

New York State Council on Graduate Medical Education



8th Report & Policy Recommendations

September 2011

Copies of this Report may be obtained from:

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Karen L. Bell, M.D.
Roseanne C. Berger, M.D.
Neil Calman, M.D.
Montgomery B. Douglas, M.D.
Steven J. Scheinman, M.D.
Vicki Seltzer, M.D.

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Walter Franck, M.D.
Rhonda M. Graves, M.D.

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Jo Wiederhorn

*President and Chief Executive Officer
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Benson Yeh, M.D

*Chief Academic Officer
The Brooklyn Hospital Center*

Immediate Past Members of the Council

The members and staff of the NYS Council on Graduate Medical Education wish to acknowledge the following immediate past members who greatly contributed to our work during their tenure. Their contributions are certainly reflected in the production of this report and will resonate in future Council deliberations.

Charles N. Aswad, M.D. (Chair, Minority Participation in Medical Education)

Peter R. Barra, M.D., F.A.C.P.

Paul R. Cunningham, M.D., F.A.C.S.

Norman H. Edelman, M.D.

Robert P. Jacobs, M.D., M.B.A.

Edgar Lichstein, M.D.

John P. Naughton, M.D. (Council Chairman)

Barbara Ross-Lee, D.O., F.A.C.O.F.P.

Alan R. Roth, D.O., F.A.A.F.P.

Alwin F. Steinmann, M.D.

Miriam T. Vincent, M.D., Ph.D., J.D.



In Memoriam

Richard F. Daines, M.D.

New York's health community was deeply saddened by the untimely death of former New York State Commissioner of Health, Richard F. Daines, M.D.

Dr. Daines was particularly interested and involved in medical education issues at the Health Department. Given his former experience as an internal medicine residency program director and as a Hospital President, he brought a totality of experience and a strong commitment of excellence to improvements in the Graduate Medical Education (GME) Program.

The Council was first introduced to Dr. Daines a few months after his confirmation as the New York State Health Commissioner. At that time he charged the Council to examine and provide recommendations on an array of issues relating to New York's Graduate Medical Education system.

In June 2007, Commissioner Daines requested that the Council explore GME concerns relating to the physician supply/workforce; proper payment of GME funds, the economic impact of New York's GME system and training that correlates to research. In a March 2008 report, the Council produced 21 recommendations - many of which were incorporated into the 2008-2009 State Budget.

In addition, the Council and staff helped create (and now administer) the Doctors Across New York (DANY) programs. DANY is a state-funded initiative enacted in 2008 to help train and place physicians in underserved communities in a variety of settings and specialties to care for New York's diverse population.

The members, staff, and all those associated with the Council on Graduate Medical Education express our deepest sympathy to the family, friends, and colleagues of Richard F. Daines, M.D. This report is dedicated to his memory.

Introduction

New York State (NYS) is a national leader in medical education and supports the largest Graduate Medical Education (GME) system in the country. New York's GME system is nearly twice the size of California's GME system, which is the second largest in the country. There are 16 medical schools, 92 teaching hospitals, nearly 9,100 medical students and over 16,500 physicians in training (45 percent are International Medical Graduates). In addition, 14 international medical schools are approved by NYS to provide long-term clinical clerkship training in New York's teaching hospitals. Teaching hospitals in NYS are reimbursed over \$3.2 billion annually for GME expenses from Medicaid and Medicare. In addition, NYS ranked third among the states in National Institutes of Health (NIH) funding in 2009, which provided over \$2.3 billion to New York's biomedical research/teaching institutions.

The United States is currently facing both a geographic and specialty maldistribution of physicians that is projected to worsen over the next few decades. In 2005, the federal Council on Graduate Medical Education (COGME) forecasted a shortage of between 85,000 and 96,000 physicians by 2020. This looming crisis can be attributed to a growing and aging population, medical advances, an overall improved economic status and lifestyle choices. In 2005, in response to this major concern, the Association of American Medical Colleges (AAMC) called for a 30 percent increase in medical school enrollment over a 10-year period.

While NYS has a physician-to-population ratio that well exceeds the national average, there is also a significant maldistribution of physicians in terms of geographic location and availability of specialty services in certain regions of the state. For example, shortages exist in primary care, obstetrics, general surgery and child psychiatry. In December 2009, the Healthcare Association of New York State (HANY) cited a need for 1,300 physicians in a multitude of specialties. Moreover, over 350 primary care physicians are needed in order to remove approximately 90 Health Professional Shortage Area (HPSA) designations throughout NYS. In addition, the recent passage of federal health care reform will magnify the demand for primary care physicians in the state.

Such inadequacies in the physician workforce in NYS are disappointing given the significant number of GME training programs in New York. Each year over one-half of New York's trainees leave the state after completing their training. These data indicate that New York can address its physician workforce shortages by re-organizing and incentivizing its GME training programs.

The NYS Council on Graduate Medical Education (Council) was established to provide policy recommendations to the Governor and Legislature on issues affecting GME. Through its workgroups and committees, the Council has addressed such issues as clinical research, the quality of obstetrical training, the diversity of the physician workforce, transparency in GME funding, training in ambulatory care settings and clinical clerkship education. New York's physician supply is interwoven in all of these issues and has emerged as a recurrent theme throughout the Council's discussions. The Council's role in the creation of the Doctors Across New York program is one example of a health care policy contribution it has recently provided to improve NYS's health care system. This report summarizes the work and issues that are critical to the Council, currently and in the past several years, and provides policy recommendations for the future.

Preamble

During the period when the Council was preparing this report, Governor Andrew M. Cuomo issued an Executive Order creating a new Medicaid Redesign Team (MRT) to identify ways to save money within the Medicaid program for the upcoming and future state budgets¹. The MRT delivered an initial report to the Governor on February 24, 2011, that included 79 recommendations to redesign and restructure the Medicaid program to be more effective and efficient and get better results for patients. During the course of the MRT's deliberations, Council staff prepared briefing documents that included several recommendations contained in this report. The MRT will submit a comprehensive reform plan by November 2011 and complete its work by the end of the 2011-12 state fiscal year.

The Council is cognizant of the fiscal challenges surrounding NYS's budget and recognizes the need to balance available resources among various health care priorities. Some of the investments called for in this report should be considered sooner by state policymakers and should be viewed as providing savings for our health care and Medicaid system, while others may be more appropriate for long-term planning purposes. The Council and staff look forward to working with the MRT and state policymakers to enact necessary reforms that will improve medical education and New York's health care system.

¹ Executive Order # 5 issued by Governor Andrew Cuomo. January 5, 2011.
<http://www.governor.ny.gov/executiveorder/5>

NYS Council on Graduate Medical Education (Council)

The Council was created by Executive Order on May 13, 1987, "...to provide policy guidance to State policymakers regarding the composition, content, supply and distribution of physician training programs in New York State."² The Council was reauthorized by Governor Andrew M. Cuomo on January 1, 2011³.

The Council's responsibilities are to "...advise and assist the Governor and State agencies in the formulation and implementation of State policies regarding graduate medical education in the State...." Specifically the Council shall consider:

- The relationship of teaching hospitals to medical schools;
- Graduate medical education programs including the composition, supply and distribution of residency programs, subspecialty programs and fellowship training;
- Efforts to increase the number of minority physicians in training in New York and to increase and improve the training of physicians who will serve as medical residents, and subsequently as practitioners, in underserved areas of the State and serve populations with special health needs;
- The number and specialties of physicians needed in NYS;
- Policies and programs to increase the training of primary care physicians and the training of physicians in non-hospital settings; and
- Promotion of high quality residency and training programs.

Over the years, the Council's leadership role has led to reforms in GME, many that have been adopted at the national level, such as: (1) a limitation on the hours residents may work; (2) a program to reduce the number of residents in training; (3) the use of outcome requirements to measure progress; and (4) a requirement for primary care residents to devote a significant portion of their training in continuity of care settings caring for a panel of patients. Other reform initiatives adopted in New York, in other states and at the national level recognize a need for more: (1) primary care physicians in practice; (2) physicians from minority and economically disadvantaged constituencies; (3) physicians in underserved communities; and (4) training opportunities in ambulatory care settings.

The Council has also been recognized in the New York Prospective Hospital Reimbursement Methodology (NYPHRM);⁴ Primary Care Education and Training Act;⁵ Health Care Reform Act (HCRA);⁶ Palliative Care Education and Training Act;⁷ and the HIV/HSV/HCV Prevention and Training Act (relating to infection control practices).⁸

In addition to professional and administrative support provided to the Council, staff currently administer a number of programs for the NYS Department of Health (DOH), with policy direction from the Council.

In June 2007, Commissioner Daines requested that the Council explore GME concerns relating to the physician supply/workforce, proper payment of GME funds, the economic impact of New York's GME system and the training correlation to research. In its March 2008 report, the Council produced 21 recommendations, many that were incorporated into the 2008-09 State budget⁹.

Members of the Council are broadly representative of health professional, hospital and public interests. There are currently 30 members, including the Commissioner of Health and the Chancellor of the Board of Regents (or their representatives) who serve as ex-officio members.¹⁰ All members, with the exception of the ex-officio members, are appointed and serve at the pleasure of the Governor for a term of no more than four consecutive years.

The Council currently has three active committees: Steering, Nomination and Minority Participation in Medical Education. In addition, the Council created three workgroups to examine critically important issues: Improving the Quality of Obstetrical Training, Empire Clinical Research Investigator Program (ECRIP) and Transparency and Accountability in GME. These committees and workgroups generally meet in-person, via conference call or webinar and most include consultants (non-members) who provide expert assistance.

Under the leadership of Drs. Alfred Gellhorn, Lambert King, John Naughton and Mary Jane Massie (its current Chairman) the Council has championed many causes, including primary care education, increasing underrepresented minorities in medicine, transparency of Graduate Medical Education (GME) funding, biomedical research training, cultural competence training and resident work hours that have further distinguished New York as a national leader in GME. In addition, the Council has provided leadership on residency training issues that include reforms in GME, clinical clerkship rotations, improving the quality of obstetrical training and training with developmentally disabled and special needs populations.

Meetings of the full Council are held in Plenary Session that are open to the public and webcasted by the DOH. An Executive Order signed on January 1, 2007 requires that meetings subject to the Open Meetings Law are broadcasted on the internet.¹¹ There are two remaining Plenary Sessions scheduled in 2011 (June and October) that will be held at the DOH office in New York City. In addition, the Council periodically holds committee and workgroup meetings via webinar and conference calls. All Council meetings are posted at the Council's website.

Several of the programs created by the Council and administered by staff include: ECRIP; grant programs to promote minority participation in medical education; the NYS Area Health Education Center (AHEC) program; the Institutional GME Budget; and the DOH Clinical Clerkship Survey.

In addition, the Council and staff helped create (and now administer) the Doctors Across New York (DANY) programs. DANY is a State-funded initiative enacted in 2008 to help train and place physicians in underserved communities in a variety of settings and specialties to care for NY's diverse population. DANY programs include Physician Practice Support, Physician Loan Repayment, Ambulatory Care Training, Diversity in Medicine and Physician Workforce Studies. These programs require staff to development of Request-For-Applications/Proposals

(RFAs/RFPs), manage contracts, gather data and create web-based surveys. All of the GME programs utilize performance-based measures to maximize State funds and policy objectives.

Over time, the role of Council staff has evolved from a dedicated group that operated nearly independently from the DOH to a group that is fully immersed in the DOH's Bureau of HCRA Operations and Financial Analysis in the Division of Health Care Financing. The first staff transition occurred in 1996 shortly after the Health Care Reform Act (HCRA) was enacted into law. HCRA provided for major restructuring of New York's hospital inpatient financing system, including GME. This law unbundled commercial payor rates from Medicaid rates and created a new system to support GME and other public goods through a "covered lives assessment." Council staff was brought to Albany from New York City to the DOH's Division of Planning, Policy and Resource Development (DPPRD) to implement HCRA's GME Reform Incentive Pool, other HCRA programs and, along with the full Council, provide GME program and policy guidance to DOH.

The second staff transition occurred in 2007 when the DOH was restructured and created the Office of Health Insurance Programs (OHIP) whose goal is to expand insurance coverage, target Medicaid dollars to Medicaid patients and rationalize Medicaid and indigent care reimbursement policies. DHCF was brought into OHIP to ensure that the reimbursement system pays for the highest standard of care in the most appropriate settings. Council staff was also transferred to DHCF where they work with their colleagues on critically important program, policy and fiscal analysis on all GME related issues.

Recommendations:

Recognizing a need to expand the scope of the Council's work the following recommendations are made to continue Executive Order # 98 and include the following modifications:

1. Expand the Council's charge to include: *The role of research as an integral component to education and patient care in GME.*
2. Amend the Council's charge as follows: *The relationship of teaching hospitals to medical schools, including clinical clerkship education as a precursor for GME.*
3. Amend the Council's charge as follows: *The number, specialties and mechanisms to address physician workforce needs in New York State.*
4. Amend the Council's responsibilities to issue an annual report with the following: *The Council shall periodically issue reports on important medical education topics with policy and program recommendations for the Governor and State agencies.*

² Executive Order # 98 issued by Governor Mario Cuomo, May 13, 1987.
<http://government.westlaw.com/linkedslice/default.asp?SP=nycrr-1000>

Directory Path: Title 9 Executive Department, Subtitle A Governor's Office, Chapter I Executive Orders, Part 4 Executive Orders (Mario M. Cuomo).

³ Executive Order # 2 issued by Governor Andrew Cuomo. January 1, 2011.
<http://www.governor.ny.gov/executiveorder/2>

⁴ Public Health Law, Section 2807-c, 25. Medical Education Expenses (repealed)
[http://public.leginfo.state.ny.us/LAWSSEAF.cgi?QUERYTYPE=LAWS+&QUERYDATA=\\$\\$PBH2807-C\\$\\$@TXPBH02807-C+&LIST=SEA5+&BROWSER=EXPLORER+&TOKEN=38670981+&TARGET=VIEW](http://public.leginfo.state.ny.us/LAWSSEAF.cgi?QUERYTYPE=LAWS+&QUERYDATA=$$PBH2807-C$$@TXPBH02807-C+&LIST=SEA5+&BROWSER=EXPLORER+&TOKEN=38670981+&TARGET=VIEW)

⁵ Public Health Law, Article 9. Primary Care and Training Act.
<http://public.leginfo.state.ny.us/LAWSSEAF.cgi?QUERYTYPE=LAWS+&QUERYDATA=@SLPBH0A9+&LIST=LAW+&BROWSER=EXPLORER+&TOKEN=38670981+&TARGET=VIEW>

⁶ Public Health Law, Section 2807-m. Health Care Reform Act.
[http://public.leginfo.state.ny.us/LAWSSEAF.cgi?QUERYTYPE=LAWS+&QUERYDATA=\\$\\$PBH2807-M\\$\\$@TXPBH02807-M+&LIST=SEA2+&BROWSER=EXPLORER+&TOKEN=38670981+&TARGET=VIEW](http://public.leginfo.state.ny.us/LAWSSEAF.cgi?QUERYTYPE=LAWS+&QUERYDATA=$$PBH2807-M$$@TXPBH02807-M+&LIST=SEA2+&BROWSER=EXPLORER+&TOKEN=38670981+&TARGET=VIEW)

⁷ Public Health Law, Section 2807-n. Palliative Care Education and Training Act.
[http://public.leginfo.state.ny.us/LAWSSEAF.cgi?QUERYTYPE=LAWS+&QUERYDATA=\\$\\$PBH2807-N\\$\\$@TXPBH02807-N+&LIST=SEA7+&BROWSER=EXPLORER+&TOKEN=31674335+&TARGET=VIEW](http://public.leginfo.state.ny.us/LAWSSEAF.cgi?QUERYTYPE=LAWS+&QUERYDATA=$$PBH2807-N$$@TXPBH02807-N+&LIST=SEA7+&BROWSER=EXPLORER+&TOKEN=31674335+&TARGET=VIEW)

⁸ Public Health Law, Section 239. HIV/HBV/HCV Prevention and Training Act.
[http://public.leginfo.state.ny.us/LAWSSEAF.cgi?QUERYTYPE=LAWS+&QUERYDATA=\\$\\$PBH239\\$\\$@TXPBH0239+&LIST=SEA3+&BROWSER=EXPLORER+&TOKEN=38670981+&TARGET=VIEW](http://public.leginfo.state.ny.us/LAWSSEAF.cgi?QUERYTYPE=LAWS+&QUERYDATA=$$PBH239$$@TXPBH0239+&LIST=SEA3+&BROWSER=EXPLORER+&TOKEN=38670981+&TARGET=VIEW)

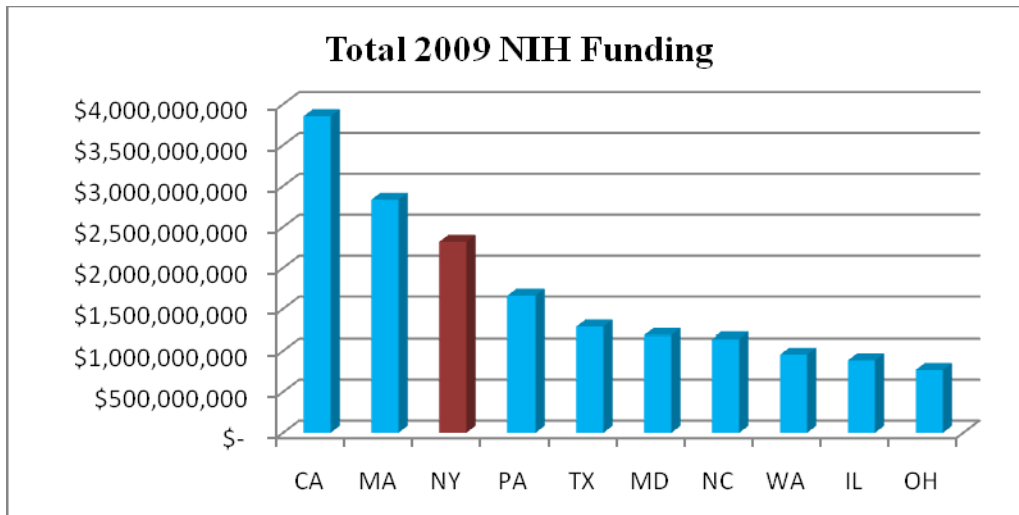
⁹ http://www.health.ny.gov/professionals/doctors/graduate_medical_education/reports/policy_recommendations.htm NYS Council on Graduate Medical Education, *Policy Recommendations to the Commissioner of Health*, March 2008.

¹⁰ Council Members and Staff - 2011
http://www.health.ny.gov/professionals/doctors/graduate_medical_education/council/members.htm

¹¹ Executive Order # 3 issued by Governor Eliot Spitzer, January 1, 2007.
<http://government.westlaw.com/linkedslice/default.asp?SP=nycrr-1000>
Directory Path: Title 9 Executive Department, Subtitle A Governor's Office, Chapter I Executive Orders, Part 6 Executive Orders (Eliot Spitzer).

Empire Clinical Research Investigator Program (ECRIP)

The Empire Clinical Research Investigator Program (ECRIP) was created by the Council in 2000 (as one of the objectives in the GME Reform Incentive Pool) to promote training of physicians in clinical research in order to advance biomedical research in New York State. The program was created as a result of research that demonstrated that NYS slipped from first to third nationally in its share of NIH funding and was not producing the necessary clinical researchers to remain highly competitive^{12,13,14}.



Physicians need to be introduced and supported in the early stages of research to be effective in developing careers in biomedical research and impacting the industry. ECRIP is a unique research training program that provides a solid foundation for emergent researchers and provides a bridge for these researchers as they move from trainee to independent status. Furthermore, ECRIP is an open and flexible program, allowing for all subject areas of clinical research to be submitted for funding while taking into account the quality of both the science and training environment.

Since 2001, 730 project abstracts have been submitted for funding with 490 awarded to 65 teaching hospitals, totaling over \$60 million in funding. Each teaching hospital must provide matching funds to support the ECRIP researcher. These matching funds can be provided as in-kind support from the hospital directly or from other research entities such as national research institutes or private companies. These matching funds demonstrate the willingness of the institution to support a research agenda.

Data from the first eight years of the program show that 73 percent of ECRIP funded researchers have continued in research and 81 percent of those that continued in research have remained in NYS. Of the total positions awarded to the teaching hospitals, 92 percent were filled.

One of the positive impacts of ECRIP is that it broadens the reach of the research industry into smaller teaching hospitals that would not otherwise participate in research but are able to with a baseline of support from ECRIP. It also allows federal accreditation bodies to support and approve teaching programs at hospitals that require levels of research not otherwise obtainable. For example, many GME training programs have recently imposed specific clinical research requirements for residents as an essential part of the periodic accreditation reviews by Residency

Review Committees (RRC). These may not be obtainable at many of the smaller teaching hospitals. ECRIP facilitates assignment of residents from small teaching hospitals to collaborative clinical research projects with university teaching hospitals which is essential for RRC accreditation.

Additionally, ECRIP provides funding for community-related research that is specific to an institution's region or population served. Other research funding is often more disease specific or more generalizable to all populations, whereas ECRIP provides funding that will have the greatest impact on New York's unique population. ECRIP allows teaching hospitals to hire physicians to perform patient-oriented, epidemiologic, behavioral, outcomes, health services and translational research. The research can address such topics as treating patients with multiple diagnoses, preventable events such as avoidable hospitalizations and readmissions, and utilizing medical home models.

Types of research projects funded:

Adverse Medical Events	Heart Disease	Minority Health
Alzheimer's Disease	Health Information	Multiple Sclerosis
Anthrax Vaccine	HIV	Obesity
Asthma	Immunotherapy	Organ Transplants
Cancer	Informed Consent	Stroke
Diabetes	Malaria	Transplantation
End of Life Care	Medical Safety	Tuberculosis
Geriatrics	Mental Disabilities	Vaccines

Clinical Departments:

Anesthesiology	Human Genetics	Orthopedics
Cardiology	Immunology	Otolaryngology
Emergency Medicine	Infectious Disease	Pathology
Endocrinology	Internal Medicine	Pediatrics
Family Practice	Nephrology	Psychiatry
Gastroenterology	Neurology	Radiology
Geriatrics	OB/GYN	Surgery
Hematology	Oncology	Urology

ECRIP is one component to improving New York's position in biomedical research as well as aiding in economic development. ECRIP is leveraged by teaching hospitals to draw additional and substantial research funding from other sources (e.g. NIH, pharmaceutical companies, foundations). Also, the program provides a highly technical workforce which generates indirect revenue benefits such as intellectual property and commercial products. The Associated Medical Schools of New York released its 2010 economic impact study which outlines the substantial economic benefits from New York's medical institutions. Data from the report show that for every \$1 in Federal and State research funding invested in New York's medical schools, the State receives a return of \$7.50¹⁵.

Considering the solid foundation that ECRIP provides in developing clinical researchers, as well as the positive impact of research on the economy, the program can be used as a conduit to enter

researchers into financially viable research initiatives such as stem cell research and nanomedicine. Teaching hospitals provide a large resource of clinical research physicians who, properly trained through ECRIP, can provide translational research and bring medical treatments from bench to bedside. These clinical researchers would have the opportunity to develop affiliations with renowned researchers within other organizations who are working in emerging areas such as stem cell and nanomedicine research.

For example, the NYS Stem Cell Science program, NYSTEM, works to further the agenda of the Empire State Stem Cell Board, whose mission is to foster a strong stem cell research community in NYS and to accelerate the growth of scientific knowledge about stem cell biology and the development of therapies and diagnostic methods under the highest ethical, scientific, and medical standards for the purpose of alleviating disease and improving human health. In 2008, approximately \$11.5 million of the \$70 million in research support NYSTEM received was considered translational in nature. By developing affiliations with NYSTEM supported translation researchers, ECRIP funded physicians could train in promising stem cell research ventures.

Nanomedicine is the application of nanotechnology in the prevention, diagnosis, and treatment of disease. The current era of nanotechnology may usher in the most radical transformation in the history of medicine. Nanomedicine promises to shift health and healthcare paradigms to move beyond partial or belated treatment of disease to prevention and eradication. Nanomedicine is at the cutting edge of biomedical research, seeking to develop innovative nanotechnology-based tools and techniques to dramatically benefit human health.

According to the Freedonia Group Inc., the U.S. market for nanotechnology medical products will increase to \$53 billion by 2011 and will double over the five years that follow¹⁶.

Along with huge investments made by the private sector, Federal investment in nanotechnology continues to climb. The National Institutes of Health (NIH) have made significant investments in nanomedicine by establishing a national network of eight Nanomedicine Development Centers, which serve as the intellectual and technological centerpiece of the NIH Nanomedicine Roadmap Initiative. Many national groups and strategic federal initiatives, including the National Cancer Institute Alliance for Nanotechnology, specifically call for training programs designed to produce the next generation of nanomedical researchers and encouraging young people to pursue cross-disciplinary careers in science, medicine, and engineering. As the art and science of medicine evolves rapidly in the face of cutting-edge technologies, a new generation of clinical scientists is needed to integrate and accelerate the potential impact of these advances. ECRIP is positioned to seamlessly provide a wealth of needed, well-trained clinical researchers to usher in this promising research enterprise to New York State.

Furthermore, ECRIP is established in a manner that allows teaching hospitals to work together on research projects. New York medical research institutions have a successful record working together through NIH funded Clinical and Translational Science Awards (CTSA). The CTSA program is creating consortia of institutions working together to improve the way biomedical research is conducted. Consortium members share a common vision to reduce time it takes for laboratory discoveries to become treatments for patients and to engage communities in clinical research efforts. With a proven track record of working together through the CTSA program and the ability of ECRIP to support institutions with various ranks of research as well as provide a vast supply of trained researchers, significant and economically viable research enterprises can be supported effectively and efficiently.

Examples of outside funding sources received by ECRIP awardees:

National Institutes of Health	Bristol Meyers Squibb
Department of Defense	Glaxo-SmithKline
American Society of Clinical Oncology	National Library of Medicine
Sapperstein Award	Agency for Healthcare Research and Quality (AHRQ)
American Association for the Study of Liver Diseases	Clinical Informatics to Promote Patient Safety (CLIPS)
Lance Armstrong Foundation Community Program	Gilead Foundation
National Cancer Institute	I-Flow Corp.
National Institute of Mental Health	Cytotech Corp.

In 2010, the Council created an ECRIP Workgroup to: develop recommendations to enhance and promote the Empire Clinical Research Investigator Program (ECRIP); review its effectiveness at advancing biomedical research in New York State; and evaluate research outcomes and the impact on physician researchers, their institutions, research fields and surrounding communities. Proposals to be addressed by the workgroup are: petitioning CMS to utilize GME funding to support ECRIP researchers, based upon the 7th U.S. Circuit Court of Appeals ruling that Medicare should reimburse the University of Chicago Medical Center for research work; incorporating stem cell and nanomedicine research as an extension of ECRIP; and developing a networks with the NYS research institutes to enhance biomedical research.

Teaching Hospitals Receiving ECRIP Awards by Size of Residency Programs:

Less than 100 residents	100-300 Residents	Over 300 Residents
Forest Hills Hospital	Brookdale Hospital Medical Center	Albany Medical Center
Franklin Hospital	The Brooklyn Hospital	Bellevue Hospital Center
Glen Cove Hospital	Elmhurst Hospital Center	Beth Israel Medical Center
Good Samaritan Hospital Of West Islip	Coney Island Hospital	Jacobi Medical Center
Hospital for Joint Diseases	Erie County Medical Center	Kaleida Health Systems
Hospital For Special Surgery	Harlem Hospital Center	Kings County Hospital Center
Huntington Hospital	Interfaith Medical Center	Long Island Jewish-Hillside Medical Center
Kingsbrook Jewish Medical Center	Lenox Hill Hospital	Maimonides Medical Center
Kingston Hospital	Lincoln Medical and Mental Health Center	Memorial Hospital For Cancer and Allied Diseases
Mary Imogene Bassett Hospital	Long Island College Hospital	Montefiore Hospital & Medical Center
Mercy Medical Center	Lutheran Medical Center	Mount Sinai Hospital
New York Downtown Hospital	Metropolitan Hospital Center	New York Presbyterian Hospital
New York Eye and Ear Infirmary	Nassau University Medical Center	North Shore University Hospital
North Central Bronx	NY Medical Center of Queens	NYU Medical Center
Peninsula Hospital Center	NY Methodist Hospital Of Brooklyn	St Luke's - Roosevelt Hospital
Roswell Park Cancer Institute	Our Lady of Mercy Medical Center (closed)	Strong Memorial Hospital
Sound Shore Medical Center	Richmond University Medical Center	SVCMC – Manhattan (closed)
St Charles Hospital	St Barnabas Hospital	University Hospital at Stony Brook
St Francis Hospital Of Roslyn	SUNY Downstate	Westchester Medical Center
United Health Services, Inc	Staten Island University Hospital	
Unity Health Systems	SUNY Upstate Medical Center	
	Winthrop University Hospital	
	Woodhull Medical and Mental Health Center	
	Wyckoff Heights Medical Center	

Recommendations:

1. Continue funding at the present level to support clinical research fellowships as well as institutional support for research faculty recruitment and retention.
2. Develop a parallel to ECRIP that focuses on new ventures in research such as nanomedicine and stem cell research.
3. Encourage teaching hospitals to join resources and develop consortia to cooperate on individual projects that support a developing research prospect.
4. Obtain additional data through the ECRIP Tracking Survey on ECRIP researchers including more detailed information on their research support.
5. Develop an Institutional Survey to obtain information on the overall value of the program to institutions' research programs as well as its impact on public health.
6. Develop electronic tracking through the Health Commerce System to maintain a database of researchers and projects.
7. Evaluate program requirements to ensure it will attract future leaders in research.

¹² Sturman L.S., Sorin M.D., Larkins E, Cavanagh, K.A, DeBuono, B.A. *Losing Ground: NIH Funding to NYS Researchers*. Bulletin. New York Academy of Medicine. 1997; 74 (1): 6-14.

¹³ Sturman, L.S., Sorin, M.D., Hannum R.J. *Opportunities Lost: NIH research Funding to New York's Medical Schools*. Journal of Urban Health: Bulletin. New York Academy of Medicine. 2000; 77 (1): 86-95.

¹⁴ National Institutes of Health (NIH) Extramural Awards by State. Accessed.. January 5, 2010.
<http://report.nih.gov/award/state/state.cfm>.

¹⁵ Associated Medical Schools of New York (AMSNY) 2010 report, "The Impact of Medical Education on the State of New York."

¹⁶ The Freedonia Group, Nanotechnology in Health Care to 2011 Report; February 2007.

Doctors Across New York

Prior to the enactment of Doctors Across New York (DANY), a variety of organizations worked both independently and in collaboration to draw attention to the maldistribution of New York's physician workforce. These organizations produced data demonstrating current recruitment and supply problems and identified potential solutions to help address an imbalance. The Council's 2008 report highlights a number of initiatives specifically to address the physician supply.

DANY was enacted in the 2008-09 State Budget and incorporates initiatives recommended by the Council and other groups to provide State support to train and place physicians in underserved areas in order to care for New York's diverse population and improve access to quality health care across the State. These programs include:

- **Physician Practice Support (PPS)**

This program provides up to \$100,000 to physicians who agree to practice in an underserved community for at least two years. Funding is available to: (1) physicians to establish or join a practice; or (2) hospitals and other health care providers to help recruit new physicians. All funding must be provided directly to physicians through sign-on bonuses, income guarantees, loan repayment or other financial incentives. In 2009, 126 awards were made and 70 health care providers were successful in recruiting physicians. **(\$4.3 million in SFY 2011-12)**

- **Physician Loan Repayment (LR)**

This program provides up to \$150,000 to physicians to repay their educational debt who agree to practice in an underserved community for at least five years. Physicians, hospitals and other health care providers qualify for funding through this initiative. In 2009, 83 awards were made and 41 physicians were recruited to work in underserved areas. **(\$1.7 million in SFY 2011-12)**

In the 2008-2009 cycle, all eligible applications (i.e., those meeting the minimum qualifications) for both PPS and LR were granted awards. Based on the success and lessons learned from the first cohort of applicants, the DOH will explore ways to provide greater flexibility in the PPS and LR application process to better address the physician supply needs and demands of the health care providers in underserved communities.

- **Ambulatory Care Training**

The Ambulatory Care Training Program is specifically designed to incentivize sponsoring institutions to provide clinical training of residents in freestanding diagnostic and treatment centers. Although most physicians practice medicine in freestanding diagnostic and treatment centers, most resident training occurs in hospital settings. The intent of this program is to increase resident training opportunities in freestanding diagnostic and treatment centers so that resident training reflects current practice trends and adequately addresses patient health care needs. **(\$4.3 million in SFY 2011-12)**

- **Physician Workforce Studies**

The Physician Studies Program provides funding to conduct a study of the NYS physician workforce, including its resident physicians. The primary objective of the Physician Studies Program is to clearly identify the size and distribution of the NYS physician workforce and determine its ability to meet the health care needs of New York State's diverse patient population. This data is fundamental to the development of health care policies that will shape graduate medical education and the provision of health care services throughout New York State. **(\$516,000 in SFY 2011-12)**

- **Diversity in Medicine/Post-Baccalaureate Education**

Provides funding for medical educators along the academic pipeline to encourage and support students underrepresented in medicine (URM) to pursue careers in medicine and the health professions. Undergraduate colleges, medical schools and residency programs, receive grant funding through this initiative. These funds support health career profession orientation, summer research programs, admission and recruitment counseling, masters programs, tutoring and mentoring, post-baccalaureate programs and faculty development. **(\$1.7 million in SFY 2011-12)**

- **Empire Clinical Research Investigator Program (ECRIP) -**

Provides awards to teaching hospitals and GME consortia to train physicians in clinical research in order to advance biomedical research in New York's academic health centers. Awards are provided for one or two years for experienced researchers to mentor physicians in a specific clinical research project. This program should provide ECRIP fellows with the skills needed to apply as a co-investigator for National Institutes of Health (NIH) funding or other private grant funds upon program completion. **(\$9.12 million in SFY 2011-12)**

- **Graduate Medical Education (GME) Reform Incentive Pool**

Provided teaching hospitals and GME consortia with annual funding to promote State medical education policy objectives in their institutions. These objectives include increasing: (1) the proportion of URM resident physicians; (2) linkages with programs along the academic pipeline that are targeted for URM students; (3) the proportion of URM faculty in institutions; (4) training opportunities for residents in all specialties in ambulatory care sites, particularly in underserved communities or serving high-risk population groups; and (5) cultural competence training for all residents.

This program, along with the Designated Priority Program (DPP), that is described later in this report, introduced performance-based measures to traditional formulaic-based GME reimbursement in order to address State physician workforce policy objectives. **(Funded in 2008 and transitioned to the GME Innovations Pool)**

- **GME Innovations Pool**

The GME Innovations Pool was established to provide competitive grants to improve and quality and efficiency of GME programs in NYS. The primary objective of the Pool is to encourage new and novel approaches to enrich teaching and address statewide residency and physician workforce goals. These goals, aligned with the Council's charge, include

improving the quality of resident education and patient care, encouraging cultural competence and diversity in medicine, promoting interdisciplinary training and addressing New York's physician supply needs. The four major funding areas identified by the Council, include: GME curriculum development; comprehensive care; system restructuring; and statewide/regional projects.

This Pool would include funding to support the creation of Child Abuse Pediatric fellowships as they do not qualify for Medicare GME reimbursement. These fellowship programs provide only a very limited amount of direct patient care services and as such are not supported through current GME funding sources. Child Abuse Pediatrics is a new board specialty and fellows spend time involved with complex investigation, research, education and advocacy. The program would also support the continuation of funding for the Parent Partners in Health Education (PPHE) Program, an initiative supported by the Council to train residents to care for persons with developmental disabilities. (PPHE is fully described in a separate chapter further in this report.)

The GME Innovations Pool has yet to be implemented. The Pool is currently unfunded, and it remains unclear as to when funding will be appropriated to facilitate its implementation in the future. However, the GME Innovations Pool can be an excellent avenue to help achieve performance-based efficiencies in GME programs to improve the quality of education and better address New York's health workforce needs.

It should be noted that although the GME Innovation Pool is currently non-operational, the federal government has implemented its own health care innovations incentives. The Centers for Medicare and Medicaid recently established the Center for Medicare and Medicaid Innovation (Innovation Center). Created by the federal Patient Protection and Affordable Care Act, the Center for Medicare and Medicaid Innovation aims to explore innovations in health care delivery and payment that will enhance the quality of care for Medicare and Medicaid beneficiaries, improve the health of the population, and lower costs through improvement. Additionally, MedPac has recommended redistributing part of Medicare IME funding for a performance-based incentive program, similar to New York's GME incentive program, that will "focus on the skills needed to improve our health care delivery system"¹⁷.

Council staff also administers two other grant programs that relate to DANY:

Area Health Education Centers (AHEC)

Provides funding to support the regional and local AHEC system. Their mission is to enhance the quality of and access to health care services, improve health care outcomes and address health workforce needs of medically underserved communities and populations. This is accomplished by creating partnerships between the institutions that train health professionals and the communities most in need. **(\$2.2 million in SFY 2011-12)**

AHEC is a workforce development initiative established in 1998 to address the drastic specialty shortages and serious lack of diversity in the NYS health care workforce. AHEC works with

health care institutions, practicing professionals and educators at all levels to promote careers in health care, especially with underserved populations. There are nine AHECs based in communities across the State (Buffalo, Bronx, Brooklyn, Canton, Cortland, Glens Falls, Highland, New York and Warsaw).

AHEC encourages service in various underserved medical specialties and regions within the State, but it also increases the diversity within the health care field by assisting students from underrepresented and disadvantaged backgrounds to pursue health care careers. These objectives are essential to the stabilization of the health care workforce. In 2008-09, AHEC trained approximately 41,000 students throughout the State through community-based training, continuing education, distance learning and web-based programs.

Center for Health Workforce Studies (CHWS) at the University of Albany

Supports health workforce studies and to monitor key health professions in NYS that include: physicians, nurses, dentists and workers in local public health departments. This is accomplished through professional surveys that are included in license registries and exit interviews. Data is published in reports that are distributed to policymakers, educators, health care providers and the public on the health workforce supply and distribution. (**\$196,000 in SFY 2011-12**)

One example of how health workforce data from the CHWS can be used to shape State health policy concerns the supply and distribution of dentists in the State. The CHWS reported that NYS has a dentist-to-population ratio well above the national ratio, with most regions of the State either meeting or exceeding the national ratio of 58 dentists per 100,000 population. However, despite the large supply of dentists, access to dental care for underserved populations is severely lacking. Currently, there are nearly 50 federally-designated dental shortage areas across the State, with the majority of them targeting either Medicaid eligible or low income populations.

Efforts, such as loan repayment incentives (discussed in a recent report relating to the expansion of the Doctors Across New York program), to address access to dental services, should focus on strategies designed to increase the supply of dentists serving underserved populations in the State.

Recommendations:

1. Provide adequate State funding to support existing and new cohorts annually for the Doctors Across New York Physician Practice Support and Physician Loan Repayment Programs to address New York's physician workforce needs in underserved communities. These programs are vital to many underserved communities across New York State.
2. Consideration should be given to expanding the Doctors Across New York Physician Loan Repayment Program to include dentists willing to work at sites that provide oral health services to underserved populations.
3. Invest State funding to restore the GME Innovations Pool to support enhancements and improvements to New York's GME system to better utilize public expenditures.

4. Provide adequate State funding to support New York's AHEC system and maximize federal contributions to support training of New York's health practitioners and technicians in local communities.
5. Provide adequate State funding to support health workforce data collection through the Center for Health Workforce Studies at the University at Albany in order to obtain information and analysis on the current and future physician and health care workforce supply, demand and needs.

¹⁷ Hackbarth, G., J.D., Boccuti, C.,M.A. *Transforming Graduate Medical Education to Improve Health Care Value*. The New England Journal of Medicine. February 24, 2011 (364: 8) 693 – 695.

Improving the Quality of Obstetrical Training

NYS is facing a looming crisis in the supply of physicians who provide quality obstetrical care. Many physicians in our state are leaving the practice of obstetrics prematurely, and several obstetrics services in our state have closed. Obstetrical services present barriers to practice due to lifestyle, the increasing practice costs associated with adverse outcomes, and low reimbursement. These issues are also discouraging medical students from pursuing careers in obstetrics. The costs of adverse outcomes are draining our health care system, burdening our judicial system and devastating families and providers financially, physically and emotionally. Moreover, maternal mortality in NYS¹⁸ remains well above the national rate¹⁹ and is currently four times the goal of the Centers for Disease Control and Prevention (CDC) Healthy People initiative created to identify and reduce the most significant preventable threats to health²⁰. In addition, some parts of the state, i.e., New York City, are experiencing rates that exceed five times the goal, and in upstate Chenango County, the rate is 14 times the CDC's Healthy People goal²¹.

The number of physicians practicing obstetrics has declined to a level that has resulted in a critical shortage in many areas of the state. For instance, at least seven rural counties currently do not have any practicing obstetricians²² and three of 10 regions in the state have recently experienced an overall decline in the number of OB/GYNs ranging from -5 percent in the Hudson Valley to -7 percent in the North Country and Long Island²³. In addition, over the past several years, many hospitals have stopped providing regular obstetrical services.

In 2010, the Council created a Workgroup on Improving the Quality of Obstetrical Training to develop recommendations to enhance the quality of residency training in obstetrics for both OB/GYN and family medicine training programs through a comprehensive systems-based approach that provides for enhanced safety in obstetrical practices, reduction in medical errors, and reporting and dissemination of best practices. This effort is focused on improving residency training and enhancing patient safety in obstetrical care in New York State.

Improving the quality of obstetrical training is a key component in addressing the supply of qualified obstetrical providers and improving overall patient safety. However, the problem of improving safety in obstetrics is exacerbated by the fact that funding for obstetrical services (both for hospitals and physicians) is disproportionately low when compared with reimbursement for other services (e.g., orthopedics, cardiac, neurosurgery, oncology, etc.). Many hospitals lose money by providing obstetrical services. Therefore, in many obstetrical departments throughout the state there may be insufficient funding to: (1) have adequate manpower and systems to consistently provide for the safest obstetrical care possible; and (2) educate obstetrics and family practice residents to provide the safest obstetrical care.

Even when systems are in place in a hospital to educate residents to provide the safest obstetrical care, there may be frequent breakdowns in these systems. These systems breakdowns may be related to an inadequate number of personnel, insufficient protected time for training and for refresher education, lack of a nurse dedicated to root cause analysis and related quality issues, and inadequate technology.

All of these issues may result in the following sequence:

- fewer qualified US medical students choosing graduate training in OB/GYN in New York State;
- fewer family practice residents deciding to deliver babies once they complete their residencies;
- obstetricians deciding to stop delivering babies earlier in their careers;
- an insufficient number of obstetrical providers, as well as a less than optimally trained obstetrical workforce that ultimately leads to;
- an inability for all women in NYS to access the safest possible obstetrical care.

Recommendations:

The relationship between education in safety and safe systems for patients is bidirectional; therefore, a critical step toward improving obstetrical patient safety is to provide high-quality specialty training. Data from an evaluation of obstetrical residency programs has shown that the complication rates of physicians trained in residency programs in the top quintile, as measured by risk-adjusted maternal complication rates, were substantially lower than those of physicians trained in residency programs in the bottom quintile²⁴.

Adequate funding must be available so that high quality systems of care can be provided as the standard learning environment for residents training in obstetrics. These services must be consistently and properly staffed, allowing resident training in ideally functioning environments. If residents can be fully educated in the highest level of systems-based practice, there is the potential to reduce medical errors and costs as a whole both during their residencies and in their future practices.

Enhancing the quality of education in obstetrical care statewide would have a positive impact on patient outcomes and on provider costs. Such changes will produce greater efficiencies, improve patient safety, and reduce stress experienced by obstetrical teams. In addition, a resulting decrease in on-call obligations and better coordination of team efforts could contribute to positive lifestyle changes. These recommendations have the potential to stimulate an increase in the supply of physicians willing and able to provide high-quality obstetrical care.

In order to provide the best obstetrical care, and to optimally educate OB/GYN trainees and family practice residents, high quality obstetrical services must include the following components:

- appropriate systems and protocols, including the design and implementation of the most efficient and coordinated models for the provision of care;

- resident education in systems-based practice, including the availability of others to perform ancillary patient care tasks, thus freeing residents to fully participate in educational activities and direct patient care;
- sufficient staffing, including attending physicians, nurses, physician assistants, midwives and ancillary personnel, working as a team in well-designed systems to consistently provide the safest and highest quality patient care and resident education;
- a designated individual with a responsibility to cultivate, maintain, and monitor a culture of safety;
- team communication and simulation drills, both of which are proving to enhance patient safety and competence among team members;
- working towards advanced or adequate technology and equipment, including the use of electronic medical records to provide comprehensive patient information and enable coordinated inpatient and outpatient care, and a fully integrated computerized longitudinal tracking system for all components of obstetrical care;
- academic as well as institutional support from all levels; and
- the ability to identify desired process modifications and outcomes and to determine how these outcomes will be measured and with what frequency.

State resources can provide the necessary support, which does not presently exist in many obstetrical services, to improve patient care and obstetrical training during residency, as well as address the declining supply of physicians who practice obstetrics in New York State. Such examples include:

1. Short term transition grant funding for teaching hospitals and GME Consortia that use evidence-based practices to improve the quality of the learning environment and promote patient care and education. Grants would be competitive and allow for unique improvements and locally designed approaches that meet minimum state criteria. Clinical facilities will submit positive obstetrical service changes that can be replicated in other institutions.
2. GME support that recognize the increased direct education expenses associated with the process to improve the quality of obstetrical training. Enhancements would be given to training programs with full-time in-house faculty coverage, simulation training, electronic medical records, electronic fetal monitoring education, resident care coordination in outpatient and inpatient settings, team drills that include drill debriefs, and other GME related services. In future years, funding may only be provided based on outcomes or enhanced quality performance standards.
3. Support non-GME expenses necessary for obstetrical residency programs to create and promote an efficient collaborative care environment.

4. Medicaid support to physicians who bill directly for obstetrical services provided in settings that train residents or medical students and include components of high quality obstetrical services.

¹⁸ <http://www.health.state.ny.us/statistics/chac/birth/matmort.htm>

¹⁹ <http://www.medicalnewstoday.com/articles/181934.php>

²⁰ <http://www.healthypeople.gov/data/midcourse/html/focusareas/FA16Objectives.htm>

²¹ <http://www.health.state.ny.us/statistics/chac/birth/matmort.htm>

²² Changing Practice Patterns of Obstetricians/Gynecologists in NYS (2006). The Center for Health Workforce Studies, University at Albany, School of Public Health <http://chws.albany.edu/>

²³ Annual New York Physician Workforce Profile, 2009 Edition. The Center for Health Workforce Studies, University at Albany, School of Public Health <http://chws.albany.edu/>

²⁴ David A. Asch, MD, MBA; Sean Nicholson, PhD; Sindhu Srinivas, MD, MSCE; Jeph Herrin, PhD; Andrew J. Epstein, PhD, MPP, "Evaluating Obstetrical Residency Programs Using Patient Outcomes," The Journal of the American Medical Association 23/30 Sept. 2009: 1277-1283.

Diversity in Medical Education

NYS has an ethnically and culturally diverse population. There are an estimated 200 languages spoken in the State and one third of the residents are from minority population groups. However, the diversity of the physician population does not reflect the diversity of the State minority population. While individuals from these minority population groups make up 33 percent of the population in NYS, they only account for nine and one-half percent of practicing physicians. Increasing the number of physicians Under-Represented in Medicine (URM) is vital for the health of all residents.

URM physicians are more likely to work in primary care or obstetrics/gynecology (39 percent) compared to all other physicians (27 percent). Additionally, URM physicians are more likely to work in downstate New York (82 percent vs. 69 percent) and in urban areas (94 percent vs. 91 percent) compared to all other physicians. URMs are more likely to practice in hospitals and clinics, to report a primary care specialty and to serve Medicaid patients than are non-URM physicians. In New York City, URMs are more likely to practice in Health Professional Shortage Areas. URMs also report more difficulty in finding a satisfactory practice position compared to all physicians, and are burdened by more educational debt. In addition, the need to increase the diversity in medicine pipeline is especially acute in light of an impending physician shortage nationally and in New York State.

National data finds that ethnic minorities have more negative health care experiences and are more vulnerable to health care disparities than are whites; for example, a Commonwealth Fund survey showed that "nearly one of six African American (15 percent), one of seven Hispanics (13 percent), and one in ten of Asian Americans (11 percent) feel they would receive better health care if they were of a different race or ethnicity, compared to one percent of whites"²⁵.

The Council's Minority Participation in Medical Education Committee has been charged to develop recommendations to increase cultural competence and diversity in medicine, including greater participation of URMs in medical education and practice in New York State. The Committee continues to work with individuals and organizations on collaborative projects to minimize duplication of effort, identify and develop best practice models, and increase diversity along the academic pipeline.

The Committee believes that it is imperative that programs within the state collaborate to share information, data and best practices. Collaborations with other state agencies (e.g., Office of Mental Health, The Office of Children and Family Services, and the State Education Department) are necessary to increase awareness of funding opportunities for minorities. This is vital to increasing the number of minorities in medicine and ensuring that minority populations have access to culturally and linguistically appropriate health care.

Cultural Competency Training

One of the major accomplishments of the Council has been an initiative to encourage teaching hospitals to provide residents with cultural competence training. This unique program,

nationally, was implemented as one of the objectives of the GME Reform Incentive Pool and was operational from 2001-2008. The training was required to address cultural attitudes, knowledge and skills, be interactive and occur in more than one format. The overall goal was to provide favorable communication outcomes for patients, colleagues and health care professionals. In order to qualify for funding, institutions were required to:

- submit a plan that provided information on: the goals and topics covered; the types of formats and number of hours per format; how residents were scheduled and tracked; when training began; and information on faculty and how they were recruited to provide the training;
- provide at least eight hours of didactic training per year to at least 80 percent of their residents. The eight hours of didactic training did not include any additional time resident spend in patient care settings; and
- comply with the GME guidelines for primary and specialty care providers. These guidelines are included in Medicaid managed care provider contracts and provide for a uniform standard of care for all patients.

Over the term of the cultural competence objective through the GME Reform Incentive Pool, approximately 7,500 medical residents were trained on average, annually at approximately 25 teaching hospitals. Many of the programs still existed after funding was discontinued.

Minority Pipeline Programs

The DOH currently supports several minority pipeline programs to expand the pool of underrepresented minority, educationally and economically disadvantaged students in medicine and other health related fields. For purpose of these initiatives, minorities are defined as African-Americans, Hispanics and American Indians/Alaskan Natives. Programs are conducted statewide in collaboration with high schools, undergraduate colleges, medical schools and residency programs. Funds for this initiative support the development of academic enrichment programs, health professions orientation, summer research programs, admission and recruitment counseling, masters programs, tutoring and mentoring, post-baccalaureate programs and faculty development. The goal of these programs is to provide students who are interested in careers in health and medicine, with an educational opportunity that a majority of the participants would not have due to cultural, educational and financial barriers.

The Associated Medical Schools of New York (AMSNY) participates with DOH in the administration of many of these programs. (**\$1.7 million in SFY 2011-12**)

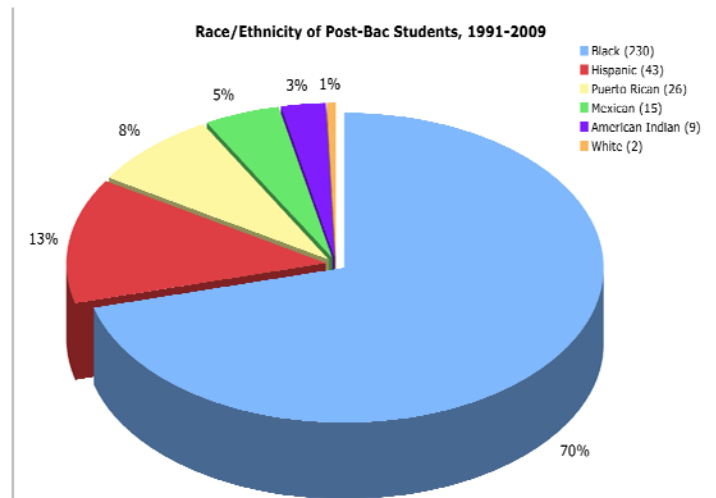
The Post-Baccalaureate Program, University at Buffalo (UB), SUNY School of Medicine and Biomedical Sciences

Students are nominated to the UB Post-Bac program from one of nine participating medical schools in NYS. Applicants must first apply to the medical school through the regular admissions process and be denied admission from any medical school. Once accepted into the

UB Post-Bac program, and after successful completion of this academic enrichment program, students are guaranteed a slot in the next matriculating class by the referring medical school. Preference is given to NYS residents. Currently, the UB Post-Bac program can enroll up to 25 students annually. While enrolled in the 12-month program, students receive formal mentoring, advising and a tailored curriculum.

The following schools participate in the UB Post-Bac Program:

1. Albany Medical College
2. Albert Einstein College of Medicine
3. New York College of Osteopathic Medicine
4. New York Medical College
5. Stony Brook University Medical Center
6. SUNY Downstate Medical Center
7. SUNY Upstate Medical University
8. SUNY Buffalo, School of Medicine & Biomedical Sciences
9. University of Rochester School of Medicine & Dentistry



Students are not permitted to work while in the program, nor are they charged tuition. UB covers the cost of tuition and the DOH grant provides funding to the school to cover a portion of the administrative costs. The grant also provides stipends to the students to cover living expenses, books, health care and incidentals. The total cost per student, including in-kind tuition, administrative funding and stipend, is more than \$40,000.

Outcome Data: From 1991 - 2009, 325 students were enrolled in the program. For purposes of this analysis, data from the first 11 cohorts (1991 – 2002) is reported (n=170).

- 55% (93) have a family income at or below the national poverty level
- 94% (159) matriculated into medical school

- 82% (130) who matriculated into medical school, successfully graduated (n=159)

 The following data relates to UB Post-Bac medical school graduates (n=130):

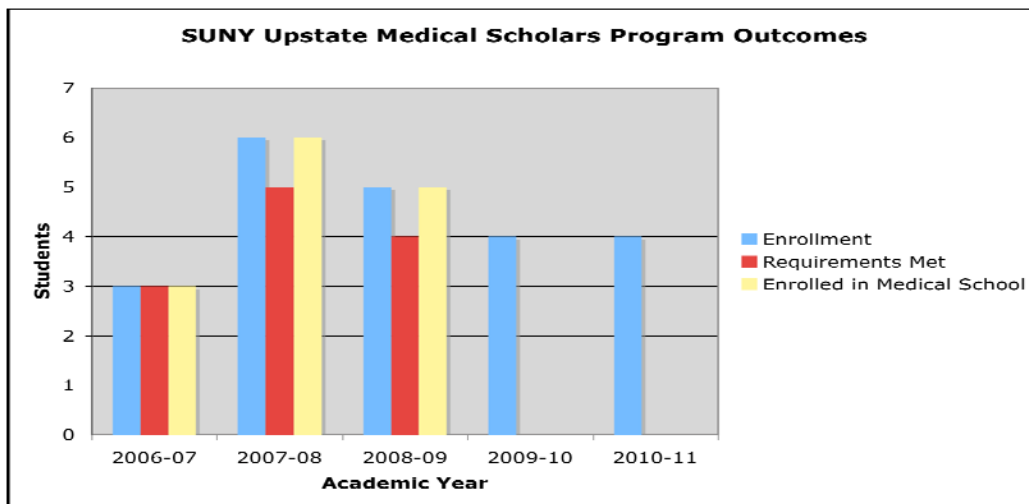
- 88% (115) passed USMLE STEP I on their first or second try
- 86% (112) passed USMLE STEP II on their first or second try
- 65% (84) entered in a NYS residency program
- 45% (59) matched into a primary care residency program

The data shows that while many Post-Bac students go into generalist specialties (family medicine, internal medicine-pediatrics, primary care, pediatrics and pediatrics-primary); they are not limited to the generalist fields. Many Post-Bac graduates go on to highly specialized and competitive fields. This is particularly poignant considering that without the Post-Bac Program; these students would not have been accepted into medical school. Additionally, more Post-Bac graduates match in a NYS residency program than other non-Post Bac NYS medical school graduates. The higher rate of remaining in New York State may be due to the preference given to New York State students by the Post-Bac program.

Masters Degree Programs at SUNY Upstate, SUNY Stony Brook and NY Medical College

Students in Masters Degree medical school track programs are accepted by referral through the medical school admission process or identified as potential medical school candidates in the second semester of the Masters program. Students are guaranteed acceptance to medical school as long as they complete the Masters program and have a GPA ≥ 3.25 and a Medical College Admission Test (MCAT) score ≥ 23 .

- **SUNY Upstate Medical Scholars Masters Program** is a 44-credit Masters of Science in Medical Technology degree program. The curriculum has an emphasis in microbiology and includes a research thesis and mentoring components. Funding goes towards financial assistance for tuition and living expenses.



- **New York Medical College Interdisciplinary Basic Medical Sciences Masters' Program** is a 30 credit Master of Science degree program. The curriculum has an emphasis on physiology and microbiology and includes a literature review or thesis and mentoring components.
- **Stony Brook University Medical Center Physiology and Biophysics Masters Program** is a 30 credit Masters of Science degree program. The curriculum has an emphasis on physiology and biophysics and includes a mentoring component. Students can enroll in the 12-month no thesis program, or the 18-month program with a thesis requirement.

Outcome Data: From 2006 – current class, 36 students have been enrolled in these three programs, 18 have graduated and 18 are currently enrolled in the program.

- 94% (17) matriculated into medical school and one dropped out of medical school
- 100% (6) have taken and passed USMLE STEP I

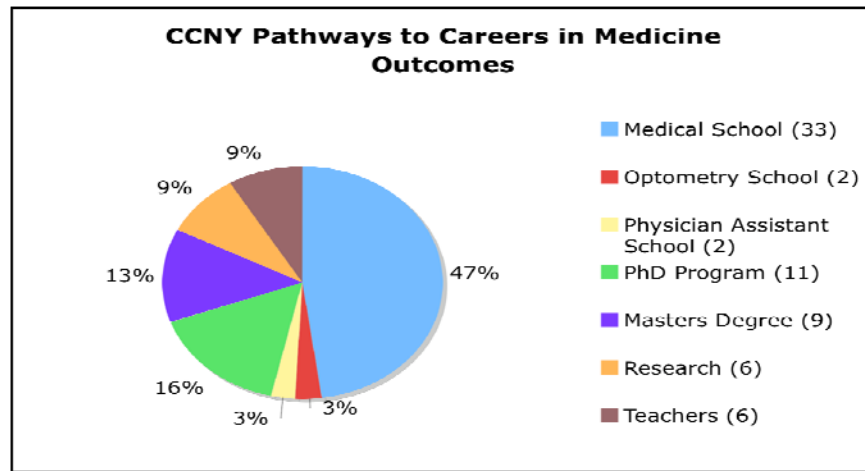
Medical School Admissions Programs

These programs provide academic enrichment, MCAT preparation and mentoring support to undergraduate students to improve application and admission success into medical school.

- **Albert Einstein College of Medicine – Medical Pathway Program (AECOM-MMP)**
Students work with a learning specialist to assess learning styles, learn effective study and test-taking techniques and how to apply skills crucial to mastering information in medical school and standardized test-taking. Students are also connected with area experts who provide guidance on the application process and the path to medical school.
- **The Columbia University College of Physicians & Surgeons - Office of Diversity Strategic Testing and Application Techniques (STAT) for Successful Entry to Medical School**
This is an intense 24-week, academic enrichment boot camp to improve students' application and admission chances to medical school. The STAT Program provides rigorous test preparation for the MCAT, and seminars in writing, interviewing and health. Seminars on health care topics are reinforced by real world experiential learning exercises.
- **New York University School of Medicine MCAT Prep Program**
This program prepares students for the MCAT through intensive sessions of classroom instruction, online resources (including a social networking environment) and mentoring by current minority medical students and faculty. The program also includes sessions on interviewing skills, writing personal statements and navigating the admissions process, led by current medical students.

Other Diversity in Medicine Programs

Pathways to Careers in Medicine & Research Program at City College of New York (CCNY)



This program provides CCNY students with enhanced research methodology techniques, science and academic skills and clinical experiences in preparation for medical, science and other health professional graduate schools.

Outcome Data: From 2007 – 2010, 101 students have participated in this program. The following data is applicable for 69 graduates. The remaining 32 students are currently attending CCNY.

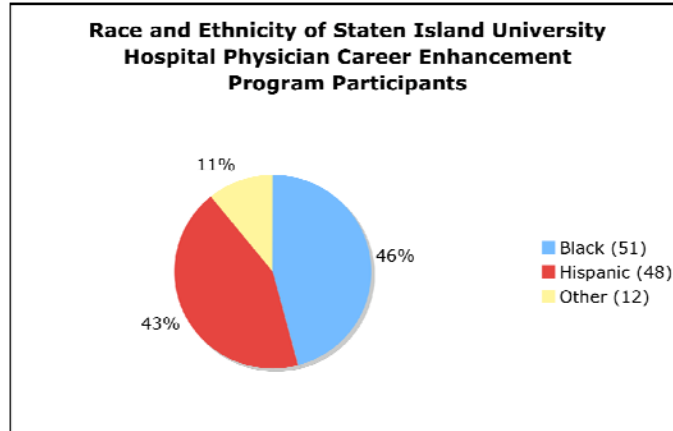
- 48% (33) are enrolled in medical school
- 43% (30) are enrolled in health related fields such as physician assistant, optometry and research
- 9% (6) are in the teaching profession

The Learning Resource Center (LRC) at the Sophie Davis School of Biomedical Education

This program provides BS/MD students at Sophie Davis with resources, skills and support to assist students in the successful completion of their medical education. The academic support programs of the LRC seek to enhance already talented and gifted students with the expertise needed to succeed at college, medical school and in the medical profession. Support programs include academic counseling, a summer pre-matriculation program and a peer-tutoring program. Since its inception, the LRC has provided thousands of counseling and workshop hours to Sophie Davis students.

The Physician Career Enhancement Program at Staten Island University

This program provides high school students with clinical shadowing experiences with medical students and residents. In addition, the program offers an introduction to and presentation on research projects during the summer session.



Outcome Data: From 1998 – 2008, 111 students graduated from the program and 92 are currently being tracked. Survey results were obtained from 42 students.

- 100% (42) enrolled in college
- 33% (14) matriculated into medical school
- 12% (5) enrolled in premed programs and are applying to medical school
- 26% (11) enrolled in health related educational programs

Gateway Institute – Medical School Pipeline

The Institute operates many programs that provide high school students with the preparation and remediation needed to enter a career in medicine and science. One program that is supported by DOH includes a comprehensive support and enrichment program that exposes students to opportunities in medicine, beginning in high school and continuing through the college years. Students in this program are guaranteed a slot in the participating medical school as long as the student meets all program requirements. Currently, three medical schools participate in the program: Hofstra University - Long Island Jewish Medical Center, SUNY Downstate Medical Center and New York University. Since this is a new initiative, all students are currently enrolled in the program. **(\$110,000 in SFY 2011-12)**

Bridge to Medicine Program

Gateway also operates the Bridge to Medicine academic enrichment program for high school seniors.

Outcome Data: From 1980 – present, over 1,500 have graduated from this program.

- 100% have graduated or are currently attending college
- 300 college graduates are currently matriculating in or have completed medical school

Recommendations:

1. Provide adequate state funding to support the existing Doctors Across New York Diversity in Medicine program and other initiatives to increase minority participation in medicine and the health professions.
2. Expand current pipeline programs and create a cohesive system in NYS that accounts for and supports students across the educational continuum. Ideally these mentoring programs should start as early as 3rd grade. Particular focus should also be given to increasing the participation of Native American students in these programs.
3. Encourage collaboration with other State agencies, AHEC and other organizations that seek to achieve similar outcomes: i.e., (a) improving access for URMs into the health professions; and (b) developing and funding programs that would support academic enrichment to improve URM success in health profession education programs and careers.
4. NYS should encourage medical schools to examine their admission criteria to increase the percentage of URM students who are accepted into medical school utilizing acceptable admission standards.

²⁵ Fox, Bethanne. *Minority Americans Lag Behind Whites on Nearly Every Measure of Health Care Quality*. The Commonwealth Fund. March 6, 2002.

Government Accountability

In order to provide greater transparency in the Council's work, some additional actions have been taken to supplement the traditional open format the Council has used since its beginning to ensure that the public is aware of its work and has an opportunity for comment. These steps include:

- Webcasting all Plenary Sessions since Executive Order # 3 was enacted in January 2007. Full Council meetings may be viewed live and previous Plenary Sessions have been archived on the DOH's website.
- All Council meetings are open to the public – in person or via webinar (both require advance notification). Meeting notices are posted on the Council's website.
- Participation by the public is encouraged as time permits. In addition, the Council seeks input from interested parties as expert consultants to most committees and workgroups.
- Creation of a new permanent Nomination Committee. The Council created this committee in 2010 to: develop bylaws related to the nomination, retirement and termination of Council members; recommend sources for soliciting membership candidates; and conduct initial reviews of curricula vitae to ensure that the Council is broadly representative of health professional, hospital, and public interests. The committee will identify a diverse pool of potential candidates in areas relating to medical specialty, geography, ethnicity, race, and institutional affiliation and shall seek to avoid potential conflicts of interest.

All members are appointed to the Council by the Governor. Candidates for appointment are currently identified by the Governor and Commissioner's offices, interest groups and existing members. However, there has been no formal process for recruiting potential members and evaluating whether the DOH should proceed to vet such candidates. The Nomination Committee would assist staff with recruiting and selecting candidates for vetting and ensuring that the four-year term is honored. This approach should ultimately increase the number of sources for soliciting candidates, increase the pool of candidates, provide a broader perspective from which to consider the membership balance of the Council and provide for a consistently administered recruitment process.

Recommendation:

Require that for all individuals who are considered for membership to the Council, a standardized application be submitted through the Council's secure website.

Transparency and Accountability in GME

In 2007, the Council created the Transparency and Accountability in GME Workgroup to explore Commissioner Daines' request to identifying the true costs of delivering high quality Graduate Medical Education. Resulting from a Council recommendation, the 2008-2009 State Budget included a provision requiring teaching hospitals and sponsoring institutions to jointly prepare and submit an annual Institutional GME Budget to the DOH. The intent of this statutorily mandated requirement is to promote an understanding of GME finance issues between hospital leaders and educational leaders from their sponsoring institutions and acquire reliable data that can inform and assist in future decisions about both state and federal funding. The Institutional GME Budget can play a significant role in justifying the large expenditure of funds on GME and determining how much funding is required for direct education and how much is used to supplement care.

Presently, the Council advises the DOH on implementing and maintaining the Institutional GME Budget. The budget reports all sources of GME revenue and expenditures for the calendar year. The hospital chief executive and a representative of the principal sponsoring institution (e.g., the designated institutional official) must attest that the information was reviewed and represents accurate and complete figures to the best of their knowledge at the time of completion.

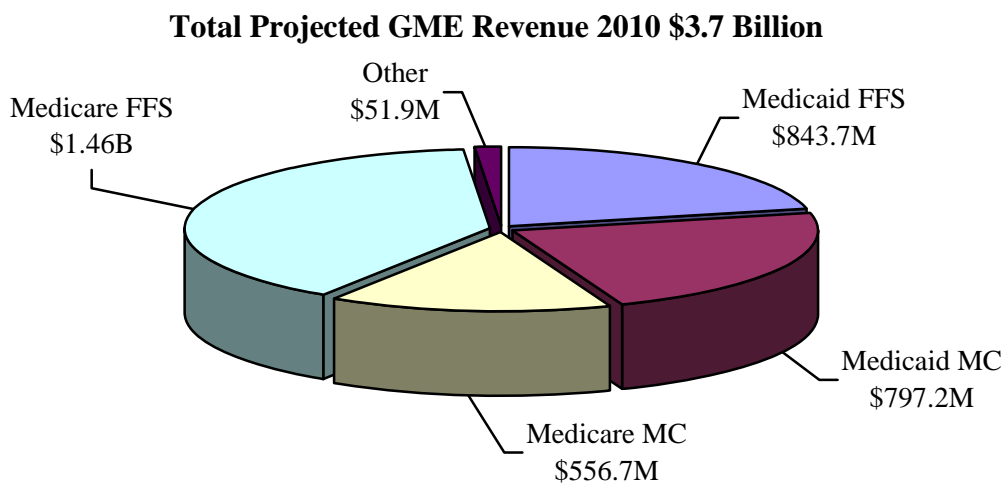
The Institutional GME Budget collects projected revenue for GME under Medicare and Medicaid Fee-for-Service (FFS) and Managed Care (MC). It also itemizes expenses for Direct Medical Education and Indirect Medical Education. These budgets are prepared jointly by hospital administrators and sponsoring institutions to foster greater dialogue for more transparency in the use of GME funds for residency programs. The June 2010 MedPac report to Congress, "Aligning Incentives in Medicare," references New York State's Institutional GME Budget as a tool to improve collaboration between educators and teaching hospitals by increasing the transparency of GME payments²⁶.

Data from 2009 and 2010 have been submitted under the Institutional GME Budget by all New York's teaching hospitals. Projected budgets for both years show expenses exceeding revenue in total for GME. The deficit increased from 2009 to 2010. This increase, however, appears to be a result of the reallocation of Professional Education Pool (PEP) funding to support bad debt and charity care payment in teaching hospitals, which decreased anticipated GME revenues.

The workgroup has interviewed financial and educational leaders from several teaching hospitals and their sponsoring institutions to evaluate more closely the reporting of specific hospitals. The workgroup is utilizing the information to establish more appropriate ways to collect information. For instance, hospitals may utilize GME funding at global level in their institution rather than at a program-specific level. Structured interviews at an institutional level will help identify and develop methodologies for reporting. Awareness of appropriately funded programs could lead to better training of residents resulting in increased quality of care by residents and reduced costs. Hospitals are also using the data to evaluate their GME programs internally. For instance, it was reported at a Council Plenary meeting that one consortium of teaching hospitals has plans to downsize their GME programs based on information gathered and reported on the Institutional GME Budget. This information showed that the hospitals were over their Medicare resident cap

and were not being reimbursed for those residents. It was decided that the hospitals could eliminate those residency positions (and their subsequent expenses) and replace them with other physicians and physicians' assistants. Because there would be a decrease in residents, there would be fewer faculty needed. These faculty could move to non-teaching positions and continue to provide care. Furthermore, by having a reduced number of residents, a better training experience could be provided to the residents. Overall, there would be a savings to the hospital as well as increased effectiveness and competitiveness of residency programs.

Over the next few years the Workgroup will continue to: (1) conduct interviews with financial and educational leaders from a sample of institutions that have contributed to revisions in the Institutional GME Budget instructions and format; (2) collate descriptions of methods used by selected Designated Institutional Officials to gather GME expenditures and ensure they are appropriately captured in the Institutional GME Budget; and (3) recommend improvements to the Institutional GME Budget process for future years that will enhance reliability and comparability of the data.



Recommendations:

1. Continue to collect and analyze data from the Institutional GME Budget to establish trends in GME finance.
2. Conduct voluntary audits of institutional GME expenditures from one or more institutions with the goal of identifying methods of cost allocation that could be standardized across all institutions.
3. Solicit and compile examples of modifications to GME organizations and structures from the Institutional GME Budget process in order to gain a better understanding of the true costs of education.
4. Identify significant new training requirements to ensure that their associated costs are included in the annual Institutional GME Budget process.

²⁶ Medicare Payment Advisory Commission (MedPac) report to Congress, June 2010, *Aligning Incentives in Medicare*.

Federal Health Care Reform

On March 23, 2010, President Obama signed into law the Patient Protection and Affordable Care Act (ACA). Shortly thereafter, the President signed into law the Health Care and Education Reconciliation Act of 2010 which made modifications to ACA. Together, these acts constitute the largest change to America's health care system since the creation of Medicare and Medicaid. Provisions affecting Graduate Medical Education and the physician health care workforce are summarized below and include, where available, funding amounts by federal fiscal year (FY).

Graduate Medical Education and Related Initiatives

Teaching Health Centers' GME Programs (Section 5508)

The provision amends title VII of the Public Health Service Act to allow the U.S. Department of Health and Human Services (HHS) Secretary to provide grants to eligible "teaching health centers" from FY 2010-2012 to establish new or expand existing accredited primary care residency programs in family medicine, internal medicine, pediatrics, internal medicine, pediatrics, obstetrics and gynecology, psychiatry, general and pediatric dentistry and geriatrics. "Teaching health centers" include FQHCs, community mental health centers, rural health clinics, and health centers operated by the Indian Health Service.

FY 2010-2020: Spends \$200 million over 10 years.

FY 2011-2015: \$230 million is authorized to reimburse qualified teaching health centers for their DGME and IME costs using a methodology to be determined by the Secretary. This amount is in addition to any GME payment made under the Social Security Act to teaching hospitals.

- *The Institute for Family Health based in New York City and the mid-Hudson Valley will be one of 11 programs in the country to receive this initial funding. This award will provide support to train an additional 12 primary care physicians over the next five years and expand from 18 to 30 residents beginning July 2011. The Institute will receive \$150,000 for the first three months and expect to receive additional annual funding at the start of the federal fiscal year in October.*

Primary Care Training Programs (Section 5301)

This provision authorizes grants and contracts to support training in family medicine, general internal medicine or general pediatrics, as well as physician assistantship training. Priority is given to programs that educate students in team-based approaches to care, including the patient-centered medical home.

FY 2010: \$125 million is authorized

FY 2011-2014: Funding as may be necessary for each fiscal year is authorized. (15 percent for each fiscal year is reserved for physician assistantship training programs)

- *Eight grants were awarded in New York State:*
 - *University at Rochester/Highlight Hospital – Family Medicine Residency*
 - *Kingsbrook Jewish Medical Center – Internal Medicine Residency*
 - *Richmond University Medical Center - Internal Medicine Residency*
 - *Bronx Lebanon Hospital Center (2) – Internal and Family Medicine Residencies*
 - *Sisters of Charity Hospital - Family Medicine Residency*
 - *Montefiore Medical Center - Family Medicine Residency*
 - *St. Elizabeth Medical Center - Family Medicine Residency*
- *Grantees will receive \$80,000 per resident, per year through this initiative.*

Resident Cap Positions from Closed Hospitals (Section 5506)

Effective for medical residency programs that closed on or after March 23, 2008, the resident cap positions from the closed hospital will be distributed to other hospitals based on the priority order below:

- Hospitals located in the same or contiguous core-based statistical area;
- Hospitals located in the same state;
- Hospitals located in the same region of the country; and
- Priorities determined under the section on redistribution of unused GME positions.

Hospitals must demonstrate the likelihood of filling the residency positions within three years.

- *In New York State, the following teaching hospitals closed and surrendered their Medicare provider number after this date and these positions are eligible for redistribution:*

<i>North General Hospital:</i>	<i>57 Residency (DME) Positions</i>
<i>Caritas Health Care:</i>	<i>190 Residency (DME) Positions</i>
<i>Cabrini Medical Center:</i>	<i>134 Residency (DME) Positions</i>

Counting Resident Time in Non-Provider Settings (Section 5504)

Effective for cost-reporting periods beginning on or after July 1, 2010, if the hospital continues, or in the case of a jointly operated residency program the involved entities continue to incur the costs of a resident’s stipends and benefits, then all time spent by a resident in patient care activities in a non-hospital setting will count toward the calculation of Medicare IME and DGME payments.

Counting Resident Time for Didactic and Scholarly Activities (Section 5505)

For cost reporting periods beginning on or after July 1, 2009, the law will allow DGME payment for certain non-patient care activities in non-hospital settings, including didactic conferences and seminars, but will not reimburse for research that is not associated with the treatment of a particular patient. In addition, Medicare will count all vacation, sick leave and other approved leave spent by a resident in an approved training program, as long as his leave time does not extend the program’s duration.

For cost reporting periods beginning on or after October 1, 2001, Medicare will adopt the same rules about counting residents' leave time for IME payment purposes.

Redistribution of Unused Residency Positions (Section 5503)

This provision will redistribute unused residency training positions as a way to encourage increased training of primary care physicians and general surgeons. For cost-reporting periods beginning on or after July 1, 2011, hospitals will lose 65 percent of their unused or unfilled residency positions and qualifying hospitals will be able to request up to 75 new positions. Certain hospitals, including rural teaching hospitals with fewer than 250 beds, will be exempt from redistribution of any of their unused positions. A hospital that participated in the New York Medicare GME Demonstration Project will be exempt from redistribution of positions if the hospital can demonstrate that they will be using the positions within two years after date of the enactment of the law. Priority for the new positions will be distributed such that:

- 70 percent of positions will be allocated to hospitals in states with resident-to-population ratios in the lowest quartile; and
- 30 percent of positions will be allocated to hospitals located in rural areas and hospitals located in the top 10 states in terms of population living in a HPSA relative to the general population.

If there are positions that are not redistributed by July 1, 2011, based on the priority above, then the remaining positions will be given to hospitals that demonstrate the likelihood that they will fill the positions within the first three cost-reporting periods beginning on or after July 1, 2011, and to hospitals that have an accredited rural training track residency program.

For five years, hospitals receiving additional positions are required to maintain at least their current level of primary care residents in their training programs averaged over the three most recent years. At least 75 percent of the increased positions must be designated for primary care or general surgery. The redistributed positions will receive DGME payment and IME payment in the same manner and/or at the same level as for existing programs.

- *Because New York's resident-to-population ratio is not in the lowest quartile and it is also not among the top ten states with the greatest proportion of population living in a HPSA, it is unlikely New York teaching institutions will benefit from this provision.*

Preventive Medicine Specialties (Section 5606)

The provision also authorizes the HHS Secretary, acting through Health Resources and Services Administration (HRSA), to award grants or enter contracts with eligible entities to provide training to graduate medical residents in preventive medicine specialties.

FY 2011:	\$43 million is authorized.
FY 2012-2015:	Funding as may be necessary for each fiscal year is authorized.

Recruitment in Rural Underserved Communities (Section 5606)

The provision authorized the HHS Secretary, acting through HRSA, to establish a grant program to assist schools of allopathic or osteopathic medicine in: recruiting students most likely to practice medicine in underserved rural communities; providing rural-focused training and experience; and increasing the number of recent medical school graduates who practice in underserved rural communities.

FY 2010-2013: \$4 million for each fiscal year is authorized.

Geriatric Education and Training (Section 5305)

This provision provides a variety of grants and awards to create geriatric education centers and to foster greater interest in the field of geriatrics, long-term care and or chronic care management. As a condition of the award, the individual must agree to continue to teach or practice in the field of geriatrics, long-term care or chronic care management for a minimum of five years.

FY 2011-2014: \$10.8 million is authorized to create not more than 24 geriatric education centers

FY 2011-2013: \$10 million is authorized to provide financial incentives to health professionals

Workforce Incentives

National Health Service Corps (Section 5207)

This provision authorizes increased funding through 2015. For FY 2016 and beyond, it increases the funding amount by a formula that factors in the percentage increase based on the costs of health professions education and the number of individuals residing in HPSAs.

FY 2011-2012: \$290 million in additional funding

Pediatric Subspecialty Loan Repayment Program (Section 5203)

This provision establishes a pediatric subspecialty loan repayment program for qualifying individuals who agree to provide two years of pediatric medical subspecialty, pediatric surgical subspecialty, or child and adolescent mental and behavioral services in an area with a shortage of pediatric subspecialty services, a HPSA, a medically underserved area, or an area serving medically underserved populations. The loan amount is up to \$35,000 per year for each year of agreed upon service, not to exceed 3 years.

FY 2010-2014: \$30 million is authorized for each fiscal year for pediatric medical and surgical subspecialists
\$20 million is authorized for each fiscal year for qualified health professionals in child and adolescent mental and behavioral health.

Loan Repayment Programs (Section 5201-5202)

These provisions provide higher loan amounts and more flexible loan repayment programs for primary care physicians, nurses, allied health professionals and the public health workforce beginning in FY 2010.

Public Health Workforce Loan Repayment Program (Section 5204)

This provision provides loan repayment to qualifying individuals who agree to provide at least three years of service in federal, state, local or tribal public health agencies. The loan amount is up to \$35,000 per year for each year of agreed-upon service. This is available to public health students and workers.

FY 2010: \$195 million is authorized.
FY 2011-2015: Funding as may be necessary for each fiscal year is authorized.

Allied Health Loan Forgiveness Program (Section 5205)

This provision provides loan forgiveness for certain allied health professional employed in public health agencies and settings located in HPSAs, medically underserved areas or settings serving medically underserved populations.

Scholarships (Section 5206)

This provision provides funds for state and local programs to encourage mid-career public health and allied health professionals to receive additional training.

FY 2010: \$60 million is authorized.
FY 2011-2015: Funding as may be necessary for each fiscal year is authorized.

Commissioned Corps Cap (Section 5209 – 5210)

These provisions eliminate the cap on the Commissioned Corps membership so that the Corps may expand to meet national public health needs. They also establish a Ready Reserve Corps within the Commissioned Corps for service in times of national emergency.

Mental and Behavioral Health Education and Training (Section 5306)

FY 2010-2013: \$8 million for training in social work
\$12 million for training in graduate psychology
\$10 million for training in professional child and adolescent mental health
\$5 million for in-service training to paraprofessionals in child and adolescent mental health

Training in Public Health (Section 5314)

This provision authorizes funding to expand existing fellowship programs operated through the CDC to alleviate shortages in the areas of applied public health epidemiology, public health laboratory science and public health informatics, and to expand the Epidemic Intelligence Service.

FY 2010-2013: \$39.5 million for each fiscal year is authorized.

Workforce Planning

National Health Care Workforce Commission (Section 5101)

This provision created a Commission to develop a national strategy to address workforce shortages and encourage training in key areas. Initial high-priority areas include:

- Integrated health care workforce planning.
- The nature, scopes of practice, and demands for health care workers in the enhanced information technology and management workplace.
- The alignment of Medicare and Medicaid graduate medical education policies with national workforce goals.
- Recommendations for eliminating barriers to entry and retention in primary care, including provider compensation.
- The education and training capacity, projected demands, geographic distribution and integration with the health care delivery system of the nursing, oral health care, mental and behavioral health care, allied health and public health care, and emergency medical service workforces.
- *This panel includes a representative from NYS who heads an industry-based workforce development program in New York City. In addition, the former DOH Director and founder of New York's Center for Health Workforce Studies at the University at Albany has been appointed as lead staff to this Commission.*

State Health Care Workforce Development Grants (Section 5102)

HHS and HRSA and will award, through a competitive process, grants to states for health care workforce development planning and implementation. These grants will enable state partnerships to complete coherent workforce planning and to carry out activities leading to comprehensive health care workforce development strategies at the state and local levels, including innovative pathways for young people and adults.

FY 2010: \$8 million is authorized for one-year planning grants (state match is 15 percent of funding)
\$150 million is authorized for two-year planning grants (state match is 25 percent of funding)

FY 2010+: Funding as may be necessary for each subsequent fiscal year is authorized.

- *The NYS Department of Labor (DOL) was awarded \$150,000 under this initiative. A team of DOH staff from several program areas is collaborating with the DOL on this project, whose main objective is to increase the supply of the primary care workforce by a minimum of 10 percent over 10 years to meet the increasing demand on the health care system as a result of federal health care reform. A planning grant Subcommittee will*

complete its work by April 15, 2011; the work products will largely comprise New York's application for an additional \$1.5 million implementation grant.

Centers for Health Care Workforce Analysis (Section 5103 – 5104)

These provisions establish State and Regional Centers for Health Workforce Analysis to provide data on workforce-related issues. The national center will collaborate with federal agencies and the new state and regional centers to collect statistical workforce information and other related data for the commission. The national center will include three advisory groups: (1) training in primary care medicine and dentistry; (2) interdisciplinary community-based linkages; and (3) graduate medical education.

FY 2010-2014: \$7.5 million is authorized for each fiscal year for the national center
 \$4.5 million is authorized for each fiscal year for the state and regional centers

Recommendation:

The DOH should assist health care providers to maximize funding opportunities available through the federal health care reform act by coordinating policy, supporting applications to federal agencies and reducing or eliminating state or community administrative barriers.

Ambulatory Care Training

GME has its origins in hospitals; the earliest formal programs having begun about one hundred years ago. Residents were based in hospitals and hence were known as “house officers.” The hospital served GME well for many decades.

The hospital as a setting for GME, however, has changed in recent years. The hospitals increasingly provide acute care for very sick individuals in need of highly specialized diagnostic and therapeutic services and, the hospitalization stays are as short as possible. Gone are elective diagnostic evaluations and leisurely hospitalizations to assess response to treatment. Whenever possible, alternatives to hospitalization are found. Thus, with short lengths of stay and the limitations of case mix, the inpatient setting has been compromised as an educational venue.

Even more recently, the many changes taking place in medical practice and organization have led to a need for physicians to be trained differently. As a prime example, the imbalance between specialists and generalists has led to national efforts to increase the output of primary care physicians. In addition, there are many urban and rural underserved communities that lack access to primary and specialty physicians.

Primary care practice is based mainly in office settings rather than hospitals. And, in turn, primary care physicians are now expected by those sites to possess the skills needed to practice effectively in them. National organizations, residency review committees (RRCs), and training programs have recognized the need to provide education in ambulatory sites. And, the amount of education in those settings has increased in recent years.

Ambulatory settings vary markedly, all the way from hospital clinics and hospital-owned ambulatory care facilities to community health centers, group practices, HMOs, and physician offices. Those settings also vary in terms of their potential of providing quality ambulatory education.

As GME moves out of the established hospital environment, two fundamental issues emerge: the quality of the education and the costs of that education. When the ambulatory setting is owned by a hospital that already has a residency program, a mechanism exists to oversee the educational program and to support that education financially.

However, most ambulatory sites, particularly those that are demonstrating new and innovative modes of medical practice, are not extensions of the hospital and do not have access to traditional GME funding. Physicians in training, as a practical matter, have the need to be well prepared to practice within just such organizations and settings where they will find professional opportunities.

At the present time, many ambulatory educational experiences have been offered by sites which volunteer to take learners. Those experiences are often enhancements of hospital-based training, i.e., “ambulatory rotations.” The question for the future is whether it is time for some types of GME to be based in the ambulatory setting with the hospital used for special kinds of

experiences and education. Changes of that sort have already happened particularly in family practice programs.

Large medical organizations and medical groups are potential sites that could develop excellent educational programs which are linked to sponsoring organizations. In this era of cost-conscious medical care and intense medical competition, few HMOs or medical groups could invest in the necessary infrastructure to offer such programs.

We have long ago accepted the reality of the high cost of hospital-based medical education; should ambulatory-based education not be expensive? The report titled *Assessing Ambulatory Primary Care Training: Costs, Methods and Quality* concluded that ambulatory education is indeed expensive.

With the concurrent need for well-trained primary care physicians and excellence in ambulatory education, the need for well-prepared faculty and ambulatory settings is compelling. Full preparation of ambulatory sites will include all the elements of hospital-based education: dedicated faculty, support staff, physical facilities, access to appropriate patients, and educational time.

Additionally, integrating learners at various stages of training into practice sites which strive for a high degree of efficiency and high levels of patient satisfaction will be challenging and will require educational innovation and experimentation to truly succeed.

The Council recognizes the limitations with the current inpatient reimbursement structure to promote training in a variety of community-based ambulatory care settings and held a series of meetings within the Health Care Reform/Managed Care Subcommittee to address the issue. Beginning in March 1998, the Subcommittee deliberated on five occasions to consider ambulatory care financing options for New York. These meetings also included discussion and at one occasion a presentation from an official of the federal Health Care Financing Administration (HCFA) on a provision in the Balanced Budget Act (BBA) of 1997 to provide Medicare GME payments to non-hospital providers. These meetings lead to the adoption by the full Council on June 14, 1999 of the following resolution:

The NYS Council on Graduate Medical Education resolves that funding should be directed to support non-hospital owned ambulatory care sites that provide training opportunities for graduate medical education trainees. Such funding shall be allocated per full-time equivalent (FTE) resident based on a formula that may recognize the following: regional cost differences; site specific physical space costs; and specific weighting factors. Eligible sites shall: (1) train residents from programs approved by a nationally recognized accreditation body or other nationally recognized organization; (2) participate in the Medicaid Managed Care Program; (3) submit data to the Department of Health; and (4) have a written agreement with the sponsoring institution which addresses financial responsibility for the costs of training in such sites. Such written agreements shall also be required in order for hospitals to receive Medicaid IME reimbursement in whole or part for that portion of time residents train in non-hospital owned ambulatory care training sites. A special meeting of the Health Care Reform/Managed Care Subcommittee will be held within the next few weeks to consider

options for the source and level of funding and issues the Department should consider in relation to this initiative.

In response to the resolution, a special meeting of the Subcommittee was held later that month. After considerable discussion on the need to support such training, the Subcommittee agreed to: (1) develop estimates on the level of funding necessary for this initiative; (2) form a leadership group that includes representatives from concerned, involved constituencies; (3) ensure that the adopted resolution receive attention by the DOH; (4) review the Medicare regulations regarding written guidelines; and (5) develop a white paper on the topic.

Doctors Across New York

In 2008, the DANY initiative included funding for the Ambulatory Care Training Program. This competitive grant program is designed to increase GME training opportunities in freestanding diagnostic and treatment centers. In order to provide guidance to the DOH regarding the implementation of this initiative, the Council created the Ambulatory Care Training Workgroup. This workgroup convened over a period of several months and created a set of recommendations for increasing training at freestanding diagnostic and treatment centers while ensuring high quality training experiences.

Medical School Participation in Ambulatory Care and School-Based Health Centers Grant Program

In 2000, funding was provided in the State budget to medical schools to train medical students and residents in ambulatory care settings and school-based health centers (SBHC). This grant mechanism was designed to meet the increasingly diverse needs in NYS by providing support through GME offices in medical schools across the state. Programs were selected to represent a variety of innovative approaches to: (1) meet the needs of patients within medically underserved areas; and (2) enhance the knowledge and training of health care providers. The value of this program cannot be overstated. It provides opportunities to meet educational objectives which cannot be met within the walls of a medical center. For trainees, exposure to patients in a community setting was valuable not only for clinical experience but for:

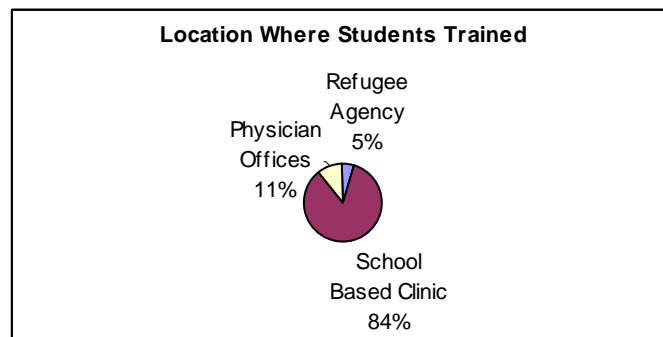
- learning to communicate and relate to others from different backgrounds and cultures,
- participating in community health solutions, and
- learning about and addressing health disparities.

For patients in the school sites and communities, the trainees help provide:

- badly needed health care for children who are economically disadvantaged ,
- enriched classroom activities in the form of science or health care lessons,
- community workshops on health and illness prevention, and
- excellent role modeling.

Background

Ten projects at nine medical schools were involved in training medical students and residents at 83 sites. These sites include ambulatory clinics, private practices, school-based health centers and refugee resettlement agencies. A large majority of these sites (78 percent) are located in medically underserved areas (MUA), health professional shortage areas (HPSA) or poor urban neighborhoods and were chosen for the diversity of patients, low socio-economic status and the opportunity to expose medical students and residents to underserved populations with health care disparities. Equally important, these sites provide easy access to health care services for poor and uninsured children and adults.



Ambulatory Clinics/Private Practice Sites

Three of the medical schools have placed trainees in ambulatory health clinics and private practice offices which provide increasing opportunities for medical students and residents to train in rural, urban poor underserved areas. Students are working with primary care providers, including family physicians, pediatricians and internists. Of the 37 sites, six sites (16 percent) are in rural areas, 26 sites (70 percent) are in urban, poor neighborhoods, and the remaining five (14 percent) sites are in suburban or small city areas. Over half of these sites were training students prior to this grant.

School Based Health Centers

Seven medical schools are training medical students and residents in SBHCs located in 25 elementary schools, eight middle schools and 12 high schools. These SBHCs are located in primarily urban poor neighborhoods; 87 percent are designated MUAs or HPSAs. Approximately 75 percent of the children attending these schools are enrolled in the SBHC. These clinics are serving an overwhelmingly poor and minority population, fully 91 percent of the visits to the clinics are by minorities. Twenty-eight of the sites have been used for training students prior to this grant. Students are working with primary care providers, dentists, school and clinical psychologists, nurse practitioners and RNs, social workers, mental health counselors, health educators and teachers.

Refugee Resettlement Agency

The University at Buffalo has collaborated with two refugee resettlement agencies to provide experiences for the medical students working with refugee patients. Over ninety students have worked with a physician during evening clinic hours while refugee patients are seen. In addition,

students attend cultural orientations about the refugee group they will see during the evening clinic. Many of the medical students have continued their relationships with the refugee families they meet by making home visits to pregnant mothers, tutoring children in reading and math, and/or being a friend to another in a strange land. An important component of the refugee program is the identification and management of psychosocial problems. Many refugees have suffered from or witnessed war violence, and some have been tortured. Students learn how to sensitively inquire about mental health conditions, referral mechanisms and appropriate follow-up.

Value to Communities

The value that this program contributes to communities and SBHCs is impressive. The experience provided to trainees will most likely be the only opportunity they will have to work with an underserved population during medical school, whether it is in a rural town or an inner-city, poor, diverse neighborhood. If students are not exposed to these populations with great needs, they most likely will not make a career in caring for them. Health care disparities are not apparent until the student sees firsthand the health care needs of minorities in the inner cities and rural areas.

Outcome Data: From July 2002 – June 2004, 1,809 participated in training at these sites:

- 1,358 medical students, 344 residents, 72 dental students/residents, and 35 fellows and graduate trainees
- 53,296 hours of student and resident training occurred at these sites
- On average, each student trained for over 29 hours during their rotation

Recommendations:

1. Encourage community-based teaching health centers to utilize federal health care reform funding to increase residency training opportunities.
2. Provide adequate annual State funding to support the Doctors Across New York Ambulatory Care Training program in order for sponsoring institutions to promote training opportunities for residents in community-based teaching health centers.
3. Provide adequate State funding to encourage and support residency training in community-based teaching health centers in coordination with federal funding.
4. Medical schools should continue to expand training experiences for students working with underserved populations.

Primary Care Training

The supply of primary care physicians has been a major concern for the Council since it was created in 1987. Currently, more than five million New Yorker's live in communities with an insufficient supply of primary care physicians. There is compelling evidence that health care outcomes and costs in the United States are strongly linked to the availability of primary care services. Investing in primary care has proven to significantly improve health outcomes and reduce costs for patients by preventing unnecessary complications, reducing hospital stays and emergency room visits.

However, only two percent of all graduating US medical students intend to work in primary care internal medicine²⁷. Some of the problems in attracting physicians to select careers in primary care are due to: inequitable reimbursement rates in relation to subspecialty services; excessive administrative practice demands; complexities and patient expectations for medicine in the 21st century; and limitations on physicians' lifestyle. In addition, the medical education system directly and indirectly promotes subspecialty care and practice through role-modeling, revenue support and professional stature.

NYS has attempted to address an inadequate supply of primary care physicians through various programs such as the Primary Care and Education Training Act, the Doctors Across New York Program, the Upweighting/Designated Priority Program (DPP) and recent Medicaid rate enhancements.

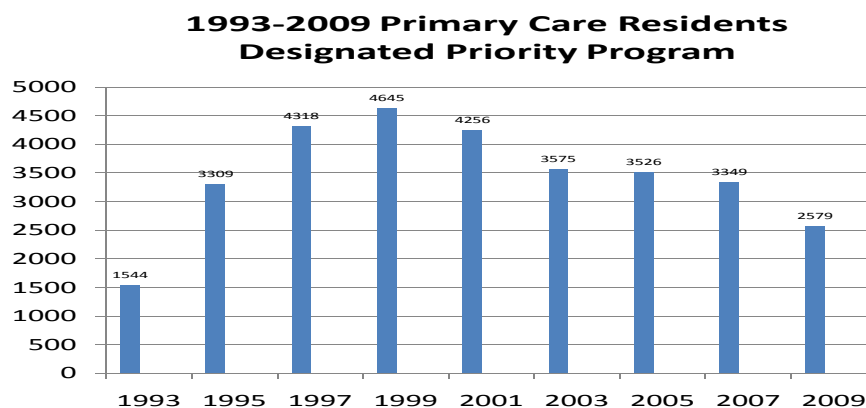
Upweighting/Designated Priority Program

The Council has long recognized that medical care had become far too specialized and the scarcity of primary care practitioners is of particular concern in many communities. In addition, training in primary care specialties should include an appropriate balance of outpatient and inpatient experience, including significant portions of time in ambulatory settings. Consistent with recent federal reforms, the Council supports training in primary care specialties (Internal Medicine, Pediatrics, Family Practice, Combined Medicine/Pediatrics and Obstetrics/Gynecology).

Shortly after the Council was first created, it called for the introduction of financial incentives to increase the number of primary care practitioners. In 1990, the State implemented the IME upweighting program to provide funding through GME rates to teaching hospitals to support the training of residents in primary care programs. The objectives of the upweighting program are many and varied and include funding to: improve the training of potential primary care practitioners; increase the number and proportion of primary care residents; bring additional funds to primary care training programs for faculty development and other activities; and increase the attractiveness of specialties that are in short supply in some areas of New York State.

In order for primary care programs to be eligible for upweighting funding, residents must spend at least 20 percent of their time in continuity of care settings caring for the same panel of patients throughout the three to four years of training. In the late 1990s, the program was changed to the DPP and an additional requirement was added that programs must demonstrate that over one-half (55 percent) of their graduates practice in primary care over a five year period in order to

maintain this financial incentive. This, along with added Residency Review Committee program requirements over the years, put pressure on the availability of resident's time in continuity settings and resulted in a decrease in the number of programs that met program qualifications. In 2009, when the DOH implemented the new inpatient rate methodology (APR-DRGs) Medicaid rates were rebased, the up-weighting enhancements were incorporated into the base rate and the program was discontinued.



Recommendations:

1. Invest in an up-weighting type program to provide funding through Medicaid GME rates and other financial incentives for primary care training programs to support and attract residents to practice in primary care specialties.
2. Invest existing State resources to provide enhanced compensation to residents training in primary care and other needed specialties in exchange for a service commitment (after completing training) in an underserved community. This enhancement should be substantially increased to residents who agree to practice in a rural community.
3. For Medicaid reimbursement purposes, value procedures and services performed by primary care physicians more equitably with those performed by specialists/surgeons.
4. Maintain funding for the Doctors Across New York Program, which promises to be an effective way to recruit physicians to practice in underserved communities in New York State.
5. The State should encourage medical schools to examine the admission criteria to increase the percent of students who ultimately choose a primary care specialty.
6. Encourage and support innovations in primary care training for both residents and medical students in environments such as the patient-centered medical home, rural educational experiences and other programs that feature primary care role models.

²⁷ Hauer, K. M.D., Durning, S., M.D. et al. *Factors Associated with Medical Students' Career Choices Regarding Internal Medicine*. JAMA. September 10, 2008 (300) 10: 1154- 1164.

Clinical Clerkship Education

The Council has been involved with clinical clerkship education throughout its existence. In 1986, the NYS Commission on GME (that called for the creation of the Council) recommended that medical students who graduate from a dual campus international medical school may enter a residency training program in NYS if their school is approved by the NYS Education Department (SED). In 1989, DOH regulations were enacted as Part 405 that included this recommendation to ensure that physicians are trained in the highest educational standards and patients receive top quality care and protection by qualified residents.

International medical graduates have been an integral part of the US medical workforce since the late 1940s. In 2009, over 36 percent of the NYS physician workforce were international medical graduates (IMGs)²⁸. In addition, 45 percent of residents training in NYS are IMGs, including 29 percent who are U.S. citizens and permanent residents who have graduated from an international medical school²⁹. Many IMGs accept residency positions in “hard-to-fill” specialties and in hospitals located in neighborhoods that provide health care to underserved populations. Due to an anticipated increase in demand for physicians in the US, dual campus schools have expanded their enrollment and clinical clerkship training in NY hospitals.

Medical schools in NYS have expressed concern to the DOH and SED that: (a) their students are being “crowded-out” of clinical clerkship training opportunities in teaching hospitals in NYS; and (b) NYS approved international medical schools are paying substantial amounts for clinical clerkship training. In addition, many experts in medical education have noted that most international medical schools are not subject to standards as rigorous as those imposed by the Liaison Committee on Medical Education (LCME) and the Commission on Osteopathic College Accreditation (COCA) however these schools are allowed to train their students in NY teaching hospitals.

There are two streams of IMGs who enter residency training and practice in the US. One category are IMGs who are not US citizens and the other category is comprised of US citizens who attend an international medical school (USIMG). Many USIMGs attend dual campus schools that have patterned their curriculum after the US system that includes two years of basic medical sciences and two years of clinical clerkships training. Clinical clerkship training and experience generally occurs during the 3rd and 4th years of medical education through core and elective rotations in teaching hospitals and other institutions. Dual campus medical schools provide such clinical clerkship training in US institutions, including many in NY teaching hospitals.

In order to ensure that patients receive quality medical care from all medical providers, including students, NYS implemented a regulation in 1981 that required that international medical schools that provide over 12 weeks of clinical clerkship education (in a country other than where the school is located) must obtain approval from SED to train their students in NYS. Currently, 14 international medical schools have been approved for clinical clerkships training in NYS. To be “approved” the school must submit an application to the SED, undergo a site visit and meet other the requirements. This review also includes a visit to affiliated hospitals in NYS to ensure that there is adequate supervision of students and the training meets educational objectives of the

school. This approval also requires that these schools have a written affiliation agreement with the teaching hospital(s) for clinical clerkship training.

Many of the students who attend the 14 NYS approved international medical schools are US citizens who had difficulty gaining admission to a US medical school due to the competitive admission requirements. Many of these students choose to complete their clinical clerkship training in NYS in order to obtain a residency training position since New York has the largest GME system in the country. Regardless of where a student complete their medical education and training, all aspiring physicians (US medical school graduates, IMGs and USIMGs) must ultimately satisfy all of the requirements for licensure in order to practice in NYS.

International medical schools are not eligible to receive LCME or COCA accreditation since they are not located in the US or Canada. Accreditation standards for US medical schools require that clerkships expose students to sufficient number of patients with diverse conditions, maintain certain faculty-to student ratios and meet specific educational objectives. A medical education program must have sufficient number of faculty members in the subjects basic to medicine and in the clinical disciplines to meet the needs and missions of the program. Faculty members in a medical education program should have commitment to continuing scholarly productivity that is characteristic of an institution of higher learning. Clinical clerkship training sites provide evidence of faculty participation in a structured program designed to develop teaching and assessment skills.

The Accreditation Council on Graduate Medical Education (ACGME) surveys residents to determine if training is compromised by the presence of too many learners in the clinical setting including medical students, for purposes of program accreditation. Without uniform accreditation standards, NYS approved international medical schools are vulnerable to concerns over the quality of education provided to their students, particularly in clinical clerkship settings. Standards also ensure that all students are well prepared for the rigors of residency training.

Currently, there is a demand for additional clinical clerkship positions nationally as a result of:

- AAMC's recommendation to increase enrollment in U.S. medical schools by 30 percent by 2015;
- growth in osteopathic schools; and
- growth in the number of schools and students enrolled in the dual-campus international medical schools.

In recent years, many existing dual-campus medical schools have expanded their student population. Seven of the 14 NYS approved medical schools are located in the Caribbean and admit approximately 2,500 students each year requiring up to 5,000 clinical clerkship positions annually.

Historically, teaching hospitals have received non-monetary benefits for training medical students. These benefits include faculty appointments, Continuing Medical Education, participation in seminars and grand rounds from affiliated medical schools. Most arrangements do not include financial compensation from the US medical school to the teaching hospital. As a

result, most medical student training has been concentrated in large academic medical centers that have maintained close affiliations with medical schools.

With the growth of dual-campus international medical schools, NY teaching hospitals provided a fertile opportunity for clinical clerkship training to students from dual-campus schools. As a result, NY teaching hospitals have been able to negotiate monetary and non-monetary benefits to teach students from dual campus schools. It has been reported that monetary arrangements typically provide \$400 per student/per week for clinical clerkship training³⁰. In addition, one large hospital system in New York City signed a \$100 million contract over 10 years to train students exclusively from one dual-campus school³¹. Also, another teaching hospital in NYS will receive \$19 million over a ten-year period to train medical students from another dual-campus school.

Currently, no comprehensive data exists on clinical clerkship training in New York's teaching hospitals. Given the importance of this issue, the DOH, in cooperation with SED, launched an initiative to assess the capacity to train medical students in clinical clerkship positions in teaching hospitals and other institutions in NYS. The first part is a survey to create a comprehensive database on clinical clerkship positions offered in teaching hospitals. There are three sections to the survey:

- Section I: General Information - hospital affiliations with NYS, U.S., Canadian, International (approved and non-approved) and other medical schools; information on teaching faculty and coordinators; the process to determine the availability of clinical clerkship positions currently and changes in future years; and the frequency of clerkship faculty meeting with medical school faculty.
- Section II: Clinical Clerkship Positions - data on positions, by medical school, for core specialties and related sub-specialties for available and filled clerkship positions. Data on core clerkship positions is submitted by school and include internal medicine, general surgery, pediatric, family medicine, OB/GYN and psychiatry. Data on elective clerkships is provided in summary for available and filled positions. Data is also included on student-to-resident and student-to-faculty ratios and the number of visits on average per-student for inpatient and outpatient visits.
- Section III: Benefits To The Hospital From Medical School Affiliations - data on monetary and non-monetary benefits it receives from the medical school affiliations. Such non-monetary benefits include: faculty appointment; CME; conference travel; meetings; and other financial benefits. Data is also collected on the total amount received for the year from the school and the type of payment (per-student, a lump sum, or any other payment arrangement).

This effort is currently on-going. The DOH plans to collect clinical clerkship data annually from all teaching hospitals and other health care institutions.

Recommendations:

1. Require that all health care facilities and private practices in NYS that train medical students annually report comprehensive data on medical school clinical clerkship positions to the DOH.
2. Develop a process to ensure that clinical clerkship positions are first available to students attending medical school in New York State, and students who had resided in NYS prior to attending a NYS approved dual-campus school, with remaining positions available to any other students.
3. Encourage SED to update and improve the process in a transparent manner for the review and approval of international medical schools that intend to conduct clinical clerkship training in teaching hospitals in NYS by examining the medical education curriculum and ensuring that it is comprehensive and comparable to LCME and COCA standards.
4. Ensure that clinical clerkship training sites provide evidence of faculty participation in a structured program designed to develop teaching and assessment skills.
5. Explore possible funding alternatives from the health care industry, federal or state government to reimburse teaching hospitals and ambulatory care providers to teach medical students during clinical clerkship training.

²⁸ Armstrong, D.P. and Forte, G.J. *Annual New York Physician Workforce Profile, 2009 Edition*. Rensselaer, NY: Center for Health Workforce Studies, School of Public Health, SUNY Albany. December 2009

²⁹ Armstrong, D. P. and Forte, G. J. *2009 New York Residency Training Outcomes: A Summary of Responses to the 2009 New York Resident Exit Survey*. Rensselaer, NY: Center for Health Workforce Studies, School of Public Health, SUNY Albany. March 2010.

³⁰ Mangan, Katherine. *Students from Caribbean Med Schools Head for New York, Angering Some Local Programs*. The Chronicle of Higher Education. December 12, 2010.

³¹ Hartocollis, Anemona. *Medical Schools in Region Fight Caribbean Flow*. The New York Times. December 22, 2010.

Parent Partners in Health Education (PPHE)³²

Overview

From 2005-2010, the NYS Developmental Disabilities Planning Council (DDPC) in collaboration with the Council, implemented Parent Partners in Health Education (PPHE). PPHE is a training program designed to educate medical residents to work more effectively with families and children with developmental disabilities. PPHE was implemented in seventeen residency programs: seven Pediatric residencies; seven Family Medicine residencies; one Internal Medicine-Pediatrics residency; and one Psychiatry residency. Each grantee determined the best model for implementing PPHE into their residency curriculum. Some chose to implement the curriculum in one year only. Others chose to use the curriculum during two or three years of the residency. In addition, the Council received a separate grant to evaluate PPHE and how the training could be integrated into residency programs.

The PPHE curriculum was originally designed to focus on children with developmental disabilities, but experience has shown that the curriculum can be adapted for adults. Residency programs may emphasize pediatrics, adults or both. The distinctive elements of this training model are: use of parents as educators, home visits and the community agency visits.

The PPHE curriculum components include:

Parent Interviews and Home Visits: Residents gain an understanding of the experiences of raising a child with a disability from the perspective of the family. Each participating resident is paired with a family through their involvement in hospital continuity clinics, contact from the PPHE project directors and referrals from community agencies. Residents then visit the family home or congregate living home to learn more about the daily lives of families or the adult. They learn about the medical and support services provided, and become familiar with the individuals and agencies working with the individual. Most home visits are made with a social worker or other professional. A single resident or a small group of residents may participate in a home visit. Home and agency visits may be made during a rotation such as a Pediatric or community medicine rotation, or sometimes during continuity clinic time.

Didactic Lectures: Required lectures include: Assessment of Developmental Disabilities (using the Denver II or other developmental assessment tool); Legal Aspects and Accessing Services for Children with Disabilities; and Doctor-Patient-Family Communication. Lectures and Community Medicine case presentations are offered at grand rounds, noon conferences or designated time for PPHE activities.

Community Agency Interviews: Residents learn directly about available community resources and include at least one interview with an agency providing services to the paired family. Community agencies were supportive in arranging for residents to visit and observe services for families and individuals with developmental disabilities. Schools and providers of services under Educational Intervention were the most frequently used or visited community agencies.

Clinical Experiences: Residents provide direct patient care for children and adults with developmental disabilities and develop essential skills and highlight the integration of clinical, family and community aspects of care. Clinical experiences were arranged at all sites. Case presentations proved to be an effective means for sharing information about home and community agency visits and specific medical diagnoses.

Community Medicine Case Presentations: Residents share their knowledge of medical, social and educational details about their assigned family and child with other residents and faculty. Community medicine case presentations were conducted at all sites, with a minimum of two completed a year. When most PPHE activities were completed in a rotation or during continuity clinic, the presentations were done primarily with fellow residents in the same rotation or clinic. Other options were to conduct the presentations as a grand round or noon lecture.

Small Group Discussions: Residents can share in informal peer-to-peer exchanges. Effective ways to acquire resident reflections were: verbally during didactic lectures, case presentations, or one-to-one during a rotation; or written in response to questions prompted via email, home visit reports or a secure web site. Small group discussions were done but not often as stand-alone events

Personal Reflection Logs: Residents record their feelings and experiences about their contacts with individuals with developmental disabilities, their parents and providers.

Program Implementation and Outcomes

(See Appendix A for information on PPHE grantees in Phases I, II and III)

Each of the PPHE grantees used the same curriculum elements but applied them in different configurations and timeframes to effectively integrate the components into their ongoing residency programs.

Outcome Data: From 2005 – 2010, 750 residents and faculty received training in PPHE programs:

- 71 % (532) Pediatric residents
- 27 % (200) Family Practice residents
- 1% (11) Psychiatry residents (one year with a Pediatric program)
- 1% (7) Faculty

Program Evaluation

The evaluation strategy included a variety of tools to assess change in the residents' knowledge, skills, and attitudes as a result of participating in PPHE. The two basic tools for quantitative data collection were the pretest and post test. Pretest and Post test forms were developed with input from the PPHE project directors. Each instrument consisted of:

- multiple choice questions of fact with a single correct answer

- a series of statements to solicit attitudes and opinions about families and children with developmental disabilities

In addition to the evaluation of residents, 215 parents completed a parent partner evaluation on their experience with PPHE, and council staff held discussions with parents that became the essential components for the overall evaluation. All grantees applied for and received Institutional Review Board approval for the evaluation.

Resident Evaluation

Evaluations suggest residents experienced changes in opinions and attitudes about working with families and children with developmental disabilities during their involvement with PPHE. Post-test results showed increased confidence in these areas:

- Feeling adequately trained to do screening
- Feeling comfortable with managing screening
- Confidence in their experience and ability to make referrals
- Familiarity with the home life of children with developmental disabilities
- Awareness of the difficulties facing many families with a child with developmental disabilities
- Familiarity with community resources and support services for children and families
- Feeling comfortable providing health care to children with developmental disabilities
- Feeling confident in their knowledge of developmental disabilities
- Awareness of laws concerning individuals with developmental disabilities

PPHE curriculum increases knowledge about working with families and individuals with developmental disabilities and that resident opinions and attitudes are favorably changed by their PPHE experiences.

Evidence of Change - Resident Reflections

The following eight themes and resident quotes (in italics) are typical of the residents' experiences:

1. Parents bring valuable information to the physician; they are good observers and have better than ordinary insights regarding their children.
 - *(I learned to) listen to what the parents/care giver has to say,*
2. Caring for a family member with a disability requires a tremendous effort financially and emotionally, and often changes family dynamics.
 - *I am in awe as to the resilience and persistence of this family in surviving whatever is thrown their way.*
3. Early discovery and notification are important to families. Patient-parent-physician communication and collaboration is essential, beginning with the initial medical tests. Parents need clear and full explanation.

- *I think the biggest thing I took away from the experience was what an impact the words and tone a physician uses when giving a diagnosis has on the family and their general outlook towards the medical profession as a whole.*
4. Parents are astute, self-educated and pro-active in seeking out information and services for all aspects of their children's lives.
 - *The mother I visited was unrelenting in her quest to find the best for her daughter. She even went back to law school in order to learn to better develop a plan for when she and her husband are no longer able to care for their daughter.*
 - *What was striking to me was that (the mother) was very focused on working with the resources available (for) her son, and actually pushing the professionals in Ds life to give him attention and a plan to identify goals that are reachable yet a constant stretch for him...knocked heads with one of D's teacher...(over a goal that) was not something she thought her son was unable to achieve; she thought this goal was too easily attainable...She is well aware of the resources that should be available to her son under the "Americans with Disabilities Act".*
 5. Caring for a child with disabilities is difficult for one person to handle. Parents do not always share responsibilities equally in caring for a child with a disability. Family and agency assistance is often needed.
 - *I learned about the challenges facing parents in terms of finding support services, etc.*
 6. Despite the difficulties, families strive for normalcy.
 - *(I learned that) children with developmental disabilities bring just as much joy as burden to their parents. I definitely need to learn more about resources available in the community.*
 7. The Primary Care Physician's (PCP) role includes advocacy and referral.
 - *Parents really want their PCP to be familiar with community resources. (This is covered in our readings and lectures, but it somehow sinks in more when I hear it from a parent.) Even when parents are high-functioning and take excellent care of their children, they still want and need support when dealing with schools and other agencies.*
 8. PPHE curriculum components, e.g., home and agency visits, reflections and small group discussions, cause the resident to ask questions, confront their emotions and attitudes and gain perspective.
 - *It broadened my knowledge and perceptions about developmental disabilities beyond the medical visit/hospital stay interactions I previously had.*

Parent Partner Evaluations

In addition to the evaluation of residents, 215 parents completed a parent partner evaluation on their experience with PPHE. Over 88 percent either strongly or somewhat agreed with the following statements:

- My partner physician showed interest and concern about my needs and those of my child.
- I think my partner physician will be well-qualified to manage medical problems like my child's because of this program.
- My partner physician asked a lot of questions but the questions helped me share important information about my child and my family.
- I think having partner physician's visit with families will help them be more involved in the care of children with developmental disabilities.
- I think working with me taught my partner physician things he/she wouldn't have learned somewhere else.
- I think I also learned some things by participating in this project.
- Being part of this project made me aware that I have choices and control.
- My life is better because of this project.

Discussions with Parents

Council staff also held telephone group discussions with parents who had participated in PPHE. These groups agreed on the following points:

1. The parents agreed to participate as a PPHE parent partner because they felt that there was a need for a change in the attitudes of physicians towards individuals with developmental disabilities. They felt it was important for the physicians to know the families and their children as individuals so the physicians could better help with routine and acute situations.
2. While all the parents reported unpleasant experiences with physicians, they saw it as their responsibility as parents to inform anyone who would be in contact with their child about their child and the manifestations of the disability to avoid misunderstandings and disagreeable situations.
3. They acknowledged the importance of residents' personally experiencing their home environment and being aware of the changes made in their home life and environment to accommodate their child's needs.
4. They were all pleased that the residents were very sensitive to their children and receptive to them as teachers.
5. The parents agreed that they benefitted from the residents' fresh insights, which helped them view their lives more objectively and which gave them courage and hope for a "less nasty and more caring future."

6. They unanimously suggested panel discussions for residents hosted by parents as one of the methods for teaching the resident in the programs as they felt it would broaden the experiences of the residents to expose them to a more varied and diverse group of parents. Other suggestions included online or telephone conferences and group visits of residents.

Conclusions

Based on the results of the 11 three-year pilots, the following general conclusions can be drawn:

1. The PPHE curriculum is flexible enough to be adopted in different residency programs and applied through different models. PPHE project directors have consistently pointed out that the PPHE curriculum meets ACGME and residency program requirements for continued accreditation. PPHE didactic lectures and community medicine case presentations can be incorporated with other lectures at grand rounds or noon lectures, which are open to faculty and others interested in the topic.
2. Residents who participate in the PPHE curriculum gain confidence in their abilities to screen and care for individuals with developmental disabilities. This confidence will make them more comfortable as practitioners to accept new patients with developmental disabilities.
3. The size of the residency program and having a clear plan for assigning PPHE activities to one or two specific rotation makes a difference in the program's ability to continue.
4. Parent interviews were universally recognized as the critical component for success.
5. The first year's implementation with the PPHE curriculum allowed the residency programs to refine their process for scheduling home and agency visits, recruiting parents and arranging clinical experiences. This start-up allowed both the PPHE directors and the residents to become comfortable with the curriculum and expectations for the program. The PPHE program implementation improved in Years 2 & 3.

Recommendation:

Recognizing the value this program has provided to train future physicians to care for persons with developmental disabilities and the potential to increase access for this underserved population, adequate state funding should be provided to support the PPHE.

³² *DDPC and Council staff collaborated both on this project and with this summary.*

Appendix A

Data on Parent Partners in Health Education

Phase I. 2005-2008: Number of Primary Care Residents Trained

Grantee:	Total # of Pediatric Residents Trained = 173	Total # of Family Medicine Residents Trained = 75
<ul style="list-style-type: none"> • St. Barnabas Hospital 	<ul style="list-style-type: none"> • 5 completed the 3 year program; • 22 completed part of the curriculum 	<ul style="list-style-type: none"> • 3 completed the full 3 year program • 15 completed part of the curriculum
<ul style="list-style-type: none"> • Stony Brook University Hospital 	<ul style="list-style-type: none"> • 62 completed 1 year 	<ul style="list-style-type: none"> • 28 completed 1 year
<ul style="list-style-type: none"> • Winthrop University Hospital 	<ul style="list-style-type: none"> • 48 completed 1 year • 36 Residents completed part of the PPHE curriculum 	<ul style="list-style-type: none"> • 0
<ul style="list-style-type: none"> • St. Elizabeth Hospital 	<ul style="list-style-type: none"> • 0 	<ul style="list-style-type: none"> • 29 completed 1 year

Phase II. 2006-2009: Number of Primary Care Residents Trained

Grantee:	Total # of Pediatric Residents Trained = 320	Total # of Family Medicine Residents Trained = 48
<ul style="list-style-type: none"> • Maimonides Medical Center 	<ul style="list-style-type: none"> • 78 	<ul style="list-style-type: none"> • 0
<ul style="list-style-type: none"> • Morgan Stanley Children's Hospital of New York Presbyterian (MSCHONY) 	<ul style="list-style-type: none"> • 20 completed the full 3 year program • 80 completed 1 or 2 years 	<ul style="list-style-type: none"> • 0
<ul style="list-style-type: none"> • New York Medical College 	<ul style="list-style-type: none"> • 30 completed the full 2 years; • 49 completed 1 year 	<ul style="list-style-type: none"> • 0
<ul style="list-style-type: none"> • SUNY-Upstate Medical University 	<ul style="list-style-type: none"> • 11 completed the 2 year PL1 and PL3 Program; • 52 Residents completed with the PL1 or PL3 program 	<ul style="list-style-type: none"> • 11 completed the 2 year program • 26 completed either the PL2 or PL3 year; • 11 Psychiatry residents completed 1 year

Phase III. 2007-2010: Number of Primary Care Residents Trained

Grantee:	Total # of Pediatric Residents Trained = 39	Total # of Family Medicine Residents Trained = 77
<ul style="list-style-type: none"> • Elmhurst Hospital Center 	<ul style="list-style-type: none"> • 39 completed the one year program 	<ul style="list-style-type: none"> • 0
<ul style="list-style-type: none"> • Institute for Urban Health 	<ul style="list-style-type: none"> • 0 	<ul style="list-style-type: none"> • 8 completed the full 3 year program • 16 completed 1 year • 16 completed 2 years
<ul style="list-style-type: none"> • South Nassau Communities Hospital 	<ul style="list-style-type: none"> • 0 	<ul style="list-style-type: none"> • 6 completed the full 3 year program • 12 completed 1 year • 12 completed 2 years • 7 faculty completed the one year program
<ul style="list-style-type: none"> • St. Claire's/Ellis Hospital -- Grantee withdrew after 1 year due to organizational restructuring 	<ul style="list-style-type: none"> • 0 	<ul style="list-style-type: none"> • 0

Appendix B

Biographies of Council Members

Mary Jane Massie, M.D. (Chairman)

Attending Psychiatrist at Memorial Sloan-Kettering Cancer Center and Professor of Clinical Psychiatry at the Weill Medical College of Cornell University. Dr. Massie is nationally recognized for her broad expertise in education and in the clinical care of women with breast cancer and those at high risk of developing breast cancer. She publishes extensively on psychiatric issues in cancer and is a reviewer for many journals. A past-president of the Medical Staff at Memorial Hospital, she has been a member of Memorial's Graduate Medical Education Committee since 1982 and she has Chaired that committee since 1995. She received her M.D. from SUNY at Buffalo School of Medicine. After completing her residency in Psychiatry at Montefiore Hospital in the Bronx, she started a Psycho-oncology Fellowship at Memorial Sloan-Kettering Cancer Center and has remained at Memorial Hospital throughout her career. Dr. Massie is board certified both in Psychiatry and in Psychosomatic Medicine by the American Board of Psychiatry and Neurology. She is both a Fellow and Past-President of the Academy of Psychosomatic Medicine, a Fellow of the American College of Psychiatrists, and a Distinguished Life Fellow and Distinguished Lecturer of the American Psychiatric Association. She has conducted NCI funded research, which has been focused on developing ways to reduce the disparities in health care experienced by medically underserved women with cancer.

Steven B. Abramson, M.D.

Professor of Medicine and Pathology and Director of Rheumatology, NYU School of Medicine and NYU-Hospital for Joint Diseases. Dr. Abramson is a graduate of Dartmouth College and Harvard Medical School. He completed his residency at New York University Medical Center-Bellevue Hospital, where he also went on to serve as a Chief Resident in Medicine, and a Fellow, and Chief Fellow, in the Division of Rheumatology. As Vice Dean for Education, Faculty, and Academic Affairs, Dr. Abramson oversees faculty affairs, including appointments, promotions, tenure issues, and departmental reviews; undergraduate, graduate, and post-graduate education, including ongoing reforms that continue to enhance the role of humanism and technology in the medical curriculum; continuing medical education; pre-college programs; the admissions process; and the School's accreditation. Dr. Abramson's laboratory is among five designated by the NIH to be part of the Osteoarthritis Biomarkers Network, on which he serves on the Steering Committee. He has experience in both basic science and clinical research, and has published more than 200 papers on these and related topics. Dr. Abramson is co-director of the recently designated NYU Musculoskeletal Center of Excellence. He has recently served as Co-Editor of the journal *Arthritis & Rheumatism*, a member of the Rheumatology Board of the American Board of Internal Medicine (ABIM), President of the Osteoarthritis Research Society International (OARSI), and is a consultant to, and former chairman of, the Arthritis Advisory Committee of the Food and Drug Administration (FDA).

Rhonda Graves Acholonu, M.D., F.A.A.P.

Clinical Assistant Professor and Pediatric Residency Program Director at the NYU School of Medicine. In this role, she assumes the primary responsibilities for the operation of Pediatric

Residency training at NYU and Bellevue. A native of Philadelphia, Dr. Acholonu is a graduate of MCP Hahnemann School of Medicine. She subsequently completed her residency and chief residency at The Children's Hospital of Philadelphia. She initially joined the NYU faculty in July 2005 as the Director of Inpatient Services for the general pediatric unit at Bellevue Hospital Center. As a hospitalist, she greatly enjoys attending on the wards at Bellevue and Tisch hospitals, teaching residents and medical students as well as contributing to the development of standardization of clinical practice. Her current interests include obesity research in children and curriculum development to enhance residents as teachers and legislative advocacy.

Victor Badner, D.M.D., M.P.H.

Graduate of University of Pennsylvania (BA), Harvard School of Dental Medicine (DMD) and University of California Los Angeles (MPH). Dr. Badner completed his General Practice residency at Montefiore Medical Center in NY and his Dental Public Health residency at the University of California San Francisco. He is Board Certified in Dental Public Health. He has been a residency director in general practice dentistry and a site director in the NYS DOH sponsored dental public residency. Dr. Badner has served for many years as a site visitor for residency evaluation for the Commission on Dental Accreditation (CODA) of the American Dental Association and has served on the review council at CODA. He is currently the Department Chairman of Dentistry/ Oral and Maxillofacial Surgery at the North Bronx Health Care Network (NBHN), a network of the Health and Hospital Corporation in NYC. He holds Associate Professor, faculty appointments at the Columbia School of Dental Medicine, Dept. of Community Health, and the Albert Einstein College of Medicine Dept. of Dentistry. Dr. Badner received Silver Anniversary Award for the Class of 1981 Graduate of the Harvard who contributed most to society, the profession and the school. In honor of the contribution made to increase access to care for underserved populations, especially HIV infected individuals. He was selected as the Jacobi Medical Center Honoree for the New York City "Doctor's Day" Award (2008). Currently, he is President of the Medical Board at NBHN.

Karen L. Bell, M.D.

Clinical Professor of Neurology at Columbia University in New York City, in the Taub Institute for Research on Alzheimer's Disease and the Aging Brain. A Bronx native who graduated from New York University, and the University of Pennsylvania School of Medicine, Dr. Bell completed internship in internal medicine at Harlem Hospital Center and neurology residency at The Neurological Institute at Columbia University, College of Physicians and Surgeons. After completing a fellowship in Behavioral Neurology, she focused her clinical and research efforts to specialize on the evaluation and treatment of neurodegenerative cognitive disorders at the Taub Institute. As the Director of the Alzheimer's Disease Clinical Trials Group at Columbia University Medical Center, she has led the clinical trials group at the Taub Institute to become a leading center in Phase II and III trials with potential disease modifying agents. Dr. Bell was the Director of the Minority Recruitment Core for NIA-funded Alzheimer's Disease Cooperative Study (ADCS), and is interested in achieving ethnic diversity in enrollment in Alzheimer's disease clinical trials on a national level. As such she has been spearheading the ADCS recruitment efforts to increase diversity in clinical trials since 2002. As the Director of the Education Core of the Alzheimer's Disease Research Center at Columbia University, she runs the Columbia Dementia CME programs. She is an active member of the American Academy of Neurology and the National Medical Association, serving on various subcommittees. She is an

external advisor to National Medical Association's Project I.M.P.A.C.T. initiative. She also serves on multiple NINDS Data Safety Monitoring Boards and has been a member of the Columbia University Medical Center Institutional Review Board since 2003. She has participated as a mentor in the Harlem Children Society science program for many years.

Roseanne C. Berger, M.D.

Senior Associate Dean for Graduate Medical Education at the University at Buffalo, Designated Institutional Official, and Associate Professor of Clinical Family Medicine & Pediatrics, Department of Family Medicine, School of Medicine & Biomedical Science. Dr. Berger is a graduate of Cornell University and New York Medical College. She completed her residency in Family Medicine at the University of California in San Diego and fellowship training in Geriatrics at the University at Buffalo. She is responsible for the oversight of 63 residency programs enrolling 750 residents. She is the past Chair of the Association of American Medical College's Group on Resident Affairs. She has administrative responsibility for GME, Continuing Medical Education and the UB Mini Medical School.

Gary C. Butts, M.D.

A pediatrician by training and has been part of the Mount Sinai Medical Center since beginning his training in Pediatrics in 1980. Dr. Butts currently holds joint appointments as Associate Professor in the Departments of Medical Education, Pediatrics, and Preventive Medicine and is an integral member of the medical center senior leadership team. As NYC Deputy Commissioner for the largest municipal health department in the nation between 1993 and 1998, he has been directly involved with citywide health services planning, clinical service and program development, evaluation, health policy and national public health research. Dr. Butts is currently Associate Dean for Diversity Programs, Policy and Community Affairs and directs the Center for Multicultural and Community Affairs (CMCA) at Mount Sinai School of Medicine, which is a Health Resources and Services Administration (HRSA) supported Center of Excellence for Minority Health and a lead partner in the HRSA funded Northeast Regional Alliance Health Careers Opportunity Program. He has held regional and national leadership positions with the Association of American Medical Colleges and Associated Medical Schools of New York, among other professional organizations. Through CMCA, Dr. Butts also provides support to several Mount Sinai institutional research and training efforts, including the Clinical and Translational Science Institute, the Neuro-AIDS Institute, the Health Policy EXPORT program, the Comprehensive Diabetes Center, and a host of NIH training programs.

Neil S. Calman, M.D., A.B.F.P., F.A.A.F.P.

A founder of the Institute for Family Health (formerly the Institute for Urban Family Health) where he has served as President and CEO since its inception. Dr. Calman is Clinical Professor of Family Medicine at the Albert Einstein College of Medicine of Yeshiva University. He has been involved in the administration of community health facilities in medically underserved urban areas for the past thirty years. He is a practicing, board certified family physician, and sees patients at the Sidney Hillman Family Practice in Manhattan and the Walton Family Health Center in the Bronx. The Institute operates 17 federally qualified health centers, 2 family practice residency programs - one in New York City with Beth Israel Medical Center and one in Kingston with the Kingston Hospital and over 30 grant funded programs. Dr. Calman is a graduate of Rush Medical College in Chicago and completed his residency in the Social

Medicine Program at Montefiore Hospital in the Bronx. He has served on many government commissions, including Governor Cuomo's Health Care Advisory Board, and the Pediatric Advisory Committee of the State Department of Health. He is currently the Principal Investigator for a number of research and health services grants including grants from the CDC, NIH, HRSA and many distinguished foundations.

Jen Canter, M.D., M.P.H., F.A.A.P.

Earned her undergraduate and public health degrees from The Johns Hopkins University and her medical doctorate at The State University of New York at Buffalo. Dr. Canter completed her residency in Pediatrics at Montefiore Medical Center and completed a fellowship in Child Abuse Pediatrics thereafter. Board certified in both Pediatrics and Child Abuse Pediatrics, she is a Fellow of the American Academy of Pediatrics and an active member of several Child Abuse Pediatrics-related organizations. Dr. Canter is director of one of three accredited Child Abuse Pediatrics fellowships nationwide and is an active faculty member at New York Medical College. She is engaged in several innovative and prevention-oriented research projects, including being Co-Principal Investigator of the NYS Shaken Baby Prevention Initiative. She is published in the area of child abuse and child protection, including a book chapter (“The Pediatric Patient”) in the textbook, *Emergency Care of the Abused Patient* (Cambridge Press). Dr. Canter has been directing the clinical and academic programs related to Child Abuse Pediatrics in Westchester County, NY since 2002. She is mom to four children – twin girls and twin boys.

Harry M. Delany, M.D., F.A.C.S.

A graduate of the Bronx High School of Science, Columbia College and the Columbia University College of Physicians and Surgeons. Dr. Delany trained in Surgery at Bellevue Hospital and Montefiore Medical Center. He is a Fellow of American College of Surgeons and Professor of Surgery at the Albert Einstein College of Medicine. He is Chairman of Surgery for the Jacobi Hospital and the North Bronx Healthcare Network. Dr. Delany is the former Chief of Surgery at the North Central Bronx Hospital and the Morrisania City Hospital. He is former president of the Bronx American College of Surgeons and former President and chairman of the Board for the Association of Academic Minority Physicians. He was an appointed member of the Committee on Injury Prevention of the Center for Disease Control (CDC). Dr. Delany has been a Examiner for the American Board of Surgery and an External Examiner for the University of the West Indies (UWI). He has continued teaching responsibilities for surgical residents and medical students at the Albert Einstein College of Medicine.

Nienke Dosa, M.D., M.P.H.

Associate Professor of Pediatrics at the Center for Development, Behavior and Genetics at SUNY Upstate Medical University in Syracuse New York. Dr. Dosa is board certified in Pediatrics and in Neurodevelopmental Disabilities. She is a fellow of the American Academy of Cerebral Palsy and Developmental Medicine and the American Academy of Pediatrics. She is medical director of the Spina Bifida Center of Central New York and also coordinates programs for children with cerebral palsy and children with vision impairment/blindness. Her research is focused on transition to adulthood and emergency planning for this population. She is director of the NYS Institute for Health Transition Training (www.HealthyTransitionsNY.org).

Montgomery Douglas, M.D.

Chair of the Dept of Family and Community Medicine, and Associate Dean for Diversity and Inclusion, at New York Medical College. Dr. Douglas attained his medical doctorate from Cornell University Medical College in 1986; then graduated from the University of Rochester Family Medicine Residency Program in 1989. He served as Director of the New York Medical College Brooklyn-Queens Family Practice Residency Program in Queens; and Chair of the St Vincent Catholic Medical Center Dept of Family Practice and Community Medicine. Dr. Douglas is board certified in Family Medicine, and holds a Certificate of Added Qualification in Geriatrics. He's a former solo private practitioner in Queens, NY. In 1997 he was named the NYS Academy of Family Physicians' Family Practice Educator of the Year. He was listed as an American Top Doctor by Castle Connelly each year from 1997 through 2008.

Paul Dreizen, M.D.

Professor of Medicine at SUNY Downstate Medical Center. A graduate of Cornell University and New York University School of Medicine, Dr. Dreizen completed his residency in Medicine at NYU-Bellevue Medical Center. Following active naval service as assistant cardiologist at the United States Naval Hospital in Bethesda, he received a National Research Council Fellowship in Academic Medicine and Biophysics at Massachusetts Institute of Technology. Dr. Dreizen's entire professional career has been in the Department of Medicine at SUNY Downstate Medical Center, including a 24-year stint as Dean, School of Graduate Studies, and Director of its Biophysical Graduate Program. His research has focused throughout on skeletal and cardiac muscle proteins and the molecular mechanism of muscle contraction, a field in which he is an internationally recognized investigator. His recent work involves computational biophysical approaches to the atomic structures of the conformational states of the actomyosin cross-bridge cycle, especially as related to hypertrophic cardiomyopathy, and of different conformational states during fibril formation in Huntington's disease. Dr. Dreizen is a member of the Biophysical Society, the American Society of Clinical Investigation, and the Association of American Physicians. He has long been involved in biomedical research training at undergraduate and graduate levels.

Walter A. Franck, M.D.

Physician-in-Chief Emeritus and Co-Director of the Medical Student Program at Bassett Healthcare and Professor of Clinical Medicine/ Associate Dean at Columbia University. Dr. Franck received his M.D. from Columbia in 1964 and post-graduate training in Internal Medicine at the University of Michigan Hospital followed by a clinical and research fellowship in rheumatology at Massachusetts General Hospital, Department of Medicine, and Harvard Medical School. Dr. Franck is certified by the American Board of Internal Medicine in Internal Medicine and Rheumatology. He is a Fellow of The American College of Physicians and American College of Rheumatology. He has been selected by the residents in Medicine as their most valued teacher. Dr. Franck's scholarly pursuits focused on gout, arthritis, and other systemic diseases affecting bone and muscle have resulted in over forty publications. After only seven years at Bassett his clinical and administrative contributions were recognized by his appointment as Physician-in-Chief. In addition to research and clinical service, he has also been regularly recognized for his contributions to educational programs by his decade long appointment as Director of Medical Education at Bassett.

Dr. Ethan D. Fried, M.D, M.S., F.A.C.P.

Graduate of the City College of New York, Sophie Davis School for Biomedical Education (a 7 year BS-MD program) and the SUNY Stony Brook School of Medicine. Dr. Fried completed his residency in Internal Medicine at SUNY Downstate-Kings County Hospital in Brooklyn and a fellowship in Pulmonary and Critical Care Medicine at the Cornell University Medical School - New York Hospital. He has a Master's Degree in Clinical Epidemiology from the Harvard School of Public Health. Dr. Fried is currently Vice Chair for Education and Internal Medicine Residency Program Director at the St. Luke's-Roosevelt Hospital Center on New York's Upper West Side and he has been Director of Graduate Medical Education for St. Luke's-Roosevelt since 2002. In addition to his membership in NYS COGME Dr. Fried is also serving as national President of the Association of Program Directors in Internal Medicine. His research is in patient safety and medical errors. He is the principal investigator for the NYS Near Miss Registry which is supported by the NYS DOH Patient Safety Center.

Richard S. Liebowitz, M.D.

Graduated from Rutgers College Phi Beta Kappa with distinction in Biochemistry followed by Rutgers Medical School (now Robert Wood Johnson Medical School) in 1980. Dr. Liebowitz completed his residency in Internal Medicine at the University of Massachusetts Medical Center. Immediately following his graduation, he served two years in the United States Public Health Service. He was appointed instructor in Clinical Medicine at the University of Massachusetts and later served as a Medical Director for the Fallon Community Health Plan. Dr. Liebowitz's next academic appointment was as an Assistant Professor of Medicine at the University of Arizona in Tucson, Arizona where he was on faculty until 2000. During that time he served in a number of positions, including Medical Director of both the Department of Medicine Inpatient and Outpatient areas, Education Director for a non ACGME accredited fellowship, and finally Section Chief for General Medicine. During his time at the University of Arizona, he received numerous teaching awards from both the Medical School as well as twice being awarded the Outstanding Attending of the Year by the Medical residency program. He was elected as a faculty member of the Alpha Omega Alpha honor society. In 2000, Dr. Liebowitz relocated to Duke University and while on faculty also completed work on a Masters degree in Clinical Research from the combined program offered by Duke and the National Institutes of Health. Dr. Liebowitz joined the New York Presbyterian and the Cornell Faculty in 2006. As Vice President Medical Affairs and Designated Institutional Official he is responsible for 119 ACGME accredited residency programs. In 2010 he was appointed Associate Chief Medical Officer.

David A. Milling, M.D.

Associate Professor in Clinical Medicine as well as the Senior Associate Dean for Student and Academic Affairs at the State University of New York at Buffalo School of Medicine and Biomedical Sciences. Dr. Milling is the program director for STEP (Science and Technology Entry Program) and director of the Post-Baccalaureate Program. He is also the Medical Director of the Clinical Competency Program at the State University of New York at Buffalo School of Medicine and Biomedical Sciences. Prior to medicine, Dr. Milling trained as a pharmacist.

Howard L. Minkoff, M.D.

Chairman of Obstetrics and Gynecology at Maimonides Medical Center and a Distinguished Professor of Obstetrics and Gynecology at SUNY Downstate. Dr. Minkoff has served as chair of several NIH study sections and has had continuous federal research funding for 25 years. He has been a member of the organizing committees of, and has spoken at, State of the Science (Cesarean Section by Maternal Choice) and Consensus Development Taskforces (Vaginal Birth after Cesarean Section) of the US Public Health Service. Dr. Minkoff currently is the chair of the executive committee of the Women's HIV study, the largest multicenter cohort study of HIV in the United States. He has been a national board examiner in obstetrics and gynecology and maternal-fetal medicine, has chaired the March of Dimes committee on Maternal-Child Health Issues, and Chairs the Program Committee of HealthRight and the perinatal safety committee of GNYHA. He recently completed his tenure as vice-chair of ACOG's national ethics committee. He previously served as president of the New York Obstetrical Society. Dr. Minkoff has edited four books, written over sixty book chapters, and 280 peer reviewed publications. He is a member of four editorial review boards and is an editorial reviewer for 50 medical journals. He received the US Assistant Secretary of Health Award for his contributions to the care and research of HIV-infected women in the United States.

Michael F. Noe, M.D., M.P.H, F.A.C.P.M, F.A.C.P.

Associate Dean, Community Relations and Clinical Affairs, School of Public Health and Health Professions, as well as Clinical Professor, Social and Preventive Medicine; Director, General Preventive Medicine Residency Program, Department of Social and Preventive Medicine; and Co-Director, Combined Internal Medicine/ Preventive Medicine Residency Program, all at the University at Buffalo. Dr. Noe is a Diplomat of the National Board of Medical Examiners and is certified by the American Board of Preventive Medicine and the American Board of Internal Medicine. He received his MD at SUNY-Upstate Medical University; interned at St. Joseph Hospital and Health Center, Syracuse, New York; and completed residencies at the U.S. Public Health Service Hospital and Tulane University Medical Center, New Orleans, Louisiana. For many years he served both as Medical Director and Executive Vice President of the Buffalo General Health System and later as a Medical Director in the Kaleida Health System. Dr. Noe has been a long-standing member of the Data Protection Review Board (SPARCS), NYS Department of Health. He has also served on various committees of the American Hospital Association, the Healthcare Association of NYS and the Western New York Healthcare Association. Research interests include the non-surgical management of Class III obesity using combination therapy and the use of a psycho-educational program to improve the health of family caregivers.

Harry C. Odabashian, Jr., M.D.

Graduate of Tufts University and attended graduate school at Duke University. Dr. Odabashian received his medical degree from Albany Medical College in Albany, NY. He completed his internship, residency, and cardiology fellowship at Albany Medical Center Hospital. He is Board Certified in Internal Medicine and Cardiovascular Diseases. He is a Fellow of the American College of Cardiology, and a Fellow of the Society of Cardiac Angiography. Dr. Odabashian has been Chief of Cardiology and Director of the Cardiac Catheterization Laboratory at St. Peter's Hospital in Albany, NY. He is a Clinical Assistant Professor of Medicine at Albany Medical College. He received the American Heart Association's Hearts of Gold Award

in 1998. He is currently the upstate Governor of the American College of Cardiology, the President of the New York Cardiological Society, and the President elect of the NYS Chapter of the American College of Cardiology.

Herbert Pardes, M.D.

President and CEO of New York-Presbyterian Hospital and New York-Presbyterian Healthcare System. Nationally recognized for his broad expertise in education, research, clinical care and health policy, Dr. Pardes is an ardent advocate of support for academic medical centers, humanistic care and the power of technology and innovation to transform 21st-century medicine. A noted psychiatrist, he served as Director of the National Institute of Mental Health (NIMH) and U.S. Assistant Surgeon General during the Carter and Reagan Administrations. He was also President of the American Psychiatric Association. In 1984, he was named Chairman of the Department of Psychiatry at Columbia University College of Physicians and Surgeons, and in 1989, was appointed Vice President for Health Sciences for Columbia University and Dean of the Faculty of Medicine at Columbia University College of Physicians and Surgeons. In 1999, Dr. Pardes was chosen to lead New York-Presbyterian. He has been appointed to serve on commissions related to health policy by Presidents Bush and Clinton and negotiated and conducted international collaborations with a variety of countries including India, China and the former Soviet Union. He has earned numerous awards and accolades.

Walter Ramos, J.D., R.N.

Serves as Executive Secretary of the State Board for Medicine since May 2007 and was formally appointed to the position by the Board of Regents in September 2007. Prior to the appointment Mr. Ramos served as a prosecutor with the Office of Professional Discipline of the NYS Education Department. Mr. Ramos is a graduate of the SUNY Buffalo School of Law (1986) and the SUNY StonyBrook School of Nursing (1979). Mr. Ramos previously served as a Captain in the United States Air Force Nurse Corp and as an Assistant District Attorney in the New York County District Attorney's Office.

Steven J. Scheinman, M.D.

Senior Vice President and Dean of the College of Medicine at SUNY Upstate Medical University. Dr. Scheinman is a graduate of Amherst College and the Yale University College of Medicine, served his residency in Internal Medicine at the Yale-New Haven Hospital and fellowships in Nephrology at Yale and at Upstate. He is board certified in Internal Medicine and Nephrology. His research has concentrated on the genetics of renal failure and kidney stones, funded for many years by the National Institutes of Health, the American Heart Association, and other agencies. Dr. Scheinman has received the SUNY Chancellor's Research Recognition Award (2002), SUNY Upstate's President's Award for Excellence and Leadership in Research (2001) and the Charles R. Ross Research Award (1992), among others. In addition to his many scholarly publications and service on editorial boards and study sections, he has lectured and has been a visiting professor at institutions across the United States and internationally. Beyond Upstate, he is an officer of the Associated Medical Schools of New York and on the administrative board of the AAMC's Council of Deans.

Vicki L. Seltzer, M.D.

Chair Emeritus, Obstetrics and Gynecology, Long Island Jewish Medical Center and North Shore University Hospital. Dr. Seltzer served as President of the American College of Obstetricians and Gynecologists (ACOG), the organization representing more than 40,000 Ob-Gyns, dedicated to improving the health of women. She was also President of the New York Obstetrical Society. She is the editor of the textbook, Women's Primary Health Care. She is also the author of the book, Every Woman's Guide to Breast Cancer, Founding Editor-in-Chief of the medical Journal, Primary Care Update for OB/GYNs, for which she was Editor-in-Chief for ten years, and the author of more than 100 medical articles and textbook chapters. Dr. Seltzer has served important roles in many national and international medical organizations including the International Federation of Gynecology and Obstetrics (FIGO), the Obstetrics and Gynecology Residency Review Committee (RRC), the national Council on Graduate Medical Education (COGME), and the national Council on Resident Education in Obstetrics and Gynecology (which she chaired for six years). She is board certified in Obstetrics and Gynecology and in Gynecologic Oncology.

Monika K. Shah, M.D.

Associate Chairman for Graduate Medical Education in the Department of Medicine at Memorial Sloan-Kettering Cancer Center, responsible for oversight of all of the training programs in the department. Dr. Shah is also an Associate Program Director of the New York Presbyterian Hospital-Weill Cornell Medical College Internal Medicine Residency Program and an Assistant Professor of Clinical Medicine at Weill Cornell. She received her M.D. from Washington University School of Medicine, followed by internship and residency at New York Presbyterian Hospital-Weill Cornell. She completed her chief residency and an Infectious Disease Fellowship at Memorial Sloan-Kettering Cancer Center. She is board certified in Internal Medicine and Infectious Diseases. Her clinical and scholarly interests have included HIV in pregnant women and adolescents and Travel Medicine in the Immunocompromised Host.

Nirav R. Shah, M.D., M.P.H.

Before he was appointed and confirmed as the 15th NYS Commissioner of Health, Dr. Shah was Attending Physician at Bellevue Hospital Center, Associate Investigator at the Geisinger Center for Health Research and Assistant Professor of Medicine in the Section of Value & Comparative Effectiveness at New York University School of Medicine. An expert in the use of systems-based methods to improve patient outcomes, he is a leading researcher in the use of large-scale clinical laboratories and electronic health records to improve the effectiveness and efficiency of care. He is a nationally recognized thought leader in the methods needed to transition to lower-cost, patient-centered health care for the 21st century. As a general internist caring for patients at Bellevue Hospital Center in New York City, he has observed firsthand the impact of limited resources on the health of vulnerable populations. To improve the health of vulnerable populations as well as the general population, he has conducted research and development in the public hospital system of New York City and in the rural, aging population of central Pennsylvania's Geisinger Health System. He also has conducted research into advancing preventive care for patients with cardiovascular disease and improving cardiovascular disease surveillance and public health. Dr. Shah is a native of Buffalo, an honors graduate of Harvard College and received his medical degree and master's degree in public health from the Yale School of Medicine. He was a Robert Wood Johnson Clinical Scholar at UCLA and a National

Research Service Award Fellow at New York University. He is a fellow of American College of Physicians and the New York Academy of Medicine. He serves on the editorial boards of medical journals, has published more than 90 peer-reviewed articles and has received more than \$4.5 million in research funding.

Merryl H. Tisch, Ed.D.

Appointed to the NYS Board of Regents on April 1, 1996 and reelected to five-year terms on April 1, 2001 and April 1, 2006. She was elected Vice Chancellor by her colleagues effective April 1, 2007, was elected Chancellor by her colleagues effective April 1, 2009 and re-elected to a three year term effective April 1, 2010. Chancellor Tisch brings to her appointment many years of experience in the fields of education, community service, and philanthropy. Chancellor Tisch is chairperson of the Metropolitan Council on Jewish Poverty. With an annual budget of \$100 million, Met Council has gained national recognition for its work in the areas of youth and family services, housing, poverty programs, and neighborhood preservation. Previously, Chancellor Tisch served as chairperson of the Mt. Sinai Children's Center Foundation. Chancellor Tisch serves on the executive committees of The Washington Institute for Near East Policy, the UJA-Federation of New York, the Leadership Enterprise for a Diverse America, the United States Holocaust Memorial Museum, and the Citizens Budget Commission. Additionally, she serves on the board of The Trust for Cultural Resources of the City of New York. She was appointed to the Graduate School of Education's Board of Overseers at the University of Pennsylvania in 1998 and has been a board member of both Barnard College and the Dalton School. From 1977 to 1984 Chancellor Tisch taught first-graders at New York City's Ramaz School and the B'nai Jeshurun School. She received a B.A. from Barnard College, an M.A. in Education from New York University, and an Ed.D. from Teachers College, Columbia University.

John E. Ulberg, Jr.

Director of the Division of Health Care Financing at the NYS Department of Health (DOH). Mr. Ulberg is responsible for Medicaid fee-for-service rate setting policy for the major provider sectors (hospitals, nursing homes, home care and personal care) and overseeing the State's \$4 billion HCRA receipts and collections operations. Prior to joining DOH, he was an Associate then Principal Budget Examiner at the NYS Division of the Budget charged with overseeing fiscal and program matters related to the State's \$52 billion Medicaid and HCRA programs. In addition, he had oversight for the operating and capital budgets totaling over \$12 billion for not-for-profit and State operated programs under the auspices of the Office of Mental Health, Office of Mental Retardation and Developmental Disabilities and the Office of Substance Abuse Services. Originally from Michigan, Mr. Ulberg attended Michigan State University as an undergraduate and then the University of Michigan School of Public Health for Health Care Administration. His wife trained in internal medicine/pediatrics at Albany Medical Center and currently maintains a private practice.



New York State
Andrew M. Cuomo, Governor