NIH Director Makes Annual Appearance before Senate Appropriations Subcommittee

On May 11, National Institutes of Health (NIH) director Francis Collins made his annual appearance before the Senate Labor, Health and Human Services Subcommittee to discuss the President's FY 2012 budget request of $31.987 billion for the agency. Collins was accompanied by National Cancer Institute director Harold Varmus; National Institute on Allergy and Infectious Diseases director Tony Fauci; National Institute of Diabetes, Digestive, and Kidney Diseases director Griffin Rodgers; and National Heart, Lung, and Blood Institute director Susan Shurin.

Subcommittee Chair Senator Tom Harkin (D-IA) welcomed Collins and his colleagues, remarking
that he is both “inspired by the dedication of the scientists who testified” before the Subcommittee and “proud that their accomplishments have made America the world leader in biomedical research.” Harkin also expressed his dismay with the “pulling back” of support for the NIH in recent years. He observed that the U.S. “status in that regard has been threatened while China and Singapore make massive investments in research.”

Harkin underscored those observations by highlighting the recently completed FY 2011 appropriations bill that cut NIH funding by $322 million below the FY 2010 level. “When you consider how much funding was needed to keep up with inflation, the cut was more like $1.3 billion taking inflation into account,” he pointed out. He acknowledged, however, that it could have been worse had the House-passed H.R. 1 been signed into law. The bill would have cut the NIH’s FY 2011 budget by $1.6 billion, $2.6 billion if adjusted for inflation. Fortunately, the Senate rejected it, the Chair stated. Even the compromised bill that was ultimately signed in law will result in a success rate for NIH research grants of just 17 or 18 percent, “the lowest success rate on the record for NIH,” he reported.

‘Applying Science to Prevention’

Collins exclaimed that these were “very exciting times for biomedical research.” The agency is investing in innovation, including “applying science to prevention,” said Collins. “New treatments are wonderful, effective prevention can be even better,” he testified. “The NIH is dedicated to use the latest science to improve America’s health today by identifying effective new strategies for disease prevention,” said Collins. He cited as “a compelling example,” the increasing prevalence of diabetes. According to Collins, the total cost of diabetes, “including medical care disability and premature death were an estimated $174 billion in the U.S. in 2007. If current trends continue, one in three U.S. adults will have diabetes by 2020 just nine years from now. And the annual cost of care alone will have risen to a breathtaking $500 billion.”

Collins highlighted the NIH-sponsored Diabetes Prevention Program (DPP) which involved adults with pre-diabetes but that “refers to a modest elevation of glucose in the blood or shattering much worse to come if nothing is done, but not yet diabetes.” In his accompanying written testimony, Collins explained that the DPP found that a lifestyle program that included exercise training and dietary changes under the guidance of lifestyle coaches lowered risk of diabetes by 58 percent. The NIH continues to monitor the cost effectiveness of the DPP, $3,540 per participant over three years. The ten-year results are expected to be published in the near future, he reported. Collins also informed the Subcommittee that the NIH and the Centers for Disease Control and Prevention (CDC) are collaborating with private partners to bring these lifestyle interventions to communities in Ohio, Indiana, Minnesota, Arizona, Oklahoma, New Mexico, New York, New Jersey, Connecticut, and Georgia.

Ranking Member Senator Richard Shelby (R-AL) expressed his support federal investment in basic biomedical research and development. He also noted his concern with the standing up of the proposed National Center for Translational Science (NCATS) by the NIH. As research becomes more expensive and private capital dries up, Shelby emphasized that he believes it is critical to ensure support for translational research that moves a potential therapy from development to the market. The question, according to Shelby, is whether this is the right approach to solving the issue.

Collins replied to Shelby’s concern stressing that “NCATS will complement, not compete with the private sector. This is not Bethesda pharm, it will facilitate translational research being carried out elsewhere at the NIH, extensive translational work already going on by many of the 27 institutes.” NCATS, said Collins will “reinforce not reduce NIH’s commitment to basic science, a foundational part of our mission.” Shelby responded that he would like to continue to work with Collins, but expressed concern that the FY 2012 budget request does not provide adequate details on the reorganization.

“How Important is Behavior?”
Shelby also expressed interest in NIH’s efforts around health disparities. He pointed out that health disparities are most often associated with ethnic populations and also persist in the rural United States. Stroke, diabetes, kidney disease, and cancer are all more prevalent both in the African-American community as well as the South, he noted. He went on to say that “one of the root causes to health disparities” is the obesity epidemic, which he described as “rampant in our nation.” The Senator questioned if we should be “looking for a new paradigm that broadly addresses this critical national issue at multiple levels from molecules to behavior to policy.” “How important is behavior,” he asked the NIH panel.

Collins responded by saying he appreciated the question and pointed out that the NIH Obesity Task Force had just released its new strategic plan (see Update, April 18, 2011). He turned to Rodgers and Shurin, co-chairs of the Task Force, to answer Shelby’s question. Rodgers stressed that “obesity is a multifaceted problem and therefore you need multifaceted solutions, including behavioral, medical, surgical and others.” He emphasized that “Behavioral research is extremely important.” Shurin added that she and Rodgers have convened a collaborative on obesity with the CDC and the Department of Agriculture with the support of the Robert Wood Johnson Foundation. It is a multifaceted research program, much of it is community-based research, but it also ties into many biologically and behaviorally-oriented research programs, looking at the factors that impact obesity, said Shurin. She also emphasized that the impact of policy changes, the engagement of the food industry and preventive health services, are particularly important. Shurin concluded that there “are probably going to have to be some policy approaches that will have an impact on this...Simply relying on individual choices is not going to be sufficient.”

Senator Jack Reed (D-RI) also expressed his support for the NIH noting that “medical research is a huge component of the future of our country.” Reed stated his belief that medical research is a “cost-saving measure. It’s about saving people’s lives, improving the quality of their life. And so from an economic - as you point out, but also from a personal humanitarian point of view, what we do here in this subcommittee and what you do at NIH matters greatly.” Reed then asked Collins, “But other than money, is there something missing at NIH or here in our country, the United States, that makes it much more difficult or makes it difficult for you to reach the goals that you outlined for us today, or is this just a financial issue? How many dollars do we devote - what are the other, if any, impediments towards success?”

One particular barrier, Collins responded, is the lack of a “vigorous pipeline of young scientists coming into our fields. Part of that is the sad state of K-12 science education in this country, which has certainly, by any measure, slipped badly over where it used to be back in the -- 30 or 40 years ago in a sort of post-Sputnik arena where science education was really emphasized.” Another impediment he cited was the interest of foreign individuals to come here and the accompanying visa practices that makes it hard for them to stay. But frankly, said Collins, “the major concern that I think we have is just the lack of sufficient resources to chase down all of the great ideas that are now potentially possible.”

Collins also informed the Subcommittee of the Working Group to the Advisory Council, co-chaired by Shirley Tilghman, president of Princeton, he established because of the “need a better handle on what the supply and demand issues are in terms of the biomedical research workforce.” He pointed out that NIH, as a major source of training support, is interested in whether the agency is "appropriately tuning" its programs so that it has the numbers right in terms of how many people it is bringing in and what kinds of careers the agency is preparing them for.

### Education Department Eliminates and Reduces Many Programs as a Result of FY 2011 Appropriations

When the Congress completed the FY 2011 appropriations process it told the Department of Education to significantly reduce many of its programs. Higher education programs were reduced by $352 million. Congress did not specify the cuts, although some suggestions were proffered by
the House. The Department has now made its choices.

With its FY 2011 funding reduced by almost 87 percent, the Fund for the Improvement of Postsecondary Education (FIPSE) has announced that is withdrawing its solicitation for grants under the Comprehensive Grants program. The Department notes that the solicitation, announced on March 22, 2011, indicated an estimated $20.3 million would be available for awards under this competition. As always, the solicitation contained the caveat: "The actual level of funding, if any, depends on final congressional action."

In declaring the solicitation inoperable, the Department proclaimed: "Congressional action on the FY 2011 budget substantially reduced funds available for grants from the Fund for the Improvement of Postsecondary Education, including new grants under the Comprehensive Program. Therefore, no new awards will be made under the Comprehensive Program in FY 2011."

In the Administration’s FY 2012 request, the Department asked for $150 million for FIPSE. Included in that sum, was a First in the World initiative to provide funds to encourage innovative approaches to improving college completion, to support research and to scale up and disseminate proven strategies. Given the current budget climate the prospects for the appropriation of these funds is grim.

With regard to the Title VI International Education and Foreign Language programs, the Department decreased total funding from $125.9 million in FY 2010 to $75.7 million in FY 2011, a reduction of approximately 40 percent. Title VI Domestic Programs would receive $66.7 million in FY 2011 as opposed to $108.4 million in FY 2010. The Fulbright-Hays program would sustain a cut from $15.6 million in FY 2010 to $7.5 million in FY 2011. The Institute for International Public Policy would decline to $1.6 million from $1.9 million in FY 2010. At the moment there is no information on how these cuts will affect each of the programs within Title VI and Fulbright-Hays.

In addition, the Javits Fellowship program that awards graduate students in the social sciences, humanities and arts would see its meager funding of $9.7 million reduced by $1.6 million or 16.5 percent. The Department simply eliminated the Thurgood Marshall Legal Scholarships, a $3 million program to help underrepresented minorities prepare for law school. At the Institute for Education Sciences, for FY 2011 the Department reduces funding for the Regional Laboratories by $13.1 million and for Statewide data systems by $16.1 million. Under the FY 2012 budget request, the Administration would restore funding for these as well as the Title VI programs.

Under the category of "now that you are dead your programs can face elimination," the Department zeroed out the Robert Byrd Honors Scholarship program and the Emma Byrd Scholarships. The former recognizes exceptionally able high school seniors who show promise of continued excellence in postsecondary education. The latter provides scholarships to individuals pursuing a course of study that will lead to a career in industrial health and safety occupations, including mine safety.

Other programs eliminated are some of the small programs that previous administrations have sought unsuccessfully to end many times. These include: Women's Educational Equity ($2.4 million); Close-Up Fellowships ($0.19 million); Academies for American History and Civics ($1.8 million); Javits Gifted and Talented ($7.5 million); and Civic Education-We the People ($21.6 million), the rest of Civic Education was reduced by $12.2 million or over 91 percent.

As a contrast, the Administration increased Race to the Top funding by $699 million adding a new provision allowing States to use the funds for early childhood education grants.

**HELP Committee Hearing on Improving Health Quality and Patient Safety: First, Do No Harm**
On May 5th, the Senate Committee on Health, Education, Labor and Pensions (HELP), chaired by Senator Tom Harkin (D-IA) held a two-panel hearing on improving health quality and patient safety. The first panel consisted solely of Carolyn Clancy, Director of the Agency for Healthcare Research and Quality (AHRQ) at the United States Department of Health and Human Services (HHS). The second included Timothy Charles, President and CEO of Mercy Cedar Rapids Hospital in Cedar Rapids, IA and Philip Mehler, Chief Medical Officer of Denver Health in Denver, CO.

Clancy began her testimony by referencing the recently released 2010 AHRQ National Quality Healthcare Report which indicated that improvements in healthcare quality continue to progress at a very slow rate—about 2.3 percent a year. She also highlighted other data to emphasize that patients in hospitals continue to be harmed, in both minor and severe ways, by completely preventable causes; one in seven Medicare beneficiaries is seriously harmed in the hospital at a cost of $4.4 billion a year. To combat this issue, a National Strategy for Quality Improvement in Health Care was called for under the Affordable Care Act as a significant step in creating national aims and priorities to guide efforts to improve the quality of health care in the United States. While improvements based upon this strategy have already begun, Clancy emphasized that they will be rolled out in waves and that different methods would work in different facilities across the nation; the strategy articulates common goals, but it is not intended to specify how those goals are achieved. Clancy's full testimony is available here.

Senator Michael Enzi (R-WY), the HELP Committee's Ranking Republican, immediately addressed his skepticism of the Affordable Care Act's promises. He noted that it relied on voluntary grants to change long standing practices and that a March 2010 Congressional Budget Office Report said that the new models discussed at the hearing would actually produce an increased cost of $200 million over five years, as opposed to the predicted savings. Senator Barbara Mikulski (D-MD), who led the team on quality improvement during the Affordable Care Act's creation, spoke in defense of the theories behind the simple changes Clancy and Democratic legislators believe can so easily save lives and money. She spoke passionately about how basic things like checklists to ensure proper hygienic procedures in hospitals could save lives. After a comment from Enzi indicated that these provisions sounded like paying for things hospitals would normally do anyway to avoid lawsuits, Mikulski went on to indicate that the problem is overwhelmingly not issues of malpractice, but rather a systematic failure to identify small problems. She did, however, question Clancy as to why so few results could be seen after an initial investment of one billion dollars. Senator Michael Bennet (D-CO) also looked to Clancy for answers about results, asking her where she expected to see savings. Clancy replied that although estimates are still very cautious at this time, one large area of savings would be stopping preventable readmissions.

The second panel served to emphasize Mikulski and Clancy's points that different strategies could be effective in different places and that simple changes can lead to huge results. Mehler and Charles both spoke about the facilities they represent which have seen outstanding outcomes far ahead of comparable hospitals. Senator Sheldon Whitehouse (D-RI) commended the panel on their outstanding work, and noted that hospitals don't really see benefits from improving care and reducing readmissions, they in fact see a decline in profit. When he asked how government could encourage hospitals to improve outcomes and reduce readmissions, Chairman Harkin noted a section of the Affordable Care Act that will go into effect in October of 2012 to provide penalties and bonuses for overall quality, and sections that will provide penalties for readmissions and high infection rates.

For more information on the hearing and a full recording, please visit: http://help senate.gov/hearings/ hearing/?id=9b98f323-5056-9502-5dcb-74d2b9dd7831

National Advisory Council for Healthcare Research and Quality Meets
In April, the National Advisory Council (NAC) to the Agency for Healthcare Research and Quality (AHRQ) received an update on the agency's activities from the agency's director Carolyn Clancy at its quarterly meeting. The NAC provides recommendations and advice on priorities for a national health services research agenda to the Director of AHRQ.

Clancy began her remarks by pointing out how “thrilled” the agency was that its report to Congress on healthcare quality strategy (National Quality Standards) was released on March 21 and has been posted on healthcare.gov. Why the need for a strategy? Clancy explained that we are better at measuring than improving. She added that what makes working at the Department of Health and Human Services in a post Affordable Care Act (ACA) so exciting is how many of the HHS' operating divisions are involved in assessing and improving quality of care. She emphasized that there was often a “high degree of spiritual alignment and collaboration.”

She reported that the Patient Centered Research Institute (PCORI) board created by ACA, has been running for six months and its 21-member board was appointed in September 2010 by the Government Accountability Office (GAO). According to Clancy, there is a huge amount of excitement on the Board, which has had three meetings and a “lot of conference calls.” Clancy and National Institutes of Health director Francis Collins are appointed to the board via the statute creating it. She noted that the institute is mandated to include “research with a strong focus on the impact of various treatments and services on sub populations.” She informed them that the PCORI is still seeking to hire a director.

Clancy informed the Council that the U.S. Preventative Services Task Force, an independent panel of non-Federal experts in prevention and evidence-based medicine composed of primary care providers (such as internists, pediatricians, family physicians, gynecologists/obstetricians, nurses, and health behavior specialists) has changed the way that it now makes recommendations. The Task Force develops recommendations for primary care clinicians and health systems. AHRQ is congressionally mandated to support the Task Force which conducts scientific evidence reviews of a broad range of clinical preventive health care services including screening, counseling, and preventive medications. Clancy acknowledged the controversy created by the Task Force's recommendations on mammograms. She stressed, however, that the Task Force is not changing the substance or rating system, but is unveiling the recommendations when they are final. They are now posting the recommendations for public comment for four weeks on their new website, http://www.uspreventiveservicestaskforce.org/.

According to Clancy, AHRQ is recompeting its Research Centers for Excellence in Clinical Preventive Services; the funding opportunity is out right now. The Centers will serve as national research resources. Each center will address one of three programmatic areas: patient safety, health equity, and health care system implementation. Approximately $4.5 million may be available in FY 2011 to fund three Centers which will be funded through the Affordable Care Act Prevention and Public Health Fund. Applications are due May 23rd.

She announced that a Health IT Workflow Toolkit will be available very soon. The toolkit is under development by the University of Wisconsin at Madison. It will be available to the public and will be made available to the regional extension centers sponsored by the HHS' Office of the National Coordinator. The toolkit, said Clancy, addresses a pretty clear gap in the effective adoption of Health IT. She also noted that there were two evidence-based practice center reports on Health IT that were recently released or coming soon, one on medication management and the second on improved decision-making and knowledge management.

Concluding her report, Clancy noted that this year is the 50th year of the AHRQ annual conference which is scheduled for September 18-21, 2011. The conference theme is leading through innovation and collaboration.

Report to Congress: National Strategy for Quality Improvement in Health Care

The NAC also heard from Peter Lee, deputy director for policy and programs for the Center for
Medicaid and Medicare Innovation. Lee provided background on the Report to Congress: National Strategy for Quality Improvement in Health Care, commonly referred to as the National Quality Strategy, released on March 21st. The NQS, he emphasized, is a national strategy for the nation. Lee further stressed that the NQS "is not a federal strategy," nor is it "an HHS strategy or a strategy for government. He explained that the NQS was crafted from the beginning, and from the call in the Affordable Care Act, to bring together the public and private sectors "to establish a national quality strategy and a comprehensive strategic plan (the "National Quality Strategy") and to identify priorities to improve the delivery of health care services, patient health outcomes, and population health."

Lee stressed that the NQS is an evolving strategy that will be updated through a consultative consensus building process among all stakeholders. He reported that the strategy was not started "from scratch" but instead looked at existing quality frameworks. He also pointed out that they worked with the Institute of Medicine to identify a quality performance framework.

According to Lee, the framework consists of three interrelated and mutually reinforcing aims and is guided by a set of core principles that frame the underlying priorities and goals. The aims are:

1) **Better Care** - Improve the overall quality, by making health care more patient-centered, accessible and safe;

2) **Healthy People/Health Communities** - Improve the health of the U.S. population by supporting proven interventions to address behavioral, social, and environmental determinants of health in addition to delivering higher-quality care; and

3) **Affordable Care** - Reduce the cost of quality health care for individuals, families, employers, and government.

The three aims drive the six priorities, he explained. These priorities are based on research, input from a broad range of stakeholders, and examples from around the country. They include:

1. **Making quality care more affordable for individuals, families, employers, and governments by developing and spreading new health care delivery models.** The goal is to identify and apply measures that can serve as effective indicators of progress in reducing costs. An opportunity for success including establishing common measures to assess the cost impacts of new programs and payment systems.

2. **Making care safer by reducing harm caused in the delivery of care.** Lee pointed to the Michigan Keystone Intensive Care Unit Project, the so-called "Keystone Project," funded by AHRQ. Research teams at Johns Hopkins partnered with the Michigan Health and Hospital Association to implement the Centers for Disease Control and Prevention (CDC) recommendations to reduce central line blood stream infections in 100 intensive care units throughout the state. The project reduced the rate by two-thirds within three months.

3. **Ensuring that each person and family is engaged as partners in their care.** PCORI will built on the current work of AHRQ and the National Institutes of Health to assist patients, clinicians, and policymakers in making informed health decisions. Along these lines, AHRQ has developed a [guide](which outlines best practices and addresses common barriers to implementing patient-centered care) to help hospitals become more patient-centered. The goal is to create a delivery system that is less fragmented and more coordinated.

4. **Promoting effective communication and coordination of care.** The Federal government is promoting better care coordination through multiple programs. The ACA directs Center for Medicare and Medicaid Services to establish a "share savings program" to bring together groups of providers and suppliers to deliver better quality and more cost-effective care for Medicare beneficiaries. The statute requires that the program is
established no later than January 2012. The effort includes improving care coordination through Health Information Technology. In 2010, a federal regulation defining the first stage of meaningful use objectives was released. Meaningful use of health information technology improves quality by making needed clinical information accessible to all appropriate provider and in a more complete and timely fashion than paper records. The goal is to build a system that has the capacity to capture and act on patient-reported information, including preferences, desired outcomes, and experience with health care. Increasing the use of electronic health records (EHRs) that capture the voice of the patient by integrating patient-generated data in EHRs is cited as an opportunity for success. Another opportunity noted is routinely measured patient engagement and self-management, shared decision-making, and patient-report outcomes. Lee pointed out that one of the things that they “are absolutely very cognizant of is that these are priorities are overlapping and mutually reinforcing.”

5. **Promoting the most effective prevention and treatment practices for the leading causes of mortality, starting with cardiovascular disease.** The Strategy highlights cardiovascular disease as a place to start, partially out of recognition that other efforts are under way, including the National HIV/AIDS Strategy (NHAS) released in July 2010, and the Strategic Framework on Multiple Chronic Conditions (MCC) in December 2010). Lee noted that there are huge variations in mortality rates and the incidents of heart disease from different plans, delivery systems, and the like. The goal is to increase blood pressure control in adults, reduce high cholesterol levels in adults, increase the use of aspirin to prevent cardiovascular disease, and decrease smoking among adults and adolescents.

6. **Working with communities to promote wide use of best practices to enable health living.** Communities Putting Prevention to Work is a program which supports policy and environmental changes at the local and State level that aim to increase levels of physical activity; improve nutrition; decrease obesity rates; and decrease smoking prevalence, teen smoking, and exposure to second-hand smoke. Increasing the provision of clinical preventive service for children and adults, and increasing the adoption of evidence-based interventions to improve health are cited as opportunities for success.

Lee noted that the HHS Quality Work Group (QWG) assisted in the development of the NQS and will maintain a key role during implementation. The workgroup is chaired by the director of AHRQ and the Special Advisor to Office of Health Reform (OHR). It includes senior-level representatives from 22 HHS agencies and operating divisions and will meet at least quarterly. Member agencies/divisions include: Assistant Secretary for Administration, Assistant Secretary for Financial Resources, Assistant Secretary for Legislation, Assistant Secretary for Planning and Evaluation, Assistant Secretary for Preparedness and Response, Assistant Secretary for Public Affairs, CDC, CMS, Executive Secretariat, Food and Drug Administration (FDA), Health Resources and Services Administration (HRSA), Indian Health Services, NIH, Office of Civil Rights, Office of Public Health and Science, Office of the General Counsel, Office of the National Coordinator for Health Information Technology (ONC), Office of the Secretary, Office on Disability, and Substance Abuse and Mental Health Services Administration (SAMHSA).

He explained that the HHS Quality Work Group will meet regularly throughout the implementation process and will focus on four goals: a) review, consult and make recommendations to ensure that current HHS programs and initiatives align to the National Quality Strategy; b) consult on the identification of specific measures, targeted goals, and annual benchmarks for relevant agencies in achieving the national priorities; c) provide a forum for HHS agencies and operating divisions to develop and share specific plans to achieve the national priorities; and d) develop processes to assess and foster alignment of the efforts with States and private sector initiatives.

The ACA also established the Interagency Working Group (IWG) to ensure alignment and coordination of quality efforts. The IWG consists of 24 agencies, it is chaired by the HHS Secretary and members of the IWG will serve as Vice Chair on a rotating basis. The Group will meet at least three times a year and may convene more frequently at the IWG Chair’s discretion. Membership
Key functions of the IWG include: collaboration, cooperation and consultation between Federal departments and agencies; avoidance of duplication of quality efforts and resources and a streamlined process for quality reporting and compliance; assessment alignment of quality efforts in the public sector with private sector initiatives; providing a comprehensive forum for interagency information exchange and exploring opportunities for ongoing collaboration; identifying areas where collaboration and increased information sharing among Federal agencies would be beneficial; and providing an opportunity for federal agencies to showcase their initiatives and share best practices across the health care quality community. For more information about the IWG, see [http://www.ahrq.gov/workingforquality/](http://www.ahrq.gov/workingforquality/).


**New Director of National Institute of Dental and Craniofacial Research Named**

Martha J. Somerman has been appointed as director of the National Institute of Dental and Craniofacial Research (NIDCR) by National Institute of Health (NIH) director Francis Collins. Somerman is currently dean of the University Of Washington School Of Dentistry, Seattle. She is scheduled to begin her duties on August 29, 2011.

Somerman replaces former NIDCR director Lawrence Tabek who is currently serving as the principle deputy director of NIH. Prior to joining the University of Washington, she served on the faculty of the University of Michigan School of Dentistry, Ann Arbor, from 1991 to 2002. At Ann Arbor, she served as a professor and chair of peridontics/prevention and geriatrics. She also held an appointment as professor of pharmacology at the School of Medicine. Prior to that, she was on the faculty of the Baltimore College of Dental Surgery, 1984 to 1991.

Somerman is a native of Brooklyn, NY and holds a bachelor's degree in biology and a D.D.S. from New York University, a master's degree in environmental health from Hunter College, NY City, and a Ph.D. in pharmacology from the University of Rochester, NY. She completed her periodontal residency at the Eastman Dental Center in Rochester.

**National Advisory Council on Drug Abuse Meets**

On May 11, the National Advisory Council on Drug Abuse (NIDA), part of the Department of Health and Human Services' National Institutes of Health, held a meeting with closed and open sessions. Nora Volkow, NIDA's director, led the meeting and provided a Director's Report.

The recent budget resolution will bring a decrease of four percent in NIDA's purchasing power, which is much less drastic than was anticipated. Nevertheless, this will lead to changes in what NIDA has the ability to fund. In the talk about budget, the use of ARRA funding was also discussed. NIDA utilized much of these funds for vaccine and immunotherapy research; much of the research funded was different than what NIDA would typically select since the funds had a limited lifespan and studies needed to be similarly rapid. A large amount of knowledge, however, was gained from
Volkow also discussed new Program Announcements (PAs) and Requests for Applications (RFAs). Among those highlighted was an RFA emphasizing the "seek, test, treat and retain" model for HIV prevention and care. Volkow also underlined that opioid abuse is a growing problem and area of focus. Recent data indicates that there has been a four-fold increase in overdose deaths from opioid abuse over the last ten years. The percentage of these prescriptions that are diverted is unknown. However, it appears that one of the main issues is the insufficient training for doctors in dispensing pain medication. Medical schools provide, on average, seven hours of education on pain management, whereas veterinary schools provide 50.

For more information about NIDA research and events, please visit the organization's website at: http://www.nida.nih.gov/NIDAHome.html.

Two NAS Panels Seek Better Ways to Measure Deterrence and Innovation

Throughout its history the social sciences have sought to constantly upgrade its use of measurements to explain and behavioral phenomena. Recently, two panels held workshops to explore improving measurements to better understand: 1) Whether the death penalty has a deterrence effect; and 2) Science, Technology and Innovation.

On April 28-29, the National Academies' Committee on Law and Justice held a workshop under the auspices of its Committee on Deterrence and the Death Penalty, chaired by Daniel Nagin of Carnegie Mellon University and a COSSA Congressional Seminar speaker (see Update February 22, 2011). The Deterrence Committee reviewed a whole series of previous studies that used a variety of methods, including panel studies, time series studies, and statistical model specification choices, to reach what panel member Steven Durlauf, and his University of Wisconsin, Madison colleagues, Salvador Navarro, and Chao Fu, concluded contained "a wide range of empirical claims despite the use of common data for analysis."

National Institute of Justice Director John Laub indicated that recent experiences with exoneration of innocent people and problems with the chemicals used to carry out capital punishment created another opportunity to re-examine the deterrence question.

Many of the studies reviewed examined states that have the death penalty vs. those that do not. One of the problems in developing measurements for death penalty implications is the fact that one state - Texas - has executed far more people than any other over the recent past, in one analysis it carried out 43 percent of the executions. How to treat Texas - as its own data set, as an outlier, or as simply another data point - can affect analysis.

Another problem for analyzing deterrence is determining how many people are dissuaded from committing crimes, if they never happen. Robert Apel of Albany University, SUNY argued for more application of decision-making under uncertainty analyses. Examining situational decision-making scenarios might also provide different insights, Apel suggested.

Justin Wolfers of the Wharton School at the University of Pennsylvania noted that Arthur McDonald, in an article in the American Journal of Sociology in 1910, said "There are not as yet sufficient data to determine the influence of the death penalty." Although the amount of data has certainly increased since 1910, the quest to determine what it all means continues. The Committee will keep exploring the questions in the coming months.

Developing Science, Technology and Innovation Indicators for the Future

In mid-April the National Academies' Committee on National Statistics convened a panel on

The panel is charged with studying the status of the STI indicators that are currently developed and published by the National Science Foundation's National Center for Science and Engineering Statistics (NCSES) and recommending a “priority ordering for refining, making more internationally comparable, or developing a set of new STI indicators on which NCSES should focus.”

As Litan noted this exercise is occurring when federal budgets are enormously constrained. So, he asked whether the panel was faced with is a zero-sum activity - any new activity would mean the demise of old indicators. He noted that indicators focused on inputs, such as patents, are imperfect and may have outlived their usefulness. The time has come to measure outcomes. He also noted the need for timeliness and the need to disaggregate applied research. As with any discussion of data these days, Wyckoff raised the issue of how to best use administrative records. He also suggested that NSF needs to become a “node in a network” of international STI data collectors.

Kei Koizumi gave the perspective of the White House Office of Science and Technology Policy. He emphasized what he called the linkage problem of input data noted above to outputs and then to outcomes, which he said from the Administration's view were larger concepts such as the economy, health, energy, and the environment. For Gregory Tassey, Senior Economist at the National Institute of Standards and Technology, diffusion of results is the key. For Tassey, outputs are science papers, citations. Outcomes are commercialization of innovation and diffusion through the economy.

Koizumi and Tassey commended NCSES for its new Business Research and Development Survey and NSF for initiating the STAR METRICS program, now a multi-agency project with research institution partners to document the outcomes of science investments to the public. With regard to the Business Survey, Richard Freeman of Harvard noted that 80 percent of companies do no R&D.

Barbara Fraumeni of the University of Southern Maine wondered about measuring social science research and development in this innovation agenda. She also noted that budget pressures on state universities have led to calls for faculty to teach more and do less research.

The panel also expects to focus on the drivers and trends reshaping STI, the creative experimentation underway in data collection, particularly real-time data, global level indicators, and uses of administrative data to improve existing indicators or develop new ones.

**NAS Workshop Examines STEM Education Schools and Programs**

On May 10-11, the National Research Council's (NRC) Steering Committee on Highly Successful Schools or Programs for K-12 STEM (Science, Technology, Engineering and Math) Education held a two day workshop on successful K-12 programs and schools in this area. The workshop will help the National Science Foundation (NSF) fulfill its obligation to the House Commerce, Justice, Science Appropriations Subcommittee, whose chairman Rep. Frank Wolf (R-VA), chided NSF director Subra Suresh about an overdue report on this subject (see Update, April 18, 2011). Adam Gamoran, the John D. MacArthur professor of sociology and educational policy studies and the director of the Wisconsin Center for Education Research at the University of Wisconsin-Madison, chairs the Steering Committee.

The Steering Committee's mission is to plan and conduct public workshops to explore criteria for identifying highly successful K-12 schools and programs in the area of STEM education. Discussions at the workshops focused on refining criteria for success, exploring models of "best practice", and an analysis of factors that evidence indicates lead to success. Based on the workshops the committee will prepare a letter report for Congress that will outline criteria for identifying effective STEM schools and programs.
STEM fields can include a wide range of disciplines and are defined in different ways by different groups. For example, NSF defines STEM fields broadly, including not only the common categories of mathematics, natural sciences, engineering, and computer and information sciences, but also social and behavioral sciences such as psychology, economics, sociology, and political science. The National Center for Education Statistics (NCES) defines STEM fields more rigidly: mathematics; natural sciences (including physical sciences, biological, and agricultural sciences); engineering and engineering technologies; and computer and information sciences are included but the social and behavioral sciences are not. Recent federal and state legislative efforts aimed at improving STEM education mainly use the more rigid definition.

Norman Augustine, former CEO of Lockheed Martin and Chairman of the Committee that produced the *Rising Above the Gathering Storm* report, asked why STEM education matters. He said it matters because while only about four percent of the workforce are scientists and engineers, that four percent help create jobs for the other 96 percent. He also pointed out that STEM also helps drive our economy with 50 to 80 percent of America's GDP growth due to advancements in science and engineering.

Chairman Gamoran identified three overall goals for STEM education: identifying and nurturing student interest in STEM; teaching STEM effectively across student populations; and promoting scientific literacy. These goals would increase our nation's intellectual capital and create technically proficient workers and scientifically literate voters.

Currently the way our education system is built means unwieldy requirement after requirement is added without ever removing any of the cumbersome outdated policies. And unfortunately, curriculum reform policies are often undermined by systemic problems within the school climate and lack of professional capacity. Gamoran stated that we need to transcend the tedium of high school STEM education, and that while states and federal policies often act as a constraint to progress, policies can also help further progress along as in the case of the common core standards.

The workshop discussed how states are trying a variety of methods to improve STEM education from creating STEM academies, to STEM magnet programs, to reestablishing career and technical education schools and refocusing current curriculum in traditional schools to reflect a STEM focus. James Stone of the National Research Center for Career and Technical Education argued that we need to "teach math and science better not more." He has challenged the education mantra of high school graduates being "college and career ready" arguing that that they are not the same thing. Stone said there are academic, occupational, and technical skills that all students need, but the ratio of those skills depends on the path students want to take. He pointed out that the math you need for college is often different than the math you need for an occupation, and the math you need for college varies depending on your major with the math required for STEM majors different than the math required for liberal arts majors.

While currently mathematics is the only STEM field with common core standards, Jennifer Childress of Achieve is working with the NRC to develop the Next Generation Science Standards. These standards will be internationally benchmarked and developed for all students in K-12. Unlike the development of common core math standards, the development of science standards is a bottom up approach that no state has to agree to ahead of time. The standards are under development and ready for adoption by any state that wishes to implement science education reform. However, there is some concern that without Race to the Top, under attack for budgetary reasons, which was a huge carrot to induce states to adopt common core math and reading standards, there will be few to adopt these new science standards.

Part of the committee's mission also is to identify those criteria for which there is data readily available and those areas where further work is needed to develop data sources. Gamoran noted that there is an imbalance in the education research literature. "There is more research about math education than science education, more about science than engineering education and more about engineering than technology education," he declared.
The steering committee expects to issue its report in the Fall. For more about this project go to: http://www7.nationalacademies.org/bose/Successful_STEM_Schools_Homepage.html.

CNSF Holds Seventeenth Annual Exhibition

On May 11, 2011 the Coalition for National Science Funding held its 17th Annual Exhibition and Reception. Designed to showcase the results of National Science Foundation (NSF)-funded research to Members of Congress and their staffs, this year’s event took as its theme, Science, Technology, Engineering and Mathematics (STEM) Research and Education: Underpinning American Innovation.

Among the exhibitors were:

- Charles Holt of the University of Virginia representing the American Economic Association and displaying A Virtual Laboratory for Research and Teaching on Social and Economic Interactions;

- Karen King of New York University representing the American Educational Research Association and presenting Teachers’ Use of Standards-based Materials in Math: Impact on Student Achievement;

- Julio Ramirez of Davidson College on behalf of the American Psychological Association displaying The Science of Psychology: Mentoring the Next Generation of Behavioral Neuroscientists;

- Roberta Spalter-Roth representing the American Sociological Association where she is the director of research and development, displaying Technology, Networks, and the Diffusion of New Knowledge;

- Peter Craigmile of the Ohio State University representing the American Statistical Association, exhibiting Statistical Methods Applied to Climate Problems;

- Catherine Fitch of the University of Minnesota on behalf of the Population Association of America, displaying IPUMS and NHGIS: Population Data for Policy Analysis, Research and the Classroom;

- Vinod Menon of Stanford University representing the Society for Research in Child Development, presenting Understanding the Development of Mathematical Reasoning: A Neuroscience Approach; and

- Rick Thomas of the University of Oklahoma on behalf of the Federation of Associations in Behavioral and Brain Sciences, displaying Diagnostic Hypothesis Generation in Medicine, Intelligence, Surveillance, and Reconnaissance.


The CNSF is an alliance of over 120 organizations united by a concern for the future vitality of the national science, mathematics, and engineering enterprise. CNSF supports the goal of increasing the national investment in the NSF’s research and education programs in response to the unprecedented scientific, technological, and economic opportunities facing the United States. COSSA is a member of CNSF and Executive Director Howard Silver, chaired the Coalition from 1994-2000.
Meeting of the President's Council on Fitness, Sports and Nutrition

Obesity is a growing problem in the United States and the impact of behavior on the nation's weight is receiving increasing scrutiny. National Institutes of Health (NIH) director Francis Collins recently testified about the impact of behavior on weight and health at a Senate hearing (see NIH Director Makes Annual Appearance before Senate Appropriations Subcommittee) and USDA's National Institute of Food and Agriculture recently announced grants to fight childhood obesity. Many other groups are currently studying the issue, including the President's Council on Fitness, Sports and Nutrition.

On May 10, the Council met on Capitol Hill to discuss updates, the Healthy, Hunger-Free Kids Act of 2010, dietary guidelines, physical education (PE) programs across the nation and much more. Prominent healthcare professionals on the Council include Risa Lavizzo-Mourey, President and CEO of the Robert Wood Johnson Foundation, and Stephen McDonough, but they get little attention from photographers in a crowded room when seated next to fellow panelists like figure skating champion Michelle Kwan and New Orleans Saints quarterback Drew Brees.

Large topics of discussion were progress made because of the President's challenge and Presidential Active Lifestyle Awards (PALAs). The President's Challenge is the premier program of the President's Council on Fitness, Sports & Nutrition. The President's Challenge helps people of all ages and abilities increase their physical activity and improve their fitness through research-based information, easy-to-use tools, and friendly motivation. PALA awards motivate fitness by encouraging participants to set their own goals for physical activity and stick to them for at least six weeks. The awards are primarily pushed through schools and church youth groups, but people of all ages are encouraged to participate. On September 24, First Lady Michelle Obama, who spearheads the Let's Move! Campaign, and fellow fitness enthusiasts will celebrate the completion of one million PALA challenges. Shortly after this celebration, new nutritional components supporting national dietary guidelines will be added to PALA goals in October. To learn more about this program and how to get involved, please visit the Council's page.

The Council spent much of the meeting focused on looking at key successful PE programs from different areas around the nation to see how they had thrived and what benefits they were seeing in children as a result. In one of these presentations, Paul Zientarski, Department Chair and Coordinator of Learning Readiness PE in the Naperville, IL Community School District, described a program instituted in his district that has fundamentally changed the view on fitness education. The program was established on the theory that doing better in PE goes hand in hand with improving academic test scores. Learning readiness PE allows students, particularly those with previously low test scores, to do physical activity immediately before subjects like math. Multiple studies showed that students were able to learn substantially more in these classes after physical activity than students who did not have the benefit of exercise beforehand. Stories and studies like those provided by Zientarski seemingly convinced many panel members that quality daily PE was important to student achievement and needed to be implemented in all states.

For more information about the meeting as well as Powerpoint presentations from presenters click here.
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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.

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