

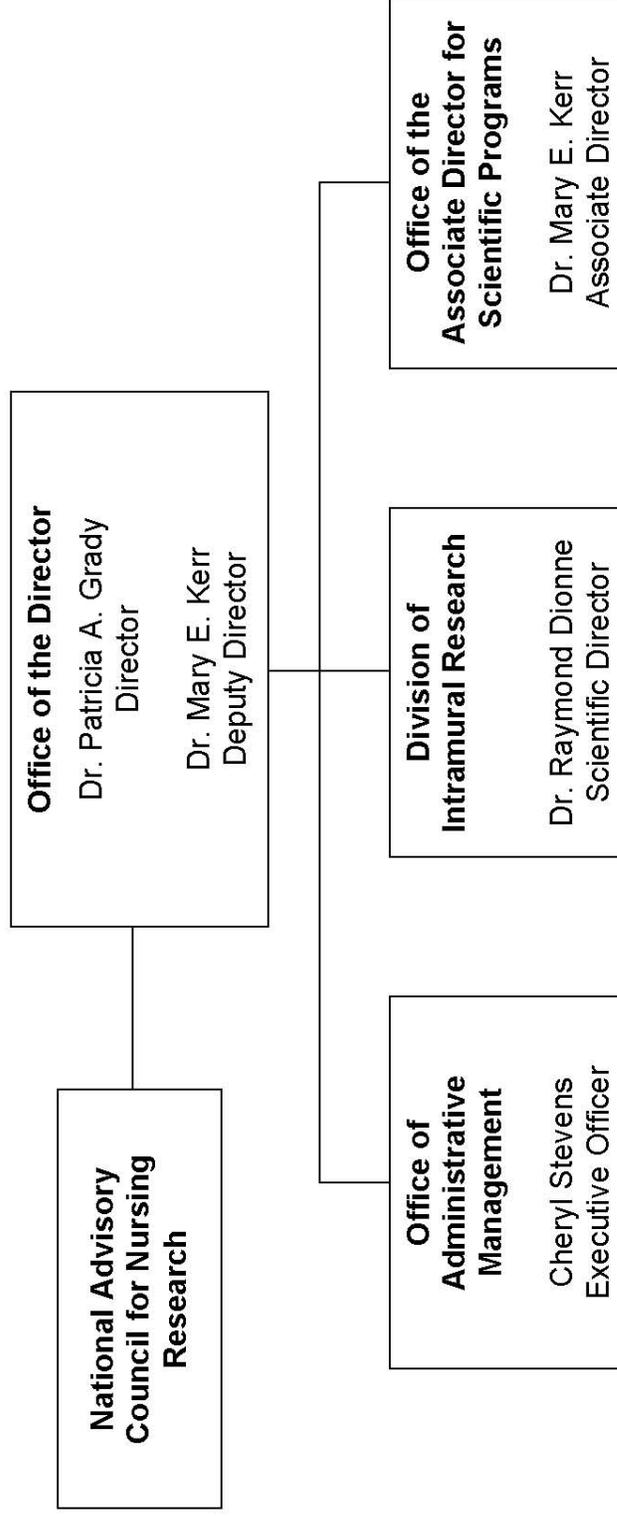
DEPARTMENT OF HEALTH AND HUMAN SERVICES

NATIONAL INSTITUTES OF HEALTH

National Institute of Nursing Research

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**National Institutes of Health
National Institute of Nursing Research
Organizational Chart**



NATIONAL INSTITUTES OF HEALTH

National Institute of Nursing Research

For carrying out section 301 and title IV of the Public Health Services Act with respect to nursing research, ~~\$139,920,000~~ **\$137,609,000** (Department of Health and Human Services Appropriation Act, 2008)

**National Institutes of Health
National Institute of Nursing Research**

Amounts Available for Obligation 1/

Source of Funding	FY 2007 Actual	FY 2008 Enacted	FY 2009 Estimate
Appropriation	\$137,342,000	\$139,920,000	\$137,609,000
Pay cost add-on	62,000	0	0
Rescission	0	-2,444,000	0
Subtotal, adjusted appropriation	137,404,000	137,476,000	137,609,000
Real transfer under Director's one-percent transfer authority (GEI)	-216,000	0	0
Comparative transfer to NIBIB	-5,000	0	0
Comparative transfer to OD	-2,000	0	0
Comparative transfer to NCRR	-110,000	0	0
Comparative transfer under Director's one-percent transfer authority (GEI)	216,000	0	0
Subtotal, adjusted budget authority	137,287,000	137,476,000	137,609,000
Unobligated balance, start of year	0	0	0
Unobligated balance, end of year	-21,000	0	0
Subtotal, adjusted budget authority	137,266,000	137,476,000	137,609,000
Unobligated balance lapsing	0	0	0
Total obligations	137,266,000	137,476,000	137,609,000

1/ Excludes the following amounts for reimbursable activities carried out by this account:
FY 2007 - \$726,000 FY 2008 - 800,000 FY 2009 - \$800,000

**NATIONAL INSTITUTES OF HEALTH
National Institute of Nursing Research**

(Dollars in Thousands)

Budget Mechanism - Total

MECHANISM	FY 2007 Actual		FY 2008 Enacted		FY 2009 Estimate		Change	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount
Research Grants:								
<u>Research Projects:</u>								
Noncompeting	164	\$62,598	192	\$73,390	169	\$67,594	(23)	-\$5,796
Administrative supplements	(4)	337	(3)	558	(3)	567	(0)	9
Competing:								
Renewal	11	5,135	5	7,564	23	5,621	18	-1,943
New	91	27,480	65	14,944	65	22,538	0	7,594
Supplements	1	175	0	0	0	0	0	0
Subtotal, competing	103	32,790	70	22,508	88	28,159	18	5,651
Subtotal, RPGs	267	95,725	262	96,456	257	96,320	(5)	-136
SBIR/STTR	10	3,295	10	3,191	10	3,200	0	9
Subtotal, RPGs	277	99,020	272	99,647	267	99,520	(5)	-127
<u>Research Centers:</u>								
Specialized/comprehensive	22	8,248	24	8,518	24	8,518	0	0
Subtotal, Centers	22	8,248	24	8,518	24	8,518	0	0
<u>Other Research:</u>								
Research careers	30	3,092	22	2,257	22	2,257	0	0
Other	0	554	0	545	0	545	0	0
Subtotal, Other Research	30	3,646	22	2,802	22	2,802	0	0
Total Research Grants	329	110,914	318	110,967	313	110,840	(5)	-127
<u>Research Training:</u>	<u>FTEs</u>		<u>FTEs</u>		<u>FTEs</u>			
Individual awards	92	2,864	92	2,864	93	2,883	1	19
Institutional awards	154	7,224	154	7,224	155	7,271	1	47
Total, Training	246	10,088	246	10,088	248	10,154	2	66
Research & development contracts (SBIR/STTR)	4 (0)	3,570 (9)	0 (0)	3,498 (9)	0 (0)	3,498 (9)	0 (0)	0 (0)
Intramural research	<u>FTEs</u> 10	3,348	<u>FTEs</u> 10	3,415	<u>FTEs</u> 10	3,466	<u>FTEs</u> 0	51
Research management and support	30	9,367	30	9,508	30	9,651	0	143
Total, NINR	40	137,287	40	137,476	40	137,609	0	133

Includes FTEs which are reimbursed from the NIH Roadmap for Medical Research

NATIONAL INSTITUTES OF HEALTH
National Institute of Nursing Research
BA by Activity
(Dollars in thousands)

Extramural Research Detail:	FY 2005		FY 2006		FY 2007		FY 2007		FY 2008		FY 2009		Change	
	Actual	Actual	Actual	Actual	Actual	Comparable	Enacted	Estimate	FTEs	Amount	FTEs	Amount	FTEs	Amount
Self-Management, Symptom Management and Caregiving	\$50,468	\$47,137	\$43,548	\$43,640	\$42,679	\$41,984								
Health Promotion and Disease Prevention	37,384	35,640	38,155	38,155	37,847	37,231								
Research Capacity Development	23,238	23,622	20,348	20,348	20,348	20,348								
Technology Integration	7,754	9,987	10,939	10,939	11,439	11,939								
End-of-Life	8,824	9,361	11,490	11,490	12,240	12,990								
Subtotal, Extramural	127,668	125,747	124,480	124,572	124,553	124,492								
Intramural research	5	1,816	10	3,348	10	3,415	10	3,466	0	51				
Res. management & support	31	8,589	30	9,360	30	9,367	30	9,651	0	143				
TOTAL	36	138,073	40	137,188	40	137,287	40	137,609	0	133				

Includes FTEs which are reimbursed from the NIH Roadmap for Medical Research

Major Changes in the Fiscal Year 2009 Budget Request

Major changes by budget mechanism and/or budget activity detail are briefly described below. Note that there may be overlap between budget mechanism and activity detail and these highlights will not sum to the total change for the FY 2009 budget request for NINR, which is \$136,000 more than the FY 2008 Enacted, for a total of \$137.609 million.

End-of-Life Research (+\$750,000; total \$12.990 million): Given the enormous potential and great need for improving the quality of life of dying patients and their caregivers, NINR plans to expand end-of-life research efforts in FY 2009 to build upon continuing accomplishments in this program area. This level of funding will allow NINR to support existing commitments, including Nursing Science Centers of Excellence in End-of-Life Research, and to fund additional awards in this critical area of research.

Research Project Grants (-\$127,000, total \$99.520 million): NINR plans to support a total of 267 Research Project Grant (RPG) awards in FY 2009. Noncompeting RPGs will not receive inflationary increases and will decrease by 23 awards and \$5.796 million. The average cost for competing RPGs is also without inflation and expected to increase by 18 awards and \$5.651 million. The NIH Budget policy for RPGs in FY 2009 is to provide no inflationary increases in noncompeting awards and no increase in average cost for competing RPGs.

**NATIONAL INSTITUTES OF HEALTH
National Institute of Nursing Research
Summary of Changes**

FY 2008 enacted		137,476,000	
FY 2009 estimated budget authority		137,609,000	
Net change		133,000	
CHANGES	2008 Enacted		
	Base	Change from Base	
	Budget	Budget	
	FTEs	Authority	FTEs
		Authority	Authority
A. Built-in:			
1. Intramural research:			
a. Annualization of January 2008 pay increase			
		\$1,205,000	13,000
b. January FY 2009 pay increase			
		1,205,000	26,000
c. One less day of pay			
		1,205,000	-3,000
d. Payment for centrally furnished services			
		30,000	0
e. Increased cost of laboratory supplies, materials, and other expenses			
		2,180,000	14,000
Subtotal		50,000	
2. Research management and support:			
a. Annualization of January 2008 pay increase			
		\$3,908,000	43,000
b. January FY 2009 pay increase			
		3,908,000	66,000
c. One less day of pay			
		3,908,000	-10,000
d. Payment for centrally furnished services			
		1,770,000	27,000
e. Increased cost of laboratory supplies, materials, and other expenses			
		3,803,000	44,000
Subtotal		170,000	
Subtotal, Built-in		220,000	

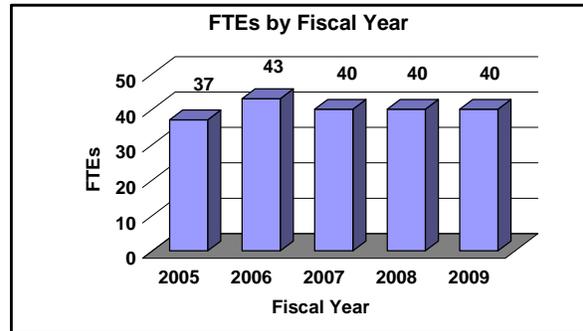
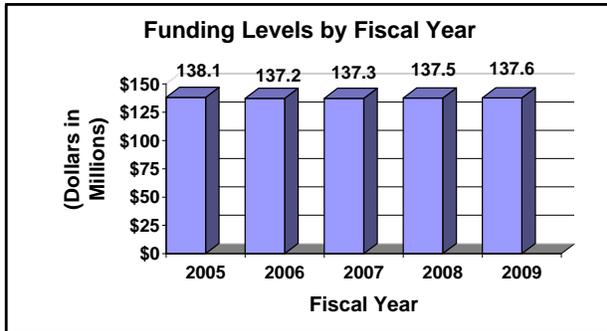
**NATIONAL INSTITUTES OF HEALTH
National Institute of Nursing Research**

Summary of Changes--continued

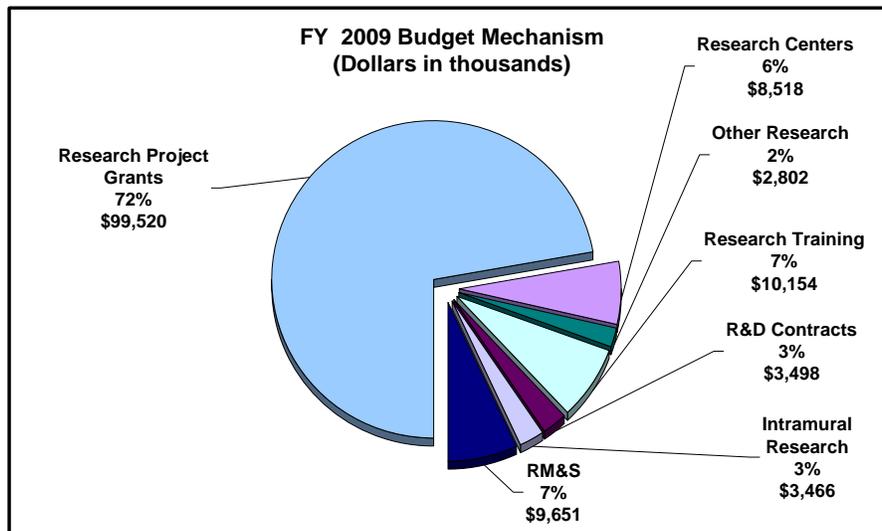
CHANGES	2008 Enacted Base		Change from Base	
	No.	Amount	No.	Amount
B. Program:				
1. Research project grants:				
a. Noncompeting	192	\$73,948,000	(23)	-5,787,000
b. Competing	70	22,508,000	18	5,651,000
c. SBIR/STTR	10	3,191,000	0	9,000
Total	272	99,647,000	(5)	-127,000
2. Research centers	24	8,518,000	0	0
3. Other research	22	2,802,000	0	0
4. Research training	246	10,088,000	2	66,000
5. Research and development contracts	0	3,498,000	0	0
Subtotal, extramural				-61,000
	<u>FTEs</u>		<u>FTEs</u>	
6. Intramural research	10	3,415,000	0	1,000
7. Research management and support	30	9,508,000	0	-27,000
Subtotal, program		137,476,000		-87,000
Total changes	40		0	133,000

Fiscal Year 2009 Budget Graphs

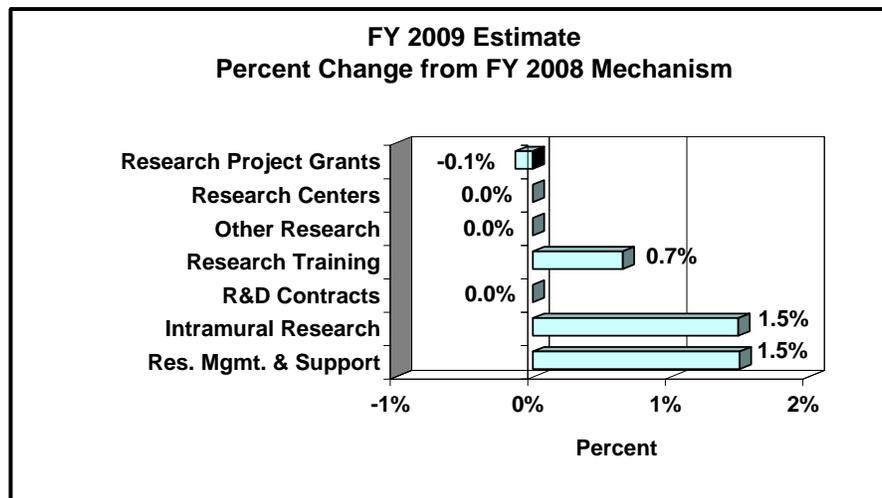
History of Budget Authority and FTEs:



Distribution by Mechanism:



Change by Selected Mechanism:



Justification

National Institute of Nursing Research

Authorizing Legislation: Section 301 and title IV of the Public Health Service Act, as amended.

Budget Authority:

FY 2007 Actual		FY 2008 Enacted		FY 2009 Estimate		Increase or Decrease	
<u>FTE</u>	<u>BA</u>	<u>FTE</u>	<u>BA</u>	<u>FTE</u>	<u>BA</u>	<u>FTE</u>	<u>BA</u>
40	\$137,287,000	40	\$137,476,000	40	\$137,609,000	--	+\$133,000

This document provides justification for the Fiscal Year (FY) 2009 activities of the National Institute of Nursing Research (NINR), including HIV/AIDS activities. Details of the FY 2009 HIV/AIDS activities are in the "Office of AIDS Research (OAR)" Section of the Overview. Details on the Common Fund are located in the Overview, Volume One. Program funds are allocated as follows: Competitive Grants/Cooperative Agreements; Contracts; Direct Federal/Intramural and Other.

DIRECTOR'S OVERVIEW

The mission of the National Institute of Nursing Research (NINR) is to support clinical and basic research that establishes a scientific basis for the care of individuals across the lifespan. NINR's research encompasses the health of individuals, their families, and their caregivers. The Institute's scientific focus transcends disciplines in supporting programs of research in self-management, symptom management, and caregiving; health promotion and disease prevention; end-of-life; technology integration; and research capacity development. NINR research unites the biological and behavioral sciences to elucidate the complex interactions between the physiological factors of health and disease, and the knowledge, beliefs, and behavior of the individual. Across all Institute scientific programs, NINR research addresses the special needs of at-risk and underserved populations with an emphasis on health disparities.

The breadth and depth of NINR's research portfolio is ideally suited to explore some of the most important areas of concern facing the Nation's health care system. These converging issues include:

- an aging population living longer with chronic diseases;
- the growth of diverse racial and cultural populations in the U.S. and the associated issue of health disparities;
- an increased reliance on technology; and
- an increased demand for nurses, both current and projected.

While these factors are undoubtedly challenges, they play to the inherent strengths of nursing science. Longstanding areas of NINR research interest, in addition to the areas of research emphasis described in the current NINR strategic plan, uniquely position the Institute for leadership in finding solutions for these critical issues.

For example, NINR research activities address the changing paradigm of health care in which aging patients are increasingly living with multiple chronic illnesses such as heart disease, diabetes, and cancer. NINR supports research to improve quality of life for these individuals by finding more effective ways to manage their adverse symptoms, by improving their ability to manage their own illness, and by developing interventions to ease the burden on their family caregivers. NINR scientists also design and test new technologies that allow clinicians to monitor chronic illnesses in individuals without ready access to health care facilities, and that allow these individuals to better care for themselves. Finally, an aging population inevitably increases the need for improved awareness of the multiple concerns surrounding end-of-life care. As the lead NIH Institute for end-of-life research, NINR supports studies that explore key end-of-life areas such as clinician/family member communication, decision-making, and issues of pediatric end-of-life and palliative care. NINR will continue to support the Nursing Science Centers of Excellence in Self-Management and End-of-Life Research in FY 2009 to establish developmental and foundational research projects organized around shared resources and research infrastructure.

Ultimately, the best way to address the problems of chronic illnesses is to prevent the development of such illnesses in the first place. Therefore, NINR-supported scientists develop research-based health promotion and disease prevention programs, with a special focus on populations that experience health disparities. For example, NINR scientists have designed culturally sensitive interventions that have successfully reduced HIV risk behaviors in minority populations, and others that have reduced risk behaviors for obesity and diabetes in rural populations. Overall, NINR research in disease prevention explores the connections among lifestyle, biology, behavior, the environment, geographic influences, socio-cultural contexts, technologies, and economic factors, and applies this in-depth knowledge to reducing society's future burdens of chronic illnesses.

NINR training strategies seek to enhance the pipeline of nursing faculty, which will have a direct impact on improving the ability of schools of nursing to educate new nurses. These strategies focus on the training of new nurse scientists, who may go on to become nursing faculty. Through NINR-supported efforts such as research training grants, the NIH Graduate Partnership Program, and hands-on research training programs on the NIH campus in association with the NINR Intramural Research Program, the Institute prepares future nurse researchers for independent research careers.

NINR's priorities and scientific objectives for the coming years are reflected in its proposed research activities for FY 2009. Specific activities will include efforts to reduce the incidence of preterm birth/low birth weight and develop interdisciplinary interventions to improve palliative care at the end of life. Broadly, NINR will continue to support innovative studies in the areas of research emphasis highlighted in its strategic

plan, including: self-management, symptom management, and caregiving; health promotion and disease prevention; research capacity development; technology integration; and end-of-life. These areas are central to the Institute's research strategy through the end of the decade. Results from these studies will inform future strategies, as NINR begins to consider its strategic plan beyond 2010. In addition, input from stakeholders, trans-NIH planning and priority setting processes such as the NIH Roadmap, Neuroscience Blueprint, and Pain Consortium, and changing public health concerns will continue to shape the future directions of NINR research.

NINR is committed to improving clinical practice through the generation of new knowledge and the development of leaders in nursing science. The Director of NIH has called for a new era of health care that is predictive, preemptive, personalized, and participatory. NINR's strategic focus on research into enhancing quality of life, improving patient self-management, and discovering better ways to prevent disease make the Institute ideally suited to become a leader in addressing the challenges presented by this new vision of health care. By strategically integrating its priority-setting and research programs with current public health needs, the Institute will ensure that these challenges are proactively addressed.

FY 2009 JUSTIFICATION BY ACTIVITY DETAIL

Overall Budget Policy: Investigator-initiated research projects, supporting new investigators, research training, and career development continue to be the Institute's highest priorities. NINR carefully evaluates investigator-initiated grant applications for all research programs. Scientific reviews are conducted, and the results are presented to the National Advisory Council for Nursing Research to determine the level of recommended support for the application, if any. The level of support provided for Institute-initiated projects is also evaluated. The Institute maintains a careful balance between solicitations issued to the extramural community in areas that need stimulation and funding made available to support investigator-initiated projects. Intramural Research and Research Management and Support receive modest increases to help offset the cost of pay and other increases. NINR will continue to support new investigators and to maintain an adequate number of competing RPGs.

Program Descriptions and Accomplishments

Self-Management, Symptom Management, and Caregiving

Improving the quality of life of individuals, both in clinical practice as well as the home setting, is a fundamental tenet of the NINR mission. NINR studies quality of life as a continuum composed of three key elements: self-management, symptom management, and caregiving. The NINR Self-Management, Symptom Management, and Caregiving program seeks to address the challenges of short- and long-term disease and disability management by enhancing the individual's role in managing disease, relieving symptoms, and improving health outcomes for individuals and caregivers.

Current research projects supported by this program explore: interventions that reduce symptom burden; interventions to improve support for caregivers of patients with

Alzheimer's disease; and techniques to promote healthy behaviors that improve the ability of patients to be partners in managing their own care. Among many other recent program activities in this area, NINR is sponsoring an initiative under the auspices of the NIH Pain Consortium to explore mechanisms, measurement, and management of acute and chronic pain. Pain research sought under this initiative spans all areas of science, from research on the basic neural pathways of pain, to pain-related behavioral and social sciences research.

Budget Policy: The FY 2009 budget estimate for the Self-Management, Symptom Management, and Caregiving program is \$41.984 million, a decrease of \$695,000 or 1.6 percent below the FY 2008 Enacted. In order to allow for small growth in the number of Research Project Grants (RPGs) in other program areas, the Self-Management, Symptom Management, and Caregiving program is decreased slightly. The proposed level of funding will cover current commitments and allow a smaller number of competing RPGs to be awarded in FY 2009. NINR plans in FY 2009 to continue to address the many challenges and opportunities that exist in the areas of self-management, symptom management, and caregiving as an important part of a strategically balanced research portfolio.

Health Promotion and Disease Prevention

The NINR Health Promotion and Disease Prevention program studies the key biological, behavioral, and social factors that prevent the development of disease and achieve long-term, positive health outcomes in individuals of all ages. Research supported under this activity seeks scientific discoveries of health predictors and prevention strategies across conditions, diseases, and settings. Under this wide scope of research, efforts can range from promoting behavioral changes in individuals, to evaluating health risks in diverse communities, to assessing issues of patient safety.

One example of the many activities that NINR currently sponsors under this program is an initiative to study health promotion among racial and ethnic minority men. This initiative is intended to enhance the understanding of the numerous sociodemographic, community, societal, and personal factors that influence the health promoting behaviors of racial and ethnic minority men, and to develop and test culturally appropriate health promotion interventions designed to reduce health disparities among this population.

Budget Policy: The FY 2009 budget estimate for the Health Promotion and Disease Prevention program is \$37.231 million, a decrease of \$616,000 or 1.6 percent below the FY 2008 Enacted. In order to allow for small growth in the number of Research Project Grants (RPGs) in other program areas, the Health Promotion and Disease Prevention program is decreased slightly. The proposed level of funding will cover current commitments and allow a smaller number of competing RPGs to be awarded in FY 2009. In addition, NINR will sponsor a new initiative in FY 2009 to develop biobehavioral interventions to reduce preterm birth/LBW and enhance treatment outcomes for preterm/LBW infants. The conclusion of grants in related research areas in FY 2009 will allow NINR to refocus efforts and sponsor this initiative. NINR plans in FY 2009 to continue to address the many challenges and opportunities that exist in the areas of health promotion and disease prevention as an important part of a strategically balanced research portfolio.

Portrait of a Program: Enhancing Treatment Outcomes and Quality of Life for Preterm Birth/Low Birth Weight Infants

FY 2008 Level: \$4,451,000
FY 2009 Level: 4,451,000
Change: 0

According to the 2007 Institute of Medicine (IOM) report, "Preterm Birth: Causes, Consequences, and Prevention," preterm births account for over 12% of all births, a rate that has increased by 30% since 1981. Compared to infants born at term or with normal birth weight, preterm or low birth weight (LBW) infants have higher mortality, and are more likely to experience long-term motor, developmental, and learning deficits. In 2005, total costs associated with preterm births in the U.S. reached over \$26 billion.¹

As part of the Institute's larger research programs in the areas of quality of life, health promotion, and disease prevention, NINR has supported research projects focused on reducing the incidence of preterm birth/LBW and promoting the growth and development of preterm/LBW infants. One recent NINR-funded study found that a program to teach parents about their preterm/LBW infants' behaviors and care needs improved parental coping and reduced stress levels. In addition, the infants averaged 3.8 fewer days in the NICU than controls, which translated to a savings of about \$5,000 per infant.² Other studies devoted to these infants have examined ways to improve their rest and sleep, decrease common complications, reduce painful or noxious stimuli, and prevent infections.

Consistent with its past efforts in this area of research and with the current Institute emphasis on integrating the biological and behavioral sciences, in FY 2009 NINR will sponsor a new initiative to develop biobehavioral interventions to reduce preterm birth/LBW and enhance treatment outcomes for preterm/LBW infants. The initiative will provide 3-5 year awards to expand the current understanding of behavioral, psychosocial, and environmental factors that affect or interact with biological mechanisms to influence pregnancy outcomes, and to develop innovative interdisciplinary interventions to prevent preterm birth/LBW and enhance quality of life for preterm/LBW infants.

Research Capacity Development

The NINR Research Capacity Development program builds research capacity through centers programs and fosters interdisciplinary training for the next generation of scientists in basic, translational, and clinical research by means of individual and institutional training awards. Through these activities, NINR addresses the national shortage of nurses by contributing to the development of the nursing faculty needed to teach and mentor individuals entering the field. Among these opportunities, NINR provides support for trainees from underrepresented and disadvantaged backgrounds.

In 2007, NINR solicited proposals for program project grants for a new initiative entitled, "Nursing Science Research on Interventions in Chronic Illness." These awards, intended for investigators and institutions with proven and long-established research programs and funded through the P01 grant mechanism, will support shared resources and a collaborative research effort for several large research projects. The awards will allow a group of investigators, using multiple approaches funded as individual subprojects, to conduct innovative, high-impact, and interdisciplinary research on topics of critical importance to the Institute.

¹ Institute of Medicine (2007). Preterm Birth: Causes, Consequences, and Prevention. Washington, DC: The National Academies Press.

² Melnyk BM, Feinstein NF, Alpert-Gillis L, et al (2006). Reducing Premature Infants' Length of Stay and Improving Parents' Mental Health Outcomes with the Creating Opportunities for Parent Empowerment (COPE) Neonatal Intensive Care Unit Program: A Randomized Controlled Trial. *Pediatrics* 118: 1414-1427.

Budget Policy: The FY 2009 budget estimate for the Research Capacity Development program is \$20.348 million, the same as the FY 2008 Enacted. The proposed level of funding will allow NINR to cover its current commitments and allow new individual training grants to be awarded in FY 2009. Through this program, NINR will continue to enhance the pipeline of nursing faculty, which will directly impact the ability of schools of nursing to educate new nurses. NINR plans in FY 2009 to continue its commitment to developing the next generation of innovative investigators and enhance overall research capacity in strategically important areas of research as part of an overall balanced program portfolio.

Technology Integration

The NINR Technology Integration program supports innovative, interdisciplinary studies to develop new and adapt existing technologies to improve clinical care and quality of life. For example, research conducted under this program seeks to improve quality of life by developing technologies that assist patients in monitoring and reporting indicators of health status, such as breathing status, blood pressure, and blood glucose levels. Other areas of inquiry include the application of technologies to improve patient safety, education, and communication.

Current activities under this program include the development of devices to facilitate clinical decision support for care providers in hospitals and clinics, as well as in remote sites such as ambulances. Other projects are focused on the development of software modules that educate patients with chronic illnesses on improving self-management practices, and which allow them easy access to online support groups. Such technologies are especially useful for patients in rural locations without ready access to health care services.

Budget Policy: The FY 2009 budget estimate for the Technology Integration program is \$11.939 million, an increase of \$500,000 or 4.4 percent above the FY 2008 Enacted. In FY 2009, NINR plans to continue addressing the national need for investigators who are innovative in their use and development of novel technologies that address current and future clinical care needs, and who will work to incorporate these technologies into standard practice. This level of funding will allow NINR to cover current commitments and fund additional awards in this emerging area of research as part of a strategically balanced program portfolio.

End-of-Life

End-of-life science seeks to understand dying with respect to the needs of dying persons and formal and informal caregivers. It includes research on issues such as: alleviation of symptoms; psychological care; near-death preferences; advance directives; and family decision-making. Likewise, end-of-life research addresses the cultural, spiritual, age- and disease-specific factors that make each person's experience at the end of life unique. The NINR End-of-Life research program applies biological, behavioral, and social science strategies to advance the understanding of the dynamic interactions of these various factors, and to develop interventions that optimize patient and caregiver quality of life across care settings and cultural contexts.

NINR recently solicited applications for the Nursing Science Centers of Excellence in Self-Management or End-of-Life Research. The first awards under this program were made in late FY 2007. It is anticipated that these Centers will serve as a nexus for the emergence of end-of-life research as an interdisciplinary science, training investigators from multiple backgrounds and enhancing collaboration to increase the quality and quantity of innovative, interventional research projects in end-of-life and palliative care science.

Budget Policy: The FY 2009 budget estimate for the End-of-Life program is \$12.990 million, an increase of \$750,000 or 6.1 percent above the FY 2008 Enacted. Given the enormous potential and great need for improving the quality of life of dying patients and their caregivers, NINR plans to expand end-of-life research efforts in FY 2009 to build upon continuing accomplishments in this program area. This level of funding will allow NINR to support existing commitments, including Nursing Science Centers of Excellence in End-of-Life Research, and to fund additional awards in this critical area of research, as part of an overall balanced program portfolio. Also in FY 2009, NINR will support new efforts in end-of-life research that will seek to develop interdisciplinary interventions to improve palliative care at the end of life and to promote technological innovations in palliative care.

Portrait of a Program: End-of-Life Research

FY 2008 Level: \$12,240,000
FY 2009 Level: 12,990,000
Change: +750,000

The life expectancy of the American people has reached a historic high, but along with increased life expectancy comes an increase in the number of people living with, and dying from, chronic debilitating diseases. Prolonged courses of decline at the end of life, palliative treatment options, and life-sustaining technologies have raised many important research questions within the last decade. In addition, the needs of dying children and their families are coming into greater focus.³ In 1997, the Director of NIH designated NINR as the lead NIH Institute for end-of-life research, providing an important opportunity for nursing science to lead the way in this crucial area. Consistent with this role, NINR has sponsored numerous research initiatives related to end-of-life science. In recent years, NINR co-sponsored an initiative to advance the science of pediatric palliative care, as well as to develop and test interventions that care providers can implement across all settings, illnesses, and cultural contexts. In FY 2007, NINR made the first awards under an initiative to develop Nursing Science Centers of Excellence in Self-Management or End-of-Life Research. In FY 2009, NINR will support two new efforts in end-of-life research. These efforts will provide 3-5 year awards to develop interdisciplinary interventions to improve palliative care at the end of life and to promote technological innovations in palliative care.

Intramural Research Program

NINR's Intramural Research Program (IRP) supports research to understand the underlying biological mechanisms of a range of symptoms, their effect on patients, and how patients respond to interventions. Recent scientific efforts have included evaluating the efficacy of novel interventions for managing symptoms associated with cancer treatment, and exploring the molecular and genetic mechanisms that influence

³ Institute of Medicine (2002). When children die: Improving palliative and end-of-life care for children and their families. Washington, DC: The National Academies Press.

an individual's response to analgesic treatment for acute pain. The IRP also supports research training opportunities through programs such as the NINR Career Transition Award, the NINR Summer Genetics Institute, and by participating in the NIH Graduate Partnerships Program.

In 2007, the IRP sponsored the eighth annual NINR Summer Genetics Institute (SGI). The SGI provides students with a foundation in molecular genetics for use in research and clinical practice to develop and expand research capacity among graduate students and faculty in nursing. This program is approved for graduate credit in nursing at the doctoral level. Through this program, NINR prepares nurses to address important scientific questions, such as those arising from the Human Genome Project and other emerging genetic discoveries.

Budget Policy: The FY 2009 budget estimate for the Intramural Research program is \$3.466 million, an increase of \$51,000 or 1.5 percent above the FY 2008 Enacted. In FY 2009, this program will continue to support innovative research to address the scientific challenges of understanding and managing adverse symptoms such as acute and chronic pain. This program will also continue to support various training and career development opportunities for innovative investigators.

Research Management and Support

NINR Research Management and Support (RMS) activities provide administrative, budgetary, logistical, and scientific support in the review, award, and monitoring of research grants, training awards and research and development contracts. The functions of RMS also encompass strategic planning, coordination, and evaluation of the Institute's programs and liaison with other Federal agencies, Congress, and the public.

Budget Policy: The FY 2009 budget estimate for RMS is \$9.651 million, an increase of \$143,000 or 1.5 percent above the FY 2008 Enacted. In FY 2009, NINR plans to continue addressing the challenges and opportunities that exist in strategically managing a research portfolio that addresses areas of science critical to public health.

**NATIONAL INSTITUTES OF HEALTH
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Budget Authority by Object

	FY 2008 Enacted	FY 2009 Estimate	Increase or Decrease
Total compensable workyears:			
Full-time employment	40	40	0
Full-time equivalent of overtime and holiday hours	0	0	0
Average ES salary	\$0	\$0	\$0
Average GM/GS grade	12.2	12.2	0.0
Average GM/GS salary	90,270	91,624	\$1,354
Average salary, grade established by act of July 1, 1944 (42 U.S.C. 207)	\$66,004	\$66,994	\$990
Average salary of ungraded positions	117,212	118,968	1,756
OBJECT CLASSES	FY 2008 Enacted	FY 2009 Estimate	Increase or Decrease
Personnel Compensation:			
11.1 Full-time permanent	\$3,067,000	\$3,153,000	\$86,000
11.3 Other than full-time permanent	593,000	620,000	27,000
11.5 Other personnel compensation	96,000	96,000	0
11.7 Military personnel	124,000	124,000	0
11.8 Special personnel services payments	132,000	132,000	0
Total, Personnel Compensation	4,012,000	4,125,000	113,000
12.0 Personnel benefits	1,025,000	1,047,000	22,000
12.2 Military personnel benefits	76,000	76,000	0
13.0 Benefits for former personnel	0	0	0
Subtotal, Pay Costs	5,113,000	5,248,000	135,000
21.0 Travel and transportation of persons	121,000	121,000	0
22.0 Transportation of things	10,000	10,000	0
23.1 Rental payments to GSA	0	0	0
23.2 Rental payments to others	78,000	78,000	0
23.3 Communications, utilities and miscellaneous charges	82,000	82,000	0
24.0 Printing and reproduction	25,000	25,000	0
25.1 Consulting services	136,000	136,000	0
25.2 Other services	808,000	808,000	0
25.3 Purchase of goods and services from government accounts	8,841,000	8,841,000	0
25.4 Operation and maintenance of facilities	5,000	5,000	0
25.5 Research and development contracts	49,000	49,000	0
25.6 Medical care	5,000	5,000	0
25.7 Operation and maintenance of equipment	459,000	459,000	0
25.8 Subsistence and support of persons	0	0	0
25.0 Subtotal, Other Contractual Services	10,303,000	10,303,000	0
26.0 Supplies and materials	236,000	265,000	29,000
31.0 Equipment	453,000	483,000	30,000
32.0 Land and structures	0	0	0
33.0 Investments and loans	0	0	0
41.0 Grants, subsidies and contributions	121,055,000	120,994,000	(61,000)
42.0 Insurance claims and indemnities	0	0	0
43.0 Interest and dividends	0	0	0
44.0 Refunds	0	0	0
Subtotal, Non-Pay Costs	132,363,000	132,361,000	(2,000)
Total Budget Authority by Object	137,476,000	137,609,000	133,000

Includes FTEs which are reimbursed from the NIH Roadmap for Medical Research

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Salaries and Expenses

OBJECT CLASSES	FY 2008 Enacted	FY 2009 Estimate	Increase or Decrease
Personnel Compensation:			
Full-time permanent (11.1)	\$3,067,000	\$3,153,000	\$86,000
Other than full-time permanent (11.3)	593,000	620,000	27,000
Other personnel compensation (11.5)	96,000	96,000	0
Military personnel (11.7)	124,000	124,000	0
Special personnel services payments (11.8)	132,000	132,000	0
Total Personnel Compensation (11.9)	4,012,000	4,125,000	113,000
Civilian personnel benefits (12.1)	1,025,000	1,047,000	22,000
Military personnel benefits (12.2)	76,000	76,000	0
Benefits to former personnel (13.0)	0	0	0
Subtotal, Pay Costs	5,113,000	5,248,000	135,000
Travel (21.0)	121,000	121,000	0
Transportation of things (22.0)	10,000	10,000	0
Rental payments to others (23.2)	78,000	78,000	0
Communications, utilities and miscellaneous charges (23.3)	82,000	82,000	0
Printing and reproduction (24.0)	25,000	25,000	0
Other Contractual Services:			
Advisory and assistance services (25.1)	136,000	136,000	0
Other services (25.2)	808,000	808,000	0
Purchases from government accounts (25.3)	8,841,000	8,841,000	0
Operation and maintenance of facilities (25.4)	5,000	5,000	0
Operation and maintenance of equipment (25.5)	459,000	459,000	0
Subsistence and support of persons (25.8)	0	0	0
Subtotal Other Contractual Services	10,249,000	10,249,000	0
Supplies and materials (26.0)	236,000	265,000	29,000
Subtotal, Non-Pay Costs	10,801,000	10,830,000	29,000
Total, Administrative Costs	15,914,000	16,078,000	164,000

**NATIONAL INSTITUTES OF HEALTH
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Authorizing Legislation

PHS Act/ Other Citation	U.S. Code Citation	2008 Amount Authorized	FY 2008 Enacted	2009 Amount Authorized	FY 2009 Budget Estimate
Research and Investigation	Section 301	42§241	Indefinite	Indefinite	
			\$137,476,000		\$137,609,000
National Institute of Nursing Research	Section 402(a)	42§281	Indefinite	Indefinite	
Total, Budget Authority			137,476,000		137,609,000

**NATIONAL INSTITUTES OF HEALTH
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Appropriations History

Fiscal Year	Budget Estimate to Congress	House Allowance	Senate Allowance	Appropriation <u>1/</u>
2000	65,335,000 <u>2/</u>	76,204,000	90,000,000	90,000,000
Rescission				-478,000
2001	84,714,000 <u>2/</u>	102,312,000	106,848,000	104,370,000
Rescission				-20,000
2002	117,686,000 <u>2/</u>	116,773,000	125,659,000	120,451,000
Rescission				-23,000
2003	129,768,000	131,438,000	131,438,000	131,438,000
Rescission				-854,000
2004	134,579,000	134,579,000	135,579,000	135,555,000
Rescission				-831,000
2005	139,198,000	139,198,000	140,200,000	138,198,000
Rescission				-1,126,000
2006	138,729,000	138,729,000	142,549,000	138,729,000
Rescission				-1,387,000
2007	137,342,000	136,550,000	137,848,000	137,404,000
2008	137,800,000	139,527,000	140,456,000	139,920,000
Rescission				-2,244,000
2009	137,609,000			

1/ Reflects enacted supplementals, rescissions, and reappropriations.

2/ Excludes funds for HIV/AIDS research activities consolidated in the NIH Office of AIDS Research.

**NATIONAL INSTITUTES OF HEALTH
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Details of Full-Time Equivalent Employment (FTEs)

OFFICE/DIVISION	FY 2007 Actual	FY 2008 Enacted	FY 2009 Estimate
Office of the Director	5	5	5
Office of the Administrative Management	7	7	7
Division of Intramural Research	9	9	9
Office of Associate Director of Scientific Programs	19	19	19
Total	40	40	40
Includes FTEs which are reimbursed from the NIH Roadmap for Medical Research			
FTEs supported by funds from Cooperative Research and Development Agreements	(0)	(0)	(0)
FISCAL YEAR	Average GM/GS Grade		
2005	12.3		
2006	11.9		
2007	12.2		
2008	12.2		
2009	12.2		

**NATIONAL INSTITUTES OF HEALTH
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Detail of Positions

GRADE	FY 2007 Actual	FY 2008 Enacted	FY 2009 Estimate
Total, ES Positions	0	0	0
Total, ES Salary	0	0	0
GM/GS-15	3	4	4
GM/GS-14	13	12	12
GM/GS-13	3	3	3
GS-12	5	5	5
GS-11	1	1	1
GS-10	0	0	0
GS-9	5	5	5
GS-8	1	1	1
GS-7	1	1	1
GS-6	1	1	1
GS-5	0	0	0
GS-4	0	0	0
GS-3	0	0	0
GS-2	0	0	0
GS-1	0	0	0
Subtotal	33	33	33
Grades established by Act of July 1, 1944 (42 U.S.C. 207):			
Assistant Surgeon General	0	0	0
Director Grade	1	1	1
Senior Grade	0	0	0
Full Grade	0	0	0
Senior Assistant Grade	2	2	2
Assistant Grade	0	0	0
Subtotal	3	3	3
Ungraded	20	20	20
Total permanent positions	36	36	36
Total positions, end of year	56	56	56
Total full-time equivalent (FTE) employment, end of year	40	40	40
Average ES salary	0	0	0
Average GM/GS grade	12.2	12.2	12.2
Average GM/GS salary	87,327	90,270	91,624

Includes FTEs which are reimbursed from the NIH Roadmap for Medical Research.

**NATIONAL INSTITUTES OF HEALTH
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New Positions Requested

	FY 2009		
	Grade	Number	Annual Salary
		0	
Total Requested		0	