

Researchers ally with local churches and clinics to reduce obesity in some of New York City's poorest neighborhoods.

Tipping the Scales

BY TED V. BOSCIA

TFor two years running, the Bronx has attained an unwelcome distinction: the unhealthiest of all 62 counties in New York. High rates of adult and childhood obesity, especially in the South Bronx, have helped plunge the borough to the bottom of the findings by the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute. A few miles west, across the Harlem River, the proportion of overweight and obese residents in Central and East Harlem is similarly high—about 6 in 10 adults and more than 4 in 10 children.

As a result, these low-income neighborhoods, largely African American and Latino, show disproportionately high rates of hypertension, heart disease, stroke, diabetes, and a host of other chronic health conditions related to poor diets and sedentary lifestyles. Perhaps most distressing, however, are the environmental, cultural, and economic influences that promote obesity in these neighborhoods: a surplus of fast food restaurants and a shortage of fresh produce and other healthy options; limited access to parks and affordable recreation; and unusual work, family, and social strains.

“The odds are truly stacked against a lot of people,” said Erica Phillips-Caesar, M.D., M.S., assistant professor of medicine at Weill Cornell Medical College (WCMC). “It’s no surprise that obesity is an epidemic and a huge public health concern in these places.”

Through a novel alliance with local churches and health clinics, a multidisciplinary team of Human Ecology and Weill Cornell investigators are striving to reverse the odds and reduce obesity and obesity-related deaths in black and Latino adults in Harlem and the South Bronx. The Small Changes and Lasting Effects (SCALE) project, funded by a \$6 million grant for Obesity Related Behavioral Intervention Trials from the National Heart, Lung, and Blood Institute, seeks to nudge residents toward healthier diets and increased physical activity >>>

SCALE community health workers Tori Velez (left) and Yvonne Meade-Clemente are helping Harlem and South Bronx residents to adopt healthier habits.



through minor lifestyle changes. The study, led by Dr. Mary Charlson, the William T. Foley Distinguished Professor of Medicine at WCMC, includes a broad group of researchers: Phillips-Caesar; Human Ecology faculty members Elaine Wethington, associate professor of human development and of sociology, and Carol Devine, professor of nutritional sciences; Brian Wansink, the John S. Dyson Endowed Chair of Marketing in Cornell's College of Agriculture and Life Sciences; and Martin Wells, the Charles A. Alexander Professor of Statistical Sciences in Cornell's School of Industrial and Labor Relations.

The team is concluding a pilot study of 115 participants, which will inform full-scale trials set to begin later this summer. Participants are asked to select a small-change eating approach—such subtle strategies as filling half their plates with fruits and vegetables or switching to smaller dishes to control portion sizes—to try for 12 weeks. They pair this approach with a tactic to get more exercise—exiting the bus two stops early and walking, for instance. The researchers are aiming for a 7 percent or more weight reduction in participants.

In his Food and Brand Lab on the Ithaca campus, Wansink has demonstrated how his small-change eating techniques have led to sustained weight loss in research participants. SCALE is attempting to translate these successes into people's communities and homes—places where many factors are steering them toward overweight and obesity.

"Diets are restrictive and demanding and force people to make large sacrifices," said Devine. "Small changes, on the other hand, have the potential to form into sustainable habits that take hold for a long time. This is a test of whether what works in the lab can be effective in people's homes."

Gaining trust neighbor to neighbor

When she first entered Harlem-based health centers to recruit people for SCALE, Tori Velez encountered deep skepticism. People scoffed at the idea of loading up on fruits and vegetables. "They would tell me, 'I don't eat salads, that's rabbit food,'" she said. "It's hard for them to consider making a change."

Velez, operating out of the Northern Manhattan Perinatal Partnership, a venerated community health organization in Harlem, also found that people were unsure about committing to participate in research. With one woman who ultimately enrolled, Velez spent 30 minutes on the phone and an hour in person reviewing the SCALE consent form. "We went over it line by line," she said. "When you educate them about the study and they see your excitement, people start to open up."

Velez is one of three specially trained community health workers and research assistants who are "really pivotal" to SCALE, according to Phillips-Caesar. Along with the partnering churches and health centers, they are helping to put the community at ease, calming a wariness among many minority groups about medical research that goes back to the infamous Tuskegee syphilis experiments.

"Even though we're not asking anyone to take a drug or try something radically different in SCALE, it's still invasive," Phillips-Caesar said. "We're coming into people's lives and homes, asking them personal questions, and trying to get them to change their behaviors. The community health workers are on their level, with names and faces they know and recognize. It breaks down the initial fear over signing a consent form and agreeing to a study."

Participating churches, such as St. Luke's Roman Catholic Church in the South Bronx and First Baptist Church in Harlem, play a key role in recruitment by hosting health screenings. Beyond that, they help set the broader health agenda for their congregations and will be critical to disseminating the findings when SCALE concludes. In one case, a local pastor enrolled in SCALE, hoping to be a model for his flock.

"The churches are at the center of many people's lives," Phillips-Caesar said. "They know their communities best and what people will respond to."

Similarly, local health centers, including Lincoln Medical and Mental Health Center in the South Bronx and the Renaissance Health Care Network in Harlem, provide research support and aid in recruitment. Along with the churches, they have also assisted in study design as the SCALE team refines its approach.

"Our focus is on developing interventions that can be easily translated to the community," Phillips-Caesar said. "We have found that you must get the community involved in the early stages and throughout the study to have any success."

Yvonne Meade-Clemente is another of the SCALE community health workers. A native of Panama, she's lived in New York City for decades and considers it her home. SCALE is her first opportunity to work in public health, and she relishes the chance to help her neighbors to adopt healthier habits.

"I'm part recruiter, part cheerleader," said Meade-Clemente, who seeks out participants at local churches and checks in with them weekly to track their progress. "I'm very compassionate, I want to help. It's very rewarding to me when I see people stick with it and make these small changes and come out losing weight. The look on their faces when they step on the scale and see the results is the best part."

Adapting research to the real world

Not all SCALE participants may see the pounds melt away, however. Eating from smaller plates may work in a controlled research setting, for instance, but the theory is challenged by environmental factors and stressors in people's neighborhoods and homes that can disrupt good intentions.

Wethington, a medical sociologist and SCALE principal investigator on the Ithaca campus, is investigating how everyday stressors—such as marriage strains, financial struggles, unemployment, and crime—interfere with the intervention. A noted expert on how people respond to

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—Carol Devine



ABOVE: SCALE community health workers recruited study participants at health fairs like this one at St. Luke's Roman Catholic Church in the South Bronx.

RIGHT: SCALE researchers (l-r) Laura Smith, Erica Phillips-Caesar, Mary Charlson, Carol Devine, and Elaine Wethington meet with Human Ecology Dean Alan Mathios.



psychosocial stress, she is using standard quantitative measures to document its effect. "Understanding the impact of these factors will be essential to designing an effective intervention," Wethington said.

Along with WCMC's Charlson, Wethington is also examining how daily self-affirmation techniques can buffer against the adverse behavioral impacts of stress exposure. The work flows from Charlson's longstanding research interest in how people can overcome the barriers to healthier behaviors.

"By joining with Weill, our college can more effectively assess medical outcomes and real-world health impacts," Wethington added.

Through SCALE, researchers also hope to gain insights into how social networks—friends, family, and church and community groups—can help or hinder one's ability to adopt these small changes. Johanna Carroll, a nutritional sciences doctoral student in Human Ecology, has created survey questions to examine how social connections influence participants' behaviors throughout the study.

"The assumption is that your family and friends will be supportive and provide the motivation and assistance to help you lose weight," said Carroll, who developed the questions with her advisor, Carol Devine. "But it could also be that they are tempting you with old habits and behaviors that are hard to break."

Carroll has visited New York City twice to aid the community health workers as they conduct "close-out" interviews at the pilot study's conclusion. They work through Carroll's questions, part of a larger survey developed by the SCALE team, to gauge how the intervention unfolded in their homes.

"We are gathering important data," said Carroll, "but people also start to see that we are not just academics interested in dropping in to do a study and then leaving. It's translational because we hear directly from them about what works and what doesn't and then use that feedback to shape the intervention."

For Carroll, an African American, the SCALE interventions to treat and prevent obesity take on special significance. She lost both of her grandparents to nutrition-related diseases at a young age and wants to address the health disparities prevalent in many minority communities.

"Obesity is a major public health problem driven by lots of complicated factors," she said. "What's great about SCALE is that we are taking findings directly into the community and working with people to come up with solutions. We may not be able to change everything that is contributing to these disparities, but there are still lots of steps we can take to improve people's lives right now and hopefully over the long run." ● ● ●

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