

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Statement by

Dr. Patricia A. Grady

Director, National Institute of Nursing Research

on the

Fiscal Year 2004 President's Budget Request

for the National Institute of Nursing Research

Mr. Chairman and Members of the Committee:

The fiscal year (FY) 2004 budget includes \$134,579 million, an increase of \$4,060 million over the FY 2003 enacted level of \$130,584 million comparable for transfers proposed in the President's request.

Nursing research and nursing practice are converging to address the challenges of maintaining and improving health and healthcare in our country. During this time of heightened uncertainty in many aspects of our lives, nursing research, which informs the practice of the nation's largest number of healthcare professionals - 2.7 million nurses - is critical to developing and testing interventions that improve health. Increasingly there is a need for health promotion research, which is a special strength of nursing research. This need is reflected in a recent Department of Health and Human Services (DHHS) Fact Sheet that attributes 40 percent of premature deaths to unhealthy behaviors, such as smoking and poor eating habits. Conversely, of the 30-year average gain in life expectancy in the last century, the DHHS report states that 25 of those years came from advances in public health, principally from health promotion. Consistent with the NIH Research Roadmap for the future, nursing research also focuses on multidisciplinary and clinical research. The goal is to help healthcare professionals work smarter by capitalizing on new technologies and research-tested methodologies that extend the reach and quality of their practice in promoting health, managing illness, and improving care. Now let me discuss some

findings.

REDUCING POSTMENOPAUSAL WOMEN'S RISKS FOR CARDIOVASCULAR DISEASE

Heart disease is the leading cause of death in women in the United States. Even though the death rate has decreased in recent years, the benefit is less for women than men. More needs to be known about the effects of preventive strategies, such as exercise and diet, in reducing risks of the disease. We know lowering total and low density lipoprotein cholesterol (LDL-C) and raising high-density lipoprotein cholesterol (HDL-C) reduces risk of cardiovascular disease in women. Nurse researchers did a study that asked the question of why HDL-C, the "good cholesterol," drops when post-menopausal, obese women adhere to a low-fat diet. On a low-fat diet, weight loss occurs and the deleterious LDL-C decreases, but the weight loss is accompanied by a reduction of the good HDL-C. Findings of the study indicate that the causal factor for the HDL-C reduction was not the type or amount of fat the women consumed, but rather that they substituted simple sugars, such as syrups and refined sugar, for fat in their diets. What the women should have done was substitute complex sugars, such as high fiber vegetables and starches. The current American Heart Association guidelines recommend consuming 55 percent of energy from carbohydrates, without specifying complex or simple. This study points out the need to write more specific dietary guidelines that differentiate between types of carbohydrates, in addition to types of fat. This study is especially timely in an age where low-fat and fat-free foods often depend on simple sugars to improve taste.

REDUCING RISK FACTORS FOR OBESITY

AND HYPERTENSION IN ADOLESCENTS

Obesity continues to be a major health problem in the United States. The Centers for Disease Control and Prevention states that about 15 percent of children and adolescents are overweight, a 4 percent increase since the last survey in 1994. The U.S. prevalence of obesity increased by 61 percent in the 9 years prior to 2001. Habits formed in childhood become the lifestyles that drive this upswing. Researchers testing an intervention in children and adolescents have been able to decrease risk factors for hypertension and obesity. As part of the Cardiovascular Health in Children and Youth study, researchers tested rural, mostly African-American middle school students in an eight-week physical activities program combining exercise and health education. Subjects were divided into four groups - exercise, education, or both, and controls. Those in the two exercise groups had a lower increase in body fat, and the blood pressure of the three intervention groups decreased compared to controls. These results demonstrate the effectiveness of regular aerobic exercise and health education programs for

school-aged children to help reduce their risks for cardiovascular disease later in life.

COPING WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE

People with Chronic Obstructive Pulmonary Disease (COPD), which causes discomfort at best and severe, life-altering changes at worst, report that there is little available to help improve their breathing. Shortness of breath often results in inability to work, limited social activities, and even difficulty in dressing themselves. As the nation's fourth leading cause of death, COPD affects over 22 million people. In confronting this issue, nurse investigators tested a "self management" inspiratory muscle training technique to assist patients in improving their own breathing and respiratory muscle strength. For 30 minutes, 5 days a week, over a 16-week period, patients used a mouthpiece attached to a tube with openings that gradually decreased in size to make inhalation more challenging. Following training, these subjects' breathing, respiratory muscle strength, and endurance were considerably improved compared to a control group, and they could once again perform daily activities. The study also showed that subjects were able to self-manage by performing inspiratory muscle training at home without direct professional assistance.

IMPROVING CARE AT THE END-OF-LIFE CARE

Another important healthcare issue involves end-of-life and palliative care. As the lead Institute at NIH for coordinating this research, NINR supports research to improve the way the healthcare system addresses end-of-life issues. A recent study commissioned by Last Acts contributed more evidence of the need for change, concluding that the United States does only a mediocre job of caring for seriously ill and dying patients. The study also indicated that although many would prefer to die at home or in a hospice, most die in the hospital, where high tech efforts to prolong life and where patients' diminished control over decisions are common.

Nurse researchers studied the outcomes for patients enrolled in the Program for All-inclusive Care for the Elderly (PACE), a managed care program for people 55 and older. Results showed that unlike the

general population, where 44 percent die in the hospital and 20 percent die at home, the numbers are almost reversed in PACE, with 45 percent dying at home and 21 percent in the hospital. Another outcome was improved consistency and predictability of care. End-of-life care is often fragmented, and in the case of advance directives, written instructions may not be honored in the hospital, since staff may not have immediate access to patient records from other care facilities. The PACE program, however, offers consistent care, thus increasing the likelihood that advance directives will be followed. PACE also helps older people develop advance directives.

NEW AND EXPANDED INITIATIVES

For FY 2004, NINR plans include launching a new pediatric end-of-life initiative, stimulated by the Institute of Medicine's report *When Children Die: Improving Palliative and End-of-Life Care for Children and Their Families*. This report concluded that pediatric end-of-life issues have received insufficient research attention. We will also support the development of ethnically and culturally sensitive interventions for those near the end of life and approaches to improve communications between care providers, patients and families.

Research on strategies for self-management of chronic illness will be expanded to include reducing symptoms related to high blood pressure, diabetes, dementia and developmental disabilities. These strategies will incorporate age, gender, and ethnic and cultural factors.

Minority men will be targeted for interventions that promote healthy lifestyles, since they have a shorter life span and a higher mortality rate than Caucasian men and all subgroups of women. NINR will stimulate research on factors that influence decision-making for healthy choices, such as nonsmoking, exercise, and proper nutrition. Other issues to be addressed include: How can these men improve management of stress? How do their families and their communities influence their health-related behaviors? Because young minority men are often underserved, studies in this area could create an important strategy for effective public health interventions to follow.

We continue to have a strong interest in the significant health disparities for minority women. NINR will expand research that targets prevention of low birthweight babies, since according to Healthy People 2010, of the Department of Health and Human Services, the incidence rate for low birthweight African-American women is twice that of Caucasian women. Puerto Rican women are also especially likely to have low birthweight infants. Issues include improving early identification and management of complications during pregnancy, such as infection, hypertension, and diabetes.

TRAINING NURSE RESEARCHERS FOR THE FUTURE

NINR is addressing the future of nursing science - how to ensure that sufficient, high-quality research continues to grow and play a fundamental role in health care. In the early 90's, and again in 2000, the National Academy of Science's National Research Council stated that the number of nurse researchers must increase. Over the next four to six years, our Nation is facing a critical nursing faculty shortage. Nurse researchers form the backbone of university faculty in schools of nursing. In rising to this workforce challenge, NINR emphasizes early entry into research careers, including fast-track baccalaureate-to-doctoral programs, to increase the number of nurse investigators. Other opportunities are made available through the NINR Centers programs and NINR/NIH research training mechanisms and career development awards.

Our centers provide an environment and infrastructure to promote early entry into and sustained participation in research programs. NINR funds nine Core Centers, each of which offers research and research training opportunities to those in their geographic areas. We also fund nine Developmental Centers that enhance emerging research programs. Our recently-launched Nursing Partnership Centers to Reduce Health Disparities funded 17 Centers which pair research-intensive nursing schools with minority-serving schools of nursing. These Partnerships are expected to expand research on health disparities and increase the number of minority nurse investigators.

NINR is focusing on ways to integrate genetic science into nursing research, education, and practice. Strategies include facilitating lifestyle changes for those at risk, genetic counseling, and selecting optimal therapeutic interventions based on genotype. The fourth NINR Summer Genetics Institute will be offered this year. This is an intensive, eight-week genetics training program held on the NIH campus. Its goal is to produce graduates who develop successful research careers and help integrate genetic information into research and educational programs across the country.

Mr. Chairman, this concludes my remarks. I would be pleased to answer any questions you and other members of the Committee may have.