recent doctoral graduate, Danya Qato, they observed that of 6 million seniors in Medicare Advantage plans in 2009, 21 percent received a prescription for at least one potentially harmful “high-risk medication.” Nearly 5 percent received at least two such prescriptions. Moreover, they observed that questionable prescriptions were more common in the South and among people who lived in economically disadvantaged areas. Dr. Trivedi has also studied the differential impact of higher copayments for health screening among different populations.\textsuperscript{11,12,13}

Hispanic and African American senior citizens are living in nursing homes in ever-increasing numbers, but many face a gap in quality of care compared to white residents. A team led by Mary Fennell, PhD, professor of sociology and professor of health services, policy and practice, found that Hispanic elderly are more likely than whites to live in nursing homes in ever-increasing numbers, but many face a gap in quality of care compared to white residents. A team led by Mary Fennell, PhD, professor of sociology and professor of health services, policy and practice, found that Hispanic elderly are more likely than whites to live in nursing homes of poor quality. These residences are often faced with structural problems, staffing issues and financial trouble.\textsuperscript{14,15,16}

Vince Mor, PhD, professor of health services, policy and practice, has led a team of researchers examining the provision and quality of long-term care. His team created the nation’s first large scale database aimed at providing information to be used in improving long-term care across the US. This database, available on line, is called \textit{LTC-Focus}, and it is intended for policy makers, insurers, and service providers. Other research by this team examines how factors such as state policies, regional differences, market factors, and racial segregation affect quality of care. This work...
will help policymakers craft guidelines that promote high-quality, cost-effective, equitable care for older Americans. The American Health Care Association and the National Center for Assisted Living have provided support to Brown to launch a new Center for Long Term Care Quality and Innovation in the School of Public Health. The center will work to improve the quality of long-term and post-acute care by studying best practices, conducting implementation research, and developing training and leadership programs in the field.\textsuperscript{1,21}

**TEACHING THE NEXT GENERATION**

The research conducted in the Centers and Institutes of the School of Public Health informs and enhances curricular content for undergraduate and graduate students. Many of the courses, taught by public health faculty, address the contributors to health disparities and effective strategies to improve population health. Students also learn about the conduct of research that is culturally aware and the design and analysis of interventions and programs that are culturally appropriate. For example, Steve McGarvey, PhD, teaches a course on the Burden of Disease in Developing Countries, which defines and critically examines environmental, epidemiologic, demographic, biomedical, and anthropological perspectives on health and disease in developing countries. By studying changes in the underlying causes of morbidity and mortality during economic development, students are helped to understand the complex issues associated with health disparities. Dr. McGarvey also involves undergraduate and graduate students in his own research, offering opportunities to study the complex issues associated with dietary behaviors! An analysis with low-income, ethnically diverse participants in a nutrition intervention study. Journal of Epidemiology and Community Health. 2012;66(1):24-29.

A majority of public health students gain experience in research relevant to health disparities, including work in local communities, at the Department of Health, and in international projects. Their work contributes to improvements in population health here and abroad.

**References**


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Disclosures
None

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