

# Population Association of America 2022 Annual Meeting

## Implications for Population Research of Federal Efforts to Address Diversity, Equity, and Inclusion

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**NIH** National Institute  
on Minority Health  
and Health Disparities

# **NIMHD Community Level Interventions to Improve Minority Health and Reduce Health Disparities Initiative**



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# Key Definitions

**Community:** A social group of any size whose members reside in a specific locality, share government, and often have a common cultural and historical heritage ([Dictionary.com](https://www.dictionary.com)). Communities may be self-defined (e.g., the LGBTQ community in a city or county) or defined by the catchment area of local government or service providers.

**Community-level intervention:** An intervention that modifies community characteristics, including the physical or social environment; laws, policies, or practices of organizations or governmental agencies within the community; and/or norms or collective behaviors of community residents.

**Community-engaged research (CER):** CER is the process of working collaboratively with groups of people affiliated by geographic proximity, special interests, or similar situations with respect to issues affecting their well-being (Centers for Disease Control and Prevention). CER emphasizes collaborative partnerships with key stakeholders such as community partners, leaders, and knowledge holders, and leverage community resources to achieve community benefit via the research process.

**Populations with health disparities:** Racial and ethnic minorities, socioeconomically disadvantaged populations, underserved rural populations, and sexual and gender minorities in the U.S.



# Background

- The NIMHD Community-Based Participatory Research (CBPR) program was established in 2005 to:
  - address need for improved transdisciplinary and intervention research addressing health disparities and
  - strengthen the science of community engagement in addressing health disparities in populations that experience disparities
- Next step is for research and interventions that use community-engaged approaches to assess/intervene beyond individual-level
- Need for shift for individual-level and researcher-derived interventions to community-derived structural multisectoral interventions to improve minority health and eliminate health disparities





# Research Objective





This initiative will support research projects to develop and test prospective community-level interventions to improve minority health and decrease health disparities.



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# Community-Level Interventions

		Levels of Influence*			
		Individual	Interpersonal	Community	Societal
Domains of Influence (Over the Lifecourse)	Biological	Biological Vulnerability and Mechanisms	Caregiver–Child Interaction Family Microbiome	Community Illness Exposure Herd Immunity	Sanitation Immunization Pathogen Exposure
	Behavioral	Health Behaviors Coping Strategies	Family Functioning School/Work Functioning	Community Functioning	Policies and Laws
	Physical/Built Environment	Personal Environment	Household Environment School/Work Environment	Community Environment Community Resources	Societal Structure
	Sociocultural Environment	Sociodemographics Limited English Cultural Identity Response to Discrimination	Social Networks Family/Peer Norms Interpersonal Discrimination	Community Norms Local Structural Discrimination	Social Norms Societal Structural Discrimination
	Health Care System	Insurance Coverage Health Literacy Treatment Preferences	Patient–Clinician Relationship Medical Decision-Making	Availability of Services Safety Net Services	Quality of Care Health Care Policies
Health Outcomes		 Individual Health	 Family/ Organizational Health	 Community Health	 Population Health

National Institute on Minority Health and Health Disparities, 2018

\*Health Disparity Populations: Race/Ethnicity, Low SES, Rural, Sexual and Gender Minority  
Other Fundamental Characteristics: Sex/Gender, Disability, Geographic Region

<https://www.nimhd.nih.gov/about/overview/research-framework/nimhd-framework.html>





# Community-Level Interventions

A community-level intervention:

- Employs community-engaged research methods
- Modifies community characteristics (individual characteristics may also be modified)
- Targets community-level determinants of health
  - Physical or social environment; laws, policies, or practices of organizations or agencies within the community; and/or norms or collective behaviors of community residents.





# Community-Level Interventions

What does NOT constitute a community-level intervention?

- An intervention that exclusively helps individuals address, cope with, manage, or navigate community-level determinants
- An intervention that is community-based but does not target community-level determinants of health
- An intervention that includes community-wide elements, but intervention effects are tested only at the individual or interpersonal/organizational level







# Research Expectations

- Led by or involve collaborations with relevant community organizations or stakeholders
- Improve health outcomes in one or more populations with health disparities
- Focused on entire population in communities OR specific population within communities
- Collect data on community-level SDoH beyond individual self-reported perceptions and experiences
- Guided by a conceptual model identifying hypothesized pathways between community-level intervention, community-level determinants, and health outcomes





# Research Expectations (Cont'd)

- Prospectively test impact of intervention on health outcomes
- Include health outcomes at individual, interpersonal/organizational, or community level, or a combination
- Use appropriate measures and analytic methods for community-level mechanisms
- Test interventions that are sustainable



# NIMHD Specific Areas of Research Interest

- Sample community-level intervention targets of interest for NIMHD include:
  - Affordable healthy food options and opportunities for physical activity outside home
  - Community norms and structural barriers related to health promoting behaviors
  - Community attitudes toward sociodemographic groups or individuals with certain health conditions that are detrimental to the health and well-being of these populations
  - Promoting screening, detecting, help-seeking, and self-management related to acute or chronic illnesses
  - Community re-integration and health of individuals returning after incarceration, hospitalization, or institutionalization



# NIMHD Multiple Chronic Disease Disparities Initiative



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# Background

**FY 2019** - Congress provided 1-year funds for Competitive Revisions to existing chronic disease centers supported by **NIDDK**, **NCI**, **NIAMS**, and **NIMHD**.

**FY 2020** - Congress provided 1-year funds for **NIDDK**, **NCI**, and **NHLBI** to address chronic diseases and health disparities in diabetes, kidney disease and obesity.

**FY 2021** - NIMHD budget included \$45M (Public Law 116-260, the *Consolidated Appropriations Act of 2021*) that authorized NIMHD working in concert with **NIDDK**, **NHLBI**, **NCI**, and **NCATS** to establish and support comprehensive research centers on the prevention, treatment, and management of comorbid chronic diseases associated with health disparities.



# Public Law 116-260, the Consolidated Appropriations Act of 2021

*Chronic Diseases and Health Disparities.*—In fiscal year 2020, NIH launched initiatives to address chronic diseases and health disparities in the areas of diabetes, kidney disease, and obesity. Chronic diseases and conditions are among the most common, costly, and preventable of all health conditions and disproportionately affect minority populations. These diseases can often leave those suffering from them more vulnerable to other diseases. A more comprehensive and holistic effort is needed to ensure that efforts to better address health disparities and co-morbidity encapsulate the full continuum of chronic diseases and their lethality in disparate communities. To this end, the agreement includes sufficient funding for NIMHD, working in concert with NIDDK, NHLBI, NCI, and NCATS, to establish a comprehensive center initiative aimed at a wide variety of chronic diseases and their links to health disparities. As these diseases are often multi-faceted and often regionally linked, NIMHD is encouraged to consider funding mechanisms that would support regional multi-institutional consortiums that produce collaboration, research, and translational science on a wide and broad scale.



# Initiative Purpose

The purpose of this initiative is to support regional comprehensive research centers on the prevention, treatment, and management of chronic diseases that disproportionately affect populations that experience health disparities. The disease areas of focus include, but are not limited to, obesity, diabetes, hypertension, coronary heart disease, congestive heart failure, asthma, chronic kidney disease, chronic liver disease, stroke, osteoarthritis, and certain cancers.

These conditions are common and often co-exist in individuals. Each Center must address two or more chronic conditions that commonly co-occur and/or share common social context, etiological pathways, or risk factors and share some similar management strategies.



# Multiple Chronic Disease Center Components

***Administrative Core.*** Provide Center oversight and governance and coordinate data harmonization and data sharing across the three Center Research Projects and awarded Pilot Projects and with the Coordinating Center.

***Investigator Development Core.*** Support a pilot project program that provides opportunities for post-doctoral fellows, early career faculty, or other early-stage investigators as defined by NIH, including those from backgrounds underrepresented in the biomedical research workforce to generate preliminary data for subsequent research to address disparities in chronic diseases.

***Community Engagement Core.*** Serve as a focal point for organizing and nurturing productive, bi-directional working relationships with consortium partners within the region to identify priorities and community needs in order to develop and disseminate relevant and actionable information and findings to stakeholders.

***Research Projects.*** Each Center will support R01-level research projects that address research questions relevant to the Center's chronic disease disparities focus. Research projects may involve prospective testing of new or adapted interventions or implementation strategies of evidence-based interventions or practices, or evaluations of existing interventions currently implemented by service providers within the region.





1P50MD017344-01, Goran, Michael, Children's Hospital of Los Angeles, Southern California, *Center for Chronic Health Disparities in Latino Children and Families*

- **Early Life Social, Environmental, and Nutritional Determinants of Disease (ELSEND)**- *The project is combining two existing birth cohorts and new data will be collected on broader SDOH, including geospatial assessments of social and structural factors such as the neighborhood and built environment. The project will:*
  - 1) Assess whether early nutrition and/or exposure to environmental toxins is associated with child growth and/or risk for chronic disease at age 5 years and*
  - 2) Assess if the food environment and broader SDOH is associated with subclinical markers of disease and if they exacerbate the adverse effects of poor nutrition and/or environmental toxins.*



1P50MD01338-01, Cherrington, Andrea (contact); Baskin, Monica, University of Alabama Birmingham, *Deep South Center to Reduce Disparities in Chronic Diseases*

- **Food Delivery, Remote Monitoring, and Coaching-Enhanced Education for Optimized Diabetes Management (FREEDOM)** - *The objective of the Food Delivery, Remote Monitoring, and Coaching-Enhanced Education for Optimized Diabetes Management (FREEDOM) study is to develop a multilevel, and scalable intervention to improve T2DM control in low-income African American adults with T2DM and cardio-renal complications in the Deep South by targeting relevant SDOH. The FREEDOM study design will evaluate three intervention components: 1) digital health coaching, 2) food box delivery, and 3) remote patient monitoring.*



1P50MD017342-01, Allen, Michele (contact); Hardeman, Rachel, University of Minnesota, *Center for Chronic Disease Reduction and Equity Promotion Across Minnesota (C2DREAM)*

- **Native American Youth Cardiovascular Disease Prevention: Implementation of Culturally-Tailored Evidence-Based After School and Home Visitation Programs for Healthy Eating and Physical Activity** - *The project intends to implement two evidence-based interventions. NET-Works was successful in slowing increases over three years in child energy intake and intake of added sugars, and reduced screen time, and in slowing body mass index gain in overweight children and Hispanic children. GOALS was successful in slowing body mass index, reducing systolic and diastolic blood pressure and total cholesterol, lowering LDL cholesterol, and reducing increases in energy intake, calories from fat and calories consumed in front of small screens.*



1P50MD017349-01, Huang, Elbert (contact); Lynch, Elizabeth, University of Chicago, *Chicago Chronic Condition Equity Network (C3EN)*

- **Voice-Activated Technology to Improve Mobility & Reduce Health Disparities: EngAGEing African American Older Adult-Care Partner Dyads** - *The project is implementing an exercise tool targeting multimorbid, homebound older adults and their care partners called EngAGE that leverages voice-activated technology. EngAGE has three technology components: a web browser, a mobile application, and smart voice speaker. The program delivers existing rehabilitation content from the “Go4Life” program developed by the National Institute on Aging (NIA). Go4Life exercises were intended to be done in the home with household equipment.*



1P50MD017348-01, Cooper, Lisa (contact); Crews, Deidra, Johns Hopkins University  
*The Mid-Atlantic Center for Cardiometabolic Health Equity (MACCHE)*

- **A Cardiometabolic Health Program LINKED with Clinical-Community Support and Mobile HEalth TelemonitoRing in Underserved PopulaTionS (LINKED-HEARTS PROGRAM)** - *The LINKED-HEARTS Program focuses on addressing structural issues of access and includes a self-measured blood pressure (SMBP) and blood glucose telemonitoring platform; team-based care including a pharmacist and community health worker and provider-level interventions. The project will compare the effect of the LINKED-HEARTS Program versus SMBP alone in improving BP control in adults with uncontrolled hypertension and either diabetes or chronic kidney disease.*



1P50MD017351-01, Levy, Phillip, Wayne State University, *ACHIEVE GreatER: Addressing Cardiometabolic Health Inequities by Early PreVEntion in the Great LakEs Region*

- **ACHIEVE P2 – HF** - *The project is a CHW engagement multi-level intervention trial with currently untreated hypertension and elevated risk for progression to clinically manifested heart failure. The approach is that the combined direct and indirect impact of strategies to mitigate negative SDOH, coupled with enabling capacity to implement the promoted lifestyle changes, and initiate appropriate medical therapy, along with facilitating medication possession and adherence will significantly lower BP and prevent progression towards heart failure compared to usual care.*

# NIMHD Multiple Chronic Disease Disparities Initiative

*NIMHD Multiple Chronic Disease Disparities Research  
Coordinating Center (RCC) (U24 )*



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# Chronic Disease Coordinating Center Components

***Organization and Management.*** Promoting collaboration and communication among all MCD Centers investigators and the broader research community. Planning, coordination, facilitation of in-person and virtual MCD Centers meetings including the startup meeting, monthly steering committee meetings, webinars, conference calls, an annual meeting, and other PD/PI meetings, as needed.

***Research Coordination and Data Analysis.*** Coordination of collaboration and resource sharing among the MCD Centers and dissemination of research resources (e.g., measurement instruments and procedures, protocols, statistical analysis tools, algorithms, study design resources, recruitment techniques, and study forms and templates). In collaboration with the MCD Centers the development of common data elements, data and metadata standards, and data collection processes. Provide methodological consultation to MCD Center investigators on study design, regulatory compliance, biostatistics, bioinformatics and computational biology, data science, data management and analysis.

***Research Skills Development.*** Coordinate efforts to establish and maintain diverse skills development opportunities built upon the expertise of the MCD Centers that will address the needs of MCD researchers within various professions and settings.

***Community Engagement.*** Monitor the extent to which community engagement activities at MCD Centers foster sustainable relationships with community-based organizations, enhance minority participation in research, and promote dissemination of research findings to communities to address their health-related concerns.

