



## **The National Institutes of Health: Investing in Population Sciences to Improve Health**

### **What is demographic, or population, research?**

Demography is the study of populations and how or why they change. Population scientists, including demographers, sociologists, economists, and statisticians, collect and analyze data on trends in births, deaths, and marriage and divorce; patterns of migration; health and disability; and racial, ethnic, and socioeconomic diversity in populations. Major policy issues researchers from the field focus on include:

#### **» Population Aging**

Understanding the consequences of population aging is essential to monitoring and maintaining the health and productivity of our population.

#### **» Fertility, Marriage, and Children's Health**

Studying fertility and marriage and divorce trends provides key insights into the long-term health and development of children.

#### **» Immigration and Migration**

Examining patterns of immigration and migration reveals changes in the ethnic and cultural diversity of our population and how population movements, and changes in the racial and ethnic composition of the U.S. population, affect the nation's health and environment.

#### **» Population Health**

Understanding how health and disease are distributed among demographic groups and regions of the country and the factors that contribute to health disparities provides critical information for improving health for all citizens.

### **Why does NIH support demographic or population research?**

The NIH mission is to support research that will improve the health of our population.

The health of our population is fundamentally intertwined with the demography of our population. Recognizing the connection between health and demography, the NIH supports population research programs primarily through the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) and the National Institute on Aging (NIA).

Demographic or population research provides the scientific tools for understanding the relationships between "macro" factors, such as family dynamics, population diversity, marriage, community, migration, and economic resources, and the health and well being of people. The methods, experience, and empirical rigor of demographic research are necessary to identify and understand the complex and interdependent causal processes affecting the health status of our population. This basic research mission belongs at the NIH because the NIH is the federal agency with the statutory mission for funding basic health research.

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## Examples of major demographic research advances

- » In 1994, NICHD launched the National Longitudinal Study of Adolescent Health, a survey of over 20,000 young people, which provided the first evidence-based foundation for designing interventions to promote healthy behavior and protect young people from risky behavior, such as drug use and violence. Scientists have used data from the survey to demonstrate the importance of neighborhood parks and recreational facilities for encouraging physical activity and for explaining the dramatic racial differences in HIV prevalence among our nation's young people (Gordon-Larsen et al., 2006; Morris et al., 2009).
- » In 1992, NIA began supporting the Health and Retirement Study (HRS), a longitudinal survey of 27,000 people 50 and older that monitors economic transitions in work, income, and wealth, allowing researchers to investigate how the domains of family, economic resources, and health interact. HRS data have generated numerous health-related advances (*Growing Older in America: The Health and Retirement Study*, 2007). In 2007, researchers found that Americans in their early to mid-50s today report poorer health, more pain and more trouble doing everyday physical tasks than their older peers reported at the same age in years past.
- » The Fragile Families and Child Wellbeing Study, a study following nearly 5,000 children born to, mostly, unmarried parents in large U.S. cities between 1998 and 2000, has demonstrated the role that family stability and parental involvement play in the long-term health and development of children. For example, data from the study documented that children born to two married, biological parents are less likely to be diagnosed with asthma and less likely to experience an asthma-related emergency than children born into other family configurations. (Harknett, 2009)
- » Using the National Long Term Care Survey, researchers found that disability had declined 25% between 1982 and 2001 (Manton et al., PNAS, 2006). The National Health and Aging Trends Study will further investigate the trend and the growing concern that this positive trend might have been reversed.

## Future research

Population sciences are poised uniquely to research the underlying causes and consequences of disease and disability. Some of the unanswered research questions population scientists are pursuing include:

- » What caused the declines in disability over the past 25 years and what can be done to continue these improvements?
- » What are the effects of social and economic policy on population health?
- » What accounts for the strong connection between education, income, and health?
- » Why are racial and ethnic disparities in health large and persistent?
- » How will population aging and health changes influence health care and government support systems as the baby boomers begin to retire?
- » How will programmatic changes in the U.S. health care system affect population health and health disparities?

Continued NIH investment in demographic and population research ensures these important health-related issues will be addressed, employing the highest standards of peer-reviewed scientific research.

