COMMUNITY

Center to Improve **C**hronic Disease **O**utcomes through **M**ulti-level and **M**ulti-generational approaches **U**nifying **N**ovel **I**nterventions and **T**raining for health equit**Y**

OUR RESEARCH

Dream Study

The DREAM study is a randomized controlled trial aimed at promoting sleep health equity to reduce ethnic disparities in cardiometabolic diseases among the Hispanic/Latinx community of NYC. A multidimensional sleep health intervention will be conducted to improve multiple aspects of sleep health, focusing primarily on promoting sufficient sleep duration, regular sleep schedules, and efficient, good quality sleep, to enhance cardiometabolic health and reduce the burden of multiple chronic diseases in NYC Hispanic/Latinx adults. The Hispanic/Latinx community represents one third of the NYC population and comprises ~80% of the Washington Heights/Inwood community surrounding Columbia University Irving Medical Center. Hispanics/Latinx have some of the highest prevalence rates for obesity and type 2 diabetes, and in New York City, one of the highest hypertension burdens. Sleep health inequities contribute to the disproportionate cardiometabolic disease burden in Hispanic/Latinx communities. Therefore, improving multiple domains of cardiometabolic health through a contextual sleep intervention can have far-reaching effects for reducing the burden of multiple morbidities and promoting healthy longevity.

The initial phase of the DREAM study involves community and stakeholder engagement to conduct focus groups, interviews, and pilot testing to refine and culturally adapt the multidimensional sleep health intervention for the NYC Hispanic/Latinx community based on input from the community members. Next, 300 Hispanic/Latinx men and women aged 30 – 65 who are English or Spanish speakers, and at risk for multiple chronic diseases will be randomized to either a control arm that receives standard American Heart Association Life's Simple 7 cardiovascular health educational materials or an intervention arm that, in addition to Life's Simple 7 materials, receives the culturally adapted, intensive, evidence-based multidimensional sleep health intervention. The short-term and longer-term impact of the intervention on blood pressure, blood sugar levels, and measures of body adiposity will be evaluated at 8 weeks and 24 weeks, respectively. The effect of the intervention on other behavioral and clinical chronic disease risk factors such as aspects of diet and other metabolic markers (e.g., inflammation) will also be assessed. Importantly, the sleep intervention will be disseminated by community health workers, trained as health educators, navigators, and health advocates; they will work closely with the participants and their communities to understand how implementation of the intervention can be optimized and to ensure the successful completion, maximized impact, and future expansion of this work to other communities in NYC and across the US.

The MPI's for the DREAM study are Nour Makarem, PhD and Parisa Tehranifar, DrPH. Dr. Makarem is a cardiovascular and sleep epidemiologist with a NHLBI-, NIMHD, and American Heart Association funded research program that focuses on the role of health behaviors, particularly multidimensional sleep and circadian health and dietary patterns, in cardiometabolic health preservation and cardiovascular disease prevention. The overarching goal of her research program is to promote cardiovascular health, address sex and ethnic disparities in cardiovascular health, and enhance cardiovascular disease risk modeling. Dr. Tehranifar is a health disparities researcher with expertise in cancer screening and implementation science. She's led etiologic and implementation science studies on chronic disease prevention in diverse populations, including many NCI- and

NIMDH-funded large-scale studies. The DREAM study team also includes leading experts in community outreach and engagement, cancer and CVD risk modeling, large scale and multi-site RCTs, behavioral interventions, preventive cardiology, and implementation science. Co-Investigators are: Dr. Mary Beth Terry (PhD), Dr. Carmela Alcantara (PhD), Dr. Erica Phillips (MD), Dr. Min Quian (PhD), Dr. Nathalie Moise (MD), Dr. Katherine Crew (MD), and Dr. Daichi Shimbo (MD).