U.S. Department of Health and Human Services
Assistant Secretary for Planning and Evaluation
Office of Disability, Aging and Long-Term Care Policy

AN OVERVIEW OF PROGRAMS AND INITIATIVES SPONSORED BY DHHS TO PROMOTE HEALTHY AGING:

A Background Paper for the Blueprint on Aging for the 21st Century Technical Advisory Group (TAG) Meeting

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Erik Crankshaw, M.P.H.
Donna Rabiner, Ph.D.
Janet O'Keeffe, Dr.P.H., R.N.

RTI International

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INTRODUCTION

As the population ages over the next three decades, the proportion of Americans over age 65 will exceed 25 percent. This demographic change will have a dramatic impact on income support and retirement programs, health care utilization, family caregivers, and the demand for long-term care (LTC) services, supportive housing, and transportation. The impact will be particularly acute for the health, LTC, and social support systems designed to serve older persons. Although many older individuals will enjoy good health and lead active lives in the community, a significant number of older Americans will have chronic illnesses and disabilities that reduce their ability to live independently. Currently, older Americans represent only 13 percent of the U.S. population, yet they account for 36 percent of all hospital stays, 49 percent of all days in the hospital, and 50 percent of all physician hours. It is estimated that, as the population ages, older Americans will incur 50 percent of all medical care expenditures.

As myths of aging have been discredited and replaced with a new understanding of the aging process, many middle-aged and older Americans no longer believe that aging inevitably means being unhealthy and impaired. There is a recognition that the adoption of positive, healthy habits (e.g., regular exercise) and the cessation of negative habits (e.g., smoking) can help to ensure a healthy and independent old age. An "active aging" paradigm is being accepted and embraced by a larger proportion of older Americans than ever before, and the baby boom cohort is likely to take a much more active role in managing their health than are current cohorts. This situation provides a fertile ground for public health interventions to promote healthy aging.

Given the magnitude of growth in the number of older Americans projected over the next three decades, it will become increasingly important for the adult population to engage in health-promoting activities to both reduce preventable illness and prevent premature impairment. Many activities are being conducted that relate to health promotion and disease prevention interventions for older persons, and private and public organizations are learning much about the potential of public health strategies to promote "healthy aging." Examining more closely the research, evaluation activities, and targeted health promotion and disease prevention programs will help identify areas that can be strengthened as the government promotes models of healthy aging in the future.

PURPOSE AND FOCUS OF THE HEALTH PROMOTION AND AGING PROJECT

In the next 30 years, one of five people in this country will be over the age of 65. Many older people are in good health and leading active lives in the community. However, a significant number of older Americans will have chronic illnesses and disabilities that limit their ability to fully participate in everyday activities. While projects have sought to examine the effectiveness of health promotion and disease prevention interventions for older persons, there is an enormous unrealized potential of larger public health strategies to promote healthy aging.

The last comprehensive attempt to synthesize the scientific knowledge and expertise about health promotion activities in aging populations was undertaken in 1984, when the Department of Health and Human Services (DHHS) launched a major initiative to encourage the public and private sector--at all levels--national, regional, state, and local--to work together on promoting the health of older persons. This initiative culminated with the Surgeon General's "Workshop on Health Promotion and Aging" in the spring of 1988.

Since that time, new scientific breakthroughs in medical care, new pharmaceuticals, the growing field of geriatric practitioners, aging-related research studies, and the "active aging" paradigm have caused us to reconsider how the public health community can best provide research, support, and services that will allow older adults to live well and remain as healthy as possible for as long as possible.

The Office of the Assistant Secretary for Planning and Evaluation (ASPE) has launched the Health Promotion and Aging Project in order to provide DHHS with a series of health promotion and aging messages; consolidate work being conducted by the Research Coordination Council (an interagency research council charged with preventing duplication in research and encouraging coordination); and advance its knowledge of health promotion and disease prevention programs initiated since the publication of the 1988 Surgeon General's Report on Older Americans' Call to Health.

The goals of the Health Promotion and Aging project are threefold:

(1) describe health promotion, disease prevention, and health education activities aimed at older persons, highlighting the range of these activities throughout DHHS;

(2) identify gaps in research, evaluation, and health promotion/disease prevention activities that can be undertaken to enhance health promotion and disease prevention programs for older persons; and

(3) assemble a broad coalition of federal, state, and local public health experts to advise and prioritize and recommend health promotion activities for health promotion and disease prevention activities for older Americans.

To achieve these goals, we will carry out the following activities:

(a) develop a background paper that identifies health promotion, disease prevention, and health education activities for older persons that have been undertaken by DHHS and a few of its public and private partners (the focus of this document);

(b) convene a technical advisory group (TAG) to identify overarching priorities for health promotion and disease prevention activities for older persons in the future, and help identify and structure how best to use a series of technical expert panels (TEPs) to arrive at a series of recommendations and possible alternative suggestions;

(c) commission a series of papers on topics the TAG group recommends and that will help focus the discussion at the TEP meetings;

(d) convene a series of expert meetings to debate, discuss, and begin to prioritize key issues and suggestions for health promotion and disease prevention among older persons in the future; and

(e) develop and publish a monograph that summarizes and prioritizes the information obtained from the TAG and TEP meetings and that includes suggestions for future health promotion and disease prevention activities for older Americans. The monograph will consider both short-term and long-term implementation timeframes, and distinctions between public and private activities.

PURPOSE AND OVERVIEW OF THE BACKGROUND PAPER

This document was developed to provide background information and stimulate debate and discussion at the Health Promotion and Aging Technical Advisory Group meeting to be held in Washington, DC, on January 29, 2003.

Its primary purpose is to highlight current federal health promotion and disease prevention activities targeted for older persons. We organized this material by grouping activities into four topics that a panel of federal officials felt would help structure the discussions at the TAG meeting. We realize that this grouping is somewhat artificial, but we felt that by organizing federal activities into topic areas, it would be easier to identify gaps, discuss challenges for the future, and identify how best to use the expert panels to validate, inform, or further debate priorities and recommendations for the future. This paper focuses on activities that have been conducted by the federal government in the following four topic areas:

I. Translating health promotion and disease prevention research into practice

II. Health promotion and disease prevention strategies to maintain or enhance both cognitive and affective mental functioning among older persons

III. Effective health promotion and disease prevention programs for older persons

IV. DHHS data collection activities related to the health behaviors of older Americans.

The health promotion and disease prevention activities described in this paper are not a complete inventory of the programs and initiatives funded by DHHS. We concentrated on those initiatives or programs that were designed explicitly to promote health and minimize disease and impairment among older persons. The descriptions of the projects are based on information obtained from agency websites and input provided from individuals affiliated with the following federal agencies: Administration on Aging (AoA), Centers for Disease Control and Prevention (CDC), Centers for Medicare & Medicaid Services (CMS), DHHS's Office of Minority Health, DHHS's Office of Women's Health, DHHS's Surgeon General's Office, Health Research and Services Administration (HSRA), National Institute on Aging (NIA), Office of Public Health Services (OPHS), and Substance Abuse and Mental Health Services Administration (SAMHSA).

The paper concludes with recommendations for additional work in these areas and a summary of the next steps to be undertaken by the project team.

TOPIC AREA I: TRANSLATING HEALTH PROMOTION AND DISEASE PREVENTION RESEARCH INTO PRACTICE

This issue focuses on the challenge of translating health promotion and disease prevention research into practice across health professions, health care settings, and community settings. The topic also addresses the issue of how to deliver appropriate health promotion information to disadvantaged subgroups, including minority populations and those with low levels of health literacy. Finally, this topic includes an investigation of activities designed to provide health promotion and disease messages to individuals using a variety of home and community services, including LTC services.

The remainder of this section briefly describes a range of federally funded health promotion and disease prevention programs during the past 10 years, which have focused on translating health promotion research for older adults into practice. Table A provides a list of these programs and their principal sponsors. See Appendix A for specific information on each program.

A review of these programs raises a number of questions for discussion at the TAG meeting, including the following:

- How effective has DHHS been in translating health promotion/disease prevention research into practice for older adults?

- Are there gaps in DHHS' approach to translating knowledge about activities that promote healthy aging into practice for older Americans?

- What are the most promising "translation" approaches to health promotion/disease prevention, and do they need to be modified to be more effective for particular subpopulations among the elderly?

- What are the most significant barriers to the effective translation of research into practice, both at the health care provider level and the individual level?

- Are broad social marketing campaigns, similar to the U.S. Surgeon General's campaign against smoking, needed to more fully translate health promotion/disease prevention research into practice?

- Are there additional activities that DHHS should initiate in the future to help ensure that research findings are translated into practice? Why are these additional activities needed?

TABLE A. Programs Designed to Translate Health Promotion and Disease Prevention Research into Practice and Their Sponsors	
Programs/Initiatives	**Primary Sponsors**
Healthy Aging Project	CMS, Agency for Healthcare Research and Quality, in collaboration with NIA, AoA, CDC, and the National Heart, Lung, and Blood Institute
The National Blueprint: Increasing Physical Activity Among Adults Aged 50 and Older	AARP, American College of Sports Medicine, American Geriatrics Society, CDC, NIA, and the Robert Wood Johnson Foundation with contributions from 43 other organizations
HealthierUS Initiative	White House initiative launched with the President's Executive Order 13266--Activities to Promote Personal Fitness; A Personal Fitness Interagency Working Group, headed by DHHS, oversees this initiative
Screen for Life: National Colorectal Cancer Action Campaign	CDC and CMS with technical assistance provided by the National Cancer Institute
Prevention Research Centers	CDC
Healthy Aging Network (HAN)	CDC and seven of the funded Prevention Research Centers
Growing Stronger: Strength Training for Older Adults	CDC, in collaboration with Tufts University Center for Physical Fitness
Training and Encouragement for Senior Activity (TESA) Project	American Association for Active Lifestyles and Fitness and the National Senior Games Association
The Older Adults Media Project	CDC, in partnership with the American Society on Aging, and the Journalists Exchange on Aging
Spyglass on Aging: Tools for Journalists Covering Seniors	CDC
U.S.A. on the Move: Steps to Healthy Aging	AoA and the National Policy and Resource Center on Nutrition and Aging at Florida International University
The Aging States Project	AoA, CDC, the Association of State and Territorial Chronic Disease Program Directors, and the National Association of State Units on Aging
Behavioral Medicine and Interventions Program	NIA
Bilingual/Bicultural Service Demonstration Grant Program	DHHS Office of Minority Health
Community Programs to Improve Minority Health Grants Program	DHHS Office of Minority Health
Health Disparities in Minority Health Grants Program	DHHS Office of Minority Health
Older Americans Act, Title IV Demonstration Projects	AoA
Project REACH for the Elderly	AoA
Surgeon General's Report on Osteoporosis and Bone Health	DHHS Surgeon General's Office
Women Living Long and Living Well (WLLW) Project	DHHS Office of Women's Health

TOPIC AREA II: HEALTH PROMOTION AND DISEASE PREVENTION STRATEGIES TO MAINTAIN OR ENHANCE BOTH COGNITIVE AND AFFECTIVE MENTAL FUNCTIONING AMONG OLDER PERSONS

Older adults experience a number of stressful events that may trigger or exacerbate mental disorders. Declining health, death of loved ones, loneliness, and moves away from home are all stressors that may impact mental health.[1] It is estimated that as much as 20 percent of the adult population over the age of 55 experiences some form of mental illness.[2] Along with early-onset disorders such as schizophrenia and major affective disorders that continue to affect people as they age, late-onset illnesses such as anxiety disorders, clinical depression, and dementia are prevalent in the aging population.[2] Additionally, researchers are also now realizing the pervasiveness of substance (alcohol and prescription drug) misuse and abuse among older adults.

All of these mental health conditions can have a major negative impact on the functioning of older persons. Additionally, they can create barriers to the adoption of behaviors aimed at promoting physical health and can lead to additional health problems through their effect on self care and compliance with medication regimes.

The Institute of Medicine (IOM) has developed a conceptual framework for the prevention of, and early intervention for, mental disorders. This framework categorizes preventive interventions as universal, selective, and indicated.[3]

> "*Universal preventive interventions* are targeted to the general public or a whole population group that has not been identified on the basis of individual risk…. *Selective preventive interventions* for mental disorders are targeted to individuals or a subgroup of the population whose risk of developing mental disorders is significantly higher than average…. *Indicated preventive interventions* for mental disorders are targeted to high risk individuals who are identified as having minimal but detectable signs or symptoms foreshadowing mental disorder, or biological markers indicating predisposition for mental disorder, but who do not meet DSM diagnostic levels…. Indicated preventive interventions are often referred to as early intervention or an early form of treatment." [3]

This conceptual framework can be applied to activities that address all types of mental disorders from depression to substance abuse. However, more research is needed to increase our understanding of modifiable and protective factors for the development of mental disorders in late life. The IOM review of intervention research programs noted that most prevention programs in the area of mental health are directed at children and adolescents, and that there is a striking absence of prevention research programs targeted to the mental health needs of adults, including the elderly. [4]

According to the AoA, efforts to prevent mental disorders among older adults have been inadequate, and there is currently no national agenda to promote mental health and prevent mental disorders. Existing federal activities to address mental disorders and substance abuse among older persons are generally focused on the diagnosis and treatment of illness rather than early identification of those at highest risk or the implementation of preventive measures and mental health promotion activities.[1]

There is research indicating successful activities that can be undertaken to decrease depression, increase information processing, enhance self-efficacy in the performance of mental tasks, and improve memory. In particular, regular physical activity has been shown to have a positive effect on mild depression.[5] However, the IOM report noted that the base of knowledge about prevention for some mental disorders is considerably more advanced than for others, particularly for depression. [3]

Comprehensive mental health promoting programs ideally consider the mental, physical, and spiritual well-being of the individual and provide opportunities to increase self-efficacy in a supportive environment. The goal of comprehensive mental health programs has been "to help older adults find pleasure and meaning in their lives, use appropriate supports, and retain or assume as much control over their lives as possible."[6] Such programs are more likely to generate interest and participation among older persons. As one aging service provider noted, "If we schedule a session on depression, no one will come. But if we have a session on 'Making the Most of Your Life,' many will join--and we can talk about depression as an obstacle to overcome." [7]

The remainder of this section highlights recent federally sponsored research and activities aimed at maintaining the mental functioning of older persons or preventing its decline. The majority of the activities listed below were designed for individuals who were already at least somewhat impaired, rather than for healthy individuals interested in maintaining and/or enhancing their mental functioning. Table B provides a list of these programs and their principal sponsors. See Appendix B for specific information on each program.

TABLE B. Programs and Activities Aimed at Maintaining the Mental Functioning of Older Persons or Preventing Its Decline

Programs/Activities	Primary Sponsors
Older Adults and Mental Health: Issues and Opportunities	AoA
NIA Behavioral and Social Research Program	NIA
Alzheimer's Disease Anti-Inflammatory Prevention Trial (ADAPT)	NIA
Moderate Exercise Program for Older Women Caregivers	NIA
SAMHSA Mental Health and Aging Activities	SAMHSA
SAMHSA and National Council on Aging (NCOA) Joint Project	SAMHSA and NCOA
Substance Abuse Prevention and Treatment Block Grant (SAPTBG) Program	SAMHSA
Treatment Improvement Protocol (TIP) on Substance Abuse	SAMHSA
Community-Initiated Prevention Intervention Program	SAMHSA

A review of these activities raises a number of questions for discussion at the TAG meeting, some related to the prevention of mental disorders and others to the special health promotion needs of persons with a range of mental disorders:

- What are the major gaps in the literature on the prevention of mental disorders among the elderly?

- What is the most effective role for caregivers, community programs, and public health professionals in preventing mental disorders?

- What modifications are needed to ensure that existing health promotion and disease prevention activities will be effective for people with cognitive disabilities, substance abuse problems, or mental illness?

- What additional research, data collection, and evaluation activities are needed in this area?

- Are health promotion and disease prevention programs for individuals with cognitive disabilities, substance abuse problems, or mental illness effectively targeted to subgroups of older Americans in the settings where they reside?

- What gaps exist in research, data collection, and program evaluation to assess mental functioning in old age in order to identify those at risk for further decline and to identify those who might benefit from treatment?

TOPIC AREA III: EFFECTIVE HEALTH PROMOTION AND DISEASE PREVENTION PROGRAMS FOR OLDER PERSONS

A broad range of health promotion and disease prevention activities have been shown to be effective in helping to maintain function and reduce the risk of disease for older adults, whether or not they have chronic health conditions. This topic area describes current health promotion and disease prevention activities aimed at older adults. Federal health promotion and disease prevention programs for older Americans have largely focused on increased physical activity, improved nutrition, early screening for chronic conditions, vaccination programs (primarily for pneumonia and influenza), and injury prevention, specifically dealing with injuries related to falls. Research and program evaluation activities also have been initiated in areas including health risk assessments and screenings, nutrition screening and educational services, physical fitness, home injury control services, stress management, and follow-up use of health services.

This section provides a description of a range of federally funded health promotion and disease prevention activities aimed at older persons during the past 10 years. Table C provides a listing of these programs and their principal sponsors. See Appendix C for specific information on each program.

TABLE C. Health Promotion and Disease Prevention Programs and Sponsors

Programs/Initiatives	Primary Sponsors
Older Americans Act Nutrition Programs' Elderly Nutrition Program	AoA
Older Americans Act Disease Prevention and Health Promotion Services Program	AoA
Initiative to Eliminate Racial and Ethnic Disparities in Health	All of DHHS; however, AoA is the lead agency focused specifically on older persons
Health Care and Aging Studies Branch Mini-Grants Program	AoA in collaboration with the Association of State and Territorial Chronic Disease Program Directors, the National Association of State Units on Aging, and the CDC's National Center for Chronic Disease Prevention and Health Promotion, Health Care and Aging Studies Branch
WISEWOMAN: Well-Integrated Screening and Evaluation Demonstration for Women Across the Nation	CDC, Division of Nutrition and Physical Activity
Creativity in Aging	AoA, in partnership with a consortium developed to focus on Creativity in Aging, including the National Institute of Mental Health, SAMHSA, National Endowment for the Arts, AARP, and the Guttman Foundation

A review of these programs raises a number of questions for discussion at the TAG meeting, including the following:

- Are health promotion and disease prevention programs reaching all settings where older Americans live?

- Does the coordination of health promotion and disease prevention programs need to be enhanced? If so, through what mechanism (e.g., better interagency coordination, increased information sharing, dissemination and/or public awareness, etc.)?

- How effectively do DHHS' health promotion and disease prevention programs incorporate trends and new data (e.g., active aging paradigm, declining rates of disability, increasing rates of obesity, new and often conflicting data on diets, etc.)?

- How effective are federal activities in assisting, supporting, and supplementing state and local public health activities, and where can future efforts be best targeted to fill resource or information gaps?

- How can DHHS encourage health care and human service programs to emphasize health promotion and disease prevention?

- Are additional research, data, and evaluation activities needed in this area, and if so, why?

TOPIC AREA IV: DHHS DATA COLLECTION ACTIVITIES RELATED TO THE HEALTH BEHAVIORS OF OLDER AMERICANS

Ideally, policy development, program planning, and program implementation will be based on data, with each step of the implementation process being "defined, structured, informed, evaluated, and driven by high-quality, objective, and timely research." [8] Substantial resources, energy, and effort are devoted to research on topics of direct relevance to aging and public health policy and program development. The findings of this research hold the potential "to enhance our understanding of health and disease in old age, enrich programs for older persons, and improve the quality of life for the elderly." [8]

Data obtained from research may help health promotion and aging program planners to avoid previously failed approaches, to adopt strategies that have been proven successful, and to more effectively target programs to identified needs. Similarly, as a program becomes well established, data are often needed to document the program's outcomes and provide additional information that may be shared with other communities and programs. By disseminating information obtained through the evaluation of a specific program or intervention, programs may be more efficiently developed elsewhere, thus broadening the impact of the original project or intervention. [8]

This topic area focuses on a number of federally funded studies that can be used to better understand the factors necessary for healthy aging, including self care. We provide an overview of some publicly funded large national data sets on older adults that have been collected over the past 10 years. Several of these large data sets include questions on the self-care practices of older persons, use of health and social services, performance of health behaviors, and attitudes toward different forms of care.

The remainder of this section describes the major studies and presents their key findings. In addition, it examines gaps in existing knowledge, as identified by the key investigators of these large-scale efforts, and identifies opportunities to address these gaps in future research. The information in this section is presented by the major agency or institute that sponsors the data collection and research. Table D provides a listing of these programs or activities and their principal sponsors. See Appendix D for specific information on each program.

TABLE D. DHHS Funded Data Collection Activities Related to Health Behaviors of Older Americans	
Program/Activity	**Primary Sponsors**
Evidence-Based Practice Centers	Agency for Healthcare Research and Quality (AHRQ)
Broadening the Evidence Base for Evidence-Based Guidelines	AHRQ
Aging Trends	CDC and NIA
Trends in Health and Aging	CDC and NIA
Longitudinal Studies of Aging (LSOA)	CDC and NIA
Demography and Aging Centers	NIA
National Long-Term Care Survey	NIA and ASPE
The Health and Retirement Study	NIA
Study of Assets and Health Dynamics among the Oldest Old	NIA
The Wisconsin Longitudinal Study (WLS) Baltimore Longitudinal Study on Aging (BLSA)	NIA NIA
National Survey of Self Care and Aging (NSSCA)	NIA
SAMHSA Data Collection Activities	SAMHSA

A review of these studies raises a number of questions for discussion at the TAG meeting, including the following:

- How can existing data help us to determine whether older individuals who have been recently diagnosed with certain health conditions (such as diabetes, heart disease, and stroke) are more likely to engage in, and/or maintain, health-promoting behaviors, relative to those not diagnosed with specific chronic conditions?

- What research is needed to determine whether older persons are more likely to engage in self-care and other health-enhancing activities if they have a regular source of care?

- How can existing data be used to determine whether certain healthy behaviors (such as not smoking, regularly exercising, and obtaining routine medical exams) that have been routinely practiced by adults in their young and middle years are more likely to be retained in old age?

- What are some of the most significant gaps in health promotion/disease prevention research and program evaluation, and what opportunities exist using DHHS' large national data sets?

- How can DHHS best support health promotion/disease prevention research, and what areas are most in need of further study?

DISCUSSION

A tremendous amount of activity related to health promotion and disease prevention for older persons is occurring within DHHS. While some activities described above have been led by a sole federal agency, the vast majority of health promotion and disease prevention activities described in this document are collaborative, involving an impressive number of federal partners. Some of these initiatives will not provide information on the effectiveness or cost-effectiveness of a given health promotion or disease prevention intervention for some years to come. However, a large body of information is already available, and more will be emerging in the coming years on methods for promoting health and preventing disease both prior to, and throughout, the aging process.

Innovative models have begun to emerge, and specific efforts have been made both to target hard-to-reach populations and to increase the likelihood that established strategies will be adopted. Even so, more work may be needed to ensure that a larger proportion of older Americans incorporates regular exercise into their daily lives; receives annual flu vaccinations; and obtains screenings for colorectal cancer, breast cancer, and other serious conditions.

Additional efforts may be needed to explore how best to prevent the onset of late-life mental disorders, to maintain and enhance cognitive functioning as people age, and to prevent or delay the onset and progression of cognitive impairment. For example, NIA is planning additional research around neurodegenerative disorders as well as normal cognitive brain functioning. Finally, there exist a number of surveys that provide data and information on the health behaviors and health status of older Americans, yet there has not been a comprehensive analysis of the most effective uses of national surveys in evaluating the efficacy of existing interventions or tracking trends in healthy behaviors over time. In fact, many of the surveys described under Topic Area IV have not focused explicitly on the health-promoting activities and health behaviors of older respondents. It may be useful to explore adding questions that focus explicitly on the use of health promotion and disease prevention services by older Americans. (The Veteran's Administration has conducted a large national health promotion/disease prevention survey that may serve as a useful model in this regard.)

NEXT STEPS FOR THE HEALTH PROMOTION AND AGING PROJECT

Following this meeting, RTI will commission a series of expert papers, as recommended by the TAG, to help shape the discussion and structure the topics chosen by the TAG for several TEP meetings. Following the TEP meetings, RTI will write a monograph that summarizes the information obtained from this TAG meeting, as well as the TEP expert panels, and lay out and prioritize a series of suggestions for possible future activities related to health promotion and disease prevention for older adults in the future. The anticipated outcomes of this project are to

(1) describe health promotion, disease prevention, and health education activities aimed at older persons, highlighting the range of these activities throughout DHHS;

(2) identify gaps in research, evaluation, and health promotion/disease prevention activities that need to be addressed to enhance health promotion and disease prevention programs for older persons; and

(3) develop suggested approaches DHHS can consider to deliver a coordinated, effective, science-based active aging message.

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APPENDIX A: PROGRAMS DESIGNED TO TRANSLATE HEALTH PROMOTION AND DISEASE PREVENTION RESEARCH INTO PRACTICE AND THEIR SPONSORS

Healthy Aging Project

Sponsors. The Centers for Medicare and Medicaid Services and Agency for Healthcare Research and Quality (AHRQ) jointly developed the Healthy Aging Project in collaboration with NIA, AoA, CDC, and the National Heart, Lung, and Blood Institute.

Background & Purpose. To identify, test, and disseminate evidence-based approaches to promote health and prevention functional decline in older adults.[1] This project was designed to complement other DHHS initiatives, such as Healthy People 2010, and the U.S. Preventive Services Task Force. The Healthy Aging Project aims to review the available research science to identify what approaches are most effective for promoting health and preventing disease in older populations.

According to CMS, many health promotion and disease prevention programs have been shown to reduce risk factors and lower health care costs, but until now, these programs have not been evaluated for effectiveness in the Medicare population.[2]

Description. This project was launched in 1998 and is planned as a 5-year, $3.7-million project to identify and test interventions to reduce behavioral risk factors in the managed care and fee-for-service settings. Specifically, the Healthy Aging Project will examine whether health promotion interventions have a measurable impact on behavior change, health status, functional status, and quality of life, use of services, consumer satisfaction, or cost of care. An additional objective of the project is to identify ways to promote the use of Medicare clinical preventive services, such as flu shots, colorectal cancer screening, and mammograms.

CMS has contracted with RAND to produce reports that analyze the evidence on how to improve the delivery of Medicare clinical preventive and screening benefits and explore how behavioral risk factor reduction interventions, such as smoking cessation, might be implemented by the Medicare program. To date, three evidence reports have been completed. These include *Interventions that Increase the Utilization of Medicare-Funded Preventive Services for Persons Aged 65 and Older, Interventions to Promote Smoking Cessation in the Medicare Population,* and *Health Risk Appraisals and Medicare.* Reports that are currently being produced focus on the areas of chronic disease self-management, physical activity, and falls prevention.

The first evidence report, *Interventions that Increase the Utilization of Medicare-Funded Preventive Services for Persons Aged 65 and Older*, is a guide for providers and health

care systems seeking to improve the use of influenza immunizations, pneumococcal vaccinations, mammography, Pap tests, and colon cancer screening. A major finding of this report is that organizational changes in health care delivery systems are effective in improving the delivery of preventive services. As a result of this report, CMS and CDC are collaborating on an organizational change project to increase influenza immunization rates. This project, entitled the Standing Orders Project, is being implemented by Medicare's quality improvement contractors, the Quality Improvement Organizations (QIOs).

The overall goal of the Standing Orders Project is to reduce the burden of vaccine-preventable diseases by improving influenza and pneumococcal vaccination coverage levels in LTC facilities. Immunization standing orders programs are policies and protocols that authorize nurses and pharmacists to administer vaccinations according to an approved protocol without the need for a physician's examination. Nine intervention states and five control states are currently piloting this initiative, and results are expected in late 2002.[3]

An evidence report on smoking cessation--*Interventions to Promote Smoking Cessation in the Medicare Population*--resulted from a systematic review of the scientific literature and identifies which interventions are most effective for older smokers. One of the findings was that multiple methods, including individual, group and telephone counseling, were effective in promoting smoking cessation. An additional finding was that patients whose physicians were trained in smoking cessation had higher cessation rates than those who visited untrained physicians. Another important result was that financial incentives, specifically health insurance coverage for counseling and pharmacotherapy, resulted in increased numbers of quitters.[4]

As a result of this evidence report, CMS, CDC, AoA, and the National Cancer Institute (NCI) collaborated on a demonstration project to test the effectiveness of Medicare smoking cessation benefits in seven states. The Medicare Stop Smoking Program is designed to compare the impact of offering three different types of benefits for smoking cessation services on quit rates. The three benefits being tested are reimbursement for provider counseling only, a quit smoking phone line with pharmacotherapy coverage, and usual care. Recruitment of smokers began in fall 2002, and the study is planned for completion in 2004. It is anticipated that the results of this demonstration project will be used to identify a potential new Medicare smoking cessation benefit.[4]

Similarly, in an effort to evaluate the potential effectiveness of health risk appraisal (HRA) as a health promotion tool and to provide evidence-based recommendations regarding the use of HRA in health promotion programs for older adults, those involved with the Healthy Aging Project recently commissioned a report--*Health Risk Appraisals and Medicare*. For the purpose of this report, HRA was defined as "a systematic approach to collecting information from individuals that identifies risk factors, provides individualized feedback, and possibly offers interventions to promote health, sustain function, and prevent disease."[5]

One key finding from this report was that effective HRA programs demonstrated beneficial effects on behavior, in particular on physical activity. (One caveat was noted, however, namely that there were few studies evaluating this approach, and they were of varying quality.) Another key finding was that HRA programs could have positive effects on physiological variables, such as blood pressure and weight, and on general health status. However, in order to be effective over time, the authors of this report found that HRA needed to be followed with specific interventions.

The report suggested that interventions combining HRA feedback with available health promotion programs would be most likely to be successful. Finally, the authors recommended that CMS conduct a Medicare demonstration to test the efficacy and cost-effectiveness of administering the HRA questionnaire with tailored feedback and regular follow-up in improving or maintaining the health of older persons.[5]

In response to the evidence report *Health Risk Appraisals and Medicare,* the Senior Risk Reduction Program Demonstration Project was enacted. CMS is taking the lead role in developing the Senior Risk Reduction Program, with the aim of "testing comprehensive and systematic approaches to identifying health risks and empowering Medicare beneficiaries to improve their health."[6] This demonstration is designed to use an HRA to assess individual health risks such as smoking, lack of physical activity, poor nutrition, and avoidance of clinical preventive and screening services.

Results of the HRA will then be used to produce tailored information and recommendations on an ongoing basis. An ancillary aim of this project is to investigate the utility of novel, state-of-the-art message-tailoring methods, such as tailored interventions delivered via the Internet. The project also aims to act as a resource guide, connecting people to available programs and services in their communities. The *Senior Risk Reduction Program* is currently in the design stage, which is scheduled to last from September 2002 to November 2003.

The National Blueprint: Increasing Physical Activity Among Adults Aged 50 and Older

Sponsors. AARP, the American College of Sports Medicine, the American Geriatrics Society, CDC, NIA, and the Robert Wood Johnson Foundation, with contributions from 43 other organizations.

Background & Purpose. The aim of the National Blueprint is to use the clear evidence regarding the effectiveness of interventions to promote physical activity to support national action in this area. A major goal of the National Blueprint is to identify the principal barriers to physical activity among older adults and to outline strategies for increasing physical activity levels throughout the entire population. The National Blueprint report was developed as a guide for organizations, associations, and agencies to plan strategies to help people aged 50 and older increase their physical activity. The

document was designed to extend the work begun by a technical expert working group that had previously met to discuss physical activity and mid-life among older adults.

Description. The National Blueprint report highlights several recommendations for overcoming barriers to physical activity among older adults, such as identifying the impact that activity-friendly communities can have on the quality of life for older adults and promoting such communities, designing health-impact assessments to help communities measure how well they serve the needs of their aging citizens, establishing tax incentives for employers who offer physical activity opportunities to their employees, requiring more training for health professionals on physical activity in older populations, and providing incentives to states and communities that increase physical activities among older adults.[7]

HealthierUS Initiative

Sponsor. HealthierUS is a White House initiative launched with the President's Executive Order 13266--Activities to Promote Personal Fitness on June 20, 2002. The Executive Order establishes a Personal Fitness Interagency Working Group, headed by DHHS, to provide a government-wide perspective on the efforts of federal agencies to improve the health and fitness of the American people and make recommendations for strengthening these activities.

The departments and agencies represented by the Personal Fitness Interagency Working Group include DHHS, the Department of Agriculture, Department of Interior, Department of Education, the Environmental Protection Agency, the Office of National Drug Control Policy, the Department of Defense, the Department of Labor, General Services Administration, and Veteran's Affairs.[8]

Background & Purpose. The goal of the HealthierUS initiative is to empower all Americans with the knowledge, motivation, and skills they need to make healthy choices and to improve government policies and services to help provide the American people with an environment that supports healthy choices. In addition, the initiative aims to increase collaboration among the federal government, states, communities, and the private sector to ensure that the American people receive health promotion and disease prevention services that are effective and efficient.[8]

Description. The Personal Fitness Interagency Working Group has prepared one White House report cataloging federal programs related to physical activity, nutrition, preventive screenings, and health promotion. Three subcommittees are currently at work on three interagency memorandums of understanding dealing with (1) employee health promotion, (2) public affairs, and (3) program coordination. Additionally, a HealthierUS website has been launched to bring together for the public the variety of government online resources related to personal fitness and health.[9]

Screen for Life: National Colorectal Cancer Action Campaign

Sponsor. CDC and CMS, with technical assistance provided by NCI.

Background & Purpose. Screen for Life: National Colorectal Cancer Action Campaign is a national campaign utilizing a multimedia approach to inform men and women aged 50 years and older about the importance of having regular colorectal cancer tests.[10] The initiative was developed largely in response to the finding that colorectal screening rates were not significantly increasing despite the dissemination of research clearly showing their health benefits. This multiyear campaign was enacted in 1999.

The Screen for Life campaign's objectives are to inform the public about the benefits of colorectal cancer screening, motivate the target audience to talk with their health care providers to establish a colorectal cancer screening program, and promote Medicare's covered colorectal cancer screening benefits. To accomplish these objectives, the campaign developed multimedia materials to educate the public about the importance of screening.

Description. Campaign messages and materials were developed based upon an extensive review of existing communication and behavioral science literature and formative research, including information gathered from over 100 focus groups of men and women aged 50 years and older.

Prevention Research Centers

Sponsor. CDC.

Background & Purpose. First authorized by Congress in 1984, the CDC Prevention Research Centers are designed to involve community members, academic researchers, and public health agencies in study projects that attempt to find innovative ways of promoting health and preventing disease. There are currently 26 Prevention Research Centers associated with schools of public health, medicine, or osteopathy in the United States.

Each of the centers conducts research on underserved populations as well as special interest projects defined by the CDC and other agencies of DHHS. According to CDC, the Prevention Research Centers "serve as a national resource for developing effective prevention strategies and applying those strategies at the community level."[11]

Description. There are currently two Prevention Research Centers focusing on healthy aging, one at the University of Washington and the other at the University of Pittsburgh. Helping Seniors Stay Healthy and Active, a research program being conducted by the University of Washington in Seattle, involves the testing of strategies designed to help

seniors (at senior centers, in managed care programs, and in other settings) to remain healthy and independent.

This project is designed to simultaneously produce scientific findings and provide meaningful benefits to the participating seniors. For instance, an ongoing intervention aimed at reducing minor depression is improving participants' physical and mental health while elucidating the most effective approaches, including counseling, social activities, and group exercise programs.

Promoting Health and Preventing Disease Among Older Adults at the University of Pittsburgh is a relatively new project, begun in 2001. The primary research question that will be guiding this center's work is "how can use of preventive care be increased among adults over 65 years of age?"

CDC Collaborations to Address Healthy Aging

In addition to funding research at the Prevention Research Centers, CDC is collaborating with numerous agencies and private partners to address healthy aging. For example, in collaboration with the School of Public Health at the University of Illinois–Chicago, CDC is sponsoring an Evidence-Based Review of Physical Activity Benefits for Older Adults with the purpose of reviewing and updating the scientific evidence on physical activity and older adults.[12] Several other CDC-sponsored Prevention Research Center activities are highlighted below.

The Healthy Aging Network (HAN)

Sponsors. The CDC Prevention Research Centers' Healthy Aging Network (HAN) is a collaboration between CDC and seven of the funded Prevention Research Centers: University of Washington (lead center), University of North Carolina-Chapel Hill, University of South Carolina, University of Pittsburgh, University of California-Berkeley, University of Colorado, and the University of Illinois-Chicago.[12]

Purpose. HAN is designed to promote healthy aging and community-based prevention research focusing on older adult issues.

Description. The HAN has launched two national demonstration projects with a focus on physical activity. Members are currently collaborating on an in-depth, evidence-based review and statement of the role of public health in addressing physical activity for older adult populations. The HAN is also in the process of designing and implementing a HAN-wide survey of programmatic and environmental community-based physical activity opportunities for older adults across seven national sites, while collaborating with national organizations to identify best practices for physical activity programming. Additionally, HAN members are consulting with federal and state organizations working to establish local-level infrastructure for healthy aging.

Growing Stronger: Strength Training for Older Adults

Sponsors. CDC is funding and collaborating with the Tufts University Center for Physical Fitness.

Purpose. To develop, use, and evaluate low-cost training materials and programs that provide older adults with greater opportunities to strength train.

Description. Upon completion of the evaluation, the project will disseminate the materials and programs to health and aging agencies to promote resistance training in the home or in community settings.[12]

Training and Encouragement for Senior Activity (TESA) Project

Sponsors. The American Association for Active Lifestyles and Fitness (AAALF) and the National Senior Games Association (NSGA), with funding from CDC.

Purpose. The TESA project focuses on promoting physical activity for seniors. The project targets older adults who are contemplating participating in a physical activity program, but do not already do so.

Description. The project provides information on physical activity guidelines and provides strategies and encouragement for potential participants through a series of free, half-day workshops. The workshops cover issues such as motivation and goal-setting; muscular, aerobic, and flexibility training; nutrition; and safety. The Partners for Active Lifestyles (PALs) program complements the TESA workshops by pairing up currently active seniors with new workshop participants.[13]

The Older Adults Media Project

Sponsors. CDC has formed a partnership with the American Society on Aging (ASA), in cooperation with the Journalists Exchange on Aging (JEOA).

Purpose. The project's goals are threefold: (1) to highlight critical public health problems and to promote CDC's activities to prevent or remedy them, (2) to foster greater public awareness of national health issues that face the rapidly aging U.S. population, and (3) to inform members of the news and information media about key public health topics and issues.

Description. Activities conducted during the initial year included both a presentation about CDC's initiatives to protect the health of older people and an online computer-reporting workshop demonstrating CDC's surveillance systems at the Joint Conference of ASA and the National Council on the Aging (NCOA) in April 2002. The project also provided subsequent media outreach to journalists in the form of a media kit with in-depth background papers on the special topics presented. Topics covered last year included diabetes, falls prevention, and disability. During the current year, the topics of interest have included the West Nile virus, adult immunizations, diethylstilbestrol (DES),

and physical activity for older adults. The project will culminate with a panel presentation at the 2003 ASA/NCOA joint conference.[12]

Spyglass on Aging: Tools for Journalists Covering Seniors

Sponsor. CDC's National Center for Chronic Disease Prevention and Health Promotion, Health Care and Aging Studies Branch.

Background & Purpose. This activity was designed to inform members of the news and information media about key issues and resources for reporting on health issues facing a rapidly aging U.S. population.

Description. Two workshops were provided for journalists at a joint conference of ASA and NCOA in March 2002, which led to the publication of several articles in local and national newspapers on topics presented by the CDC.[14]

U.S.A. on the Move: Steps to Healthy Aging

Sponsors. AoA and the National Policy and Resource Center on Nutrition and Aging at Florida International University.

Background & Purpose. U.S.A. on the Move: Steps to Healthy Aging is a two-part pilot project developed in response to the President's HealthierUS Initiative. It is designed to improve nutrition and physical activity among older adults.[15]

Description. The Steps to Healthy aging project is divided into two parts: *Eating Better* and *Moving More. Eating Better* is designed to promote healthier eating among older adults. Operating at the state level, this program collects healthy recipes and tips from participants in the Older Americans Nutrition Program. AoA and The National Policy and Resource Center will publish these recipes and tips in a *Guide to Eating Better* for wide distribution.

Moving More is modeled after *Colorado on the Move,*™ a statewide lifestyle initiative designed to improve health through increased physical activity. The *Moving More* project aims to increase walking among older adults and uses step counters to inspire adults to walk more. The National Policy and Resource Center will be collecting step data and input from state nutritionists and administrators over an 8-week period and will use the data to customize program goals. There is also a pilot step program operating at a senior center in Florida that will be reviewed for effectiveness. These activities will also result in a publication called a *Guide to Moving More*.

The Aging States Project

Sponsors. This project is sponsored by the Association of State and Territorial Chronic Disease Program Directors (ASTCDPD) and the National Association of State Units on Aging (NASUA), with support from the CDC and AoA.

Background & Purpose. The Aging States Project, initiated in 2001, is designed to identify ways in which public health and aging services can collaborate to better meet the needs of older adults. The project aims to systematically compile information on health-related needs, activities, and partnerships related to older adults.

Description. National health and aging organizations have joined together with federal and state government partners to integrate the expertise and capacity of both networks for the benefit of older persons.[16] This project will result in the identification of opportunities for closer collaboration and the development of health promotion strategies that will assist older people today and in the future.[16] The final product will be a compilation of health promotion and disease prevention activities currently in the field and a listing of recommendations for additional opportunities for collaboration between public health and aging services agencies in the future.[17]

NIA Behavioral Medicine and Interventions Program

Sponsor. NIA administers the Behavioral and Social Research Program.

Background & Purpose. The program "supports research, training, and the development of research resources and methodologies to produce a scientific knowledge base for maximizing active life and health expectancy."[18]

Description. The studies conducted within NIA's Behavioral and Social Research program examine the interrelationships among aging, health, and behavior processes. Topics of interest include both the individual processes of aging and behavior, and the role of the sociocultural environment on the development and maintenance of numerous health and illness behaviors. The Behavioral Medicine and Interventions unit currently funds research on disease recognition, coping, and management, including the physiological consequences of life stresses and burdens; and social, behavioral, and environmental interventions for health promotion, disease prevention, and disability postponement.[18]

Bilingual/Bicultural Service Demonstration Grant Program

Sponsor. DHHS Office of Minority Health.

Background & Purpose. To reduce barriers between providers and clients with limited English proficiency and to improve access to quality health care.

Description. The grants provide support to improve and expand the capacity and ability of health care providers and other health care professionals to deliver culturally competent health services to minority populations. Funded projects also serve to increase the minority populations' knowledge and understanding of managed care and its implications. Funded projects offer unique and appropriate activities to meet the needs of the target community. In 2002-2003, 12 projects specifically focus on older adults.[19]

Community Programs to Improve Minority Health Grants Program

Sponsor. DHHS Office of Minority Health.

Background & Purpose. To address at least one of the following primary health topics: cancer, cardiovascular disease, chemical dependency, diabetes, homicide, suicide and unintentional injuries, infant mortality, and HIV/AIDS. Individual projects are also asked to address issues such as access to health care, health professions personnel development, improved data collection analysis, and cultural competency.

Description. These DHHS-funded grants are administered by minority community-based organizations with established coalitions. In 2002, 12 coalitions specifically focused on older adult populations.[19]

Health Disparities in Minority Health Grants Program

Sponsor. DHHS Office of Minority Health.

Background & Purpose. To address health disparities in minority communities by funding activities by community-based, faith-based, and tribal organizations to reduce health risk behaviors and to improve access to health care.

Description. Three of the funded projects currently address the needs of older adults.[19]

Older Americans Act, Title IV Demonstration Projects

Sponsor. AoA.

Background & Purpose. To sponsor health promotion and disease prevention programs targeting older people of color.

Description. Currently, AoA funds five projects with the National Minority Aging Organizations that represent each of the four major populations of color: African-Americans, Hispanic-Americans, Asian Americans/Pacific Islanders, and Native Americans.[16] The five grantees are Asociacion Nacional Pro Personas Mayores (California); National Caucus and Center for the Black Aged, Inc. (Ohio and Washington, DC); National Hispanic Council on Aging (TX and Washington, DC); National Asian Pacific Center on Aging (Seattle, WA); National Indian Council on Aging (New Mexico).

Project activities are being conducted in both urban and rural areas to provide health information at the community level on managing diabetes, preventing stroke and cardiovascular disease, preventing cancer, and promoting the use of immunizations.[16] Of these five projects, the Asociacion Nacional includes a unique component that focuses on life cycle planning and health promotion.

Project REACH for the Elderly

Sponsor. AoA.

Background & Purpose. AoA is currently partnering with CDC to co-manage Project REACH for the Elderly (Racial and Ethnic Approaches to Community Health). Project REACH is now in Phase II, the third year of a 5-year project period.[16] During Phase I, four local community coalitions were awarded planning grants to develop community action plans. Now, during Phase II, these four grantees are in the beginning stages of implementing unique health promotion and disease prevention strategies to reach older individuals of color.

Description. The four projects are Boston Public Health Commission (African descent) (Massachusetts); Latino Education Project (Hispanic) (Texas); Special Services for Groups, Inc. (Asian/Pacific Islanders) (California); and National Indian Council on Aging (American Indians) (New Mexico). Project REACH's health promotion strategies are focused on managing diabetes, preventing stroke and cardiovascular disease, preventing cancer, and promoting the use of immunizations.[16]

Project REACH is unique for its collaboration between two federal agencies to assist local communities in narrowing the gap in health disparities.[16] This multiphase initiative is developing health promotion information that can be tailored and used by various populations. AoA and CDC believe that by cooperating on this initiative, a structured mechanism will be in place for local communities to build upon for future activities.

Surgeon General's Report on Osteoporosis and Bone Health

Sponsor. DHHS Surgeon General's Office.

Background & Purpose. To promote the development of strategies to increase bone health and reduce the impact of skeletal diseases. (Planned release: 2004)

Description. The report will include information on the prevention and control of diseases of the skeletal system and assess the current level of scientific consensus on issues related to the prevention and treatment of skeletal diseases. Ultimately, the document will serve as a guide to the development of health promotion programs aimed at improving bone health at the individual, community, county, state, and federal levels.[19]

Women Living Long and Living Well (WLLLW) Project

Sponsor. DHHS Office of Women's Health.

Background & Purpose. WLLLW aims (1) to promote women's health research and education and (2) to provide guidance to health promotion and health services providers about community needs and priorities and the health promotion approaches most likely to succeed at the community level. Although older women are not specifically being targeted for this initiative, women in all stages of life have been encouraged to participate.[19]

The project will report on women's health needs, identify gaps and priorities, and develop a framework that focuses on the two primary goals of the Healthy People 2010 national health agenda--improving the quality and years of life and eliminating health disparities.

Description. To develop the framework, the project synthesizes information provided from a series of focus groups and listening sessions conducted nationwide. To achieve the two primary goals, three pathways have been proposed: (1) improving chances for independent living through better access to, and coordination of, health care, services, and messages; (2) building networks of providers and communities to integrate prevention and treatment as well as mental and physical health care; and (3) enhancing the knowledge base through gender-based research and multidisciplinary collaboration. For each of the three pathways, cultural relevance, evaluation, and rapid implementation of the findings are key elements.

Participants in the listening sessions developed an understanding of the need for a holistic approach to women's health. Early education and self-esteem development were seen as key to the development and maintenance of positive health practices.

APPENDIX B: PROGRAMS AND ACTIVITIES DESIGNED TO MAINTAIN THE MENTAL FUNCTIONING OF OLDER PERSONS OR PREVENT ITS DECLINE

AoA

Older Adults and Mental Health: Issues and Opportunities

The AOA report *Older Adults and Mental Health: Issues and Opportunities*[20] was written as a companion document to the Surgeon General's report on Mental Health.[21] The report highlights the major issues in the field of mental health and aging and focuses on community services available to older persons, particularly those funded through the aging network by the Older Americans Act and/or by state, local, or private sources or programs such as Title XX, Medicare, or Medicaid.

The report highlights several strategies for addressing the mental health issues of older adults, while emphasizing the need for expanded partnerships to ensure that appropriate and effective services are widely available. Among the strategies advocated by the report are increased emphasis on health promotion, disease prevention and early intervention services, increasing collaboration among providers and with consumer groups, increasing public awareness and education about mental health issues, and addressing the needs of special populations.

NIA Behavioral and Social Research Program

This program supports research on changes in cognitive functioning over the life course through its Individual Behavioral Process Branch. This program encourages a number of studies that: (1) examine the influence of contexts on the cognitive functioning of aging persons; (2) investigate the effects of age-related changes in cognition on activities of daily living, social relationships, and health status; and (3) develop strategies for improving everyday functioning through cognitive interventions. Topics such as problem solving and decision making, social cognition, memory strategies, and reading and speech comprehension are of primary interest.[18] We summarize a few of the studies in these areas below.

Alzheimer's Disease Anti-Inflammatory Prevention Trial (ADAPT)

ADAPT is a clinical trial, introduced in 2001, designed to test the use of anti-inflammatory medications for the prevention of Alzheimer's disease. Previous epidemiological studies have suggested an association between the use of anti-

inflammatory drugs and decreased risk for Alzheimer's disease. In this study, two specific drugs--Naproxen and Celecoxib--will be tested for their ability to prevent Alzheimer's disease. Study participants are 70 years old or older and have a parent or sibling who has or had serious age-related memory loss, dementia, senility, or Alzheimer's disease.[22]

Moderate Exercise Program for Older Women Caregivers

This study was designed to assess the physical and mental health effects of exercising four times a week among 100 women aged 49 to 82. It was the first investigation of the effectiveness of a physical activity intervention tailored specifically to the mental and physical needs of caregivers. In comparison to women receiving only nutrition counseling, moderate exercisers slept better and lowered their blood pressure reactivity to stress tests.

Given that many women eventually will provide care to an ill or disabled relative, the findings of this study are very important. Dr. Sidney M. Stahl, Chief of Behavioral Medicine within the NIA's Behavioral and Social Research Program noted that "studies show that family caregiving accompanied by emotional strain is an independent risk factor for mortality among older adults. The study gives us some evidence that a self-directed exercise program can reduce stress reactions and perhaps improve the health of caregivers. This pilot intervention trial provides encouraging results and hope for a low-cost, effective means to combat caregiver stress."[23]

SAMHSA Mental Health and Aging Activities

Although SAMHSA's programs are often targeted to children and younger adults, the agency has sponsored several activities focused on health promotion and disease prevention for older adults. These activities are highlighted below.

SAMHSA and NCOA Joint Project

In FY 1999, SAMHSA and the NCOA began a project to identify ways to engage the aging services network (e.g., senior centers, adult day care programs, and nutrition programs) in addressing the mental health needs of older adults. Through meetings with consumers and substance abuse, mental health, and aging services providers, two key priorities were identified: (1) increased awareness at all levels (including older adults, aging services staff, substance abuse and mental health services staff, federal/state/local public officials) of the substance abuse and mental health issues facing older adults, and (2) greater knowledge among services providers about how to address substance abuse and mental health problems among their clients.

SAMHSA and NCOA have responded to these identified needs by implementing two projects. The first is the development of a manual for community-based programs on promising practices/successful strategies for partnership between aging services

organizations and substance abuse and mental health providers to address the needs of older adults.

The second is the design of a tool kit to educate staff and clients at aging services organizations about how to identify and address substance abuse and mental health problems among older adults.

Both projects are being advised by a group of approximately 20 partners--national organizations that represent leading constituencies in the substance abuse, mental health, and aging communities.

Substance Abuse Prevention and Treatment Block Grant (SAPTBG) Program

The Substance Abuse Prevention and Treatment Block Grant (SAPTBG), administered by the Center for Substance Abuse Treatment (CSAT) and Center for Substance Abuse Prevention (CSAP), provided $1.6 billion in 2001 to states and territories (including one tribal government) to support substance abuse treatment and prevention services for persons at risk of abusing alcohol and drugs. The SAPTBG supports state activities to maintain viable treatment capabilities and to respond to the citizens who are at greatest risk of or who are abusing alcohol and illegal drugs.

The SAPTBG accounts for approximately 49 percent of all public funds spent by the states for substance abuse prevention and treatment. Using the SAPTBG application as a data source, CSAT collects data from the states on treatment needs for alcohol and drug abuse by race/ethnicity, sex, and age cohort (including persons 45 to 64 years of age and persons 65 years and older.) These data are analyzed annually by state and sub-state planning areas.[24]

Treatment Improvement Protocol (TIP) on Substance Abuse

SAMHSA's CSAT is developing a series of consumer and provider-oriented materials related to the 1998 Treatment Improvement Protocol (TIP) on Substance Abuse Among Older Adults. These materials will include consumer brochures on substance abuse and the importance of good mental health in preventing substance abuse among seniors, a poster, a provider reference guide, and a pocket screener.[24]

Community-Initiated Prevention Intervention Program

A grant award was made in FY 1999 to ASA under the CSAP Community-Initiated Prevention Intervention Program. Through this grant, ASA will refine, adapt, and test an alcohol abuse prevention intervention in a community setting with at-risk older adults to determine its effectiveness and potential use in other situations.

Over the past year, CSAP has worked with NCOA and others to disseminate the Community-Initiated Prevention Intervention Program grant announcement and pre-application workshop mailers to the aging services constituency. It is hoped that additional grants targeting seniors will be forthcoming.[24]

APPENDIX C: HEALTH PROMOTION AND DISEASE PREVENTION PROGRAMS AND SPONSORS

Older Americans Act Nutrition Programs' Elderly Nutrition Program

Sponsor. AoA, which administers the Elderly Nutrition Program, funded under Titles III and VI of the Older Americans Act (OAA).[25]

Background & Purpose. The Elderly Nutrition Program aims to help older Americans build a foundation for health through improved diets, increased physical activity, and improved lifestyle choices.

Description. Through this program, AoA provides grants to 57 state agencies on aging that make grants to 655 area agencies on aging which contract with about 4,000 local nutrition service providers. In addition, the AoA directly funds 233 Indian tribal organizations representing American Indians and Alaska Natives and 2 grants to organizations representing Native Hawaiians to promote the delivery of nutrition services in their local communities.

The program seeks "to provide the opportunity for older Americans to live their years in dignity."[25] In order to achieve this goal, the program is designed to provide healthy meals and reduce malnutrition risk, promote health and prevent disease, and reduce social isolation, while linking older adults with other community services. The program also seeks to provide an opportunity for community involvement in activities such as volunteering.

Services are targeted primarily for older adults with the greatest social and/or economic need, with particular attention to low-income minorities.[25] According to AoA, a national evaluation issued in 1996 concluded that the program was successful in reaching vulnerable populations and increasing nutrient intake and social interactions (compared with non-participants), and participants reported satisfaction with the program services.[25]

Older Americans Act Disease Prevention and Health Promotion Services Program

Sponsor. AoA.

Background & Purpose. AoA allocates funds to states to provide disease prevention and health promotion services and information at multipurpose senior centers, at congregate meal sites, through home-delivered meal programs, or at other appropriate sites.[16]

Description. The activities provided through this program include health risk assessments and screenings, nutrition screening and educational services, physical fitness, health promotion programs on chronic disabling conditions, home injury control services, counseling regarding social services, and follow-up health services. The states give priority to areas of the state that are medically underserved, and in which there are large numbers of older individuals who have the greatest economic need for such services.[16]

Initiative to Eliminate Racial and Ethnic Disparities in Health

Sponsor. This initiative involves all of DHHS. However, when focused specifically on the older population, the lead agency is AoA.

Background & Purpose. AoA seeks to prevent or delay the onset of diabetes, cardiovascular disease, influenza, and pneumococcal diseases through the strategic use of nutrition programs, information outreach programs, the adoption of culturally appropriate strategies, and methods that ensure increased access to services for those in greatest economic and social need, particularly low-income minorities.[26]

Description. AoA activity related to this initiative has included a commitment in three key areas: diabetes, cardiovascular disease, and adult immunizations as they relate to minority elders.

Health Care and Aging Studies Branch Mini-Grants Program

Sponsors. AoA in collaboration with the Association of State and Territorial Chronic Disease Program Directors, the National Association of State Units on Aging, and the CDC's National Center for Chronic Disease Prevention and Health Promotion, Health Care and Aging Studies Branch.

Background & Purpose. The program is designed to coordinate activities between public health and aging service agencies to provide health promotion programs to older adults in the areas of physical activity, proper nutrition, Medicare preventive services, arthritis, and stress management.

Description. The program has funded 10 mini-grants to the following states: Arkansas, California, Iowa, Maine, Maryland, Massachusetts, Michigan, North Carolina, Oklahoma, and Wyoming.[27]

WISEWOMAN: Well-Integrated Screening and Evaluation Demonstration Program for Women Across the Nation

Sponsor. CDC, Division of Nutrition and Physical Activity.

Background & Purpose. The WISEWOMAN program will provide chronic disease risk factor screening, lifestyle intervention, and referral services in an effort to prevent cardiovascular disease. This program targets low-income, underinsured and uninsured women aged 40–64 years.[28]

Description. There are currently 12 WISEWOMAN demonstration projects operating in 12 states, tribes, and territories. These projects are completing the planning phase and are preparing to provide preventive health services. To date, more than 10,000 women between the ages of 40 and 64 years have been screened through the WISEWOMAN projects. According to the CDC, WISEWOMAN will continue to extend risk factor screening, interventions, and medical referrals to participants in each of the 12 funded projects as long as funding is available.[28]

Creativity in Aging

Sponsors. AoA in partnership with a consortium developed to specifically focus on creativity in aging. A memorandum of understanding was initiated between several federal and private-sector partners to provide joint support. Federal partners include the National Endowment for the Arts (NEA) and two DHHS agencies, National Institute of Mental Health (NIMH), and SAMHSA. NEA and NIMH are providing federal support for the study, and AoA is actively involved on the study advisory board. Two private-sector partners, AARP and the Guttman Foundation, are providing support of $600,000.

Background & Purpose. This is the first study to evaluate the impact of quality cultural programs on the overall physical health, mental health, functioning, and sense of well-being of older adults.[16]

Description. Dr. Gene Cohen, Director of George Washington University's Center on Health, Aging and the Humanities, is conducting the 3-year study at the sites of three cultural programs for older persons. Sites included are Elders Share the Arts in Brooklyn, New York; Artworks at the Goldman Institute in San Francisco; and the Levine School of Music in Northern Virginia.[16]

APPENDIX D: DHHS DATA COLLECTION ACTIVITIES RELATED TO THE HEALTH BEHAVIORS OF OLDER AMERICANS

AHRQ

Evidence-Based Practice Centers

AHRQ awards 5-year contracts to institutions in the U.S. and Canada to serve as Evidence-based Practice Centers (EPCs). Several of the topics covered by these centers involve the health of older persons, with particular focus on the Medicare population. Examples of evidence reports produced by the centers that deal directly with the aging population include *Osteoporosis in Postmenopausal Women* and *Cost-Effectiveness Analysis of Colorectal Cancer Screening and Surveillance Guidelines*.[29] A report on screening for dementia is forthcoming.

Broadening the Evidence Base for Evidence-Based Guidelines

This AHRQ-supported report outlines some major areas in which research is needed to define the appropriate use for specific screening tests, counseling interventions, immunizations, and chemoprophylaxis. This report focuses on identifying what the most reliable and effective ways are to measure and improve the delivery and quality of preventive care provided in the primary care setting.[30]

CDC and NIA

CDC and NIA have collaborated on a number of reports that utilized national data on the health and well-being of older Americans.

Aging Trends

Aging Trends is a series of reports developed by the CDC's National Center for Health Statistics, with support from NIA, that highlight some of the most important health issues facing older Americans. These reports use multiple sources of data to monitor the health and well-being of the older populations. Each report identifies opportunities for prevention and further research, describes those most at risk, and identifies areas in which increased use of existing services and aids would be beneficial. Four reports have been completed to date, including *Trends in Causes of Death Among the Elderly, Trends in Vision and Hearing Among Older Americans, The Oral Health of Older Americans,* and *The Changing Profile of Nursing Home Residents: 1985-1997*.[31]

Trends in Health and Aging

The CDC's National Center for Health Statistics, with support from NIA, maintains a data warehouse and accompanying website (entitled *Trends in Health and Aging)*. This website presents trends in health-related behaviors, health status, health care utilization, and the cost of care for the older U.S. population. Data are available for academic researchers and public users to search and download. Users have free access to a data dissemination tool to retrieve and display tabular information. CDC plans a significant expansion of the resources and data included in the warehouse on an ongoing basis.[32]

Longitudinal Studies of Aging (LSOA)

The Longitudinal Studies of Aging (LSOA) is a collaborative project of the CDC's National Center for Health Statistics and NIA. This study analyzes multiple cohorts of persons 70 years of age and older and is designed primarily to measure changes in health, functional status, living arrangements, and the health services utilization of two cohorts of Americans as they move into and through the oldest ages.

A Second Supplement on Aging followed the original LSOA in 1994. This supplement replicated the first study, roughly 10 years later, with a new cohort of persons 70 years of age and older. It was designed in part to provide the data necessary for analyzing changes in health and functioning among older Americans. The study used a nationally representative sample of 9,447 civilian non-institutionalized persons, and the data were collected through personal interviews in the household.

All waves of the LSOA include questionnaire items dealing with self-care practices and activities of daily living (ADL), with a focus on identifying barriers and restraints to normal levels of activity.

The four identified aims of this Second Supplement on Aging are as follows:

- provide a replication of the first Study on Aging in order to determine whether there have been changes in the level of disability among older persons between 1984 and the mid-1990s. Availability of replicated health and functioning measures and their covariates collected on two distinct cohorts will enable researchers to evaluate whether the prevalence of disability or the factors associated with disability are different for the current cohort of women and men aged 70 years and over as compared to those of the cohort who were aged 70 years and over 10 years ago.

- provide information on the causes and correlates of changes in health and functioning among older Americans, including background demographic characteristics, health behaviors and attitudes, preexisting illness, and social and environmental support.

- provide information on the sequence and consequences of health events, including utilization of health care and services for assisted community living; on the physiological consequences of disability such as changes in social activities, living arrangements, social support, and use of community services; and on the deployment of assisted living strategies and the accessibility of technological and environmental adaptations.

- serve as the baseline for the first national second-generation prospective study focusing on older Americans, the Second Longitudinal Study of Aging.[33]

NIA Demography of Aging Centers

The NIA has established 11 centers on the demography of aging. These centers have been charged with providing innovative and policy-relevant research on health, social factors, economics, and other issues that affect the U.S. older population. *Research Highlights in the Economics and Demography of Aging* is a series of reports prepared for NIA as a cooperative activity of the demography centers. Report titles include *The Health and Retirement Study Part I--History and Overview; The Declining Disability of Older Americans; Socioeconomic Status, Health, and Longevity; Early Retirement in the United States; Social Security and Retirement Around the World;* and *Health Insurance and Retirement*. In addition to these reports, the centers have produced numerous research reports and articles related to health and aging.[34]

We next briefly describe the major surveys conducted by the NIA's aging centers.

National Long Term Care (LTC) Survey

This longitudinal study, sponsored by NIA and ASPE focuses on the health and well-being of older Americans. It was first conducted in 1982, again in 1984, and has since been conducted every 5 years. The survey population is drawn from Medicare beneficiary enrollment files and is nationally representative of both community and institutional residents.

The survey's purpose is to provide nationally representative data on the prevalence and patterns of functional limitations, both physical and cognitive; longitudinal and cohort patterns of change in functional limitation and mortality over a 12-year period; medical conditions and recent medical problems; health care services used; the kind and amount of formal and informal services received by impaired individuals and how it is paid for; demographic and economic characteristics like age, race, sex, marital status, education, and income and assets; out-of-pocket expenditures for health care services and other sources of payment; and housing and neighborhood characteristics.[35]

In 1994, several items assessing health promotion and self-care activities were added to the LTC survey. The frequency and duration of physical activity and the perceived effect of physical activity on heart and breathing function were examined. Respondents

also were asked about their history of regular exercise and participation in sports, as well as their perceived level of physical activity compared with that of their peers. Barriers to physical activity also were assessed in the 1994 instrument. Finally, a section on current nutrition and social activities, and five new items assessing current smoking and alcoholic beverage consumption were added to the 1994 LTC survey.

The Health and Retirement Study (HRS)

The Health and Retirement Study (HRS), conducted by the University of Michigan, surveys more than 22,000 Americans over the age of 50 every 2 years. The study focuses on physical and mental health, insurance coverage, financial status, family support systems, labor market status, and retirement planning. Its purpose is to provide data for researchers, policy analysts, and program planners who are making major policy decisions that affect retirement, health insurance, saving, and economic well-being.

The NIA first awarded the University of Michigan's Institute for Social Research a 5-year cooperative agreement in 1990 to plan and undertake a study that would contain a comprehensive source of data on retirement. The study utilized a national panel design and included an initial sample of 12,600 persons. The baseline survey was conducted in-home, with follow-ups conducted by telephone every second year, with proxy interviews after death. The stated objectives of HRS are to

- explain the antecedents and consequences of retirement;
- examine the relationship between health, income, and wealth over time;
- examine the life cycle patterns of wealth accumulation and consumption;
- monitor work disability;
- provide a rich source of interdisciplinary data, including linkages with administrative data; and
- examine how the mix and distribution of economic, family, and program resources affect key outcomes, including retirement, dissaving, health declines, and institutionalization.[36]

A section of the survey devoted to health status included items dealing with activities of daily living (ADL), current levels of physical activity, as well as current smoking and drinking practices. Questions also were asked about the use of secondary prevention measures, such as whether the respondent was following a special diet either to reduce blood pressure or to prevent complications from diabetes.

The fourth wave of data collection was completed in 1999, and the study is currently at the end of its second 5-year funding cycle. The University of Michigan has recently submitted a proposal to NIA to renew funding for three more waves of data collection.

Study of Assets and Health Dynamics Among the Oldest Old (AHEAD)

The Study of Assets and Health Dynamics among the Oldest Old (AHEAD) was designed to detail the joint dynamics among health (physical, cognitive, and functional), economic and family resources, and care arrangements. Wave I data collection for this national panel study was completed in 1994; Wave II was completed in 1996; and Wave III, which was fielded as a joint data collection activity with HRS, ended in 1999. Among the health promotion/disease prevention topics that were addressed by the survey were barriers to physical activity, and current smoking and drinking behaviors.

The overall objectives of this study are to:

- monitor transitions in physical, functional, and cognitive health in advanced old age;
- examine the relationship of late-life changes in physical and cognitive health to patterns of dissaving and income flows;
- relate changes in health to economic resources and intergenerational transfers; and
- examine how the mix and distribution of economic, family, and program resources affect key outcomes, including institutionalization, dissaving, and health declines.[36]

The Wisconsin Longitudinal Study (WLS)

The Wisconsin Longitudinal Study (WLS), supported in part by NIA, was designed to study the life course, intergenerational transfers and relationships, family functioning, physical and mental health and well-being, and morbidity and mortality from late adolescence through middle age. Items measured include social background, youthful aspirations, schooling, military service, family formation, labor market experiences, and social participation. Information about perceived general health status, smoking and alcoholic beverage consumption, and extent of self-care activities was also included.

This long-term study consists of a random sample of 10,317 men and women who graduated from Wisconsin high schools in 1957. Survey data were collected from the original respondents or their parents in 1957, 1964, 1975, and 1992, and from a selected sibling in 1977 and 1994. NIA is supporting a new wave of interviews with graduates, siblings, spouses, and widows during 2003–2004.

Because the WLS cohort was primarily born in 1939, it precedes the baby boom generation by about a decade. Therefore, this study was designed to provide an opportunity to assess early indications of trends and problems that will become important as the baby boom generation reaches old age. The study is unique in that it is the first large, longitudinal study of American adolescents, and thus provides the first opportunity to study the life course from late adolescence through the mid-fifties.[37]

Baltimore Longitudinal Study on Aging (BLSA)

The NIA's Baltimore Longitudinal Study on Aging (BLSA), begun in 1958, is America's longest-running scientific study of human aging. The study was designed to analyze

what happens as people age and how to sort out changes due to aging from those due to disease or other causes. More than 1,200 men and women, ranging in age from the twenties to the nineties, have been involved to date as study volunteers.

Included in the many (nearly 100) data types and associated studies within the BLSA are several data files dealing with physical activity, attitudes toward physical activity, nutrient intake, and smoking history. For instance, at each visit, BLSA participants are asked to complete a physical activity questionnaire. The questionnaire asks them to estimate the amount of time they spend doing each of 100 activities.

The schedule and inventory entitled "Your Activities and Attitudes" is given to each participant to be filled out without supervision at the individuals' first visit and re-administered at every fourth visit. The inventory is composed of three parts: background information, including general information about the participant and his earlier life; an activity inventory; and an attitude inventory.

The activity inventory component of the questionnaire provides eleven sub-scores in such areas as leisure-time and religious activities, intimate personal contacts, security, and health status. The attitude inventory component deals with the personal aspects of adjustment. It contains eight groups of statements concerning health, friends, work, economic security, religion, and feelings of usefulness, happiness, and family.

A Physical Functioning Inventory (PFI) is included in the overall questionnaire to measure level of functioning with daily activities. It consists of 22 items, with each item followed by several probes, as appropriate. Each of 22 items describes a task commonly performed as part of daily functioning, such as driving, preparing meals, climbing stairs, bathing, and using the telephone. The probes establish the level of difficulty (if any) experienced in performing the task, and modifications made to enhance the performance of each task.

Since 1961, there has been an ongoing study of food habits of the men participating in the longitudinal study. Daily average intakes have been computed from a 7-day diet record, and additional calculations have been performed to obtain the percentage of total calories from fats, carbohydrates, and proteins; the polyunsaturated to saturated fatty acid ratio; simple and complex carbohydrate intakes; and the percentage of calories from saturated and unsaturated fatty acids.

Several important findings from this study have been reported in the literature, including the following:

- Normal aging of the human heart and arteries is a risk factor for cardiovascular disease at older age.

- Lifestyle and medications could help slow the decline in heart function of older people.

- Cholesterol continues to be a risk factor for heart disease in elderly men.
- Dementia and cognitive declines may be predicted as many as 20 years before symptoms are observed.
- Short-term visual memory declines over time, but vocabulary increases until people are in their eighties.
- Non-steroidal anti-inflammatory drugs such as ibuprofen may reduce the risk for Alzheimer's disease.
- Older people cope more effectively with stress than young adults.
- Self-reported happiness is more predictable from a person's disposition than from the special events he or she encounters.[38]

National Survey of Self Care and Aging (NSSCA)

The National Survey of Self Care and Aging is a longitudinal data set of community-based older adults. The sampling universe consists of all Medicare beneficiaries in the contiguous United States who were 65 years of age or older in 1989 and did not reside in nursing homes or domiciliary care facilities at the time of selection. Baseline in-person interviews were conducted during the fall and winter of 1990–1991 with 3,485 non-institutionalized adults aged 65 and older. Subjects were selected from the Medicare beneficiary files according to a stratified random sampling design. The unique aspects of this study include the large number of subjects in the oldest-old (85 and older) category and the large number of rural subjects. The initial in-person interviews obtained extensive information on functional status and self-care coping strategies related to functional status limitations. A telephone follow-up survey of subjects was conducted in 1993–1994.

Among the functional status and self-care activities examined at both time intervals was the presence and severity of difficulties in performing basic activities of daily living (ADLs), mobility activities of daily living (MADLs), and instrumental activities of daily living (IADLs); and behavioral and environmental adaptations made by older persons to mitigate actual or perceived functional difficulties resulting from disability. Self-care coping strategies included obtaining informal assistance from others; using equipment, clothing, or devices (such as telephones with large numbers); modifying behavior (such as avoiding stairs to prevent falls); and changing one's environment (such as moving to a residence with more services) in order to remain living in the community over time.[39]

SAMHSA Data Collection Activities

The SAMHSA Office of Applied Studies (OAS) collects and analyzes data on older populations and projects the need for substance abuse treatment among seniors

through the year 2010. This project includes an in-depth review of the literature and consultation with federal and non-federal experts to better understand substance abuse among older persons, including how substance abuse changes as people age and the incidence and impact of comorbidities.

A significant focus of this project is to identify existing sources of data and potential measures to enable projections of substance abuse among older adults in the future. Of particular interest will be projections of substance abuse among the baby boom cohort (born between 1946 and 1964), which evidenced the highest historic rate of substance abuse. This cohort will begin turning 65 in 2011.

Currently, major sources of data (e.g., the National Household Survey of Drug Abuse, the National Longitudinal Alcohol Epidemiological Study, Veterans Administration patient data, and data from several surveys of the National Center for Health Statistics) are being analyzed for projections of future need. SAMHSA is considering expanding the National Household Survey on Drug Abuse and developing a module that pertains to older adults. Work on these activities is being shared with an interagency workgroup composed of representatives of SAMHSA's three Centers as well as NIA, CMS, NIMH, National Institute on Alcohol Abuse and Alcoholism, National Institute on Drug Abuse, AoA, the Department of Veterans Affairs, and other relevant agencies. A preliminary model is under development that defines the measures necessary to project substance abuse and misuse among older adults.[24]

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