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COSSA Washington Update

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Volume 26, Issue 10

May 28, 2007

CONGRESS PASSES FY2008 BUDGET RESOLUTION: APPROPRIATIONS PROCESS COMMENCES

On May 16, the House and Senate passed the FY 2008 Budget Resolution that sets the overall spending and taxing parameters for deciding funding for federal agencies in the next fiscal year that begins on October 1, 2007. President Bush has no formal role in the budget resolution process, he does not sign or cannot veto the resolution. He can comment, as the President has done, about the profligate spending plan the Congressional Democrats have brought forth. Rob Portman, Director of the White House Office of Management and Budget, noted on May 11 that he would recommend a veto for any spending bills that exceeded the president's request.

The resolution sets FY 2008 discretionary spending, not including war spending, at \$954.1 billion. This is \$21 billion more than proposed by the White House in its FY 2008 budget plan released on February 5. The \$954 billion is now divided among the twelve appropriations subcommittees to make the preliminary allocation decisions for the agencies for the spending bills that Congress needs to enact.

The Democrats' plan also claims to balance the federal budget by 2012 without big spending cuts and by assuming revenue gains from the expiration of the President's tax cuts enacted in 2001 and 2003.

Function 250 of the budget resolution focuses on General Science, Space, and Technology and includes the National Science Foundation (NSF), NASA, and the Office of Science at the Department of Energy. In the enacted resolution, the report proclaims that Congress should provide "significant increases for NSF and the DoE Office of Science."

How this will translate since the appropriations subcommittees and the budget functions are not totally parallel will play out in markups later.

With the goal of completing House action on all the FY 2008 spending bills, with the exception of Defense, by July 4, the House has begun moving bills through Subcommittee. Before leaving for the Memorial Day recess, four Subcommittees, Homeland Security, Energy and Water, Military Construction and Veterans' Affairs, and Interior and the Environment had made their recommendations. Upon Congress' return on June 4, these bills will move to the full appropriations committee, while the other Subcommittees will move into action. The Senate process will also begin in June with Subcommittee activity, although the Senate has usually moved more slowly than the House.

LABOR HHS SUBCOMMITTEE CONTINUES EXAMINATION OF THE NIH

On May 7 and May 21, the Senate Appropriations Subcommittee on Labor, Health and Human Services, Education, and Related Agencies (Labor-HHS) held the fourth and fifth hearings of a series of six planned hearings by the Subcommittee on the National Institutes Health (NIH).

At the May 21 hearing, Harkin extended his condolences to everyone at NIH on the death of Stephen E. Straus, the first director of the National Center for Complementary and Alternative Medicine (NCCAM) who died of brain cancer May 14, 2007. Strauss' death said Harkin "is an enormous loss to science and his many friends and colleagues at NIH," where Strauss worked for 27 years. Harkin praised Strauss as a "man of great integrity and skill and dedication" and said "we were lucky to have him as NCCAM's founding director...I think he's one of those people of whom we can truly say that he did make the world a better place."

Continuing the informal discussion process that he has been using to meet with the NIH directors, Harkin noted that he thought that it provided a way to teach the public watching on C-SPAN, just exactly what NIH is doing and what the different institutes are doing.

'Frontiers of Science'

With the theme "Frontiers of Science" the Subcommittee heard from four more of the 27 NIH institute directors on May 7: Jeremy Berg [National Institute of General Medical Sciences (NIGMS)], Francis S. Collins [National Human Genome Research Institute (NHGRI)], Donald A.B. Lindberg [National Library of Medicine (NLM)] and Roderic I. Pettigrew [National Institute of Biomedical Imaging and Bioengineering (NBIB)]. Below is a composite of the oral and written statements made before the Subcommittee.

General Medical Sciences

Berg highlighted NIGM's "cutting-edge research training program, which produces a substantial number of well-prepared new scientists. Their ideas and talents contribute to our growing knowledge base, allowing continued progress toward treatments and cures for countless diseases," he related to the Subcommittee. The Institute, Berg emphasized is "steadfast in its commitment to nurturing and maintaining this intellectual capital through its significant support of investigator-initiated research and research training." Berg also pointed out that most people do not grow up in rich scientific environments. In order to address the health needs of our nation, he stressed, "We must tap the full diversity of talent pool of our country to attract the best minds into research."

He noted that NIGMS has been a "pioneer" in this area through the "programs that provide opportunities for underrepresented minorities to pursue scientific careers." The Institute recognizes that under representation is a challenging and complex problem, said Berg. "Single interventions are unlikely to effect lasting, multidimensional changes in diversity," he insisted, adding that the Institute continues to give special consideration to regular research grant applications from new investigators as another way to help them get a solid start." He concluded by informing the Subcommittee that NIGMS is developing a new grant program based primarily on the innovativeness and potential impact of scientists' ideas. The Institute plans to launch the program later this year and expects that it will serve as a model for other NIH institutes and centers.

Human Genome

Collins began by highlighting that NHGRI has had “the privilege of working at the frontiers for many years.” He highlighted the Department of Health and Human Services creation, in 2006, of “two groundbreaking initiatives in which NHGRI is playing a leading role.” The initiatives, Genetic Association Information Network (GAIN) and the Genes, Environment and Health Initiative (GEI), Collins testified, will “accelerate research on the causes of common diseases such as asthma, schizophrenia, the common cancers, bipolar disease, diabetes, and Alzheimer’s disease and help develop strategies for individualized prevention and treatment, thereby moving towards the possibility of personalized medicine.”

To promote application of genomic knowledge to health, Collins reported that NHGRI recently established an Office of Population Genomics. The Office’s mission “is to stimulate multi-disciplinary epidemiology and genomics research and develop new resources for the study of common disease.” It will take on challenges such as developing standards for genetic and phenotypic data and improved analytic strategies for relating them, stimulating novel research approaches, and supporting cross-disciplinary training to prepare researchers for new opportunities, Collins explained. He also called attention to the Surgeon General’s Family History Initiative, noting that “the family medical history is an effective and inexpensive means to determine more accurately an individual’s risk for specific diseases.”

Library of Medicine

Lindberg highlighted NLM’s “Long Range Plan” which “lays out in broad terms the challenges the Library will face over the next decade and charts a course for action to successfully meet these challenges.” Prominent among the challenges, Lindberg emphasized, “is the need to create the information resources essential to achieving the goal of ‘personalized medicine,’ in which prevention and treatment strategies are tailored to an individual’s specific genetic makeup.” In an era of increasing chronic disease, he continued, a related challenge is the need to empower people with the knowledge and motivation to improve their health and play a more active role in their health care. To this end, said Lindberg, NLM has created heavily used Web-based information services aimed at the public which transmit the latest useful findings in lay language and provide guidance that can be easily understood by the public.

Biomedical Imaging and Bioengineering

The mission of NBIB is to improve human health by extending the frontiers of biomedical science through the development and application of innovative biomedical technologies, Pettigrew explained to the Subcommittee. A major focus of NBIB is bridging the physical and life sciences in order to develop new biomedical technologies and methodologies that have a “profound, positive impact on human health,” he testified. Pettigrew pointed out that NBIB, is a cosponsor of the Jackson Heart Study, along with the National Heart, Lung and Blood Institute and the National Center for Minority Health and Health Disparities. The study addresses heart diseases of a medically underserved population, assessing risk factors for cardiovascular diseases, including diet, exercise, and co-morbidity factors such as diabetes and obesity.

Pettigrew also noted that an important goal of NBIB is to “train a new generation of researchers equipped to meet the modern needs of interdisciplinary and transdisciplinary research.” The Institute’s “proactive approach,” he explained, is to develop creative flexible opportunities that will fill critical gaps in the career continuum while also enhancing the participation of underrepresented populations. Additionally, he noted that the Institute also supports and participates in a number of programs to address gender and diversity issues in biomedical imaging and bioengineering, citing NBIB’s partnership with the National Science Foundation in the University of Maryland, Baltimore County, Meyerhoff Scholarship Program alliance.

‘A New Vision for Medical Research’

“A New Vision for Medical Research” was the theme of the May 21 hearing. Appearing before the Subcommittee were IC directors: Barbara Alving [National Center for Research Resources (NCRR)], Anthony Fauci ([National Institute of Allergy and Infectious Diseases (NIAID)], Patricia Grady [National Institute on Nursing Research (NINR)], John Niederhuber [National Cancer Institute (NCI)], and John Ruffin [National Center on Minority Health and Health Disparities (NCMHD)].

Center for Research Resources

Alving began by noting that NCRR is “very different” from the categorical institutes represented at the hearing. NCRR, she explained provides NIH-supported laboratory and clinical researchers with the infrastructure, tools, and training they need to understand, detect, treat, and prevent a wide range of diseases. “Through innovative programs and resources that transcend geographical boundaries, NCRR connects researchers with one another and with patients and communities across the nation,” she informed the Subcommittee. Alving also called attention to how the Center has become a leader of the NIH Roadmap for Medical Research’s effort to energize the discipline of clinical and translational research through the launching of the Clinical and Translational Science Award (CTSA) program. The program, she explained is a national consortium designed to “more rapidly and efficiently facilitate the transfer of discoveries made in the laboratory into new treatments for patients. The CTSA’s will focus on both types of translational research - ensuring first that basic discoveries are applied to clinical and second that they are further translated into community practice, she explained.

Alving noted that NCRR has two successful programs that are creating new research opportunities for underserved communities. First, the Research Centers in Minority Institutions (RCMI) program increases the number of minority scientists engaged in biomedical research and enhances the research capacity and infrastructure at minority colleges and universities that offer doctorate degrees in health sciences. Second, the Institutional Development Award (IDeA) which “fosters health-related research and increases the competitiveness of investigators at institutions in 23 states and Puerto Rico, which have historically low aggregate success rates for grant awards from NIH.” Alving explained that the IDeA program provides workforce development, research opportunities, science education, and extends high-speed connectivity to IDeA institutions to facilitate research collaborations.

Allergy and Infectious Diseases

NIAID is responsible for the bulk of NIH research in the disciplines of immunology, microbiology, and infectious diseases, Fauci testified. The Institute’s mission is “driven by two major issues: scientific opportunity and public health needs,” he continued. His Institute also has responsibility for emerging, re-emerging microbes, vaccinations and immunizations for adults and children, the development of antibiotic vaccines, as well as study of the diseases of the immune system.

“In the almost 26 years since it was first recognized, the acquired immune deficiency syndrome (AIDS) has become a global catastrophe,” Fauci informed the Subcommittee. An estimated 39.5 million people worldwide are infected with HIV, the virus that causes AIDS. In 2006 alone, an estimated 4.3 million people were newly infected with HIV, and 2.9 million died of AIDS, he reported. While the situation remains grim, the government’s investment in HIV research has generated “many solid successes and the healthy pipeline of new drugs, vaccines, and other prevention methods promises more success in the future,” he added.

Nursing Research

The mission of the NINR is to support clinical and basic research that establishes a scientific basis for the care of individuals across the lifespan - from management of patients during illness and recovery to the reduction of risks for disease and disability, the promotion of healthy lifestyles, promoting quality of life in those with chronic illness, and care for individuals at the end of life, testified Grady. She noted that the Institute had just concluded a year-long observance of its 20th anniversary at the NIH. The Institute’s new five-year Strategic Plan focuses on areas of critical research opportunity, Grady explained. These areas include: self-management, symptom management, and caregiving; health promotion and disease prevention; research capacity development; technology integration; and end-of-life.

According to Grady, self-management science explores strategies that empower individuals to be more involved in their own health practices. Symptom management science focuses on biological and behavioral components of health and illness that improve the management of symptoms. Caregiving science addresses the quality-of-life-dimensions experienced by care recipients as well as formal and informal caregivers across diverse health care settings. Within Health Promotion and Disease Prevention, NINR scientists explore dimensions of behavior, health in community settings, patient safety, and the biological factors useful in ensuring long-term positive health outcomes. The Institute’s focus on improving health care and quality of life encompasses the development, use, and adaptation of technologies.

Grady explained that functional technologies that assist patients and those that facilitate reporting of biological indicators of health and disease status form the framework of the technology integration program, including uses of technology for telemedicine, patient education, communication, and patient safety. Finally, the science of end-of-life initiative explores research questions of “this complex period for dying persons, family members, and both professional and informal health care providers,” she noted. End-of-life scientists seek to understand not only biological aspects of dying, but also the needs of dying persons, including symptom relief, decision making, advance directives, and palliative care. Issues of culture, age, spiritual beliefs, and disease-specific considerations are included in research strategies, she concluded.

Cancer

Niederhuber described “some of the progress NCI has made in cancer research” along with opportunities the Institute is pursuing. He began by noting that over the last two years, “we have seen unprecedented decreases in the actual number of cancer deaths nationally. That is remarkable news considering that cancer is largely a disease aging.” He further noted that our country is not only growing older, but its population is also growing (see related story). Niederhuber pointed out that “while we measure our progress against cancer in terms of patients treated and lives saved, that effort also has a measurable economic impact.” It has been projected that “even a one percent decrease in cancer mortality will result in \$500 billion benefit to the U.S. economy.”

As “we move toward an era of personalized medicine, advanced technologies will play a significant role in cancer prevention and preemption, telling us, in real time, if new drug treatment is reaching its target within the cell, and if the novel drug is saturating that target, and if it is changing the function of the target,” Niederhuber explained. He noted that NCI is “diligently working to understand these genetic changes and apply them to cancer prevention and cancer treatment.” Mindful of the NCI’s mission “to conduct research in all areas of science, including the behavioral sciences, such as how best to provide patient education and access to optimal care,” he informed the Subcommittee that in the next few weeks NCI will launch the pilot phase of a community cancer centers program that when fully implemented will “bring state-of-the-art cancer care to patients in community hospitals across the U.S.”

Niederhuber boasted that “cancer is one of the most exciting and innovative areas of medical research and declared that the Institute will continue to play an important role in developing the cancer research workforce in the U.S. and other countries.” According to the NCI director, “many of the current programs at NIH had their origins in the NCI.” Of special significance are minority training programs, such as the Continuing Umbrella of Research Experiences (CURE), “which begins with talented minority high school students and continues progressively and selectively through long-term funding to qualified minority students interested in scientific, cancer research-related careers.”

Ranking Appropriations member Senator Ted Stevens (R-AK) noted the bipartisan effort by the Congress which “doubled the research money for [NIH] in one period.” Stevens asked Niederhuber whether it will be a “necessity to double” the NIH’s budget again in the next decade? Niederhuber responded that “living as we have for the past three or four years with less-than-inflation budgets has certainly taken its toll on the programs. If you calculate that up, it’s about a 12 percent decrease from where we might want to be at this point.” Stevens countered that since you had a “125 increase in the past years before that, where do you think you’d stand if we had not done it?” I think that the increase that Congress in its wisdom, legislated and appropriated, did a great job in this country of building up a research infrastructure that was lagging, replied Niederhuber. The issue for us as a country, he added, has been that when you build up, you need to keep at least moving with inflation in order to maintain what you built. Stevens answered “that’s reasonable.”

Minority Health and Health Disparities

Ruffin gave the Subcommittee a brief report on the Center’s progress and NIH’s effort to “promote the improvement of health among our nation’s racial and ethnic minority population and to advance research toward eliminating health disparities among all affected populations, including the medically underserved, poor and rural populations.” There are a number of things that we know relate to minority health and health disparities, Ruffin noted. Conversely, he noted that: “We still do not know why the racial and ethnic minority and poor populations across this nation continue to be burdened by disease and conditions like HIV/AIDS, cancer, infant mortality, mental health and stroke. What we do know is that there are multiple factors that contribute to disparities in health,” he explained.

The Center’s approach to health disparities is multi-pronged. “Through research, we study the diseases, the conditions, the issues to gain insight into the core problem,” Ruffin explained. He argued that, however, to conduct research we have to have the capacity, the facilities and workforce to carry out the studies. “We also need to have the community involved not only as research subjects, but actively engaged in planning and conducting research, translating the research results and disseminating the information back into the communities,” he maintained.

While the Center’s portfolio is small in terms of dollars and numbers of programs, Ruffin assured the panel that this does not prevent fulfillment of its mission. Ruffin noted that collaboration is a large part of what NCMHD does within the NIH and with other agencies. Overall, NCMHD’s “contributions have heightened awareness about health disparities. It has increased the nation’s capacity to conduct health disparities research; recruited, trained and attracted an increasing cadre of individuals to research careers on minority health and health disparities; and germinated innovative and productive partnerships involving the community,” Ruffin told the Subcommittee. But we have barely touched the surface. There is far more to be done, he concluded.

NATIONAL INSTITUTE OF GENERAL MEDICAL SCIENCES HOLDS 134TH COUNCIL MEETING

On May 17 - 18, the National Advisory General Medical Sciences Council (NAGMSC) held its 134th meeting. The discussion included: developments and opportunities in the computational biology of emerging infectious diseases, modeling social behavior in humans and model organisms, and minority recruitment by institutional research training grants (see related story).

National Institute of General Medical Sciences (NIGMS) director Jeremy Berg announced that the Institute has started working on a draft strategic plan and will present it for discussion at the next NAGMSC meeting in September. Providing an overview of the Institute’s status as it relates to the research supported, Berg stressed that “it is important to keep people aware of the data.”

Year	Awards as a function of Percentile Score
2000	27
2001	37
2002	38
2003	37
2004*	29
2005	26
2006	26
2007	29**
*transition year	**projected

According to Berg, NIGMS has been in better shape than some of the other ICs. He joked that he is waiting “to hear a rumor that the success rates are negative.” Accordingly, he is “trying to disabuse the rumors” which can be attributed to the budget climate. There has been a decline in the success rate, he acknowledged, but the number of applications received through 2006, which had previously leveled off, went up. He reported that there is an increase in the number of new applications as the Institute has transitioned from 2005 to 2006. There is also a substantial increase in the number of amended applications working their way through the system, he informed the Committee. In terms of awards, he noted that the drop off has been substantial but not as dramatic as the success rate. Conversely, new and amended applications have dropped dramatically, Berg added.

The good news, he told the Council, is that the Congress passed “two pieces of legislation that positively impacted the National Institutes of Health (NIH).” First, the NIH reauthorization bill which is seen as a strong endorsement of NIH and did not provide a “wholesale” reorganization of NIH (See Update, [February 12, 2007](#)). The fact that the bill did not merge existing institutes is ‘a big positive,’ said Berg. Second, the FY 2007 appropriations Joint Resolution provided more than \$600 million for NIH than previously anticipated. Additionally, it supports the Common Fund/Roadmap for Medical Research, new investigators and vulnerable established investigators, said Berg. The impact of the Common Fund being funded directly by the Congress is that the success rate for FY 2007 is projected to be around 29 percent for NIGMS, which brings the Institute back to the 2004 level where grants were being paid well above the 20th percentile.

According to the director, there has been a substantial interest in the NIH Director’s New Innovator Award Program provides up to \$1.5 million in direct costs over a five-year award period. The award is open to investigators with independent positions at domestic institutions within 10 years of a terminal degree. A 10-page application is required. The plan was to fund 14 or more awards that would be made by September 30, 2007. However, the interest in the award has been staggering. Berg indicated that he was aware that at least 1,000 investigators had

applied, but now thought that figure is “substantially low.” A feature of the award is that all of the funds are paid up front. That may change, said Berg, given the level of interest. He also announced the Director’s Bridge Award which provides one-year of full support to investigators to keep their programs going. No application is involved, he explained (See Update, [March 19, 2007](#)).

Modeling Social Behavior in Humans and Model Organisms

The NAGMSC also discussed a potential NIGMS initiative. The Institute is considering soliciting applications proposing interdisciplinary approaches, involving collaborations among social, computational, and mathematical scientists. The research plan would include conceptual modeling, represented mathematically or computationally, and empirical studies based on solid laboratory and/or field work.

Irene Eckstrand, Program Director in NIGMS’ Genetic Mechanisms Branch and who specializes in evolutionary biology, genetics, and computational biology, presented the potential concept to the Council. She noted that it is an area where the Institute has “not historically” been involved. Modeling provides tools for studying dynamics, testing hypothesis, clarifying assumptions, identifying critical components, and studying parameter values, she explained. “Is it time to integrate social behavior and modeling,” she asked the Council. By way of context, Eckstrand noted ‘that NIGMS does support research on modeling for the biomedical sciences and has a lively program focused on the genetics of behavior.’ She also noted NIGM’s training program on the interface of behavioral and biomedical sciences (see Update, [August 7, 2006](#)).

“Modeling is changing the face of biology, giving scientists tools for understanding the spatial and temporal dynamics of living systems, from signal transduction pathways to gene networks to cell biology,” according to Eckstrand. The significant contribution that modeling has made to rapid progress in these fields suggests that the time is right to apply modeling approach to the study of social behavior, she suggested.

“Social behavior generally refers to behavior that occurs between or among individuals of the same species. It both affects and is affected by health and disease, she explained. She cited as an example research on a rural social network in Virginia with a population of 150,000 and the flu. The network suggests a lot of interesting questions: the flu peaks occurs earlier, the disease spreads faster, and there is a lot more variation between simulations. On the other hand, in an urban social network of nine million people in Chicago a lot fewer people get infected and the epidemic peaks later. Now it is a research question and a public health question, said Eckstrand. What accounts for the variation? Are there hidden assumptions in the models that lead to incorrect or misleading results, she asked.

Eckstrand informed the Council that there is already a large body of knowledge on social organization and behavior based on observation and theory. Modeling, she noted, provides an additional tool for testing hypotheses and making predictions. It is especially useful in clarifying assumptions, for studying ranges of parameter values and for identifying critical components of systems. According to Eckstrand, aspects of social behavior that are amendable to modeling may include, but would not be limited to:

- Measurement and representation of temporal and spatial dynamics of social behavior;
- Measuring parameters in dynamic or emerging systems;
- Heterogeneity of social dynamics and its implications;
- Engineering principles of social behavior (e.g., feedback, learning, thresholds);
- Impact of communications (chemical, oral, behavioral) on social dynamics
- Architecture of robustness and resiliency of social communities;
- Implications of well-being, fear, or trust on behavior;
- Bounded rationality of agents (e.g., variability of behavior)
- Interplay between social behavior and culture;
- Evolution of social behavior;
- Comparison and validation of models of social behavior;
- Implications of disruption of social organization and dynamics; and
- Use of virtual worlds as models of social dynamics.

Upon the Council acceptance of the pre-concept, NIGMS staff will convene a working group of experts (including sociologists, behavioral scientists, computer scientists, mathematicians, and others) to develop a report on the feasibility, utility, and scope of an initiative on modeling social behavior. Staff will then bring a concept document to the Council for discussion and approval.

Council members overwhelmingly endorsed the idea. Richard I. Morimoto, Northwestern University, declared the concept “very exciting” and that it was a “wonderful time to ask questions of this magnitude.” He urged them to think globally. We have a tendency to only “look at it from our view of culture. Ethnicity and culture shape behavior,” added Morimoto. It is a “huge opportunity.” We should be there from the outset, he concluded.

Francine D. Berman, University of California, San Diego, encouraged the staff to “think outside of the box.” This type of work, she insisted, “is not done by purists.” You need people who understand multiple worlds that can bring them together, she maintained. She urged NIGMS to reach out beyond the NIIH and to consider approaching financial crime analysts supported by the National Institute of Justice. It needs a multi-agency approach, said Berman.

Patricia Mabry, OBSSR, informed the NAGMSC that this is an area in which the Office is “very interested.” Mabry noted that the Centers for Disease Control and Prevention, along with other NIH institutes and centers have expressed interest as well.

Modeling of Infectious Disease Dynamics and Control

In 2004, NIGMS funded the Models of Infectious Disease Agent Study (MIDAS). It is a collaborative grant program to develop and apply computational and mathematical models for the dynamics and control of deliberately introduced or natural disease threats. According to James Anderson, NIGMS, the time is ripe to look at the larger context of MIDAS and address three questions: 1.) What is the scope of the research area? 2.) What are the opportunities for further leadership? 3.) What is the appropriate role for NIGMS? The Institute requested a white paper that would help them understand the areas, opportunities and challenges.

In the white paper, Bryan Grenfell, Penn State University, summarized the current state of infectious diseases dynamics modeling and discussed the field’s future priorities. Grenfell noted the need for balancing basic research with the growing pressure for models to provide on-demand input into policy formulation. According to Grenfell, the current state of the field includes:

- Statistical fitting of epidemic models.
- Environmental forcing. The impact of seasonal and longer term environmental and demographic variations on epidemic dynamics has been established in a range of systems from cholera and malaria to childhood viral infections.
- Bioeconomics of infectious diseases. Models that couple human behavior, especially their economic behavior, to disease transmission dynamics have been applied to HIV, to anti-retroviral resistance, and hospital-acquired pathogens. Especially for policy purposes, the ability to link economic and disease modeling is important.
- Integration of models into policy. The lessons of MIDAS and the 2001 United Kingdom foot and mouth epidemic demonstrate that epidemiological modeling can simultaneously advise policy makers and lead to high quality science. However, reconciling these aims remain a challenge, particularly in terms of communicating the impact of uncertainty in parameters and model structure, balancing collective integrated modeling against the virtues of independent approaches and responding to detailed modeling requests.

Despite the range and vibrancy of the field, Grenfell found that many of the subfields are in their infancy. Major developments in research, training, and links with policy will be required to apply the developments to optimize disease control. According to Grenfell, the efforts required fall under five broad headings:

- 1.) **Extending methodology including network of disease transmission.** Despite significant recent progress, there is still much more need for constructive engagement between epidemiological modelers, network theorists, statisticians, and sociologists to develop tools for simulating epidemics on realistic networks. Sociology, epidemiology and economic issues such as panic and isolation can alter the dynamics of infectious disease during an outbreak; there is a greater need to incorporating social behavior into outbreak response models and models of endemic diseases. Despite initial efforts to incorporate bioeconomics into infectious disease models, there is also considerable scope for further synthesis in this area.

- 2.) **Extending knowledge and expertise.** MIDAS has done an excellent job on pandemic influenza; however, its mission is much broader than this particular disease. There is a need for a much wider application of models, data collection and statistical analyses to explore the dynamics of the range of endemic and emerging human and animal pathogens, spanning a range of life histories, genetics strain makeup and ability to evade herd immunity.
- 3.) **Training is a major priority.** Successful disease modelers need technical computational and mathematical skills; they also ideally require grounding in pathogen biology, immunology, population dynamics and relevant social sciences.
- 4.) **Extending the application of disease modeling.** A future program might need a new structure, as both demands expand. The appropriate relationship between modeling infectious diseases and policy decisions needs to be further explored, especially considering the distributed nature of the U.S. public health system. Communication of knowledge. Given the complexity of the systems being model, this is not a trivial task. Research on visualization tools and other means of communicating complex scientific material is an important goal, both for infectious disease modeling and the modeling of other complex systems.
- 5.) **Disease informatics.** The above development will require extensive and diverse data, documenting: host contact network structure and dynamics; the incidence of infection, based on syndromic and diagnostic surveillance; pathogen evolutionary dynamics and relevant host genetic data; and associated environmental, sociological, and demographic drivers.

For more information contact Bryan Grenfell, Grenfell@psu.edu, 814/865-6080 or James Anderson, andersoj@nigms.nih.gov, 301/594-0943.

WHY POPULATION AGING MATTERS: A CONGRESSIONAL BRIEFING

According to a report, *Why Population Aging Matters: A Global Perspective*, issued jointly by the U.S. Department of State and the National Institute on Aging, as the proportion of older people increases in the U.S. and around the world, nations will face new challenges and opportunities, particularly with regard to health care and retirement systems, intergenerational relationships within families, and labor market supply. On May 21, under the auspices of the Senate Special Committee on Aging, Sen. Herbert Kohl (D-WI), Chairman, and Sen. Gordon Smith (R-OR), Ranking Member, COSSA and the Population Association of America co-sponsored a briefing to discuss the findings and implications of the report.

In his demographic overview of population aging, Joseph Chamie of the Center for Migration Studies in New York City referred to population aging as a "triumph of civilization" and perhaps the most significant event of the 21st Century. Chamie described this as an achievement that required vital social and economic adjustments to current and expected future demographic realities. In particular, said Chamie "population aging raises critical issues for countries, states and cities in areas such as economic growth, employment and retirement, pensions, health care and social support services." In addition, he cited figures indicating the graying of the industrialized world, Japan's average age in 2050 is projected to be 55. At the same time in African countries such as Chad, Mali, and Niger, the average age will be in the mid-20s.

Noting the data on the social determinants of health and aging, particularly the growth of chronic diseases, Harvard University professor Lisa Berkman focused primarily on the epidemiologic transitions in health. "While the distribution of disease changes, socially disadvantaged people and those who are socially isolated continue to be at increased risk," related Berkman. When the epidemiologic and demographic transitions collide, Berkman said, you will begin to notice a more diversified workforce, with flexible jobs for older people. Because many middle-aged workers are also caregivers to their elderly parents, they will also need more flexible jobs. Finally, Berkman concluded that benefit policies and practices related to retirement "may contribute more than we think to a healthier workforce."

Adele Hayutin, of the Global Aging Project at Stanford's Center on Longevity, focused largely on labor force implications and pension vulnerabilities. "Most advanced economies (the U.S. is an exception) face shrinking workforces," said Hayutin. These shrinking labor forces will mean fewer and fewer workers per retiree that will place large burdens on low-income countries like India and Mexico. Despite increased longevity, labor force participation

of men 60-64 has declined. Hayutin suggested that public pension incentives in certain European countries such as France, and Italy create these decreases.

James P. Smith, Senior Economist of RAND Corporation, explained that the falling of mortality, birth, and work rates will mostly determine the future of the world. Smith examined international comparative data to support his claims. Smith compared the U.S. aging problem comparable to the problems faced in Asia. According to Smith our disadvantage is the rapidity of an aging population at lower incomes with weak non-familial income and health security systems in place. Smith referenced the University of Michigan's Health and Retirement Study (HRS), which surveys more than 22,000 Americans over the age of 50 every two years. Supported by the NIA, the study paints an emerging portrait of an aging America's physical and mental health, insurance coverage, financial status, family support systems, labor market status, and retirement planning (www.hrsonline.isr.umich.edu). There are also comparable studies such as the English Longitudinal Study of Aging, the Survey of Health, Aging and Retirement in Europe. These efforts at data collection have now been or will soon be extended to South Korea, Japan, Thailand, China and India.

With the U.S. population recently passing the 300 million mark and the World at 6.6 billion people, the demographics of aging and health will remain a major issue for policy makers. Major decisions about pension policy, workforce policy, and health policy will continue on the agenda.

THE ROLE OF THE FEDERAL GOVERNMENT EXAMINED IN RISING CRIME RATES

Mark Epley, Senior Counsel to Deputy Attorney General, is responsible for advising and assisting the Deputy Attorney General in formulating and implementing the Department's budget and overseeing the Department's grant making components, including the Office of Justice Programs (OJP), Community Oriented Policing Services (COPS), and the Office on Violence Against Women (OVW). On Wednesday, May 23 Epley testified before the Senate Judiciary Subcommittee on Crime and Drugs, chaired by Sen. Joe Biden (D-DE), in a hearing focused on the rising crime rate in the United States, and the role of the federal government in helping communities prevent and respond to violent crime.

The Department of Justice (DOJ) uses two programs to measure nationwide crime rates: the National Crime Victimization Survey (NCVS), which measures crimes as experienced by victims, including crimes not reported to the police; and the FBI's Uniform Crime Report (UCR) which measures crime reported to police occurring to people, business and organizations. According to recent data from the 2005 NCVS and UCR the Nation's crime rates remain near historic lows, but Epley suggests that overall current data do not reveal nationwide trends, but rather they show increases locally in a number of communities ([see: "Spending Panel Scrutinizes Justice Offices' Budgets," COSSA Washington Update April 2, 2007](#)). For example, says Epley "while the United States experienced a 2.4 percent increase in the murder rate in 2005, the Northeast experienced a 5.3 percent increase in the murder rate at the same time the South experienced a 0.8 percent increase and the West experienced a 1.7 percent increase in the murder rate."

Epley shared with the Subcommittee the Departments' efforts to develop meaningful strategies to reduce and deter crime. The DOJ visited and gathered additional information from 18 regionally-distributed communities observing increases in violent and crime and a number of those seeing decreases. From these meetings the Department sought to identify common themes for the crime trends in the specific communities. "One consistent theme we heard was the importance of federal-local partnership," says Epley. Epley referred to Project Safe Neighborhoods (PSN), as a model kind of partnership whereby local law enforcement and prosecutors can refer gun crime cases to federal system. "Through PSN," testified Epley "we have doubled the number of gun crime prosecutions over the last six years compared with the preceding six years."

James Alan Fox, the Lipman Family Professor of Criminal Justice at Northeastern University, shared some basic principles about violence prevention. "Smart crime fighting involves a balanced blend of enforcement (from community policing to identifying illegal gun markets), treatment modalities (from drug rehab on demand to community corrections and post- incarceration services) as well as general and targeted crime prevention (from family support to summer jobs for high-risk youth)," reported Fox. Fox concluded that good prevention programs that are well implemented do work.

Ted Kamatchus, Sheriff of Marshall County in Iowa and President of the National Sheriffs' Association, urged the federal government to play a larger role in crime fighting. "Together we need a coordinated national attack on crime, recognizing that there is no 'single bullet' solution." Kamatchus pointed out the unique role sheriffs play in our criminal justice system. "In addition to providing traditional policing within their respective counties, sheriffs also facilitate jails and are responsible for protecting and providing security for the judicial system." Kamatchus added that Byrne and Community Oriented Policing Services (COPS) programs are necessary resources to ensure hometown security.

Thomas J. Nee, patrolman with the Boston Police Department, highlighted issues that are of increasing concern to the National Association of Police Organizations (NAPO) and its members; while Colonel Rick S. Gregory, Chief of Police for New Castle County Police Department, spoke on behalf of a small flagship agency in a county that consistently receives triple AAA bond ratings. Yet, "despite this bright economic and enviable position," related Gregory "our county has been operating at a deficit since 2003. We are currently spending down our reserve and expect to deplete that by 2009 unless radical measures are adopted." "If a county with our economic status and forecast is facing such harsh measures..." Gregory continued, "What is to become of the already struggling public safety agencies without continued support from our federal partners?"

Douglas H. Palmer, Mayor of Trenton, New Jersey, gave compelling testimony recalling a near fatal incident of seven-year-old Tajhanique Lee that took place just a year ago. Palmer vividly described how Lee rode her bike right into the middle of a gang war which resulted in a bullet piercing both of her cheeks. Although Lee survived, Palmer stressed that we must act now to prevent similar acts of violence and provide positive alternatives to help those in need. Palmer went on to reference the tragedy at Virginia Tech and that of the Amish schoolhouse to illustrate that crime knows no geographic boundaries.

Russell B. Laine, the Second Vice President of the International Association of Chiefs of Police, also testified before the Subcommittee, representing over 20,000 law enforcement executives throughout the world. Citing that there are more than 18,000 law enforcement agencies and well over 700,000 officers who patrol our state highways and the streets of our communities each and every day, Laine stressed that despite our best efforts, well over a million of our fellow citizens are victims of violent crime. Laine added that while there are many different theories as to why violent crime is increasing in these communities after years of often double-digit declines, there is one fact that we can all agree on: "no one is immune from crime."

REPLACEMENT SMOKERS: ARE WOMEN ALREADY UNDER THE INFLUENCE?

According to the American Legacy Foundation each year, 178,000 women in the United States die from tobacco-related diseases like cancers, heart disease, emphysema and stroke. The Foundation also reports that although each year 70 percent of smokers say they want to quit, only a very small portion, five percent, actually quit long term. On Wednesday May 9, Sara Austin, Features Director for SELF Magazine was joined by Sue Foster, Vice-President and Director of Policy Research and Analysis for the Center on Addiction and Substance Abuse (CASA) of Columbia University, Cheryl G. Healton, President and CEO of the American Legacy Foundation, and Tracy Reese of Tracy Reese Designs to highlight the ever-changing trends in smoking and its consumers.

Co-sponsored by the American Legacy Foundation and Women's Policy Inc. the briefing particularly focused on young women, smoking, and other risky health behaviors. Foster opened the discussion by outlining the results of "Women Under the Influence" CASA's recent report on binge drinking and drug abuse among college-age women. She reported that each year thousands of women die unnecessarily from heart disease, stroke and cancer, which are exacerbated by substance abuse, a preventable factor in each of these deaths. Foster went on to report that some six million girls and women meet clinical criteria for alcohol abuse or dependence, while 15 million abuse illicit and prescription drugs, and nearly 32 million smoke cigarettes. "The earlier girls start to smoke, drink or use drugs, the greater the chances they will become abusive or dependent users," affirmed Foster.

Healton pushed the discussion by describing how young women are especially susceptible to the marketing practices of the tobacco industry and how new products like RJ Reynolds' Camel No. 9 are one more example of how the industry continues to target women. "The tobacco industry has a long history of targeting women with its advertising. In both tone and design, this latest effort is clearly designed to appeal to young women. With over a hundred thousand women continuing to die each year from tobacco-related diseases, it is appalling that such blatantly self-serving marketing tactics are still being employed to promote these deadly products," argued Healton.

Healton referred to a print ad that features two black Camel No. 9 cigarette boxes with fuchsia and teal colored trim, with small fuchsia Camel logos in the center of each box. The cigarette boxes in the ad are set to a pink and yellow backdrop with pink flower designs, encircled by pink roses. The Camel name is also displayed in pink letters, and the product is described as "light and luscious." "These ads are being placed in magazines that are read by young woman and teens as resources for the latest trends in fashion, celebrity and lifestyle news," continued Healton. Tracy Reese spoke about her personal battle to de-glamorize smoking in the fashion industry. Reese recalled how as a student in design school she was surrounded by her peers who smoked because "that was the thing to do." Reese reported how she often felt like an outsider but remained true to herself knowing the physical ailments smoking could cause. Austin shared how as a key staff member of one of the nation's largest women's health, fitness and beauty magazines, she is conscious of how the magazine responds to major national health issues that face young women today. Austin was proud to report that since they have been in circulation that they have worked very hard to steer young women away from risky behaviors such as smoking and excessive drinking.

Phillip Morris Responds

The tobacco industry is rarely seen in a position where it encourages or aides in its consumers to stop smoking. However, Phillip Morris seems to have taken a unique position to educate and support those who are eager to kick the habit. EX is a method of freeing yourself from addiction to tobacco. It was created as a collaborative effort between the American Legacy Foundation and the Mayo Clinic specifically for people who are really ready to quit and are looking for a better way.

It is a unique program with solid information, communicated through the empathetic voice of an experienced quitter who recognizes how tough it is to quit and provides the "here's how" factor. Developed and paid for by the world's largest cigarette manufacturer, Phillip Morris, the EX campaign strives to connect weary smokers to the tools they need to quit. EX is the person you sit next to at the local diner who knows what you're going through and commiserates with you about what it takes to beat what experts list among the toughest addictions: tobacco. Yet since Big Tobacco continues to profit from the sale of cigarettes, some question the credibility of its efforts to help customers quit.

EX is being piloted in four cities: Buffalo, NY, San Antonio, TX, Grand Rapids, MI, and Baltimore, MD. The hope is to bring EX to a national audience through collaboration and partnerships. For more information on how to "Become an EX", visit www.becomeanex.org.

THE FEW, THE PROUD, THE CLOSETED

On Friday, May 18, the American Sociological Association (ASA) held a briefing for key Senate staff on "Military Recruitment & Retention: The Impact of Social and Cultural Factors." The panelists included Morten Ender, from the United States Military Academy, West Point; Former Marine Sergeant Brian Fricke; and David Segal, from the Center for Research on Military Organization at University of Maryland.

With the U.S. military reportedly overstretched with missions in Iraq, Afghanistan and other overseas operations and troops serving unprecedented third and fourth tours, there is increasing debate about our country's military preparedness and ability to handle crisis at home and abroad. Faced with a potential recruitment and retention crisis the military has started loosening its requirements on military service and has begun granting "moral waivers" to applicants with criminal records, accepting older Americans, and those with insufficient high school education. This has spurred some critics to argue that capable homosexual soldiers are being turned away and discharged while recruits with criminal backgrounds or inadequate education are being admitted. "That doesn't make sense to me," Segal declared.

The U.S. Department of Defense reports that 11,000 members of the armed services have been discharged because of the military's ban on openly gay service members, *Don't Ask Don't Tell* (DADT). In November 2006, ASA along with other distinguished social scientists jointly filed an Amicus Brief with the First Circuit Court of Appeals. According to their brief there is no scientific evidence supporting the exclusion of openly gay or lesbian soldiers in the military in terms of military performance. They also point out that research on the nature of military unit cohesion fails to show detriments in performance. Segal stated that while cohesion is important it is not the most important factor for why soldiers fight. Research shows that task cohesion, people united around a single identified task, rather than social cohesion was deemed to be more important to soldiers.

Ender discussed how the way the military views families has changed. Previously, the military viewed itself as enlisting soldiers and reenlisting families. Today, the military takes the more comprehensive view that it enlists soldiers out of their family of origin, and reenlists them and their newly formed families. Recent surveys show why families are of vital importance to the military. In 2005, 59 percent of people serving in the US Army reported being married. However, that number increases by another 25 percent when researchers factored in those who reported being engaged, dating, or having a significant other. Also, compared with the general population, soldiers tend to marry earlier, 31 percent of junior enlisted soldiers are married as opposed to 13 percent of the comparable age group of 18-24 year olds. Those in the military also tend to have children earlier, and more of them.

Over the last century the US military has argued against opening its ranks first to blacks in the 1940s, then to women in the 1960s, and now to gays/lesbians, arguing each time that the inclusion of these groups would undermine cohesion. Worldwide 24 countries, including Canada, Israel, UK, Germany, South Africa, have never had or have lifted their bans on gays and lesbians serving in the military, with no indication that these homosexuals have reduced military cohesion or effectiveness. Current estimates, according to Ender, indicate that roughly five percent of the U.S. military are homosexuals and three percent are lesbians. A March 2007, *Newsweek* poll indicates that 63 percent of Americans believe gays and lesbians in the military should be able to serve openly. In a Zogby poll, taken in December 2006 of current members of the military, 58 percent either agreed homosexuals should be able to serve openly or were neutral.

Fricke, who voluntarily left the military rather than reenlist, because of DADT policy summed up the feelings of many of the gay and lesbian soldiers who are fighting for their country, "We feel betrayed because we don't feel we can be ourselves...we can't relax...I always felt I had to be better at what I did so I wouldn't attract attention." As our military continues to be stretched and stressed by its duties here and abroad, America like many of its allies may have to rethink its current policy with regard to homosexuals serving.

NAS WORKSHOP: UNDERSTANDING INTERVENTIONS THAT ENCOURAGE MINORITIES TO PURSUE RESEARCH CAREERS

Recognizing that the "study and identification of contributing factors and practices that determine the effectiveness of interventions aimed at increasing the participation of underrepresented minorities in the biomedical and behavioral sciences is critical for program design and success," on May 3 and 4, the National Academies (NAS) held a two-day workshop, *Understanding Interventions That Encourage Minorities to Pursue Research Careers: Major Questions and Appropriated Methods*. The goals of the workshop included:

1. Examining the current state of research related to interventions that influence the participation of underrepresented minorities in the biomedical and behavioral sciences and other science, technology, engineering, and mathematics disciplines. Assessing factors relevant to studies in disciplines such as psychology, sociology, and economics.
2. Developing research questions that reflect the contribution of various factors influencing outcomes, including the relationship of these factors to interdisciplinary approaches for scholarly work in the study of interventions that impact the participation of underrepresented minorities in the biomedical and behavioral sciences.
3. Providing technical assistance on implementing effective methodologies for studying interventions that impact the participation of underrepresented minorities.
4. Encouraging an interdisciplinary community of scholars where outlets (e.g., journals, conferences, sponsored programs) for scholarly work and discourse are identified relevant to this area of study.

The Understanding Interventions committee is co-chaired by Anthony DePass (Long Island University-Brooklyn) and Larry Hedges (Northwestern University). The workshop was sponsored by the National Institute of General Medical Sciences (NIGMS)' Division on Minority Opportunities.

Welcoming workshop participants, DePass noted that despite a history of support for these programs, it can be argued that "success has not been exactly stellar." A potential weakness has been that we have implemented "ideas borne out of what we intuitively think," he suggested. Have we studied what works and in what environment

to enhance success, he asked. How much longer do we have to get it right and pointed to the last sentence in the court decision of *Grutter v. Bollinger* which involved the Michigan law school and affirmative action. Supreme Court Justice Sandra Day O'Connor, in the deciding opinion, expressed that: "We expect that 25 years from now, the use of racial preferences will no longer be necessary to further the interest approved today." The Court's decision is being used as a paradigm to look at other programs aimed at increasing greater diversity, DePass explained. DePass stressed that there are pressures, political and otherwise, to get it right and cited the need for "empirical studies of what works, how to do it, how not to do it." Noting the tremendous interest in the workshop, Hedges explained that more than a 100 people were turned away and that there have been more than 2,500 visits to the website. It is "testimony" that this issue is a crucial problem in America," he noted.

'Progress is Remarkably Slow'

We are "faced with a huge problem" argued Clifton Poodry, director, NIGM's Division on Minority Opportunities. There are "large segments of the population that have not benefited from the fruits of science." They are "underserved and underrepresented in the workforce, faculty and leadership in academia and government," he added. Poodry explained that for the past 35 years there have been in place a number of programs to address the issue but "progress has been remarkable slow." He suggested that perhaps that "we are not going about it most effectively." Asking what works is not meaningful, said Poodry, and stressed that maybe the question to ask is "what works to do what?" It is a "complex and multidimensional problem, he contended. What do we need to know to design effective programs? What are the reasonable questions? What kinds of research and methodology to guide and test promising new interventions are needed, he asked.

Poodry warned participants to "beware the N=1." Readers and consumers of your work come from their singular experiences. You are going up against preconceived notions and individual experiences with life. Invoking Anais Nin, Poodry concluded by reminding the participants that "we see things not as they are but as we are."

NIGMS director Jeremy Berg explained that the NIH sees the challenges for the agency to develop a diverse biomedical workforce. According to Berg, it is a network problem. There are a lot of different paths to NIH, many different successful paths. The challenge is developing programs that will have significant impact. There are three fundamental questions that need answers Berg maintained.

1. What is the composition of the population at each point in the network? What is the probability that an individual makes it from one stage to the next?
2. Why do the success rates and the probabilities of success vary for the different groups?
3. How can these probabilities be changed so that we end up with a more diverse workforce in the end?

He offered that there are lots of hypotheses that lead to the third question. Berg stressed that there is a need to have the best basis for designing a program with benchmarks to expect and monitor progress and to discern whether the program is having the impact that you expect. Closing, he reiterated that the problem is an NIH-wide concern along with the need for a "more representative workforce." Accordingly, the agency would like to develop a "real knowledge base on what works," he concluded.

Define Success

Asked by a participant to articulate what he sees as success, Berg answered that success includes getting at the R01 (investigator-initiated research) that NIH will fund. The challenge is, he restated, is how to couple metrics of success at various stages. One hundred percent academic jobs is "unrealistic and does not happen in any group of people," he stressed. Medical school, he noted is seen as both a success and failure. It is better than the individual dropping out, but not as successful as a Ph.D. on track to an academic program. How can we be clear about expectations, but be realistic at the same time, he said, is the question.

Responding to a statement regarding the lack of information to track individuals and the need for a central repository of data, Berg answered that "tools are being developed." He acknowledged that it is one of the biggest challenges and that it is easier to track participants through training than through the R01 program. There is an interest in trying to find ways to collect the data. But tracking should not be an excuse for not looking at the data we have, he added.

When asked if there are promising interventions that he is comfortable with, he replied that they were “in better shape in respect to programs that seem to be working.” The question remains as to what aspects contribute to that success, he argued. The T32 training programs (institutional grants) are successful but we don’t know why. There are two issues to grapple with: 1) what programs are doing; and 2) understanding the impact of specific interventions.

NIH Director: ‘Candid Conversation Needed’

There is a need for a “candid conversation about this topic” declared the workshop’s keynote speaker, NIH director Elias Zerhouni. There is the sense that nothing works, Zerhouni argued. It is “like saying that we would have had the same results” without the programs, he contended. The question is how do we optimize our investment?

According to the NIH director, the real issue is the lack of data. Pointing out that the NIH is investing in a fully electronic system, Zerhouni emphasized that it is “strategically critical that we address the issue.” He cited the need for an evidence-based system. Zerhouni also stressed that without a testable hypothesis, one cannot design a pilot plan. He used the creation of the NIH Roadmap for Medical Research as an example. NIH is testing the hypothesis that peer review does not recognize exceptional science. With the creation of the NIH’s Director’s Pioneer Award, NIH is accumulating data over five years, to test the hypothesis.

With regard to minority training, the first step is to define testable, doable pilot experiments that we can learn from, Zerhouni stressed. In 2050, demographics project that 50 percent of the population will be today’s underrepresented minorities. We will have a problem as an institution and as a country, the director maintained if these people are not a more significant part of the scientific workforce. He suggested using studying mentoring as a way to figure out the difficulties of how to increase participation.

Zerhouni told participants that the fundamentals of this issue “relate to the social and behavioral sciences.” We have to deal with training as a system. There is a need to look at what the drivers are and the weight of each driver. For example, he said, take the issue of time dimensions: What is the optimal time to intervene? Do we intervene soon enough? Another issue is how to keep the underrepresented student in the system.

Another issue rarely discussed is cultural sensitivity. He noted that there are places where there is “good, competitive science being done,” but “your success is dependent on the community and fitting in.” Are there other factors that we are ignoring? He added that some training programs promote a “sense of alienation,” avoiding the difficulties of cultural diversity. How would you study that, he asked?

There is a “tremendous amount of anecdotal evidence” and there are “many dimensions to these questions,” Zerhouni concluded, but that should not deter us from this important task.

Social scientists who presented in the workshop included: Robert W. Lent (University of Maryland, College Park), Claude Steele (Stanford University), Michael T. Nettles (Educational Testing Service), Anne Preston (Haverford College), Orlando Taylor (Howard University), Barry Komiasaruk (Rutgers), and Kenneth Maton (University of Maryland, Baltimore County).

For more information, see <http://www.nationalacademies.org/moreworkshop> .

RESEARCH SUPPLEMENTS TO PROMOTE DIVERSITY IN HEALTH-RELATED RESEARCH AVAILABLE

Recognizing the unique and compelling need to promote diversity in the biomedical, behavioral, clinical and social sciences research workforce, the National Institutes of Health (NIH) is providing research supplements designed to promote diversity in health-related research. The agency expects efforts to diversify the workforce to lead to:

- the recruitment of the most talented researchers from all groups;
- an improvement in the quality of the educational and training environment;

- a balanced perspective in the determination of research priorities;
- an improved capacity to recruit subjects from diverse backgrounds into clinical research protocols; and
- an improved capacity to address and eliminate health disparities.

While the administrative supplements supported under this program provide funding for less than one percent of all individuals involved in NIH supported research, the NIH has found these programs to be an effective means of encouraging institutions to recruit from currently underrepresented groups. All NIH awarding components participate in this program which is designed to provide support for research experiences for individuals from the identified groups throughout the continuum from high school to the faculty level.

At the time of a supplemental award, the parent grant must have support remaining for a reasonable period (usually two years or more). Applications may be submitted to support high school students, undergraduate students, post-baccalaureate students, post-master's degree students, graduate students, individuals in postdoctoral training, or faculty members who will participate in the ongoing research project. Specific eligibility requirements relative to each level of award are set forth in the description of the individual supplement programs. In addition, the program will provide additional support for established NIH investigators and project leaders on components of program projects and center grants who become disabled.

The NIH expects to make more than 1,000 administrative supplements under this program at a total cost exceeding \$60 million. Direct costs for individual administrative supplements vary from less than \$5,000 to more than \$75,000 depending on the career level of the candidate. Applications may be submitted at any time.

For more information, see <http://grants.nih.gov/grants/guide/pa-files/PA-05-015.html>.

OBBSR Creates Supplement Training Website

Meanwhile, the NIH Office of Behavioral and Social Sciences Research (OBSSR) has created a website designed to expand the promotion efforts of the NIH research supplement training program. OBSSR seeks to ensure a concentration of researchers who will address behavioral and social factors that are important in improving the public's health, especially among underrepresented populations. The website creates a link between underrepresented students and faculty eligible for support through the *NIH Research Supplements to Promote Diversity in Health-Related Research* discussed above. For more information, see <http://mentoringfordiversity.od.nih.gov/Default.htm>

ADDRESSING THE ROLE OF PREGNANCY IN HIV PREVENTION: APPLICATIONS WANTED

The National Institute of Child Health and Human Development (NICHD) is seeking research applications to study how individuals' and couples' desires for pregnancy and/or for family limitation are affected by and affect concerns about their risks of HIV infection. "Both basic and applied behavioral and social science studies are responsive." The RFA (RFA-HD-07-020) stipulates that the basic research studies must suggest how findings might inform interventions. **Letters of intent are due June 27, 2007 and Applications are due July 27, 2007**

Questions within the scope of the announcement include, but are not limited to:

- In settings where HIV prevalence is high or increasing, how, if at all, do concerns about HIV risk and prevention affect childbearing and/or pregnancy prevention? How do concerns about childbearing and/or pregnancy prevention affect HIV risk and prevention?
- How do men, women, and couples negotiate behavioral strategies for both reducing HIV risk and achieving reproductive goals? What do these strategies look like and what are their implications for HIV risk, reproduction, and other outcomes such as health and domestic violence?
- Given the dynamic nature of perceived risks of pregnancy versus those of exposure to sexually-transmitted infections (STI) or HIV, what are women's and men's perceptions about using methods that provide dual

protection at different points during a woman's reproductive life? Do these change with the woman's age, and/or with the nature of her relationships?

- To what extent are HIV- and pregnancy-related services provided within the same health care service delivery settings and how effectively and efficiently are they integrated in these settings? What services are most likely to be jointly available or integrated? How is integration achieved? How is it reflected in the allocation of resources (e.g., staff time, training) and the information and services supplied to patients?
- How have policy initiatives introduced by governments, communities, or non-government organizations shaped the provision of HIV- and pregnancy-related services and the extent to which they are integrated? How have such initiatives shaped childbearing attitudes and behaviors? For example, has the differential rollout of anti-retrovirals in specific areas influenced childbearing or pregnancy prevention efforts or behaviors?
- How do existing institutional and cultural structures in a society influence the development of strategies to address both HIV and pregnancy concerns, at the individual, couple, community, and societal levels? What roles, if any, do economic and demographic conditions play in this?

For more information see <http://grants.nih.gov/grants/guide/rfa-files/RFA-HD-07-020.html>.

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The Consortium of Social Science Associations (COSSA) is an advocacy organization promoting attention to and federal support for the social and behavioral sciences.

UPDATE is published 22 times per year. ISSN 0749-4394. Address all inquiries to COSSA at newsletters@cossoa.org

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