



DREXEL UNIVERSITY
Dornsife
School of Public Health

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DREXEL UNIVERSITY
Dornsife | SCHOOL OF
PUBLIC HEALTH

WINTER 2018
THE RESEARCH ISSUE

URBAN FOCUS | GLOBAL IMPACT

THE SOAP OPERA THAT
EDUCATES AND ENTERTAINS

OVERCOMING CHILDHOOD TRAUMA
FOR A BETTER LIFE

CAN HARM REDUCTION
HELP COMMUNITIES?

OUR POLITICS
OUR
HEALTH



DEAN'S MESSAGE



Ana V. Diez Roux, MD, PhD, MPH
Dean and Distinguished Professor,
Epidemiology, Dornsife School of Public Health

A unique feature of schools of public health that makes them different from other academic environments is that they lie squarely at the intersection of science and practice, of knowledge-generation and the translation of that knowledge into actions, be they policies or interventions.

This is what has attracted many of us to academic public health: a desire to be in an environment that simultaneously promotes and values both science and social action.

Achieving the right balance is hard. On one hand, we want researchers to feel free to investigate what they view as important, even if the policy implications may be distant or even unknown. And as members of a university, we want to create an environment that values knowledge generation for its own sake, regardless of its utilitarian value. On the other hand, because we are in a school of public health, and especially because we are in a school that has a historical commitment to policy translation (and in a University with a strong civic engagement mission), we want to stimulate work that is relevant for practice and

policy here in Philadelphia and in communities all over the world.

Sometimes research and practice are presented as competing with each other or as dichotomies. But in reality, the relationship between research and practice (or research and policy) is much more nuanced than that. Certainly, research can generate evidence to guide practice and policy. But practice and policy needs can also drive research. In a further illustration of the policy-research interrelations, fundamental and basic knowledge can often be obtained from a simple policy evaluation.

Research can inform policy in many ways: from simple descriptions of the magnitude of a problem, to inferences about causes, to sophisticated analyses of the impacts of real policy changes, to simulation

modeling that can help us understand how an intervention can work under varying conditions. Research can also shed light on how scientific evidence gets disseminated, how it is perceived by stakeholders, how it is used (or not used), and how the use of evidence in policy-making can be maximized.

Our School has experienced an extraordinary increase in our research engagement over the past few years. We have strived to link our research to our policy and practice mission in a way that is valuable for practice but that also promotes creativity, innovation and the intellectual thrill of research itself.

We hope these pages will reveal some of the ways we are working to do this together.

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IN THIS ISSUE

Dean's Message	2
Research in Action	6
Urban Health Report	8 - 11
Soda Tax Makes an Impact	
Mapping the Path to Peace	
Race and Death by Police	
Protecting the Protectors	
Reducing Harm to Heal a Community	
Community & Society News	44 - 47
Discrimination Keeps Women with Higher Body Weight Away from the Doctor	
Social Media May Be a Great Tool for Promoting HPV Prevention	
Disaster Resources Inadequate for Children with Special Health Care Needs	
Pennsylvania's Youth More Accepting of Marijuana But Not Using it More	
More Frequent Checks Control MRSA in Newborns, But Can Hospitals Afford it?	
Student Stories	48
Awards, Grants & Honors	49
Alumni Notes	50
Staff Spotlight	52
Faculty	53

POLICY

12



HIDDEN DISPARITIES: HIGHER HEALTH RISKS AMONG TRANSIENT IMMIGRANT GROUPS FROM MEXICO

21



SHIFTING THE COURSE OF HISTORY

14



OUR POLITICS, OUR HEALTH

GLOBAL

22



FRANCOPHONE AFRICA TUNES IN: CAN A SOAP OPERA SPREAD HEALTH MESSAGES?

26



CAN TRANSPORTATION TRANSFORM COMMUNITY HEALTH?

COMMUNITY & SOCIETY

30



TRIUMPHING OVER ADVERSITY: PREVENTING THE LIFELONG IMPACT OF CHILDHOOD TRAUMA

36



DATA MINING - BIG DATA MAY REVEAL HOW COMMUNITY RESOURCES SHAPE HEALTH

40



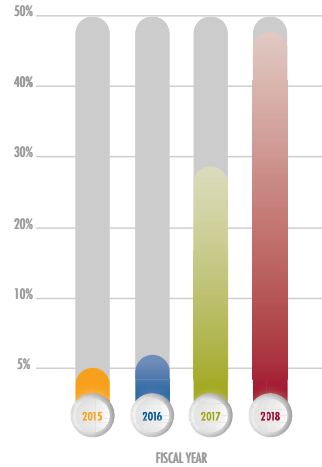
A NEW PUBLIC HEALTH APPROACH TO OBESITY

NUMBER OF RESEARCH CENTERS AND PROGRAMS **9**

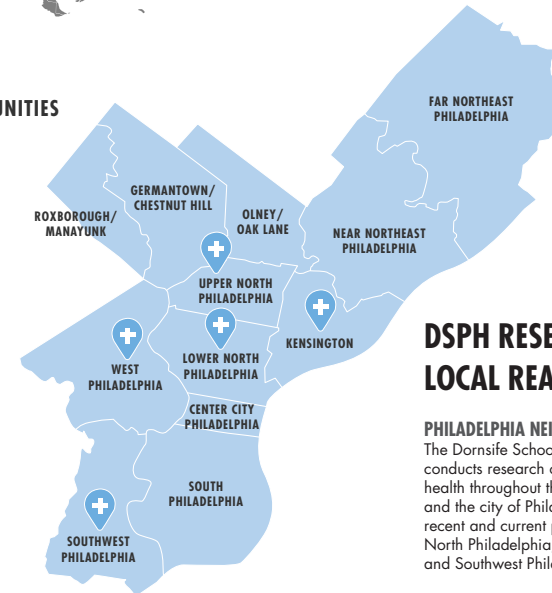
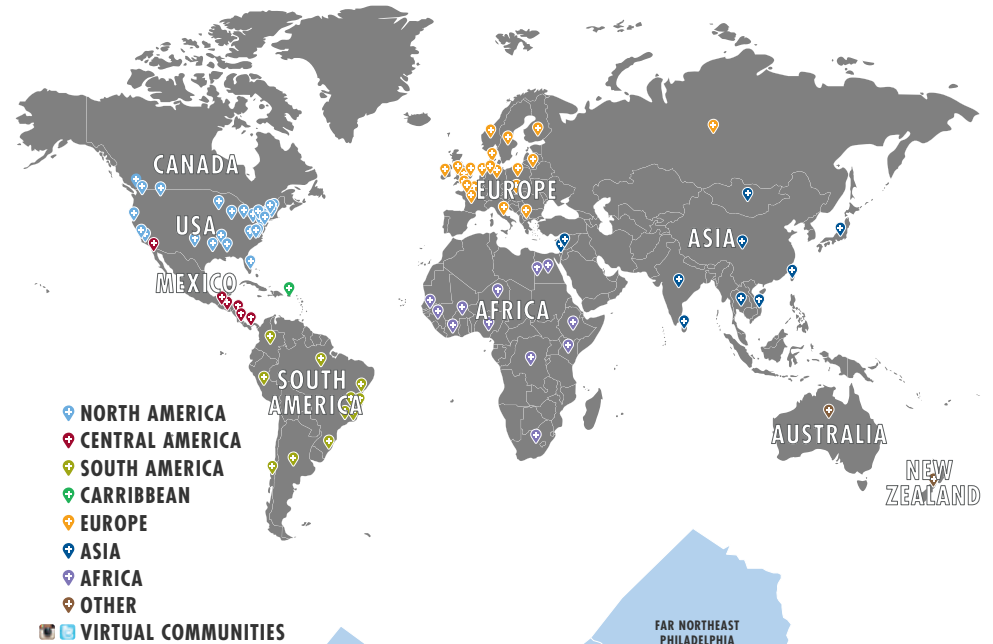
RESEARCH IN ACTION

RESEARCH EXPENDITURES INCREASED **110%** OVER THE LAST FIVE YEARS

ANNUAL PERCENT INCREASE IN RESEARCH FUNDING

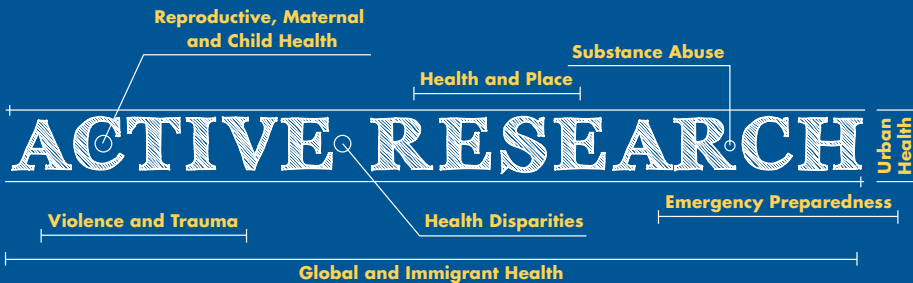


DSPH RESEARCH: GLOBAL REACH



DSPH RESEARCH: LOCAL REACH

PHILADELPHIA NEIGHBORHOODS: The Dornsife School of Public Health conducts research on advancing public health throughout the state of Pennsylvania and the city of Philadelphia—including recent and current projects in Kensington, North Philadelphia, West Philadelphia and Southwest Philadelphia.



What does it take to get people to let go of the unhealthy sugary drink habit?



Soda Tax Makes an Impact

What does it take to get people to let go of the unhealthy sugary drink habit? New research on the impact of Philadelphia's soda tax on the behavior of residents just may hold the answer.

Published in the *American Journal of Preventive Medicine* and led by Yichen Zhong, a doctoral student at the Dornsife School of Public Health, the independent study surveyed almost 900 city residents immediately before and after the tax was implemented. The study found that, compared to residents of nearby cities like Trenton, Camden and Wilmington, Philadelphia residents were 40 percent less likely to drink sugary soda and 60 percent less likely to drink an energy drink each day. At the same time, Philadelphians became 58 percent more likely to drink bottled water every day, after the tax.

Amy Auchincloss, PhD, an associate professor in the Dornsife School of Public Health and a co-author of the paper says that measuring consumption instead of sales "means that this study can more directly assess health impacts from the tax."

Mapping the Path to Peace

Hard numbers can be one of the most valuable assets for helping a community gather the resources it needs to bring about change.

That's why a partnership between Philadelphia non-profit Congreso and Drexel University's Urban Health Collaborative charting neighborhood-specific violence numbers in eastern North Philadelphia — the nexus of the city's Latino population that includes neighborhoods like Kensington, Port Richmond and Juniata Park — is such a valuable tool for improving public health.

"The stakeholders in this community told us that violence was the biggest health issue facing their neighborhoods," says Amy Carroll-Scott, PhD, an assistant professor in the Dornsife School of Public Health who is leading the Urban Health Collaborative's efforts. "We wanted to provide numbers specific to their neighborhoods so that they had what they needed, at the ready, when they needed to write grants

or advocate for services or policy changes."

The data gathered from the project is available on the Neighborhood United Against Violence, (NUAVnow.org) website and it's customized to describe violence and related factors in Northeastern Philadelphia. It provides updates of violence statistics, as well as information about communities. It includes a directory of violence prevention resources, including behavioral health programs and youth development services that may help address violence.

"We know, anecdotally, that violence is happening in our community daily, but we don't have the capacity to research the latest trends and numbers," says Amy Eusebio, director of Family Wellness at Congreso, which seeks to boost the economic self-sufficiency and well-being of the city's Latino community. "We thought it was important to have this partnership with Drexel because of that. It helps us and the other organizations that work with us."



Photo by Margo Reed



Race and Death by Police

When a highly publicized study reported that black and white males had a roughly equal chance of being killed by police, James Buehler, PhD, a professor in Dornsife's department of Health Management and Policy, decided something was missing, so he conducted a more expansive investigation using a different approach.

Analyzing the problem from a population level perspective and using national records from the Centers for Disease Control and Prevention's Wide-Ranging Online Data for Epidemiologic Research database from 2010-14, Buehler found that the 2,285 deaths attributed to law enforcement

action over that five-year period (1.5 per million in U.S. population per year), 96 percent were males 10 years or older.

The racial disparities he reported in *American Journal of Public Health* article were stark: The numbers showed that black males were 2.8 times as likely to die at the hands of the police as white males. Hispanic males were 1.7 times as likely to be killed. Even though American Indians and Alaska natives accounted for just 2 percent of the deaths, their rate was comparable to the rate seen among black males.

Buehler's findings told a significantly different story than the original study (conducted by Roland G. Fryer in 2016) because he considered all of the factors leading to a death. Fryer only considered whether lethal force was used. "As a public health person, any large disparity in health is a concern to me," Buehler says. "Awareness of these differences should encourage ongoing attention to find solutions to this problem."



Protecting the Protectors

Firefighters, paramedics, and EMTs are the first responders to a community's illness and injury problems. In partnership with the Fire Department's Safety Officer Association, the Center for Firefighter Injury Research and Safety Trends (FIRST) at the Dornsife School of Public Health, led by Jennifer Taylor, PhD, MPH, CPPS, will take "science to the streets" by widely disseminating the Firefighter Organizational Culture of Safety (FOCUS) survey through a \$1.5 million grant from FEMA. FOCUS, developed by Taylor and her team, is the first fire service-specific safety culture assessment tool that promotes the use of objective data to understand, maintain, or change the culture that creates safety.

FOCUS provides departments with data on organizational and safety outcomes. With each 10-point increase in FOCUS score, a department could see decreases of 1-3 percent in burnout and 4-9 percent in injuries, and increases of 3-5 percent in work engagement and 7-9 percent in morale. Through the new grant, FIRST will serve 1,000 fire departments with customized data through 2020.

Basic and Advanced "FOCUS Culture Camps" will be attended by 200 fire service leaders. Theory and use of data will be taught, and learning will be evaluated through testing and participant teach backs. In the previous grant's evaluation, participants demonstrated knowledge of safety climate theory by moving from a baseline letter grade of a "D" to a "B" post-training.

The FIRST Center is using data to help those who help us.

FOCUS, developed by Taylor and her team, is the first fire service-specific safety culture assessment tool that promotes the use of objective data to understand, maintain, or change the culture that creates safety.

Reducing Harm to Heal a Community

Early morning in Kensington, business owners start the day as in any other city neighborhood; raising metal gates, warming up pizza ovens, and advertising the sales and deli specials of the day, as families, and others go off to work and school. Thousands proudly call this slice of Northeast Philly home, which is one of the central reasons Dornsife researchers are assessing the unmet needs of the community.

Rohit Mukerjee, MD '20, MPH '19 graduate student, Alexis Roth, PhD, assistant professor and Stephen Lankenau, PhD, professor, in Dornsife's department of Community Health and Prevention, along with other Dornsife students, are taking a close look at the other face of Kensington — a community that is at the center of Philadelphia's opioid overdose crisis. Their new study, The KIND Project (Kensington Inventory of Neighborhood Dynamics) is "assessing the density of community assets such as social services and public health agencies as well as social nuisances associated with the co-occurring opioid and homelessness crises in Kensington," Roth says.

"We hope to map out signs of drug use like discarded syringes and public injection, and see how the community feels about hosting an overdose prevention site (OPS). This will all be baseline data which is useful for understanding the situation on the ground before an OPS opens," Mukerjee says.

While OPSs (facilities where drug users inject their own drugs under

medical supervision) are considered controversial, many public health experts and policymakers see them as one of the most promising ways to decrease overdose deaths. Over 100 OPS facilities exist internationally and 30 years of research has shown they reduce overdose deaths, HIV incidence, public injection, and drug-related litter in the vicinity of OPS and increase access to drug treatment. Philadelphia is planning to open an OPS, but the community is not sure about the impact it will have.

"We hear the questions and concerns the Kensington community has about an OPS," Mukerjee says. "Our goal is to answer these questions with data showing how the site affects the neighborhood."

To do this, the KIND Project team is walking the streets of the neighborhood and recording signs of drug use on an environmental

checklist. They will also be polling residents and business owners regarding their opinions about an OPS.

"Apart from opportunities to conduct research, this project will allow Dornsife students to engage Kensington residents and develop an awareness of this community in ways that we hope will leave a lasting positive imprint on their understanding of public health," Lankenau says.

Noting Dornsife's eight-year-plus footprint in Kensington working at Prevention Point and with other organizations, Roth explains that the early stages of the project are being funded by Dornsife to show ongoing support for the community. They will also be creating a community health profile, detailing the broader health disparities among area residents that are not linked to drug use to understand how those can be addressed.



Alexis Roth and Rohit Mukerjee survey Kensington.

Photo by Margo Reed

HIDDEN DISPARITIES:

For hundreds of thousands of people from Mexico who cross the border into the United States hoping for a better life, the trip may last just a handful of days — perhaps a month. Yet, new research shows, the negative health effects of these frequent sojourns may last a lifetime.

The findings were revealed in a new study led by Ana Martinez-Donate, PhD, from the department of Community Health and Prevention at the Dornsife School of Public Health. Her work shows that a rarely studied group of Mexican migrants — those who travel between the two countries repeatedly — often lose

access to health care when they leave their native country.

The study, published in the *Journal of Health Care for the Poor and Underserved* in December 2017, also suggests that the Hispanic paradox — the idea that immigrants from Hispanic countries are often healthier than non-Hispanic, white Americans, even though they may experience poverty or face other challenges in the U.S. — overlooks the difficulties this group experiences when attempting to access health care.

“Once migrants enter the U.S., they encounter legal, financial, and

HIGHER HEALTH RISKS

AMONG TRANSIENT IMMIGRANT GROUPS FROM MEXICO

By Sheree Crute

Barriers to care in the United States and Mexico severely limit immigrant access to care.

institutional barriers that can make it hard to get the health care they need,” says Martinez-Donate. “At the same time, they may also lose health insurance or access to the health care they had in Mexico, making it more difficult for them to get medical care if they return.”

These migrants face complex scenarios in both countries. “Aspects of the health care systems on both sides of the border, such as employer-based health care and minimum-stay requirements for health insurance, make it difficult for mobile populations,” says Félíce Lê-Scherban, PhD, assistant professor in the Dornsife School of Public Health

department of Epidemiology and Biostatistics, who is co-author on the study.

While many in this population have significant health care needs, maintaining permanent residence in either country to qualify for health insurance, along with more stable care, can be extremely difficult. Many survive on seasonal labor, following opportunities not only from country to country, but also from state to state, before returning to Mexico briefly to care for family. Others may forgo needed care out of fear of deportation after visiting medical facilities.

The research team’s exploration of the health needs of the population are ongoing, but “traditionally, we have seen higher rates of occupational injuries, obesity, and self-reported markers of chronic disease, such as diabetes, hypertension, and hypercholesterolemia, along with depression and stress and at-risk drinking,” says Martinez-Donate.

Because of complex policies on both sides of the border, this population does not have access to medical care in either country. In addition, the unmet health care needs and high rates of health care disparities in

this group are often missed by researchers investigating the health of immigrant populations.

“Most research has been able to study stationary samples of Latino immigrants. That is, individuals who are established in the U.S. or have returned to Mexico, who end up being included in national or statewide surveys conducted in these countries,” says Martinez-Donate. “The characteristics of these immigrants may differ from the less established or more mobile segment of the Mexican immigrant population.”

To capture data about the unique factors effecting this group Martinez-Donate, Lê-Scherban, and their team recruited a study sample of 1,550 northbound and southbound migrants traveling through the U.S.-Mexico border. For the study, they collaborated with a national and international group of researchers, including the Mexico section of the U.S. Mexico Border Health Commission.

“This study is the first of a series of three about this population,” says Martinez-Donate. “Our next study will take a closer look at the health problems in this group.”

The researchers advise policymakers to take note of the new findings about this population as immigrant access to health care will likely decrease as anti-immigration legislation in the U.S. increases.

“We need policymakers to take actions to respond to the health care needs of this population who play a key role in so many industries in the U.S., including the agriculture, construction, and hospitality sectors. Mexican immigrants contribute significantly to the U.S. economy and increase the affordability of many products and services for the average American,” says Lê-Scherban and Martinez-Donate.

Possible options for increasing access to care for this group include the development of a portable health insurance program, expanding eligibility criteria to allow migrants, regardless of immigration status and length of residence, to qualify for the Affordable Care Act, or whatever takes its place, and facilitating enrollment in Seguro Popular, a Mexican insurance program for the unemployed for migrants who return to Mexico.



Ana Martinez-Donate, PhD,
Associate Professor,
Community Health and Prevention

“Once migrants enter the U.S., they encounter legal, financial and institutional barriers that can make it hard to get the health care they need,” - Ana Martinez-Donate, PhD

OUR POLITICS, **OUR HEALTH**

By Brie Zeltner

Research that shows policymakers the potential impact of legislation may be one of the most effective ways to safeguard the public's health.

Diane Chorich faced decisions this year she never thought she'd have to make: whether to pay for food or her high blood pressure medication, and whether to pay for gas to heat her home or to see a doctor for her fibromyalgia.

Chorich, 56, of Cleveland, works two jobs, but finds herself without insurance for the first time in 27 years. She's a housekeeper at a nursing home and a substitute teacher's aide for three area school districts. But when she shifted more of her hours towards her teaching work this year, she lost her health insurance at the nursing home. "It's a scary feeling to not have any medical care," Chorich says.

"It's a scary feeling to not have any medical care," Chorich says.

Brie Zeltner is an award-winning reporter for the Cleveland Plain Dealer with a special interest in the lifelong effects of poverty on health.



Patients get care at a pop-up, free clinic.

It wasn't until her medications began to run out that Chorch visited the federally-qualified health center a few blocks from her home, Neighborhood Family Practice. There she signed up for Medicaid, thanks to Ohio's 2014 decision to expand eligibility as part of the Affordable Care Act (ACA) to include adults who had not previously qualified due to incomes slightly over the federal poverty level.

Now, Chorch and millions of other Americans who have health insurance due to the ACA, once again face political and personal uncertainty. Though unsuccessful in repealing the Obama-era health law, the Trump administration got rid of one of the ACA's key provisions, the individual mandate, and has threatened not to defend the law's overwhelmingly

popular protection for pre-existing conditions in a federal case in Texas that may go to the Supreme Court.

With a recent Kaiser Family Foundation poll finding that more than two-thirds of people worry more about unexpected medical bills than basic staples like rent, food and gas, healthcare is a critical issue driving the debates that shaped the recent midterm elections. It may even help determine what happens in Washington in 2020.

Investigating and informing lawmakers and healthcare consumers about the public health impacts of potential policy changes in this arena, and many others, is an urgent desire and the driving focus of a team of researchers at the Dornsife School of Public Health (DSPH).

RESEARCH INFORMS THE DEBATE
Chorch and others living closest to the federal poverty line are the group that has benefited the most from the ACA's provisions, according to a study led by Dornsife researchers. It was these Americans, with incomes up to twice the poverty level of about \$11,000, who experienced the largest reductions in un-insurance and related financial strain.

A similar study of the ACA's impact by Dornsife researcher Jim Stimpson, PhD, found a five percent drop in uninsurance rates among the immigrant population and 5.6 percent drop among United States natives in ACA expansion states.

"We found that people started taking their medications because they weren't as worried about cost,

"A lot of people who voted for the current administration and the legislators who put the repeal and replace bills forward are the same ones who are going to be most affected by changes to the ACA."

- Ryan McKenna, PhD

and said they wouldn't delay needed care," says the first study's lead author, Ryan McKenna, PhD, a professor in DSPH's department of Health Management and Policy. "We're talking about very serious health effects here."

McKenna and co-author Alex Ortega, PhD, chair of Dornsife's department of Health Management Policy, say that scrapping the law, rather than improving its failings, would have serious consequences for many Americans, particularly those in the mostly red states that have not expanded Medicaid. It's in these states that work co-authored by Dornsife Assistant Professor, Usama Bilal, PhD, while a doctoral student at Johns Hopkins University found a potential tie between voting patterns and the social disruption of job and insurance loss, one of the likely drivers of increasing mortality among middle-aged white people.

"A lot of the people who voted for the current administration and legislators who put the repeal and replace bills forward are the ones who are going to be most affected

by changes to the ACA," says McKenna. "Hopefully we can get the word out, put it on red alert and shout it from the rooftops... I'm not trying to say the ACA is perfect, but let's focus our discussions on fixing its weaknesses rather than support policies that unilaterally step backwards."

GETTING THE WORD OUT

Findings like those of McKenna, Ortega and Stimpson can only influence policy if politicians on both sides of the aisle see and understand them, and trust their validity.

But packaging research information in a way that policymakers can use and understand is not an easy or natural skill for most in academia, says Dornsife Dean, Ana Diez Roux, MD, PhD. "We publish our papers and then occasionally something gets picked up, but we don't really invest in dissemination to policy makers," Diez Roux says.

Dornsife, with the work of researchers like Jonathan Purtle, DrPH, MPH, Jennifer Kolker, MPH, and Amy Carroll-Scott, PhD, among others, is looking to change that.



Jim Stimpson, PhD, Professor, Associate Dean for Academic Affairs, Health Management and Policy



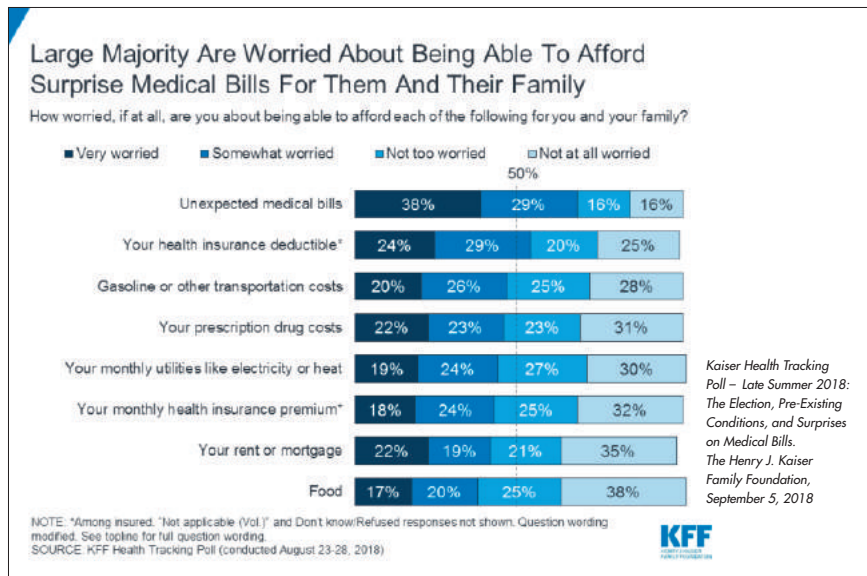
Ryan McKenna, PhD Assistant Professor, Health Management and Policy,



Alex Ortega, PhD Chair, Health Management and Policy



Jonathan Purtle, DrPH, MPH Assistant Professor, Health Management and Policy



POLICY

Recent research by Purtle, who is also a professor in Dornsife's department of Health Management and Policy, shows that most legislators looking for information on behavioral health turn to advocacy organizations or state agencies, and few (19 percent of Democrats and 34 percent of Republicans) use university research, despite considering this research to be very credible.

"Researchers are all about producing generalizable knowledge," says Purtle. "Legislators want information that's relevant to residents in their state, and their state budgets. And often researchers don't have that information."

A study led by Purtle, and co-authored by Diez Roux, points to another reason why university research findings may not have a chance to influence policymakers: politics. The study of mayors and health commissioners showed that political leanings strongly influence thoughts about health disparities and what can be done to address them. "We're a liberal bunch in academia, and I think it's a blind spot for us to think that if we communicate about these things from our worldview it's going to work with all these diverse audiences," Purtle says.

Beyond issues related directly to health care, current lawmaker actions

and opinions about climate change, for instance, are not always influenced by the latest research.

"Polling shows growing awareness of climate change dangers to health, and support for actions to reduce greenhouse gas emissions. Yet, national politics, at the moment, is resulting in federal policies that ignore the science and public opinion," says Jerry Fagliano, PhD, MPH, chair of Dornsife's department of Environmental and Occupational Health.

Purtle's most recent work points to a need to target and tailor behavioral health findings to state legislators, as they fall into three very different



"We found that people started taking their medications because they weren't as worried about cost, and said they wouldn't delay needed care."

- Ryan McKenna, PhD



campers: budget-oriented skeptics with stigma (47 percent of legislators) with the least faith in behavioral health treatment and the most mental illness stigma; action-oriented supporters (24 percent of legislators) those most likely to introduce a bill and most influenced by research; and passive supporters (29 percent of legislators), those with faith in treatment, but least likely to introduce a bill.

BUILDING RELATIONSHIPS

Associate Dean for Public Health Practice at Dornsife, Jennifer Kolker,

MPH, who at one time worked in a health policy and planning role for the Philadelphia Department of Public Health, knows that dense journal articles aren't always timely and tailored to busy government officials.

That's why Dornsife's researchers distill and translate research findings for policymakers into two-to-four-page policy briefs. "I feel it's really our responsibility in academia to think about how we can disseminate information in ways that it can be useful," Kolker says. "It's hard and it

takes some skill." Dornsife has also built strong relationships with the city health department. Three members of the board of health are Drexel faculty members, including Diez Roux, which helps to guide city health policy as well as inform DSPH's research.

Recognizing that local governments play a large role in urban health policy, Kolker and Carroll-Scott, through the Urban Health Collaborative, initiated a Policy Surveillance Project system to monitor, document, and disseminate local policy actions that

POLICY

can improve health equity. “While much public health policy is enacted at the federal and state levels, cities play an important role in developing and implementing policies and programs that impact population health. We hope to learn more about what cities are doing and share that knowledge with other cities,” Kolker says.

Philadelphia Health Commissioner Thomas Farley, MD, MPH, a “big believer in the power of data,” relies on relationships like these to help inform health policy decisions and track the effectiveness of city programs. A recent Drexel study on the impact of the city’s beverage tax on sugar (regular) and sugar-substitutes (diet) beverages published in the *American Journal of Preventive Medicine* showed a nearly 40 percent drop in soda consumption after 30 days.

“A cold hard look at the data is necessary for smart decision making,” Farley says, who believes more could still be done to bridge gaps between researchers and public health practitioners. “The more connections we have, the better we’re going to be at pushing policy forward.”

WHEN POLICY HITS HOME
Diane Chorich, who says she’s “lucky” after most paychecks to have \$30 left in her pocket after paying bills, doesn’t know a lot of the ins and outs of the Affordable Care Act and its provisions, or what research says about financial strain and her health. She’s not sure what the Trump administration is trying to do to the ACA, or what Democrats are proposing in response. What she



“While much public health policy is enacted at the federal and state levels, cities play an important role in developing and implementing policies and programs that impact public health ... ”

- Jennifer Kolker, MPH

does know, she says, is that she can breathe easier now that she has health insurance. She’s not in daily pain from her fibromyalgia, and she can spend that \$30 on groceries, or on her beloved dogs.

She also knows she’s not the only American who recently, and perhaps for the first time, has faced overwhelming worry over paying for health care. “There are a lot of

people in this boat,” Chorich says. “I’ve paid into the system my whole life, and when I go for help, it should be there. I shouldn’t have to beg and I shouldn’t have to worry about being denied, and no one else should, either.”



SHIFTING THE COURSE OF HISTORY

By Courtenay Harris Bond

Data, plus detective work, helped advance the battle against longstanding health disparities in the U.S.

David Barton Smith, PhD, didn’t set out to be a historian. “I was always more of a numbers guy,” he says, “Someone who would look at morbidity and mortality statistics in a population, for instance.”

Yet, once he shifted to a “health systems historical research” approach, he uncovered data that made him a key witness in two important trials and the author of a revealing book that led to a critical documentary. One suit was about Pennsylvania’s failure to provide equal access to nursing homes for blacks. The other was about the failure of the Department of Health, Education and Welfare to track compliance among health services providers receiving federal funding with Title VI of the 1964 Civil Rights Act.

“While the suits were unsuccessful, both seemed to push things in the right direction, eliminating most of the disparities in access to nursing homes in Pennsylvania and beginning many federal initiatives to collect and analyze data on health disparities,” Smith says. “It also helped spur broader research on the impact of segregation on health outcomes that had been largely ignored.”

A Research Professor in Dornsife’s department of Health Management and Policy, Smith’s book, *The Power to Heal: Civil Rights, Medicare and the Struggle to Transform America’s Health*, examines how Medicare and the civil rights movement helped desegregate hospitals in pre-1964 America. “I got involved in this because I said, This

is a great story,’ but it took a lot of detective work,” Smith says.

In the South, in those years, many hospitals either did not admit black patients or placed them on separate wards where they received substandard care. Black doctors also could not practice in white hospitals or admit their patients to them.

Smith writes about the bravery of such men as Alvin G. Blount, MD, a chief surgeon in the army during the Korean War, who returned to a segregated country and health care system. Blount joined George Simkins Jr, DDS, then head of the Greensboro, NC, National Association for the Advancement of Colored People (NAACP), in a lawsuit against the city’s two hospitals. The hospitals received over \$2 million in federal funding, so the plaintiffs argued that these institutions were an “arm of the state.” By discriminating against patients, the hospitals were violating the due process and equal protection clauses of the Fifth and Fourteenth Amendments of the U.S. Constitution. Simkins lost his case; but his efforts, Blount’s, and others, helped the integration movement gain momentum.

“The PBS film, *The Power to Heal*, contributes to the on-going debate over health insurance access,” Smith says. It describes what happened in the U.S. before the civil rights movement and explores how the civil rights compliance section of the Affordable Care Act technically ended the loophole exempting physicians from Title VI. Furthermore,

state regulations of nursing home payments helped reduce racial disparities in access, and health care disparity reports were required by Congress,” Smith says.

“David Barton Smith’s work on the history of Medicare, particularly his book and documentary film *The Power to Heal*, trace an important and often overlooked piece of 20th century history,” says Michael Yudell, PhD, associate professor and chair of Dornsife’s department of Community Health and Prevention. “By focusing on the fight for health care for all, and placing it in the context of the Civil Rights Movement, Smith both elucidates this incredible history and provides an essential context for ongoing political arguments about who gets to be healthy in today’s America.”

POLICY CHANGED LIVES

Ultimately, the introduction of Medicare in 1966 forced thousands of hospitals to finally adhere to the law and desegregate. “The only way you could desegregate was to have a program that said all hospitals have to do this, or they’re not going to get any money — and that was Medicare,” Smith says.

“Without that mandate,” he added “individual hospitals, at least in the South, that took a principled position and desegregated were punished by white flight, and those that stayed segregated were rewarded.”

Courtenay Harris Bond is a Rosalynn Carter fellow for Mental Health Journalism and a freelance reporter in the Philadelphia area.



**FRANCOPHONE
AFRICA TUNES IN:**

*The lead cast of C'est la Vie (L to R)
Christiane Amélie Dumont (Magar);
Awa Djiga Kane (Korsa); Fatou
Jupiter Touré (Assitan); Ndiaye
Ciré Bâ (Émadé)*



CAN A SOAP OPERA SPREAD HEALTH MESSAGES?

Investigating the power of entertainment as tool for teaching communities about public health.

By Karyn L. Feiden

In living rooms across French-speaking Africa, a new evening ritual has emerged: family members gather to watch a half-hour soap opera designed both to entertain and educate.

There, they meet 20-year-old Émadé, who was forced into marriage at 15. Already the mother of two young children and pregnant with a third, she is determined to learn how to read and write, free herself from the homemaking demands of her mother-in-law, adopt family planning techniques, and become economically independent.

Then there's Assitan, an idealistic 25-year-old beauty who has recently taken her first job, as a midwife at the Ratanga Health Center. Assitan learned the best medical practices during her training; but must now cope with the unexpected complexities of a real-world environment. Adding to the stress is her own HPV diagnosis.

Émadé and Assitan are just two among a palette of characters whose lives continue to unfold as the third season of *C'est la Vie* gets underway. Part of the show's mission is to share important health messages, which is why Phil Massey, PhD, MPH, assistant

professor in the department of Community Health and Prevention at the Dornsife School of Public Health, is partnering with Deborah Glik, ScD, a professor in the department of Community Health Sciences at the UCLA Fielding School of Public Health, to test the salience and impact of the series.

By baking rich social content into entertainment, *C'est la Vie* brings the tradition of telenovelas, pioneered in Mexico by Miguel Sabido in the 1970s, to Africa. "This is a powerful way to get many millions of people focused on the stories we tell,"

says Alexandre Rideau, the program's French producer, who studied under Sabido. "Soap operas allow repetition, take time for characters to evolve, learn the consequences of their choices, and maybe not repeat the same mistake if they are wise or lucky enough."

In a part of the world where young women often lack basic knowledge about their bodies, *C'est la Vie* translates research-based messages

about sexuality and reproductive rights, maternal and child health, and gender violence into captivating story lines. The series is a program of Réseau Africain d'Éducation en Santé (RAES), a nongovernmental organization with the mission of advancing health, education and citizenship in Africa.

Much more than just a TV show, *C'est la Vie* has been adapted for radio, the internet, and broadcast



Phillip Massey, PhD, MPH,
Assistant Professor,
Community Health and Prevention

In a part of the world where young women often lack basic knowledge about their bodies, *C'est la Vie* translates research-based messages about sexuality and reproductive rights, maternal and child health, and gender violence into captivating story lines.

through YouTube. It has also spawned youth clubs and public screenings and engendered vigorous discussions in community settings and through social media. “We are informing the public and we are putting in space for dialogue and brainstorming and reflection,” Rideau says. “It is a combination of mass media and community activity that will really have an impact on the population.”

DESIGNING THE DIGITAL RESEARCH

Dornsife and UCLA have each received \$300,000 over three years, from the Bill & Melinda Gates Foundation, to evaluate *C'est la Vie*. Building on digital research, the Dornsife component neatly weaves together the many strands of Massey's expertise. Fluent in French and knowledgeable about the public health and the healthcare systems of West Africa, he has a longstanding interest in how technology can build connections among peers and spread knowledge.

A combination of opinion polling, surveys, media surveillance, and Google analytics data will inform the research. “The evaluation uses a mixed-method approach,” Massey explains. “In ‘media-effects research’ it is nice to have different types of data to help tease out and identify different mechanisms and pathways from exposure to outcomes.”

Despite the breadth of the measures, however, one hard number is not easy to come by: viewership. Because the show's messages filter out through so many different media, “It is very difficult to say how many people have watched the episodes,” says Rideau. He is sure that millions, and perhaps dozens of millions, have encountered *C'est la Vie*, which has been broadcast on Pan African TV networks and on national television stations across the continent. The show has also been widely distributed to local stations in at least 15 countries and

the series is being dubbed in English, Hausa, Swahili and other local African languages.

As part of the strategy for capturing audience responses, Massey's evaluation team is analyzing “likes,” “shares” and comments on the digital platforms of Facebook, Twitter, Instagram and YouTube. After the first few episodes of season one, for example, the most “liked” YouTube comments were those that expressed pride in seeing African actors on the screen. Later in the season, people gave a thumbs-up to requests for two shows a week. “People are wanting more, that tells us we are hitting on areas that matter,” says Massey. A third popular set of comments directly engaged the issues covered by *C'est la Vie*, such as a lively debate about why one character stayed with the husband who beat her.

The researchers use a pyramid to visualize the many components of

the evaluation, with their differing sample sizes. Baseline questions will be included in every sample — who knows about *C'est la Vie*, who watches it and how often, what do they like or dislike about the program? Moving up the pyramid, a smaller number of people will be asked how much they understand and agree with the program's messages, and how much they discuss them with others. At the pinnacle are questions about the intention to act, or actual action, in response to altered views of social norms.

Although the ultimate goal is to influence action and decision making, no one expects that to happen overnight. “Absolutely, we will measure norms, but we have to be sure to walk it back and look at shorter-term outcomes that we can measure, given our understanding of theory and human behavior,” Massey says. “We know, for example, that messages start to stick when people talk about them with others, so we want to know are you talking about the themes of *C'est la Vie*? With whom?”

“I want to be very humble about getting to behavior change, but we are researching strategies with Drexel to make sure they will learn something,” Rideau says.

The nimble nature of digital research to inform those strategies may help explain its appeal to the Gates Foundation. Because multiple layers of feedback can be collected quickly, evaluation findings can be applied to subsequent programming.

BUILDING CAPACITY IN AFRICA

Along with influencing attitudes towards health, *C'est la Vie* helps to grow a trained workforce. “One of the exciting things is that it is African through and through,” says Massey, with the writers, producers and actors all drawn from Senegal, Mali, Burkina Faso, Cote d'Ivoire and other countries in West Africa. The training and practical experience they gain on the set helps “to create a cultural and film industry in Senegal and West Africa,” says Mbathio Diaw Ndiaye, executive director of RAES, *C'est la Vie*'s parent organization. Ndiaye holds a master's degree in organizational management. “The program offers work to 150 people each year, and helps empower a local elite.”

In another capacity-building component, graduate students at the Université de Cheikh Anta Diop (UCAD) in Dakar, Senegal play key roles in the evaluation. “We saw a really great opportunity to partner with the university to train these students,” Massey says.

Matthew D. Kearney, MPH, a doctoral candidate at Dornsife, works with Massey, who is his advisor, to help teach a research methods workshop in Senegal. As the team developed sampling techniques and began collecting data, “we could all see where the rubber hits the road,” he recalls.

Gning Abdou, a UCAD post-doc, is among the students collaborating with Drexel and UCLA on formative research to test the program's health messages and storylines and ensure they are culturally competent and

accurate. That, he says, has allowed me to have wider scope and much more accuracy in evaluating themes related to sexual and reproductive health, and to violence. “This varied experience has allowed me to now feel more at ease in research. I make use of this experience in both academic and intervention-based research.”



Alexandre Rideau
C'est la Vie's French Producer

Going forward, the U.S. evaluators plan to create deep mentoring opportunities for a small cadre of UCAD doctoral students.

A NEW FRONTIER

When Rideau first began talking with the Gates Foundation about possible support, he emphasized the challenge of repurposing television as a tool for health communications. “No one knows exactly how to use television correctly. We are really innovating here,” he says.

“What we agreed on with the Gates Foundation is to use this opportunity to not only measure the impact of *C'est la Vie*, but also to contribute to new strategies using digital tools,” says Rideau. “We need evaluation to find out what we are doing correctly, and what we need to refine. That is the only way to be relevant.”



Karyn L. Feiden is a freelance health writer in New York, New York.

CAN TRANSPORTATION



TRANSFORM COMMUNITY HEALTH?

By Karen Blum

A cable car may be the beginning of increased social capital and improved well-being for one Latin American neighborhood.

For the 600,000 residents of Ciudad Bolívar, a neighborhood that evolved in the hills of Bogotá, Colombia, life can be challenging. Just three percent of residents own cars in this isolated community. Those traveling to the city center can spend an hour or more taking a bus or motorbike through winding, makeshift roads, or walking down steep, informal stairways.

But a new aerial cable car transportation system — and related neighborhood improvements like parks, a public library, and a market — is coming to the community by the end of 2018. Will the new resources improve community health? Researchers for the SALURBAL (Salud Urbana en America Latina/ Urban Health in Latin America) project, at the Urban Health Collaborative (UHC) of the Dornsife School of Public Health, are conducting a first-of-its-kind evaluation of the public health impact of this intervention to share with the local government.

Most people don't make the connection between transportation and health, says Olga Sarmiento, MD, MPH, PhD, a professor of public health at the Universidad de los Andes in Bogotá, a SALURBAL investigator and member of the Urban Health Network for Latin America and the Caribbean sponsored by the UHC. But the implementation of these systems — and their related neighborhood improvements — can increase residents' social cohesion and perceptions of inclusion and collective efficacy, as well as reduce unemployment.

The funders of transportation initiatives and local governments “are very, very interested in this kind of evidence,” says Dornsife Dean and Professor of Epidemiology, Ana Diez Roux, MD, PhD, MPH, SALURBAL's principal investigator. “They're used to looking at transportation outcomes like are people using it, or does it reduce traffic. Only recently have they realized that some of the things they're doing could have really big health impacts.”

The cable car implementation presented a unique opportunity to capitalize on a so-called “natural experiment,” collecting data from the community before and after the system is operational, Sarmiento says. With permission from the city government, “We are evaluating to what extent the implementation of a transportation system could be associated with quality of life, well-being and social capital,” she says. Ciudad Bolívar, the poorest of the city's 20 localities, is marked by violence and crime. About a third of residents have an elementary school education or less and half earn very low incomes. “We want to assess if changes in transportation affect physical activity patterns, if it decreases crime, and also if there are changes in air pollution.”

Ciudad Bolívar community members have told Sarmiento they hope the cable system will change their image to be more positive. “They want to be visited, they want their neighborhood to be more beautiful,” Sarmiento says. Through the Habitat Secretariat, they are painting their houses in colors. “Leaders have painted graffiti

telling the story of the neighborhood that makes visible community members who work for older adults and individuals with disabilities.”

EVALUATING TRANSMICABLE'S IMPACT

Natural experiments have garnered attention in public health research lately, says Diez Roux, “but they're not that easy to do, because you have to partner with policymakers early on so you can get a comparison before and after an intervention. It's pretty unique that our project is able to do this.”

Sarmiento and colleagues are collecting baseline demographic data from 1,000 residents of Ciudad Bolívar and 1,000 residents from San Cristobal, a similar neighborhood slated to get a cable car system next. They'll look to see if implementing the system, called TransMiCable, will improve Ciudad Bolívar residents' quality of life, well-being and social capital; increase their physical activity; decrease crime; impact travel time and activity places; and change exposure to pollutants such as black carbon and carbon monoxide. They're surveying residents through in-person questionnaires, and using fitness trackers and an app to monitor physical activity.

“The idea is to use citizen science with technology to identify the main barriers and facilitators for transportation and healthy behaviors in Ciudad Bolívar,” Sarmiento says. “Evaluating this area is really important because we want to provide evidence the community can use to increase the well-being of the population.”

Karen Blum is a freelance medical and science writer in Baltimore, Maryland.

TransMiCable will have four stations along 3.34 km (2.075 miles), connecting the farthest station in Ciudad Bolivar to a large transportation hub in El Tunal in 13 minutes. The system is expected to transport up to 3,600 people per hour in 160 continuously running cabins. Additional urban improvements along the cable car path will include parks, a public library, outdoor gyms, sport courts, community centers, city administrative offices, a public market and a tourism office, as well as the paving of select streets and selected housing upgrading.

Residents have mixed feelings about TransMiCable, depending on how close they live to the station, says Sarmiento. One community leader said he is optimistic the transportation system will result in less stress for residents, less garbage and more security. Another, living farther from the station, reported that it won't be very useful for residents and won't impact traffic congestion.

Sarmiento says she expects a number of positive changes: "I think it will increase quality of life, especially for the individuals living farther up in the hills. A significant reduction of time is going to have an impact, especially among women. The leisure time they have could then be invested either in more hours of sleep or more time with their children." In addition, she hopes to see more physical activity with the neighborhood improvements, and less crime as a result of more police presence with the transport stations.

CABLE CARS

GROWING IN POPULARITY

Cable cars have emerged as a popular form of mass transit, says Sarmiento, with 19 cities in Latin America, Asia, Africa and Europe installing these systems since 2004. The fastest expansion has been in Latin American cities, which account for 58 percent of the world's cable cars. They can be installed relatively quickly without displacing neighborhoods and residents like them because they are faster than a metro or bus.

One of the first studies to look at the public health impact of cable car systems was coauthored by Diez Roux. She and her colleagues studied a system built in Medellin, Colombia, in 2004 to connect isolated, low-income neighborhoods to the city center, finding an 84 percent decline in homicides and a 90 percent reduction in violence reported by residents in the neighborhoods gaining transportation access. These residents also developed more trust in the criminal justice system and reliance on the police. Results were published in the *American Journal of Epidemiology* in 2012.

Diez Roux says she expects to see broader benefits from the TransMiCable



evaluation as the study is much more comprehensive.

The TransMiCable evaluation is one of several policy evaluation studies funded by SALURBAL (a five-year effort focusing on research examining the connections between the environment and human health). Through SALURBAL, supported by a \$12 million grant from the Wellcome Trust as part of its Our Planet, Our Health initiative, Dornsife researchers and partners throughout Latin America and in the United States are working together to study how urban environments and policies impact the health of Latin American city residents. The collective encompasses 12 institutions in 12 Latin American countries; United States partners like Washington University in St. Louis and the University of California, Berkeley; and the Economic Commission for Latin America and the Caribbean, a part of

Most people don't make the connection between transportation and health.

the United Nations. SALURBAL's projects have four overarching aims, including examining how elements of a city's physical and social environment impacts the health of its residents. "We are compiling information we have on things that might be drivers of health, like socioeconomic conditions, air pollution, features of the built environment, equity measures, land use, and how quickly cities have grown," says Diez Roux. "Then we look at those data to see if some cities are markedly healthier than others and why that might be. We're creating a unique data resource that is already allowing us to look at a number of very interesting patterns."

Other areas of focus include examining how urban policies and interventions may impact the health of city residents and the environmental quality of cities (where TransMiCable fits in); using systems thinking and simulation models to better understand the dynamic relations between the urban environment and health and environmental sustainability; and rapidly translating research findings into clear, actionable knowledge for policymakers, the public and the scientific community.

"It's a great team," says Diez Roux. "We meet in person twice a year and have lots of virtual calls, and people are very engaged." Students are active participants as well. "It's very challenging and complex, but very exciting, too."



Photo by Margo Reed

ADVANCING URBAN HEALTH ACROSS LATIN AMERICA

SALURBAL is making inroads in other community projects too:

- Researchers at the National Institute of Public Health (INSP) in Mexico and Washington University in St. Louis are measuring the impact of Mexico City's Ecobici bike-share program on physical activity and traffic injuries.
- INSP researchers also will study the effects of Mexico City's "Vision Zero" strategy of regulations like stricter speed limits and monitoring on the area's levels of air pollution, traffic crashes and fatalities.
- Researchers at Pontifical Catholic University of Chile and others will evaluate the health impact of housing interventions in Santiago, including upgrades to existing housing and the creation of green spaces, recreational facilities, bus stops and urban gardens.
- Researchers from Cayetano Heredia University in Peru will measure how new warning signs being added to processed foods classified as high in sodium, sugar or saturated fats there impact the food-related decisions, knowledge, practices and consumer preferences of children and adolescents.
- Researchers at the Federal University of Minas Gerais in Brazil will quantify the health impacts of the Vila Viva program, an initiative to improve living conditions in several informal settlements in the city of Belo Horizonte.



**TRIUMPHING
OVER ADVERSITY:**

PREVENTING THE LIFELONG IMPACT OF CHILDHOOD TRAUMA

New research shows adverse childhood experiences can harm physical and mental health over the life course. Dornsife researchers are investigating new solutions.

By Deborah Shelton

Deborah Shelton is a freelance health writer in Chicago, Illinois.

Crystal Wyatt's childhood memories include an eviction, her mother's crack cocaine addiction, violent fights between family members, and hearing gunfire in her southwest Philadelphia neighborhood. Even a stroll down the street could be harrowing. "I can't even tell you how many dead bodies I've seen," Wyatt says.

The constant stress took a toll. Throughout her life, she has battled anxiety and reproductive health problems. When she was 40, she was diagnosed with Type 2 diabetes.

"We are looking at the first generations to possibly not live as long as their parents,"

- Peter Cronholm, MD

Traumatic events early in life, such as emotional, physical or sexual abuse, referred to as adverse childhood experiences, or ACEs, greatly increase a person's risk of developing health problems in adulthood, according to a growing body of research.

A landmark study surveyed more than 17,000 mainly white, middle-class, college-educated adults in California about their ACEs exposure up to age 18. The study defined ACEs as: psychological, physical or sexual abuse; emotional or physical neglect; violence against one's mother; parental separation or divorce, or living with a household member who is a substance abuser, mentally ill or suicidal, or has ever been imprisoned.

Almost two-thirds of participants reported at least one ACE, and more than one in five reported three or more. The study was a collaboration between the Centers for Disease Control (CDC) and Prevention and Kaiser Permanente.

THE IMPACT OF ACES ON HEALTH Studies have linked ACEs to risky behaviors, chronic health conditions and premature death, ranking it as one of the nation's leading public health issues.

"The higher the ACEs score, the more disabled people become," says Sandra Bloom, MD, associate professor of health management and policy at the Dornsife School of Public Health. "The risk is significantly increased for a wide variety of problems, and it leads to a lack of overall health in the population as a whole."

The ACEs study confirmed what some health professionals already knew, says Bloom, a psychiatrist who for 20 years ran a short-term psychiatric unit for adults abused as children. "This is where a lot of psychiatric disorders and a lot of physical illness is coming from," she says. "We saw it in our patients and the study confirmed it and gave us research-based evidence that this is a real epidemic."

Two recent studies by Drexel University researchers show that the health consequences of adversity can be long-lasting and passed from one generation to the next.

Published in the journal *Pediatrics*, research led by Félíce Lê-Scherban, PhD, linked parents' exposure to trauma during childhood to worse overall health, including asthma, in their children. The study linked data from two population-based, cross-sectional telephone surveys in Philadelphia that asked parents about their past exposure to ACEs and their children's health, respectively. Participants were 350 parent-child pairs. Researchers used logistic regression models, adjusted for parent and child characteristics, to examine associations between the parents' past ACEs and the health of their children. Overall, 85 percent of the parents had at least one ACE; 18 percent had six or more. For every type of adverse event that parents experienced, their children had 19 percent higher odds of having poorer health and 17 percent higher odds of having asthma.

"There are a whole host of socioeconomic, psychological and physical effects of ACE exposure on parents that can affect the context in



Félíce Lê-Scherban, PhD
Assistant Professor of
Epidemiology and Biostatistics

which they live their lives,” says Lê-Scherban, assistant professor of epidemiology and biostatistics, and a researcher in the School’s Urban Health Collaborative (UHC). Lower education and income [see sidebar] have also been linked to ACEs, for example, which can shape the circumstances in which children grow up.

“Also, there’s evidence documented in other studies of physical changes caused by ACEs, like developmental, epigenetic, and physical changes in the womb,” she says.

The findings suggest that intergenerational processes are at work and that health providers need to think about families more holistically. Interventions could promote resilience and improve the well-being of parents and their children.

“One of the quandaries about ACEs is that we’re seeing that parents’ own childhoods ... can have a profound effect on their children,” Lê-Scherban says. “When we talk about epigenetic differences, it appears fatalistic, like the story is written before the child is born. But that’s not the case. This is more about being aware when you are working with a child that there

“Neighborhood is an overarching context that affects many aspects of a woman’s life.”

- Irene Headen, PhD

needs to be support for the whole family — and the whole community.”

ACES AND PREGNANCY

A study led by Irene Headen, PhD, a postdoctoral research fellow in the UHC, examined adversity from a neighborhood lens.

In the first study to investigate associations between cumulative neighborhood deprivation and non-optimal pregnancy weight gain (less than 25 pounds or more than 35 pounds in most cases), Headen found that the longer a woman resided in a low socioeconomic area, the less likely she was to gain a healthy weight during pregnancy.

Published in the journal *Health & Place*, the research analyzed data on 3,300 women and 5,700 pregnancies from a nationally representative survey taken between 1979 and 2012.

Neighborhood deprivation was measured on a socio-economic scale that included poverty, unemployment and other factors. Living in a neighborhood with higher deprivation was the most important factor linked to increased risk of gaining too little weight during pregnancy. The findings have important implications for understanding how social environment affects health across the life course, especially during the critical time of pregnancy.

“When we’re thinking about how to help support women in achieving healthy weight gain and supporting the next generation of children, we need to think about how to support equitable neighborhood development — now,” Headen says. “Equitable



neighborhood development not only has implications for helping women and children growing up today, but it will help the next generation of women and children.”

“Neighborhood is an overarching context that affects many aspects of a woman’s life,” Headen says. “Studying environment allows us to bring nuance to or expand this narrative that often comes up that it’s (solely) genetic or biological differences that drive all the racial inequities that we see.”

CHRONIC STRESS IN URBAN NEIGHBORHOODS

Children are particularly vulnerable to trauma from birth to age 5, says Roberta Waite, EdD, director of the Stephen and Sandra Sheller 11th Street Family Health Services, operated by Drexel and the Family Practice and Counseling Network. The health center is one of Dornsife’s 100 community partners.

“Their brains are still developing, and they might not have the language to talk about the trauma they’ve experienced or have coping mechanisms,” she says. “It can be hugely detrimental to a child’s brain, developing immune system and overall mental status.”

Residents of the four public housing developments in the 11th Street corridor make up the target population of the health center that Waite oversees. Some 49 percent of the 801 patients surveyed in an ACEs study that Waite conducted with two colleagues had been exposed to four or more adversities. That compares to 12 percent in the CDC-Kaiser

Permanente study. Although adversity crosses the socioeconomic spectrum, people living in low-income communities are at higher risk due to violence, high unemployment, food and housing insecurity and other hardships.

In Philadelphia, where a quarter of residents live in poverty, almost seven in ten adults reported at least one ACE and one in five had experienced four or more, according to the Philadelphia Expanded ACE Survey, based on data from almost 1,800 Philadelphia adults.

Conducted between November 2012 and January 2013, the expanded survey added five community-level adversities not included in the CDC-Kaiser Permanente study, witnessing violence, living in foster care, being bullied, experiencing racism or discrimination, and feeling unsafe in your neighborhood. Almost 40 percent of surveyed Philadelphians had experienced four or more these community-level ACEs.

Peter Cronholm, MD, associate professor of Family Medicine and Community Medicine at the University

of Pennsylvania, who also helped develop the Philadelphia Expanded ACE Survey, says: “We are looking at the first generations to possibly not live as long as their parents. I wonder if some of that is because of the impact of adversities over the generations.”

Just as trauma can change the brain in unhealthy ways, minimizing adversity and intervening services and treatment can help repair it. Some physicians are rethinking how they conduct social histories to better identify individuals who need trauma-related treatment and support.

Wyatt, who owns a business that transports women to prisons to visit loved ones, created a program, “Real Resilience,” that provides them with workshops and social support. Many of her clients have experienced multiple traumas. She also got involved in community-based participatory research to help raise awareness about ACEs.

“It’s important to me,” Wyatt says, “because in my heart, deep down inside, I want the world to be healed.”



Photo by Margo Reed



Irene Headen, PhD, MS
Urban Health Collaborative

HEALING TRAUMA

MAY HELP PEOPLE EARN MORE

By Frank Otto

People on welfare may earn more money in their jobs if the trauma they’ve faced since childhood is addressed, research shows.

Think of it this way: If you were constantly being given job training but couldn’t stay employed or make enough money to get by, you’d probably feel pretty badly about yourself.

But what if you became a member of a group who could help you feel connected to a support network of like-minded people? Suddenly, you might not feel so alone and you could pay attention to issues affecting you, work on them with your new peers, and focus clearly on your health, building wealth, and reaching goals.

That’s what a new study led by the Center for Hunger-Free Communities of Drexel’s Dornsife School of Public Health shows — trauma support could help people receiving welfare become more successful at work.

The study, published in the *Journal of Child and Families Studies*, tested the effectiveness of a financial empowerment program with this trauma support built in, and found that those who received added peer support for past or current trauma were significantly more likely to earn more money in their jobs.

“It turns out that the trauma work that the groups did helped to create a sense of connectedness and purpose that helped [them] ... earn more and to promote a sense of well-being,” says Mariana Chilton, PhD, director of the Center for Hunger-Free Communities.

The standard programming for state TANF recipients only focuses on finding employment and building jobs skills. However, research has shown that the current programming doesn’t help recipients stay in a job — or provide a sustainable way out of welfare.

A reason for that may be that TANF recipients are very likely to have experienced trauma as a child or have ongoing experiences with it. This trauma might include being exposed to neglect, abuse or severe poverty. A third of participants may have a work-limiting health condition (like depression) and exposure to violence and adversity is extremely common.

So, Chilton and her research team conducted a study in which 103 caregivers on TANF, taking part in the Center’s Building Wealth and Health Network, were split into three groups:

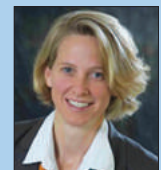


An advisory council meeting involving participants of the Building Wealth and Health Network.

- A group in which the TANF recipients received normal TANF programming, focusing on employment (referred to as the “control” group).
- Another group in which the recipients took 28 weeks of financial education programming.
- And a third that combined the financial education with peer support that took trauma into account (the “full intervention”).

The research team found that participants who received the full intervention — financial education

and trauma-focused peer support — were significantly more likely to make more money. Participants who only got financial education programming or the regular TANF programming had no significant changes in their earnings. Additionally, the full treatment group was five times as likely to have reduced symptoms of depression compared to those who got no trauma support.



Mariana Chilton, PhD, MPH,
Professor,
Health Management and Policy Center
for Hunger-Free Communities

DATA MINING

BIG DATA MAY REVEAL HOW COMMUNITY RESOURCES SHAPE HEALTH

By Courtenay Harris Bond

Your zip code may have an unexpected impact on how long and how well you live.

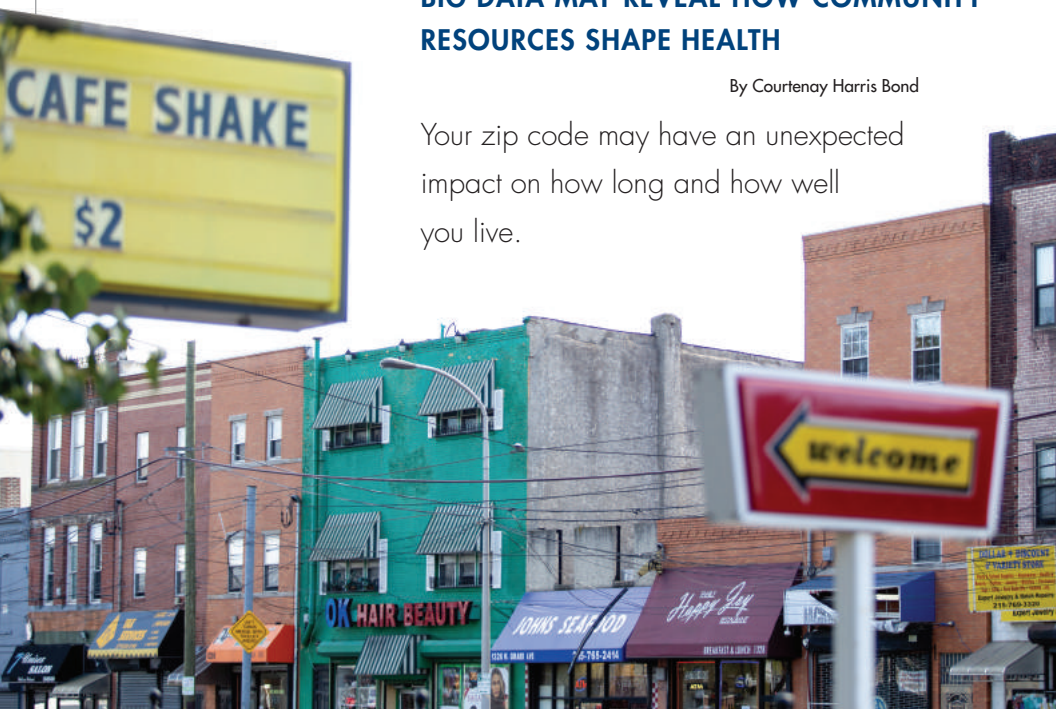


Photo by Margo Reed

Where you live should not determine your lifespan, but it often does, says Deon Vigilance, MD, chief of cardiothoracic surgery at Mercy Health System. Vigilance argued in a recent op-ed in the *Philadelphia Inquirer* that “many neighborhoods in Philadelphia have an elevated risk of cardiovascular disease for a variety of reasons, including limited access to spaces to exercise like parks, sidewalks, or gyms.” Health disparities in neighborhoods may also be caused by a lack of transportation, limited supplies of nutritious food and stable housing, Vigilance adds. Yet, creating healthier places may require more than bringing in supplies of fresh produce or building a neighborhood recreation center.

Finding out what works and what doesn't when it comes to advancing public health at the neighborhood level is the work of Dornsife Associate Professor of Urban Health and co-director of the Urban Health Collaborative (UHC), Gina Lovasi, PhD. She believes that culling valuable information from some of nation's largest databases on neighborhood resources — from supermarkets, to restaurants, parks, and pools — just may provide answers to difficult questions about how certain resources support health, while others do not. Her approach is not only of interest to scientists nationwide, but also the National Institutes of Health. They are supporting her efforts with a Research Project Grant (RO1). Lovasi is convinced that mapping businesses of all types, including those which provide healthy foods and medical services, and analyzing health data from residents to look for corresponding outcomes can offer insights that will lead to more effective public health initiatives.

“By getting specific about what we’re measuring in the environment and doing it in a way that’s as clean and consistent as possible, we can find support for or against a hypotheses for how [the environment] affects health,”

- Gina Lovasi, PhD

“By getting specific about what we’re measuring in the environment and doing it in a way that’s as clean and consistent as possible, we can find support for or against a hypotheses for how [the environment] affects health,” Lovasi says.

Her early work is already challenging some conventional ideas about community resources and health. In a 2018 study, Lovasi and a team looked at how the presence of medical facilities near the location of a cardiac arrest were related to response time in the county that includes Seattle, Washington. As we might expect, they found that response times for cardiac arrests that occurred near hospitals and major medical facilities were shorter. But the existence of neighborhood medical facilities was not linked to better survival rates for people living in the surrounding areas, and therefore did not offer a clear explanation for the improving survival rates in the study area in recent years. Another unexpected result was that people who lived near pharmacies and doctor’s offices actually had a higher, rather than lower, risk of cardiac arrest in general, which may reflect underlying neighborhood dynamics such as high-risk patients relocating to be near medical facilities.

It just may be that the health impacts of access to care in general depend on the type of care that’s available. Vigilance says that in West Philadelphia, where he is based, one of the poorer parts of the city, people often come in for surgery after cardiac arrest, and it takes three or four days just to get them medically stable before an operation can occur. In his community, a lack of access to primary care may be a key contributor to health disparities, resulting in greater reliance on emergency room visits than is common in the Seattle area. Extending investigations to include multiple cities across the U.S. may help shed light on whether the availability of medical facilities more strongly affects health outcomes in certain types of places such as those with concentrated poverty.

In a second 2018 Seattle area study, Lovasi and her team mapped businesses classified as either healthy or unhealthy food sources to explore whether food environments near the home affected cardiac arrest risk or cardiac arrest survival. What they found was that unhealthy food sources were associated with high rates of cardiac arrest. Surprisingly, when they looked at biomarker data



Gina Lovasi, PhD, MPH
Associate Professor of Urban Health, Co-Director of the Urban Health Collaborative
Epidemiology and Biostatistics

COMMUNITY & SOCIETY

from the same communities to see whether fatty acids – including trans fats which are known to harm heart health – explained the association, the pattern they detected did not support this pathway.

CURATING A UNIQUE RESOURCE

At Dornsife, Lovasi continues building on work she started while at Columbia University, as part of the built environment and health research group, in which she is still engaged as an investigator. The team she leads has scaled up their approach to working with business data, initially developed for work in and around New York and Seattle, to create a national dataset for use in their studies of food environments, physical activity supportive neighborhoods, and medical facility access. The Retail Environment and Cardiovascular Disease study coordinated from Drexel has characterized all census tracts across the continental United States for a 25-year period (1990-2014). The team has obtained information, including comprehensive business data, for each year, and geocoded addresses for the 58 million businesses to increase the accuracy of locations throughout the study period. A centerpiece of this resource is the inclusion of more than one hundred health-relevant retail categories, using definitions based on numeric codes and chain names that the Urban Health Collaborative team at Dornsife refined to maximize consistency and validity.

“We want to create categories that make sense for health research,” Lovasi says about the data. “We wanted to define supermarkets and fast food locations and hospitals,



Photo by Margo Reed

and do that in a way that's consistent.” In other words, they are cleaning up the data to ensure that it is as accurate as possible. In fact, Lovasi's team has done so much work with the database that other groups are asking for the resource. New York University, for example, is enlisting the help of the UHC for a CDC-funded project as part of the Diabetes LEAD Network that will use the retail environment data.

“One of the major limitations of earlier work [of this type] was relying on a snapshot in time,” Lovasi says. “We're able to look over a long period for changes. This helps us make sure we're measuring the environment at the right time. We

are also looking at trajectories of change and whether those trajectories affect health.”

Lovasi also says that “one of the things that's been a unique challenge both for the cardiac arrest papers and the current work is that we also want to characterize how an environment has changed over time. That's why we want to go back to 1990. It takes decades to accumulate enough cases to do this work.”

What Lovasi finds to be exciting about her work is “we can get away from looking at one aspect of the environment at a time and look at how things can travel together. That brings us to question our assumptions so we don't go straight to acting and finding out later that

it was a poor idea, or that we aren't getting the health benefits we hoped for,” she says. Data produced from a resource like Lovasi's might be able to determine why well-intended efforts may not always work.

“We see that it's complicated,” Lovasi says. “Characterizing the environments one dimensionally misses part of the picture.”

Courtenay Harris Bond is a Rosalynn Carter fellow for Mental Health Journalism and a freelance reporter in the Philadelphia area.

The team has obtained information, including comprehensive business data ... and geocoded addresses for 58 million businesses to increase the accuracy of locations throughout the study period.

A NEW PUBLIC HEALTH APPROACH TO OBESITY

By Sherry Howard
Photos by Margo Reed

A veteran researcher finds people need a lot more than nutritional advice to create healthier lifestyles and avoid weight-related health disparities and risks.

During the 30 years she has been a health researcher, Shiriki Kumanyika, PhD, has had at least two revelations that sent her in a different direction.

The first occurred in 1984 at a National Institutes of Health workshop after a black female researcher vehemently challenged a white male speaker who asserted that it was a “well-known fact” that obesity was a black women’s problem. The woman demanded that he offer research to back up his claim.

“That really set me off on a mission to see if this was really true,” Kumanyika says. “If it was true, it would probably have important health consequences, but first I want to understand if this is really true and why.”

The second came about several years ago when she was asked to speak about black communities and obesity

during a meeting of the Roundtable on Obesity Solutions. She realized that after years of research, she didn’t have anything new to report. The existing research and discussions was missing something essential: the lived experiences of people and what they encountered each day in neighborhoods beset with social and environmental issues.

“We know that one-size [solutions] do not fit all, specifically because certain

“You have to look at the totality of things that are going on in a community...”
- Shiriki Kumanyika, PhD

Sherry Howard is a freelance editor and writer in Philadelphia, Pennsylvania.

populations have been systematically and historically constrained in their ability to live healthily. You have to look at the totality of things that are going on in a community,” says Kumanyika, a research professor in the department of Community Health and Prevention at the Dornsife School of Public Health.

Creating environments that would give people a realistic chance to live healthier, Kumanyika decided, meant approaching obesity as the outcome of a range of impediments to healthy living commonly found in high health risk communities burdened with health disparities. Interventions,



based in community partnerships, would be at the center of her work.

AN AUTHORITY ON BLACK WOMEN’S HEALTH

Kumanyika has dedicated much of her career to clinical research and

qualitative studies advancing our knowledge about obesity, especially in populations with high rates of health disparities. At Dornsife, she founded and is Chair of the Council on Black Health, formerly the African American Collaborative on Obesity Research Network, an organization that focuses on health and health-equity relating to African Americans.

Obesity is the focus of her work, in part, because it is linked to so many chronic health problems. Nationwide, it is such a major phenomenon that in 2013, the Institute of Medicine cited it as one of the greatest health concerns of the century among people of all racial and ethnic backgrounds, as it can lead to heart disease, strokes, diabetes and some cancers. Yet, in African American communities, getting at the causes of obesity is far more complex — discrimination, socioeconomic status, poverty, unemployment — all of which have a major impact on people’s health are likely to contribute.

The numbers are daunting. The obesity rate for blacks is 46.8 percent, Latino adults, are at 47 percent and whites are at 37.9 percent. Obesity is even greater among black and Latino women, at more than 50 percent.



The organic farm at the Enterprise Center.

COMMUNITY & SOCIETY

For children 2-19 years of age, Latino prevalence is 25 percent; blacks, 22 percent, and whites, 14.1 percent. Latino boys had a higher prevalence, 28 percent, according to the National Health and Nutrition Survey.

To tackle a problem of this magnitude Kumanyika developed “Getting to Equity in Obesity Prevention,” a framework (below) that looks far beyond issues of nutrition, exercise and diet to consider entrepreneurship, job training and education, housing subsidies, economic development, partnerships, as well as community healthy food resources and other factors. Discussed at length in a recent “Perspectives” article in the *National Academy of Medicine* journal, Kumanyika’s framework explores a broad, public health approach to the environmental factors that shape eating behaviors and patterns of physical activity.

“The framework talks about looking at community economic and social resources, as well as improving capacity in terms of entrepreneurship, and empowerment of communities to act on their own behalf,” Kumanyika says. She points to a program in West Philadelphia called the Enterprise Center as an example of the framework approach. “The Center is a good fit because they really combine both of those things.”

BUILDING COMMUNITY CAPACITY

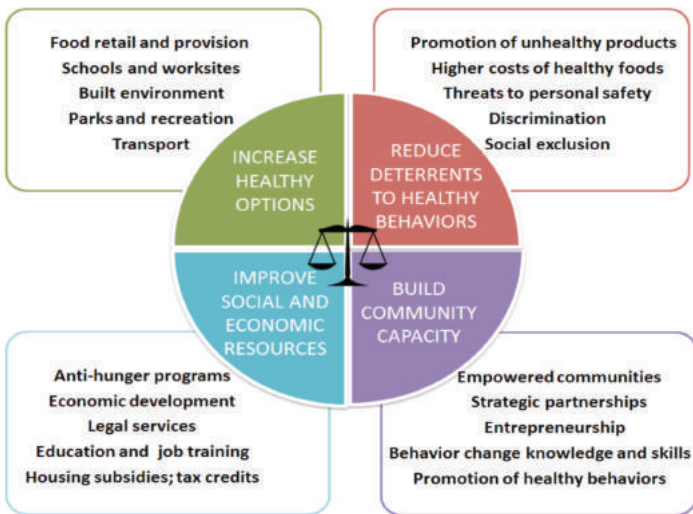
The Enterprise Center is a community and economic organization that promotes entrepreneurship, especially among women and people from a range of racial and ethnic backgrounds. It is located in Walnut Hills, an impoverished neighborhood with deteriorating property, blighted vacant lots, under-performing schools, and high childhood and adult obesity rates, according to its 2016 Neighborhood

Plan. The center has two organic farms and a farm stand that sells its organically grown vegetables.

“Our community eating healthy ... was not a priority,” says Kim Carter, vice president for partnerships at the Enterprise Center.

Its Dorrance H. Hamilton Center for Culinary Enterprises is typical of what Kumanyika proposes. The culinary center gives budding entrepreneurs a chance to determine if their grandma’s secret recipe is good enough to sell or if they can build a company.

“The culinary center helps with businesses,” says Kumanyika. “It brings income into the community and people are not depending solely on government programs or supplements of that type, but are actually able to earn money and that’s directly related to being able to have a healthy diet.”



Proposed Equity-Oriented Obesity Framework
Kumanyika, S. 2017. *Getting to equity in obesity prevention: A new framework*. Washington, D.C.: National Academy of Medicine. <https://nam.edu/wp-content/uploads/2017/01/Getting-to-Equity-in-Obesity-Prevention-A-New-Framework.pdf>



L to R — Simin Deveauxbray and Tiquida Kaba, students who participate in Rebel Ventures.

These entrepreneurs are not only creating healthy foods, they are also spreading the word through their own stories about the importance of eating well.

The center is assisting entrepreneurs such as Diane Walker, a school principal, who at 300 pounds several years ago started exercising, baking her own healthy granola bars and other treats, is now starting a business she calls Loveyoursize Healthy Food Options. Another is Rebel Ventures, a company run partially by high school students that sells its healthy apple snack cakes to the Philadelphia School District’s breakfast program. They not only bring healthy food to kids, they teach young people how to run a business and cook for wellness. And Sierra George, who several years ago quit her government job, and now sells 12 flavors of no-sugar, plant-based gelato from either her food truck, a mobile bar, or in juice bars.

These entrepreneurs are not only creating healthy foods, they are also spreading the word through their own

stories about the importance of eating well.

“People think that healthy food is tasteless and a lot of times that’s why they don’t eat healthy,” says Walker. “We want people to know that healthy food can be very good.”

Helping community members, especially young ones, to understand how aspects of their environment can influence their nutritional habits, is also the purpose of a 2017 study, “Sensitizing Black Adult and Youth Consumers to Targeted Food Marketing Tactics in Their Environments,” published in the *International Journal of Environmental Research and Public Health*, by Kumanyika and a team that included others from the Council on Black Health. They found that when African American consumers were sensitized to common food marketing practices in their communities, they

became more aware of practices that might lead to unhealthy food choices.

After an informed review of the advertising around them, study respondents said, “Marketers are setting us up for failure,” “[they are] making wrong assumptions,” They also began to see food environments as a social justice issue (“no one is watching the door”; “I didn’t realize”).

Following a 2018 analysis of food purchases among black women in an urban Philadelphia setting, Kumanyika and her team found that simple access to supermarkets was also not the answer. Using data from 450 food receipts, they discovered that those who shopped in full-service supermarkets were still spending a larger share of their grocery dollars on high-calorie, less healthy foods.

After decades spent doing research of this type, Kumanyika is honest about the challenges public health practitioners face when it comes this issue, but optimistic.

On the surface, the Enterprise Center businesses appear to be a small step in trying to conquer obesity, but Kumanyika says, “You have to start a movement. You have to get people talking. And youth engagement is a great way because they are trendsetters.”



Shiriki Kumanyika, PhD, MS, MPH
Research Professor,
Community Health and Prevention



Discrimination Keeps Women with Higher Body Weights Away from the Doctor

Women who have experienced weight-related bias and discrimination are likely to avoid doctors, found Janell Mensinger, PhD, a professor at Dornsife.

"Women with higher body mass index tend to avoid healthcare and the reasons for that are often due to their experiences of weight discrimination," says Mensinger. "We need to help healthcare professionals understand that seeing a provider is highly charged with stress and anxiety, and there are methods to reduce those feelings."

That understanding could come through what's been termed the "weight inclusive approach," which seeks to eliminate biases that doctors might carry into interactions with their patients. Currently, most United States doctors follow what's been termed the "weight normative approach," in which benchmarks are set for body size and lead to specific advice and action.

Mensinger's study, published in the June edition of the journal *Body Image*, sought to provide a research-backed reason for why the weight inclusive approach would help.

Mensinger found that, "experiences of weight stigma often lead to self-directed stigma. Self-directed stigma tends to lead to body-related shame and guilt, which then leads to stress regarding the healthcare encounter."

"We're talking about a vulnerable population and we're putting them at a greater risk," Mensinger says. "We need to be aware of these system-level problems that are keeping people from going to appointments that would be saving lives."

- Frank Otto



Social Media May Be a Great Tool for Promoting HPV Prevention

Leveraging the power of social media may help the nation reach the Healthy People 2020 goal of vaccinating 80 percent of teens to protect them from the human papillomavirus (HPV).

New research from Philip Massey, PhD, MPH, an assistant professor at Dornsife, offers insight into how health care professionals can more effectively use Twitter to communicate with parents about the value, importance, and availability of the HPV vaccine.

Each year, more than 31,000 women and men are diagnosed with cancers linked to an HPV infection. The vaccine is the only known form of prevention. Yet, only 40 percent of teens 13 to 17 (the ages when the vaccine is routinely administered) receive the vaccine.

Increasing knowledge about the vaccine may increase prevention, and social media may be the key. A recent Pew Research Center survey shows that 79 percent of parents use social

media to get valuable information and approximately 72 percent of adults use the internet to learn about health issues.

Massey and his team reviewed all tweets related to the HPV vaccine between 2014 and 2015 – of more than 190,000 tweets, 20,451 were from health care professionals and 16,867 tweets were intended for parents – 11,233 tweets overlapped both groups.

"Among the parents, tweets focused on side-effects, women, and girls were the messages most likely to go viral," he says. Overall tweet popularity spiked around disease awareness days, suggesting an opportunity for both groups to improve communication about HPV vaccines at key times of year, such as World Cancer Day. The results were published in the February 22nd issue of *Preventing Chronic Disease*.

- Frank Otto



Disaster Resources Inadequate for Children with Special Health Care Needs

Families with children who have access and mobility challenges, chronic illness, or intellectual or developmental disabilities require targeted messages before, during, and after disasters to ensure that they understand risks to their children's health. Research conducted by Esther Chernak, MD, MPH, FACP and Tom Hipper, MSPH, MA, of the Center for Public Health Readiness and Communication at Dornsife assessed current resources available to address the disaster information needs of families with children with special needs. There are roughly 11 million special needs children in the United States – 200 million worldwide.

Of the 27 disaster information resources reviewed by lead author Hipper and his team, 74 percent were peer reviewed, 30 percent focused on specific events like natural disasters, terrorism, infectious disease outbreaks, and humanitarian emergencies. These studies suggest that parents with medically fragile children require

additional information, education, and training to develop an effective disaster preparedness plan for their children. There was also a lack of awareness about schools' disaster plans, and schools were found to be unable to meet parents' expectations for timely, accurate information during a disaster.

Study recommendations include the need for research that will increase evidence about optimal forms of communication during all disaster phases both with parents of children with special healthcare needs and with children directly. Targeted communication before, during, and after disasters has the potential to prevent injury, avoid post-traumatic stress, and save lives.

- Frank Otto



Pennsylvania's Youth More Accepting of Marijuana, But Not Using it More

With Pennsylvania now among the majority of states legalizing medical marijuana, a new report shows that young people's attitudes toward pot have become more positive.

But that shift in attitudes doesn't seem to have affected use.

"While we found that attitudes toward marijuana are becoming more accepting, or normalized, use has not increased," says Philip Massey, PhD, an assistant professor at Dornsife. This is important because many people fear that legalizing marijuana will lead to greater use and potential abuse."

The report of the Pennsylvania State Epidemiological Outcomes Workgroup (which Massey chairs) explored access, use and how Pennsylvanians thought about marijuana in the years before and after it was legalized for medical use in 2016.

Among Pennsylvanians between 12 and 17 years old, the proportion of individuals who strongly disagreed with marijuana use dropped from 60.7 percent in 2013 to 53.3 percent in 2017. Over the same period, the rate of Pennsylvania youths who thought their parents would feel that it was "very wrong" to smoke marijuana dropped from 81.2 to 75.4 percent.

Additionally, the proportion of young people who said they would never try marijuana dropped from 71 percent

"While we found that attitudes toward marijuana are becoming more accepting ... use has not increased."

- Philip Massey, PhD

in 2013 to 62.2 in 2017, with those unsure about whether or not they would want to try it growing from 6.7 to 10.3 percent.

At the same time, the rate of youths who had at least one best friend smoke marijuana over the last year grew by only about one percentage point, from 30.7 to just 31.9. And young people didn't seem to feel that the ease with which marijuana could be obtained changed much even after it was approved for medical use, with 53.9 percent saying it was "very hard" to acquire in 2013 and 55 percent saying so in 2017.

"Of course, we need to continue to monitor this trend, but these preliminary data tell us that the people who need marijuana for medical purposes are the ones benefitting from this law," Massey says. "It doesn't appear to be affecting youth use."

- Frank Otto



More Frequent Checks Control MRSA in Newborns, But Can Hospitals Afford it?

The more often a hospital can check its newborns for deadly MRSA germs, the more likely it will be that they are contained, according to a new study, but there are significant barriers.

"The two competing factors seem to be the potential for harm to patients versus the costs. Infection prevention strategies are not cheap," says Neal D. Goldstein, PhD, assistant research professor at Dornsife and the study's lead author. "But our analysis shows that the cost of surveillance was much less than the cost resulting from an infection, which leads to longer hospital stays, more medical care and potential for future disabilities."

Infants are especially susceptible to MRSA, or methicillin resistant *Staphylococcus aureus*.

"About 30 percent of babies that MRSA colonizes — meaning that the germs are present in or on their body — will go on to develop an invasive infection, possibly leading to severe

"The two competing factors seem to be the potential for harm to patients versus the cost."
- Neal Goldstein, PhD

illness or even death," Goldstein explains.

Incidences of infections in newborns rose 308 percent between 1995 and 2004, and each infection was associated with a patient spending an extra 40 days and \$164,301 in the hospital.

Using mathematical equations to simulate patient care in the NICU, Goldstein and his team evaluated a MRSA surveillance program. Four different surveillance periods were

assessed, including checking infants for MRSA weekly, biweekly, monthly, and another policy that varied the period dynamically.

Compared to the monthly surveillance, the once-per-week checks were found to lower the number of infants colonized by MRSA by about 80 percent, from an average of 2.9 to 0.6. Additionally, the average duration of MRSA colonization dropped from 307 hours to 61 hours.

According to Goldstein, "An infant who goes on to have invasive disease from MRSA can lead to costs to the healthcare system in excess of \$100,000."

- Frank Otto

STUDENT STORIES

By Emily Gallagher



Preventing and Controlling Infections in a Healthcare Setting

Bede Nriagu, MPH '19,
Environmental and Occupational Health

Bede Nriagu, MPH, '18, Environmental and Occupational Health, discovered, first-hand, the complex world of infection control, while working at two Main Line Health (MLH) acute care institutions, Bryn Mawr Hospital and Lankenau Medical Center, as part of his Dornsife depth, applied practical experience. As an Infection Prevention Control Intern, he worked directly with System Director of Infection Prevention, Eileen Sherman, MS, and other infection control experts, who lead outbreak investigations and educate and consult patients, hospital staff, and infection prevention liaisons.

The depth experience is a supervised, hands-on public health opportunity for Dornsife MPH students that takes

place within a public health practice setting, working with one of the School's community partners. For 10 hours each week during the summer quarter, Nriagu learned how to assess the potential causes and impact of infections likely found in a healthcare environment, including those caused by multi-drug resistant organisms, and others that can occur as a result of surgery, the use of ventilators, or just routine care.

In addition to expanding his knowledge of infection-related health risks during his experience, Nriagu says, "I acquired many unique skills for my future. Most importantly, I made great connections in the world of infection prevention and control."



Exploring Microgravity to Improve Public Health

Gillian Terlecky, BS '19,
Public Health

Gillian Terlecky leveraged the power of the Drexel network and found a very unique way to expand her knowledge of public health.

During her co-op 101 course, Terlecky was encouraged to explore nontraditional opportunities for experiential learning. "At the time, I was intrigued by NASA and what it takes to become an astronaut," said Terlecky. She soon discovered that NASA (the National Aeronautics and Space Administration) had many public health programs and initiatives.

Beyond exploring outer space, NASA is committed to public safety, particularly regarding infectious disease, emergency preparedness and response, and environmental health issues. "They are a leader in preventive-health objectives," Terlecky said.

Soon after this discovery, she used LinkedIn to connect with every Drexel University alumni who worked for NASA. To her surprise, a Drexel graduate reached out to offer some wisdom and advice. "I didn't have any expectations upon making these connections," Terlecky says. "I was just focusing on building my profile." But that interaction with a Drexel graduate eventually led Terlecky to a specialized co-op opportunity in the NASA Office of the Chief Health and Medical Officer (OCHMO).

Terlecky now supports NASA's work in microgravity disease research, specifically exploring the effects of a microgravity environment on salmonella infections, heart, and Parkinson's diseases. Her work includes compiling health and economic statistic reports, as well as cost-benefit analyses of microgravity research to ensure the success and feasibility of this important work. NASA provides data that may impact disease modeling, drug discovery, and cell therapy.

In the future, "I want to continue to focus on preventive measures and what drives the health of populations as opposed to treating people," Terlecky says.



Helping Residents Heal After Hurricane Maria

Paola Maysonet, MPH '19,
Community and Health Prevention

Paola Maysonet's drive to create healthier communities and facilitate social change has deep roots. She was born in Puerto Rico and moved to the United States at the young age of two. For her, the fight to expose health disparities and inequities is a fight for her culture, family, and her first home.

Her applied practical experience depth experience at Dornsife enabled Maysonet to conduct significant research that could serve the Latino community.

At the Philadelphia Prevention Partnership, a coalition committed to developing relationships across diverse Latino communities, Maysonet created a culturally-sensitive interview guide to assess how Philadelphia-

based organizations serve Puerto Rican evacuees displaced by Hurricanes Maria and Irma by collecting data on the evacuees perceived challenges, successes, and needs. The findings will be disseminated to relevant stakeholders to understand the city's approach in reaching and serving this population.

In addition to her depth experience, Maysonet recently took part in a student service trip to the island organized by the Latino Partnership Institute, a program within the Philadelphia Prevention Partnership. They cleaned storm debris and rebuilt a local school in Barranquitas. "Barranquitas is one of the poorest pueblos in Puerto Rico, where 72 percent of children are stratified to be living in poverty," Maysonet says. Before the trip, she helped to collect back-to-school materials for the community's children. Thanks, in part, to their efforts, the children of Barranquitas are scheduled to begin school on time.

ALUMNI NOTES



Changing the Way Addiction is Treated

**JOSHUA PRASAD, MPH '13, DEPARTMENT
OF HEALTH MANAGEMENT AND POLICY**

Joshua Prasad, MPH '13, department of Health Management and Policy, started his career in the federal government, he has since found a new path working at the Concerted Care Group (CCG), an integrated behavioral health system that is changing the way addiction is being treated. Through a holistic and evidence-based approach to addiction, CCG expands the reach of Medication Assisted Treatment across the state of Maryland, while providing comprehensive mental health, primary care, and population health management services to individuals impacted by substance abuse.

"The work I am doing is helping transform care for an underserved population," says Prasad. Through community activism and leveraging partnerships, CCG's substance abuse treatment centers continue to grow and serve.

When Prasad is not working at CCG, he serves as Chairman at Counter Tools, a tobacco prevention nonprofit. He is also co-founder of IIF Health, a health innovation startup that was lauded for its approach to transforming preventive health. He consults people, companies, advocacy groups, and organizations to help innovative ideas thrive. "We can redefine what modern health and medicine can be," says Prasad.

The Dornsife School of Public Health prepared him for hands-on work and collaboration in his career. In the future, Prasad says, he hopes to continue tackling difficult public health problems. "I want to engage with the world and help solve pressing issues."

'07

JAMILIA SHERLS, BSN, RN, DNP, MPH, is the director of the Center for Health Equity at MultiCare Health System which ensures that the cultural, linguistic and spiritual needs of all patients and families served are respected throughout their healthcare experience. Sherls recently received her Doctor of Nursing Practice (DNP) degree from Thomas Jefferson University.

'12

STANLEY NG, MPH, is a data analyst and statistician at the Center for the Study of Traumatic Stress (CSTS) and an instructor at the Department of Psychiatry, Uniformed Services University (USU). Ng performs statistical data analysis and data management for the Study to Assess Risk and Resilience in Servicemembers – Longitudinal Study (STARRS-LS). In August 2018, he co-authored a manuscript published in JAMA Psychiatry that identified risk factors for suicide attempts among U.S. Army soldiers with no history of mental health diagnosis which received national media coverage.

LINDSAY GARITO, MPH, authored an article with Brandeis University titled "Behavioral Health Coverage Under the Affordable Care Act: What Can We Learn from Marketplace Products?" that was published in *Psychiatric Services*. The study found that the Affordable Care Act was successful in ensuring robust behavioral health coverage in marketplace plans.

'13

ARVIN MAGUSARA, MPH, is the CEO and co-founder of Polyn8, Inc., a blockchain technology and solutions company based out of Sacramento, CA. Polyn8, Inc. works to improve the patient experience and promotion of patient and family-centered care in the U.S. healthcare system.

ANULI NJOKU, DRPH, co-authored an article titled "Infusing Health Disparities Awareness into Public Health Curricula at a Rural Midwestern University" in the July 2018 issue of *Pedagogy in Health Promotion*. Additionally, Njoku published "Teaching Health Disparities Awareness in Undergraduate Public Health Courses" in the July 2018

issue of the *International Journal for the Scholarship of Teaching and Learning*.

SHANNON OATES-RIVERA, MPH, is the President of Core Communications Strategies. Oates-Rivera develops and delivers innovative public relations campaigns, patient education programs, product launch plans, training modules and advocacy programs.

'14

ZEINAB MOHAMAD BABA, DRPH, became an Assistant Professor in the department of Health, College of Health and Sciences at West Chester University of Pennsylvania. She teaches undergraduate and graduate courses in the department of health.

'15

JAYA BHATT, MPH, is a program analyst for the U.S. Environmental Protection Agency (EPA) Office of the Inspector General. There, she identifies fraud, waste, and abuse within toxic, chemicals, and pollution prevention programs.

DEEPA MANKIKAR, MPH, is the public health project manager for the National Nurse-Led Care Consortium. As the project manager, Mankikar manages various local public health programs that teach students, parents, and healthcare professionals about environmental health.

'16

SHIVANSHU AWASTHI, MPH, is a research data analyst for the Moffitt Cancer Center. His primary research focus is on race disparities in prostate cancer and other genitourinary carcinomas. Independently, Awasthi leads multiple projects in prostate and bladder cancer research through the formulation of study design, data extraction, management, and analysis.

VIREN DOSHI, JD, MPH, is now a healthcare attorney at Stevens & Lee Law Practice. The full-service law firm represents clients on a regional, national and international scale.

CAMILLE LUKEY, MPH, is an environmental scientist at the Environmental Protection Agency (EPA) in the Municipal and Industrial Materials Section in the Materials Management Branch



Optimizing Evaluation Capacity for Heart Disease and Stroke Programs at the CDC

**NICOLE DICKERMAN, MPH '18, DEPARTMENT
OF HEALTH MANAGEMENT AND POLICY**

As an Oak Ridge Institute for Science and Education (ORISE) Fellow at the Center for Disease Control (CDC) in Atlanta, GA, Nicole Dickerman helps to expand the reach of practice-based evidence on a national level. She works exclusively on the Evaluation and Program Effectiveness Team in the Applied Research and Evaluation Branch (AREB) for the Division for Heart Disease and Stroke Prevention (DHDSP) in the National Center for Chronic Disease and Health Promotion (NCCDPH).

Dickerman, whose fellowship began in July 2018, supports her division's mission of making public health initiatives and programs more effective by building evaluation capacity, fostering evaluation use, and conducting high quality evaluations to expand practice-based evidence and improve accountability. In addition, she assesses how evaluation tools and resources are disseminated to state and local health departments, communities, tribal organizations, public health professionals, and partners in their evaluation efforts and she has seen results. "I have personally seen the research make an impact on both local and national levels," says Dickerman.

In the next five years, Dickerman sees herself continuing to collaborate with a team and strategizing and implementing ways to improve public health through evaluation research, policymaking, or advocacy.

of the Land and Chemicals Division. Lukey works with states to ensure compliance of disposal units in Ohio, Minnesota, and Michigan with the Resource Conservation and Recovery Act (RCRA) Subtitle D non-hazardous waste regulations. These regulations include criteria for municipal solid waste landfills, coal combustion landfills and surface impoundments, and the non-hazardous secondary materials rule.

CARLI RICHIE-ZAVALETA, DRPH, works as an adjunct professor at Eastern University. Richie-Zavaleta released a publication from her dissertation with the Journal of Human Trafficking titled, "Sex Trafficking Victims at their Junction with the Healthcare Setting – a Mixed-Methods Inquiry."

VAISHNAVI VAIDYA, MPH, recently became a program coordinator at the Dornsife School of Public Health's Urban Health Collaborative (UHC). At the UHC, she coordinates the Urban Public Health book project which will be a research toolkit to equip public health scholars to be effective partners in synthesizing, creating, and communicating evidence to inform action for urban health.

'17

AMY HENDERSON RILEY, DRPH, recently became an assistant professor in the College of Population Health at Thomas Jefferson University. Her research focuses on the intersection of public health and communication, namely entertainment-education, health communication, and topics spanning global health.

ALTON REID, MPH, is now lead data analyst at the U.S. Department of Commerce. Reid cleans, analyzes, and codes programs for analytical and database management with SAS and Excel.

'18

KATHERINE ROSHAK, MPH, began working at the Janssen Pharmaceutical Companies of Johnson & Johnson as a clinical research associate.

VELTON W. SHOWELL IV, MPH, is an epidemiology fellow for the U.S. Navy and Marine Corps Public Health Center.



The Dornsife School of Public Health is the Winner of the Inaugural ASPPH Harrison C. Spencer Award for Community Service

The Association of Schools and Programs of Public Health (ASPPH), the leading organization representing schools and programs of public health around the world, officially named the Dornsife School of Public Health as the country's top school for community-engaged public health work. The award, presented in 2018, was created by ASPPH in honor

of Spencer, "a renowned public health leader who headed ASPPH for many years," says Dornsife Dean, Ana Diez Roux, MD, PhD, MPH. "Community engagement and the translation of evidence into action are core to our mission, so we are truly thrilled to be the first recognized for this by the ASPPH."



Researcher Receives NIH Director's Early Independence Award to Study City Growth

Usama Bilal, MD, PhD, an assistant research professor in the Urban Health Collaborative and the Department of Epidemiology and Biostatistics at Dornsife has been awarded a \$1.25-million Early Independence Award from the National Institutes of Health to better understand the health consequences of urban scaling.

Dornsife Awarded Grant to Study to Understand Cannabis Use in Young Adults

Stephen Lankenau, PhD, a professor in Dornsife's Department of Community Health and Prevention, will be the principal investigator for five-year, a \$4.1 million study, funded by the National Institute on Drug Abuse to research the medical and personal use of cannabis in Los Angeles among young adults aged 18 to 30. This project is the first project funded by NIDA to specifically examine cannabis use among young adults in California.

The Center for Firefighter Injury Research and Safety Trends (FIRST) Wins Grant

The Federal Emergency Management Agency (FEMA) and the Department of Homeland Security (DHS) awarded \$1.5 million to the FIRST Center at Dornsife to train firefighters nationwide to improve on-the-job safety and prevent injuries for a project called FOCUS 2.0 that builds on an existing FEMA-funded project at Dornsife.



Grant to Find Ways to Improve Bikesharing

Jana Hirsch, MES, PhD, assistant research professor at Dornsife's Urban Health Collaborative received a grant to study spatial equity in access to dockless bike share from the Better Bike Share Partnership in collaboration with the JPB Foundation. The \$71,881 grant will focus on the equitable distribution of bikeshare bicycles in Seattle, Washington.



STAFF SPOTLIGHT JAMES JOHNSON, MPH, CPH

KEEPING RESEARCH ON TRACK

By Emily Gallagher

Supporting a pioneering effort to understand how community life is related to diabetes.

James Johnson, MPH, CPH, prides herself on being a critical thinker, highly effective communicator, and a great collaborator with strong project management and relationship building skills. As a research project coordinator, she puts her impressive talents to work managing the new partnership between the Dornsife School of Public Health and the Diabetes Location, Environmental Attributes, and Disparities (LEAD) Network, a CDC-funded collaboration between Drexel University, Geisinger-Johns Hopkins University, New York University School of Medicine, and University of Alabama at Birmingham. This is a newly awarded, five-year, \$20 million grant that brings together the five sites have come together to form the Diabetes LEAD Network with Drexel as the coordinating center.

The Coordinating Center for the Diabetes LEAD Network is based in the Department of Epidemiology and Biostatistics at the Dornsife School of Public Health, in collaboration with the College of Computing and Informatics, at Drexel University. The Coordinating Center supports a variety of network activities, including: operations, data management and analysis, information technology development, and publications and communications, with the primary goal of facilitating a collaborative relationship across the study's multiple sites.

Through the course of five years, the primary goal of this collaboration is to further the understanding of the role of community-level factors and geographic differences in diabetes incidence and prevalence across the United States and across demographic groups.

"I am excited to work with a variety of experts in the field to provide evidence for targeted interventions and policies in this fight against diabetes," says Johnson. "Each of our partners brings unique knowledge and insight to the table when it comes to the diabetes discussion and it allows me to learn even more about the disease."

Johnson is also working on a study in collaboration with the A. J. Drexel Autism Institute. It is a randomized control trial that aims to explore how screening and surveillance will lead to improved short term and long-term outcomes for those children who are living with Autism.

When not working, Johnson is busy exploring the world. So far, she has seen 25 countries. She shares her international experiences on her personal blog, along with tips to fellow travel lovers.



5

FACULTY

QUESTIONS FOR **STEVE LANKENAU, PhD**

A social scientist in Dornsife's Department of Community Health and Prevention is leading pioneering research to help communities prevent drug dependence and overdose.

Q: How did you develop your approach to research?

A: I'm a sociologist by training ... What motivates me is an idea articulated by C. Wright Mills of turning private troubles into public issues. People can experience poverty, drug dependence, homelessness alone. A researcher can step in, listen to them, articulate their perspective and raise these problems as public issues that may bring about a policy change. My work is either qualitative or mixed methods, which provides the opportunity to tell people's stories.

Q: How did substance addiction research become your mission and your passion?

A: Twenty years ago, I did a qualitative dissertation on homeless panhandlers that led to a fellowship on drug abuse. I found the men and women I interviewed very compelling — the issue of homelessness cuts across race, class, and gender and the individuals are often stigmatized. For better or worse, there are always new drug problems to explore. I've led NIH studies on the use and misuse of club drugs [ketamine], prescription drugs, cannabis, and heroin/opioids. The current opioid overdose epidemic is an opportunity to integrate and direct what I've learned from these past studies towards developing an intervention.

Q: Does your work inform public health policies and practices in urban areas?

A: Yes. Right now, I'm working on different approaches to address the overdose epidemic, especially among opioid users. The opioid problem has a profound impact on cities. Philadelphia County has the second highest overdose rate in the country. This has a great impact on city services emergency medical services, police, and homelessness, as well as quality of life for some residents. The problem has become so acute that Philadelphia, along with other cities, is suing opioid manufacturers to hold them accountable for the morbidity and mortality associated with overdose.

The situation points to an extensively studied public health response — overdose prevention sites. Philadelphia may become one of the first cities in the U.S. to open one.

Q: Why is substance abuse such an issue in critical for public health in cities?

A: It's a combination of factors — a robust supply of relatively cheap and pure heroin in Philadelphia, an oversupply of diverted prescription opioids, and the recent influx of illicitly manufactured fentanyl in densely populated area. It's also linked to larger structural problems, lack of housing, health care, and untreated trauma.

Q: What's next? What are you working on?

A: I am developing and testing a mobile phone app that engages a community of civilian responders in Kensington to deliver naloxone [the overdose prevention drug] to overdose emergencies, while also alerting EMS. With Alexis Roth, PhD, we are doing formative research on overdose prevention sites and their impact on communities (see page 11). I am beginning a five-year follow up study of 300 young adult cannabis users in Los Angeles and the impact of cannabis legalization on health and patterns of drug use, with a \$4.1 million dollar grant from the National Institutes of Health.

Photo by Margo Reed



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OUR CHALLENGE

URBAN FOCUS. GLOBAL IMPACT.

For more than two decades, the Drexel Dornsife School of Public Health's research programs and centers have uncovered surprising truths that have challenged convention. Just as importantly, our research has inspired change in urban and global health policy and practice. Because it's **not enough to know the answers to public health's** toughest questions—we must act on them.

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