



# Pathways to Health for All

## *NIDDK's Efforts To Address Health Disparities, Advance Health Equity, and Promote Workforce Diversity*

NIDDK's research mission includes some of the most common, chronic, and costly diseases and conditions affecting the health and quality of life of Americans. Many of these disproportionately affect certain groups or communities, including those who have been historically marginalized by structural and systemic racism and other forms of discrimination, and those who experience injustice today. Such injustices can be based, for example, on race, ethnicity, sexual orientation, gender identity, age, language, ability, socioeconomic status, and geographic region. Health disparity research seeks to understand the influences and causes of health differences that adversely affect disadvantaged populations and to translate that knowledge into interventions. This research, along with other efforts, aims to advance health equity—where everyone has a fair and just opportunity to be as healthy as possible regardless of their social position or other socially

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determined circumstances. NIDDK recognizes that to improve the health of all we must accelerate efforts to eliminate disparities and promote health equity. In addition, NIDDK is committed to cultivating a workforce of diverse individuals within the Institute itself and in the broader extramural research community.

### **NIDDK'S STRATEGIC PLAN FOR RESEARCH**

The overarching theme of the [NIDDK Strategic Plan for Research](#), published in December 2021, highlights NIDDK's commitment to pursuing "pathways to health for all." In keeping with the theme, research to reduce health disparities and achieve health equity is emphasized as crucial to the Institute's mission. Opportunities for pursuing health for all are presented throughout the Strategic Plan, in all areas of study—from research to advance understanding of biological and environmental contributors to health and disease, to clinical trials of prevention and treatment approaches, to dissemination and implementation research. Several cross-cutting topics are also highlighted, including the value of strengthening biomedical research workforce diversity and training.

The Strategic Plan also emphasizes the importance of stakeholder engagement—including patients and others as true partners in research. With input from people who have diseases in the Institute’s mission, family and other caregivers, community-based organizations, patient advocacy groups, and others, NIDDK-supported research can more effectively improve the lives of all people, including those experiencing health disparities. These community members were also key stakeholders in the strategic planning process: people with the lived experience of diseases in our mission were included on the Strategic Plan Working Group of Council along with researchers, and many individuals and organizations responded to NIDDK’s requests for broad public input.

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## **DEVELOPING THE NIDDK HEALTH DISPARITIES AND HEALTH EQUITY RESEARCH IMPLEMENTATION PLAN**

To strengthen and build upon NIDDK’s research toward reducing health disparities and achieving health equity, the Institute embarked on the development of the inaugural NIDDK Health Disparities and Health Equity Research Implementation Plan. The Implementation Plan will complement the Strategic Plan by elaborating on specific research needs and opportunities NIDDK could pursue to enhance the Institute’s health equity research portfolio. It is slated for publication in 2023.

For this effort, a Health Disparities and Health Equity Working Group of Council (WG) was established in January 2021 to identify a range of research opportunities and actionable recommendations. The WG comprises external researchers from across the country with expertise in interdisciplinary research fields related to health disparities and health equity; community members with diverse perspectives and valuable, lived experiences to inform our efforts; and NIDDK staff.

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Subgroups of the WG addressed a range of health disparities and health equity research topics, including engaging communities and building partnerships, community perspectives, and multiple aspects of social determinants of health (SDOH), which are the conditions in places where people live, learn, work, and play that influence health. SDOH include health care access and quality, education access and quality, economic stability, availability and access to healthy food and safe places to be physically active, and other conditions. Areas of focus on SDOH included the effects of SDOH on the biology of health and disease; interventions to address the effects of SDOH, eliminate disparities, and improve health; and upstream causes of SDOH and health disparities. Community engagement was central to all of the WG’s efforts. Most of the Subgroups included community members along with researchers, while the Subgroup focused on community perspectives was comprised entirely of community members—people living with or at risk for diseases within NIDDK’s mission who shared their perspectives, experiences, values, and priorities.

The planning process has also been informed by discussions with the Institute’s Advisory Council and other NIDDK and NIH-wide activities.

## **HIGHLIGHTS OF RECENT NIDDK HEALTH DISPARITIES AND HEALTH EQUITY RESEARCH INITIATIVES, WORKSHOPS, AND FINDINGS**

In parallel with the development of the Implementation Plan, NIDDK has been enhancing its health disparities and health equity efforts through multiple recent and ongoing initiatives, workshops, and other research. For example, the Institute held a workshop in 2022 on designing interventions that address structural racism to reduce kidney health disparities, and the workshop informed the launch of a new NIDDK initiative on this critical topic (see Feature in “Kidney, Urologic, and Hematologic” chapter). NIDDK also convened a workshop in 2022 to explore the role of housing insecurity in obesity-related health disparities, the evidence base for housing-related interventions to address these disparities, and future directions to advance health equity for all (see Feature in “Obesity” chapter). Opportunities identified in an earlier NIDDK workshop, on addressing disparities in obesity and type 2 diabetes, are also informing existing efforts.

In recent research on diabetes disparities, an NIDDK-supported study showed associations between historic

practices of redlining (denying services to residents of specific neighborhoods or communities) and present-day diabetes mortality, a sobering finding that highlights the long-term impact of structural racism on health outcomes (see advance in “Diabetes, Endocrinology, and Metabolic Diseases” chapter). The Institute also spearheaded new diabetes initiatives to establish national Stakeholder Engagement Innovation Centers for advancing equity in type 1 and type 2 diabetes research. A primary goal of the Centers is to accelerate equitable engagement of diverse individuals and communities, particularly those who are underserved and experience diabetes-related health disparities. In ongoing NIDDK-supported clinical studies of kidney disease, people with lived experience of the disease serve in important roles on the research teams—as Patient Advisors, for example—to help ensure that the studies meet the needs of the participants (see Personal Perspective in the “Kidney, Urologic, and Hematologic” chapter). In digestive diseases research, NIDDK recently renewed the Inflammatory Bowel Disease (IBD) Genetics Consortium. In its current phase, the Consortium is focusing on higher recruitment of study participants from diverse ancestries currently underrepresented in IBD genomic studies, to provide a clearer picture of how genetic factors influence risk for the disease across all populations (see Feature in “Digestive Diseases and Nutrition” chapter).

These and other research activities reflect NIDDK’s multifaceted efforts toward “pathways to health for all.”

## **NIDDK EFFORTS TO DIVERSIFY THE BIOMEDICAL WORKFORCE**

The scientific challenges and opportunities within NIDDK’s mission require that the broader extramural research community include individuals with different backgrounds and experiences and a range of skills, perspectives, and creative approaches. Yet, the Institute has long recognized that while scientific talent is well represented across all populations, opportunity is not. For these reasons, NIDDK has a long history of investing in programs that nurture talent from communities underrepresented in biomedical research.

For example, NIDDK’s Short-Term Research Experience Program to Unlock Potential (STEP-UP) provides summer research experiences in extramural laboratories for high school and undergraduate students from underrepresented racial or ethnic groups, disadvantaged circumstances, or who have a disability. NIDDK’s Diversity Summer Research Training

Program complements the STEP-UP program by offering undergraduates from diverse backgrounds the opportunity to work in NIDDK intramural laboratories. Other NIDDK support for a diverse research workforce includes partnering with the National Medical Association (NMA), which represents African American physicians and the patients they serve. NIDDK cosponsors the NIDDK/NMA Travel Awards Program for African American residents and fellows to encourage research in disease areas that disproportionately impact the health of underserved and minority communities. NIDDK supports a similar program with the National Hispanic Medical Association, which represents Hispanic physicians and other health care professionals and students.

NIDDK also supports efforts to increase diversity in the scientific workforce through programs in specific research areas. For example, NIDDK’s National NIH Physician Scientist DiabDocs-K12 Program prioritizes the career development of physician scientists underrepresented in type 1 diabetes research. The Institute’s Program to Advance the Career Development of Scientists from Diverse Backgrounds Conducting Nutrition, Obesity, Diabetes, and Related Research led to the establishment of a consortium to support postdoctoral and early faculty talent from underrepresented scientists in these research areas. NIDDK also supports the Aspironaut™ Summer Research Internships in STEM, which are laboratory experiences in kidney biology and disease research for high school and undergraduate students from rural and disadvantaged backgrounds. These are just a few examples of NIDDK’s commitment to supporting talented researchers from all backgrounds.

## **PROVIDING NIDDK STAFF WITH TOOLS TO ADVANCE HEALTH EQUITY**

NIDDK recognizes that its efforts to bolster research on health disparities and health equity are dependent upon an internal workforce that has the necessary expertise and tools and reflects the diversity of the American public. NIDDK is dedicated to fostering respect, inclusivity, and equity in its workforce.

NIDDK’s Inclusion, Diversity, Equity, Accessibility, and Civility (IDEA-C) Program was created to promote meaningful and systemic change at NIDDK in these areas. Led by the NIDDK Deputy Director, Executive Officer, and Senior Advisor for Workforce Diversity and Health Equity, IDEA-C efforts are guided by a novel Institute-wide committee, a series of staff-led working groups, and support from external experts in

organizational change. One key activity of IDEA-C is implementing NIDDK's Racial and Ethnic Equity Plan (REEP). In 2021, NIH launched efforts to identify and address structural racism and to promote equity in its activities and put in place a requirement for each Institute and Center to establish an actionable REEP. The NIDDK REEP is structured around a set of goals to advance equity across the NIDDK workplace, workforce, and research areas. The goals will be monitored for progress and updated as needed to reflect new opportunities. Guiding implementation of the REEP is the application of a "Racial and Ethnic Equity Lens" to NIDDK's workforce, structures, and systems.

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NIDDK is also actively engaged in NIH-wide efforts, including the UNITE initiative, to develop and implement strategies to increase diversity in the biomedical sciences

and break down barriers of structural racism. The NIH-Wide Strategic Plan for Diversity, Equity, Inclusion, and Accessibility articulates NIH's vision for embracing, integrating, and strengthening diversity, equity, inclusion, and accessibility in the NIH workforce, its structure and culture, and the research it supports. Guided by this vision, NIH will enhance its ability to serve an increasingly diverse U.S. population.

## **CONTINUOUS IMPROVEMENT TOWARD TRANSFORMATIVE CHANGE**

These strengthened efforts require the full participation of NIDDK leadership and staff as the Institute grows, adapts, and evolves to reach our goals. They also demand rigorous evaluation and a continuous review and improvement process. NIDDK will assess and monitor these efforts and share findings with our stakeholders through this annual report and other venues. NIDDK is poised to act to eliminate health disparities, advance health equity, enhance diversity in the NIDDK and broader biomedical research workforces, and create transformative change in the lives of all who are affected by diseases and conditions within the NIDDK mission.