

**NATIONAL INSTITUTE ON AGING
NIH STRATEGIC PLAN
TO REDUCE AND ULTIMATELY ELIMINATE HEALTH DISPARITIES**

2002-2006

NATIONAL INSTITUTE ON AGING MISSION STATEMENT

The National Institute on Aging (NIA), one of the 27 institutes and centers of the National Institutes of Health, leads a broad scientific effort to understand the nature of aging and to extend the healthy, active years of life for all citizens. Millions of Americans are leading healthier lives based, in part, on discoveries from aging research. But more must be done to redress disparities in health among U.S. minority groups. Since the beginning of the 20th century, life expectancy at birth in the U.S. has increased from less than 50 years to more than 76 years. Life expectancy at birth has more than doubled for African Americans (and “other races” combined) since 1900, from 33 years to 69 years in 1991. For Caucasians, the increase was from 48 years to 76 years. The challenge for the 21st century will be to make these added years as healthy and productive as possible and to maintain the current trend of decline in disability across all segments of the population, with particular attention to racial and ethnic minorities and the medically underserved.

In 1974, Congress granted authority to form the National Institute on Aging to provide leadership in aging research, training, health information dissemination, and other programs relevant to aging and older people. Subsequent amendments to this legislation designated the NIA as the primary federal agency on Alzheimer’s disease (AD) research. The mission of the NIA is to improve the health of older Americans by supporting and conducting research on the processes of aging, on age-related diseases and on the special health problems and needs of the aged. The NIA also trains and develops research scientists, provides research resources and disseminates information on health and research advances relevant to aging, aging populations and older persons.

**OVERVIEW OF THE NIA STRATEGY FOR ADDRESSING HEALTH
DISPARITIES**

The NIA maintains a year-round scientific planning process that draws upon interactions with scientists throughout the world, members of Congress, the Institute's National Advisory Council on Aging (NACA) and other advisory committees, constituency groups, and the public. These interactions stimulate internal consideration of potential new research strategies and provide a broad perspective for refining plans. Emphasis is given to novel proposals and collaborative projects that promise to stimulate activities with other research organizations.

The NIA Strategic Plan to Address Health Disparities is the product of collaboration, review, and comment by members of the ad hoc Minority Aging Research Review Committee, the NACA, the scientific community in aging, the general public and staff of the NIA. Regular management and oversight of the plan is the responsibility of the

Assistant to the Director for Special Populations and the Minority Aging Work Group. The Work Group is comprised of senior level scientists and staff representing the major programs and organizations of the NIA. The group meets monthly and presents progress, at least annually, to the NACA.

The NIA uses a deliberative process for coding research projects as minority health and health disparity research. The process for coding projects is based on the proportion of objectives/aims/hypotheses focused on minority populations and health disparities. To be coded as minority health and health disparities research, it is not sufficient to simply include minorities in the research; rather the research must address specific objectives, aims or hypotheses related to disparities between or among ethnic or racial groups. If a minority or ethnic group has a higher or lower incidence of a disease/disorder than other populations, has generally increased mortality relative to other populations, or has poorer socioeconomic status relative to others then research on this group is appropriately coded as minority health/health disparity related.

The NIA's health disparities strategic planning effort addresses goals for research, research training and capacity building including research resources, and community outreach with dissemination of health information that will ultimately reduce or eliminate domestic health disparities. As a part of the NIA's continuing effort to improve the health of minority groups as well as to encourage research careers for underrepresented population groups, the National Advisory Council on Aging was asked, in September 1998, to form a special committee to conduct a year long review of the NIA minority research and training efforts. The committee, comprised of selected members of Council, extramural researchers and ad hoc federal representatives, held several meetings, reviewed several hundred pages of material, and heard presentations by program staff and NIA leadership. The committee's eight (8) primary recommendations are summarized below and have been considered in the development of this strategic plan. The final report of the NACA Minority Aging Review Committee is published and the detailed recommendations are part of the ongoing NIA scientific planning process. Briefly, their recommendations are to:

1. Eliminate health disparities among ethnic and racial populations
2. Improve definitions of race, culture, ethnicity and socioeconomic status
3. Implement longitudinal and life course studies
4. Integrate biology, genomics and genetics of aging with studies in special populations
5. Refine methods and strategies for minority aging research
6. Improve recruitment and retention of minority subjects in research
7. Strengthen and clarify the policy on inclusion of minorities in clinical research
8. Build capacity and enhance training and information dissemination for minority populations

The NIA Strategic Plan to Address Health Disparities, like other Strategic Plans of the Institute, reflects both institute-initiated research efforts, that is research and other

activities initiated or solicited by the NIA and the larger, flexible and often, unanticipated investigator-initiated, merit-reviewed, competitively selected research efforts (i.e., research projects proposed by investigators to address topics consistent with the Institute's mission and not requiring or in response to a special initiative). There exists a dynamic and complimentary exchange of scientific thought between initiatives initiated by the Institute and those initiated by investigators. Most of the NIA budget is allocated to investigator initiated research.

The goals of this plan appropriately highlight the critical importance of reducing and ultimately eliminating health disparities, however, it is not clear to what extent its objectives can be achieved over the next decade, even with the most optimistic assumptions for improving health among minorities. What science will be able to do in the next decade is to address and answer questions about causes of health disparities among older adults. The immediate goal will be to identify research needs, such as the need to understand the racial gap in life expectancy, and promote appropriate research and training activities in response to these needs. A longer-term goal will be to apply the outcomes of research to measures that will reduce and ultimately eliminate racial disparities in health.

The goal of eliminating the racial gap in life expectancy is a major national priority. The time it will take to reduce the overall gap will depend on the speed of reduction of the leading cause-specific mortality differences, which will require intensified efforts in both prevention and treatment (Wang, Remington and Kindig, 1999). The NIA in collaboration with its consultants and public comment has identified nineteen (19) priority initiatives consistent with the NIA mission and reflective of the more comprehensive NIA Strategic Plan to Address Health Disparities. Each priority is associated with a major focus/goal, objective, plan of action and outcome.

The NIA is working with other NIH Institutes and Centers to develop an overall strategy that in total will address the diseases and conditions that challenge older men and women. The NIA plan is not meant to address all health disparities but rather a plan to address health disparities within the context of the congressionally mandated mission of the NIA.

The entire Strategic Plan to Address Health Disparities is hosted on the NIA web site and addresses three major areas of focus (goals) that comprise priorities for the NIA:

- ❖ Area of Focus #1 Research to advance understanding of the development and progression of disease and disability that contribute to health disparities in older persons and populations as well as research to develop new or improved approaches for disease and disability detection, diagnosis, prevention, delay and treatment.
- ❖ Area of Focus #2 Research Training and Capacity-Building to train a skilled and diverse research workforce and provide support for institutional resources that facilitates health disparities research.

- ❖ Area of Focus #3 Community Outreach, Public Information, and Public Health Education to sustain a diverse workforce and a professional environment that supports and encourages excellence in aging research by developing research-based information resources, communicating information to increase public awareness, and transferring knowledge to health professionals.

Areas of Focus 1, 2, and 3 represent broad areas of research, training, public information, outreach and education that NIA will pursue in the years to come and that will help ensure that aging, as well as health disparities research, benefit from a strong infrastructure to support future research, program management, and information dissemination. The areas are not meant to be mutually exclusive, and there are many areas of overlap and interdependence among the NIA initiatives. For example, knowledge gained from basic research can lead to clinical interventions that improve health and quality of life and in turn reduce health disparities among population groups.

NIA AREAS OF EMPHASIS

NIA RESEARCH GOALS TO REDUCE AND ELIMINATE HEALTH DISPARITIES FOR OLDER ADULTS

Rationale and Priority

Health disparities are associated with a broad, complex, and interrelated array of factors. Risk factors, diagnosis, progression, response to treatment, caregiving, and overall quality of life may each be affected by aspects such as race, ethnicity, gender, socioeconomic status, age, education, occupation, and as yet unknown lifetime and lifestyle differences. The underlying causes of such relationships require in-depth research. Understanding differences and interactions is critical for developing behavioral and public health interventions to reduce burdens of illness and increase quality of life for older persons and older populations.

Aging research supported by the NIA targets diseases and conditions that contribute significantly to mortality or disability in old age. A major focus of NIA research is Alzheimer's disease, a devastating neurodegenerative disease that robs people of memory and other intellectual abilities, leading to loss of social and occupational function and ultimately to complete dependence on others. A number of research groups have examined differences in AD prevalence among racial and ethnic groups, and it appears from some studies that the risk is higher for African Americans and Hispanic Americans than it is for Caucasians, though not all studies provide similar results. Other important causes of disease and disability among racial and ethnic minorities may include cardiovascular disease and cancer, the two leading causes of death in older people; bone, muscle, and joint disorders such as osteoporosis and osteoarthritis that contribute to pain and loss of mobility; vision, hearing, and other sensory disorders that can isolate older people; and numerous other age-related conditions that deprive individuals of their independence. This section of the plan includes eight priority initiatives.

A1. Advance understanding of the development and progression of diseases and disability that contribute to health disparities in older racial and ethnic minority groups.

- **Epidemiology of Alzheimer's disease and normal cognitive aging.**

Objective(s):

Accelerate discovery of causes and risk factors and improve early detection and diagnosis of mild cognitive impairment and AD in older minority and ethnic population groups (2002-2006).

Establish prevalence and incidence rates for AD in older minority and ethnic population groups (2002-2006).

Action Plan

: Minority research in the epidemiology of age-related dementia, including Alzheimer's disease, is focused on whether there is a different risk for dementia and AD in particular ethnic groups and whether the course of disease is different in different groups. From the public health perspective, these questions assume great importance as the demographics of the U.S. population change. Not only will there be over four-fold more persons over the age of 85 in the year 2050 but the percentage of the population over the age of 65 that is non-Caucasian will increase from 16% to 34%. Methodological effects on assessment of cognition in aging and dementia prevalence such as cultural and educational bias in assessment are being addressed. NIA-investigators continue to share approaches and advance understanding related to the internal diversity of groups self-identified as African American, Asian, American Indian, Hispanic, Pacific Islander, and/or Native Hawaiian. NIA-investigators are promulgating the need for within group analyses well as cross-group comparisons.

Currently, a number of NIA-supported grants are directed toward comparing the prevalence and incidence of AD in African-American, Hispanic, Japanese-American and Caucasian population groups, including genetic epidemiology studies to assess the importance of different genetic risk factors such as APOE4 in these population groups. Non-genetic risk and preventative factors such as

Further, in order to understand the course of normal aging among racial and ethnic segments of the population, it is necessary to develop neuropsychological performance norms for different groups and factors affecting these norms. Current and future initiatives should help establish age- and culture-appropriate test norms for neuropsychological assessment of African-American elders. Research will investigate the potential influence of several factors on the variance in performance including: age; gender; years of education; educational experience; quality of education; degree of literacy; and degree of acculturation. In other research, in addition to the primary goal of developing norms for diverse neurocognitive abilities, investigators will examine the relationship between performance and illness in a senior African American cohort. Additionally, as research on AD focuses on mild cognitive impairment and earlier stages of the disease process, the distinction between AD-related research and that on normal aging is becoming more and more blurred. New and refined instruments will help assess normal cognitive aging as well as development of mild cognitive impairment and AD in minority populations.

The NIA will continue its support of research on incidence rate differences for dementia and AD in studies of populations from non-industrialized and industrialized countries using identical methods of evaluation and the same group of investigators. Future studies will focus on identifying genetic or potentially modifiable non-genetic factors such as heart disease, diabetes, high cholesterol, and lifestyle and environmental factors. For example, there is a much lower prevalence of factors associated with vascular disease in Yoruba citizens in Ibaden as compared with African Americans, such as high cholesterol levels, high body mass index, hypertension, and diabetes. These lower rates of risk factors vascular disease, in addition to or in combination with the lower strength of association of the APOE ϵ 4 genetic risk factor for AD in Yoruba, may account for for reported differences in AD.

Performance Measures:

- o Identification of genetic and non-genetic risk factors for AD in two populations that have significantly lower or higher incidence of AD.
- o Hold two or more workshops that will lead to age-and culture-appropriate neuropsychological test batteries for four different subgroups of the population, e.g., self-identified Africans, African-Americans, Hispanics, Japanese-Americans, etc.
- o Recruit additional minority investigators into AD research.
- o Recruit elderly minority and ethnic groups into AD research protocols and intervention trials in proportion to their population frequencies.

Outcome Measures:

- o Number of grants funded that result in knowledge enabling scientists to better understand and address causes of health disparities among older adults.
- o Consensus on prevalence and incidence of AD and cognitive impairment in Africans, African-American, Hispanic, Japanese-American and Caucasian populations.
- o At least one new and refined instrument to assess normal cognitive aging, mild cognitive impairment, and AD in minority populations.
- o Number of new and continuing grants focused on discovery of causes risk factors associated with the diagnosis of mild cognitive impairment and AD in older minority and ethnic population groups.
- o Double numbers of minority investigators in AD Research by 2006.
- o Increase by 30% the recruitment of minority and ethnic populations into clinical trials of possible risk and preventive factors for AD and cognitive impairment.

• **Alzheimer's disease and caregiving.**

Objective(s):

Expand the number of grants examining strategies for improving patient care within and across population groups and alleviating caregiver burden for minority, ethnic and underserved providers. **(2002-2004)**

Action Plan: Family caregivers of persons with Alzheimer's disease are at risk for negative psychosocial and health consequences of chronic stress. The extent of this risk will vary from one individual to another and also may vary from one group to another, depending on the special strengths and problems experienced by members of a particular group. The long-term effects of caregiving, nursing home placement and patient death are being compared in white caregivers and in African American caregivers, each compared to appropriate non-caregiving controls. The results of this research will show the longitudinal effects of the stress of continued caregiving, the long-term effects of caregiver adjustment to nursing home placement or death of the patient, and will identify variables that predict individual differences in caregiver adjustment, with special emphasis on strengths and problems of African American families and the long-term course of caregiving stress that they experience.

Performance Measures:

- o Identification of variables that predict individual differences in caregiver adjustment, with special emphasis on strengths and problems of African American and Hispanic families and the long-term course of caregiving stress that they experience.

Outcome Measures:

- o Number of grants funded that result in knowledge enabling scientists to better understand and address causes of health disparities among older adults.
- o Knowledge of the longitudinal effects of the stress of continued caregiving
- o Test two (2) strategies with intervention research for alleviating the stress of continued caregiving.
- o Number of documented strategies in peer-reviewed literature from NIA-supported studies for alleviating distress in some cases of caregiver burden across diverse groups and conditions of health disparity.
- o Create a catalogue of risk factors associated with caregiver stress for Alzheimer's disease and recommend interventions to reduce stressors.

• **Menopause.**

Objective (s): In five different ethnic groups of women,

- o Collect and analyze data on demographics, health and social characteristics, race/ethnicity, reproductive history, pre-existing illness, physical activity, health practices as potential predictor variables.
- o Elucidate factors that differentiate symptomatic from asymptomatic women during the menopausal transition.
- o Identify and utilize appropriate markers of the ovarian-hypothalamus-pituitary axis and relate these markers to menopause-related changes.
- o Elucidate factors that differentiate women most susceptible to long-term pathophysiological consequences of ovarian hormone deficiency from those who are protected. **(2002-2004)**

Action Plan: Most studies of menopause are limited in generalizability, for they are based on clinic-derived samples or restricted to Caucasian (non-Hispanic) populations. Funded initially in 1994 by the National Institute on Aging, National Institute of Nursing Research and the Office of Research on Women's Health, the *Study of Women's Health Across the Nation* (SWAN) is a ten-year, multiethnic, multi-site, community-based study of the natural history of menopause and the change in ovarian function. SWAN is collecting longitudinal biological, psychological, cultural and lifestyle data on 3,150 women of five ethnic/racial groups, initially aged 42-52 years of age and premenopausal at baseline. SWAN is comprised of seven clinical field sites, a central reproductive hormone laboratory, a coordinating center and a repository of biological specimens for use by SWAN and the extramural community.

SWAN will contribute substantive new knowledge on the menopause transition through its prospective design, multi-ethnic/racial composition,

representativeness of defined populations, and comprehensive measurement and power. No other recent or ongoing study is in a position to respond to the breadth of identified gaps in scientific knowledge on the menopause transition, either because sample sizes or follow-up data are insufficient, the multidisciplinary data are lacking or are restrictive, or because the sample populations are homogeneous. The SWAN study will determine age of menopause in five ethnic groups: Hispanic, Chinese, Japanese, African Americans and Caucasians. An essential feature of SWAN is inclusion of sufficient numbers of ethnic group members to provide comparative risk/association estimates with those in Caucasian groups.

Performance Measures:

- o 202,985 households or telephone numbers were screened for women eligible to participate in the SWAN Cross-Sectional Study and 16,065 women were eligible and completed the interview. Of these, 6,521 women were cohort-eligible and requested participation in the SWAN longitudinal study. A total of 3,306 women have entered the longitudinal study.

Outcome Measures:

- o Number of grants funded that result in knowledge enabling scientists to better understand and address causes of health disparities among older adults.
 - o Diagnostic tools to differentiate women most susceptible to pathophysiological consequences (symptomatic vs. non-symptomatic) of ovarian hormone failure from those who are protected.
 - o Determination of the age of menopause in five ethnic groups: Hispanic, Chinese, Japanese, African Americans and Caucasians.
 - o Determination of the effects of menopause and reduced reproductive hormone levels on risk factors for cardiovascular disease, osteoporosis and other chronic diseases of aging.
 - o Establishment of one comprehensive SWAN specimen repository to facilitate future research on a variety of transitional life events.
- **Physical function, disability, and disability decline among racial and ethnic minority populations.**

Objective(s):

Identify potential ethnic differences in the underlying factors leading to impairments, functional limitations and disability in older minority and underserved population groups. (2002-2006)

Action Plan: The NIA supports epidemiological research on the onset and progression of physical disabilities in older minority populations. At the present time there are limited data on the underlying factors leading to impairments, functional limitations and disability in different minorities. For instance, Mexican Americans represent the most rapidly growing segment of the US elderly population and strategies for prolonging active life expectancy of Mexican Americans have not been fully explored. NIA is supporting epidemiological research of community-dwelling elderly Mexican Americans and European Americans of low, middle and high socioeconomic status (SES) from the San Antonio Longitudinal Study of Aging (SALSA). Objectives of the study are to identify potential ethnic differences in the underlying factors leading to impairments, functional limitations and disability due to diabetes and osteoarthritis. Results of this investment will provide important information on the optimal timing of interventions to effectively alter the course of disability due to diabetes and osteoarthritis. An associated project is examining prevalence rates and incidence rates of physical disability in urban African Americans and its etiological factors, including the influence of SES. It is anticipated that results from these studies will lead to novel strategies for improving the active life expectancy of older minority individuals and assist in understanding ways to maintain and accelerate declining disability.

Additionally, the NIA is supporting research using NIA supported longitudinal studies, such as the National Long-Term Care Survey (NLTC), Longitudinal Study of Aging, and the Health and Retirement Study, to track changing disability rates by race and ethnicity and to better understand ways to maintain and accelerate declining disability.

The 1999 NLTC continues to document a dramatic decline in the overall prevalence of disability among older Americans over the past two decades. The number of chronically disabled persons in 1999 was 7.0 million B 2.3 million fewer than would have been disabled if rates had not changed between 1982 and 1999. The improvements in recent years are also noteworthy for a newly observed decrease of at least 200,000 in the number of people estimated to live in nursing homes. An important aspect of the chronic disability patterns is the sharp reduction in disability rates among black Americans during the 1990s. From 1994 to 1999 the estimated decline (5.9%) in disability prevalence was even larger for black Americans than for 1989 to 1994.

Performance Measures:

- o Track on a regular basis changing disability rates by race and ethnicity using two NIA supported longitudinal studies (NLTC and HRS).
- o Hold a "Disability Workshop" for a collaborative exploratory discussion of the characteristics, causes and consequences of disability decline in the United States.

- o Host meeting at the Federal Interagency Forum on Aging-Related Statistics to discuss data needs and anticipate future discussion and collaboration with other members of the Forum.

Outcome Measures:

- o Number of grants funded that result in knowledge enabling scientists to better understand and address causes of health disparities among older adults.
 - o Strategies for improving the active life expectancy of older minority individuals and assist in understanding ways to maintain and accelerate declining disability.
 - o Data relevant for policy planning for health care utilization, Medicare, Social Security, and long-term care.
 - o Number of grants to identify potential ethnic differences in the underlying factors leading to impairments, functional limitations and disability across minority population groups.
- **Cancer, aging, race and ethnicity.**

Objective(s):

To stimulate research that applies scientific knowledge on prostate cancer to older men and to extend the knowledge base on age-related aspects of the etiology of prostate cancer. **(2002-2006)**

Action Plan: The NIA has strongly emphasized attention to minority-related issues in Program Announcements (PAs) on cancer and aging, especially in two PAs: Aging, Race, and Ethnicity in Prostate Cancer and Aging Women and Breast Cancer. An RFA, Aging, Race, and Ethnicity in Prostate Cancer with a set-aside will be issued (August 2001) that invites research applications on aging- and age-related aspects of prostate cancer in older men according to race and ethnicity.

The purpose of the RFA is to support research that leads to better prevention, diagnosis, prognosis, and treatment of prostate cancer in the age range in which prostate cancer primarily occurs. Biological and clinical research foci are emphasized in the prostate cancer initiative: (1) clinical determinants of age- and ethnicity-associated differences in prostate cancer treatment efficacy and effectiveness for such outcomes as survival, treatment complications, side effects of treatment, and functional status; (2) epidemiologic studies of age-related familial, genetic, and environmental factors that may affect the age of onset, rate of progression, and duration of survival for prostate cancer; and (3) testing of improved methods to identify high risk older white and black men and low risk men of different race and ethnic origins through development of new techniques

to distinguish premalignant changes from nonmalignant age-associated changes in prostate tissue.

The NIA has had an active cancer research focus on minorities and prostate cancer. Researchers are examining quality of life among prostate cancer survivors and their partners. The cancer survivors were selected from men in the ethnically diverse Hawaii Tumor Registry who had a diagnosis of localized prostate cancer during 1987-1994. The research is providing some of the first findings on long-term impact of prostate cancer diagnosis and treatment on quality of life, depression, and satisfaction with treatment. It will explore possible differences associated with ethnicity (Chinese, Filipino, Hawaiian, Japanese, and white) and type of cancer therapy. It will provide data about Asian and Pacific Islander populations for whom no information is currently available. Other research is exploring how prostate cancer risk is affected by genetic factors affecting levels and metabolism of sex hormones in African American men, who are at elevated risk for prostate cancer compared to whites.

Performance Measures:

- o Re-issue PA as an RFA in 2001, for review in early 2002, RFA AG 02-003: Aging, Race, and Ethnicity in Prostate Cancer.
- o Implement selected recommendations from the NIA/NCI Cancer Centers Workshop. This workshop, “Exploring the Role of NCI Cancer Comprehensive and Clinical Centers for Integrating Aging and Cancer Research” was held June 13-15, 2001, Lister Hill Auditorium and Natcher Conference Center. Staff are currently developing the reports from seven working groups that addressed: (1) Patterns of Care, (2) Treatment Efficacy and Tolerance in Older Persons, (3) Effects of Comorbidity on Cancer, (4) Prevention, Risk Assessment, and Screening, (5) Psychological, Social and Medical Issues, (6) Palliative Care, End of Life Care, and Pain Relief, and (7) Biology of Aging and Cancer.

Outcome Measures:

- o Number of grants funded that result in knowledge enabling scientists to better understand and address causes of health disparities among older adults.
- o Fund 5-7 research grants solicited by the RFA AG 02-003 (August 29, 2001).
- o Promote research initiatives suggested in the NIA/NCI Cancer Centers Workshop that focus on health disparity in older persons diagnosed with cancer.
- o Analyses of existing databases applicable and relevant to addressing treatment of older prostate cancer patients with emphasis on older ethnic populations.

- o Clinical determinants of age- and ethnicity-associated differences in prostate cancer treatment efficacy and effectiveness for such outcomes as survival, treatment complications, side effects of treatment, and functional status.

• **Racial differences in the vascular biology of hypertension and evolution of cardiovascular risk with normal aging.**

Objective(s):

- o Compare the prevalence of unrecognized, untreated and undertreated hypertension in African Americans versus Caucasians and identify demographic and lifestyle factors predictive of racial differences. **(2002-2006)**
- o Compare carotid artery intimal medial wall thickness (IMT) and stiffness, using ultrasonography and applanation tonometry, in African American versus Caucasian hypertensives. **(2002-2006)**
- o Use the NIA Medical Research Vehicle as a research platform and complete medical histories and physical examinations on 2,500 African Americans community-dwelling volunteers (500/yr). **(2002-2006)**

Action Plan: This initiative will characterize traits (intrinsic aging changes versus cardiovascular disease risk factor burden) in a biracial (black-white) population that may influence progression of sub-clinical cardiovascular disease in an aging population. It will expand support of a well-characterized biracial (black-white) population that has been followed for cardiovascular disease risk factors and lifestyles in the Bogalusa Heart Study over the past 25 years into middle age and beyond. New research will provide insight into the interaction between normal aging, including the growth and maturation process in childhood, and predisposing risk factors that may influence development of sub-clinical cardiovascular disease in a black-white population reaching middle age. This initiative will provide a greater understanding of the evolution of cardiovascular disease risk in normal aging and may also lead to improved lifestyle programs for successful aging and longevity, including cardiovascular disease prevention.

Recent studies have shown that the carotid artery intimal medial wall thickness and stiffness are increased in hypertensive individuals and are associated with increased rates of future cardiovascular events. Whether racial differences in carotid artery IMT and stiffness exist and potentially contribute to the higher rates of hypertensive complications in African Americans than Whites is unknown.

The purposes of this initiative will be to: 1) compare the prevalence of unrecognized, untreated and undertreated hypertension in African Americans versus Caucasians and identify demographic and lifestyle factors predictive of these racial differences, 2) compare carotid artery IMT and stiffness, using ultrasonography and applanation tonometry, in African American versus

Caucasian hypertensives, 3) use the NIA Medical Research Vehicle as a research platform, and complete medical histories and physical examinations on 2,500 African Americans community-dwelling volunteers (500/yr). From these examinations, the prevalence of hypertension (BP equal to or greater than 140/90 mmHg), and of its recognition and treatment with drugs or lifestyle measures will be determined. These data will be compared with those of the Caucasian and socioeconomically advantaged African American volunteers in the Baltimore Longitudinal Study of Aging. Carotid artery B-mode ultrasonography and applanation tonometry will be performed in hypertensive African American subjects identified. These data will be compared with those of similarly aged volunteers from the Baltimore Longitudinal Study of Aging. Comparison of carotid artery IMT, stiffness moduli, augmentation index and carotid-femoral pulse wave velocity will be compared between African American and Caucasian subjects, and 4) determine the predictive power of these measurements for future cardiovascular events.

Performance Measures:

- o Funded extension and expansion of the 25-year Bogalusa Heart Study to examine relationships of genetic factors, ethnicity, and changes in risk factors in early life in cardiovascular disease and other outcomes.
- o Use of the Medical Research Vehicle to reach underserved and minority population groups in Baltimore, Maryland.

Outcome Measures:

- o Number of grants funded that result in knowledge enabling scientists to better understand and address causes of health disparities among older adults.
- o Lifestyle programs for successful aging and longevity, including cardiovascular disease prevention.
- o Development of preventive strategies (e.g., modification of risk factors through exercise and/or dietary interventions) or new therapeutic strategies (e.g., novel drug development).
- o Number of minority subjects enrolled in IRP/MRV studies to address health disparities in cardiovascular/hypertensive disease.

• Paradox of Hispanic Health.

Objective(s):

To increase understanding of why foreign-born Hispanics are seemingly healthier and experience lower mortality risks than US-born Hispanics or non-Hispanic whites. (2002-2006)

Action Plan: The NIA is studying immigration and health disparities of racial/ethnic minorities in the US with the aim to understand why foreign-born Hispanics are seemingly healthier and experience lower mortality risks than US-born Hispanics or non-Hispanic whites (termed the "Paradox Of Hispanic Health"). This research will enhance ongoing collaboration with the National Institute of Child Health and Human Development on the New Immigrant Survey that will provide important longitudinal data on the health of ethnic and racial minorities who are immigrants to the US, and their children. Additionally, the NIA will enhance ongoing studies in Mexico and Puerto Rico to understand the origins of health disparities in US Hispanic populations.

Performance Measures:

- o Longitudinal data on the health of ethnic and racial minorities who are immigrants to the US, and their children.
- o Distribution of 500 copies of the CD-ROM on Minority Aging Research Datasets from the national Archive on Computerized Data on Aging.

Outcome Measures:

- o Number of grants funded that result in knowledge enabling scientists to better understand and address causes of health disparities among older adults.
- o Life course and cross-national comparative studies.
- o Nationally representative data sets for aging research on minority groups.
- o Number of minority and health disparities studies coded and numbers of minority subjects participating in clinical longitudinal studies.

A2. Develop new or improved approaches for preventing or delaying the onset or progression of disease and disability among older racial and ethnic minorities.

• **The role of education in health status.**

Objective(s):

Facilitate understanding of education as an explanatory variable in both economic and sociological-based models of the socioeconomic status-health relationship.
(2002-2006)

Action Plan: Understanding the role of education in health status and its association to other socio-cultural and economic variables is necessary to understand and improve approaches for preventing or delaying the onset or progression of disease and disability. The NIA encourages the analysis of NIA supported longitudinal surveys, such as the Health and Retirement Study, National

Long Term Care Survey, and Panel Study of Income Dynamics, to study how education affects health and cognitive functioning. Researchers are using the minority over-samples of these surveys to study health disparities, including the application of analytic results to older adults with varying educational levels.

Performance Measures:

- o Fund secondary analyses of data collected in NIA supported longitudinal studies to determine how education affects health and cognitive functioning in minority and non-minority groups.
- o Improve and develop alternative measures of education aside from number of years of schooling and accounting for quality of education and credentialing.

Outcome Measures:

- o Articles on the role of education (quality and quantity) affecting health through a number of channels.
- o Number and diversity of minority over-samples included in NIA supported secondary analyses of longitudinal studies.

NIA RESEARCH CAPACITY AND INFRASTRUCTURE GOALS

Rationale and Priority

Reducing health disparities will require multiple fresh approaches including (1) increased local, regional, and national literacy in science and health, and (2) increased inclusion of minorities in the health and medical research professions. While it is clear that a researcher need not come from a minority or a disadvantaged background to contribute to the understanding and remediation of health disparities, it is reasonable to expect that such individuals as a group would possess particular motivation and persistence, as well as familiarity and insight into these problems. Therefore, effective recruiting efforts should tap into this talent pool and focus on bringing underrepresented groups into biomedical research (Slavkin, et al. 1999). In 1997, a NACA Training Task Force strongly urged that NIA give training a high priority reflecting the belief that progress in research on aging, in general, and minority aging, in particular, is intimately tied to the success of training, capacity-building and infrastructure development. This section includes three significant priority initiatives for the NIA. A full description of all NIA initiatives may be found in the comprehensive NIA Strategic Plan to Address Health Disparities at www.nia.nih.gov/strat-planhd/2000-2005.

B. Support research training and career development.

In addition to pursuing specific research opportunities, the NIA is developing the infrastructure to support future research, program management, and information dissemination to racial and ethnic minority groups. These include resources to train a skilled and diverse research workforce, providing necessary equipment and resources, and disseminating information to scientists and the public.

- **Alzheimer's Disease Research Centers (ADRC) Satellite Diagnosis and Treatment Clinics.**

Objective(s):

Present opportunities for patient and family volunteers from diverse populations to participate in clinical research projects, clinical trials, support groups, and other special programs. **(2002-2006)**

Action Plan: The NIA will continue its funding of 29 Alzheimer's Disease Centers (ADCs), in association with which there are 26 Satellite Diagnosis and Treatment Clinics (SDTC), designed to increase the diversity of the research patient pool and enhance the research capabilities of the Alzheimer's Disease Centers. The satellite clinics extend the diagnostic and management services as well as educational activities offered by the Alzheimer's Disease Centers to underserved areas. The satellite clinics also enhance the clinical research capabilities of the Alzheimer's Disease Centers through the diversification of the research patient pool by offering the opportunity to special population groups to enter clinical drug trials and to participate in other clinical research efforts. Many SDTCs have hired minority staff to be the liaison with the communities. Most of the satellites focus on outreach, recruitment and retention of specific minority populations, often working closely with local and state agencies, health care organizations, churches, community clinics and housing projects. Many are developing culturally and language sensitive cognitive and dementia screening instruments, as well as neuropsychological and neurological examinations. Along with the parent ADCs, several are conducting studies on the onset and course of AD in specific minority populations. All ADCs have an Education and Information Transfer Core. This core supports both the development of professional staff to improve clinical and research skills related to Alzheimer's disease and outreach programs for the lay public that will publicize the ADRC and educate families and other caregivers about the disease. Cultural sensitivity is emphasized and, where appropriate, they outreach programs to minority groups and provide information structured so that it can effectively reach minority populations, including non-English-speaking people.

Two of the Centers have special relationships with African American Medical Schools, the University of Kentucky with Meharry Medical School in Nashville, TN and University of California at Los Angeles with the Martin Luther

King/Charles Drew Medical Center in South Central Los Angeles. These relationships afford opportunities for minority patients and families to participate in clinical studies. Another NIA-sponsored program, the Research Centers for Minority Aging Research (RCMARs), has two centers that coexist and interact with ADCs at Columbia University and the University of Michigan. This proximity includes opportunities for joint staffing and sharing of some programmatic initiatives such as recruitment and education of minority subjects and families.

With the establishment of the National Alzheimer's Coordinating Center (NACC), data about enrollments in all of the ADCs are collected in a central database. The NACC is also set up to fund cooperative studies involving a number of Centers, including studies involving minority issues. Examples of funded activities are disease progression in minority cohorts. Another is autopsy enrollment that provides the opportunity to do clinico-pathological correlations, an important tool in understanding differences between normal aging and disease pathologies. This is especially important in minority communities where a constellation of different diseases may together affect cognitive status.

Performance Measures:

- o Development and expansion of culturally and language sensitive cognitive and dementia screening instruments, as well as neuropsychological and neurological examinations.
- o Track number and type of outreach programs for the lay public designed to educate families and other caregivers about the disease.
- o Data about enrollments in all of the ADCs are collected in a central database and reported annually.

Outcome Measures:

- o Maintain minority participation in longitudinal research studies in proportion to age-specific population frequencies.
- o Increase by 10% the minority patient population pool recruited at ADCs by 2006.
- o Number of minority-focused protocols or sub-studies per site.
- o Double the number of lay public contacted by ADC outreach programs directed toward ethnic and racial minority groups.

• **Resource Centers for Minority Aging Research.**

Objective(s):

- o Establish a mechanism for mentoring researchers for careers in research and aging focused on the health of minority elders.

- o Develop and deploy strategies for recruiting and retaining minority group members in epidemiological, psychosocial and/or biomedical research dealing with the health of the elderly. (2002-2007)

Action Plan: Building upon the successes of the existing RCMARs, the NIA is creating scientific infrastructure for conducting research on disparities between and within various race/ethnic groups of minority and non-minority elders. Note: Because of the breadth of this initiative, RCMAR's goals crosscut several of the Strategic Plan's subgoals. Across sites, approximately 20% of the Centers's efforts are devoted to support for institutional resources including the management and administrative infrastructure of the Center, fixed equipment and facilities.

The NIA will revise and reissue the Request For Applications leading to the creation of the initial five RCMARs for the second iteration of this Center concept. The new RCMARs will include: (1) focused research on recruiting and retaining minority group members in research; (2) links between ongoing research for the purpose of recruiting and retaining minority members; (3) research links between other appropriate NIA supported Centers (e.g., AD Centers) and other funded initiatives; (4) development of race/ethnic sensitive, yet comparable measurement; (5) expanded opportunities of mentoring minority and non-minority investigators for research and sustained careers in the health of older minority populations; (6) provide opportunities to develop research and mentoring links between research institutions and traditionally minority based institutions; and (7) improved communication between researchers and minority end-result research users.

Performance Measures:

- o Fund Resource Centers (P30) for Minority Aging Research.

Outcome Measures:

- o Development of race/ethnic sensitive, yet comparable measurement tools and post two (2) per year on the RCMAR web page.
- o Opportunities of mentoring minority and non-minority investigators for aging research and sustained careers in the health of older minority populations.
- o Number of mentored scientists across the RCMARs.
- o Number of funded pilot research projects funded by the RCMARs to include funding for three (3) new investigators per Center per year.
- o Number of publications by RCMAR mentors and mentees.
- o Fund two (2) grant awards per year per RCMAR

- **Identify minority investigators interested in research in relevant topics in biology of aging.**

Objective(s):

Provide opportunities in biology of aging research training and career development to researchers from minority and other special populations experiencing health disparities. **(2002-2006)**

Action Plan: The NIA has taken several steps to increase the opportunity to identify minority investigators interested in biology of aging research. These are: a) co-funding a training grant that supports the travel of minority students and young minority investigators to present their research at the annual American Society for Cell Biology meetings, and/or to participate in the summer course on Molecular Biology of Aging at the Marine Biological Laboratories, Woods Hole, MA, b) invite Principal Investigators of research grants funded by NIA to apply for travel funds for minority students and investigators not already supported on their grants to attend scientific workshops, conferences and annual meetings topics in biology of aging, and c) provide a mechanism for minority students and relevant to investigators to self-identify their interest in participating in these same meetings and apply for travel funds allowing them to participate.

Performance Measures:

- o Host scientific sessions, posters and/or lectures highlighting exciting new research findings in the biology of aging for various minority-serving scientific organizations.
- o Use grant administrative supplements and operating budget funds to support travel for minority scientists to present their research at scientific meetings relevant to biology of aging.

Outcome Measures:

- o Numbers of posters and other scientific presentations in biology of aging from minority investigators or addressing research on health disparities.
- o Numbers of research applications and funded grants in biology of aging research from minority scientists or addressing research on health disparities.
- o Number of annual visits to HBCUs and H.S.I. institutions to present updates on biology of aging initiatives.

- **Special Populations Initiatives - Minority Scientists Workshops and Career Development Opportunities.**

Objective(s):

Increase the quality and quantity of research focused on minority health and health disparities as well as the number of racial and ethnic group scientists participating in aging research.

Provide targeted and inclusive initiatives including workshop and career development opportunities to researchers from minority and other special populations experiencing health disparities. **(2002-2006)**

Action Plan: The Office of Special Populations, Office of the Director, coordinates initiatives aimed at increasing the quantity and quality of research on minority health as well as increasing the number of racial and ethnic group investigators involved in research on aging. This office in concert with the NIA Minority Work Group is the lead contact for numerous minority activities including Minority Youth Initiatives, Minority Organizations Internship Programs, NIA Regional Meetings, Technical Assistance Workshops and outreach to minority and community organizations. For example, this Office plans, organizes and directs NIA's exemplary "**Summer Institute on Aging Research.**" This one-week training initiative done in partnership with the National Center for Minority Health and Health Disparities (formerly the Office of Research on Minority Health) is highly competitive and supports training experiences for scientists at the beginning stages of a research career in aging. Minority applicants are highly recruited to participate in this initiative.

The NIA has taken several steps to increase the opportunity to identify minority investigators interested in aging research. The NIA plans to host on an annual basis training and development workshops to enhance grantsmanship skills of minority and underserved populations. The NIA recognizes the significant disadvantage young scientists, and especially some minority scientists have in competing against "veterans" for obtaining funds necessary to conduct research. There are few courses or training programs to teach the fine art of grantsmanship. The NIA plans to offer the Summer Institute on Aging Research and a Technical Assistance Workshop in 2002.

Performance Measures:

- o Host scientific sessions, posters and/or lectures highlighting exciting new research findings in minority health, health disparities and aging research.
- o Solicit the participation of minority scientists (n=45) from HBCU, H.S.I. and Tribal Colleges to participate in the Technical Assistance Workshop. Applicants with a doctoral degree will be invited to apply for the Summer Institute.

Outcome Measures:

- o Number of research grants focused on minority health and health disparities as well as the number of racial and ethnic group scientists participating in aging research training and career development activities. Numbers of posters and other scientific presentations in aging from minority investigators or addressing research on health disparities.
- o Numbers of research and workshop applications received from identifiable minority candidates.
- o Number of grants to former participants in minority scientists= workshops and career development activities.
- o Percent increase in reported publications by minority scientists participating in prior training and development initiatives.

PUBLIC INFORMATION/COMMUNITY OUTREACH/HEALTH EDUCATION GOALS

Rationale and Priority

Development of public information and communicating with individuals and communities of color are necessary components in the race to reduce health disparities, change health behaviors and improve the quality of life for ethnic and racial older adults. Additionally, the NIA is engaged in several projects to enhance the availability of web-based services to older adults in an organized campaign to enhance outreach to and education for vulnerable populations. NIA staff believes information to be an important first step in changing health behaviors. Communities of color, racial and ethnic health care providers and scientists need to be aware and informed about the latest findings from medical research that can be applied to improving health.

To reiterate, communicating research findings and health messages to older adults is an important part of the NIA mission. In NIA's collective efforts to reduce and ultimately eliminate health disparities for older adults, the focus on public information, community outreach and health education is the third priority focus. Information on scientific findings and technologies is disseminated to the public, scientific and other health professionals through various methods. This section includes seven priority initiatives. A full description of all NIA initiatives may be found in the comprehensive NIA Strategic Plan to Address Health Disparities at www.nia.nih.gov/strat-planhd/2000-2005.

C1. Develop research-based information resources.

- **Databases on health disparities.**

Objective(s):

Contribute databases as a source of basic information required to address health disparities in African Americans, Asians, Hispanics, Native Hawaiians and other Pacific Islanders and American Indians. **(2002-2006)**

Action Plan: Enhance the capacity of various centers such as the National Archive on Computerized Data on Aging (NACDA) and the demography and RCMAR centers to: 1) collect and archive databases suitable for secondary data analyses on health disparities, 2) distribute the data through CD-ROMS, FTP, and where necessary the creation of special enclaves that permit analyses of linked administrative or sensitive (e.g., geographic specific) data, and 3) provide workshops and summer institutes to assist potential users especially at non-research universities, and 4) provide post workshop assistance through 800 numbers and online help.

Performance Measures:

- o University of Michigan to distribute 500 copies of the CD-ROM on Minority Aging Research Datasets from NACDA.
- o Workshops and summer institutes to assist potential users of the CD ROM on Minority Aging Research Datasets, and lay the foundation for adding new datasets to the CD-ROM.

Outcome Measures:

- o Expanded and new databases on health disparities across population and sub-population groups.
- o Increased use of databases for secondary analysis.

• **Minority subjects in longitudinal studies.**

Objective(s):

Track retention rates for older adults across education and income levels in NIA supported longitudinal studies. **(2002-2006)**

Action Plan: Ensure that older minority subjects are retained in longitudinal studies. The differential loss of older minority subjects in longitudinal studies, especially those below the median in income and education, presents a major threat to the generalized validity of the findings. Relatively small differentials in retention can, when accumulated over many years, result in substantial losses to longitudinal studies. Most minority tracking data focuses on just the numbers in the studies and not the retention rate. Improved tracking is needed especially for Mexican Americans who move back to Mexico, and for minority subjects who move into medical and long-term care institutions. Encourage research, workshops and pilot studies (for example through the RCMAR program) on

retention research, and encourage the development of new approaches (such as more frequent contacts, higher payments to respondents, and post interview satisfaction studies) to counteract this problem.

Performance Measures:

- o Pilot research studies focused on retention of older adults in longitudinal studies.
- o Reduce barriers to inclusion of language-minority populations in longitudinal studies of aging.

Outcome Measures:

- o Tracking of gender and minority participation in clinical and longitudinal studies.
- o Number of minority subjects in clinical and longitudinal studies.
- o Publish one (1) journal volume on issues relevant to the recruitment and retention of minority subjects.
- o Distribute 1000 copies of "Diverse Voices: The Inclusion of Language-minority Populations in National Studies: Challenges and Opportunities," to other institutions, professional groups, programs and independent researchers.
- o Printing of "Diverse Voices" in Chinese and Spanish languages.

C2. Communicate research-based information to increase public awareness.

Because of language, educational, and cultural differences, many minority elderly individuals are not getting the information they need about healthy lifestyle behaviors. Community and religious organizations may be helpful in disseminating information. Public service advertisements can also be useful if specifically designed for foreign language newspapers, cable television, and radio. Research is needed to better understand effective strategies for communicating health messages.

• **NIA Exercise Guide - Spanish version.**

Objective(s):

Provide accurate and timely information on aging to diverse populations (Hispanics) in an effort to widely-disseminate advances in science. **(2002-2006)**

Action Plans: The NIA's Award-winning, Office of Communications and Public Liaison, is expanding its communications with the general public, the research community, physicians, and other health care providers to enhance dissemination of the latest advances in geriatric medicine, aging research, and related health data. All media are being used to convey these messages, which include newspaper articles, bulletins and fact sheets, professional education material, public service

announcements, and videos. In addition, the NIA periodically launches national education campaigns, such as a recent one that encouraged the public to seek more information about increasingly popular “anti-aging” therapies, and another on keeping fit after 50 through exercise.

Performance Measures:

- o Translate and print the NIA Exercise Guide in Spanish.

Outcome Measures:

- o NIA Exercise Guide tested in Hispanic communities prior to publication.

• **Outreach to minority communities.**

Objective(s):

Present a face and presence of NIA in minority communities throughout the Nation. **(2002-2006)**

Action Plan: Target magazines serving special populations to promote health materials such as Spanish Age Pages and Age Pages particularly relevant to African Americans and promote the NIA Exercise Guide for Older People to community groups such as churches, local health care clinics, and community centers serving special populations.

Performance Measures:

- o OCPL programs to disseminate information to special populations.

Outcome Measures:

- o The number of publications disseminated at OCPL programs.

• **Age Pages.**

Objective(s):

To determine if Age Pages are read and viewed as useful by Hispanic and other minority populations. **(2002-2006)**

Action Plan: Translate and print additional Age Pages into Spanish; explore the advisability of developing a special version of the NIA Video Exercise Guide for the Hispanic community. Test the effectiveness of four (4) Age Pages B cancer,

stroke, high blood pressure, and diabetes in an African American community in Baltimore.

Performance Measures:

- o Number of different Age Pages translated into Spanish.
- o Steps OCPL has taken to explore viability of developing a special version of the NIA exercise video for groups in the Hispanic community.
- o Number of Age Pages tested in African American communities.

Outcome Measures:

- o Publication of Age Pages in Spanish language.
- o Decision regarding developing a special version of the NIA exercise video for Special Populations.
- o Evaluative comments from African American communities regarding selected Age Pages.

C3. Transfer knowledge to health care providers

• Outreach to minority health professionals.

Objective(s):

Stimulate the training of investigators who can translate the findings of basic research into medical benefits for older people, and expand the pool of clinical geriatric investigators serving as spokespersons for the NIA. **(2002-2006)**

Action Plan: Attend (with NIA exhibit) National Medical Association meetings to inform health providers of free health education materials from the NIA. Identify and media train one or several minority grantees to serve as spokespersons for the NIA to special populations.

Performance Measures:

- o OCPL exhibits at the National Medical Association meeting(s).

Outcome Measures:

- o Contacts and partnerships established with participants at the National Medical Association.
- o Number of linkages and activities with professional minority organizations.

- **Dissemination of NIA publications.**

Objective(s):

Identify and translate NIA research findings into plain language for utilization by health professionals and professional associations. **(2002-2006)**

Action Plan: Attend and exhibit at selected specialty meetings around health problems such as high blood pressure, cancer, diabetes, and stroke to make NIA publications available to minority health professionals and associations of clinicians for the underserved.

Performance Measures:

- o OCPL exhibits at specialty meetings focused on health issues especially pertinent to special populations, e.g. diabetes, high blood pressure, etc.
- o Number of Age Pages translated into Spanish.

Outcome Measures:

- o Number and type of documents distributed at specialty meetings.
- o Dissemination of translated Age Pages.

Conclusion

Strategic planning is one way for the NIA to take advantage of key scientific opportunities across all components of its structure and confront challenges. The challenge of reducing and ultimately eliminating health disparities is one that has plagued the best minds of public health, in a department-wide effort, since 1984. The Secretary of Health and Human Services, Margaret M. Heckler established, in 1984, the Task Force on Black and Minority Health in response to the striking differences in health status between many minority population groups in the United States and non-minority population groups. Ms. Heckler called attention to the longstanding and persistent burden of death, disease, and disability experienced by African American, Hispanic, Native American, Asian and Pacific Islander heritage.

The NIA has previously published a comprehensive plan addressing minority health and health disparities. This document reflects a part of the comprehensive plan reflecting selected priorities as requested by the National Center on Minority Health and Health Disparities. It includes only nineteen of sixty-four areas of focus for the NIA. All readers are encouraged to view the entire plan to grasp a fuller understanding of the NIA's commitment to understanding the nature of aging and to extend the healthy, active years of life for all citizens. The comprehensive NIA Strategic Plan to Address Health Disparities is available at www.nia.nih.gov/strat-planhd/2000-2005

To reiterate an earlier point, millions of Americans are leading healthier lives based, in part, on discoveries from aging research. The NIA is working with other NIH Institutes and Centers to develop an overall strategy that in total will address the diseases and conditions that challenge older men and women. This plan does not address all health disparities but rather is a plan to address health disparities within the context of the congressionally mandated mission of the NIA. The pathway to distinction chartered by the NIA Strategic Plan emphasizes the importance of building on the strengths of the NIA in aging research, training and career development, outreach and infrastructure development, communications and public liaison.

NIA Health Disparities Budget
(Dollars in Millions)

Institute / Center	FY 2002			FY 2003		
	Research	Infrastructure	Outreach	Research	Infrastructure	Outreach
NIA	\$68.50	\$14.10	\$0.70	\$74.60	\$14.90	\$0.70