

Resources for Study

The Mailman School of Public Health is committed to providing a broad, comprehensive learning opportunity for its students. Students have access to the full scholarly resources of the University as well as applied applications, through research and service centers that infuse cutting-edge practices into the academic program. Some of the most utilized resources by MSPH students are described below.

Libraries

Columbia University Libraries, one of the nation's largest academic library systems with holdings of 8.2 million volumes, is one of the world's great research libraries and one of the University's strongest assets.

MEDICAL CENTER CAMPUS

August C. Long Health Sciences Library
701 West 168th Street
212-305-3605
<http://library.cpmc.columbia.edu/hsl/>

The Augustus C. Long Health Sciences Library serves Columbia University's Schools of Medicine, Dental and Oral Surgery, Nursing, and Public Health; the Presbyterian Hospital; and other health care, instructional, and research programs in the Columbia University Medical Center. Founded in 1912, the library is one of the largest academic health sciences libraries in the country. Its collection includes over 500,000 volumes; 4,400 current periodical subscriptions; and extensive holdings of media, electronic resources, rare books, and archival materials.

The library is a unit of the Office of Scholarly Resources and it supports a growing collection of electronic resources, including full-text electronic journals, sophisticated indexes, and electronically accessible reference resources. Classes are taught on the use of electronic materials and the Internet frequently throughout the year. A full-service photocopy center provides high-volume color copying, and the Center for Academic Information Technology (CAIT) offers self-scanning and has over 4,000 CD-ROMs.

The library's Archives and Special Collections holds unique and rare materials documenting the history of medicine and the history of Columbia University Medical Center. The noteworthy collections include the Auchincloss Florence Nightingale Collection, the Sigmund Freud Library, and the Jerome P. Webster Library of Plastic Surgery.

CAIT maintains three public access computer facilities, in the library and the Learning Center. They are equipped with both Macintosh and IBM-compatible computers and software for word processing, data analysis, instruction, and other computing applications.

Services available on the four floors of the library include circulation and reserve, reference services, individual consulting, interlibrary loans, photocopying, and faxing, all in a comfortable setting conducive to individual or group study. The space includes group study and conference rooms, individual carrels, an e-lounge, a 24-hour study room with computers, and a leisure-reading lounge. Columbia students activate free, limited e-mail service through Academic Information Systems (AcIS), which gives access to the extensive electronic resources at Columbia University and the Internet.

The New York State Psychiatric Institute Research Library, on Columbia's Medical Center campus, is a major resource for psychiatry, psychoanalysis, and clinical psychology. In addition, it has strong collections in cognitive and experimental psychology, neuroscience, child psychiatry and psychology, and statistics. The collection includes 15,000 volumes and 400 periodicals. Computerized literature searches, a heavily used service, provide access to a number of customized clearinghouse organization resources.

MORNINGSIDE CAMPUS

The Libraries on the Morningside campus, at 116th Street and Broadway, consist of some twenty libraries, many private collections, and affiliated institutions, plus extensive electronic resources. The library staff and the AcIS staff assist the students, faculty, and staff of the University to explore the large and complex University information environment. In addition to the circulation, reference, and reserves in campus and affiliate libraries, library services include 24-hour study hall and computer labs; electronic access to LibraryWeb; catalogs; CLIO; and off-campus resources including METRO, the New York Public Library, the Research Libraries Group, and the Center for Research Libraries. A directory of and links to Columbia libraries and affiliated libraries is available through LibraryWeb at <http://www.columbia.edu/cu/lweb/>.

Mailman School Research Centers

The research goal of the School is to conduct research on key public health issues confronting individuals and populations, and to inform and influence policy debates and decision making on these issues. The School's research efforts concentrate on carrying out a full range of biomedical, epidemiologic, social science, and health policy issues that affect the health of the public, in an atmosphere conducive to increasing levels and quality of both basic and applied research. The School's research program is structured around the conceptual and programmatic interests of individual faculty and collaborative groups of faculty, within the School and the University. On the Medical Center campus, the School is engaged in collaborative research, including joint ventures and jointly funded projects with the following: the Departments of Neurology, Obstetrics and Gynecology, Pediatrics, Psychiatry, Surgery, and Pharmacology; the HIV Center; the Herbert Irving Comprehensive Cancer Center; the

Gertrude H. Sergievsky Center; the Institute of Human Nutrition; the Schools of Nursing, and Dental and Oral Surgery; and NewYork-Presbyterian Hospital. The School also has active collaborations with units of the University on the Morningside campus, including the Departments of Statistics, Anthropology, Economics, History, Philosophy, Political Science, Sociology, and Psychology; the Schools of Law, Social Work, Business, and International and Public Affairs; and The Earth Institute at Columbia University. In addition, the School's National Center for Children in Poverty is one of the three founding centers of the Columbia Institute for Child and Family Policy.

Students are actively involved with faculty on many of the most important research projects of the School. Numerous opportunities exist for students to participate in ongoing research.

Students in the Ph.D. and Dr.P.H. programs are required to undertake research for their dissertations. Under the guidance of faculty advisors, doctoral students select research topics in their own area of special interest. In many instances, doctoral dissertations are based on a component of a larger existing or ongoing research project being carried out by a faculty member. By taking advantage of such a project, students can often have access to more data than would be the case in an entirely independent project, while still having responsibility for a significant element of the project. In other instances, for students who are employed in a public health setting while seeking an advanced degree, the dissertation data may emanate from their place of employment. Such projects usually benefit both the student and the agency at which the research is being carried out.

For M.P.H. students, the research environment of the School exposes them to faculty who are at the cutting edge of their disciplines and encourages students to participate in the application of new knowledge to public health problems. M.P.H. students, because of the heavy demands of their coursework, their greater practice orientation, and their relatively shorter tenure at the School, tend to have somewhat less intense involvement in research than doctoral students. Nevertheless, many opportunities for direct research experience through assistantships, tutorials, and volunteer work also exist for these students, and the vast majority takes advantage of the opportunities.

Research centers affiliated with departments of MSPH are introduced in the pages that follow.

CENTER FOR CHILD AND FAMILY LIFE EPIDEMIOLOGY

The Center for Child and Family Life Epidemiology focuses on research and training regarding issues central to the health and well-being of children, adolescents, and families both in the United States and internationally. Areas of interest include threats to health and well-being, outcomes beyond survival such as neuro-developmental disability, and interventions to identify and improve care.

CENTER FOR COMMUNITY HEALTH AND EDUCATION

For over twenty-five years, the Center for Community Health and Education has provided primary health care and reproductive health services to women and adolescents in northern Manhattan. These services, operated under the aegis of the NewYork-Presbyterian Hospital, represent a joint effort between the center, the Mailman School of Public Health of Columbia University, and the Ambulatory Care Network of the NewYork-Presbyterian Hospital. The center, directed by Lorraine Tiezzi, Associate Clinical Professor of Population and Family Health, also collaborates with the local public schools; the Columbia Departments of Pediatrics, Obstetrics and Gynecology, Psychiatry, and Ophthalmology; and with the School of Dental and Oral Surgery. In addition to medical and mental health, and health education services at these clinics, the center has an extensive adult parent-education program and a high school HIV-prevention program, each with hundreds of participants and designed with the recognition that a single approach or strategy to good health is unlikely to be successful, given the multiple problems confronting the community. Washington Heights—a young, low-income, largely immigrant community—is remarkably healthy compared to other urban immigrant communities around the country. Most significant, perhaps, is the fact that the use of primary care is higher in Washington Heights than elsewhere in New York City, with a high proportion of the population having visited a doctor within the last six months. The center still has work to do, though, combating high rates of depression, anxiety, and domestic abuse, and lowering the high rates of unwanted pregnancies and STDs. Yet the center has made significant headway with each passing year through a regimen of constant evaluation and restructuring of health initiatives and clinic practices. The overall goals of the center's programs are to provide comprehensive women's health care services; to provide primary health care services—including medical and mental health services as well as HIV-related education, counseling, and testing to prevent early childbearing; to delay initiation of first intercourse; to increase use of effective contraception among the sexually active; and to empower parents to become advocates for themselves and their children. For more information, visit <http://www.mailman.hs.columbia.edu/cche.html>.

CENTER FOR DEVELOPMENTAL ORIGINS OF HEALTH

The Center for Developmental Origins of Health focuses on the study of human health and disease from conception to death. It unites under a single programmatic umbrella an extraordinary collection of birth cohorts representing over 300,000 individuals from many different regions of the world at stages from birth to late midlife. These birth cohorts have yielded landmark findings about the causes of disorders such as schizophrenia, autism, ADHD, cancer, and cardiovascular disease. The center will provide a rich interdisciplinary and collaborative environment in which epidemiologists and allied health professionals can work together to elucidate the complex interplay of factors, including gene-environment interaction, in the development of disease over the life course.

CENTER FOR GENDER, SEXUALITY, AND HEALTH

The Center for Gender, Sexuality, and Health promotes research and training activities on the social and cultural dimensions of sexuality, as well as policy-relevant research on issues related to sexual health, sexual rights, and sexual education. The center develops programs related to diverse cultures and communities, including ethnic and sexual minorities, both in the United States and internationally. In addition to its research and training programs, the center's work seeks to contribute to better information sharing and dissemination of research findings, and to the development of collaborative partnerships between researchers, advocates, practitioners, and policymakers working on issues related to gender, sexuality, and health. Through its seminars, lectures, and research projects, the center has provided students an opportunity to explore current research around sexuality, gender, and health, and to interact with international experts in the field. The center also sponsors student roundtables, offering MSPH students a forum to present and discuss their research with faculty and other students. Additional information is available at <http://www.mailman.hs.columbia.edu/cgsh/cgsh.html>.

CENTER FOR GLOBAL HEALTH

The world faces extraordinary new health and economic challenges during the next ten years. Against the backdrop of expanding HIV/AIDS, tuberculosis, and malaria epidemics, it has become increasingly clear that economic progress in developing countries depends on healthy citizens and environments. The Center for Global Health is a joint venture between Columbia University's Mailman School of Public Health and Earth Institute and seeks to address these critical issues. The center mobilizes global health programs that help resource-poor countries address the burden of disease, and more specifically, helps achieve the Millennium Development Goals. In an effort to prevent the morbidity and mortality caused by preventable and treatable diseases, the center spearheads several programs that are actively engaged in delivering on-the-ground technical assistance. For more information on the goals and programs of this center, please visit <http://www.cghed.columbia.edu/>.

CENTER FOR THE HISTORY AND ETHICS OF PUBLIC HEALTH

The Center for the History and Ethics of Public Health is composed of both research and training components. The research agenda focuses on a wide range of topics from environmental and public health ethics through immigration and public health policy concerns. The training component is a joint effort between the Department of Sociomedical Sciences at the Mailman School of Public Health of Columbia University, the Center for the Study of Society and Medicine at the Columbia College of Physicians & Surgeons, and the Department of History at the Columbia University Graduate School of Arts and Sciences to train doctoral and master's students in the uses of historical and ethical analysis of public health and medicine. This is accomplished through the M.P.H. and Ph.D. Program in the History and Ethics of Public Health and Medicine. The mission of

the center is to create a place where scholars and practitioners can meet in an effort to bring a level of historical sophistication to policy and research efforts in public health. It is a valuable resource for all public health students. For more information, visit their Web site: <http://www.mailman.hs.columbia.edu/heph/index.htm>.

CENTER FOR INFECTIOUS DISEASE EPIDEMIOLOGIC RESEARCH

Infectious diseases, once thought long conquered, have reclaimed their importance in the field of public health and public policy, both domestically and internationally. The global impact of HIV/AIDS, tuberculosis, malaria, and diarrheal and respiratory infections in children underscores the importance of infectious diseases. The recent recognition of emerging new pathogens has also highlighted the importance of understanding their epidemiology. In response to this need, the Center for Infectious Disease Epidemiologic Research (CIDER) was established at the Mailman School of Public Health. The center has the following aims: to expand research efforts in the epidemiology of infectious diseases of domestic and international significance; to foster collaborative research among interested scientists within the School and the University; to establish and maintain linkages to federal, state, and international agencies that are involved in the prevention and control of infectious diseases; to expand teaching and training in infectious diseases epidemiology; and to develop a cadre of young investigators devoted to this area of research. The current activities of faculty affiliated with the center include research on HIV/AIDS, tuberculosis, nosocomial infections, vaccine development, and emerging infections. For more information, visit their Web site: <http://www.mailman.hs.columbia.edu/epi/research/Infectious/infectious-center.html>.

CENTER FOR THE PSYCHOSOCIAL STUDY OF HEALTH AND ILLNESS

Founded in 1997, the federally funded Center for the Psychosocial Study of Health and Illness investigates how patients and families adapt to chronic and life-threatening illnesses, including cancer and HIV/AIDS. As a research training site for mental health and public health graduate students and postdoctoral students, the center has developed the M.P.H. program in Aging and Public Health. The center's multidisciplinary staff, including sociologists, psychologists, gerontologists, social workers, and nurses, studies bereavement, informal caregiving arrangements, and the genetic and lifestyle risk factors for chronic illnesses. In addition, the center provides technical assistance in evaluating several HRSA-sponsored palliative care programs for underserved and difficult-to-reach people infected with HIV. The expertise of center staff is a resource for students who are interested in the psychological, social, and practical issues surrounding adaptation to illness, surviving illness, and the exploration of preventative health behaviors in the context of the changing health care system. Students have had the opportunity to work with faculty on center projects, gaining practical experience in public health research and program design, implementation, and evaluation.

CENTER FOR VIOLENCE RESEARCH AND PREVENTION

Since its founding in June 1995, the Center for Violence Research and Prevention has conducted and disseminated research on the causes and control of interpersonal violence. Through a diversified program of both basic and applied research, the center's staff and associates work closely with, and are a resource to, researchers, clinicians, public and private agencies, and community organizations whose work addresses pressing violence problems. The center continues to work in partnerships with public health, criminal justice agencies, and community support groups whose work is aligned with the center's mission. In these partnerships, it conducts research and designs programs to address the places and populations at risk for violence. Research in each area involves diverse social science methods. Ongoing research programs include the neighborhood contexts of adolescent violence, spatial analysis of violence and injury, law and social policy, and posttraumatic stress in police officers. For more information, visit <http://www.mailman.hs.columbia.edu/cvvp/index.html>.

COLUMBIA CENTER FOR CHILDREN'S ENVIRONMENTAL HEALTH (CCCEH)

The mission of CCCEH is to understand the nexus between the environment and child health in order to take preventive action to reduce risks to children. The center's work responds to three urgent health issues: The fetus and young child are more vulnerable than adults to many toxic chemicals; children in neighborhoods of color in New York City are disproportionately exposed to environmental pollutants; and children living in disadvantaged communities of northern Manhattan and the South Bronx have unusually high rates of asthma, low birthweight, and developmental disorders. Cancer rates are also a growing concern nationwide.

The center is dedicated to studying environmental health threats to children's health. Columbia's Mailman School of Public Health researchers pioneered "molecular epidemiology"—the incorporation into human studies of biological markers ("biomarkers") at the cellular level that indicate hazardous exposures and disease risk.

A critical element of the center's research is its communication of study findings back to the low-income communities in which the study cohorts reside. In New York City, a coalition of eight direct service and environmental health advocacy organizations ensures that results from the scientific research are delivered to these communities in ways that are meaningful and usable in improving daily environmental health at home and in the larger neighborhood. The community health education campaign, Healthy Home Healthy Child, was developed to share health information and prevention methods for air pollution, cigarette smoke, drugs and alcohol, garbage management, lead poisoning, nutrition, and pesticides.

For more information on the activities of CCCEH, visit their Web page at <http://www.mailman.hs.columbia.edu/ccceh/index.html>.

COLUMBIA CENTER FOR ENVIRONMENTAL HEALTH IN NORTHERN MANHATTAN

The mission of the Center for Environmental Health in Northern Manhattan is understanding and preventing the environmental components of disease. The four communities in northern Manhattan that are served by the center are largely disadvantaged, medically underserved, and predominantly composed of people of color. Northern Manhattan's residents are exposed to an inappropriate share of environmental hazards, ranging from those within the home (e.g., lead, pesticides, asbestos, nitrogen oxides, and carbon monoxide) to a myriad of occupational and neighborhood-based exposures, including the North River Sewage Plant in West Harlem and seven diesel bus depots. These concerns transcend boundaries and include air, water, solid waste, and other media. Thus, the objective of the center is to foster research aimed at diseases due to, or exacerbated by, this perturbed urban ecosystem.

Functionally, the center consists of three component parts, research cores, facility cores, and community outreach, each focused on different aspects of the problem. The research cores focus on (1) neurotoxicology and neurodegenerative diseases and mechanisms, whereby populations exposed to known quantities of neurotoxins suffer adverse consequences; (2) respiratory disorders, to obtain insights into the relationship between environmental exposures and respiratory disease manifestation, particularly asthma; and (3) cancer, to develop methods for determining human exposure to carcinogens and understand the relationship between environmental exposure and genetic susceptibility on cancer risk. Students participate in the activities of all of the center cores. These research activities are supported by Core laboratories and include an Exposure Assessment Facility Core, a Biomarkers Facility Core, a Trace Metal Facility Core, and a Biostatistics/Epidemiology Data Management Core. The Community Outreach and Education Program fosters partnerships with local community groups, educators, health professionals, and governmental agencies, and promotes the education of the local communities (including concerned citizens, educators, health professionals, elected officials, and the news media) on environmental health issues that affect them. More information is available at <http://cpmcnet.columbia.edu/dept/niehs/index.html>.

HARLEM HEALTH PROMOTION CENTER

The Harlem Health Promotion Center is one of the twenty-three federally funded prevention centers nationwide, and the only one which serves a predominantly African-American population in an urban setting. Its mission is to identify strategies for reducing morbidity and mortality among Harlem residents. Through partnerships with local community and business organizations, the center has become a trusted resource for people living in Harlem. The center provides a valuable resource for MSPH students through faculty expertise as well as opportunities to develop skills in program design, implementation, and evaluation in an urban setting by working as research assistants on center projects. Students are able to

apply theoretical knowledge from the classroom to real health problems that compromise the health status of the Harlem community, such as cardiovascular disease, prostate cancer, asthma, sexually transmitted disease, adolescent smoking, and youth injury and violence, as well as to gain experience in community collaboration and community-based programming and research.

INTERNATIONAL CENTER FOR AIDS CARE AND TREATMENT PROGRAMS (ICAP)

Bringing together diverse initiatives aimed at addressing the HIV/AIDS epidemic, the International Center for AIDS Care and Treatment Programs (ICAP) focuses on service delivery, research, and training/education in resource-limited settings. Faculty and staff provide support in program development, clinical issues, administration, training, monitoring and evaluation, and research endeavors. Coordinated at the Mailman School of Public Health, the program draws upon the Mailman School's broader resources, as well as those of Columbia University, to fulfill its mission.

ICAP provides support and assistance to international partners and clinical facilities through the MTCT-Plus Initiative, the Multicountry Columbia Antiretroviral Program (MCAP), the University Technical Assistance Program (UTAP), and the Columbia University–Clinton Foundation HIV/AIDS Treatment Initiative for the Dominican Republic.

Please visit <http://www.columbia-icap.org/> for further details on the initiatives coordinated through the International Center for AIDS Care and Treatment Programs.

INTERNATIONAL CENTER FOR HEALTH OUTCOMES AND INNOVATION RESEARCH (InCHOIR)

This center's vision is to improve health by advancing the science of clinical evaluative research and facilitating medical innovation through evidence-based science policy. The center's mission is to improve health care through the measurement of meaningful outcomes of medical treatment and scholarly analysis of medical innovation. The center's research objectives are to conduct clinical evaluative research, emphasizing randomized clinical trials that evaluate standard and innovative surgical therapies and medical devices; to develop new analytical methods for evaluating medical treatments; to conduct quality-of-care studies that focus on medical error reduction; to advance innovation in medicine by creating a better understanding of how new interventions emerge and are incorporated into clinical practice; to investigate the health policy implications of its research findings; to educate new investigators in health services research; and to strengthen and expand high-quality, interdisciplinary clinical evaluative and policy research at the Medical Center campus of Columbia University and NewYork-Presbyterian Hospital. For additional information on InCHOIR, please visit their Web page at <http://www.inchoir.org/>.

JEROME L. AND DAWN GREENE INFECTIOUS DISEASE LABORATORY

The Jerome L. and Dawn Greene Infectious Disease Laboratory is committed to global health through innovative research and training programs in infectious diseases. In addition to establishing methods for diagnosis, prevention, and treatment of acute outbreaks of infectious disease, Greene Laboratory scientists investigate links between infection and a wide range of chronic diseases, including autism, ADHD, obsessive-compulsive disorders, depression, schizophrenia, diabetes mellitus, and cancer. For more information on the Greene Laboratory, go to http://www.greeneidlab.columbia.edu/A_greenepages/About_greene.htm.

NATIONAL CENTER FOR CHILDREN IN POVERTY

The mission of the National Center for Children in Poverty (NCCP) is to identify and promote strategies that prevent child poverty in the United States and that improve the lives of low-income children and families. Concentrating on the links between family economic security and child development, they research policies that promote three goals: economically secure families, children entering school ready to succeed, and stable, nurturing families. NCCP has developed a national reputation for policy analysis, academic research, and demographic statistics.

To accomplish its goals, the center maintains perhaps the largest resource library focused on early childhood care and education; child and family health; family and community support; prevention of the "new morbidities"—violence, emotional and behavioral disorders, and substance abuse; cross-cutting, multistate policy analyses; demographic and evaluation research; and communications. The center's researchers assess and synthesize promising policy and program ideas to alleviate the plight of poor children and to promote these findings through public education efforts and publications, bringing them to the attention of state and local policymakers, program managers, advocates, the media, and others in the public and private sectors.

More information is available at <http://www.nccp.org/index.html>.

NATIONAL CENTER FOR DISASTER PREPAREDNESS

The National Center for Disaster Preparedness (NCDP) is an academically based resource dedicated to the study, analysis, and enhancement of the nation's ability to prepare for and respond to major disasters, including terrorism. The NCDP's particular areas of interest include readiness of the health and public health systems, health workforce and citizen readiness, disaster communications, national preparedness benchmarks, and the needs of special populations. In addition, the NCDP is concerned about the integration of preparedness efforts and the existing public health infrastructure. NCDP is a major national and international resource in disaster and terrorism readiness. The NCDP includes one of the original (CDC)-funded Academic Centers for Public Health Preparedness, initiated prior to the attacks of September 11. While based in the Mailman School

of Public Health, the only accredited school of public health in New York City, senior investigators, program planners, and experts from Columbia's Medical Center campus (medical, dental, and nursing schools, plus the NewYork-Presbyterian Hospital) play crucial roles in the center's current and future work. To learn more, visit the center's Web page at <http://www.ncdp.mailman.columbia.edu/>

NEW YORK AND NEW JERSEY PUBLIC HEALTH TRAINING CENTER

The New York and New Jersey Public Health Training Center is one of fourteen national centers supported by the Health Resources and Services Administration (HRSA). The center is a partnership of the three accredited schools of public health in New York and New Jersey, including the Mailman School of Public Health, in collaboration with their respective city, state, and local health departments. The mission of the center is to enhance the ability of the current and future public health workforce to effectively deliver the Essential Public Health Services to communities throughout New York and New Jersey. The goals of the center are to assess the needs of the current New York and New Jersey public health workforce, facilitate access to existing training, and develop new training programs to improve the skills, diversity, and cultural competence of the professional health department workforce. Visit their Web page at <http://www.nynj-phtc.org/about.cfm>.

Partners in Public Health

In addition to research collaboration with other units of the University and NewYork-Presbyterian Hospital, the School is engaged in research collaboration with a number of health agencies and community-based organizations. The School's relationship with many of these organizations is multifaceted, including collaborative research, service, and training activities. Some of the most prominent collaborations, and ones in which the School has formal research agreements, are described below.

NEW YORK CITY DEPARTMENT OF HEALTH AND MENTAL HYGIENE (NYCDOH)

The partnership between the School and the New York City Department of Health (NYCDOH) began in the 1920s. This collaboration—between the largest local health department in the United States and one of the oldest schools of public health—has flourished over the years. Today, the collaboration includes joint research activities and a number of service and training programs.

Collaborative research activities include an assessment of health needs in the communities of Harlem and Washington Heights/Inwood, and projects focusing on areas of particular concern to inner-city minority populations such as infant mortality, child health, tuberculosis control and tracking, diesel exhaust, prenatal care,

pediatric ambulatory care services, child immunization status, lead poison prevention, asthma causes and prevention, family planning, and violence.

The School has a long tradition of supporting projects that provide technical assistance to agencies or organizations that provide health services to populations in need. Locally, this tradition has taken the form of strong ties with Departments of Health in both New York City and New York State. Equally strong ties have been developed over the years with organizations in a number of developing countries. Examples of each of these are provided below.

Beginning with the first head of the School in the 1920s, who also served as Commissioner of Health for New York City, a partnership between the School and the NYCDOH was strengthened in 1939 by a joint agreement to construct a building on the corner of 168th Street and Broadway to house the School and create a municipal health center for the residents of Washington Heights.

This partnership has grown through the years and is now a model collaboration program—designated and funded as a formal model program in response to the Institute of Medicine's recommendation for closer ties between academic public health and public health practice. The collaboration now includes joint appointments, an assessment program to evaluate current models of the community-based outreach, and a violence prevention program initiated as part of the Statewide Violence Prevention effort.

The School and the NYC DOHMH have initiated a series of joint projects aimed at addressing the objectives set forth in the "Healthy People 2010" initiative, which include assessment of health needs in the communities of Harlem and Washington Heights/Inwood, and projects focusing on areas of particular concern to inner-city minority populations, such as infant mortality, child health, tuberculosis control, prenatal care, pediatric ambulatory care services, child immunization status, lead poison prevention, family planning, and violence.

NEW YORK STATE DEPARTMENT OF HEALTH

The School has also had a long history of collaboration with the New York State Department of Health (NYSDOH) in research, service, and training programs. Faculty and student research interns are engaged in studies and analyses on topics such as birth weight trends, HIV transmission in breast milk, childhood injury problems in New York City, evaluation of family planning, and community-based immunization services. The Heart of Harlem and Washington Heights/Inwood Healthy Heart Programs use multitargeted approaches to reduce morbidity from cardiovascular disease, including outreach to the community through churches, businesses, schools, and radio stations. Collaborative projects with the NYSDOH and the School's Department of Population and Family Health have included maternal and child health internships, analysis of low birthweight trends and ethnic differences in lifestyle during pregnancy, pregnancy outcomes in native-born and foreign-born Puerto Ricans, prenatal care in Central Harlem, HIV transmission in breast milk, childhood injury

problems in New York City, evaluation of family planning, and community-based immunization services. The Harlem Center for Health Promotion is collaborating with the NYSDOH and NYCDOH on policies to prevent tobacco sales to minors.

NEW YORK STATE PSYCHIATRIC INSTITUTE

New York State Psychiatric Institute has a long and accomplished history and continues to work at the leading edge of today's discoveries in mental health. The School is a collaborator with the HIV Center for Clinical and Behavioral Studies. This center, funded by a large grant from the National Institute of Mental Health, develops and analyzes community health education, prevention, and training programs for the high-risk community served by the Columbia University Medical Center.

The School's Department of Biostatistics serves the statistical needs of researchers at the New York State Psychiatric Institute through access and training in state-of-the-art statistical techniques as needed for optimal use of their research data. This includes teaching statistics to researchers and postdoctoral fellows and providing short-term consultations on data analysis and design issues for grant submission and manuscript preparation. Methodological research focuses on such areas as analysis of longitudinal studies with generalized linear models and variance components models, survival analysis, models for the analysis of categorical data, and resampling techniques.

HARLEM HOSPITAL CENTER

Harlem Hospital Center, founded in 1887, is a progressive acute care general teaching hospital offering primary, secondary, and tertiary care for children and adults living in the central Harlem area. The main complex consists of seven buildings. Strategically located satellites extend the hospital out into the community. Managing over half a million annual patient visits, the hospital functions as the primary health care provider for a catchment area of 3.5 square miles. Since 1968, Columbia University has been responsible for all professional medical services in this hospital and nominates its professional staff. The Mailman School is cooperating in demonstration services, applied training, health promotion and disease prevention programs, and public health research activities at the Hospital Center and the surrounding community.

The Department of Environmental Health Sciences is collaborating with the Harlem Hospital Center and the Harlem Asthma Research Team, carrying out an intervention trial focused on reducing exposures to indoor allergens among asthmatic children in northern Manhattan and the South Bronx. The study incorporates integrated pest management methods to reduce cockroach and rodent populations with minimal use of toxic pesticides. Effectiveness will be assessed in terms of reduced exposures, respiratory symptoms, and allergen-specific responsiveness.

Another collaborative project with Harlem Hospital is the Charles P. Felton National Tuberculosis Center, one of three "model" centers

funded by the Division of Tuberculosis Elimination of the CDC. It is a partnership of Columbia University Medical Center, including the School of Public Health, the New York City Health and Hospitals Corporation, and the NYCDOH, with a mandate to test innovated programs for the treatment of tuberculosis and latent tuberculosis infection (LTBI), and to develop and deliver education and training materials for professionals. The unique characteristics of the Harlem community have compelled the center to focus on initiatives tailored to fit its needs, such as providing comprehensive social support to reduce psychosocial barriers to treatment completion; developing and implementing new models of care such as directly observed therapy and medication supervision by peer workers; and educating and training community physicians, social workers, traditional healers, and others who provide care to the community.

In addition to core model center funding, the Tuberculosis Center receives research funding through the National Institutes of Health, along with the Tuberculosis Epidemiological Studies Consortium and the Tuberculosis Trials Consortium, both funded by the CDC. Current research activities include a randomized clinical trial testing the impact of peer-worker support on adherence to latent tuberculosis infection (LTBI) treatment; physician attitudes toward LTBI treatment and the impact of BCG vaccination; the impact of expedited clinic procedures on patient outcomes; a randomized clinical trial testing a once-weekly, twelve-dose treatment for LTBI versus traditional nine-month treatment; and a study of immunological and immunogenetic factors in tuberculosis and LTBI.

NEW YORK INJURY CONTROL RESEARCH CENTER

The New York Injury Control Research Center represents a multifaceted approach to counter the complex public health problem of violence. The center is comprised of representatives from both the state and city health departments, along with the Mailman School and the State University of New York (SUNY). The mission of the center is to facilitate and support multidisciplinary academic, public health, and community-based research to help reduce morbidity and mortality from intentional injury in New York State.

NEW YORK ACADEMY OF MEDICINE

The School's Center for Violence Research and Prevention has research partnerships with a number of agencies, including the New York Academy of Medicine, to focus on the places and populations at risk for violence. The center studies the antecedents, consequences, and social control of violence. Violence in families, racial disparities in juvenile justice, the waiver of juvenile offenders to adult courts, gun use among adolescents, the dynamics of crime and drugs in economically distressed urban neighborhoods, participation of women in drug selling, and youth gangs are among the center's areas of inquiry.

The Harlem Health Promotion Center is working with the Urban Research Center of the New York Academy of Medicine on a study of asthma in children in Head Start programs in northern Manhattan.

ACADEMY FOR EDUCATIONAL DEVELOPMENT

The Harlem Health Promotion Center and the Academy for Educational Development (AED) are carrying out a joint research project to identify and ameliorate gaps in the provision of emergency contraception to adolescents.

International Collaborative Research

The School has a strong track record in leading global health research projects, in collaboration with international health and development agencies, and with local governments, universities, and NGOs. In recent years, the School has greatly expanded its activities in global health, undertaking research that addresses infectious diseases, including HIV/AIDS, STDs, tuberculosis, and emerging infections; maternal and child health; forced migration; the cultural construction of sexuality; health and human rights; reproductive health; environmental health effects from exposures to arsenic, radiation, and lead; and comparative analyses of health care policies. In addition, the School carries out service and training programs in a large number of countries.

Partial List of Formal Research Agreements with External Organizations

Aaron Diamond AIDS Research
ABT Assoc. Inc.
Academy for Educational Development
Actuarial Research Corporation
Albany Medical College
Alianza Dominicana
Arizona State University
Associação Brasileira Interdisciplinar de AIDS
Baruch College Fund
Boston Medical Center
Bronx-Lebanon Hospital Center
Center for Court Innovation
Central Vermont Community Health Programs
Children Now
Children's Medical Center
Cicatelli Associates Inc.
Community Action Agency
Community Action Project
Comprehensive Rural Health Project
Connecticut Voices for Children
Department of Health and Human Services
Duke University
Economic Opportunity
Education Development Center
Emory University
Family Health International
Fox Chase Cancer Center
George Washington University
Hamlin Fistula Welfare Center
Harlem Congregations
Head Start of Greater Dallas
Health Research, Inc.

Hesperian Foundation
Human Resource Agency
International Center for Migration
IPAS, Inc.
Johns Hopkins University
John Snow International Research
Kunri Christian Hospital
Laguna Division of Early Childhood
Lewin Group
Linangan NG Kabihan Inc.
Lincoln Action Program
Mandela School of Medicine, University of Natal
Manpower Demonstration Research Corporation
Marathon County Child Development Center
Maui Economic Opportunity Inc.
MD Medical Research Institute, Inc.
Monash University
Montclair State University
Montefiore Medical Center
Mount Sinai/NYU Health System
Mount Sinai School of Medicine
Myriad Genetic Lab Inc.
National Development and Research Institute, Inc.
New York Academy of Medicine
New York Blood Center
New York City Department of Health
New York Injury Control Research Center
New York Medical College
NewYork-Presbyterian Hospital
New York State Department of Health
New York State Psychiatric Center
Northern Manhattan Improvement
Orange County Children and Parents Center
Palm Beach County Head Start
Profamilia, Santo Domingo
Queens Comprehensive Perinatal Center
Research Foundation for Mental Hygiene
Research Foundation of CUNY
Research Foundation of SUNY
Rocky Mountains Services
Save the Children
Shimantik Urban Primary Care Center
Solu Hospital Development Committee
South Africa Medical Research Council
Southern Maryland Tricounty
Southwest Human Development Inc.
St. Luke's-Roosevelt Hospital
St. Mary Community Action Center
St. Vincent's Hospital and Medical Center
Suffolk County Perinatal Center
Teachers College
Trenton Head Start
Trustees of Tufts University
Uganda Virus Research Institute
Umatilla Morrow Head Start, Inc.
University Autonomo Santo Domingo
University of Capetown
University of Illinois
University of Medicine and Dentistry of New Jersey
University of Minnesota
University of Pittsburgh
University of Southern California
University of Toronto
University of Washington
West Harlem Environmental Action Project

Affiliated Columbia University Medical Center Institutions

Columbia University Medical Center campus is part of one of the world's foremost centers for patient care, biomedical research, and

health sciences education and training. The Columbia University Medical Center consists of the College of Physicians & Surgeons; the Schools of Dental and Oral Surgery, Nursing, and Public Health; and other health profession programs and institutes. The Medical Center, the nation's first, was created in 1922 as a permanent affiliation between the Presbyterian Hospital and Columbia University's College of Physicians & Surgeons. Shortly afterward, the Medical Center became affiliated with the New York State Psychiatric Institute, the oldest psychiatric research facility in the country. Today, in addition to the educational programs, the Medical Center includes the NewYork-Presbyterian Hospital clinical facilities, the New York State Psychiatric Institute, the Harkness Eye Institute, the Neurological Institute, and the NYC DOHMH Upper West Side District Health Center.

Apart from the University-hospital complex on the Medical Center campus, the Medical Center is also closely networked with an ever-expanding number of affiliated hospital centers in New York City, the greater metropolitan New York/New Jersey area, upstate New York, and Connecticut.

The facilities available at the Medical Center and its affiliated institutions amount to a "medical mall" second to none in the United States. Its facilities have been the site of numerous important advances in the detection, treatment, and prevention of diseases; and it has continued to expand its leading-edge technologies across a broad spectrum of therapeutic areas over the years.

The following is a selection of the large number and variety of educational programs sharing the combined resources of the Medical Center and its affiliated hospitals.

GERTRUDE H. SERGIEVSKY CENTER

The Gertrude H. Sergievsky Center, established in 1977, focuses on developmental disorders of the nervous system that affect humans throughout life from the time of formation by genetic inheritance at conception until the day of death. The center's main focus has been the integration of epidemiology with genetic analysis and clinical investigation to explore all phases of diseases of the nervous system. Fundamental to this process has been the continuing organizational approach to these complex disorders. Investigators in the Sergievsky Center have essentially grouped themselves into several sections that conduct independent research, yet overlap extensively with the work of other colleagues and collaborators.

Some of the main research includes Alzheimer's disease and the aging nervous system; cognitive neuroscience to establish brain behavior relationships in healthy and diseased states; family studies and genetic epidemiology studies of epilepsy, Alzheimer's disease, Parkinson's disease, essential tremor, and other neurological disorders; movement disorders, with a large-scale genetic epidemiologic study of essential tremor in the Huntington's Disease Clinic; a new study of the genetics of Parkinson's disease; perinatal epidemiology and neurodevelopmental disorders; and efforts on stroke and cerebrovascular

disease. Combining discoveries in molecular biology and genetics with large-scale epidemiologic approaches, Sergievsky Center investigators hope to identify fundamental causes for some of these nervous system disorders, with the long-term goal of successful intervention.

CENTER FOR THE STUDY OF SOCIETY AND MEDICINE

The Center for the Study of Society and Medicine is an interdisciplinary institution, examining the complex interactions between medicine and society. Center faculty use historical, sociological, literary, and philosophical methods to analyze clinical practices and biomedical research to broaden the training for health care professionals. Through an understanding of medicine in its full social, cultural, and ethical context, the center works to inform patient care and public policy. The center conducts an externship program on Human Rights and Medicine for fourth-year medical students at the College of Physicians & Surgeons, and an elective on immigrant health care and care near the end of life. The center faculty collaborates in the History of Public Health and Medicine program in the MSPH Department of Sociomedical Sciences. The center selects up to four first-year medical students for Simon Rifkind Summer Fellowships to study issues of social medicine.

NAOMI BERRIE DIABETES CENTER

The Naomi Berrie Diabetes Center is located in the new Russ Berrie Medical Science Pavilion on the Health Sciences campus. The center combines both patient care and research. It offers state-of-the-art multidisciplinary and humanistic clinical care for both adults and children with diabetes mellitus. Educational, nutritional, and psychosocial counseling focus on helping the patient and family to cope effectively with diabetes management. Basic and clinical research programs in the center focus on the biologic basis of diabetes and the prevention of Type 1 and Type 2 diabetes, as well as diabetic complications. Emphasis is on translational or bridge research enabling basic research discoveries to move as rapidly as possible to the patient.

MORRIS W. STROUD III CENTER FOR STUDIES ON QUALITY OF LIFE

Renamed in 1995, the Morris W. Stroud III Center for Studies on Quality of Life includes its former identity, the *Center for Geriatrics and Gerontology*, as well as the *Geriatric Educational Center*. Its administrative relationships are with the Faculty of Medicine of Columbia University and the New York State Psychiatric Institute. The center's activities include conducting fundamental studies on the theory, measurement, and mechanisms of quality of life in health, illness, and aging; testing theory in population surveys (especially in northern Manhattan in New York City and in London, England); evaluating and developing assessment techniques and clinical practice standards in acute, long-term, and home-based care sites; training researchers and clinicians in applications; and fostering interdisciplinary collaboration on quality-of-life issues.

INSTITUTE OF HUMAN NUTRITION

The Institute of Human Nutrition is an interdisciplinary unit whose mission is to study all aspects of nutrition that relate to human health. The institute functions to coordinate academic nutrition activities being carried out within many units (faculties, departments, centers) within the Columbia University system. Through its M.S., Ph.D., and postdoctoral programs, the institute trains individuals for scholarly activities in university and research centers that are in the forefront of the movement to advance nutrition as a health science. In collaboration with the institute, the Mailman School of Public Health conducts research and academic activities that focus on the role of nutrition in health promotion and disease prevention, and on the translation of nutrition information into behavior, medical practice, and policy.

HERBERT IRVING COMPREHENSIVE CANCER CENTER

The Columbia Presbyterian Medical Center has had a National Cancer Institute-designated Cancer Center since 1972. The objectives of this Cancer Center are (1) to support and facilitate basic laboratory and clinical research related to cancer, and foster collaborative research projects between epidemiologists, laboratory scientists, and clinical investigators; (2) to promote a targeted research program in human cancer causation and prevention that interfaces with other research activities of the center; (3) to provide education and training in cancer research for scientists, clinical investigators, and health professionals at all levels; and (4) to promote the dissemination of cancer-related clinical and technical expertise and to foster cancer control activities in the community. A specific emphasis of the center is the use of concepts and methods in cellular and molecular biology to enhance understanding of the etiology and pathophysiology of human cancer, and to develop more effective strategies for cancer prevention, diagnosis, and treatment.

HIV CENTER FOR CLINICAL AND BEHAVIORAL STUDIES AT THE NEW YORK STATE PSYCHIATRIC INSTITUTE

The Mailman School of Public Health is a collaborator in the HIV Center for Clinical and Behavioral Studies at the New York State Psychiatric Institute. This center, funded by a large grant given by the National Institute of Mental Health, develops and analyzes community health education, prevention, and training programs to change high-risk behaviors among many different populations including women and children, intravenous drug users, gay men, and heterosexual men and women.

RICHARD AND HINDA ROSENTHAL CENTER FOR COMPLEMENTARY AND ALTERNATIVE MEDICINE

The Richard and Hinda Rosenthal Center for Complementary and Alternative Medicine was established in 1993 as one of the first comprehensive programs in alternative medicine at an academic institution. Its primary objectives are to foster and conduct research to determine the efficacy and safety of alternative and complemen-

tary remedies and practices, and probe their underlying mechanisms; develop curriculum and training programs to promote wider knowledge, greater understanding, and credible scientific efforts in alternative and complementary medicine; and become an international leader in providing information to practitioners, researchers, and the public about alternative and complementary therapies.

The center is also the home of the *Center for Complementary and Alternative Medicine Research in Women's Health*, one of ten specialty centers in alternative medicine funded by the National Institutes of Health, and is a collaborative effort involving faculty from the College of Physicians & Surgeons, the School of Nursing, and the Mailman School of Public Health. Broad areas of interest include botanical medicine, ethnomedicine, mind/body medicine, manual therapies, and nutritional therapies. Other issues of concern include those of minority women and those involving appropriate methodologies for alternative medicine research. Specific women's health areas receiving initial focus include breast cancer, menstrual disorders, menopausal symptoms, uterine fibroids, osteoporosis, and pregnancy and childbirth.

IRVING CENTER FOR CLINICAL RESEARCH

The Irving Center for Clinical Research is a core facility that provides resources to clinical investigators to stimulate multidisciplinary, intensive investigation of human disease and clinical pharmacology. It includes adult and pediatric units, a metabolic diet kitchen, an outpatient unit, a core laboratory, and a computer facility. The center is designed so that acutely ill as well as ambulatory patients can be studied. Use of the center is open to qualified faculty members of the clinical and basic science departments of the College of Physicians & Surgeons upon approval of the advisory committee. Although the primary purpose of the facility is concerned with research, it also provides unusual opportunities for undergraduate and postgraduate training in clinical investigation.

CENTER FOR MEDICAL INFORMATICS

The Integrated Academic Information Management System (IAIMS) is considered a model information system for a medical center that combines academics and health care. The National Library of Medicine chose the Columbia University Medical Center as one of the first two sites to receive funding for full-scale implementation of an integrated information system. The University's Center for Medical Informatics, with the hospital's Clinical Information Services Department, provides implementation support for the IAIMS network, which integrates research, clinical care, library, academic, and administrative information systems. The IAIMS information network unites students, faculty, and staff on the Health Sciences campus, with links to the downtown campus as well as the hospital's neighborhood health clinics and the Allen Pavilion. Authorized users can access lab results and other clinical decisions, consult library references, schedule surgery, code medical records, view medical charts, send electronic mail, use word processing, and

carry out many hospital administrative functions. A Ph.D. program in medical informatics is offered through the Graduate School of Arts and Sciences.

Affiliated Health and Academic Resources

The Mailman School of Public Health is committed to the importance of public health service as an essential component of its mission. Service is an integral component of the Mailman School's approach to public health education as reflected in the mission statement on page 2, sharing priority with teaching and research, and related closely to those two components. The strong commitment of the School to public health service is clearly demonstrated in the collective activities of the School and its departments and centers, in the activities of its individual faculty, and in the explicit focus of many of the School's research projects on topics that are directly applicable to the delivery of public health services.

The service programs of the School focus primarily on the most vulnerable and underserved populations—the homeless, refugees, communities of color, women, the poor and uninsured, and children. The Mailman School carries out a variety of direct service activities and collaborates with other organizations in the provision of services. The extensive involvement of the School in direct service delivery programs is admittedly unique. Few schools of public health see one of their roles as being the provision of health care to populations in need. However, our point of view is that this kind of involvement on the part of schools of public health can be extremely important. In the same way that traditional clinical activities play a crucial role in medical and nursing education, and clinical research is an accepted activity among faculty in medical and nursing schools, one can make an equally strong case for the importance of service delivery programs for teaching in schools of public health and for faculty clinical research. If one of the goals of public health education is to train students who will assume positions as managers of service delivery programs, then service programs run directly by schools of public health can play an essential role in the training of these students by providing opportunities for potentially valuable practical training. Similarly, school-sponsored public health practice or service programs provide a potentially valuable setting for health services-related research that can be carried out by school faculty. Therefore, the Mailman School's involvement in sponsoring service delivery programs represents a considerable strength.

The Mailman School plays an important and acknowledged role within Columbia University in linking research and scholarship to the urgent problems of communities, to the development of solutions and services to meet those problems, and to the strengthening of the interdisciplinary relationships necessary to address the complex issues involved. Examples of such projects include the following:

Developing Workable Solutions for Improving Health Insurance Coverage for Working Americans
Drug Use and Course of Homelessness Among Single Adults
Finding Common Ground in the Era of Welfare Reform and Managed Care
Health, Wealth, and the City: Records of New York's Department of Health and the Nation's Urban Landscape
Investigation of NYPD Stop and Frisk Practices
Metropolitan New York Registry of Breast Cancer Families
New York City's Medicaid Managed Care Initiative
Northern Manhattan Adherence Initiative
Northern Manhattan Start Right Program
Northern Manhattan Women and Children HIV Demonstration Project
Policies to Support Low Income Working Families in New York
Reducing Indoors Allergen Exposures in Northern Manhattan
Urban Air Toxic Exposures of High School Students
Women Living with HIV in Two Time Periods

SOME AGENCIES THAT HAVE FORMAL SERVICE PROJECT CONTRACTS/AGREEMENTS WITH THE MAILMAN SCHOOL

Alianza Dominicana
American Legacy Foundation
American Museum of Natural History
Asian American Network for Cancer Awareness Research and Training (AANCART)
Association of Schools of Public Health
Ben Gurion University of the Negev
CARE
Centers for Disease Control and Prevention
City University of New York
Cornell University
Engender Health
Family Health International
Federation Internationale de Gynecologie et Obstetrique
Harlem Congregations for Community Improvement
Harlem Hospital
Indian Institute of Management at Ahmedabad
International Rescue Committee
John Snow International
Makere University, Kampala, Uganda
Management Institute for Clinical Chiefs (New York)
Milbank Memorial Fund
National Head Start Program
National Medical School of Mali
New Jersey Department of Health and Social Services
New York Academy of Medicine
New York City Board of Education
New York City Department of Health
NewYork-Presbyterian Hospital
New York State Department of Health
Planned Parenthood of New York City
Save the Children
State University of New York at Albany School of Public Health
State University of New York at Stony Brook Medical School
Thusano School of Public Health, South Africa
Uganda Ministry of Health
UNFPA
UNICEF
University of Medicine and Dentistry of New Jersey
University of Natal
West Harlem Environmental Action, Inc. (WEACT)
Women's Commission for Refugee Women and Children International
World Health Organization