

FUTURE OF NURSING™

Campaign for Action

AT THE CENTER TO CHAMPION NURSING IN AMERICA



A literature scan and framework of a diverse nursing workforce and its effect on the social determinants of health

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We appreciate the review and contributions of the *Campaign for Action's* Equity, Diversity, and Inclusion Steering Committee: Carmen Alvarez, Eric J. Williams, Blake K. Smith, Sandy Littlejohn, Norma Cuellar, Martha Dawson, and Mary Joy Garcia-Dia; committee consultants Kupiri Ackerman-Barger, Regina Eddie, Lisa Martin, and Barbara Nichols; and the overall guidance and contributions of Winifred Quinn and technical support and review by Scott Tanaka at the Center to Champion Nursing in America at AARP.

Objective: To discuss current evidence on (a) populations that need support with social determinants of health (SDOH); (b) nursing’s role in addressing SDOH (a review of current federally funded nursing research focused on SDOH); (c) how a diverse nursing workforce leads to better patient outcomes and patients’ feeling more comfortable when they are working with a nurse who is from their community.

This paper provides a table that describes vulnerable populations and summarizes their related social determinants of health and recommended policies. Following the table, we summarize the federally funded research conducted by nurses that focuses on the SDOH of populations. The paper ends with a framework proposed by the U.S. Department of Health and Human Services’ Health Resources and Services Administration.

A. Populations that need support with SDOH: All populations would benefit from health care that takes into account the impact of the various SDOH—those conditions in which people are born, grow, live, work and age, including social and economic factors that have a great influence on people’s health—but some populations outcomes’ are worse compared with others. And “if a health outcome is seen to a greater or lesser extent between populations, there is a disparity” ([Healthy People 2020](#)). Table 1 below provides an initial description of populations that need support to address their related SDOH. In addition, ethnic minority men and women in all of these groups experience higher rates of disease and premature death compared with nonethnic minorities, and therefore are in critical need of support related to their SDOH. Consistently, we found that policies that improve the overall social and economic well-being of all individuals, in particular the most vulnerable families, including those with disabilities, ultimately decrease the level of health disparities among populations in the U.S., and increase health equity. Advancing the health of all of these communities is a public health priority.

Table 1. Populations and Their Related Social Determinant of Health and Policy Recommendations

Population	SDOH and Policy Recommendations
<p>LGBTQI Communities:</p> <p>There is growing evidence that LGBTQI (lesbian, gay, bisexual, transgender, questioning/queer, intersex) communities experience significant health problems (cancer, cardiovascular disease, mental health problems) that lead to disparities compared with other populations; and LGBTQI ethnic minority individuals are at even greater risk for developing chronic disease.</p> <p>Intersectionality refers to how an individual experiences multiple identities and the combined impact of these on health and well-being. Research suggests that the intersectional experience and stigma that young LGBTQI people from ethnic minority communities encounter can lead to negative, profound health outcomes and yet are not fully understood.</p>	<p>Ways to address SDOH:</p> <ul style="list-style-type: none"> • Improve patient-provider relationships; • Improve data collection, including of factors such as sexual identity in health interviews—whose findings may have policy implications—as well as federal surveys (Behavioral Risk Factor Surveillance System, census, etc.); and • Address health disparities and the barriers to health services access for LGBTQI communities, including phobias against lesbians, gays, bisexuals, and trans people, heterosexism, and genderism. In addition, many LGBT-specific statements accompanying access and equity frameworks refer to LGBTQI people as a homogenous group in the absence of recognition of the differential experiences with health services access related to intersecting identities based on gender and race, among others. <p>Recommended Policies: Nondiscrimination laws in employment, housing and public accommodations, marriage equality, and legislation to support non-kin caregivers.</p>

Population	SDOH and Policy Recommendations
<p>Indigenous Communities:</p> <p>The most common health problems experienced by Native American communities that lead to disparities compared with the general population include nutrition-related chronic diseases, such as diabetes, cancer, and heart disease. Many of these, such as diabetes, are progressive but also preventable and are shaped by SDOH.</p> <p>Another important issue that has recently emerged and is closely monitored by the National Alaska Native American Indian Nurses Association is the crisis of missing Native American women—missing persons cases that often go unreported, uninvestigated, or unsolved—and related violence experienced by this community.</p>	<p>Ways to address SDOH:</p> <ul style="list-style-type: none"> • Address poverty and family socioeconomic status; • Improve educational attainment and access to education; • Support self-determination/autonomy; • Grant access to and utilization of traditional lands; • Acknowledge and understand the impact of historical trauma and violence across generations; and • Address the experience of race-based social exclusion. <p>Recommended Policies: Awareness building and prevention strategies that address social determinants of health can play a role in preventing negative health outcomes. Policies are needed that promote economic growth, increase employment opportunities, and improve academic achievement and graduation rates. Effective policies can help improve basic infrastructure in tribal communities, including indoor plumbing and healthy and affordable housing conditions.</p> <p>In addition, tribal nations are not notified or given access to data regarding missing tribal/native citizens. The National Congress of American Indians (2018) adopted the Indigenous Data Sovereignty, defined as "the right of a nation to govern the collection, ownership, and application of its own data, including any data collected on its tribal citizens," so that tribal nations can advocate for the health and safety of all of their citizens regardless of where they reside.</p>
<p>Rural Communities:</p> <p>Those who live in remote areas are more likely to experience some of the social factors that affect health, such as poverty. The impact of these challenges can be compounded by the barriers already present in rural areas, including limited public transportation options and fewer choices to acquire healthy food.</p>	<p>Ways to address SDOH:</p> <ul style="list-style-type: none"> • Address low income and rates of employment, and resulting poverty; • Support educational attainment and literacy; • Understand implications of race/ethnicity; • Understand implications of sexual orientation/gender identity; • Improve health literacy; • Provide adequate community infrastructure, which can ensure public safety, allow access to media (such as broadband internet service), and promote wellness; • Improve environmental health, including water quality, air quality, and

Population	SDOH and Policy Recommendations
	<p>pollution</p> <ul style="list-style-type: none"> • Provide means to access to safe and healthy homes, including issues related to energy costs and weatherization needs, lead-based paint, and other safety issues; • Provide access to safe and affordable transportation, which can impact both job access and health care access. (Unsafe transportation, such as vehicles in poor condition, may increase risk of injury); • Provide access to healthy and affordable food; and • Provide access to health care services. <p>Recommended Policies: Those that promote safe and affordable housing, income supports, food assistance, and job training.</p>
<p>Immigrant Communities:</p> <p>Immigration and immigration status affect health through many mechanisms, including fear, stress, experiences of prejudice and violence, and differential access to resources, safe work and housing. Researchers have noted the lack of focus on SDOH and immigration has resulted in missed opportunities for public health, research, and practice policy work. Immigration impacts the health of both immigrants and non-immigrants. For example, most children living in 2.3 million mixed-status families are U.S. citizens by birth. They access health care benefits at a lower rate or receive delayed treatment, experience greater developmental risk in childhood, and experience higher levels of family conflict and stress, including the effects of deportation of individual household members, often parents.</p> <p>Immigrant minors and youths are especially at risk for exploitation, violence, and human trafficking. Research has shown that up to 80% of newly arriving unaccompanied children are victims of human trafficking while traveling into the U.S.</p>	<p>Ways to address SDOH:</p> <ul style="list-style-type: none"> • Educate immigrants to laws that allow them access to health services regardless of immigration status; • Provide multilingual health providers and health care; • Tailor interventions to various immigrant populations; and • Improve health literacy among immigrant populations. <p>Recommended Policies: Research questions should be expanded to consider the policies that shape the broader health landscapes in which immigrants live.</p> <p>For minors and youths, advocacy is needed to promote immigration policies and processes that protect all children from human trafficking and exploitation. While the Trafficking Victims Protection Reauthorization Act of 2017 is in place, enforcement and accountability for procedures are not consistent.</p> <p>Immigration policies uniquely impact bilingual, bicultural nursing students and new graduates that are currently protected under the Deferred Action for Childhood Arrivals (DACA) program. These students may be ineligible to take the NCLEX depending on state board of nursing regulations, and are therefore unable to practice. The National Association of Hispanic Nurses currently advocates for policies that extend protection to DACA recipients, which includes nursing colleagues, patients, students, and nearly 800,000 youths nationwide.</p>

Population	SDOH and Policy Recommendations
<p>Older Adults:</p> <p>SDOH significantly impact older adults, especially their ability to live independently and age in place. Social connectedness has been noted as an important social factor for health and well-being at all ages, and loneliness and isolation can increase the risk of premature death and chronic conditions for older adults.</p>	<p>Ways to address SDOH:</p> <ul style="list-style-type: none"> • Encourage SDOH screening and referrals at every wellness visit; • Support community-based programs that seek to address multiple social determinants; • Integrate and streamline benefits enrollment and provision; • Encourage the development of affordable senior housing; and • Plan for the transportation needs of older adults. <p>Recommended Policies: Age-friendly cities efforts, led by AARP and the World Health Organization and embodied in a number of U.S. initiatives, provide a series of policy-level analyses for how communities can provide a context that promotes healthy aging through policies across multiple sectors.</p> <p>Continued bipartisan support and funding is critical for the Older Americans Act, which supports a wide range of social services and programs for adults 60 years and older. Supportive services include nutrition services (meals served in group settings and home-delivered meals), family caregiver support, community service employment, the Long-Term Care Ombudsman program, and prevention of the abuse, neglect, and exploitation of older persons. The current law expired on September 30, 2019.</p>
<p>People With Disabilities:</p> <p>Disability is defined, by law, as the inability to engage in any substantial gainful activity due to medically determinable physical or mental impairment(s) expected to last for more than 12 continuous months. People with disabilities represent 18.7% (56.7 million people) of the U.S. population. Disability can occur at any point in life, but the likelihood of disability increases with age, and is more common among women and members of minority racial/ethnic groups. Those that acquire a disability (due to chronic disease or accident) experience a decline in SDOH that affects quality of life for them and their family and hinders the rehabilitation process.</p>	<p>Ways to address SDOH:</p> <ul style="list-style-type: none"> • Provide resources and support for parents from low-income families to monitor their children’s development. (Children born into poorer circumstances are at greater risk of forming developmental delay related to intellectual disability, speech impairment, cognitive difficulties, and behavioral problems.) • Provide benefits to those whose disabilities keep them from employment. (Socioeconomic disadvantage—lower levels of income and education—is associated with greater disability.) • Reduce barriers to employment. (People with mild disabilities are more likely than nondisabled people to experience periods of unemployment; and women with mild intellectual disabilities are

Population	SDOH and Policy Recommendations
<p>Healthy People 2020, a program of the U.S. Department of Health and Human Services, recognizes that what defines individuals with disabilities, their abilities, and their health outcomes more often depends on their community, including social and environmental circumstances. However, research on SDOH and people with disabilities is limited, despite the significant impact these have on their lives.</p> <p>People with disabilities experience many barriers in accessing health care services, including timely and accessible public health and emergency services (e.g., during natural disasters). This population is also found to have high rates of poverty, unemployment, and lower education, all of which contribute to poor health.</p>	<p>further disadvantaged by high rates of teenage motherhood.)</p> <ul style="list-style-type: none"> Plan infrastructure for those whose disabilities make them vulnerable. (People with disabilities are among the most vulnerable groups affected by environmental challenges (climate change, energy scarcity, and water and sanitation insecurity), yet remain invisible in most of this literature.) <p>Recommended Policies: The disability community has called for advance planning and adaptation of infrastructure-building and emergency-preparedness in anticipation of the impact on people with disabilities. To improve the economic stability of people with disabilities, federal policy includes a two-pronged approach: (1) assist in reducing barriers to employment, and (2) provide cash and in-kind benefits to those who experience material hardship as a consequence of remaining barriers. More broadly, the disability community promotes awareness and education regarding the civil and human rights of people with disabilities through laws, such as the Americans with Disabilities Act and the United Nations Convention on the Rights of People with Disabilities.</p>

B. Current federally funded nursing research focused on SDOH

Purpose: This review identified nurse researchers who are currently federally funded to conduct research that includes a focus on SDOH.

Methods: We used the National Institutes of Health (NIH) Research Portfolio Online Reporting Tools (RePORT), an open-access database for NIH research, reports, expenditures, and outcomes. The inclusion criteria for this methodology included currently funded (active as of July 2019) research grants awarded to schools of nursing. A second-level review was conducted to determine the number of grants focused on SDOH with a nurse researcher serving as principal investigator.

Results: We found 76 nurse researchers conducting 83 studies with \$222,554,197 in total current funding through fiscal year 2019. Of this \$222 million—just under \$25 million, or approximately 11%--included at least some portion on the SDOH (see addendum). Most (31) studies have been funded by National Institute of Nursing Research, followed by National Institute on Minority Health and Health Disparities (11). Others include National Institute of Child Health and Human Development (9), National Institute on Aging (7), National Institute on Drug Abuse (6), National Institute of Mental Health (6), National Heart, Lung, and Blood Institute (5), National Cancer Institute (2), Agency for Healthcare Research and Quality (2), National Institute of Environmental Health Sciences (2), National Institute of Diabetes and Digestive and Kidney Diseases (1), National Institute of Allergy and Infectious Diseases (1), and National Center for Injury Prevention and Control (1).

For the type of funding mechanism, we found that 16 were F Grants (research training and fellowships), 15 were K (career development awards), 52 were R series, including 35 R01s. One study was a R37, Method to Extend Research in Time (MERIT) Award, which is awarded (not applied for). Overall, 33 universities were represented.

Most SDOH factors studied included health and health care (31), followed by social and community context (24), neighborhood and built environment (12), education (11), and economic stability (5).

Discussion/Recommendations: A growing number of emerging nurse scientists are focused on research that includes a focus on SDOH. Many reflect diverse backgrounds, which can also positively impact nursing's scientific workforce and academia. To achieve health equity, efforts to increase the diversity of nurse scientists (PhDs) must increase; and research that is focused on SDOH should be embedded in the NIH strategic plan and NINR in particular. One excellent opportunity includes NIH's Research Supplements to Promote Diversity in Health-Related Research grants to support the training of individuals from underrepresented populations and enhance the diversity of the scientific workforce. This opportunity requires mentoring plans for research and career development.

To promote existing SDOH studies, we recommend highlighting such research and scientists through stories and blog posts, and spotlights during National Nurses Week and other national observance celebrations (e.g., Black History Month, National Hispanic Heritage Month, and National Native American Heritage Month).

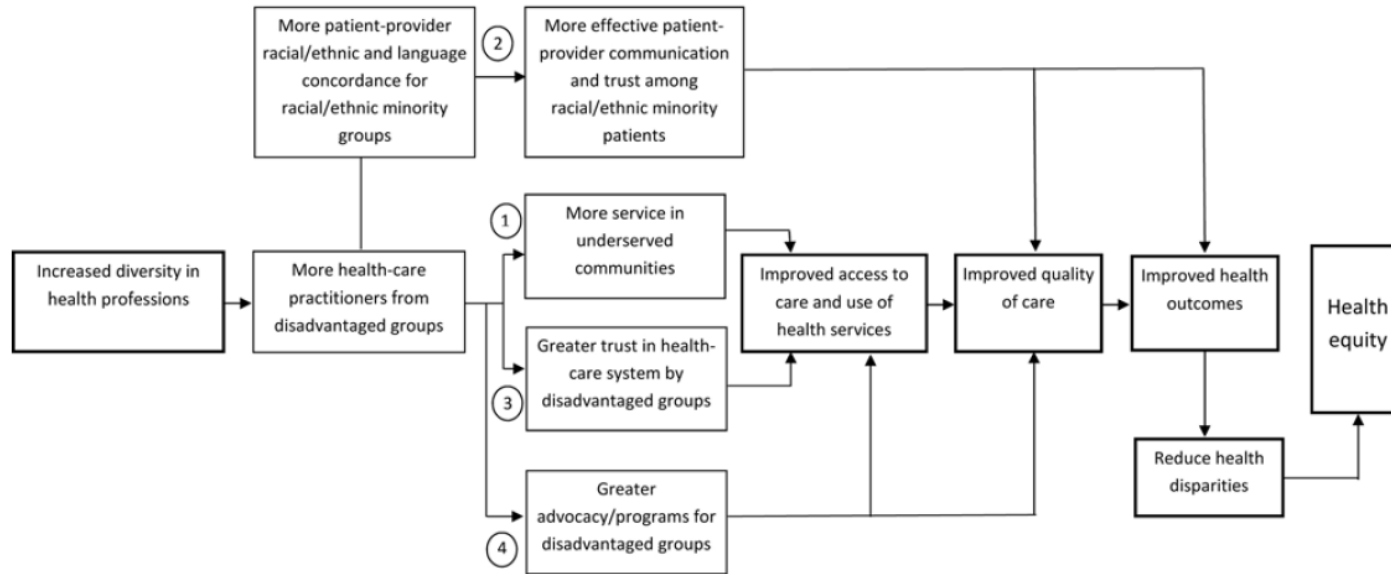
C. Framework for a diverse nursing workforce and better patient outcomes

The Health Resources and Services Administration's Bureau of Health Professions, Division of Nursing adopted a conceptual framework to illustrate the evidence that supports how a racially/ethnically and linguistically diverse health care workforce leads to improved patient health outcomes, reduces health disparities among populations, and ultimately promotes health equity. The framework is based on two evidence-based assumptions, namely, that:

- Health professionals who are from racial/ethnic minority groups and come from socioeconomically disadvantaged backgrounds are more likely to serve in underserved and rural communities; and
- Racial/ethnic and language concordance will improve patient-provider communication, trust, and decision-making, thereby increasing access to, and quality of, the interaction—which would result in improved health outcomes.

Nurses represent the largest percentage of the health care workforce. Therefore, to increase the number of racially/ethnically diverse practitioners, it is necessary to recruit and retain nursing students from underrepresented racial/ethnic populations, and put in place systems and practices to help them succeed. A national survey of recruitment and retention initiatives in the nursing workforce found that the most successful nursing diversity pipeline programs include mentorship, academic, and psychosocial support for students. For the last two years, the Center to Champion Nursing in America has partnered with the U.S. Department of Health and Human Services' Office of Minority Health; historically black colleges and universities; American Association of Colleges of Nursing; National League for Nursing; National Black Nurses Association, and—more recently—the National Association of Hispanic Nurses and National Alaska Native American Indian Nurses Association, to implement mentoring workshops that can promote the academic success of nursing students from racially/ethnically diverse and underrepresented populations.

Figure 1. Expanded conceptual framework linking health professions' diversity to health disparity and health equity outcomes.



Adapted from: U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions. The rationale for diversity in the health professions: a review of the evidence. Rockville, Md.: HHS; 2006.

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Addendum

We found 76 nurse researchers conducting 83 studies with \$222,554,197 in total current funding through fiscal year 2019. Of this, \$222 million—just under \$25 million, or approximately 11%—included at least some portion on the SDOH. The studies that represent that 11% are listed below.

Search Criteria: Currently funded (active as of July 2019) research grants awarded to schools of nursing; with a focus on SDOH with a nurse researcher serving as principal investigator; excluded conference grants, training centers (P30, T32), cooperative agreements (U01) and international research
 Search in: Projects AdminIC: All; Organization Type: Schools of Nursing Fiscal Year: Active Projects

Category	Project Title	Administering IC	Contact PI/Project Leader	Organization Name	FY	FY Total Cost
Early Child Development	Strengthening Parenting Capacities in Pre-K to Improve Social-Behavioral Readiness and Later School Outcomes	NICHD	Gross, Deborah A.	Johns Hopkins University	2019	229,672
Early Child Development	Wa'Kan Ye'Zah: Enhancing caregivers' and children's well-being through an evidence-based and culturally informed prevention intervention	NIMH	Brockie, Teresa	Johns Hopkins University	2019	44,524
Early Child Development	Neighborhood Disorder and Epigenetic Regulation of Stress Pathways in Preterm Birth	NINR	Nowak, Alexandra	Ohio State University	2019	349,861
Early Child Development	Parent Training in Pediatric Primary Care: A Self-Directed Tablet-Based Approach	AHRQ	Breitenstein, Susan	Rush University Medical Center	2018	580,837
Early Child Development	Healthy Mothers-Healthy Children: An Intervention with Hispanic Mothers and their Young Children	NINR	Berry, Diane C	University of North Carolina, Chapel Hill	2019	225,875
Early Child Development	Reducing pesticide exposures to preschool-age children in California child care centers	NIEHS	Alkon, Abbey Diane	University of California, San Francisco	2018	369,412
Early Child Development	momHealth: Mobile Multiple Health Behavior Change in Teen Pregnancy & Parenting	NICHD	Wambach, Karen A.	University of Kansas Medical Center	2018	794,182
Early Child Development	Behavioral and Enhanced Perinatal Intervention for Cessation (B-EPIC): Reducing Tobacco use among Opioid Addicted Women	NIDA	Ashford, Kristin H.	University of Kentucky	2019	44,524

Category	Project Title	Administering IC	Contact PI/Project Leader	Organization Name	FY	FY Total Cost
Early Child Development	A Novel Pregnancy Prevention Intervention for Latino Middle School Girls	NINR	Norris, Anne E	University of Miami Coral Gables	2018	45,016
Early Child Development	Self-Regulating Lifestyle Behaviors to Decrease Obesity Risk with Parent-Preschool Child Dyads Using Event History Calendars	NICHD	Danford, Cynthia	University of Pittsburgh at Pittsburgh	2019	36,601
Employment Conditions	Household income, financial stress and physiologic aging markers in low income adults across the life course	NIA	Samuel, Laura	Johns Hopkins University	2019	35,848
Employment Conditions	NC Works4Health: Reducing Chronic Disease Risks in Socioeconomically Disadvantaged; Unemployed Populations	NICHD	Kneipp, Shawn Marie	University of North Carolina Chapel Hill	2019	410,585
Globalization	Understanding the role of food insecurity and depression in non-adherence to Option B+ among perinatal Kenyan women living with HIV: a Syndemics approach	NIMH	Tuthill, Emily	University of California, San Francisco	2019	36179
Health Systems	Using Mobile Application Strategies to Increase HPV Vaccination Rates among YMSM	NIAID	Fontenot, Holly	Boston College	2018	148,755
Health Systems	mLab App for Improving Uptake of rapid HIV self-testing and Linking Youth to Care	NIMH	Schnall, Rebecca	Columbia University Health Sciences	2019	44,524
Health Systems	Mentoring and Research in Self-Management for Health Promotion and Disease Prevention	NINR	Schnall, Rebecca	Columbia University Health Sciences	2019	351,000
Health Systems	Social Determinants of HPV Vaccine Completion among Adolescents	NINR	Masfield, Lisa Nicole	Duke University	2018	485269

Category	Project Title	Administering IC	Contact PI/Project Leader	Organization Name	FY	FY Total Cost
Health Systems	Hypertensive Medication Adherence in Young African American Women	NINR	Spikes, Telisa	Emory University	2019	853,215
Health Systems	Personalizing Sleep Interventions to Prevent Type 2 Diabetes in Community Dwelling Adults with Pre-Diabetes	NINR	Malone, Susan Kohl	New York University	2019	403,190
Health Systems	Intergenerational Impact of Genetic and Psychological Factors on Blood Pressure	NINR	Taylor, Jacquelyn Y	New York University	2019	200,696
Health Systems	TEEN Connections for Support from Multidisciplinary Professionals & Peers	NINR	Smith, Carol E	University of Kansas Medical Center	2018	529,267
Health Systems	Rural Intervention for Caregivers' Heart Health (RICHH)	NINR	Moser, Debra Kay	University of Kentucky	2019	525,411
Health Systems	The Symptom Experience: Management and Outcomes According to Race and Social Determinants of Health (SEMOARS) during Breast Cancer Chemotherapy	NIMHD	Rosenzweig, Margaret Q	University of Pittsburgh at Pittsburgh	2019	513,915
Health Systems	Simulated Patient Encounters to Promote Early Detection and Engagement in HIV Care for Adolescents	NICHD	Kohler, Pamela	University of Washington	2018	188,611
Measurement and Evidence	Mentoring and research in applying digital technologies to prevent chronic illnesses	NINR	Fukuoka, Yoshimi	University of California, San Francisco	2018	565,035
Measurement and Evidence	Prospective Examination of E-Cigarette Use: Tobacco Use Disorder and Health Consequences by U.S. Youth	NIDA	Boyd, Carol J	University of Michigan at Ann Arbor	2018	231,866
Measurement and Evidence	Community-based Intervention Effects on Older Adults' Physical Activity and Falls	NINR	McMahon, Siobhan Kathleen	University of Minnesota	2019	152194

Category	Project Title	Administering IC	Contact PI/Project Leader	Organization Name	FY	FY Total Cost
Measurement and Evidence	A Panel Study of Hospital Nursing Resources and Racial Disparities in Elder Outcomes	NIA	McHugh, Matthew D.	University of Pennsylvania	2018	652,432
Measurement and Evidence	The Impact of Nursing on Racial Disparities in Surgical Outcomes	NIMHD	McHugh, Matthew D.	University of Pennsylvania	2019	130,275
Measurement and Evidence	Promoting Lifestyle Change via Tailored mHealth to Improve Health	NHLBI	Burke, Lora Emilie	University of Pittsburgh at Pittsburgh	2019	112,295
Measurement and Evidence	Preventing Perceived Insufficient Milk: Development of a Text Message-Based Inter	NINR	Demirci, Jill Radtke	University of Pittsburgh at Pittsburgh	2018	14,236
	From Emergency to Community: Implementing a Social Needs Assessment and Referral Infrastructure using Health Information Technology	AHRQ	Wallace, Andrea Schneider	University of Utah	2018	197,683
Measurement and Evidence	Development and Evaluation of a Mobile Health Intervention to Support Healthful Dietary Choices in Older Persons with Frailty	NIA	Zaslavsky, Oleg	University of Washington	2019	145,793
Measurement and Evidence	Influence of cognitive training on fall prevention in at risk older adults	NINR	Thompson, Hilaire J	University of Washington	2017	573,557
Public Health Programs	Come As You Are - Assessing the Efficacy of a Nurse Case Management HIV Prevention and Care Intervention among Homeless Youth	NINR	Santa Maria, Diane M.	University of Texas, HLTH SCI CTR Houston	2019	529,628
Public Health Programs	Feasibility of nurse-led substance use interventions in alternative schools	NIDA	Johnson, Karen E	University of Texas, Austin	2019	249,803
Social Exclusion	Using Twitter to Enhance the Social Support of Hispanic and Black Dementia Caregivers (Tweet-SS)	NIA	Yoon, Sunmoo	Columbia University Health Sciences	2019	92,610

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Social Exclusion	Racial and Ethnic Disparities in Chronic Disease Outcomes and Nurse Practitioner Practice	NIMHD	Poghosyan, Lusine	Columbia University Health Sciences	2019	609,761
Social Exclusion	Gender, Racial, and Ethnic Disparities in Mental Health; Substance Use Disorders; and Behavioral Health Treatment Utilization in US Parolees and Probationers within 12 Months Post-Release	NIMHD	Curlee, Vanessa	Duke University	2018	234,000
Social Exclusion	SER Hispano: Salud/Health; Estres/Stress; and Resiliencia/Resilience Among Young Adult Hispanics Immigrants in the U.S.	NIMHD	Gonzalez-Guarda, Rosa Maria	Duke University	2019	249,999
Social Exclusion	Reducing Health Disparities in SMI: Rural and Minority Populations	NIMHD	Merwin, Elizabeth I.	Duke University	2019	661,994
Social Exclusion	Understanding the Intersection of Stigma and Self-Management in Sickle Cell Disease	NINR	Bulgin, Dominique C	Duke University	2018	148,271
Social Exclusion	Peer Support Dyads in an Obesity Prevention Program in African American Churches	NINR	Conley, Cherie	Duke University	2019	610,374
Social Exclusion	Positive Social Determinants of Health and Blood Pressure among Young Black Women with a History of Early Life Stress	NINR	Scott, Jewel L.	Duke University	2019	44,524
Social Exclusion	Intertribal Talking Circle for the Prevention of Substance Abuse in Native Youth	NIDA	Lowe, John R.	Florida State University	2018	170,539
Social Exclusion	The impact of health literacy: culture and psychosocial factors on the Pap testing behaviors of African immigrant women in the United States	NCI	Cudjoe, Joycelyn	Johns Hopkins University	2018	601,040

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Social Exclusion	Understanding physical function in older African immigrants: the roles of acculturation and racial discrimination	NIA	Nkimbeng, Manka	Johns Hopkins University	2019	206,755
Social Exclusion	Impact of Culturally Specific Danger Assessment on Safety; Mental Health and Empowerment	NICHHD	Campbell, Jacquelyn Cutler	Johns Hopkins University	2017	194,046
Social Exclusion	Fitness Intensive Therapy (Get FIT) to Promote Healthy Living in Older Adults	NIA	Evangelista, Lorraine S	University of California-Irvine	2019	580,501
Social Exclusion	Increasing Physical Activity in Filipino lay leaders	NIMHD	Ceria-Ulep, Clementina Devera	University of Hawaii at Manoa	2017	44,524
Social Exclusion	Training in Nursing Interventions for HIV and Addiction in Criminal Justice Settings	NIDA	Culbert, Gabriel	University of Illinois at Chicago	2018	330,050
Social Exclusion	Corazón de la Familia (Heart of the Family)	NINR	Mudd, Gia	University of Kentucky	2019	514,007
Social Exclusion	An Interactive Technology Enhanced Coaching Intervention for Black Women with Hypertension	NHLBI	Abel, Willie M	University of North Carolina Charlotte	2019	45,016
Social Exclusion	Social determinants of health and self-management of Type 1 diabetes in black single-parent families	NINR	Morone, Jennifer	University of Pennsylvania	2018	829,172
Social Exclusion	Diabetes Prevention Culturally Tailored for Mexican Americans	NIDDK	Brown, Sharon A	University of Texas, Austin	2019	193,802
Urbanization	Linking Active Transportation Use and Neighborhood Walkability to Cardiometabolic Risk Factors Among Hispanic Mothers	NINR	Lorenzo, Elizabeth	Arizona State University-Tempe	2019	149,397

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Urbanization	Statewide Implementation of CAPABLE-Community Aging in Place: Advancing Better Living for Elders in the Michigan Medicaid Home and Community Based Waiver Program	NIA	Spoelstra, Sandra Lee	Grand Valley State University	2018	424,464
Urbanization	Associations of Neighborhood Green Space and Social Disadvantage with Stress-Sensitive Inflammatory Biomarkers	NHLBI	Roberts, Laken Camille	Johns Hopkins University	2019	44,524
Urbanization	Investigating the Relationships among Neighborhood Factors and Asthma Control in African American Children	NINR	Depriest, Kelli N	Johns Hopkins University	2018	193,125
Urbanization	A Skill-Based RCT for Physical Activity Using Peer Mentors	NICHD	Smith, Lauren	Ohio State University	2018	727,522
Urbanization	Building Partnerships with First Responders to Explore Strategies to Improve Delivery and Access of Mental Health Services- Resubmission	NIMH	Jones, Sara	Univ of Arkansas for MED SCIS	2019	245,625
Urbanization	Inflammatory Markers; Hazardous Air Pollutants; and Psychosocial Factors	NIEHS	Brooks, Jada L	Univ of North Carolina Chapel Hill	2018	75,636
Urbanization	Psychoneurological Symptoms in Situationally Stressed Low Income Mothers	NINR	Salomon, Rebecca	Univ of North Carolina Chapel Hill	2018	657,803
Urbanization	Nurse-Led Community Health Worker Adherence Model in 3HP Delivery among Homeless Adults at Risk for TB Infection and HIV	NIMHD	Nyamathi, Adeline M	University of California-Irvine	2019	88,460
Urbanization	Adoption of Smoke-free Laws and Voluntary Policies in Rural Communities in Southern States	NCI	Fallin-Bennett, Amanda	University of Kentucky	2018	217,024

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Urbanization	Discrimination: Stress and Substance Use Disorder among Sexual Minority Adults: A Secondary Analysis of NESARC-III	NIDA	Boyd, Carol J	University of Michigan at Ann Arbor	2018	39,216
Urbanization	A mixed methods study to understand the relationship between social determinants of health and self-care in community dwelling patients with heart failure	NINR	Baah, Foster Osei	University of Pennsylvania	2018	699,693
Urbanization	A Patient-Centered Asthma Management Communication Intervention for Rural Latino Children	NHLBI	Estrada, Robin Dawson	University of South Carolina at Columbia	2018	311,351
Urbanization	Developing a Lifestyle Intervention to Reduce Body Weight for Obese African American Men Living in the Rural South	NIMHD	Abshire, Demetrius	University of South Carolina at Columbia	2019	184,200
Urbanization	Sleep: Biological Stress; and Health among Toddlers Living in Socioeconomically Disadvantaged Homes	NINR	Ordway, Monica Roosa	Yale University	2018	151,897
Women and Gender Equity	Healthy Lifestyle Intervention for High-Risk Minority Pregnant Women: A RCT	NIMHD	Gennaro, Susan	Boston College	2019	184321
Women and Gender Equity	Examining associations of sexual identity, life experiences, and cardiovascular disease risk in sisters	NHLBI	Caceres, Billy A	Columbia University Health Sciences	2019	229,500
Women and Gender Equity	Adapting and testing the myPlan app to prevent dating violence with adolescents	NCIPC	Glass, Nancy E	Johns Hopkins University	2018	26,440
Women and Gender Equity	Effectiveness of a safety intervention for dating violence	NICHD	Glass, Nancy E	Johns Hopkins University	2018	44,524
Women and Gender Equity	Reducing urban women's HIV risk: Soap opera videos streamed to mobile devices	NINR	Jones, Rachel	Northeastern University	2018	184,769

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Women and Gender Equity	Testing Adaptive Interventions to Improve Physical Activity for Sedentary Women	NINR	Buchholz, Susan Weber	Rush University Medical Center	2019	165,841
Women and Gender Equity	Developing a Women-Focused PrEP Intervention for HIV Prevention	NIMH	Teitelman, Anne M.	University of Pennsylvania	2018	33,908
Women and Gender Equity	Supporting AI/AN Mothers and Daughters in Reducing Gestational Diabetes Risk	NINR	Charron-Prochownik, Denise Cecile	University of Pittsburgh at Pittsburgh	2019	367,469
	https://www.who.int/social_determinants/sdh_definition/en/					\$24,956,515