2006

Josiah Macy, Jr. Foundation Annual Report

The Foundation's logo incorporates the mid-nineteenth century ship's flag of Josiah Macy & Sons, New York shipping and commission merchants and ancestors of Josiah Macy, Jr.

Report of the Josiah Macy, Jr. Foundation

For July 1, 2005 through June 30, 2006

Josiah Macy, Jr. Foundation
44 East 64th Street
New York, NY 10021
www.josiahmacyfoundation.org

Contents

Board of Directors and Staff 4

About the Foundation 7

President's Statement 10

Programs 19

1. Educational Strategies to Increase Care for Underserved Populations 21

Improving Care for Elderly Patients 22

Teaching Chronic Disease Care 23

2. Increasing Teamwork Between and Among Multiple Health Professions 27

Interdisciplinary Global Public Health Program 28

Educating About Prevention 30

Epidemic Intelligence Service History 31

Health Workforce Shortages 32

Innovative M.P.H. Program 33

3. Diversity Among Health Professionals 35

Hurricaine Katrina Relief Funds 36

Enhancing Faculty Potential for Women 36

Minority Faculty Development 38

4. Health Professional Education in the Context of the Changing Health Care System 41

Basic Sciences for Pediatric Trainees 42

Clinical Doctorate in Nursing 43

Faculty Development Program 45

Standardized Patient Assessment 46

New Models for Dental Education 47

Interdisciplinary Pain Management 48

Obesity Assessment Training 49

Macy Conferences 51

Women and Medicine 52

President's Discretionary Grants Awarded, Fiscal Year 2005–2006 54

Report of Independent Auditors 57

Guidelines for Grant Applications 70

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Kate Macy Ladd (1863-1945) — A Woman of Foresight

About the Foundation

Kate Macy Ladd endowed the Josiah Macy, Jr. Foundation in 1930 in memory of her father, who died at a young age. Since the mid-1960s, the Foundation has focused its resources specifically on improving the education of health professionals.

A Heritage of Philanthropy

Mrs. Ladd descended from Thomas and Sarah Macy, who immigrated to Massachusetts from England in the late 1630s. In America, the Macys, who were among the first European settlers on Nantucket Island, became prosperous maritime merchants. Six generations and almost 200 years later, Captain Josiah Macy left Nantucket to establish a shipping and commission firm in New York City. In the 1860s, under the guidance of the retired Captain's sons and grandsons, the firm opened New York's first oil refinery, which was later purchased by the Standard Oil Company.

In her letter of endowment, written in 1930, Mrs. Ladd expressed her vision for the Foundation. She noted that "no sound structure of social and cultural welfare could be maintained without health, [and that] health was more than just freedom from sickness—that it resided in the wholesome unity of mind and body." She expressed her wish that the Foundation... "should concentrate on a few problems rather than support many undertakings, and that it should primarily devote its interest to the fundamental aspects of health, of sickness and of methods for the relief of suffering; in particular to such special problems in medical sciences, medical arts and medical education as require for their solution studies and efforts in correlated fields as well, such as biology and the social sciences." She further urged that the Foundation invest in "the architecture of ideas rather than in bricks and mortar", and fund institutions rather than individuals in so doing.

In 1876, prominent philanthropist Josiah Macy, Jr., one of the Captain's grandsons, died of yellow fever at age 38. The family's philanthropic tradition was continued by his daughter, Kate, who married the lawyer and yachtsman Walter Graeme Ladd. By the time of her death in 1945 she had

given the Foundation approximately $19 million.

With that remarkable guidance, the Macy Foundation's programs have evolved over subsequent decades. Until 1945, the Foundation focused its grantmaking on medical research in such fields as traumatic shock and war-related psychiatric disorders, geriatrics and aging, arteriosclerosis, genetics and human development, and psychosomatic medicine. The Foundation's extensive conference and publication program was also begun during this period.

From the end of World War II through the mid-1960s, the Foundation supported the efforts of medical schools to expand and strengthen their basic science faculties. During that time, the Foundation also began supporting the emergent fields of basic reproductive biology, human reproduction, and family planning, and fostered their incorporation into the biological, behavioral, and social science bases of academic obstetrics and gynecology.

Since the mid-1970s, the Foundation has awarded more than 70 percent of its grants to projects that broaden and improve the education of physicians and other health professionals. For example, the Foundation has funded programs to recruit and retain underrepresented minority students in premedical collegiate programs and in medical schools and has fostered programs for improvement of faculty and enhancement of health professional teamwork. In the 1980s and 1990s the Foundation also supported projects in emergency medicine and the education of physician assistants as well as the treatment of substance abuse by primary care physicians

One program begun in the 1980s — the Minorities in Medicine program — supported academic enrichment programs for minority high school students interested in careers in medicine and the sciences. These high school programs were so successful that, in 1990, the Foundation established a separate effort called Ventures in Education (now an independent corporation) to replicate these programs across the nation.

Also during the 1980s, the Foundation funded studies at medical schools

and universities in the cognitive sciences in medicine, including studies of the clinical decision-making process used by physicians and the application of basic science knowledge to clinical reasoning.

In the early part of the 1990s considerable emphasis was placed on health educational strategies that would enhance primary care in the U.S. health care system. Then, with the retirement of Dr. Thomas H. Meikle, Jr. as the fifth president of the Foundation, the Board of Directors of the Macy Foundation devised a policy statement to give focus to discussions with potential successors for that position. Central among the points made in that statement was the mission to "develop, monitor, and evaluate projects which demonstrate new approaches to addressing problems in health professions education."

With the guidance of that mission statement, in 1996 the new president, June E. Osborn, M.D., formulated four areas of particular emphasis in grant-making:

1. *projects to improve medical and health professional education in the context of the changing health care system;*

2. *projects that will increase diversity among health care professionals;*

3. *projects that demonstrate or encourage ways to increase teamwork between and among health care professionals; and*

4. *educational strategies to increase care for underserved populations.*

While no effort is made to achieve a strict proportion of Foundation activities across the four areas at any one time, an overall balance is attempted. In addition, they provide useful guidance in assessing the relevance and importance of grant proposals as well as in determining and designing conferences sponsored by the Macy Foundation.

President's Statement

June E. Osborn, M.D.

As I near the completion of my tenth year as president of the Macy Foundation, I am more aware than ever of both the wisdom and the complexity of the charge given to the Foundation in her letter of endowment by Mrs. Kate Macy Ladd in 1931. She urged that the funds be devoted to a few projects, rather than many; to ideas rather than either individuals or bricks-and-mortar; and that all efforts should be directed toward improving the health of the public.

Remarkably, her focus on health—and in particular her assertion that it was more than the mere absence of disease—came long before the World Health Organization articulated that definition in its founding documents. With that astute perception in mind she exhorted the Foundation to support projects ranging all the way from biological science to behavioral sciences in the interest of improving health.

Trends in Grant Making

In the seven decades that followed, there have been shifts in the Board's perception of the most effective and focused ways to respond to her charge. Before and (for a while) after World War II, biomedical research was a fledgling and underfunded enterprise, and during that interval the Macy Foundation supported a number of key efforts in that arena. Then, with the advent of the National Institutes of Health as a major and growing resource for support of those endeavors, the Foundation's programs were refocused

on areas of need in various aspects of health professional education: primary care, inter-professional teamwork, various approaches to use of patient surrogates, and faculty improvement. Throughout these later efforts was laced a continuous emphasis on enhancing diversity in the health care setting.

I try not to think too hard about what is involved in our effort: the health care enterprise "steamship" whose course we are trying to alter has reached almost $2 trillion a year in the United States, and our resources are miniscule in that comparison. Nevertheless, in my years as president of the Macy Foundation, it has become evident that there is much creative work to be done; and to my surprise and pleasure it also happens that well-placed leveraging in support of pilot studies and programs can sometimes position a well-conceived change in health professions educational strategies to be validated, amplified and widely adopted.

One example has been the testing and validation of the use of "standardized patients" in medical student education about patient-physician interactions, initiated and pursued under the leadership of my predecessor, Dr. Thomas H. Meikle, Jr. That approach, initiated in a series of Macy-funded studies among consortia of medical schools, was reaching its affirmative conclusion as I began my term at the Foundation, and very rapidly was so thoroughly embraced nationally that in 1999 its use facilitated a new competency requirement, testing communication skills, for medical specialty licensure. A recent study by researchers at the University of California-San Francisco measured the extent to which use of the standardized-patient approach has permeated medical education and found that 91% of medical schools had introduced it at least to some degree in their instructional programs.

In a related, subsequent effort which we have referred to as the health communications initiative, a consortium of three medical schools developed and tested a new curriculum to instruct medical students in their patient interactions, which efforts were then amplified in a round of "train-the-trainer" courses for medical faculty from more than a dozen other medical schools.

And in the realm of faculty improvement per se, the Harvard-Macy Institute, initiated in 1995 and supported through Foundation funding until 2002 –

created a new approach to advancing the teaching skills of medical school faculty members. Opportunities for faculty members from across the country were much sought after, and it continues as a national resource, now under the aegis of Harvard Medical International. In the past year the Harvard-Macy Institute (now independent, but continuing the name with the concurrence of our Board) celebrated the completion of ten years of faculty cohort instruction with a two-day symposium in which over 200 "alumni" of the program participated. In all, that Macy-funded initiative alone has had an impact on teaching and curricular change at over half the nation's medical schools thus far.

Those examples represent only a small fraction of the projects funded by the Foundation; others could be cited, not only in medicine but also in the fields of nursing, dentistry, public health, clinical psychology and training of physician assistants. It is worth noting that most projects involved multiple institutions working together as consortia, and dwelt rather exclusively on undergraduate medical education or the equivalent entry-level post-baccalaureate programs in the other health professions. I make that point because, while many worthy proposals come to the Foundation from single institutions, most of them gain a considerable proportion of their suasion from particular virtues of the sponsoring institution; and while they might argue convincingly that their efforts could improve that program significantly, the very distinctiveness on which they based their initiative usually makes it unlikely that the results can serve as a generalizable model.

In the context of the increasingly important goal of enhancing diversity among health professionals, a number of projects have been undertaken, of which the most notable was the recent development of a nationally relevant web site, *ExploreHealthCareers.org*. That effort grew to involve a nearly complete representation of health professional organizations, with the intention that students contemplating health professional careers could use it as a resource to make links to multiple professions, both to learn what each was about and also what requirements should be met if a given career option was chosen. As the interval of Macy Foundation funding approaches an end, plans are progressing to find a permanent "home" for the web site that will allow for continual updating and input from the many health professions involved.

The efforts highlighted thus far relate to pre- or early entry level health

professional education. It has been more difficult to find ways to enter the arenas of graduate medical education (GME), continuing medical education (CME) and related efforts in other health professional fields. By their very nature such programs tend to be quite institution-specific in both their virtues and their problems. However, one such effort was recently completed under the leadership of Duke University's internal medicine residency director, who involved all the North Carolina internal medicine GME programs in its initial phase and created training materials for use at the beginning of residency concerning issues of potential physician impairment (fatigue, substance abuse and related professional hazards). The Accreditation Council for Graduate Medical Education embraced the project almost at its inception and the products (training materials) are now sent to every medical residency program in the country.

Change, and More Challenge

When I try to explain what we are trying to do with Macy Foundation grant-making to a neutral audience – to improve health professional education in the context of the changing health care system – I am often met with the response: "Is there a problem?" Since the Flexner Report (now nearly 100 years old) medical education has been led, then dominated, by a biomedical model of response to illness in which the physician is supremely in charge. Acute care for severe illness served as the central impetus for design of today's system, with its hospital-based instruction, technological and biomedical tools and insights, and relative lack of attention to outpatient care, chronic care and ambulatory interventions.

To a dismaying extent, our teaching of health professionals continues to reflect those twentieth century perceptions of health care. Even in the contexts of prevention, public health, and population-based medicine, the siren songs of high science and technology tend to overwhelm the less alluring issues of behavioral and social determinants of health that are growing in importance as our populations age and chronic care (or good health into much older age) begins to dominate the real-life agenda. I believe that the next major increment in our therapeutic and preventive capabilities will lie in the province of behavioral and social sciences. And yet we have a long way to go even to incorporate existing insights into actual, effective patient care. I recently had occasion to listen to an erudite, up-to-date discussion of the treatment of type II diabetes, during which the term "obesity" was never mentioned! And yet the conjunction of our country's remarkable

run-up in weight with the dramatic increase in that disease is unarguable, and it has long been established that weight control is an important (indeed, essential) intervention in the therapeutic approach to diabetes itself.

So, yes, there is a problem in our current approaches, and room for much improvement. And as a mentor of mine constantly reminded me (with a little printed aphorism on a card on the bulletin board over his desk), "the first step to solving a problem is to see it clearly." Thus it is useful to examine the variety of changes that can focus our attention on needed improvements in the education of health professionals.

First, in the context of the future health professionals themselves, there are profound changes in their circumstances. Most of them carry an astonishing debt burden as they complete their formal education and training and enter their chosen careers. Indeed, one could argue with some validation that they may enter careers other than those they might have chosen because of that debt burden. For instance, in medicine, specialization trumps primary care, and sometimes only sub-specialization can catapult an indebted trainee into the affluent life style she envisioned on entry. Along with that monetary incentive tracks a tendency to professional hierarchy, reinforced along the way by academic attitudes that tend to diminish the potential of primary care givers to make a distinctive difference in people's lives (in contrast, for instance, to the dazzling feats of transplant surgeons).

There are other changes for the future health professionals: diversity of the population in the United States presses matters of ability to communicate linguistically, of cultural competency, and of disparities in health status. It clearly behooves future care givers to understand the complex factors inherent in such diversity in order to optimize care. But the faculties that teach them are less diverse than their students who, in turn, are disproportionately from affluent and majority backgrounds. At present the trajectory of trends in these populations— patients, faculty and students— is quite disheartening, for we may be going in the other direction rather rapidly. One of my colleagues who shares my worry about debt burden remarked recently that, unless the upward spiral of indebtedness was dealt with directly and soon, we might return de facto to an earlier era's demographic where physicians almost uniformly came from affluent backgrounds. And the consequences of failure to better align the characteristics of people in need of care with their care-givers become ever more clear with a growing

literature about health disparities in under-represented populations.

As to seeing the problem clearly in the context of delivered care itself, some factors have been noted already. The trend to much greater longevity with its attendant increasing prevalence of chronic disease and ambulatory care has already been noted. It is a tacit monument to the success of twentieth century biomedicine, but it brings an urgent need for adaptation lest the advance be lost or blighted by lack of adequate care.

Even in the context of in-patient care things have moved along: the advent of the hospitalist movement was an unwelcome harbinger to some, since it seemed to pre-empt the continuity of care by private physicians; but it was a response to significant shifts in patterns of care, and it had authentic roots in the increasingly complex and specialized context of the hospital environment. Studies to date suggest that hospitalists can and often do improve in-patient care and teaching; and in internal medicine they are now as numerous as cardiologists.

Another significant change in the patterns of care was the rather begrudging acknowledgment that old practices of residency training had to be changed —that it was unsafe and unhealthy for everyone involved if residents (formerly the only constant source of in-patient physician care) were allowed to work more than eighty hours a week. Once mandated, that safety measure necessitated adaptations that have, in some areas, revolutionized hospital-based care and teaching. It is a topic still under study, but it appears likely that the effect will be substantial improvement in the quality of both.

As a third facet of the problem with care itself, the fraction of the U.S. population without insurance has raised the issue of emergency-department-based care to a level of urgency that is only intensified by concerns about responsiveness to terrorism or to natural disaster (hurricanes and avian influenza, as real and potential examples). As the populations in need of such refuge at times of illness increase, while the number of uninsured nears the 50,000,000 mark, the emergency departments are serving as the last tattered fabric of the "safety net" and the main interface between medical and public health care, as well as the emergent resource they were intended to be. A major study by an expert group convened by the Institute of Medicine (initiated with Macy Foundation funding) concluded in 2005 that the entire system was teetering even in the face

of present demand, and the superimposition of threats such as pandemics or bio-terrorism could bring the system to its knees.

Thus health professional and health care matters have distinctive problems that can be seen with relative clarity and need to be addressed with urgency. Yet a third factor presses for change, as the patients themselves add another dimension. Superficially the increased access to medical and health information, supplied by intensive media coverage of every "breakthrough" and open access to unedited internet "information," would seem to dampen the problematic paternalistic effect of earlier medical care. In time, that may well be the case. But for such effects to be salutary, the recipient public needs to be health-literate. Since nearly one-third of the American population is marginally literate even in a general sense, there is already a problem. And the direct-to-consumer advertising options opened wide in the late 1990s to pharmaceutical manufacturers with patented drugs to urge on the public add to the "information" overload in unhelpful ways. Again, changes in practice patterns that reduce time available for patient-physician communication are potentially impacted adversely, as patients follow the exhortation to "ask your doctor if Drug X is right for you."

As a final tangle in this snarl of information-age problems, the use of information technology by health care professionals is remarkably uneven and in some cases inept. The solution to that aspect of change would seem to be the broadening use of "IT" in patient care; and yet privacy concerns are intrinsic—intensified by a deepening public mistrust of government and health care agencies alike. Issues of identity theft draw ever more attention, and medical records could be a thief's goldmine if misused. Furthermore, as genetics becomes steadily more individualized and predictive, and health insurers are worried about risk-pools, that source for concern must not be dismissed lightly.

In short: there is no lack of change in the system of care—and therefore of health professional education—that arose in the wake of the Flexner Report; and thus there is much work to do. One of the points implicit in much of the above analysis is that there is need for many kinds of expertise in order to bring to bear the fruits of a century's burgeoning insight about health and disease. As I often comment, there are several health professions for a reason; and the need for health professionals to work in teams becomes ever more evident. But engaging in genuine teamwork is one of the most difficult accommodations a professional can make.

Teamwork is not easy. Indeed, it probably should be proactively taught, and at the earliest possible stage of training, as a crucial component of professionalism itself; for within days of entry into any of the several esteemed professions of health care, a degree of imprinting occurs that makes subsequent emendation challenging. At an earlier stage of my career (Associate Dean of the Graduate School for Biological Sciences at the University of Wisconsin-Madison) I was asked by the Dean to stand in for him and meet with a delegation of nursing deans. They did not know that I was a physician and, along the way, said comfortably "Of course, nursing is the caring profession." I reacted predictably (although, happily, not out loud) as a physician, thinking "What do you mean? I care too…!" And so the standoff was perpetuated to a certain extent.

We need to get past that, and to recognize that all this churning and change —along with the wonderful enhanced ability actually to do something for people to enhance their health or treat their illness—mandates a continual re-thinking of our approaches to health professional education. It is a sobering fact that the lag time between entry into a health profession and successful completion of the regimen of study can be four years, or seven, or nine or more—so the change forces I describe now will only be approximations of needs of the future.

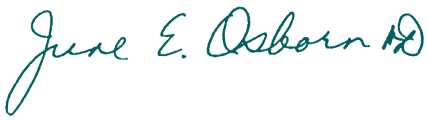
Concluding Thoughts

It is an old and familiar aphorism that "youth is wasted on the young." I think, by the same token, that maturity is wasted on the old. In the context about which I write, it would be wonderful if we could devise ways to speed maturity, for surely it is a cardinal quality in health professionals. Perhaps there are some ways to try. The use of simulated or standardized patients is an excellent step forward in allowing neophytes to learn fundamentals of communication or intervention. However, its limitations must be noted so that we don't assume we have solved those problems entirely. Talking with trained actors or resuscitating computerized manikins is a useful approximation up to a point, but it is not the real thing. The ability to listen and to empathize are more fundamental than such manipulations can account for, and the very act of selection of candidates for entry into the health professions should take account of humanism and the propensity of applicants to care for the people they meet. Efforts to incorporate community involvement and altruistic activities in the requirements for

admission to professional study are well warranted and may serve some of that purpose.

I mentioned earlier that appreciation of diversity was significant at each juncture of the health care interaction, and so that could be attended to as well. Not only should we do whatever we can to diversify faculty and student ranks, but we can try to provide and/or optimize opportunities for those groups to become acquainted with the populations they do or will serve. It is an unhappy fact that our communities are frequently "silo-ed" and that in turn means that a bright and high-achieving student may not even know that s/he is unaware of severe variations in well-being or ethnic identity nearby. As was intrinsic to the Supreme Court of 2000, a strong and valid argument for diversity is the very enrichment of educational experience that it brings to learning.

In summary, there is much to celebrate in the health care universe, but there are also many problems to address. The good news is quite evident: we have made great time in achieving insights about treatments, and are beginning to push those insights further to frame means of prevention. The bad news is that there is a remarkable disconnect between that dazzling progress and promise and the public: health communication tends to be uneven if not inaccessible to people who need to hear and understand messages of care and prevention. There is far too little engagement by health professionals in the unacceptable level of under- and un-insurance in our population. And as long as that is the case, it is hard to raise the mantle of "professionalism" and wield it credibly. All these elements need to be woven into the same fabric of health professional education that we currently wave proudly, and thus there will remain much work to be done in the foreseeable future to advance Mrs. Ladd's mandated agenda.



June E. Osborn, M.D.

President,
Josiah Macy, Jr. Foundation

Programs

Educational Strategies to Increase Care for Underserved Populations

NEW INITIATIVES

Improving Care for Elderly Patients

A study to improve the quality of care for elderly patients in the educational setting
(up to $764,500 for a period of three years, beginning February 1, 2006)
American Board of Internal Medicine (ABIM), Philadelphia, PA
Co-Investigators: Christine K. Cassel, M.D., President, ABIM,
Eric S. Holmboe, M.D., Vice President of Evaluation and Quality Research

This project has been designed to improve the training of residents in geriatric care in an ambulatory setting, with the larger goal of improving the overall quality of care for the elderly, using a practice-improvement-module (PIM) approach designed for Care of the Vulnerable Elderly, (CoVE).

Even with the dramatic increase in the numbers of elderly patients, geriatrics still is not adequately taught in undergraduate medical education. Further, much undergraduate medical education is hospital-based, even though most care for elderly patients, many of whom suffer chronic diseases, occurs in an outpatient setting. Most medical schools have not adapted adequately to many of the areas vital to effective care of the elderly, such as incontinence, falls, depression and drug interactions. Combined, these factors reinforce the need to prepare young physicians, especially those in internal medicine and family medicine, to care more effectively for an aging population.

Most medical schools have not adapted adequately to many of the areas vital to effective care of the elderly. This reinforces the need to prepare young physicians to care more effectively for an aging population.

For this project, Christine Cassel, M.D., President of the American Board of Internal Medicine, and her colleagues, will test the validity and usefulness of a PIM devoted to improving the care of the vulnerable elderly (CoVE) in internal medicine and family residency training in geriatrics in ambulatory care settings. The test will involve 35 residents in each of 30 practice settings, each resident with seven patients over the age of 65, numbers needed to detect a 10 percent improvement in quality of care measures for the elderly. Training settings in which the CoVE PIM has not been added will serve as controls, and will be evaluated in the same way as the experimental settings.

Data collection will begin after a six-month start up period, during which Institutional Review Board approval from the 30 sites will be obtained, with additional assessment scheduled at 18 months. Findings will be reviewed and summarized during the study's final year.

ONGOING PROGRAMS

Teaching Chronic Disease Care

Association of American Medical Colleges
Principal Investigator: Michael E. Whitcomb, M.D.
Anticipated Completion: June 2008

A 2004 AAMC report entitled "Educating Doctors to Provide High Quality Care" highlighted the need for physicians in key specialties, such as medicine and family medicine, to learn how to care for patients with chronic conditions in ambulatory settings. This report from a panel of medical school deans also acknowledged that medical education at both the undergraduate and graduate (residency) levels, now focuses disproportionately on acute, usually inpatient, care and could not meet that need.

Their findings prompted the deans to recommend a redesign of medical education to give students the necessary experience in the ambulatory care settings where they would learn to work with patients with chronic care needs.

In response, AAMC established the Education for Chronic Illness Care Roundtable composed of leaders in internal and family medicine. After several meetings the group developed a set of principals to guide proposed changes and asked AAMC to urge its members to make the necessary changes.

This grant supports the development and implementation of chronic care education in both undergraduate and graduate medical education:

— After a national competition, AAMC selected 10 medical schools to integrate chronic disease care throughout all four years of their curricula.

— Another part of the project, which takes into account the well-recognized problems involved in redesigning graduate medical education, is attempting to identify and overcome barriers to the redesign of residency, one of which is the need to apply for waivers from defined residency requirements. The scope of the Roundtable is addressing the "barriers" problems, with several expanded forums.

Morehouse School of Medicine

Principal Investigator: Louis Sullivan, M.D.
Anticipated Completion: June 2007

Louis Sullivan, M.D., President Emeritus of Morehouse School of Medicine, is writing a history of the creation, development and the impact of the school, placing Morehouse in the context of the larger history of black medical schools in the United States.

By 2003, Morehouse had established an impressive record and made significant contributions to a number of national health needs. In that year, more than three quarters of its graduates entered primary care, and more than 600 alumni had completed accredited residencies in family medicine, internal medicine, pediatrics, obstetrics/gynecology, preventive medicine/public health, psychiatry and surgery. A Ph.D. program in the biomedical sciences and an M.P.H. program were both fully accredited.

Dr. Sullivan's history of the Morehouse School of Medicine will examine the social and environmental forces that have influenced the evolution of the school, along with the specific events, organizations and individuals who contributed to its development. It will also provide some projections of the role of Morehouse in the future of health education in the United States.

Cold Spring Harbor Archive Collections

Cold Spring Harbor Laboratory
Principal Investigator: Ludmila Pollack, M.L.S.
Anticipated Completion: June 2007

Cold Spring Harbor Laboratory has played a central role in the development of molecular biology and genetics for the past 100 years. In recent years this role has expanded to include some 50 professional meetings and advanced courses for more than 8,000 scientists each year. These gatherings provide a focal point for scientific discussion and cutting-edge biological research.

The Cold Spring Harbor Archives were created in 1972 to house the primary materials, scientific papers, lab notebooks, photographs, correspondence,

and research materials kept by the laboratory's researchers. The Archives have made these materials available to scholars, graduate students and writers interested in the history of molecular biology, genetics and the laboratory.

This grant supports the second stage of an ambitious program to preserve the entire collection, digitalize selected items to make them accessible to a worldwide audience, and create a searchable, online site with detailed information about the collections. The first stage, completed in 2003, included four collections chosen to coincide with the 50th anniversary of the discovery of the double helical structure of DNA and with the completion of the Human Genome Project.

This second stage, which completes the preserving and digitalizing project, includes: personal collections of James D. Watson, Barbara McClintock and Hermann Muller; reprint collections of the Carnegie Department of Genetics and the Charles Davenport and Milislav Demeric reprint collections; the Cold Spring Harbor Laboratory Scientific Meeting Collection; and the laboratory's Oral History.

Increasing Teamwork Between and Among Multiple Health Professions

Interdisciplinary Global Public Health Program

A grant to support the development of the New York University Interdisciplinary Master's Program in Global Public Health
(up to $789,525 for three years, beginning July 1, 2006)
New York University
Co-Investigators: Jo Ivey Boufford, M.D., Professor of Public Service, Health Policy and Management and Karen Day, Ph.D., Department Chair, Medical Parasitology

This grant supports the creation of an interdisciplinary master's program to prepare graduates for leadership in global public health. The premise that global public health is not, itself, a single discipline but, rather, a goal that demands the collaboration of many disciplines underlies this project. Those disciplines include the health professions, law, business, and journalism, as well as the basic, social and behavioral sciences. Since collaboration among professionals in these fields is often difficult to attain, an important aim of this program is to prepare health professionals who recognize that a multidisciplinary approach is essential to their success, whether in research, education or practice.

The premise that global public health is not, itself, a single discipline but, rather, a goal that demands collaboration of many disciplines underlies this project.

Dr. Jo Ivey Boufford, Professor of Public Service, Health Policy and Management, and former Dean, of the Robert F. Wagner School and Dr. Karen Day, professor and Chair of Medical Parasitology and Director of the Institute of Urban and Global Health at the New York University Medical School have completed the initial preparation for this project. Based on their work, NYU has created a multidisciplinary master's program, the first university degree offered by NYU.

The two-year degree program is designed for individuals with a professional degree who seek advanced work specializing in global health. Five of NYU's professional schools—the college of dentistry with its college of nursing, the schools of social work, medicine, and education and the Wagner School of Public Service—collaborated to develop the program.

After two years of planning, core faculty have been selected, the curriculum developed and core concentrations identified, including epidemiology, global health policy and management, health promotion and disease prevention in migratory populations, and global oral health. Concentrations in women's

and children's health and in mental health are to be added.

The first class is being admitted in September, 2006, with fieldwork to begin the following fall. This grant will fund several key features during the second year.

One will be to identify field sites where the first group of second year students will work as an interdisciplinary team on a year-long project to be identified by a client organization. Those sites may be either in the developing world or alternatively in an organization working on global health based in the United States. Potential clients include UN agencies, national or local government, civil society organizations or business organizations with an identified social purpose.

During this second, and final year, students will work with the client to define the scope of activity, perform the project including whatever field work is required, and then present a final report to the client. Though most of the work will be done in New York, students will spend two to three weeks in the field.

A major objective of this new program is to produce graduates with first-hand knowledge of the challenges posed by global public health in the field, who also have learned the value of working, as a team, with individuals with different professional backgrounds—not to produce graduates who simply talk and write about theories of global public health.

Examples of the types of projects teams might undertake include operational reviews of critical health sector programs in a country; analysis of datasets from an international organization, such as WHO, UNICEF or the World Bank, to assess the impact of development assistance on a given health measure, for example maternal mortality; or development of a model to work on health issues for immigrant populations in New York City and their countries of origin.

Bi-weekly seminars will be conducted throughout the two-year program, featuring both NYU faculty and global experts. These will be used to generate an interdisciplinary "textbook" on global health that explores issues, such as language and different approaches to work, from the perspectives of multiple disciplines.

The project also seeks to enhance the visibility and importance of global health, both in New York City and beyond, through such strategies as expanding the on-going series of "Conversations in Global Public Health," which has already proven an effective forum for global public health issues.

ONGOING PROGRAMS

Educating about Prevention

Association of Teachers of Preventive Medicine
Principal Investigator: David R. Garr, M.D.
Anticipated Completion: February 2008

One goal of the Surgeon General's Healthy People 2010 report called for increasing "the proportion of schools of medicine, schools of nursing and health professional training schools whose basic curriculum for health care providers includes the core competencies in health promotion and disease prevention."

To help meet that goal, a task force of the Association of Teachers of Preventive Medicine identified and produced a Clinical Prevention and Population Health Curriculum Framework for organizing and monitoring curriculum and for communicating among the represented disciplines.

Building on that work, and with this grant, the task force has expanded its support of inter-professional collaboration and is:

— promoting broad distribution of the Clinical Prevention and Population Health Curriculum Framework across the health care professions through discipline-specific articles, press releases and presentations at national meetings;

— developing an online Prevention Education Resource Center for faculty;

— using the resource center to enhance program and curriculum content and to provide listserves for faculty exchange; and

— developing and convening a state-of-the-science national inter-professional conference on clinical prevention, population health, and inter-professional education, practice and research.

The task force also is using the resource center to add public health education into undergraduate curricula, as recommended by the Institute of Medicine. The Resource Center is making use of available online resources including CDC case studies, the recommendations of the U.S. Preventive Services Task Force, and vaccination curriculum materials developed by the Association of Teachers of Preventive Medicine. Continuing evaluation is part of the project.

Epidemic Intelligence Service History

The Task Force for Child Survival and Development
Principal Investigator: Mark L. Rosenberg, M.D.
Anticipated Completion: June 2007

The Epidemic Intelligence Service (EIS) of the Centers for Disease Control and Prevention (CDC) was started under the leadership of Dr. Alexander Langmuir in 1951 to provide an early warning system against biological warfare and natural epidemics. Since then, the EIS has been in the forefront of disease investigations, both in the United States and throughout the world, tracking HIV/AIDS, influenza, SARS and other emerging public health threats. Those diseases, along with chronic diseases, environmental and occupational health, comprise the EIS agenda.

Since its inception, more than 2,800 EIS officers-physicians, veterinarians, researchers and scientists on two year assignments— have worked to combat the causes of major epidemics. EIS helped to restore public confidence in the first polio vaccine after a defective vaccine led to public panic, played a key role in the global eradication of smallpox, and helped discover how HIV was transmitted. More recently, EIS officers have studied possible links between disease outbreaks and terrorism and documented the obesity epidemic in the United States.

This project is the first effort to document the history of the EIS and to produce a biography of Dr. Langmuir, who is seen as one of the great public health figures of the 20th century for his creation and leadership of the EIS.

EIS alumni asked writer Mark Pendergrast to undertake this project. Mr. Pendergrast wanted to do this without government support in order to maintain his independence.

The author is interviewing many past and present EIS officers and also using oral history, videos and audiotapes and other historical materials available though CDC, in addition to the papers and photographs in Dr. Langmuir's collection and pertinent materials in the National Archives, FDA, Emory University, and other collections.

Health Workforce Shortages

Association of Academic Health Centers
Principal Investigator: Marion Osterweis, Ph.D.
Anticipated Completion: February 2007

Most experts agree that there are now, or soon will be, shortages in virtually all health professions and that these shortages are not the same cyclical shortages seen in the past. To date, though, efforts to understand these shortages have been targeted to a specific profession or site. This study is based on the premise that the ability to carry out necessary health care functions is more important than the absolute numbers of any particular health care profession.

A number of factors threaten to exacerbate shortages in the health professions. These include:

— the growing cohort of aging baby boomers that will heighten the need for care, since the elderly typically have higher demands for health care services;

— stresses in the health care practice environment that lead many professionals to early retirement or career changes;

— school and/or program expansion that is limited by severe shortages of faculty in almost all the health professions, except medicine, due in part to retirement and faculty retention problems;

— serious "pipeline" problems that exist, especially for minority applicants;

— the fact that many institutions and/or states are raising tuitions at the same time other state and federal policies are limiting availability of student loans and loan repayment programs; and

— state and federal policies on licensure, scope of practice and reimbursement that have an indirect but significant impact on the numbers in the health workforce.

This study is looking across the professions to identify any similarities and differences in reasons for the shortages, how they manifest in various care sites, and their implications. The study also seeks potential solutions to the workforce crisis, which has required an analysis of the effects of current policies at all levels. The project is also looking for policies intended to address work force needs that have a ripple effect (an example is the importation of nurses from abroad) and to identify successful recruitment and retention models that might be used in other settings.

These issues are being examined in four workshops to prepare for a major conference where key findings, options and recommendations will be assessed. Commissioned papers are being published in a book. AAHC's Council on Health Workforce and Education is overseeing the project.

Innovative M.P.H. Program

Howard University Medical School
Principal Investigator: Charles Mouton, M.D., M.S.
Anticipated Completion: January 2007

This proposal involves the full range of Howard University's faculty and resources in developing an innovative M.P.H. program, the only program currently undertaken by the University. The new program emphasizes dual-degree graduate training, with a goal of addressing the disparities in health status among minority populations. The training process is helping to meet the significant health needs of the surrounding Washington, D.C. community.

Howard's M.P.H. program is the third in the greater Washington area, joining established programs at Johns Hopkins and George Washington University. In the past, Howard has cooperated with those institutions so its medical students were able to earn an M.P.H., along with their M.D., from Howard. This program responds both to the increased awareness among Howard medical students of the serious health disparities between

minority and majority populations and to their increased interest in public health needs. Students in the program either already have a graduate degree in another field or are working toward a second graduate degree along with their M.P.H.

Agreements with Johns Hopkins University and George Washington University have been developed. These agreements allow M.P.H. students from those institutions to add an emphasis on the elimination of racial and ethnic disparities to their studies, and reciprocally will allow Howard M.P.H. students access to their programs.

Diversity Among Health Professionals

NEW INITIATIVES

Hurricane Katrina Relief Funds

An allocation of $150,000 for efforts to help New Orleans, and specifically health professional students at area medical schools, recover from the damage caused by Hurricane Katrina

The acute needs in New Orleans following Hurricane Katrina in 2005 spurred the Board to find ways to help. The Macy Foundation contribution enables Xavier University to continue training future health professionals, supporting a major theme of the Foundation's funding.

Terms of the Macy Foundation endowment preclude the use of funds for "bricks and mortar," but the acute needs following the 2005 hurricane spurred the Board to find ways to help. After consideration of options, Tulane requested a contribution to help provide health professional students at Xavier University, a historically black institution with which they are interacting closely, with the facilities and services needed to remain in New Orleans and continue their studies.

The Macy Foundation contribution is helping Xavier students to attend classes at Tulane, either to fulfill existing degree requirements or to augment their studies with courses that had not been available at Xavier. (That university has not been able to provide a number of pre-storm services, including library access, computer labs and academic counseling, due to the extensive storm damage). Since Xavier is the foremost historically black college in its training of future health professionals, this award supports a major theme of the Foundation's funding.

Enhancing Faculty Potential for Women

A grant to support a study entitled "Realizing Women Faculty Potential in Academic Medicine: a Cultural Change Intervention."
(up to $1,415,987 for two years, beginning December, 2005)
Women's Studies Research Center at Brandeis University
Principal Investigator: Linda H. Pololi, M.B., B.S., Doctor of Medicine, UK, Senior Research Associate, Brandeis University

The lack of advancement for women in academic medicine has proved to be a persistent problem. This project is designed to analyze the problem in the overall context of the culture of academic medicine, and then to identify ways this culture might be changed to increase the number of women in academic medicine, especially in leadership positions.

This is intended to be a five-year study. The Macy Foundation grant is

supporting the first two years, anticipating that the investigators will complete their work with federal and other funding.

Following a pilot study, researchers identified a group of 5 medical schools whose deans were willing to commit to the larger study, and a national advisory board. The participating schools are Duke University, George Washington University, Tufts University, University of Minnesota, and University of New Mexico.

Dr. Linda Pololi, principal investigator, and her research team succinctly summarized the rationale behind their proposal: "Despite exhaustive documentation of the situation, women's lack of advancement in the biological sciences remains intransigent." They also provided compelling statistics to support the need for their proposed study:

"Despite exhaustive documentation of the situation, women's lack of advancement in the biological sciences remains intransigent." The goal underlying this project is to analyze the "culture of academic medicine" and to identify ways to improve it to benefit all faculty members.

In the 125 U.S. medical schools, women now constitute 26 percent of clinical faculty and 29 percent of basic science faculty, yet the proportion of full professors who are women only rose from 9 to 13 percent between 1980 and 2003. Currently 14 percent of tenured faculty are women, but only 3 percent have achieved full professorship. This compares with 22 percent of male faculty counterparts.

— According to an Association of American Medical Colleges (AAMC) study, 23 percent of men but only 5 percent of women attain full professorship after a mean of 11 years on a medical school faculty.

— Only 8 percent of department chairs are women and many schools have never had a female department head. Only 7 percent of medical school deans are women.

Though the team will focus specifically on the issue of women in academic medicine, Dr. Pololi noted that the questions raised by the relative lack of advancement for women parallel those related to under-representation of minorities and generalists in the fields of academic medicine.

The significant goal underlying this project is to analyze the "culture of academic medicine" and to identify ways to improve it to benefit all faculty members.

1) In depth interviews will be conducted with 12 women and 12 men faculty members at the five medical schools, with deliberate over-sampling of under-represented minorities with at least 20 percent of the sample generalists. These interviews will be used to generate working hypotheses.

2) A national quantitative survey of the nation's 126 medical schools will be performed by the AAMC.

3) The deans of the five schools will collaborate with members of the National Advisory Group on project design and then make recommendations for new programs, policies and practices based on the study data. The participating deans have committed to implementing these in their own institutions. This group also will assist in national dissemination of the project's findings.

4) Promising approaches will be identified by looking especially at the efforts of medical schools that have already begun to make improvements, with attention to successes, barriers, outcomes and best practices. Results will be shared with the Learning Network and will be incorporated in interventions at the demonstration sites.

In later stages of the study an Active Change Process will be established as the five deans work with the Learning Network to support and facilitate change. Each demonstration site will make a commitment of high-level faculty time and matching funds and resources.

In subsequent years, activities of the Learning Network will link the five member institutions in an effort to drive change, working with experts in organizational change from MIT and the Institute for Healthcare Improvement, as well as Drs. Pololi and Inui; and dissemination of the results and a controlled evaluation of the study will be an integral part of the final years of the five-year project.

Minority Faculty Development

A grant to support the development of a North East Consortium for Minority Faculty Development
(up to $1,303,720 for three years, beginning July 1, 2006)
University of Pennsylvania School of Medicine
Principal Investigator: Jerry Johnson, M.D.

According to the Association of American Medical Colleges the nation faces a severe shortage of minority faculty members who, at present, constitute approximately seven percent of the nation's medical faculty. The Centers of Excellence Program (COE), funded by the Health Resources and Services Administration, has led the nation's efforts to recruit and prepare under-

represented minority physicians for faculty positions since 1993. Support from this program has helped participating schools both to recruit and to provide adequate mentoring for new minority faculty.

As of September 1, 2006, however, federal funding for the Centers of Excellence Program ends. Even though support from participating schools will continue, some aspects of the program are in jeopardy. This grant provides the "gap" funding needed to sustain the full program at four medical schools for three years while efforts are made to restore federal funding.

The consortium model offers a number of benefits. Support from this program has helped participating schools both to recruit and to provide adequate mentoring for new minority faculty. By working together, participating institutions can introduce trainees to areas they might not otherwise consider.

The request for support from the University of Pennsylvania was the first of several received by the Macy Foundation. Since the need for support went beyond a single institution, the Foundation asked Dr. Jerry Johnson, the initial applicant, to create a consortium of several regional programs with the expectation that this approach would allow member schools to combine their efforts to recruit and to help develop minority physicians and non-physician scientists for careers in academic medicine.

All of the Centers of Excellence programs in the northeast have joined this new consortium: the University of Pennsylvania, the Albert Einstein Medical School of Yeshiva University, the Mount Sinai School of Medicine, and the University of Medicine and Dentistry of New Jersey-New Jersey Medical School.

The consortium model offers a number of benefits. By working together, participating institutions can introduce trainees to areas they might not otherwise consider by expanding areas of expertise and experience, increasing the number and diversity of mentors and role models, enhancing the content of available training exercises in teaching and research, providing access to larger and different populations and databases for use in research, and expanding peer contacts.

The consortium will conduct a number of specific activities.

1) During the first six months, members will develop a compendium of programs, mentors and resources at participating institutions to document complementary and distinct strengths.

2) An annual three to five-day Faculty Development Institute for junior faculty and fellows will be held at a different school each year, with the first institute scheduled for 2007. Topics such as expectations of faculty,

different types of faculty careers, design and evaluation of teaching programs and curricula, and research methods, among others, will be covered.

3) A two-day minority Senior Faculty Leadership Institute is planned to prepare faculty members already at levels of associate or full professor for roles such as department chair, division chief or dean, with minority faculty role models from each of the participating institutions.

4) Supplemental funding will be provided for career development in areas that do not usually receive adequate funding, such as release time for research by fellows and faculty not yet established as investigators and tuition for course work.

5) Pilot research funds will be provided to generate preliminary research data required for competitive career development awards and other grants for two fellows per school each year. At least one of those fellows is to be mentored by a senior faculty member from one of the other schools in the consortium.

6) Research opportunities will be offered lasting from 6 to 12 months, for minority fellows and faculty from other consortium members, though funding for these research exchanges is not covered by this grant.

The consortium also will provide a model for other universities faced with the challenge of recruiting and training minority faculty. The consortium's efforts will concentrate on faculty development beginning at the fellow or post-doctoral level. Members will share training resources and techniques, exchange trainees, and co-sponsor programs to enhance individual programs. In addition, a minority senior faculty leadership program will be developed for mid-career faculty seeking senior positions.

Health Professional Education in the Context of the Changing Health Care System

NEW INITIATIVES

Basic Sciences for Pediatric Trainees

A grant to support a study on integrating basic sciences into clinical pediatric teaching initiatives (up to $128,004 for two years, beginning July 1, 2006)
Wayne State University Medical School
Principal Investigator: Bonita Stanton, M.D., Chair of Pediatrics, Wayne State University

Eleven pediatric residency programs will participate in this project which has the endorsement of the Commonwealth Fund and the American Board of Pediatrics.

One key finding from the 2003 Macy Conference on "Pediatric Education in the 21st Century" was that pediatric education at the graduate level has failed to keep pace with the rapid advances in biological and patho-physiological knowledge that have done so much to enhance basic understanding of development and human genetics.

After the conference, Bonita Stanton, M.D., Chairman of the Department of Pediatrics at Wayne State University and a leader of the Association of Medical School Pediatric Department Chairs, and Ed Schor, M.D., Vice President for Child Development and Prevention at the Commonwealth Fund, worked together to develop a pilot project aimed at integrating advances in the basic sciences into clinical teaching at the pediatric residency level. That work led to the development of the model to be tested during this two-year period. The proposal has the endorsement of the Commonwealth Fund and the American Board of Pediatrics, both of which are contributing to the project.

Eleven pediatric residency programs will participate, including Wayne State, Brown, University of Chicago, Illinois College of Medicine, University of Washington School of Medicine, Michigan State, University of Medicine and Dentistry of New Jersey, University of Louisville-Kentucky, Medical College of Georgia, SUNY-Stonybrook, and Boston University.

The project has five overall goals:

1) to develop a method for pediatric residency education that emphasizes an approach to patient problems based on an understanding of the underlying physiology;

2) to develop approximately 33 interactive IBS (integrating basic science) cases (three per institution) that emphasize an understanding of the

mechanisms of disease in the context of human development, environment, genetics and other factors. These cases will be used during the "morning report."

3) to utilize the IBS case formats as a tool to change the "culture" of morning report and didactic education for residents.

4) to assess the impact of the IBS case format both on teaching style and on resident participation; and

5) to promote national dissemination of the impact of the IBS case format on teaching style and resident participation by publishing both the evaluations of the project and the IBS case studies, working both with the American Board of Pediatrics and the Association of Pediatric Department Chairs.

The expected outcome is an enhancement of integration of basic biomedical advances into graduate pediatric (residency) education and training.

ONGOING PROGRAMS

Clinical Doctorate in Nursing

Columbia University
Principal Investigator: Mary O. Mundinger, Dr.P.H., M.A., B.S.N.
Anticipated Completion: June 2008

When Columbia University and its medical center expanded the roles of nurse practitioners in 1993, existing training for "advanced practice" nursing status was not adequate for the expanded primary care roles being taken by nurses, which led the School of Nursing to develop a pioneering Doctor of Nursing Practice degree program.

In 1999 Columbia formed a Council for the Advancement of Primary Care and decided to formalize the new doctorate program. A year later a major report in the *Journal of the American Medical Association* showed no difference in quality of care or outcomes whether primary care providers were physicians or nurses trained in the new program. Columbia University formally approved the Dr.N.P. program in 2004.

The new cadre of primary care nurses with advanced training also addressed the serious shortage of nursing school faculty trained in primary care, since the research doctorate had been the only route available to those who seek an academic career in nursing. This new doctorate is helping to "balance" nursing school faculties more evenly between research and clinical nursing.

The need for a clinical doctorate in nursing is now so widely recognized that more than 40 nursing schools are developing programs. Recognizing the risk posed by hurried planning for these programs, the Council for the Advancement of Primary Care concluded "the most critical challenge is to assure that common standards for clinical competencies are adopted by schools that award this degree."

With this grant, the Columbia faculty and the Council are developing a data-based model curriculum for national use and a consensus document on standardized and measurable competencies for all graduates. They also are designing a national certification test for Dr.N.P. graduates. Students for the project, including 5 "Macy Fellowship" students are being drawn from a nation-wide pool for a course of full-time study. The Council developed an evaluation plan to test the model curricula and refine the competencies. They also defined residency and graduate position specifications and developed a pediatrics nursing curriculum.

The Council evaluated competency achievements of the first group, refining curricula and establishing further criteria and measurements of competencies. In the third year the council will assess the competency of the current students and follow up the first graduates.

Additionally, they plan to pilot test the certificate examination for graduates of the first two years, publish results and hold a conference for legislators, payers, public and professional groups, including AARP, National Quality Forum, AAMC, American Board of Internal Medicine and the American Association of Colleges of Nursing, both to validate the program and extend its reach.

The work will continue through a number of activities once Macy funding ends, including:

— establishing a national certifying exam for the Dr. N.P. graduates;

— seeking funding for faculty fellowships to allow schools contemplating this degree program to send faculty to Columbia to be prepared as faculty and program directors;

— working with the American Association of Colleges of Nursing to achieve program accreditation using the model curricula;

— working with payers to assure adequate and appropriate reimbursement for graduates;

— continuing work with legislators, state education departments and licensing boards to seek legislative authority for Dr.N.P. graduates; and

— developing new sources of financial aid for Dr. N.P. students.

Faculty Development Program

Stanford University School of Medicine
Principal Investigator: Kelley Skeff, M.D., Ph.D.
Anticipated Completion: January 2008

In an earlier project supported by the Macy Foundation, Kelley Skeff, M.D., Ph,D., designed and perfected a "train-the-trainers" model that brought medical school faculty members from other institutions to Stanford for training to improve their teaching effectiveness. Over a five-year period, 265 faculty members participated. This core faculty then trained more than 15,000 faculty and residents in new educational methods at their home institutions. For that work Dr. Skeff received the 2002 Abraham Flexner Award for Distinguished Service to Medical Education from The Association of American Medical Colleges.

With this grant, Dr. Skeff is using his train-the-trainer approach to address the issue of quality in health care by involving health professionals in quality improvement programs. Month-long training sessions for 18 health professionals are being held. These individuals then train an additional 360 physicians and other health care professionals at home institutions, creating 36 continuous quality improvement projects.

Dr. Skeff's approach was tested in a pilot project at the Palo Alto VA Health Care System where interdisciplinary practice teams designed their own

continuous quality improvement projects in the General Internal Medicine Clinic and Intermediate Intensive Care Unit. In the pilot study, trained facilitators taught the knowledge, skills and attitudes needed to improve the health care system to both physicians and other health care team members. The success of this pilot led to this grant.

The curriculum covers evidence-based care, patient safety, quality improvement, shared decision-making, and methods for facilitating change. It also encourages multi-disciplinary teamwork and emphasizes the need for participating physicians to appreciate the roles played by other members of the health care team, as well as the key role of the physician in helping patients to participate in "shared decision making."

One of Dr. Skeff's broader goals is to use the reputation, experience and methods of the Stanford Faculty Development Center to disseminate the curriculum nationally. This project is one of the few significant efforts aimed at changing health professional education by placing improved quality of patient care and safety at the top of the agenda. If results continue to be positive, this project will have impact on many institutions and will be picked up by larger funding agencies when Macy support ends.

Standardized Patient Assessment

University of California San Francisco Medical School
Principal Investigator: Karen Hauer, M.D.
Anticipated Completion: June 2007

Funding by the Macy Foundation more than a decade ago began the movement toward the use of standardized patients in clinical instruction. Today graduating students must complete a standardized patient examination as part of the United States Medical Licensing Examination (USMLE) step two clinical skills examination to demonstrate their mastery of core clinical skills.

Despite the extensive use of the standardized patient approach, the impact of the Macy Consortium's work on the teaching of clinical skills is unknown. This grant supports a nation-wide evaluation of the status of clinical skills assessment as well as provides an evaluation of the Macy consortia grants

to determine the long-term impact.

The study includes a quantitative survey of curricular deans at U.S. allopathic medical schools and interviews with clinical educators from schools of medicine with programs for standardized patient examinations. Finally, interviews with curricular deans will evaluate the impact of the introduction of standardized patient clinical skills assessment as part of the licensing examination.

New Models for Dental Education

Columbia University School of Dentistry
Principal Co-Investigators: Allan Formicola, D.D.S. and Howard Bailit, D.M.D, Ph.D.
Anticipated Completion: May 2007

Dental education is confronting serious educational and financial challenges. State financial support for dental education has declined sharply over the past 15 years, prompting schools to increase tuition and provide only minimal increases in faculty salaries and expenditures for equipment and physical facilities.

The future looks even worse. The supply of dentists is projected to decline by 15 percent over the next two decades and most schools lack the resources to expand class size. Such a supply reduction will make existing access problems of lower income and minority families even worse and threatens to spread those problems to middle-class families, especially in rural areas.

Searching for ways to reverse this situation, several years ago the co-investigators led a study— initially funded by the Macy Foundation— that used inner city dental practices to provide clinical instruction for fourth-year dental students. That study proved so successful that it later spread throughout the country, with major backing from the Robert Wood Johnson Foundation and later from the Kellogg Foundation and the California Endowment.

The present project has three goals:

— to develop new models of dental education that address the financial

and educational challenges now confronting dental education and that have impact on access to dental care;

— to assess the economic and political feasibility of more promising models; and

— to convene a national conference of leaders and experts to gain support for one or more of the proposed models.

Interdisciplinary Pain Management

Case Western Reserve University Hospitals and Health System
Principal Investigator: Thomas Chelimsky, M.D.
Anticipated Completion: June 2007

The current highly specialized approach to the management of chronic pain in the United States falls far short of the need for such care. An estimated 30 million people suffer from chronic pain and the associated problems of disability, inability to work, depression and issues of medication, yet only 85 certified treatment centers exist. Those centers can serve, at most, 20,000 people each year.

For this project, 24 primary care physicians are being trained by a team headed by Dr. Chelimsky, working with three occupational therapists, three physical therapists, one pharmacist, a coordinating study nurse and an expert in data entry. With 12 physicians trained during the first year, and an additional 12 this year, physicians who complete the training receive a certificate of "Special Competence in Pain Management" from Case Western Reserve Medical School.

Obesity Assessment Training

St. Luke's/Roosevelt Hospital Center
Principal Investigator: Xavier Pi-Sunyer, M.D.
Anticipated Completion: June 2007

Though the current "obesity epidemic" in the United States has received much attention, most physicians have not been trained to deal with the problems of obesity and its consequences and have little knowledge of behavior modification, nutrition, physical activity and weight loss strategies.

Dr. Xavier Pi-Sunyer, a leader in the research and treatment of obesity, developed a program to "train the trainers" by helping established medical educators to train medical students and residents to deal more effectively with obesity and its consequences.

This project has as its specific goals: to provide educators with training about the assessment and management of obesity and methods of instruction that will help them train medical students and residents; to create a cadre of educators who will continue to train physicians-in-training about strategies for the prevention and management of obesity; to prepare case studies and monographs with examples of complicated cases involving obese patients; and to create a program — designed to become self-sustaining— to raise national awareness about the problems of obesity and the risks associated with excess weight.

Macy Conferences

"Women and Medicine" Conference

An allocation to support a Macy Conference
on "Women and Medicine"
held in Bermuda in November-December, 2006 ($350,000).
Chairperson: Catherine DeAngelis, M.D., M.P.H., R.N.

From the end of World War II until the late 1960s, the percentage of women in American medicine remained at a low, but steady, six percent. That percentage has increased steadily since then. Today about half of the new medical students and slightly more than one quarter of practicing physicians are women.

This sharp increase in the number of women in medicine, sometimes referred to as "the gender shift," brought with it (or concided with) many changes, among them revised residency training formats, part-time and shared residency and practice options, and a cap of 80 hours per week on graduate medical education schedules. Also despite a lack of hard evidence to support this charge, the severe shortages that have afflicted the field of nursing over the same period have been blamed on the sharp increase in the number of women entering medicine.

Despite the greater presence of women in medicine and the subsequent increase in the pool of potential women faculty members, the number of women in academic medicine continues to lag. This is especially true in the senior ranks and in leadership positions.

The Macy Foundation held a major conference on the topic of women in medicine in 1976, just as the dramatic increase was beginning. Since then, little systematic effort has been made to examine the impact of this dramatic demographic change on medicine.

With support from the Macy Foundation, Dr. Jerry Jacobs, a distinguished professor of sociology at the University of Pennsylvania, and his associate, Dr. Ann Boulis, recently completed a comprehensive analysis of the role of women in medicine, including women in academic medicine. They are preparing a commissioned paper summarizing those data for the conference.

As chairperson of the conference, Dr. Catherine DeAngelis brings a wealth of varied experience and is ideally suited for this role. She first trained as a nurse before she decided to go into medicine. Her first academic position was as assistant professor of pediatrics at the University of Wisconsin. She then joined the pediatric faculty at Johns Hopkins Medical School and rose to the position of vice-dean before she was named to her present position as Editor-in-Chief of the *Journal of the American Medical Association* and of the *Archives* journals.

President's Discretionary Grants Awarded Fiscal Year 2005-2006

American Medical Student Association
Virginia
To support the 2nd National Summit on Student Debt, *The Financing of Undergraduate Medical Education* 10,000

American Philosophical Society
Pennsylvania
To preserve the papers of Dr. Warren S. McCulloch housed in the Society's research library 10,000

The Arnold P. Gold Foundation
New Jersey
To sponsor attendance at The Gold Humanism Honor Society (GHHS) Biennial 2006 for 25 medical student members 25,000

Association of Departments of Family Medicine
Kansas
To partially support the production and dissemination of the outcomes of a November 2006 symposium: *Shaping the Future of Academic Health Centers: Reconnaissance from the Front Lines of Medicine* 10,000

Association of Schools of Public Health
Washington, DC
To support the creation of the National Board of Public Health Examiners 25,000

Betty Ford Center
California
To support the creation of the Betty Ford Institute to provide effective alcohol and drug dependency services, programs of education and research 25,000

The English-Speaking Union of the States
New York
To support the "English for Medical Professionals" program 10,000

Harvard Medical School/Massachusetts General Hospital
Massachusetts
To support "Training Pediatric Residents About Adolescent Mental Health Problems: A Proof-of-Concept Pilot for a Proposed National Curriculum" 25,000

International Longevity Center-USA
New York
To support a workshop: *Redesigning Health Care for an Older America* 25,000

JAMA & Archives Journal (AMA) Illinois To support the Fifth International Congress on Peer Review and Biomedical Publication	5,000
Mount Sinai School of Medicine New York To support the Pre-Scholars Faculty Pipeline Program to increase healthcare workforce diversity and minority health research activities	25,000
National Foundation for Infectious Diseases Maryland To support revamping the public education website	25,000
New York Academy of Sciences New York To partially support a conference entitled: *Abdominal Aortic Aneurysm: Genetics, Pathophysiology and Molecular Biology — 10th Anniversary Symposium*	5,000
New York University School of Medicine New York To partially support a one-day conference: *Conference on the Health of the African Diaspora: Generating Solutions*	15,000
Physicians for Human Rights Massachusetts To expand the Student Program and mobilize health professional students around racial and ethnic disparities in the US health system	25,000
Talking Eyes Media New Jersey To support the production of a documentary: "Denied: The Crisis of America's Uninsured"	10,000
Tufts-New England Medical Center Massachusetts To partially support the production, marketing and dissemination of a computer assisted interactive training curriculum: "Recognition and Response to Child Abuse and Neglect in the Emergency Department"	25,000
Total:	**$ 300,000**