

NIDDK's Mission

The **National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)** conducts and supports research on many chronic and costly diseases affecting the public health. Several diseases studied by NIDDK are among the leading causes of disability and death in the Nation; all affect seriously the quality of life of those suffering from them.

Many diseases and disorders that disproportionately affect the health of minority populations in the United States receive high priority in NIDDK research areas, including diabetes, obesity, nutrition-related disorders, hepatitis C, gallbladder disease, *H. Pylori* infection, sickle cell disease, kidney diseases, and complications from infection with HIV. NIDDK gives increased priority to support research and to encourage specific efforts in these areas of health disparity to advance the foundation of knowledge in the biomedical sciences. The strategic vision that guides NIDDK is improved health and quality of life for all Americans through basic, clinical, and behavioral research to address the diseases and disorders within the Institute's statutory research mandate.

A focus on basic research has traditionally guided the Institute's programs. It is grounded in the belief that a fundamental understanding of biological systems will ultimately explain the abnormalities underlying each disease and is therefore imperative for the development of the most effective strategies for prevention and therapy. In addition to basic research, however, the Institute has a strong commitment to apply advances in the understanding of disease processes to appropriate clinical studies and, ultimately, to efforts to transmit knowledge and effective technologies to practicing physicians, patients, and their families.

NIDDK's **Division of Diabetes, Endocrinology, and Metabolic Diseases** is responsible for extramural research and research training related to diabetes mellitus; endocrinology, including osteoporosis; and metabolic diseases, including cystic fibrosis, an area for which the Institute has lead responsibility within the National Institutes of Health (NIH). The **Division of Digestive Diseases and Nutrition** manages research programs related to liver and biliary diseases; pancreatic diseases; gastrointestinal diseases, including neuroendocrinology, motility, immunology, and digestion in the gastrointestinal tract; nutrient metabolism; obesity; eating disorders; and energy regulation. The **Division of Kidney, Urologic, and Hematologic Diseases** supports research on the physiology, pathophysiology, and diseases of the kidney; genitourinary tract; and blood-forming organs to improve or develop preventive, diagnostic, and treatment methods. The **Division of Intramural Research** conducts research and training within the Institute's laboratories and clinical facilities in Bethesda, Maryland, and Phoenix, Arizona.

Shared interests in the biochemical and genetic processes underlying disease provide a linkage mechanism for the NIDDK programs and Divisions and serve to foster integration of fundamental knowledge with clinical research. The same is true for the close communication between NIDDK and the vital areas of investigation of other NIH programs.

INTRODUCTION

and Background

Healthy People 2010 has two major goals: to increase the quality and years of life and to eliminate racial and ethnic disparities in health status based on the premise that “the health of the individual is inseparable from the health of the larger community” (Dr. David Satcher, Surgeon General, Partnerships for Health in the New Millennium conference, January 2000). Although our information on the health status of African-Americans, Hispanic Americans, American Indians, Alaska Natives, Asian-Americans, and Native Hawaiians and other Pacific Islanders is not as complete as the data we have on the white, non-Hispanic population, it is evident that these groups experience much higher risks and poorer health status than the general population. It also appears that the disparities are growing both with regard to premature death and to general well-being and quality of life. The comparisons to the white population presented on the following page provide data on a few of these disparities.

This publication has been revised to show the ongoing activities in the NIDDK Strategic Plan on Minority Health Disparities.

- ◆ Hispanics are **twice** as likely to die from diabetes.
- ◆ American Indians and Alaska Natives have a diabetes rate more than **twice** that of whites.
- ◆ Arizona's Pima Indians have the **highest** rate of diabetes in the world.
- ◆ African-Americans have **four times** the rate of end-stage renal disease.
- ◆ American Indians and Alaska Natives have **2.5 times** the rate of end-stage renal disease.
- ◆ African-Americans are **less likely** than other kidney transplant candidates to be registered on the U.S. Renal Data System, the initial step in receiving a kidney transplant.
- ◆ More than **65 percent** of African-American and Mexican-American women are overweight as defined by a body mass index (BMI) above 25.
- ◆ More than **10 percent** of non-Hispanic black women ages 40 to 60 are severely obese, with BMIs above 40.
- ◆ American Indian children have obesity rates **more than twice** as high as the rest of the population.



- ◆ Hispanic Americans have **higher rates** of obesity and high blood pressure.
- ◆ Asian-Americans and Native Hawaiians and other Pacific Islanders have **higher rates** of hepatitis and tuberculosis.
- ◆ HIV/AIDS death rates for African-Americans are **seven times** higher.

The higher rates of diabetes and obesity mean that these populations also suffer from higher rates of the complications from diabetes and obesity, such as end-stage renal disease; the microvascular complications affecting the eyes, nerves, and kidneys; lower extremity amputations; the development of type 2 diabetes and obesity in the children of diabetic mothers; and hypertension and coronary heart disease.

Because these population groups tend to be the ones with the highest inequalities in income and education, they also tend to have less access to quality health care and to education and information programs to help them manage their diseases and disorders.

To address these issues, the Office of Research on Minority Health (ORMH) initiated the formation of a Trans-National Institutes of Health (NIH) Strategic Plan in April 2000 under the auspices of a Trans-NIH Working Group on Health Disparities. Since then the ORMH has been renamed the National Center for Minority Health and Health Disparities. The goals of the Strategic Plan are to:

- ◆ Reduce or eliminate disparities in health status among racial and ethnic minority groups via appropriate research endeavors
- ◆ Expand research and training opportunities for minority scientists
- ◆ Provide information to these groups about treatment, prevention, and self-management of diseases through national outreach and education campaigns and through neighborhood or community programs

As a part of the Trans-NIH strategic plan, the original document was a working draft of a Health Disparity Strategic Plan developed by the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) for major disease programs within its research mission. The NIDDK Plan was part of the larger NIH-wide planning process under the auspices of the Trans-NIH Working Group on Health Disparities. The NIH-wide Working Group incorporated the NIDDK Plan with those developed by the other NIH Institutes and Centers to formulate the overall “NIH Strategic Plan To Reduce Racial and Ethnic Health Disparities.”

General NIH Guidance and Format for Developing Original Plan

NIDDK developed its original draft Plan in accordance with guidance provided by the Trans-NIH Working Group on Minority Health Disparities in spring 2000.

Scientific Scope

Based on the format provided, NIDDK focused on identifying goals and proposed initiatives in areas of research within its mission. NIDDK shares many of these research focus areas with the other Institutes developing initiatives. Thus, for trans-NIH research areas, such as hepatitis, diabetes, and AIDS, it is important to recognize that the NIDDK Plan will contribute to the NIH-wide Plan, but it is not intended to be a comprehensive, stand-alone document.

Trans-NIH Collaborations

It is expected that initiatives in crosscutting scientific areas will provide opportunities for collaborative efforts involving multiple Institutes. In some cases, NIDDK has referred to ongoing or potential collaborations with other NIH components but only by way of illustrative example, not in an exhaustive manner.

Highlights of Ongoing Programs

In accordance with the guidance, the original draft NIDDK Plan contained only the briefest highlights

of its current efforts with respect to health disparities. These highlights do not fully convey the vigorous, ongoing programs of research on type 2 diabetes, hepatitis C, obesity, end-stage renal disease, and other diseases that place a disproportionately heavy burden on minority groups. All these are high-priority research areas central to NIDDK's mission.

Fiscal Context of Ongoing Programs

Using the general definition of health disparities research provided by the Trans-NIH Working Group, NIDDK expended nearly \$90 million in Fiscal Year (FY) 1999 on programs directly targeted to minority populations. Not included in this funding level is a wide range of clinical research that, although not targeted specifically to minorities, is highly relevant to understanding the underlying aspects of disease processes that affect both minority and non-minority populations, such as insulin resistance in type 2 diabetes. Also excluded from the \$90 million funding level are extensive NIDDK basic research efforts on the genetic, metabolic, and other processes that underlie many of the diseases disproportionately affecting minorities. Although this fundamental research cannot be attributed to any specific disease question, it provides a critical knowledge base upon which future clinical progress will be built. Such basic research is applicable to a wide range of diseases and thus will help pave the way to the development of important new treatment and prevention strategies.

Public Input

Within the timeframe specified by the Trans-NIH Working Group, NIDDK sought public input from the research and lay communities who have particular knowledge of minority health issues.

Organization of the Original NIDDK Strategic Plan

The NIDDK Strategic Plan began with a brief discussion of NIDDK's mission and the research areas within its authority. It was then organized around 10 focus areas for research of significant importance to minority populations, infrastructure and crosscutting issues related to promoting training and research opportunities for minority scientists and the inclusion of minorities in clinical trials, outreach and information programs, and training and career development funding.

The 10 research focus areas were as follows:

1. Diabetes Mellitus, Type 2
2. Obesity
3. End-Stage Renal Disease
4. Sickle Cell Disease
5. Hepatitis C Virus and Liver Disease
6. AIDS
7. Peptic Ulcer Disease and *H. Pylori*
8. Diseases of the Prostate
9. Gallbladder Disease
10. Urinary Tract Disease.

Within each focus area, the Plan presented goals, current activities, and potential new initiatives. Expected outcomes and a plan of action were discussed for the initiatives. Goals and initiatives for public information and outreach programs specific to a focus area were included with the discussion of the focus area.