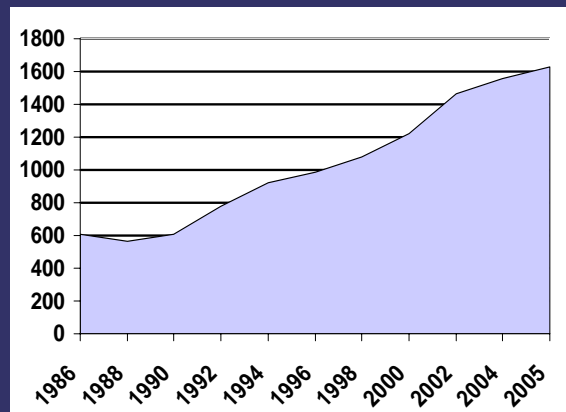




Columbia University
MAILMAN SCHOOL
OF PUBLIC HEALTH

STATE OF THE SCHOOL 2005 – 2006

Number of Applicants (1986 – 2005)



2005 Applicant Snapshot

- 1626 Total Applicants from:
 - 68 Countries
 - 43 States (highest numbers from NY, CA, NJ)



Columbia University
MAILMAN SCHOOL
OF PUBLIC HEALTH

Student Body Composition

Total Number of Students: 915

MPH: 666

MS: 57

DrPH: 56

PhD: 136

US Minority: 32%

Asian: 15%

Black: 10%

Hispanic: 7%

International Students: 12%

Special Students from Tulane: 25



Student Recruitment Activities

- Participated in 33 national recruitment events, including at historically black colleges and other minority-serving institutions
- Recruitment events included NYC Department of Health and Mental Hygiene and HIV/AIDS Service administration
- More than 210 accepted applicants attended Admitted Students Day in April 2006
- Reduction in MPH applicant processing time due to successful implementation of paperless student application system known as "Matrix"



Employment Demographics by Industry: 2005 Masters Graduate Survey Results

- 53% of Masters graduates work at public health agencies
- 24% work at academic and research institutions
- 13% work with consulting firms, pharmaceutical companies and other for profit organizations
- 10% are with other non-profit organizations



Student Financial Aid

- Financial Aid Office serves more than 1,000 applicants and students and administers \$12.5M in federal, state, public and private student aid annually
- 71% of students receive some form of financial aid via loans, grants, and scholarships
- The average need-based financial aid grant was \$8,250 toward a \$47,000 MPH degree



University Recognition of Teaching Excellence

- Melissa Begg (BIO) will receive 2006 University Presidential Teaching Award (one of five)
 - The first statistician to receive this Award
- Since 2000, four Mailman School faculty have received the Award
 - Past Mailman School recipients:
 - Sharon Schwartz (EPI), 2000
 - Amy Fairchild (SMS), 2003
 - Bruce Link (EPI/SMS), 2005
 - Mailman School leads Columbia's professional schools with most awardees



MSPH and CUMC Teaching Awards and Honors

- Melissa Begg (BIO) will receive the 2006 Mailman School Teaching Excellence Award
 - First biostatistician to receive award and first to win Teaching Award from the University and School in same year
- CUMC Glenda Garvey Teaching Academy inaugural class of 12 fellows includes:
 - Sharon Schwartz (EPI)
 - Michael Sparer (HPM)
 - Melissa Begg (BIO)



Global Health Track Launched

- **Successful 2005 launch:**
 - In June, first cohort will begin six-month practicum in South Africa (University of KwaZulu-Natal, CAPRISA) and Bangladesh (BRAC)
 - Introduction to Global Health course enrolled over 60 students
 - For fall 2006, over 200 applicants for 20 spots; five departments will enroll students



New Methods for Learning



- **Core Courses in Epidemiology and Environmental Health Sciences use Web-based Streaming PowerPoint technology to enable students to listen to lectures and review course material outside of class**



- **Core Course in Health Policy and Management uses podcasting technology to enhance accessibility and provide portability of lectures**



Dean's Awards for Innovation in the Curriculum

Supports new course development, teaching innovation, or enhanced design or delivery (total of \$40,000 available)

- 2005-2006 Award Recipients:
 - Lydia Zablotska and Dan Herman:
“EpiVille – Interactive Web Modules in Epidemiology”
 - Joyce Moon Howard:
“Community Based Participatory Research”
 - Paul Brandt-Rauf, Bob Fullilove, Mark Becker, and Meredith Golden:
“Development of Public Health GIS Course” a collaboration with the Earth Institute
 - Melissa Begg, Roger Vaughn and Bruce Levin:
“Enhancing the Core Course in Biostatistics”
 - Tom Ference and Paul Thurman:
“Comparative Strategy Analysis”



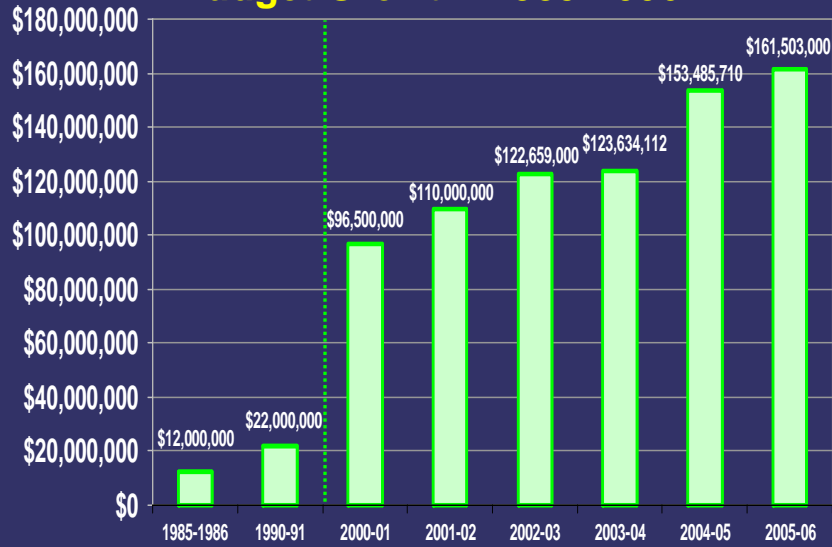
Calderone Research Prize for Junior Faculty

2005-2006 Award Recipients (Total of \$50,000 available annually):

- Mark Padilla (SMS)
“Migrant Male Tourism Workers and HIV/AIDS in the Dominican Republic”
- Naa Oyo Kwate (SMS)
“Exploring the Experience of Internalized Racism Among African Americans”
- Kimberley Isett (HPM)
“An Exploration of the Salience of Research to Practice Networks”
- Matthew Neidell (HPM)
“The Economic Value of Teeth: Evidence from Water Fluoridation”
- Prakash Gorroochurn (BIO)
“A New Method to Correct for Population Stratification in Genetic Case-control Association Studies”
- Shuang Wang (BIO)
“Statistical Methods in Detecting Gene-gene Interaction in the Presence of Genotyping Errors”



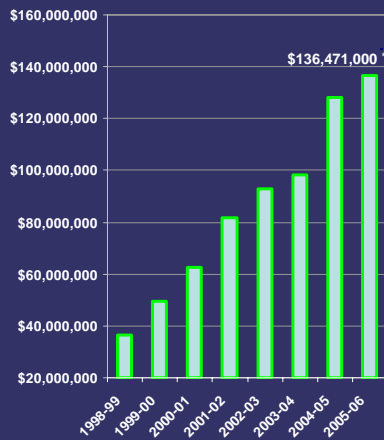
Budget Growth: 1985-2006



*Projected as of May 2006

Columbia University
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Sponsored Research – Total Awards 1998 – 2006



* Projected as of May 2006

- 3rd largest recipient of sponsored support for all schools of public health

- 2nd largest recipient of sponsored support for all Schools at Columbia

- Total of 450 proposals submitted by MSPH investigators in FY' 05

Columbia University
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Budget Challenges

- School's Projected FY 05-06 Budget = \$161 million
- Project a shortfall of \$2M for this fiscal year. Shortfall represents 1.2% of School's total budget
- The shortfall is a result of our depleting our central funds for building construction, a decrease in ICR returns, insufficient reserve funds, and increased common costs
- Strategic Management process resulted in a three-year action plan to balance the budget through cost containment, revenue enhancements, and stepped-up fundraising



Building Campaign Update

- Funds raised through 2005 totaled \$20M
- \$20M Tribute Fund, launched by President Lee Bollinger, has raised \$17M since March 2006:
 - Columbia University commitment toward renovation totals \$10M, including most recent contribution of \$5M to the Tribute Fund
 - Key Tribute Fund Gifts in 2006
 - Harriet Heilbrunn: \$5M
 - Al & Gail Engelberg: \$1M
 - Norma Hess: \$1M
 - Phyllis Mailman and Family: \$1M



Hess Student Commons Opens in 2005



Mailman School's New Online Newsletter

- Launched in December 2005, *At the Frontline* provides a vehicle to deliver timely news to a broad audience
- Provides flexibility to cover our research, teaching, and service initiatives, faculty and student news, events, and more
- Distributed to more than 7,500 Mailman School alumni, friends, faculty and staff, and other public health professionals



Steering Committee Updates

- **Compensation for Teaching**
 - Agreement reached with Policy Advisory Committee (PAC) on guidelines for, and levels of, compensation for teaching, with the few remaining details to be finalized this month
 - Focuses on classroom instruction of MPH core courses and departmental required courses for masters students
 - Guidelines will take effect Fall 2006 and will be fully phased in over three years
 - Steering Committee will send the final guidelines to the faculty later this month
- **Template for Faculty Letters of Hire**
 - Agreement on the key elements to be included in letters of hire for full time faculty with a primary appointment in Mailman School



Update on Diversity Initiatives

- **Diversity-related accomplishments:**
 - Increase in Black and Latino MPH students from 14% in 2003 to 18% in 2005
 - Faculty subcommittee completed final report
 - Faculty representation on CU Professional School's Diversity Council
 - More than 250 attended the lecture by Professor Claude Steele of Stanford University, one of the foremost experts on race, gender, and stereotyping. Hosted by the Student Diversity Subcommittee



Staff Awards for Excellence

- 11 receive Staff Awards for Excellence
- New awards build on Staff Diversity Subcommittee recommendations to enhance staff recognition



Yasmin Davis (SMS)
Ann Hutzelmann (EHS)
Lee Marsi (EHS)
Nadine Nader (SMS)
Andrew Thompson (ICAP)
Marvin Walton (PFM)

Marlyn Delva (OSA)
Leslie McHale (BIO)
Sonia Montiel (EPI)
Ruben Santiago (PFM)
Liliane Zaretsky (EPI)



**Part 2:
DEPARTMENT HIGHLIGHTS**



Department of Biostatistics



Teaching and Training Initiatives

- Statistical Genetics launched new teaching and training initiatives:
 - MS in Statistical Genetics
 - Training grant in genetic analysis methods development and analysis of common disease data



Statistical Genetics Research Support

- Collaborator on one of the largest and most extensive programs to study childhood genetics and adolescent-onset epilepsy
 - Discovered first gene for common form of childhood/adolescent onset epilepsy
 - Identified gene for childhood petit mal epilepsy
- Research showed familial/genetic link to complications of Type 1 diabetes
- Genetic Analysis Infrastructure Development:
 - Developed an interactive Web-based genetic analysis database
 - Created computer simulation tools for testing and developing hypotheses on the origin and inheritance of human disease



Statistical Analysis Center

- Ongoing NIH-funded Randomized Clinical Trials (RCT)
 - Warfarin vs. Aspirin for heart failure and stroke: 69 sites in US and Canada and 70 sites in Europe
 - High Dose Coenzyme Q10 for ALS
 - Acute Ischemic Stroke
- Advanced RCT designs
 - Developed innovative two-stage designs and selection procedures that reduce follow-up and patients required for Phase II trials
- MSPH and CUMC Collaborations
 - Statistical and Data Management operations for 12 NIEHS P-30 Center studies and eight other epidemiological projects



Department of Environmental Health Sciences



Superfund Basic Research Program on the Health Effects and Geochemistry of Arsenic and Manganese

- A multidisciplinary collaboration of EHS, EPI, University faculty and local Bangladeshi institutions:
 - Currently in its sixth year, re-funded by NIEHS at \$16.7M for another five years
 - Developed first dose-response for arsenic toxicity from drinking water, using individual exposure data
 - Demonstrated adverse effects of arsenic and manganese on the cognitive development of children in Bangladesh
 - Decreased arsenic exposure among 70,000 Bangladeshi via educational activities, well-switching and deep well interventions



Superfund Project, continued

- Identified folate deficiency as risk factor for impaired arsenic metabolism (and hence increased toxicity); folate supplementation helps reverse effects
- Future Plans:
 - Examine additional health effects from arsenic exposure in Bangladesh cohort (CV, pulmonary)
 - Expand Bangladesh remediation program to 250,000 inhabitants in surrounding areas
 - Examine effects of arsenic and manganese on cognitive development in US children
 - New Research Translation Core to assist public agencies in NY, NJ, NH, and ME deal with arsenic and manganese in groundwater





Columbia Center for Children's Environmental Health (CCCEH)

- Since its establishment in 1998, CCCEH has received funding of \$20.8M from government and private groups
- Cohort study in northern Manhattan and the South Bronx (>700 mother/child pairs) revealed:
 - High prenatal exposure to air pollutants associated with >2x greater risk of cognitive development delay at age 3
 - High prenatal exposure to pesticide chlorpyrifos associated with psychomotor and cognitive delay and symptoms of attention disorders at age 3

CCCEH, continued

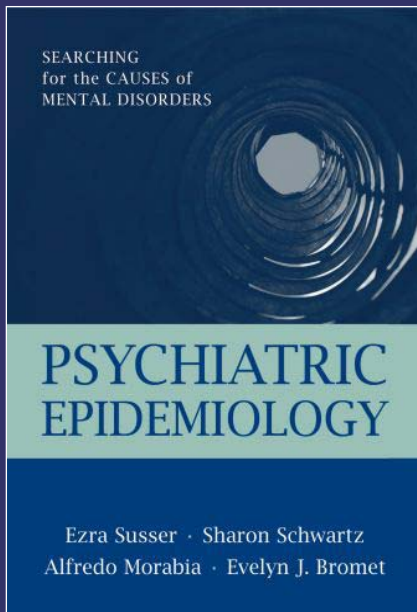
- High prenatal exposure to air pollutants increases risk of precursor symptoms to asthma
- >45% of 3-year-olds are overweight or at risk for being overweight and at greater risk for developing asthma
- Chromosomal aberrations (a biomarker of potential cancer risk) in newborns associated with prenatal exposure to air pollution
- Ongoing Integrated Pest Management interventions and educational campaign with the West Harlem Environmental Action (WE ACT) organization and other community groups
- Future plans include cohort follow-up and review of gene-environment interactions



Department of Epidemiology



New Arrival to the Mailman Bookshelf



- The first authored textbook on psychiatric epidemiology in more than 30 years:
 - Describes the study of risk factors as causes of mental disorders
 - Investigates biologic, genetic, or social causes of mental disorders and statistical analysis of study results
 - Explores some of the problems involved in studying dynamic processes and other complex casual relationships



Oral Infections and Vascular Disease

- The INVEST and INVEST II Epidemiology Study focuses on the link between severe periodontal disease and cardiovascular disease:
 - Findings link periodontal infections to atherosclerosis
 - NIDCR/NIH cited these study results to Congress as one of five most significant scientific advances in 2005
 - Received \$7M from NIDCR to run through 2011
 - Led by MSPH faculty in partnership with Neurology and College of Dental Medicine



Arsenic and Cancer Risk in Bangladesh

- \$10M in funding from NCI for study aimed at reducing cancer risk among those exposed to arsenic in drinking water
- A collaboration of EPI, EHS, other MSPH faculty, the Irving Comprehensive Cancer Center and the International Center for Diarrheal Disease Research in Bangladesh
- Work underway on chemoprevention trial of 4,500 adults exposed to very high levels of arsenic



Centre for the AIDS Program of Research in South Africa (CAPRISA)

Collaboration among MSPH Epidemiology, Universities of KwaZulu-Natal, Capetown, Western Cape, and the SA National Institute of Communicable Diseases



- One of 3 comprehensive AIDS research centers funded by NIH outside US
 - Named UNAIDS Collaborating Center in 2005
 - \$54M in active projects, supported by NIH and USAID
-
- Published 10 major journal articles in 2005-2006
 - The Center conducts cutting-edge HIV/AIDS research while training new generation of South African researchers and building self-sustaining research infrastructure



The Columbia Center for Youth Violence Prevention

- CDC funded “academic center of excellence” partners with the community to prevent youth violence:
 - Collaborates with community members and partners in education, justice and social work
 - Develops action plans based on community priorities
 - Translates scientific study into usable programs
 - Received \$4.3M in 2005 to continue through 2010



Department of Health Policy and Management



New Seminars: Innovative Topics & Formats

- In Fall 2005, HPM introduced nine new, 1.5 point MPH seminars to expand the breadth and depth of the curriculum, with topics ranging from leadership to health information technology
- Seminars are offered in diverse formats ranging from three full days to ten, two-hour meetings
- This initiative has received positive feedback from both students and faculty
- In Fall 2006, 13 of these seminars will be offered



World Cities Project

- The World Cities Project is a collaboration with the International Longevity Center (US) and NYU comparing health systems and policy in New York, London, Paris and Tokyo
 - Comparisons of “avoidable hospitalizations” and heart surgery access document consequences of access barriers in NYC missed by many studies
 - The first book from the World Cities project, *Growing Older in World Cities*, (Victor Rodwin, Michael Gusmano, Eds.) was just published by Vanderbilt University Press
 - A second book, focusing on access to health care, will be completed later in 2006
 - Funders include Robert Wood Johnson Foundation and Health Care Foundation of NJ



Western Kenya Health & Development Survey

- A study of the broad welfare impacts of HIV/AIDS, incentives to seek treatment, and its economic benefits. Interviews of more than 2000 people revealed:
 - Participation in the work force increases dramatically after patients seek treatment; Resulting wage benefits are almost as large as drug treatment costs
 - Children in AIDS households are significantly more malnourished than other children. AIDS treatment eliminates this difference
 - Funded by ESRC, World Bank, Merck, and Pfizer



South Coast Air Quality Management District

- This EPA-funded project provides “smog alerts” to warn public of dangerous pollution levels, its associated health effects, and to suggest ways to avoid exposure
 - Evidence suggests that people respond to alerts-- attendance at LA Zoo, Griffith Park Observatory, and the LA County Arboretum and Botanical Gardens decline by 2 to 11 percent when alerted
 - As a result, estimates of the effect of ozone on asthma related hospital admissions for children are significantly low if they do not account for responses to pollution alerts



HRA Evaluation

- A multi-disciplinary team is running first external evaluation of NYC Human Resource Administration (HRA). This organization operates one of the largest Medicaid programs as well as related service programs
- Several program changes initiated in 2004
 - Umbrella agency with authority for Medicaid, HIV services, etc.
 - New user-friendly model offices to facilitate enrollment in all programs
 - Mail renewal for Medicaid eligibility
- Evaluation due January 2007
- Funding source: NYC HRA



Heilbrunn Department of Population and Family Health



Rapid (90 Day) Curriculum Review

- Identified faculty and alumni satisfaction with curriculum and determined strengths and/or gaps using a Web-based survey:
 - 70% of alumni responded and 80% of teaching faculty
- Findings
 - Strengths
 - Faculty expertise and accessibility
 - Emphasis on research and programmatic skill development, and service-based learning
 - Next Steps
 - Developing courses in demography, child health, grant writing, and specific reproductive health areas
 - Seeking out international and non-NYC practica
 - Expanding options for Capstone Paper



Northern Manhattan Start Right Coalition

- Community-based program launched in Harlem and Washington Heights/Inwood in 2002 to promote immunization via programs targeted at parents of young children. Led by MSPH and two community groups
- Raised immunization rates among African-American and Hispanic communities
- Empowers and trains program staff to respond to questions about immunization
- Aims to increase tracking of immunizations and reduce missed vaccinations via links to health care providers
- Targeting enrollment of 10,000. Plan to make program permanent
- Bank of America providing funding to the coalition



Survey of Preschool Children in Disadvantaged Communities

- A 2004-2005 South Africa survey in collaboration with local NGO, explored relationship between health, behavior, and school attendance and performance in preschool children
- Interviewed 687 teachers and children from 25 preschools in rural townships of Free State, South Africa
- Key findings:
 - 18% of children lived with non-parent caregivers
 - Significant relationship between health status and preschool attendance and behavior
 - No relationship between living with non-parent caregiver and child's health status, school attendance or behavior
- Future Plans:
 - Research on HIV-positive teen mothers and children



Care and Protection of Children in Crisis-affected Countries: A Good Practice-Policy Change Initiative

- Multi-year initiative to improve the care and protection of children affected by armed conflict and natural disasters:
 - Working with UNICEF, UNDP and international NGOs to pilot new assessment methodologies to:
 - identify critical child-care and protection needs
 - gather evidence base for effective child-care and protection programs
 - recommend common measures to use in the design, evaluation, and implementation of child-focused programs
 - 3-year grant secured from DCOF-USAID and Oak Foundation



Comprehensive Reproductive Health in Crises

- **New program in development to influence global policy and programs to increase access to reproductive health for refugees/internally displaced persons through operations research, policy analysis, service delivery and advocacy**
 - **Partnering with Marie Stopes International and leading humanitarian NGOs, UN, governments**
 - **Serving crisis sites, e.g., Darfur, Chad, Congo**
 - **Mid-2006 approval anticipated**



Department of Sociomedical Sciences



Columbia Center for Homelessness Prevention Studies (SMS & EPI)

- \$5M from the National Institute of Mental Health (NIMH) is supporting service research and intervention to address the public health issue of homelessness. This partnership with NYC agencies will:
 - Work with providers serving the homeless
 - Design early and new interventions that work in real-life service settings
 - Initiate prevention of housing loss and rapidly re-house those already homeless
 - Work to overcome street homelessness
- This Center is the only NIMH-funded advanced center for homelessness intervention and service research



Studies of Religion and HIV

- Two NICHD supported projects examine the role of diverse religious groups and traditions in shaping HIV response at community and social policy levels
 - The Harlem Faith Community Study looks at historical and contemporary factors of why some Black Churches are involved in HIV/AIDS activities and others are not
 - Religious Responses to HIV/AIDS in Brazil is a 5-year study documenting how Catholic, Afro-Brazilian, and Evangelical Protestant religious groups shaped HIV/AIDS policies and responses



Landmark Rhode Island Lead-Paint Case

- Rhode Island sued lead-paint manufacturers to pay for lead-based paint removal in 300,000 RI homes. The state sued for costs related to preventing future harm, not for past damages to child health:
 - The state won in February 2006 setting a legal precedent--the use of law to protect the public before a product causes harm
 - SMS faculty gave expert testimony, presenting historical evidence that manufacturers knew about dangers of lead paint for almost a century
 - Cost estimates for lead abatement measures are between \$1B - \$3B



Harlem Business Wellness Initiative

- This CDC-funded program increases access to preventive health services for employees of 50 small businesses in Harlem
 - Work-site health promotion teams will refer employees for preventive services related to cardiovascular disease, cancer, and tobacco use
 - The study will evaluate worksite and employee participation rates, adherence to health promotion principles, and cost effectiveness
 - This initiative is a collaboration between the Harlem Health Promotion Center, the NYC DOH, and Harlem business leaders



Enhancing Family Caregivers' Strengths and Skills in Managing Older Cancer Patients' Symptoms

- With \$3M in funding from the National Cancer Institute, the Center for the Psychosocial Study of Health and Illness implements a family caregiver education and training program designed to reduce and overcome barriers to the delivery of care to elderly minorities with cancer
- Collaborating with Community and Migrant Health Centers to provide problem-solving skills training to families of elderly, lower-income cancer survivors to aid symptom management



The International Working Group on Sexuality and Social Policy

- The Center for Gender, Sexuality and Health received \$1M from the Ford Foundation for continued support of the International Working Group on Sexuality and Social Policy:
 - Activities focus on:
 - Supporting sexual rights advocates worldwide
 - Monitoring global impact of US policies on sexuality, such as reductions in women's reproductive health services in developing nations, and redirection of HIV/AIDS prevention initiatives
 - Developing global network of organizations working on sexual rights and education, rights of commercial sex workers, and treatment access for persons living with HIV/AIDS
 - Members participate in local, regional and global forums; case study results will be presented at 2006 International AIDS Conference in Toronto, Canada



School-Wide Centers



InCHOIR: Clinical Trials

- An international trial in collaboration with the Neurological Institute and supported by NINDS to study incidentally discovered brain arteriovenous malformations -- an increasingly prevalent phenomenon in this age of imaging:
 - Trial assesses whether “watchful waiting” offers longer stroke-free survival than intervention as well as the economic impact
 - Over 100 clinical centers in the US, Canada, Europe, Australia & New Zealand



InCHOIR: Patient Safety

- Developed Web-based Event Reporting System in collaboration with CUMC Pathology Dept., with funding from AHRQ and NHLBI, that captures patient harm and “near miss” events; assesses error epidemiology
 - Introduced into NYPH hospital and outpatient clinic network; will be introduced in two major academic medical centers and several regional hospitals in the Netherlands
 - Over 17,000 events captured
 - Software is being modified to capture patient reporting



National Center for Disaster Preparedness: Partnerships

- The Center continues to develop strong partnerships as it works to study, analyze, and enhance ability to prepare for and respond to major disasters, including terrorism

Partners

Academic	National	State	Local
UAlbany UMDNJ Tulane	US DHHS US DHS US Depart of Education American Red Cross ASPH AFSA The Children’s Health Fund	NYS DOH Hawaii State DOH Puerto Rico DOH	NYPH NYC DOHMH NYC OEM NYC Depart. Of Educ. Westchester Co. DOH Putnam Co. DOH Orange Co. DOH Broome Co. DOH



National Center for Disaster Preparedness: Highlights

- Trained approximately 20,000 health care professionals and MSPH students in various preparedness and response topics
- Partnered with Children's Health Fund on Operation Assist to aid Katrina survivors; conducted important field study of the displaced currently living in FEMA trailers
- The Center's national public opinion surveys on preparedness have received national recognition



National Center for Children in Poverty (NCCP): Project THRIVE

- Project THRIVE, a new 5-year public policy analysis and education initiative in cooperation with the Maternal and Child Health Bureau, promotes healthy child development:
 - Ensures that families have access to integrated high-quality health care, child care, early learning and intervention, and parenting support
 - Helps states strengthen and expand early childhood systems through policy analysis and research syntheses



National Center for Children in Poverty (NCCP): Making Work Supports Work

- The Making Work Initiative was funded in 2005 by the Annie E. Casey Foundation to promote work support policies (e.g., public health insurance, child care subsidies) that:
 - Provide adequate family resources
 - Reward progress in the work force
- NCCP's Family Resource Simulator shows that current policies for low-income working families fall short of these ideals
- Working with state-based organizations to research and promote policy alternatives

International Center for AIDS Care and Treatment Programs

- ICAP providing care to more than 100,000 HIV-infected people, including over 30,000 people on antiretroviral treatment
- ICAP supports comprehensive, family-focused HIV care and treatment programs in 15 countries around the world using multidisciplinary teams to provide technical and programmatic support
- By 2009, ICAP plans to provide HIV care and services to more than 190,000 HIV-infected people worldwide, including antiretroviral treatment to more than 116,000



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