President's Report Supplement

Program Listing and View of IOM Finances
2010 EDITION

INSTITUTE OF MEDICINE

OF THE NATIONAL ACADEMIES

Advising the nation/Improving health

TABLE OF CONTENTS 1

Contents

Letter from the President	2
President's Office and Executive Office Staff	9
Recent Publications	11
Program Listing	15
IOM Finances	49
Donors and Sponsors	55
In Memoriam	73

11 October 2010

Dear Friends,

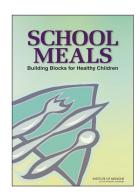
This past year has been one of great moment and momentum for U.S. health policy and for the work of the Institute of Medicine (IOM). Since its establishment 40 years ago, the IOM has never been more deeply engaged in a broader array of health challenges. Some of our work this year arises from health reform, providing independent, evidenced-based recommendations, and focusing attention on the triple goals of equity, effectiveness, and efficiency. Other projects this year emanate from sources as diverse as the Gulf of Mexico oil disaster, the growing problem of obesity, the needs of Gulf War veterans, new tools for analyzing and sharing health data, and opportunities to reduce the burden of chronic diseases in the United States and around the globe.

Unprecedented Productivity ... Substantial Impact

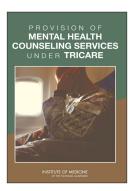
In the last 12 months, the IOM issued 60 reports and workshop summaries, an unprecedented pace of productivity. Beyond the number of words, pages, and publications lies communication and impact—how much difference the work of the IOM makes in terms of public and professional understanding, policy, practice, and health outcomes. Sometimes it takes years before policy makers take notice and act on findings and recommendations from the IOM. Other times, the response is immediate. Here are some examples from the past year of how the IOM makes a positive difference for health and wellbeing.

- The Affordable Care Act (ACA), enacted into law six months ago, is the most far-reaching health legislation in a generation. Among its components, the Patient-Centered Outcomes Research Institute closely follows the IOM's recommendations in *Initial Priorities for Comparative Effectiveness Research* and in *Knowing What Works in Health Care*. In presenting the bill, Senators Kent Conrad (D-ND) and Max Baucus (D-MT) both used the IOM's support for a coordinating advisory body as an argument in favor of the bill.
- At its heart, the ACA increases coverage of the uninsured. In the long debate leading up to the bill's passage, the IOM's series on the consequences of uninsurance, sponsored by the Robert Wood Johnson Foundation, anchored the argument in favor of expanded coverage. The 12th volume in the Robert Wood Johnson Foundation Anthology series, "To Improve Health and Health Care" (Isaacs and Colby, January 2009) characterizes the Foundation's support of the IOM studies in these terms: "There may be no other piece of Foundation-supported research on insurance coverage more cited for high impact than the series of reports the esteemed IOM produced on the consequences of being uninsured."
- Following release of the most recent IOM report on the health effects of serving in the Gulf War, the U.S. Department of Veterans Affairs under the leadership of Secretary Eric Shinseki, citing the IOM's findings, embarked on a concerted effort to identify the most effective treatments for veterans experiencing a wide variety of symptoms known as Gulf War illness.

• Just a couple of weeks after last year's annual meeting, the IOM released *School Meals: Building Blocks for Healthy Children*. The report offered a feasible, coherent program for how to design school menus in line with the long-ignored calls for more whole grains, fresh fruits, vegetables, and low-fat and fat-free milk in school meals. More than 900 media stories covered the report, including NPR's Morning Edition, CNN's American Morning, NBC Nightly News, ABC World News, and more than 300 local TV and regional cable stations. U.S. Department of Agriculture Secretary Tom Vilsack hailed the report and declared that "USDA is working as aggressively as possible to implement the IOM recommendations."



- In September, 2009, the U.S. Food and Drug Administration (FDA) released its Strategic Plan for Risk Communication in an effort to improve its public communications on food and drug safety. As expressed in an Associated Press wire, the plan "takes its cue from a 2006 report by the Institute of Medicine which found the FDA needed to do a better job communicating with the public."
- Based on the recommendations in the IOM report *Provision of Mental Health Counseling Services Under TRICARE*, a bipartisan group of senators, Claire McCaskill (D-MO), Susan Collins (R-ME), and Joseph Lieberman (I-CT), introduced legislation to increase access of TRI-CARE beneficiaries to mental health counseling.
- Very soon after release this past January of the report on hepatitis and liver cancer, the Centers for Disease Control and Prevention (CDC) launched a new website in response to the committee's recommendation to expand knowledge of and awareness about chronic viral hepatitis. The California Department of Public Health announced its first Adult Viral Hepatitis Prevention Strategic Plan.



- In November, 2009, Health Canada announced adoption of IOM's recommendations for gestational weight gain outlined in the report *Weight Gain During Pregnancy: Reexamining the Guidelines*, which appeared earlier that year.
- In June of this year, the Accreditation Council for Graduate Medical Education proposed updates to standards for residency training duty hours that, as stated in its press release, "build on the recommendations made by the Institute of Medicine."
- Responding to the needs identified in the IOM report *Cancer Care for the Whole Patient: Meeting Psychosocial Health Needs*, the Wellness Community joined with the Lance Armstrong Foundation to launch a new program offering a series of interactive weekly sessions to ease the transition from treatment to post-treatment care.
- On the most recent World AIDS Day (1 December 2009), the President's Emergency Plan for AIDS Relief (PEPFAR) announced a new strategic focus that draws heavily on the 2007 IOM report, PEPFAR Implementation: Progress and Promise. Among the key elements are the transition from emergency response to sustainable country programs, strengthened local

capacity to carry out the program, enhanced prevention, adaptation to local conditions and expression of the pandemic, and broader integration with health services delivery. In July, the Office of the Global AIDS Coordinator released new guidance on preventing HIV infection among injecting drug users "consistent with the recommendations" in an earlier IOM report. The IOM was again called upon by the Congress to evaluate PEPFAR programs in the Lantos-Hyde reauthorization act of 2008 and released a report in July of this year on the strategy we will follow for this assessment.

- In November, 2009, the National Institute on Aging announced plans to support a multicenter trial of testosterone replacement therapy in older men. As explained in its press release, the trial is designed in line with recommendations from a 2004 IOM report.
- This past year marked the 10th anniversary of the studies *To Err Is Human* and *Crossing the Quality Chasm*. These landmark reports continue to lay the foundation for numerous national and international efforts to enhance the quality and safety of health care. To cite just one recent example: in May of this year, the Behavioral Health Services (BHS) Division of Henry Ford Health System reported results of a comprehensive program redesign based on the principles in *Crossing the Quality Chasm*. After four years, the annual rate of suicide in the population dropped from 89 to 22 per 100,000, and the most recent nine consecutive quarters were suicide-free. These results, according to the BHS head, Dr. C. Edward Coffey, illustrate "that dramatic—indeed unimaginable—improvements in mental health care quality are possible, and the IOM's *Chasm* report can indeed serve as a very useful model for mental health care redesign."

The IOM can exert a positive influence through its convening power as well as through its reports and recommendations. For example:

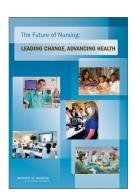
- Discussions at the Roundtable on Health Literacy prompted formation of the Health Literacy and Prescription Container Labeling Advisory Panel of the U.S. Pharmacopeia, which in turn issued standards for more consistent prescription container labeling.
- In April of this year, the NIH-led interagency working group on climate change and health released a report on research needs in the field. As the announcement of the report explains, "the ad hoc Interagency Working Group on Climate Change and Health was formed following a 2009 Institute of Medicine Roundtable on Environmental Health Sciences, Research, and Medicine meeting on climate change. At the gathering, leaders from NIEHS, the U.S. Environmental Protection Agency, the National Oceanographic and Atmospheric Administration, and the Centers for Disease Control and Prevention recognized that the scientific discussion around climate change needed to be reframed to emphasize the human health impacts and research needs to address them."
- Discussions at the IOM Forum on Medical and Public Health Preparedness for Catastrophic Events helped inform and shape the National Health Security Strategy of the United States, announced by U.S. Department of Health and Human Services (HHS) Secretary Kathleen Sebelius in January 2010.
- The Missouri Foundation, which participates in the IOM Roundtable on Health Literacy, committed to fund a new professional training program at the University of Missouri that will offer a certificate in health literacy.

• Facilitated by meetings under the auspices of one of the Collaboratives inaugurated by the IOM Roundtable on Value and Science-Driven Health Care, a consortium of 18 of the largest pediatric care systems formed the Pediatric EHR Data Sharing Network (PEDSNet) to share electronic health records for collaborative research on health care for children.

Flexible Response ... Increased Collaboration

During the past year, the IOM demonstrated its ability to respond with alacrity to pressing needs. In April of this year, the Deepwater Horizon drilling rig explosion quickly established itself as one of the nation's top environmental, political, economic, and health concerns. Within two weeks of the request from the HHS, the IOM convened a workshop in New Orleans, attended by more than 300 people, to begin planning for the surveillance of the oil spill's effects on human health. Since then, the IOM has been working closely with HHS and lead agencies at the National Institutes of Health (NIH) and CDC to give ongoing feedback on plans for short- and long-term assessments of health effects, including a second workshop conducted just last month in Tampa. At the request of HHS officials, the IOM also convened a gathering on the Community Health Data Initiative (CHDI), showcasing a variety of approaches and products to make relevant health information available to individuals and communities. These innovations were in dominant part developed in response to an earlier organizational meeting put on by HHS and the IOM. The latter gathering was the last meeting held in the National Academy of Sciences building on Constitution Avenue before it was closed in July for renovations. The CHDI demonstration projects proved so fascinating that it was hard to get attendees to leave at the end of the afternoon.

The IOM embarked on several new types of partnership over the past year. I alluded above to the Collaboratives being sponsored by the IOM Roundtable on Value and Science-Driven Health Care. These are intended to promote collaborative action among the participants to make progress



on different aspects of a learning health care system. As a second example, just last week, we released a committee report on *The Future of Nursing: Leading Change, Advancing Health*, a result of the Robert Wood Johnson Foundation Initiative on the Future of Nursing, at the Institute of Medicine. This novel partnership involves a high level of staff collaboration and commitment to follow up on promoting the report's recommendations. As another example, under the leadership of Executive Officer, Judy Salerno, the IOM, together with the NIH and CDC, are collaborating with HBO Documentary Films on a new, five-part film series aimed at reversing the rise of obesity in adults and children. The overall project is designed to include a new IOM study on accelerating progress in obesity prevention. This collaboration promises to

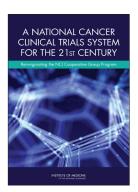
bring scientifically sound and engaging information on preventing and reversing obesity to millions of American households. We recognize in each case the opportunity to amplify our effectiveness through partnerships with like-minded and complementary organizations.

The IOM continued its international collaborations through the African Science Academy Development Initiative (ASADI), now in its sixth year. With our partners in Africa, IOM collaborated on a very successful workshop held in Kampala, Uganda, on mental, neurological, and sub-

stance use disorders in sub-Saharan Africa. Our sister academies have also begun to strike out on their own, a key ASADI objective from the outset. Having already produced numerous publications, the Academy of Science of South Africa (ASSAf) was able to fund itself at more than 80 percent this year. ASSAf also came together with the other African academies supported by the IOM to produce their first jointly prepared publication, *Science in Action: Saving the Lives of Africa's Mothers, Newborns, and Children*. This booklet presents the key health challenges faced by mothers and their children and lays out priorities for action. More globally, IOM continues to participate actively in the work of the InterAcademy Medical Panel, and this year, IOM Foreign Secretary, Jo Ivey Boufford, was elected a co-chair of the organization.

Advancing Health ... Uncompromising Standards

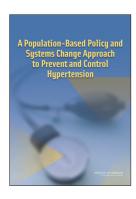
A number of IOM studies in the past year focused on improving biomedical research strategies. A major report, *A National Cancer Clinical Trials System for the 21st Century*, describes what must



be done to reinvigorate the National Cancer Institute's (NCI's) cooperative group program. The report has been embraced by leadership at the NIH and NCI, though its recommendations will undoubtedly be controversial in some quarters. The report *Evaluation of Biomarkers and Surrogate Endpoints in Chronic Disease* will inform an array of potential clinical studies. Also of special interest to the Food and Drug Administration is the IOM letter report *Ethical Issues in Studying the Safety of Approved Drugs*. At the request of the National Institute of Occupational Safety and Health (NIOSH), the IOM also produced *A Review of the NIOSH Roadmap for Research on Asbestos Fibers and Other Elongate Mineral Particles*. Workshops on topics ranging from clinical trials on suicidality to translating genome-based discoveries for

health extended IOM's work on improving biomedical research.

IOM advised on key topics related to disease prevention. A Population-Based Policy and Systems Change Approach to Prevent and Control Hypertension shed a spotlight on this greatly underappreciated condition. The report Hepatitis and Liver Cancer emphasized a national strategy to prevent and control hepatitis B and C. The IOM promulgated Strategies to Reduce Sodium Intake in the United States, a report welcomed by virtually everyone, save the Salt Institute, the industry's trade association. Bridging the Evidence Gap in Obesity Prevention summarized what is known and what remains to be learned as a guide to inform decision making. The report Secondhand Smoke Exposure and Cardiovascular Effects clarified the evidence on this widespread source of premature disease and death. Taking a global perspective, the IOM focused on



Promoting Cardiovascular Health in the Developing World, an especially timely and critical report in light of the large and growing prominence of heart disease in less developed countries.

This year saw the first fruits of IOM studies requested by the Social Security Administration to advise them on updating the social security listings for disability. These initial studies dealt with standards, respectively, for HIV and disability and for cardiovascular disability. It is difficult to overstate the importance of practical, scientifically informed, and clinically sound guidelines for these and other disability determinations.

LETTER FROM THE PRESIDENT 7

In addition to the initiative on the future of nursing mentioned earlier, the IOM considered other aspects of health professional roles and education. For example, the report *Redesigning Continuing Education in the Health Professions* illuminates appropriate ways for health professionals to continue to develop and hone their skills. In follow-up to an earlier IOM report on conflict of interest among health professionals, we convened a group of interested leaders from professional societies, academic journals, educational and medical-care institutions, and research agencies to initiate a conversation on unified reporting standards for individual faculty in their roles as clinicians, teachers, researchers, and authors.

Recent outbreaks of salmonellosis due to egg contamination highlight the importance of IOM recommendations to the FDA in the report *Enhancing Food Safety*. Responsibilities for food safety in the United States are divided between the FDA and the Department of Agriculture. For example, the former is responsible for eggs, the latter for chickens. Unifying responsibilities for food safety was featured, as an example, in the IOM report *HHS in the 21st Century*, released in December, 2008. The fragmentation of responsibility for food safety is a perennial and fraught policy problem whose persistence leaves the American public vulnerable to food safety threats that arise in the cracks.

Other reports over the past year aiming to improve public health include *Priorities for the National Vaccine Plan*, *Future Directions for the National Healthcare Quality and Disparities Reports*, and (together with National Research Council) *BioWatch and Public Health Surveillance: Evaluating Systems for the Early Detection of Biological Threats*. The IOM report *HIV Screening and Access to Care: Exploring Barriers and Facilitators to Expanded HIV Testing* identifies the need to promote clinician education and training specifically related to HIV testing in order to support increased access to care. In each of these studies, public health leaders turned to the IOM for guidance on critical choices affecting the public's health. These efforts were complemented by workshops on such diverse topics as the movement of infectious diseases in a borderless world, public health emergency countermeasures, benefits and costs of early childhood interventions, and assessment of the 2009 H1N1 influenza A pandemic.

Three reports released in the last year relate specifically to the health needs of veterans and active-duty military. Returning Home from Iraq and Afghanistan: Preliminary Assessment of Readjustment Needs of Veterans, Service Members, and Their Families is the first in a two-part series on the mental, emotional, physical, and health care challenges faced by the military, veterans, and their families. Provision of Mental Health Counseling Services Under TRICARE raised the need for more mental health counselors in the TRICARE system. Lastly, in Gulf War and Health, the IOM looked at evidence gathered on persistent, unexplained illnesses in gulf war veterans



since its last review issued in 2006 and concluded that continued monitoring and research are necessary to identify best treatment practices. I mentioned earlier the prompt response accorded these studies in the Veterans' Administration and the Congress.

Dedicated Staff and Volunteers ... Generous Supporters

As shown in the financial figures included in this supplement, the program budget in 2010 is expected to grow by about 12 percent over the preceding year. Approximately one-third of our program budget derives from private sources, mainly foundations, and about two-thirds of our govern-

ment support comes from the HHS. The following pages provide a listing of donors to the IOM; I laud and appreciate their generosity and confidence in our program. We have been fortunate this past year to expand the IOM Anniversary Fellows program, with support from the ABIM Foundation in honor of John Benson, added to the inaugural Norman Gant Fellowship endowed last year by the American Board of Obstetrics and Gynecology. I am especially grateful to all who provide unrestricted support to the IOM, which is so important in enabling us to move flexibly and speedily on new activities and studies. Thanks to the generosity of Leonard Schaeffer, we are fortunate this year to be able to announce an endowment gift of \$2 million to establish the first named chair at the National Academies, the Leonard D. Schaeffer Executive Officer at the Institute of Medicine.

More detail about the studies, forums, and other activities at the IOM are contained in the following pages of this Supplement to my Annual Report. The remarkable body of work completed in the past year is a tribute to the skill and dedication of our staff, the commitment of more than 2,000 members and other expert volunteers, and the generosity of our public and private supporters. It is a high privilege to serve at the Institute of Medicine during such a dynamic period of accomplishment, challenge, and promise for health and health care.

Sincerel

Harvey V. Fineberg, M.D., Ph.D.

Institute of Medicine

Office of the President

Harvey V. Fineberg, President Sherla Allen, Executive Assistant Emily Schelstrate, Assistant to the President for Special Projects

Executive Office

Judith A. Salerno, Executive Officer Jody Evans, Executive Assistant Clyde J. Behney, Deputy Executive Officer Jillian Grady, Senior Program Assistant

Office of the Home Secretary

Stephen J. Ryan

Office of the Foreign Secretary

Jo Ivey Boufford

Council and Membership Services

Judith Shamir, Director Donna D. Duncan, Deputy Director

Office of Reports and Communications

Lauren Tobias, Director of Communications Abbey Meltzer, Deputy Director

Office of Finance and Administration

Janet A. Stoll, Director Gary Walker, Deputy Director

Institute of Medicine Organizational Chart

President

Harvey V. Fineberg

Home Secretary

Stephen J. Ryan

Foreign Secretary

Jo Ivey Boufford

Executive Office

Executive Officer

Judith A. Salerno

Deputy Executive Officer

Clyde J. Behney

Office of Finance and Administration

> Janet A. Stoll Director

Office of Council and **Membership Services**

> Judith Shamir Director

Office of Development

Ellen M. Urbanski Director of Development

Office of Communications

Lauren Tobias Director of Communications

Boards

Population Health and **Public Health Practice**

Rose Marie Martinez Director

Health Sciences Policy

Andrew M. Pope Director

Health Care Services

Roger C. Herdman Director

Global Health

Patrick W. Kelley Director

Food and Nutrition

Linda D. Meyers Director

Children, Youth, and Families

Rosemary Chalk Director

African Science Academy Development

> Patrick W. Kelley Director

Health of Select Populations (and Medical Follow-Up Agency)

Rick Erdtmann

Health Policy Educational Programs and Fellowships

> Marie Michnich Director

Initiatives, Roundtables, and Forums

Robert Wood Johnson Foundation Initiative on the Future of Nursing

Food Forum

Forum on Drug Discovery, Development, and Translation

Forum on Microbial Threats

Forum on Global Violence Prevention

Forum on Neuroscience and Nervous System Disorders

Forum on Medical and Public Health Preparedness for Catastrophic Events

Health Literacy Roundtable

National Cancer Policy Forum

Roundtable on Environmental Health Sciences, Research, and Medicine

Roundtable on Value & Science-Driven Health Care

Roundtable on the Promotion of Health Equity and the Elimination of Health

Roundtable on Translating Genomic-Based Research for Health

RECENT PUBLICATIONS 11

Recent Publications

Building a National Framework for the Establishment of Regulatory Science for Drug Development. Workshop Summary (October 8, 2010)

BioWatch and Public Health Surveillance: Evaluating Systems for the Early Detection of Biological Threats (October 7, 2010)

The Future of Nursing: Leading Change, Advancing Health (October 5, 2010)

Rare Diseases and Orphan Products: Accelerating Research and Development (October 4, 2010)

Women's Health Research: Progress, Pitfalls, and Promise (September 23, 2010)

HIV Screening and Access to Care: Exploring Barriers and Facilitators to Expanded HIV Testing (September 16, 2010)

HIV and Disability: Updating the Social Security Listings (September 13, 2010)

Challenges and Opportunities in Using Residual Newborn Screening Samples for Translational Research. Workshop Summary (September 8, 2010)

Antibiotic Resistance: Implications for Global Health and Novel Intervention Strategies. Workshop Summary (September 7, 2010)

A Summary of the February 2010 Forum on the Future of Nursing: Education (August 31, 2010)

Cardiovascular Disability: Updating the Social Security Listings (August 27, 2010)

The Value of Genetic and Genomic Technologies. Workshop Summary (August 23, 2010)

Assessing the Effects of the Gulf of Mexico Oil Spill on Human Health: A Summary of the June 2010 Workshop (August 10, 2010)

Transforming Clinical Research in the United States. Workshop Summary (August 2, 2010)

Extending the Spectrum of Precompetitive Collaboration in Oncology Research. Workshop Summary (July 22, 2010)

Ethical Issues in Studying the Safety of Approved Drugs (July 9, 2010)

Mental, Neurological, and Substance Use Disorders in Sub-Saharan Africa: Reducing the Treatment Gap, Increasing Quality of Care. Workshop Summary (July 8, 2010)

Strategic Approach to the Evaluation of Programs Implemented Under the Tom Lantos and Henry J. Hyde U.S. Global Leadership Against HIV/AIDS, Tuberculosis, and Malaria Reauthorization Act of 2008 (July 7, 2010)

Demographic Changes, A View from California: Implications for Framing Health Disparities. Workshop Summary (June 28, 2010)

Leadership Commitments to Improve Value in Healthcare: Toward Common Ground. Workshop Summary (June 14, 2010)

Enhancing Food Safety: The Role of the Food and Drug Administration (June 8, 2010)

A Foundation for Evidence-Driven Practice: A Rapid Learning System for Cancer Care. Workshop Summary (June 4, 2010)

A Summary of the December 2009 Forum on the Future of Nursing: Care in the Community (June 3, 2010)

Evaluation of Biomarkers and Surrogate Endpoints in Chronic Disease (May 12, 2010)

CNS Clinical Trials: Suicidality and Data Collection. Workshop Summary (May 4, 2010)

Bridging the Evidence Gap in Obesity Prevention: A Framework to Inform Decision Making (April 23, 2010)

Strategies to Reduce Sodium Intake in the United States (April 20, 2010)

Student Mobility: Exploring the Impacts of Frequent Moves on Achievement. Workshop Summary (April 16, 2010)

A National Cancer Clinical Trials System for the 21st Century: Reinvigorating the NCI Cooperative Group Program (April 15, 2010)

Future Directions for the National Healthcare Quality and Disparities Reports (April 14, 2010)

A Summary of the October 2009 Forum on the Future of Nursing: Acute Care (April 14, 2010)

Gulf War and Health: Volume 8. Health Effects of Serving in the Gulf War (April 9, 2010)

The Public Health Emergency Medical Countermeasures Enterprise. Workshop Summary (April 8, 2010)

Preliminary Assessment of Readjustment Needs of Veterans, Service Members, and Their Families (March 31, 2010)

RECENT PUBLICATIONS 13

Perspectives from United Kingdom and United States Policy Makers on Obesity Prevention. Workshop Summary (March 25, 2010)

Regionalizing Emergency Care. Workshop Summary (March 22, 2010)

Promoting Cardiovascular Health in the Developing World: A Critical Challenge to Achieve Global Health (March 22, 2010)

Infectious Disease Movement in a Borderless World. Workshop Summary (March 12, 2010)

A Population-Based Policy and Systems Change Approach to Prevent and Control Hypertension (February 22, 2010)

Provision of Mental Health Counseling Services under TRICARE (February 12, 2010)

Policy Issues in the Development of Personalized Medicine in Oncology. Workshop Summary (February 8, 2010)

Medical Surge Capacity. Workshop Summary (January 27, 2010)

Hepatitis and Liver Cancer: A National Strategy for Prevention and Control of Hepatitis B and C (January 11, 2010)

The Domestic and International Impacts of the 2009-H1N1 Influenza A Pandemic: Global Challenges, Global Solutions. Workshop Summary (December 29, 2009)

Value in Health Care: Accounting for Cost, Quality, Safety, Outcomes, and Innovation. Workshop Summary (December 16, 2009)

The Healthcare Imperative: Lowering Costs and Improving Outcomes. Workshop Summary (December 16, 2009)

Priorities for the National Vaccine Plan (December 11, 2009)

Benefit-Cost Analysis for Early Childhood Interventions. Workshop Summary (December 10, 2009)

Measures of Health Literacy. Workshop Summary (December 8, 2009)

BioWatch and Public Health Surveillance: Evaluating Systems for the Early Detection of Biological Threats. Abbreviated Version: Summary (December 7, 2009)

Redesigning Continuing Education in the Health Professions (December 4, 2009)

Mitigating the Nutritional Impacts of the Global Food Price Crisis. Workshop Summary (December 1, 2009)

Crisis Standards of Care: Summary of a Workshop Series (November 17, 2009)

Systems for Research and Evaluation for Translating Genome-Based Discoveries for Health. Workshop Summary (November 11, 2009)

Assessing and Improving Value in Cancer Care. Workshop Summary (November 4, 2009)

Integrative Medicine and the Health of the Public: A Summary of the February 2009 Summit (November 4, 2009)

A Review of the NIOSH Roadmap for Research on Asbestos Fibers and Other Elongate Mineral Particles (October 29, 2009)

Nanotechnology in Food Products. Workshop Summary (October 29, 2009)

Community Perspectives on Obesity Prevention in Children. Workshop Summary (October 21, 2009)

Childhood Obesity Prevention in Texas. Workshop Summary (October 21, 2009)

School Meals: Building Blocks for Healthy Children (October 20, 2009)

Secondhand Smoke Exposure and Cardiovascular Effects: Making Sense of the Evidence (October 15, 2009)

Board on African Science Academy Development Initiative

Patrick W. Kelley, M.D., Director Organized: 2004

The principal goal of the African Science Academy Development Initiative (ASADI) is to advance the ability of nations in Africa to address their most serious health challenges by: (1) enhancing the capacity of African academies of science to provide independent, evidence-based policy advice to their governments, and (2) building African governments' appreciation of and demand for advice from these academies.

This ten-year effort engages nationally-based science academies in Cameroon, Ghana, Kenya, Nigeria, Senegal, South Africa, and Uganda; the African regional science academy, the African Academy of Sciences (AAS); and the Network of African Science Academies (NASAC).

The specific objectives of this initiative include the following:

- Select African academies of science with the greatest promise to provide evidence-based health policy advice;
- Provide training for staff members from each participating academy to prepare them to support the conduct of policy advisory activities and manage finances;
- Promote continuous discussion and debate of evidence-based policy development in crosscutting areas of health and sustainable development;
- Strengthen academy policy advisory capacity through mentored policy advisory activities;
- Strengthen substantive, managerial, and fiscal independence of academies of science through support of independent policy advisory activities and financially matched activities;
- Develop human, material, and organizational infrastructure in each academy to support the contribution of science to policy advisory work in the future;
- Build a regional alliance through annual symposia and learning collaboratives to enable participating academies and leading scientists in non-participating countries to learn from and support each other as they develop their roles;
- Develop demand from African governments and civil society organizations for evidencebased policy advice from African academies of science; and
- Externally evaluate project outcomes and the effectiveness of the processes used to achieve project outcomes.

Recent Activities

Nigerian Academy of Science (NGAS)

In 2009/2010, NGAS completed through the ASADI-funded Forum on Evidence-based Health Policymaking workshop reports on Primary Health Care Systems in Nigeria; Strengthening Health Systems in Nigeria; and Maternal, Newborn, and Child Health in Nigeria, a Forum activity related to the Science in Action document that was a product for the ASADI V Annual Meeting in Ghana. NGAS launched the Maternal, Newborn, and Child Health in Nigeria report at the Ghana meeting to maximize the audience, impact, and relevance of its report.

Uganda National Academy of Science (UNAS)

In 2009/2010, UNAS undertook five policy advisory activities: a workshop on Establishing and Promoting Good Laboratory Practice and Standards for Running Safe, Secure, and Sustainable Laboratories in Sub-Saharan Africa; a workshop on Quality of Care for Mental Health and Neurological Disorders; report on the Feasibility of Regulating Herbal Formulations and Other Forms of Alternative Medicinal Therapies Sold on the Ugandan Market; report on the Scope of Biosafety and Biosecurity in Uganda; and strengthened its linkages with the government of Uganda under the MP/ Scientists Pairing Scheme (Pilot).

Academy of Science of South Africa (ASSAf)

A critical area of ASSAf's policy advisory activities relates to evidence-based studies of national importance. There has been a noteworthy increase in the number of evidence-based projects, which form the core of the Academy's function and are a key area for future development. Projects play an important role in mobilizing the ASSAf membership in service on committees and panels. In 2009/2010, the Academy engaged in the following major advisory studies:

- Clinical Research and Related Training in South Africa
- Science, Technology, Engineering, and Mathematics (STEM) Education
- Science for Poverty Alleviation
- State of Humanities in South Africa
- Ph.D. Study: Enhancing the Production of Postgraduates in South Africa
- Improved Nutritional Assessment in South Africa (a follow-up activity to the Academy's earlier report on HIV/AIDS, TB, and Nutrition).

2009 Annual Meeting

The fifth annual meeting of the African Science Academy Development Initiative (ASADI) — Improving Maternal, Newborn, and Child Health in Sub-Saharan Africa —was held in Accra, Ghana

on November 9-11, 2009 and hosted by The Ghana Academy of Arts and Sciences. The conference served as an important opportunity to build on the findings and recommendations of recent international conferences, such as the 2007 Women Deliver conference in London, and translate them for the African context. It also served as an opportunity to explore the potential future contribution that African academies of science can make toward supporting their own national governments' efforts to attain these worthwhile goals. In line with this, Science in Action, a companion policy document, was developed by the eight African academies and launched at the Annual Meeting. Science in Action presents an overview of the current status of maternal, newborn, and child health (MNCH) in sub-Saharan Africa and reports a new analysis. The 28-page policy document is targeted at policymakers, program implementers, and partners such as donors (G8), the African Union, UN agencies, and policymakers supporting programs in developing countries. It was disseminated during the conference to representatives from WHO, UNICEF, UNAIDS, GAVI Alliance, the Ministries of Health of all seven partner countries, and other stake holders and individuals involved in MNCH research. Dissemination of the Science in Action publication is still ongoing even beyond the conference, targeting key stakeholders involved with MNCH policy issues across the globe. In addition to these efforts, the report and several of the presentations at the conference have been developed into papers and published since in the June 21 version of PLoS Medicine. Furthermore, through the use of technology, His Excellency Kofi Annan, former United Nations Secretary General; Mary Robinson, Chair, GAVI Alliance; and the presidents of the science academies of the United Kingdom, United States, and Germany delivered welcome messages at the opening ceremony via video. In all, about 200 delegates from Ghana, Senegal, Uganda, Nigeria, Senegal, South Africa, Tanzania, Burkina Faso, Malawi, United States, Germany, and United Kingdom attended, representing scientists, policymakers, donor agencies, and other key stakeholders involved in maternal and child health issues.

2010 Annual Meeting

The sixth annual ASADI Meeting will be hosted by the ASSAf in Cape Town from November 7 to 10, 2010, under the theme Improving Energy Access in Africa. In line with this, a planning meeting was organized in Pretoria, South Africa, in September 2009 with the objective of developing the conference agenda and identifying potential speakers. A follow-up workshop was held in March 2010 to commission and develop a policymaker's handbook, *Energy Research Center*, which will be endorsed by the eight partner academies. Both planning meetings were attended by representatives of the African science academies. It is envisaged that the *Energy Research Center* publication will be launched and released during the Annual Meeting.

Board Roster

Enriqueta C. Bond (Chair), Marshall, Virginia

Jo Ivey Boufford (ex officio, Foreign Secretary, IOM), New York Academy of Medicine, New York, NY

George Bugliarello (ex officio, Foreign Secretary, NAE), Polytechnic University, Brooklyn, NY

Michael Clegg (ex officio, Foreign Secretary, NAS), Department of Botany and Plant Sciences, University of California, Riverside, CA

Phillip A Griffiths, Institute for Advanced Study, Princeton University, Princeton, NJ
 Princeton Lyman, Council on Foreign Relations, Washington, DC
 Narciso Matos, Foundation for Community Development, Maputo, Mozambique
 Cheikh Mbacké, William and Flora Hewlett Foundation, Dakar, Senegal
 Speciosa K. Wandira, Concave International Ltd, Kampala, Uganda

Board on Children, Youth, and Families

Rosemary A. Chalk, Director Organized: 1993

The Board on Children, Youth, and Families (BCYF) was created in 1993 and serves as the focal point for authoritative analysis of child, adolescent, and family issues relevant to scientific research and policy decisions. The Board brings a life-course and evidence-based perspective to bear on the formation of policies and programs, drawing on the collective knowledge and analytic tools of a broad array of scientific disciplines. The Board also fosters the recognition that children, adolescents, and families constitute unique populations whose important differences are often not addressed in research studies, public policy and program development discussions, or the organization and financing of health and human services.

The Board is a joint collaboration between the Institute of Medicine (IOM) and the National Research Council (NRC) Division of Behavioral and Social Sciences and Education. It serves as the only structure that combines the behavioral, social, biological, and health sciences within The National Academies. BCYF activities are inherently interdisciplinary and frequently involve collaboration with other major IOM and NRC divisions.

BCYF engages in work that is both responsive and anticipatory: responsive to current social policy issues, and anticipatory of scientific discoveries that pose long-term opportunities and challenges in the lives of children, youth, and families. Through studies, reports, workshops, websites, and other activities, the Board informs public and private deliberations about the most critical issues facing communities, states, and the nation: child and adolescent health and health care services; the prevention of mental, emotional, and behavior disorders as well as the promotion of positive mental health; biological and behavioral changes among children and youth; pregnancy, parenting, and family support; child care, early childhood education, and the assessment of young children; school engagement and youth development; poverty, child abuse, family violence, and child welfare; the prevention of underage drinking, teen motor vehicle crashes, and other risky and dangerous behaviors; and the promotion of settings and strategies in childhood and adolescence that address the social determinants of health status and functioning.

The Board is also focusing on emerging research areas that affect the well-being of children and youth; changing patterns in the onset of puberty, brain structures, and hormonal development;

reward behaviors, motivation, decision making and other learning behaviors; emotional regulation, social support, and connectedness; and environmental processes that influence caregiving practices and the social protection of children, especially vulnerable populations affected by HIV/AIDS, civil conflict, or natural disasters. These issues are drawing more attention in response to the growing ethnic diversity of families in the United States, changes in the economy and family structure, changes in the work and media environments of families, and other demographic trends. Synthesizing what is known about research that can inform policy, practice, and program development requires not only an examination of multifaceted research studies but also the formation of new partnerships with public and private organizations to exchange knowledge, perspective, and experience.

From 2008 to 2010, the Board released several major study reports that offered recommendations to improve health care services for adolescents, to strengthen the prevention of mental health disorders and substance abuse for children and youth, to enhance treatment and preventive interventions focused on families struggling with a depressed parent, and to enhance the use of evidence-based assessments in evaluating developmental outcomes among very young children (ages 0 to 5). The Board is now seeking funds to launch new projects that focus on the safety and efficacy of fetal imaging technologies and the development of global indicators of social protection and well-being for vulnerable populations of children and youth, such as those affected by HIV/AIDS and those who live in regions affected by civil disorder or natural disasters.

Recent Reports

2010

- Strategic Approach to the Evaluation of Programs Implemented Under the Tom Lantos and Henry J. Hyde U.S. Global Leadership Against HIV/AIDS, Tuberculosis, and Malaria Reauthorization Act of 2008 (with the IOM Board on Global Health)
- Student Mobility: Exploring the Impact of Frequent Moves on Achievement: Summary of a Workshop

2009

- Strengthening Benefit-Cost Analysis for Early Childhood Interventions: Workshop Summary
- Depression in Parents, Parenting, and Children: Opportunities to Improve Identification, Treatment, and Prevention
- Weight Gain During Pregnancy: Reexamining the Guidelines (with the IOM Food and Nutrition Board)
- A Review of the HHS Family Planning Program: Mission, Management, and Measurement of Results (with the IOM Board on Health Sciences Policy)
- Preventing Mental, Emotional, and Behavioral Disorders Among Young People: Progress and Possibilities
- Adolescent Health Services: Missing Opportunities

2008

- Early Childhood Assessment: Why, What, and How? (with NRC Board on Testing and Assessment)
- The National Children's Study Research Plan: A Review (with NRC Committee on National Statistics)

Current Activities/Studies in Progress

- From Neurons to Neighborhoods: 10-year Anniversary Workshop
- Pediatric Health and Health Care Quality Measures (with the IOM Board on Health Care Services)
- Oral Health Access to Services
- Oral Health Initiative (with the IOM Board on Health Care Services)
- Science of Adolescence: Three Workshops
- Science of Research on Families: A Workshop

Projects in Development

- Early Childhood Care and Education Workforce: A Workshop
- IOM Report on Pregnancy Weight Gain Guidelines: Dissemination Workshops and Related Activities
- Neurodevelopmental Effects in Children with Chronic Illnesses: A Workshop
- Sports-related Youth Concussions: A Workshop
- Health Care Transitions for Adolescents with Chronic Disease
- A Research Agenda for Young English Language Learners

Board Roster

Bernard Guyer (Chair), Bloomberg School of Public Health, The Johns Hopkins University, Baltimore, MD

Shari Barkin, Department of Pediatrics, Monroe Carell Jr. Children's Hospital, Vanderbilt University, Nashville, TN

Jane D. Brown, School of Journalism and Mass Communication, University of North Carolina at Chapel Hill

BJ Casey, Sackler Institute, Weill Medical College of Cornell University, New York, NY

Debbie I. Chang, Nemours Health and Prevention Services, Newark, DE

Angela Diaz, Department of Pediatrics and Community Preventive Medicine, Mount Sinai School of Medicine, New York, NY

Gary W. Evans, Department of Design & Environmental Analysis and Department of Human Development, Cornell University, Ithaca, NY

Christine C. Ferguson, School of Public Health and Health Services, The George Washington University, Washington, DC

Michele D. Kipke, Saban Research Institute, USC Childrens Hospital, Los Angeles, CA

Nancy S. Landale, Department of Sociology, The Pennsylvania State University, University Park, PA

Jens Ludwig, Harris School of Public Policy Studies, University of Chicago, Chicago, IL

Ann S. Masten, Institute of Child Development, University of Minnesota, Minneapolis, MN

Bruce S. McEwen, Harold and Margaret Milliken Hatch Laboratory of Neuroendocrinology, The Rockefeller University, New York, NY

Andrew Meltzoff, Department of Psychology, University of Washington, Seattle, WA

Pamela Morris, The Steinhardt School of Culture, Education, and Human Development, New York University, New York, NY

Velma McBride Murry, Peabody College, Vanderbilt University, Nashville, TN

Frederick P. Rivara, Schools of Medicine and Public Health, University of Washington, and Children's Hospital and Regional Medical Center, Seattle, WA

John R. Weisz, Judge Baker Children's Center and Harvard Medical School, Boston, MA

Hirokazu Yoshikawa, Graduate School of Education, Harvard University, Cambridge, MA

Michael Zubkoff, Department of Community and Family Medicine, Dartmouth Medical School, Hanover, NH

Food and Nutrition Board

Linda D. Meyers, Ph.D., Director Organized: 1940

The Food and Nutrition Board (FNB) is a focal point for activities of the IOM concerned with food, nutrition, obesity prevention, and food safety. The primary goals are:

- To provide visionary leadership in the effective application of the full range of nutrition and food sciences to improve human health;
- To contribute at national and global levels to the enhancement of child growth and development; prevention of diet-related deficiencies and chronic diseases; and improvement of physical and cognitive function, health, and well being;

- To decrease the incidence of foodborne diseases to improve human health nationally and globally; and
- To apply scientific knowledge to advise on policies and approaches to eliminate, reduce, or control the natural, inadvertent, or intentional contamination of the food supply.

Recent Reports

2010

- Enhancing Food Safety: The Role of the Food and Drug Administration (with Division of Earth and Life Studies)
- Evaluation of Biomarkers and Surrogate Endpoints in Chronic Disease (with Board on Health Care Services and Board on Health Sciences Policy)
- Bridging the Evidence Gap in Obesity Prevention: A Framework to Inform Decision Making
- Strategies to Reduce Sodium Intake in the United States
- Perspectives from the United Kingdom and United States Policy Makers on Obesity Prevention. Workshop Summary

2009

- Mitigating the Nutritional Impacts of the Global Food. Workshop Summary (with Board on Global Health)
- Nanotechnology in Food Products. Workshop Summary
- School Meals: Building Blocks for Healthy Children
- Community Perspectives on Obesity Prevention in Children. Workshop Summary
- Childhood Obesity Prevention in Texas. Workshop Summary
- Local Government Actions to Prevent Childhood Obesity (with Board on Population Health and Public Health Practice; Board on Children, Youth, and Families; and Transportation Research Board)
- The Public Health Effects of Food Deserts. Workshop Summary (with Division on Earth and Life Studies)
- Weight Gain During Pregnancy: Reexamining the Guidelines (with Board on Children, Youth, and Families)
- Managing Food Safety Practices from Farm to Table. Workshop Summary
- Review of the Use of Process Control Indicators in the FSIS Public Health Risk-Based Inspection System

2008

• Nutrition Standards and Meal Requirements for National School Lunch and Breakfast Programs: Phase I. Proposed Approach for Recommended Revisions

- Use of Dietary Supplements by Military Personnel
- Foodborne Disease and Public Health: Summary of an Iranian-American Workshop (with Policy and Global Affairs Division)

• Development of DRIs 1994-2004: Lessons Learned and New Challenges

Current Activities/Studies in Progress

- Accelerating Progress in Obesity Prevention
- Dietary Reference Intakes for Vitamin D and Calcium
- Nutrition and Healthy Aging in the Community: Workshop
- Evidence Framework for Obesity Prevention Decision-making—Dissemination Phase
- Examination of Front-of-Package Nutrition Rating Systems and Symbols
- Nutrition, Trauma, and the Brain
- Obesity Prevention Policies for Young Children
- Review of FDA's Role in Ensuring Safe Food (with Division of Earth and Life Studies)— Dissemination Phase
- Review of Child and Adult Care Food Programs
- Workshop on Planning a WIC Research Agenda
- Workshop on Understanding the Relationship between Food Insecurity and Obesity
- Standing Committee on Childhood Obesity Prevention
- Standing Committee on Military Nutrition Research
- Standing Committee on Use of Public Health Data in FSIS Food Safety Programs (with Division of Earth and Life Studies)
- Food Forum

Projects in Development

- Dietary Reference Intakes—Criteria and Process for Undertaking Nutrient Reviews
- Nanotechnology in Food and Nutrient Delivery Systems
- Nutrition and Food Sciences Training and Workforce to Meet Future Health Promotion and Disease Prevention Needs
- Pregnancy Weight Gain Guidelines—Enhanced Dissemination and Derivative Products (with Board on Children, Youth, and Families)
- Ready-to-Use Therapeutic Foods (RUTF) in Developing Countries

Other Activities

• IOM Coordinator for HBO's The Obesity Project

Board Roster

- **Dennis M. Bier (Chair),** Department of Pediatrics, USDA/ARS Children's Nutrition Research Center, and NIH General Clinical Research Center, Baylor College of Medicine, Houston, TX
- **Diane Birt,** Department of Food Science and Human Nutrition and Center for Research on Dietary Botanical Supplements, Iowa State University, Ames, IA
- **Fergus M. Clydesdale,** Department of Food Science, University of Massachusetts, Amherst, MA
- **Richard J. Deckelbaum,** Institute of Food and Nutrition, Columbia University, New York,
- **Gordon Jensen,** Department of Nutritional Sciences, Pennsylvania State University, University Park, PA
- **Susan T. Mayne,** Division of Chronic Disease Epidemiology, Yale University School of Medicine, New Haven, CT
- **Sanford A. Miller,** Center for Food, Nutrition, and Agriculture Policy, University of Maryland, College Park, MD
- J. Glenn Morris, Jr., Emerging Pathogens Institute, University of Florida, Gainesville, FL
- Suzanne P. Murphy, Cancer Research Center of Hawaii, University of Hawaii, Honolulu, HI
- **Jose M. Ordovas,** Jean Mayer USDA Human Nutrition Research Center on Aging, Tufts University, Boston, MA
- **Martin A. Philbert,** Environmental Health Sciences, School of Public Health, University of Michigan, Ann Arbor, MI
- **Jim E. Riviere,** Center for Toxicology Research and Pharmacokinetics, College of Veterinary Medicine, North Carolina State University, Raleigh, NC
- Patrick J. Stover, Division of Nutritional Sciences, Cornell University, Ithaca, NY
- **Walter C. Willett,** Department of Nutrition, School of Public Health, Harvard University, Cambridge, MA

Board on Global Health

Patrick W. Kelley, M.D., Director Organized: 1985

Established in 1985, The Board on Global Health (BGH) is concerned with advancing the health of populations worldwide. This involves addressing developing country health issues, enhancing the United States' role in global health, and addressing health issues that have implications for U.S. health policy. The Board identifies priority issues in these areas and facilitates provision of evidence-based guidance and recommendations to the U.S. government, international organizations, foundations, and non-governmental organizations. The Board also collaborates with the medical academies in other countries, developed and developing, on health issues of mutual concern.

Board members have broad expertise in international health and experience in a range of countries. The Board focuses on public health programs for prevention and control of disease and disability. This includes assessment of biomedical knowledge, research, and opportunities; reduction of behavioral, socioeconomic, and environmental risks to public health; recognition and guidance on ethical issues in public health; and recognition of opportunities to apply scientific knowledge to public policy making. These activities frequently include addressing the adequacy of the scientific base to support improvements in health and health care, along with the availability of trained personnel, institutional capacity, and supportive partnerships and collaborations.

Recent Reports

2010

- Antibiotic Resistance: Implications for Global Health and Novel Intervention Strategies. Workshop Summary
- Strategic Approach to the Evaluation of Programs Implemented Under the Tom Lantos and Henry J. Hyde U.S. Global Leadership Against HIV/AIDS, Tuberculosis, and Malaria Reauthorization Act of 2008
- Promoting Cardiovascular Health in the Developing World: A Critical Challenge to Achieve Global Health
- Infectious Disease Movement in a Borderless World: The Impact of Global Governance Mechanisms to Prevent the Spread of Disease. Workshop Summary

2009

- The Domestic and International Impacts of the 2009-H1N1 Influenza A Pandemic: Global Challenges, Global Solutions. Workshop Summary
- Sustaining Global Surveillance and Response to Emerging Zoonotic Diseases
- Mitigating Nutritional Impacts of the Global Food Crisis. Workshop Summary

- Global Issues in Water, Sanitation, and Health. Workshop Summary
- Microbial Evolution and Co-Adaptation. A Tribute to the Life and Scientific Legacies of Joshua Lederberg. Workshop Summary
- Live Variola Virus: Considerations for Continuing Research
- U.S. Commitment to Global Health: Recommendations for the Public and Private Sectors
- Infectious Disease Movement in a Borderless World: The Impact of Global Governance Mechanisms to Prevent the Spread of Disease. Workshop Summary

2008

- U.S. Commitment to Global Health: Recommendations for the New Administration
- Achieving Sustainable Global Capacity for Surveillance and Response to Emerging Diseases of Zoonotic Origin
- Design Considerations for Evaluating the Impact of PEPFAR. Workshop Summary
- Assessment of the Role of Intermittent Preventive Treatment for Malaria in Infants: Letter Report
- Global Climate Change and Extreme Weather Events: Understanding the Potential Contributions to the Emergence, Reemergence, and Spread of Infectious Disease. Workshop Summary
- Methodological Challenges in Biomedical HIV Prevention Trials
- Vector-Borne Diseases: Understanding the Environmental, Human Health, and Ecological Connections. Workshop Summary
- Assessment of the Role of Intermittent Preventive Treatment for Malaria in Infants, Letter Report
- Violence Prevention in Low- and Middle-Income Countries: Finding a Place on the Global Agenda

Current Activities/Studies in Progress

- Ongoing Activities of the Forum on Microbial Threats
- Envisioning a Strategy to Prepare for the Long-term Burden of HIV/AIDS: Global Needs and U.S. Interests
- HIV/AIDS, Tuberculosis, and Malaria Reauthorization Act of 2008 PEPFAR II Evaluation
- Ongoing Activities of the Forum on Global Violence Prevention

Projects in Development

• One Health/One Medicine

Strengthening Core Elements of Food and Drug Regulatory Systems in Developing Countries

- Dissemination Workshops for Biofutures Study
- National Bio-Agrodefense Facility Research

Board Roster

Richard Guerrant, (Chair), University of Virginia School of Medicine, Charlottesville, VA **Jo Ivey Boufford, (IOM Foreign Secretary),** New York Academy of Medicine,

New York, NY

Claire V. Broome, Rollins School of Public Health, Emory University, Atlanta, GA

Jacquelyn C. Campbell, Johns Hopkins University School of Nursing, Baltimore, MD

Thomas J. Coates, University of California, Los Angeles, CA

Valentin Fuster, Mount Sinai School of Medicine, New York, NY

Peter J. Hotez, George Washington University, Washington, DC

Fitzhugh Mullan, George Washington University, Washington, DC

Board on Health Care Services

Roger C. Herdman, M.D., Director Organized: 1981

The Board on Health Care Services (HCS) oversees activities of the Institute of Medicine concerned with the quality, effectiveness, organization, financing, and delivery of health care services. The Board identifies high priority health issues and provides guidance on the conduct of studies and other projects. Most of the Board's studies are conducted by committees appointed by the IOM and comprising a mix of IOM members, an occasional Board member, and outside experts. The Board seeks to advance the well-being of people and communities by promoting independent, reliable scholarly analysis and advice to government, professionals, and other members of the health industry, patients, and the public in general.

The Board's priority areas for examination have varied slightly over the years but have been generally consistent with the current areas:

- Quality and safety of health care;
- Health information technology;
- Health care organization;
- Health care workforce education, practice, and financing;

- Insurance coverage, financing of services, and cost control;
- Human behavior and communications; and
- Cancer care and policy.

Recent Reports

2010

- Policy Issues in the Development of Personalized Medicine in Oncology. Workshop Summary
- A Foundation for Evidence-Driven Practice: A Rapid Learning System for Cancer Care. Workshop Summary
- Extending the Spectrum of Precompetitive Oncology Biomedical Research. Workshop Summary
- Policy Issues in Nanotechnology and Oncology. Workshop Summary
- Regionalizing Emergency Care. Workshop Summary
- Future Directions for the National Healthcare Quality and Disparities Reports
- A National Cancer Clinical Trials System for the 21st Century: Reinvigorating the NCI Cooperative Group Program
- Evaluation of Biomarkers and Surrogate Endpoints in Chronic Disease

2009

- Beyond the HIPAA Privacy Rule: Enhancing Privacy, Improving Health through Research (with Board on Health Sciences Policy)
- Resident Duty Hours: Protecting Patients while Educating Tomorrow's Doctors
- *Health Insurance Status and its Consequences*
- Race, Ethnicity, and Language Data: Standardization for Health Care Quality Improvement
- Initial National Priorities for Comparative Effectiveness Research
- Sufficiency of the U.S. Oral Health Workforce in the Coming Decade: A Workshop
- National Emergency Care Enterprise: Advancing Care through Collaboration. Workshop Summary
- Redesigning Continuing Education in the Health Professions
- Assessing and Improving Value in Cancer Care. Workshop Summary
- Ensuring Quality Cancer Care through the Oncology Workforce: Sustaining Research and Care in the 21st Century. Workshop Summary

2008

- Knowing What Works in Health Care: A Roadmap for the Nation
- Retooling for an Aging America: Building the Health Care Workforce

- Improving the Quality of Cancer Clinical Trials. Workshop Summary
- Prevention of Colorectal Cancer through Screening. Workshop Summary

• Multi-center Phase III Clinical Trials and the NCI Cooperative Group Program. Workshop Summary

Current Activities/Studies in Progress

- Study on Oral Health Access to Services (with Board on Children, Youth, and Families)
- Standards for Systematic Reviews of Clinical Effectiveness Research
- Standards for Developing Trustworthy Clinical Practice Guidelines
- Study on an Oral Health Initiative
- Breast Cancer and the Environment
- Study of the Geographic Adjustment Factors under Medicare
- Policy Issues in Personalized Medicine (with Board on Health Sciences Policy)

Projects in Development

- Study of Geographic Variation in Health Care Spending and Promotion of High Value Care
- Electronic Health Records and Patient Safety: Quality Chasm Series (with NRC Computer Science and Telecommunications Board)
- Defining and Revising an Essential Health Benefits Package for Qualified Health Plans
- Review of Genomics-based Predictors of Therapeutic Response in Cancer Clinical Trials

Board Roster

Steven A. Schroeder, (Chair), Department of Medicine, University of California, San Francisco, CA

Lisa Bero, Department of Clinical Pharmacy, University of California, San Francisco, CA

Robert Galvin, Chief Medical Officer, General Electric Company, Fairfield, CT

Atul Gawande, MD, Brigham and Women's Hospital, Boston, MA

Rebekah Gee, American Board of Obstetrics and Gynecology Gant Fellow to the IOM, Tulane University School of Medicine, New Orleans, LA

Carmen Green, University of Michigan Health System, Ann Arbor, MI

Douglas A. Hastings, Epstein, Becker & Green, P.C., Washington, DC

Mareasa Isaacs, National Alliance of Multi-Ethnic Behavioral Health Associations, Bethesda, MD

Brent James, Intermountain Health Care, Salt Lake City, UT

Judith R. Lave, Graduate School of Public Health, University of Pittsburgh, PA

Thomas H. Lee, Partners HealthCare System, Boston, MA

Arthur A. Levin, Center for Medical Consumers, New York, NY

Cindy Mulrow, University of Texas, San Antonio, TX

Mary Naylor, Center for Transitions and Health, University of Pennsylvania, Philadelphia, PA

Paul C. Tang, Palo Alto Medical Foundation, Palo Alto, CA

Alan Weil, National Academy for State Health Policy, Washington, DC

Gail R. Wilensky, Project HOPE, Bethesda, MD

Board on Health Sciences Policy

Andrew Pope, Ph.D., Director Organized: 1977

The Board on Health Sciences Policy oversees and guides a program of activities that is intended to encourage and sustain the continuous vigor of the basic biomedical and clinical research enterprises needed to ensure and improve the health of the public. In conducting these activities, consideration is given to the ethical, legal, and social contexts of scientific and technologic advances and to the balance between scientific opportunities and public needs.

The goals of the Board on Health Sciences Policy are to:

- Foster the emerging fields of research in the health and biomedical sciences;
- Strengthen the role of science in policy and decision making;
- Promote and improve the education of health and research professionals and of the general public;
- Ensure an adequate workforce in biomedical and clinical research; and
- Address issues in biomedical ethics.

To accomplish these goals, the Board helps shape the portfolio of projects by continuously monitoring issues in health policy and identifying emerging problems. Board members oversee the implementation of ideas and proposals and assist in ensuring the focus and purpose of sponsored projects through periodic review of study progress at board meetings and as official members on Board-sponsored studies. Board members also assist in the dissemination of study findings and monitor the impact of sponsored studies.

Recent Reports

2010

• Challenges and Opportunities in Using Residual Newborn Screening Samples for Translational Research. Workshop Summary

- Transforming Clinical Research in the United States. Workshop Summary
- Mental, Neurological, and Substance Use Disorders in Sub-Saharan Africa: Reducing the Treatment Gap, Increasing Quality of Care. Workshop Summary
- Evaluation of Biomarkers and Surrogate Endpoints in Chronic Disease
- CNS Clinical Trials: Suicidality and Data Collection. Workshop Summary
- The Public Health Emergency Medical Countermeasures Enterprise: Innovative Strategies to Enhance Products from Discovery Through Approval. Workshop Summary
- Medical Surge Capacity. Workshop Summary

2009

- Crisis Standards of Care: Summary of a Workshop Series
- BioWatch and Public Health Surveillance: Evaluating Systems for the Early Detection of Biological Threats. Abbreviated Version: Summary (with the Division on Earth and Life Studies)
- Systems for Research and Evaluation for Translating Genome-Based Discoveries for Health. Workshop Summary
- A Review of the NIOSH Roadmap for Research on Asbestos Fibers and Other Elongate Mineral Particles
- Evaluating Occupational Health and Safety Research Programs: Framework and Next Steps (with Division on Earth and Life Studies)
- Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations. A Letter Report
- Respiratory Protection for Healthcare Workers in the Workplace Against Novel H1N1 Influenza A. Workshop Summary
- Addressing the Threat of Drug-Resistant Tuberculosis: A Realistic Assessment of the Challenge. Workshop Summary
- Accelerating the Development of Biomarkers for Drug Safety. Workshop Summary
- Assessing Medical Preparedness to Respond to a Terrorist Nuclear Event. Workshop Summary
- A Review of the HHS Family Planning Program: Mission, Management, and Measurement of Results
- Innovations in Service Delivery in the Age of Genomics. Workshop Summary
- Conflict of Interest in Medical Research, Education, and Practice
- Venture Philanthropy Strategies to Support Translational Research. Workshop Summary

- Breakthrough Business Models: Drug Development for Rare and Neglected Diseases and Individualized Therapies. Workshop Summary
- Beyond the HIPAA Privacy Rule: Enhancing Privacy, Improving Health Through Research

2008

- Military Medical Ethics: Issues Regarding Dual Loyalties. Workshop Summary
- From Molecules to Minds: Challenges for the 21st Century. Workshop Summary
- Addressing the Barriers to Pediatric Drug Development. Workshop Summary
- Dispensing Medical Countermeasures for Public Health Emergencies. Workshop Summary
- Review of NASA's Human Research Program Evidence Books. Workshop Summary
- The Personal Protective Technology Program at NIOSH
- Diffusion and Use of Genomic Innovations in Medicine and Health. Workshop Summary
- Emerging Safety Science. Workshop Summary
- Research Priorities in Emergency Preparedness and Response for Public Health Systems. Workshop Summary
- Neuroscience Biomarkers and Biosignatures: Converging Technologies, Emerging Partnerships. Workshop Summary

Current Activities/Studies in Progress

- Accelerating Rare Diseases Research and Orphan Product Development
- Personal Protective Equipment for Healthcare Workers During an Influenza Pandemic: Current Research Issues
- Certification of Personal Protective Technologies
- Advancing Pain Research, Care, and Education
- Forum on Drug Discovery, Development, and Translation
- Forum on Neuroscience and Nervous System Disorders
- Roundtable on Translating Genomic-Based Research for Health
- Forum on Medical and Public Health Preparedness for Catastrophic Events
- Aerospace Medicine and the Medicine of Extreme Environments (Standing Committee)
- NIOSH Personal Protective Equipment for Workplace Safety and Health (Standing Committee)
- Standing Committee on Medical Readiness

Collaborative Studies

- Human Embryonic Stem Cell Research (with Division on Earth and Life Studies)
- Effectiveness of National Biosurveillance Systems: BioWatch and the Public Health System (with Division on Earth and Life Studies)
- Breast Cancer and the Environment: The Scientific Evidence, Research Methodology, and Future Directions (with Board on Health Care Services)

Projects in Development

- Review for FDA of Studies Conducted Under BPCA and PREA
- Building a New Foundation for Identifying and Translating Basic Biomedical Research Opportunities: Drug Discovery, Translation, and Development
- Personal Preparedness and the Public Health Emergency Medical Countermeasures Enterprise
- Standing Committee on Education and Training for Public Health and Medical Disaster Preparedness and Response
- Forum on Human Research Participant Protection Programs
- Policy Issues in Translating the Promise of Personalized Medicine into Reality (with Board on Health Care Services)
- Head Injury in Young Athletes (with Board on Children, Youth, and Families)
- Forum on Disability & Health (with Board on the Health of Select Populations)
- Arctic Mental Health (with Board on the Health of Select Populations)

Board Roster

James F. Childress, (Chair), University of Virginia, Charlottesville, VA

Eli Y. Adashi, Brown University, Providence, RI

Donald S. Burke, University of Pittsburgh, PA

C. Thomas Caskey, University of Texas-Houston Health Science Center, Houston, TX

Dennis Choi, Emory University, Atlanta, GA

Kathleen A. Dracup, University of California, San Francisco, CA

Fred H. Gage, The Salk Institute for Biological Studies, San Diego, CA

Linda C. Giudice, University of California, San Francisco, CA

Lewis R. Goldfrank, New York University School of Medicine, New York, NY

Lawrence O. Gostin, Georgetown University Law Center, Washington, DC

Paul E. Jarris, Association of State and Territorial Health Officials, Arlington, VA

Richard C. Larson, Massachusetts Institute of Technology, Cambridge, MA

Alan Leshner, American Association for the Advancement of Science, Washington, DC

Linda B. Miller, Volunteer Trustees Foundation, Washington, DC

Steven M. Paul, Eli Lilly and Company, Indianapolis, IN

Reed V. Tuckson, UnitedHealth Group, Minnetonka, MN

Rajeev Venkayya, The Bill & Melinda Gates Foundation, Seattle, WA

Keith A. Wailoo, Rutgers, The State University of New Jersey, New Brunswick, NJ

Clyde Yancy, Baylor University Medical Center, Dallas, TX

Board on the Health of Select Populations (Formerly the Board on Military and Veterans Health)

Rick Erdtmann, M.D., M.P.H., Director Organized: 2006

The Board on the Health of Select Populations (BSP), formerly known as the Board on Military and Veterans Health, was reconstituted in 2009 to examine health needs and health policies surrounding a broad range of discrete populations. The Board concentrates on significant health concerns that may affect groups of individuals categorized and defined by common occupation, environment, health condition or characteristics, or a shared exposure to a unique health risk.

The health of veterans and those in the military continues to be a key focus of the Board's activities. Topics of current interest to BSP include:

- Impact of combat, deployment, exposures, and other risk factors affecting the health of military personnel and their families;
- Health and medical care access, quality, and needs of military veterans;
- Science, technology, and policy affecting persons with disabilities; and
- Health of incarcerated persons.

The Board serves as a resource for government agencies and nongovernmental organizations to obtain advice or assistance in addressing health-related issues of select populations, most notably military personnel and veterans. The portfolio of studies is intended to be very wide-ranging.

Board members have expertise in preventive, clinical/trauma/and rehabilitative medicine, epidemiology, biostatistics, environmental toxicology, research practices, medical ethics, mental health, veterans health systems, military medicine, and reserve force health issues. The Board serves as both a clearinghouse to receive study requests as well as an engine to suggest new studies.

PROGRAM LISTING 35

We expect that our primary focus will continue to be military and veteran populations, but not exclusively. As with all boards in the Institute of Medicine, BSP performs consensus studies. Each study is conducted by a committee of volunteer experts suited to the unique study tasks.

Incorporated within BSP is a unique entity named The Medical Follow-Up Agency (MFUA), which was established in 1946 to conduct epidemiological data studies of armed services personnel and veterans using their medical records. MFUA continues to operate as a special studies unit that conducts original research. MFUA has a separate oversight committee of experts that advise the staff on its studies. The members of this Medical Follow-Up Advisory Committee also are appointed to the BSP Board.

Board functions are as follows:

- Brings the expertise and experience of leading scientists and practitioners to focus on the health issues of current and anticipated future importance to military and veteran populations and other select populations;
- Engages in discussions with the federal agencies accountable for sustaining the health of select populations (including military and veterans), congressional committees concerned with the health of select populations (including military and veterans), and major organizations that monitor and advocate for veterans' health and that of other select populations; and
- Recommends studies that advance understanding of health risks and health consequences for select populations, including those who have served in the military.

Recent Reports

2010

- HIV and Disability: Updating the Social Security Listings
- Cardiovascular Disability: Updating the Social Security Listings
- Initial Assessment of Readjustment Needs of Military Personnel, Veterans, and their Families: Phase 1
- Gulf War and Health Series: Health Effects of Serving in the War
- Provision of Mental Health Counseling Services under TRICARE
- Health Effects in Vietnam Veterans of Exposure to Herbicides [Eighth Biennial Update]

2009

• Systems Engineering to Improve Traumatic Brain Injury Care in the Military Health System. Workshop Summary (with NAE and Board on Health Care Services)

2008

- The Utility of Proximity-Based Herbicide Exposure Assessment in Epidemiological Studies of Vietnam Veterans
- Military Medical Ethics Workshop (with Board on Health Sciences Policy)

Current Activities/Studies in Progress

- Lesbian, Gay, Bisexual, and Transgender Health Issues and Research Gaps and Opportunities
- Long-Term Health Consequences of Exposure to Burn Pits in Iraq and Afghanistan
- Blue Water Navy Vietnam Veterans and Agent Orange Exposure
- Initial Assessment of Readjustment Needs of Military Personnel, Veterans, and Their Families: Phase 2
- Health Effects in Vietnam Veterans of Exposure to Herbicides (Ninth Biennial Update)
- Standing Committee of Medical Experts to Assist Social Security on Disability Issues

Projects in Development

- Improving Behavioral and Mental Health Outcomes in the Arctic Peoples (collaboration with Board on Health Sciences Policy)
- Gulf War and Health, Review of selected neurological disorders among PGW veterans
- Substance Abuse Disorders Program Review of the Armed Forces Programs
- Review of DoD's Programs to Treat Post Traumatic Stress Disorder (PTSD)
- Forum on Disability (collaboration with Board on Health Sciences Policy)
- Review of DOL's Matrix for Determining Risk and Compensation for Workers Exposed to Certain Toxic Agents

Board Roster

Robert B. Wallace (Chair), University of Iowa College of Public Health, Iowa City, IA

George K. Anderson, Association of Military Surgeons of the United States, Bethesda, MD

Michael S. Ascher, Lawrence Livermore National Laboratory, Livermore, CA

Jonathan Davidson, Duke University, Durham, NC

Timothy R. Gerrity, California State University San Bernardino, San Bernardino, CA

Katherine L. Heilpern, Emory School of Medicine, Atlanta, GA

Kurt Kroenke, Indiana University School of Medicine, Indianapolis, IN

Susan H. Mather, retired, (Department of Veterans Affairs), Bowie, MD

Matthew L. Puglisi, Aptima, Inc., Washington, DC

Ernest T. Takafuji, National Institute of Allergy and Infectious Diseases, Bethesda, MD

PROGRAM LISTING 37

Medical Follow-up Agency

Rick Erdtmann, M.D., M.P.H., Director Organized: 1946

The Medical Follow-up Agency (MFUA) was founded in 1946 shortly after World War II at the urging of Dr. Michael DeBakey, then a colonel in the Office of the Army Surgeon General. In its early years, the program consisted predominantly of clinical follow-up studies in which veterans were examined for after effects of WWII injuries and diseases. MFUA now conducts a variety of epidemiological research studies and collaborates with qualified researchers from diverse backgrounds to obtain and analyze records data. A unique aspect of this work is that the MFUA staff authors its original research work. Panels of leading expert volunteers are appointed to advise the staff for large, complex studies.

MFUA operates as a special studies unit and is incorporated within the Board on the Health of Select Populations. MFUA has a separate oversight Advisory Committee of experts to oversee the portfolio of studies and guide the staff.

Recent Reports

- Update the Morbidity and Mortality Data for the Warren Air Force Base Cohort (2010)
- Long-term Health Effects of Participants in Project SHAD (Shipboard Hazard and Defense) (2007)

Recent Journal Publications

Rubio-Tapia, A., Kyle, R., Kaplan, E., Johnson, D., Page, W., Erdtmann, F., Brantner, T., Kim, W., Phelps, T., Lahr, B., Zinsmeister, A., Melton, L., Murray, J. Increased prevalence of mortality in undiagnosed celiac disease. *Gastroenterology* (in press).

Page, W.F. 2006. Update on the NAS-NRC Twin Registry. *Twin Research and Human Genetics* Vol. 9: 985–987.

Rohrmann, S., Fallin, M. D., Page, W. F., Reed, T., Partin, A. W., Walsh, P. C., Platz, E. A. 2006. Concordance rates and modifiable risk factors for lower urinary symptoms in twins. *Epidemiology* Vol. 17: 419–427.

Erbes, C. R., Dikel. T. N., Eberly, R. E., Page, W. F., Engdahl, B. E. 2006. A comparative study of posttraumatic stress disorder assessment under standard conditions and in the field. *International Journal of Methods in Psychiatric Research* Vol. 15: 57–63.

Miller, R. N., Costigan, D. J., Young, H. A., Kang, H. K., Dalager, N., Mathes, R. W., Crawford, H. C., Page, W. F., Thaul, S. 2006. Patterns of health care seeking of Gulf War registry members prior to deployment. *Military Medicine* Vol. 171: 370–37.

MFUA's complete bibliography through 2009 can be found at: http://www.iom.edu/About-IOM/Leadership-Staff/Boards/Medical-Follow-Up-Agency.aspx

Current Activities/Studies in Progress

- Committee on Twins Studies
- Cohort Catalog (ongoing)

Projects in Development

- Management and Dissemination of the Air Force Health Study (Ranch Hand) Research Assets
- Evaluating Neurological Outcomes Among Artillerymen from WWII, Korea, and Vietnam as a Proxy for Mild TBI from Low Level Concussive Forces

Advisory Committee Roster

Daniel H. Freeman, Jr., (Chair), University of Texas Medical Branch, Galveston, TXJohn C.S. Breitner, Director, McGill Centre for Studies on Prevention of Alzheimer's Disease, Quebec

Board on Population Health and Public Health Practice

Rose Marie Martinez, Ph.D., Director Organized: 1981

The Board on Population Health and Public Health Practice is broadly concerned with promoting the health of the public—physical, mental, and social—particularly through population-based interventions. The Board examines and develops strategies for disease prevention, taking into account the multiple factors affecting health—genetic endowment, social and environmental conditions, individual behavior (including tobacco use, alcohol consumption, diet, and exercise) and personal preventive services. The Board addresses the science base for such interventions, the public health infrastructure, and the education and supply of health professionals necessary for carrying them out.

The Board has an ongoing program of studies on public health infrastructure, women's and children's health, immunization, AIDS and sexually transmitted diseases, and environmental and occupational health. In particular, the Board has identified three priority areas that fall within a broad focus covering both preventive services and public health functions to emphasize in its work:

PROGRAM LISTING 39

• Re-examining public health capacities and responsibilities to meet public health challenges at the federal, state, and local level;

- Community interventions to promote healthful behavior; and
- Occupational and environmental health issues.

Recent Reports

2010

- HIV Screening and Access to Care: Exploring Barriers and Facilitators to Expanded HIV Testing
- Ethical Issues in Studying the Safety of Approved Drugs
- A Population-Based Policy and Systems Change Approach to Prevent and Control Hypertension
- Demographic Changes, A View From California: Implications for Framing Health Disparities. Workshop Summary
- Hepatitis and Liver Cancer: A National Strategy for Prevention and Control of Hepatitis B and C

2009

- Priorities for the National Vaccine Plan
- Measures of Health Literacy. Workshop Summary
- Secondhand Smoke Exposure and Cardiovascular Effects: Making Sense of the Evidence
- Focusing on Children's Health: Community Approaches to Addressing Health Disparities. Workshop Summary
- Veterans and Agent Orange: Update 2008
- Global Environmental Health: Research Gaps and Barriers for Providing Sustainable Water, Sanitation, and Hygiene Services. Workshop Summary
- Combating Tobacco Use in Military and Veteran Populations
- Health Literacy, eHealth, and Communication: Putting the Consumer First. Workshop Summary
- Toward Health Equity and Patient-Centeredness: Integrating Health Literacy, Disparities Reduction, and Quality Improvement. Workshop Summary
- Environmental Health Sciences Decision Making: Risk Management, Evidence, and Ethics. Workshop Summary

2008

• State of the USA Health Indicators

- Gulf War and Health, Volume 7: Long-term Consequences of Traumatic Brain Injury
- Environmental Health, Energy, and Transportation: Bringing Health to the Fuel Mixture. Workshop Summary
- Review of ATSDR's Great Lakes Reports
- Traumatic Injury Research at NIOSH
- Epidemiologic Studies of Veterans Exposed to Depleted Uranium: Feasibility and Design Issues
- Gulf War and Health: Updated Literature Review of Depleted Uranium
- Initial Guidance for an Update of the National Vaccine Plan: A Letter Report to the National Vaccine Program Office
- Antivirals for Pandemic Influenza: Guidance on Developing a Distribution and Dispensing Program
- Standardizing Medication Labels: Confusing Patients Less. Workshop Summary

Current Activities/Studies in Progress

- Review of the Federal Response to the Health Effects Associated with the Gulf of Mexico Oil Spill
- Decision-Making Under Uncertainty
- Effect of Climate Change on Indoor Air Quality and Public Health
- Ethical and Scientific Issues in Studying the Safety of Approved Drugs
- HIV Screening and Access to Care
- Lyme Disease and Other Tick-Borne Diseases: The State of the Science
- National Surveillance System for Cardiovascular and Select Chronic Diseases
- Preventive Services for Women
- Public Health Effectiveness of the FDA 510(k) Clearance Process
- Public Health Strategies to Improve Health
- Review of Adverse Effects of Vaccines
- Review of Priorities in the National Vaccine Plan
- Roundtable on Environmental Health Sciences, Research, and Medicine
- Roundtable on Health Literacy
- Roundtable on the Promotion of Health Equity and the Elimination of Health Disparities
- Women's Health Research

PROGRAM LISTING 41

Projects in Development

- Prevention of Sexually Transmitted Diseases in the 21st Century
- Update of Healthy People Leading Indicators 2020
- Life Course Approach to Prevention of Chronic Diseases
- Living Well with Chronic Diseases: Public Health Actions to Reduce Disability and Improve Functioning and Quality of Life
- Developing a Framework and Process for Evaluating Vaccines for Development
- Scientific Standards for Studies of Reduced Risk Tobacco Products
- Standing Committee of Experts to Assist the FDA on Tobacco Product Regulation
- Study to Review the Childhood Immunization Schedule
- Valuing Prevention

Board Roster

James W. Curran (Chair), Emory University, Atlanta, GA

Margarita Alegría, Cambridge Health Alliance, Cambridge, MA

Susan M. Allan, University of Washington, Seattle, WA

Georges C. Benjamin, American Public Health Association, Washington, DC

Bobbie A. Berkowitz, University of Washington, Seattle, WA

Dan G. Blazer, Duke University Medical Center, Durham, NC

David R. Challoner, University of Florida, Gainesville, FL

R. Alta Charo, University of Wisconsin-Madison, Madison, WI

Jose Julio Escarce, UCLA Med-GIM & HSR, Los Angeles, CA

Alvin D. Jackson, Ohio Department of Health, Columbus, OH

Matthew W. Kreuter, Washington University in Saint Louis, St. Louis, MO

Margaret E. O'Kane, National Committee for Quality Assurance, Washington, DC

George W. Rutherford, University of California, San Francisco School of Medicine, San Francisco, CA

Susan L. Santos, University of Medicine and Dentistry, Newark, NJ

Martin Jose Sepulveda, International Business Machines Corporation, San Jose, CA

Samuel So, Stanford University, Stanford, CA

Antonia M. Villarruel, University of Michigan School of Nursing, Ann Arbor, MI

Paul J. Wallace, The Permanente Federation, Kaiser Permanente, Oakland, CA

Elena O. Nightingale, National Academies of Science (emerita), Washington, DC

Health Policy Educational Programs and Fellowships

Marie E. Michnich, Dr. P.H., Director Organized: 1973

The primary activity of this office is the recruitment, selection, orientation, and placement of Robert Wood Johnson Foundation Health Policy Fellows. This program is now in its 37th year of operation and has overseen the fellowships of more than 225 recipients. These fellows remain in high demand and continue to receive the most prominent federal health policy work assignments both in the Congress and the Administration. This January, a record number of 10 fellows accepted work assignments amid the enactment of health care reform legislation. Four fellows were placed in the Department of Health and Human Services, three in the House of Representatives, two in the U.S. Senate, and one in the Office of the First Lady. The priority areas of emphasis for this program are (1) to continue to seek out qualified minority applicants, (2) to maintain a high number of qualified applicants, and 3) to promote political balance in applicant placement.

This office also hosts the Distinguished Nurse Scholar-in-Residence, initiated in 1992 and supported by the American Academy of Nursing, the American Nurses Foundation, and the American Nurses Association. The program is designed to assist outstanding nurse leaders to play a more prominent role in health policy development at the national level through a one-year program of orientation and study at the IOM. The scholar produces a report as a result of working on a current IOM initiative related to his/her area of expertise. The Distinguished Nurse Scholar-in-Residence for 2009–2010, Julie Fairman, Ph.D. R.N., worked on the Robert Wood Johnson Foundation Initiative on the Future of Nursing, at the Institute of Medicine. The report will make recommendations for policy changes at the national, state, and local levels to address nursing workforce issues. Fairman is a professor at the School of Nursing, University of Pennsylvania, where she is also the Director of the Barbara Bates Center for the Study of the History of Nursing. Pamela F. Cipriano, Ph.D., R.N., has been selected as the 2010–2011 Nurse Scholar-in-Residence. Cipriano, who served as Chief Nursing Officer and Chief Clinical Officer of the University of Virginia Health System, will examine the impact and implications of Health IT, identify technologies that reduce medical errors, and promote efficient and seamless patient care.

The IOM Anniversary Fellows is a program created in 2005 to celebrate the thirty-fifth anniversary of the IOM. The purpose of the program is to bring early career exceptional faculty to work on an IOM board and an IOM study, forum, or roundtable. This year, two fellows were selected. Seth Glickman, M.D., M.B.A., was awarded the American Board of Internal Medicine (ABIM) Foundation sponsored fellowship in honor of John A. Benson, M.D., an IOM member and past president and Chief Executive Officer of the ABIM. Dr. Glickman is an Assistant Professor of Emergency Medicine at UNC at Chapel Hill and a RWJF Physician Faculty Scholar. Margaret Lee Schwarze, M.D., M.P.P., an Assistant Professor of Surgery at the University of Wisconsin, was also selected as an IOM Anniversary Fellow. Drs. Glickman and Schwarze will begin their two–year fellowships in October, 2010.

PROGRAM LISTING 43

Robert Wood Johnson Foundation Health Policy Fellows Advisory Board Roster

James J. Mongan, (Chair), Harvard Medical School, Boston, MA

Kenneth B. Chance, Sr., University of Kentucky, College of Dentistry, Lexington, KY

Linda Degutis, Yale University, School of Medicine, New Haven, CT

Susan Dentzer, Editor-in-Chief, Health Affairs, Bethesda, MD

David Durenberger, Chair, National Health Policy Institute, University of St. Thomas, Minneapolis, MN

Judy Feder, Georgetown University, Washington, DC

James R. Gavin III, Emory University School of Medicine, Atlanta, GA, and Healing Our Village, Inc., Lanham, MD

Katie B. Horton, Health Policy R&D, Washington, DC

Arthur L. Kellermann, Senior Principal Researcher, RAND Corporation, Arlington, VA

Angela Baron McBride, Indiana University School of Nursing, Indianapolis, IN

Peter Neumann, Tufts University, School of Medicine, Boston, MA

Mario F. Pacheco, St. Vincent Hospital, Santa Fe, NM

Sarah Rosenbaum, George Washington University, Washington, DC

Kenneth B. Wells, Professor in Residence, UCLA School of Public Health, Senior Scientist, RAND, Los Angeles, CA

Executive Office

Judith A. Salerno, M.D., M.S., Executive Officer

From time to time, cross-cutting program activities are carried out within the IOM Executive Office, such as the Roundtable on Value & Science-Driven Health Care and the Robert Wood Johnson Foundation Initiative on the Future of Nursing, at the Institute of Medicine. In addition, several other activities are currently under way, plus several planning meetings and award and lecture programs.

Current Activities/Studies in Progress

- Academies-wide Aging initiative (scoping study)
- Gustav O. Lienhard Award
- The Rhoda and Bernard Sarnat International Prize in Mental Health
- Richard and Hinda Rosenthal Lecture Series

- The Learning Healthcare System in America: Opportunities, Priorities, and Strategies for Continuous Improvement in Health and Health Care
- Planning meeting related to the IOM report "Approaching Death," Fourteen Years Later: Where Are We Now?
- The Obesity Project, with HBO

Robert Wood Johnson Foundation Initiative on the Future of Nursing, at the Institute of Medicine

Susan Hassmiller, Ph.D., R.N., FAAN, Initiative Director

The Institute of Medicine (IOM), in collaboration with the Robert Wood Johnson Foundation (RWJF), has established a major initiative on the future of nursing. The initial cornerstone of the program will be a major study that will produce a transformational report on the future of nursing. The IOM committee will define a clear agenda and blueprint for action, including changes in public and institutional policies at the national, state, and local levels. The committee's recommendations will address a range of system changes, including innovative ways to improve health care quality, and address the nursing shortage in the United States.

The first 13 months of the two-year initiative will involve information gathering and preparation of the consensus report, including summaries of the regional forum. Three regional forums, as well as two technical or policy-oriented workshops, will provide input to the study committee. The report will be the basis for extensive communications work by the RWJF, in collaboration with the IOM. Near the end of the two-year period, the RWJF and the IOM will sponsor a national conference to discuss the issues raised by these activities. Target audiences for the Initiative will include national policymakers, state and local government leaders, advocacy organizations, professional societies—both nursing and others, licensing bodies, educational institutions, education researchers, and individuals who are considering careers in nursing.

Committee Roster

Donna E. Shalala, (Chair), President, University of Miami, Coral Gables, FL

Linda Burnes Bolton, (Vice-chair), Vice President for Nursing, Chief Nursing Officer and Director of Nursing Research, Cedars-Sinai Medical Center, Los Angeles, CA

Michael Bleich, Dean and Dr. Carol A. Lindeman Distinguished Professor, Oregon Health & Science University School of Nursing, Portland, OR

Troyen A. Brennan, Executive Vice President and Chief Medical Officer, CVS Caremark Corporation, Woonsocket, RI

Robert E. Campbell, Retired Vice Chairman, Board of Directors, Johnson & Johnson and Former Chairman, Robert Wood Johnson Foundation Board of Trustees, New Brunswick, NJ

Leah Devlin, Professor of the Practice, University of North Carolina School of Public Health, Chapel Hill, NC

PROGRAM LISTING 45

Catherine Dower, Associate Director for Research, Center for the Health Professions, University of California, San Francisco, San Francisco, CA

Rosa Gonzalez-Guarda, Assistant Professor, University of Miami School of Nursing and Health Studies, Coral Gables, FL

David Goodman, Professor of Pediatrics and of Health Policy, The Dartmouth Institute for Health Policy and Clinical Practice; Director, Center for Health Policy Research; and Co-Principal Investigator, Dartmouth Atlas of Health Care, Hanover, NH

Jennie Chin Hansen, President, AARP, Washington, DC

C. Martin Harris, Chief Information Officer, Cleveland Clinic, Cleveland, OH

Anjli Aurora Hinman, Woodruff Fellow, Emory University; 2008 Graduate, Family-Nurse Midwifery Program; and Alumni Chair, Health Students Taking Action Together, Inc., Atlanta, GA

Bill Novelli, Distinguished Professor, McDonough School of Business, Georgetown University, Washington, DC

Liana Orsolini-Hain, Nursing Instructor, City College of San Francisco, San Francisco, CA

Yolanda Partida, Director, Hablamos Juntos and Assistant Adjunct Professor, Center for Medical & Education Research in California, University of California, San Francisco, Fresno, CA

Robert D. Reischauer, President, The Urban Institute, Washington, DC

John W. Rowe, Professor, Department of Health Policy and Management, Mailman School of Public Health, Columbia University, New York, NY

Bruce C. Vladeck, Senior Advisor, Nexera Consulting, New York, NY

Roundtable on Value & Science-Driven Health Care J. Michael McGinnis, M.D., M.P.P., Executive Director

Convened in 2006 in response to increasing concerns about the cost, quality, and value of health care in the nation, the IOM Roundtable on Evidence-Based Medicine has provided a trusted venue for key stakeholders—patients, health providers, payers, employers, manufacturers, health information technology, researchers, and policy makers— to work cooperatively on innovative approaches to generating and applying evidence that will drive improvements in the effectiveness and efficiency of medical care in the United States. Roundtable members have set a goal that by the year 2020, 90 percent of clinical decisions will be supported by accurate, timely, and up-to-date clinical information and will reflect the best available evidence on what works best for whom, under what circumstances.

Anchoring this work is a focus on accelerating the development of a learning healthcare system that is designed to generate and apply the best evidence for the collaborative health care choices of each patient and provider; to drive the process of discovery as a natural outgrowth of patient care; and to ensure innovation, quality, safety, and value in health care.

The Roundtable works to not only foster dialogue and discussion in a neutral setting, but also to catalyze and support collaborative action between stakeholders in order to work toward a learning healthcare system. The Roundtable's Learning Healthcare System Series of workshops and publications (see below) have described key challenges and opportunities to advance work in areas important to the evolution of the learning healthcare system: comparative effectiveness research, expanded access to clinical data, electronic health records and other infrastructure issues, multisector collaboration, and aligning incentives for continuous improvement and greater value.

In addition to the public meetings and publications, the Roundtable's Innovation Collaboratives bring together a broad set of stakeholders to develop and implement collaborative projects that will advance progress in five key areas: clinical effectiveness research innovation, best practices in health care, electronic health records and health IT, evidence communication, and value in health care.

Meetings of the Roundtable are held twice yearly, with workshops and collaborative groups meeting multiple times throughout the year. Member meetings in the past year were held on March 16 and September 23, 2010. Recent meetings have steered the development of collaborative initiatives and exploratory workshops.

Recent Reports

2010

- Electronic Infrastructure for the Learning Healthcare System: The Road to Continuous Improvement in Health and Health Care. Workshop Summary
- The Learning Healthcare System in 2010 and Beyond: Understanding, Engaging and Communicating the Possibilities. Workshop Summary
- The Healthcare Imperative: Lowering Costs and Improving Outcomes. Workshop Summary
- Learning Healthcare System Concepts v. 2010. Workshop Summary (in press)

2009

• Value in Healthcare: Accounting for Cost, Quality, Safety, Outcomes, and Innovation. Workshop Summary

2008

- Learning What Works: Infrastructure Required for Comparative Effectiveness Research. Workshop Summary
- Engineering a Learning Healthcare System: A Look at the Future. Workshop Summary
- Clinical Data as the Basic Staple of Health Learning. Workshop Summary
- Learning Healthcare System Concepts v2008. Workshop Summary

PROGRAM LISTING 47

Innovation Collaboratives

• Best Practices Innovation Collaborative: Health professionals working together for value and science-driven health care

- Clinical Effectiveness Research Innovation Collaborative: Methods innovation and practice-based approaches
- *Electronic Health Record Innovation Collaborative:* Advancing the frontiers of the learning healthcare system
- Evidence Communication Innovation Collaborative: Communicating evidence: Effective communication about effective interventions
- *Value Incentives Innovation Collaborative:* Reducing cost and improving outcomes: Innovative approaches to better value in health care

Office of Reports and Communications

Clyde Behney, Deputy Executive Officer Lauren Tobias, Communications Director

The IOM Office of Reports and Communication (ORAC) is responsible for the IOM's report review function, communications strategies and activities, and other functions related to the report process and the administration of IOM.

The communications aspect of ORAC's role has two primary objectives: to increase public understanding about who the IOM is and what it does, and to communicate effectively the substantive messages of the IOM's studies and programs.

ORAC provides leadership, coordination, counsel, and assistance in the development of strategies, products, and services that will enhance the communication and dissemination of IOM reports and collateral materials. ORAC also administers the Kellogg Health of the Public Fund, an endowment intended to better inform the public and local public health decision makers and to develop targeted health resources, intervention strategies, and communication activities that are responsive to the needs of local communities, especially underserved and disadvantaged communities. Additionally, ORAC manages the IOM's email marketing—including a monthly electronic newsletter that reaches more than 27,000 people—and is responsible for *Informing the Future: Critical Issues in Health*, which provides an overview of the IOM and its impact.

Ongoing Activities

Kellogg Health of the Public Fund

The Kellogg Health of the Public Fund is designed to increase the impact of the IOM by better informing the public and local public health decision makers about key issues and by developing

targeted health resources, intervention strategies, and communication activities that are responsive to the needs of local communities, especially underserved and disadvantaged communities.

In 2005 and 2006, the IOM worked with the Academy for Educational Development (AED) employed Community YouthMapping, a research method pioneered by AED, in communities across the country to engage youth and adults in the collection of information about how local citizens make health choices. In 2007 and 2008, the IOM began implementing some of the recommendations resulting from the community youth mapping. Over the past two years, the IOM has worked with health organizations in Bowling Green, Kentucky, to implement a "smart card" pilot program through which students earn credits and/or food discounts when they purchase healthy foods at participating restaurants and swipe a card. The two-year program ended at the completion of the 2009–2010 school year.

IOM FINANCES 49

Institute of Medicine Finances

A general overview of the Institute of Medicine's finances is illustrated in the materials that follow.

Chart 1 shows the Institute's program and general operation expenditures over the last several years. Program expenditures for fiscal year 2010 are estimated at over \$43.5M. Our ratio of general operation expenditures to total expenditures remains below 20 percent. Table 1 presents the detailed dollar expenditures.

Sources of funding for general operations and program expenditures for fiscal year 2009 are shown on Charts 2 and 3. The major sources of general operations support remain the indirect cost pool of the National Research Council and income earned from the IOM endowment funds. As in the past, the Federal Government continues as the main source of program support, providing 64.9 percent of the funds. The private sector provided 32.7 percent of program support.

Chart 1
General Operations and Program Expenditures
Fiscal Years 2006 through 2010

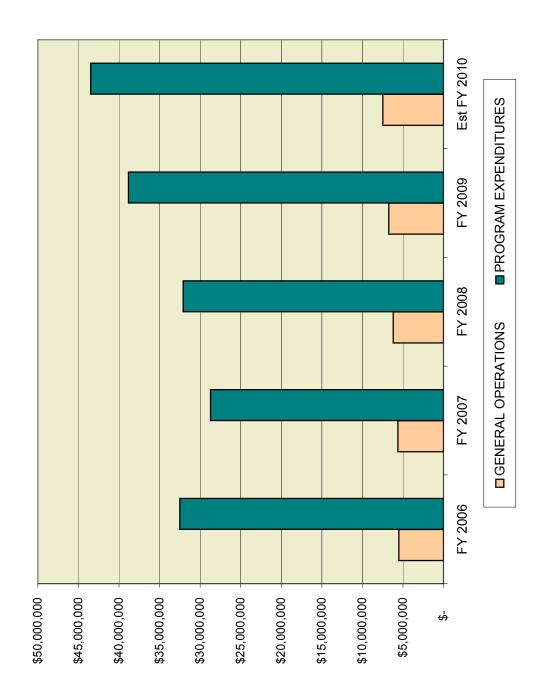
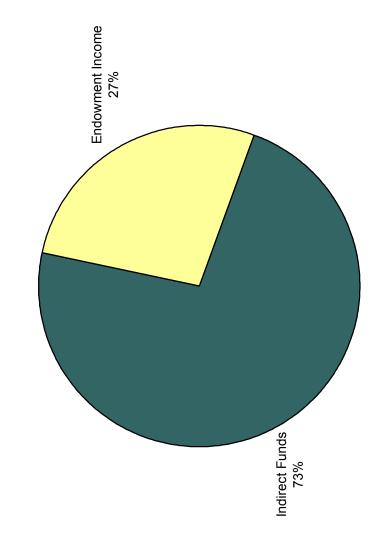


Table 1
General Operations and Program Expenditures
Fiscal Years 2006 through 2010

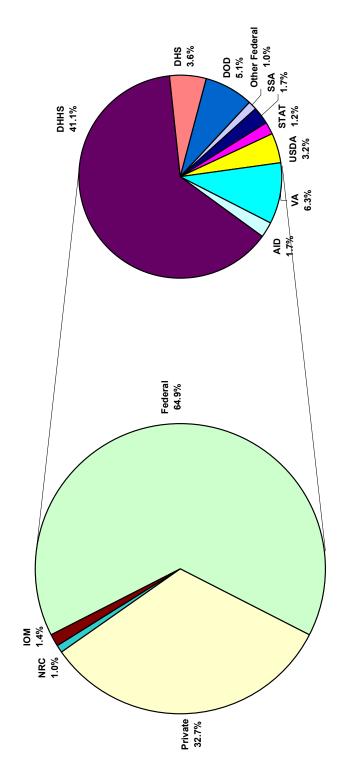
			Actual			Estimated
		FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
GENERAL OPERATIONS						
NAS Indirect Cost Pool	↔	3,951,621 \$	4,511,528 \$	4,531,785 \$	4,894,522 \$	5,330,087
IOM Independent Funds		1,548,262	1,108,233	1,666,887	1,842,435	2,143,976
TOTAL GENERAL OPERATIONS	₩	5,499,883 \$	5,619,761 \$	6,198,672 \$	\$ 736,957 \$	7,474,063
PROGRAM EXPENDITURES		32,508,062	28,725,117	32,095,813	38,828,895	43,492,140
TOTAL IOM EXPENDITURES	s	38,007,945 \$	34,344,878 \$	38,294,485 \$	45,565,852 \$	50,966,203
% General Operations to Total		14%	16%	16%	15%	15%
			Actual			Estimated
		FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
STAFF SIZE @ DEC (FTE'S)						
General Operations		27	26	28	32	36
Program		107	92	118	136	156
TOTAL		134	121	146	168	192
% General Operations to Total		20%	21%	49%	49%	19%

Chart 2
General Operations Support
Fiscal Year 2009
Total Budget \$6,736,957



IOM FINANCES 53

Chart 3
Sources of Program Funding
Fiscal Year 2009
Total Budget @ \$38,828,895



INSTITUTE OF MEDICINE ENDOWMENT FUNDS Total Contributions and Market Value December 31, 2009

				CON	CONTRIBUTIONS				MARKET VALUE	'ALUE		% MARKET Change
SOURCE		Tc	To 12/31/08	Tc	To 12/31/09	TOTAL	AL	0	@ 12/31/08	0	@ 12/31/09	60, OT 80,
Unrestricted Funds												
Robert Wood Johnson Foundation Kaiser Family Foundation MacArthur Foundation IOM Members Pharmaceutical Companies Misc. Private Sector		⇔	5,000,000 488,485 5,000,000 1,113,097 259,448 26,346	\		₩	5,000,000 488,485 5,000,000 1,119,132 259,448 26,346	₩	8,424,493 67,295 8,372,344 1,428,887 398,691 46,978	₩	9,908,175 773,045 9,843,887 1,687,328 468,931 55,256	
	Total Unrestricted \$	€	11,887,376	₩	6,035	\$	11,893,411	€	19,328,688	₩	22,736,622	
Restricted Funds												
Hughes Medical Institute Food & Nutrition Board:		↔	5,000,000	↔	,	↔	5,000,000	€9	11,268,177		14,052,838	
Kaiser Family Foundation			525,350		1		525,350		1,129,153		1,410,207	
Members			4,550		300		4,850		17,937		22,731	
Corporations			125,000		•		125,000		326,403		407,647	
IOM Scholar in Residence Fund			16,550		•		16,550		51,479		64,296	
Women's Health Issues			20,000		,		20,000		60,072		75,031	
Kellogg Health and Matching Grant			6,739,464		503,325		7,242,789		6,180,596		8,091,969	
Hamburg Endowment			987,775		12,000		999,775		927,891		1,174,254	
Lienhard Award Endowment			1,200,000		•		1,200,000		3,207,746		3,903,870	
Samat Award Endowment			1,009,179		•		1,009,179		1,111,831		1,349,675	
Rosenthal Lecture Program			1,000,000		•		1,000,000		1,126,897		1,368,003	
Noman Gant and ABOG Fellowship			650,000		200		650,500		632,950		754,295	
IOM Reserve			500,000		1		200,000		662,272		827,119	
	Total Restricted	\$	17,777,868	∽	516,125	€	18,293,993	\$	26,703,404	s	33,501,935	
Total Endowment	•	\$	29,665,244	€	522,160	\$	30,187,404	\$	46,032,092	\$	56,238,557	22.2%
		•						·				

2010 Private Contributions

We gratefully acknowledge the support of private contributors to the Institute of Medicine. The collective, private philanthropy of our members and friends helps to enhance the IOM's impact as advisor to the nation on health.

The Einstein Society

In recognition of members and friends who have made lifetime contributions of \$100,000 or more to the National Academies as personal gifts or as gifts facilitated by the donor through a donor advised fund, matching gift program, or family foundation. The following list reflects contributions received as of August 31, 2010.

Anonymous Donald L. Bren
John Abelson Sydney Brenner

Bruce and Betty Alberts Fletcher* and Peg Byrom

Rose-Marie and Jack R. Anderson Russell L. Carson

John and Lise Armstrong Ralph J. and Carol M. Cicerone

Richard C.^a and Rita Atkinson A. James Clark

Norman R. Augustine James McConnell Clark
Francisco J. and Hana Ayala Dale and Jeanne Compton

William F. Ballhaus, Sr. Roman W. DeSanctis^a

Craig and Barbara Barrett Robert and Florence Deutsch

Jordan and Rhoda Baruch George and Maggie Eads

Stephen D. Bechtel, Jr. Richard Evans*

Kenneth E. Behring Harvey V. Fineberg^a and Mary E. Wilson

Robert and Cornelia Eaton

C. Gordon Bell Tobie and Dan Fink
Elwyn and Jennifer Berlekamp George and Ann Fisher

Diane and Norman Bernstein Harold K. and Betty A. Forsen

Mrs. Elkan R. Blout William L. and Mary Kay Friend

Harry E. Bovay, Jr. Eugene Garfield

David G. Bradley William H. Gates, III

Warren L. Batts

^a = IOM Member

^{* =} Deceased

T. H. Geballe Mrs. G. William Miller

Penny and Bill George George and Cynthia* Mitchell
Nan and Chuck Geschke Gordon and Betty Moore
Bernard M. Gordon Joe and Glenna Moore

Barbara N. Grossman David and Lindsay Morgenthaler

Corbin Gwaltnev Richard M. Morrow

Margaret A. Hamburg^a and Peter F. Brown Philipa and Sima Needleman

William M. Haney, III Gerda K. Nelson*
Michael and Sheila Held Ralph S. O'Connor
Jane Hirsh Peter O'Donnell, Jr.
M. Blakeman Ingle Kenneth H. Olsen

Joan and Irwin Mark Jacobs Doris Pankow

Robert L. and Anne K. James Lawrence and Carol Papay

Anita K. Jones Jack S. Parker

Thomas V. Jones Shela and Kumar Patel

Trevor O. Jones Percy Pollard

Kenneth A. Jonsson* Robert A. Pritzker

Yuet Wai and Alvera Kan Dr. and Mrs. Allen E. Puckett Fred Kavli Ann and Michael Ramage

Cindy and Jeong Kim Simon Ramo

Olga Kirchmayer*

Carol and David Richards

Frederick A. Klingenstein

Anne and Walt Robb

William I. Koch

Henry M. Rowan

Jill H. Kramer George Rowe, Jr.

John W. Landis Jack W.ª and Valerie Rowe
William W. Lang Mrs. Joseph E. Rowe
Geralda and Doris Laubach William J. Rutter

Whitney and Betty MacMillan Stephen^a and Anne Ryan

William W. McGuire^a Jillian Sackler

Burton and DeeDee McMurtry

Raymond and Beverly Sackler

Richard and Ronay Menschel

Henry and Susan Samueli

Dane and Mary Louise Miller

Bernard G. and Rhoda Sarnat

^a = IOM Member

^{* =} Deceased

Leonard D. Schaeffer^a

Wendy and Eric Schmidt

Sara Lee and Axel Schupf

Shep and Carol Ruth Shepherd

Melvin I. Simon

Georges C. St. Laurent, Jr.

Charlotte and Morry Tanenbaum

Ted Turner

Leslie L. Vadasz

Roy^a and Diana Vagelos

Charles M. and Rebecca M. Vest

John C. Whitehead

Wm. A. Wulf

Alejandro Zaffaronia

Janet Zucker and Jerry Zucker

Heritage Society

In recognition of members and friends who have contributed to the future of the National Academies through life-income, bequests, and other estate and planned gifts. The following list reflects planned gift intentions as of August 31, 2010.

Andreas Acrivos

Gene M. Amdahl

John C. Angus

John and Lise Armstrong

Norman R. Augustine

Jack D. Barchas^a Stanley Baum^a

Stephen D. Bechtel, Jr.

Clyde J. Behney

Paul Berg^a

Franklin H. Blecher

Daniel Branton

Robert^a and Lillian Brent

Corale L. Brierley

James A. Brierley

John A. Clements

D. Walter Cohena

Morrel H. Cohen

Colleen Conway-Welcha

Ellis and Bettsy Cowling

Barbara J. Culliton^a

Malcolm R. Currie

Ruth M. Davis

Peter N. Devreotes

Paul M. Doty

Mildred S. Dresselhaus

Gerard W. Elverum

Emanuel Epstein

William K. Estes

Richard Evans*

Robert C. Forney

Paul H. Gilbert

Martin E. Glicksman

George Gloeckler

^a = IOM Member

^{* =} Deceased

Chushiro Hayashi*

Michael and Sheila Held

Thomas S. Inuia

Richard B. Johnston, Jr.^a

Anita K. Jones Jerome Kagan^a John W. Landis Norma M. Lang^a

William W. Lang

R. Duncan Luce

Thomas S. Maddock

Artur Mager Jane Menken^a

Gordon and Betty Moore

Arno G. Motulsky^a

Van C.^a and Barbara Mow

Guido Munch

Mary O. Mundinger^a Gerda K. Nelson*

Norman F. Ness

Ronald and Joan Nordgren

Gilbert S. Omenn^a

Wm. R. Opie

Dr. and Mrs. Bradford Parkinson

Zack T. Pate

Daniel W. Pettengill*a

Frank Press

Simon Ramo

Alexander Richa

Henry W. Riecken^a

Emanuel P. Rivers^a

Richard J. and Bonnie B. Robbins

James F. Roth

Sheila A. Ryan^a

Paul R. Schimmel^a

Stuart F. Schlossman^a

Kenneth I. Shine^a

Robert L. Sinsheimer^a

Arnold and Constance Stancell

H. Eugene Stanley

Dale F. Stein

Rosemary A. Stevens^a

John A. Swets

Esther S. Takeuchi

Paul Talalay

Ivan M. Viest

Willis H Ware

Robert H. Wertheim

Maw-Kuen Wu

Wm. A. Wulf

Charles Yanofsky

Michael Zubkoffa

a = IOM Member

^{* =} Deceased

IOM Society

In recognition of members of the Institute of Medicine who have made lifetime contributions of \$20,000 to \$99,999 to the National Academies as personal gifts or as gifts facilitated by the donor through a donor advised fund, matching gift program, or family foundation. The following list reflects contributions received as of August 31, 2010.

Dyanne D. Affonso

Robert M. Nerem

Gilbert S. Omenn

John R. Ball

June E. Osborn

Jack D. Barchas

Edward E. Penhoet

Paul Berg

Daniel W. Pettengill*

Floyd E. Bloom

Helen M. Ranney*

Lewis M. Branscomb

Alexander Rich

Robert and Lillian Brant

William C. Bishardso

Robert and Lillian Brent William C. Richardson
Roger J. Bulger Henry W. Riecken
Purnell W. Choppin Sheila A. Ryan

Mary Sue Coleman Charles A. Sanders
Colleen Conway-Welch Kenneth I. Shine
James F. Crow Eric M. Shooter

Pedro M. Cuatrecasas Maxine Singer
William H. Danforth Robert L. Sinsheimer
Richard L. Garwin Rosemary A. Stevens
James R. Gavin, III Samuel O. Thier

Bradford H. Gray Robert E. Tranquada

William N. Hubbard Peter K. Vogt

Richard B. Johnston, Jr. Gail and Lois Warden
Margaret E. Mahoney Irving L. Weissman
J. Michael McGinnis Torsten N. Wiesel
Arno G. Motulsky C. Kern Wildenthal

Van C. and Barbara Mow Jean D. Wilson

Mary O. Mundinger Tadataka Yamada

Woodrow A. Myers, Jr.

^{* =} Deceased

Catalyst Society

In recognition of members and friends of the IOM who contributed \$10,000 or more in collective support for the National Academies from September 1, 2009, to August 31, 2010. We acknowledge those contributions made as personal gifts or as gifts facilitated by the donor through a donor advised fund, matching gift program, or family foundation.

Members

Richard C. and Rita Atkinson

Robert A. Derzon*

Harvey V. Fineberg and Mary E. Wilson

Richard B. Johnston, Jr.

Arno G. Motulsky

Philip and Sima Needleman

Edward E. Penhoet

Jack W. and Valerie Rowe

Stephen and Anne Ryan

Leonard D. Schaeffer

Maxine Singer

Roy and Diana Vagelos

Friends

Anonymous

Russell L. Carson

Penny and Bill George

George Rowe, Jr.

John C. Whitehead

Rosette Society

In recognition of members and friends of the IOM who contributed between \$5,000 and \$9,999 in collective support for the National Academies from September 1, 2009, to August 31, 2010. We acknowledge those contributions made as personal gifts or as gifts facilitated by the donor through a donor advised fund, matching gift program, or family foundation.

Members

John R. Ball

Lewis M. Branscomb

Gail H. Cassell

Fred E. Cohen

Gerald and Doris Laubach

Kenneth I. Shine

Gail L. Warden

Friends

Robert E. Scott

^{* =} Deceased

Challenge Society

In recognition of members and friends of the IOM who contributed between \$2,500 and \$4,999 in collective support for the National Academies from September 1, 2009, to August 31, 2010. We acknowledge those contributions made as personal gifts or as gifts facilitated by the donor through a donor advised fund, matching gift program, or family foundation.

Members

Dyanne D. Affonso Elizabeth G. Nabel

Paul Berg Gary J. Nabel

Purnell W. Choppin Larry J. Shapiro
D. Walter Cohen Harold Varmus

Barry and Bobbi Coller Warren M. Zapol

William H. Danforth Friends

Delbert A. Fisher

Robert C. Gallo

Jim and Cindy Hinchman

James R. Gavin, III Clara J. Szekely

Charter Society

Irving M. London

In recognition of members and friends of the IOM who contributed between \$1,000 and \$2,499 in collective support for the National Academies from September 1, 2009, to August 31, 2010. We acknowledge those contributions made as personal gifts or as gifts facilitated by the donor through a donor advised fund, matching gift program, or family foundation.

Members

Francois M. Abboud

Nancy E. Adler

Enriqueta C. Bond

Arthur K. Asbury

William R. Brody

Jack D. Barchas

Thomas F. Budinger

J. Claude Bennett

Charles C.J. Carpenter

Kenneth I. Berns

David R. Challoner

Yu-Mei Y. Chao David M. Kipnis

Linda and Frank Chisari Mary Anne Koda-Kimble

Jewel Plummer Cobb Edward A. Kravitz Stanley N. Cohen Raju S. Kucherlapati

Graham A. Colditz

Max D. Cooper

Lester B. Lave

Barbara J. Culliton

Alan I. Leshner

Jane and Worth B. Daniels*

Allen S. Lichter

Catherine D. DeAngelis Margaret E. Mahoney

Haile T. Debas James S. and Judith M. Marks

Susan Dentzer

Roman W. DeSanctis

William W. McGuire

R. Gordon Douglas, Jr.

Ronald D. Miller

Kathleen A. Dracup

Arnold S. Milstein

John R. Evans

Mortimer Mishkin

Norman F. Gant James J. Mongan
Sid Gilman Gilbert S. Omenn
Antonio M. Gotto, Jr. Suzanne Oparil

Walter A. Orenstein Robert Graham June E. Osborn Ashley T. Haase Herbert Pardes Caroline Breese Hall Bernadine P. Healy Mary Lake Polan Ruby P. Hearn Thomas D. Pollard John Edward Porter Jane E. Henney Martha N. Hill Maximilian F. Reiser Charles C. Richardson Ada Sue Hinshaw

Brigid L. Hogan

Tony Hunter

Erkki Ruoslahti

Richard and Fleur Hynes

Thomas S. Inui

Michael M.E. Johns

Charles J. Sherr

Richard T. Johnson

Emanuel P. Rivers

Erkki Ruoslahti

Vinod K. Sahney

Thomas C. Schelling

Charles J. Sherr

^{* =} Deceased

Alfred Sommer

William N. Spellacy

Ralph M. Steinman

Joan A. Steitz

Judith S. Stern

Rosemary A. Stevens

Samuel O. Thier

Craig B. Thompson

Wylie Vale

Peter K. Vogt

A. Eugene Washington

Myron and Linda Weisfeldt

Myrna M. Weissman

Michael J. Welch

Nancy S. Wexler

Jean D. Wilson Owen N. Witte

Tadataka Yamada

Michael Zubkoff

Friends

Ellen M. Urbanski

Eric C. Johnson and Kathleen Minadeo

Johnson

Other Individual Donors

In recognition of members and friends of the IOM who contributed up to \$999 in collective support for the National Academies from September 1, 2009, to August 31, 2010. We acknowledge those contributions made as personal gifts or as gifts facilitated by the donor through a donor advised fund, matching gift program, or family foundation.

Members

Anonymous

Herbert L. Abrams

Bernard W. Agranoff

Robert A. Alberty

Paula G. Allen-Meares

Myron Allukian, Jr.

Joel J. Alpert

Lawrence K. Altman

Russ B. Altman

Ron J. Anderson

Nancy C. Andreasen

Kathleen Gainor Andreoli

Nancy C. Andrews

Marcia Angell

Tom P. Aufderheide

K. Frank Austen

W. Gerald Austen

Joan K. Austin

Daniel L. Azarnoff Baruch S. Blumberg Howard L. Bailit Thomas F. Boat Suzanne Bakken Stuart Bondurant Richard J. Bonnie Jeffrey R. Balser Clyde F. Barker William H. Bowen Kathryn E. Barnard L. Thompson Bowles Jeremiah A. Barondess Paula A. Braveman Patricia F. Brennan Michele Barry William G. Barsan Troyen A. Brennan Eugene A. Bauer Jan L. Breslow Ralph L. Brinster Bruce J. Baum Arthur L. Beaudet Joseph Buckwalter

John C. Beck Kathleen Coen Buckwalter

Lance B. Becker Ann W. Burgess
Steven C. Beering Wylie Burke
Richard E. Behrman Noah R. Calhoun

Baruj Benacerraf Joseph A. Califano, Jr. Leslie Z. Benet Jacquelyn C. Campbell

Regina M. Benjamin Willard Cates, Jr.

Jean Bennett Webster K. Cavenee

Ruth L. Berkelman Aravinda Chakravarti

Bobbie A. Berkowitz

Lionel M. Bernstein

Eula Bingham

Lincoln C. Chen

John D. Birkmeyer

Rita K. Chow

Michelle H. Biros Linda Hawes Clever

Maureen Bisognano Sheldon Cohen

Mina J. Bissell Jack M. Colwill

Dan G. Blazer Colleen Conway-Welch

Robert J. Blendon Joel D. Cooper
R. Don Blim Lisa A. Cooper
Clara D. Bloomfield Molly J. Coye

Lester M. Crawford Harold J. Fallon
Pedro M. Cuatrecasas Rashi Fein

Mark R. Cullen

Donna M. Ferriero

Philip D. Darney and Uta E. Landy

Stephen P. Fortmann

John R. David

Daniel W. Foster

Henry W. Foster, Jr.

Patrick H. DeLeon James G. Fox Mahlon R. DeLong Ellen Frank

Paul M. Densen

Joseph F. Fraumeni, Jr.

Robert J. Desnick

Dennis G. Fryback

Victor R. Fuchs

Luis A. Diaz

Steven G. Gabbe

Kay Dickersin

Fred H. Gage

Nancy W. Dickey

Mitchell H. Gail

Allen J. Dietrich

E. John Gallagher

William H. Dietz Vanessa Northington Gamble

Salvatore DiMauro Donald E. Ganem Michael P. Doyle Patricia A. Ganz

Michael V. Drake Michael S. Gazzaniga
Jeffrey M. Drazen Kristine M. Gebbie

Mitzi L. Duxbury Richard and Sarah Gelberman

Felton Earls and Maya Carlson John P. Geyman
Timothy Eberlein Irma Gigli

David S. Eisenberg Barbara A. Gilchrest

Neil J. Elgee David Ginsburg
Andrew G. Engel Marthe R. Gold

Robert M. Epstein Irving H. Goldberg E. Harvey Estes, Jr. Lewis Goldfrank

Caswell A. Evans, Jr.

Claire M. Fagin

Emil C. Gotschlich

Stanley Fahn

Patricia A. Grady

Stefan S. Fajans

Bradford H. Gray

Lazar J. Greenfield Kurt J. Isselbacher
Deborah Greenspan Elaine Sarkin Jaffe
John Greenspan Robert B. Jaffe
Paul F. Griner Alan H. Jobe

Gerald N. Grob Timothy R. Johnson Wolfgang K. Joklik Michael Grossman Melvin M. Grumbach Alexandra L. Joyner Fernando A. Guerra Michael M. Kaback Laurie M. Gunter Frederick S. Kaplan Jerome P. Kassirer Walter Guralnick Michael B. Kastan Bernard Guyer Richard W. Hanson Michael Katz Richard J. Havel Sam L. Katz

Maxine Hayes

Jerris and Susan Hedges

Robert P. Kelch

Brian E. Henderson

Maureen M. Henderson

Lonnie J. King

Arthur L. Herbst

Patricia A. King

Nathan Hershey

Raynard S. Kington

Howard H. Hiatt

Seymour J. Klebanoff

Robert L. Hill Claude B. Klee Kurt Hirschhorn David Korn

Rochelle Hirschhorn Richard D. Krugman Helen H. Hobbs Casimir A. Kulikowski

Thomas F. Hornbein David J. Kupfer H. Robert Horvitz Philip J. Landrigan James S. House Norma M. Lang Peter M. Howley Joseph Larner William N. Hubbard, Jr. Elaine L. Larson Barbara S. Hulka Steven M. Larson Peter Barton Hutt Jovce C. Lashof Lisa I. Iezzoni Cato T. Laurencin

Wendy and Ted Lawrence Jane Menken

Edward R. Laws, Jr.

W. Walter Menninger
Virginia Man-Yee Lee
I. George Miller, Jr.
Howard Leventhal
Louis H. Miller
Beverly S. Mitchell
Roger J. Lewis
Richard T. Miyamoto
Jennifer Lippincott-Schwartz
William C. Mobley

Stephen Ludwig

Ann C. Macaulay

Eleanor E. Maccoby

Ruth Macklin

Floyd J. Malveaux

Vincent T. Marchesi

Alexander R. Margulis

James W. Mold

Harold L. Moses

Marsha A. Moses

John H. Moxley, III

Cynthia D. Mulrow

Frederick A. Murphy

Alexander R. Margulis Milap C. Nahata James D. Marks Eric J. Nestler

Paul A. Marks Duncan Neuhauser

Robert R. Marshak Maria I. New

Barry and Adrienne Marshall

George M. Martin

Joseph P. Newhouse

Roger A. Nicoll

Joseph B. Martin

Jennifer R. Niebyl

Ricardo Martinez

John E. Niederhuber

Manuel Martinez-Maldonado Nancy Nielsen

Ida M. Martinson Elena and Stuart Nightingale

Reynaldo Martorell

Bettie Sue S. Masters

William L. Nyhan

Donald R. Mattison

Charles A. McCallum

Roger O. McClellan

Marce C. McCormick

Roger O. McCormick

Roger O. McCormick

Roger O. McCormick

Bruce S. McEwen Robert E. Patricelli

James O. McNamara Timothy A. Pedley

David Machania

David Mechanic Nicholas A. Peppas

David H. Perlmutter Joseph E. Scherger Theodore L. Phillips Steven A. Schroeder Charles R. Schuster Chester M. Pierce Alan L. Schwartz Philip A. Pizzo Jeffrey L. Platt Nevin S. Scrimshaw Susan C. Scrimshaw Stanley A. Plotkin Deborah E. Powell Matthew P. Scott Deborah Prothrow-Stith Terrence J. Sejnowski

Stanley B. Prusiner Iris R. Shannon
Paul G. Quie Phillip A. Sharp
Howard K. Rabinowitz Carla J. Shatz

Amelie G. Ramirez Michael L. Shelanski
E. Albert Reece Stephen M. Shortell
Robert D. Reischauer Gerald I. Shulman
Arnold S. Relman Paul A. Sieving

Dorothy P. Rice Samuel C. Silverstein Jeanne C. Sinkford Alexander Rich William C. Richardson Robert L. Sinsheimer David L. Rimoin Carolyn W. Slayman John B. Robbins Richard J. Smith James M. Roberts Louis Sokoloff David H. Solomon Griffin P. Rodgers William L. Roper Allen M. Spiegel Mark L. Rosenberg Kurt C. Stange Lewis P. Rowland Zena A. Stein William R. Roy Daniel Steinberg Abraham M. Rudolph Lawrence Steinman Ismail A. Sallam Donald M. Steinwachs

Leona D. Samson Robert Straus
Alan C. Sartorelli Brian L. Strom
Peter T. Scardino Albert J. Stunkard

G. Gayle Stephens

Bruce J. Sams

Mervyn W. Susser Zena Werb Lawrence A. Tabak John B. West

Paul C. Tang Raymond P. White, Jr. Palmer W. Taylor Jeffrey A. Whitsett Torsten N. Wiesel Susan S. Taylor Catherine M. Wilfert Gerald E. Thomson T. Franklin Williams John Q. Trojanowski Charles B. Wilson Arthur C. Upton Linda S. Wilson Jan H. van Bemmel Neal A. Vanselow M. Roy Wilson Ruby L. Wilson William A. Vega Selwyn M. Vickers Gerald N. Wogan Walter J. Wadlington Mary M. Woolley

Edward H. Wagner James B. Wyngaarden
Mary K. Wakefield Asa G. Yancey, Sr.
Edward E. Wallach Frank E. Young
Christopher T. Walsh Laurence R. Young
Kenneth E. Warner Huda Y. Zoghbi

Judith Wasserheit

Shelly Weinbaum

Ralph Weissleder Margaret S. Sharfstein

Tributes and Memorials

In recognition of gifts made in honor or in memory of an IOM member from September 1, 2009, to August 31, 2010.

Friends

In Honor of John A. Benson, Jr.

ABIM Foundation
In Honor of Naomi Lynn Gerber

Margaret S. Sharfstein
In Honor of Arnold S. Milstein

Molly J. Coye

In Memory of Leon Eisenberg
Vanessa Northington Gamble
In Memory of Ruth L. Kirschstein
Vanessa Northington Gamble
Raynard S. Kington

Foundations, Corporations, and Other Organizations

In recognition of foundations, corporations, and other organizations that contributed to the IOM from September 1, 2009, to August 31, 2010.

Foundations

American Legacy Foundation

The Atlantic Philanthropies (USA)

Baltimore Community Foundation

The Arnold and Mabel Beckman

Foundation

Brewster Foundation

Burroughs Wellcome Fund

The California Endowment

California HealthCare Foundation

Carnegie Corporation of New York

The Carson Family Charitable Trust

Central Indiana Community Foundation

Charina Endowment Fund

The Commonwealth Fund

Community Foundation for Southeastern

Michigan

Doris Duke Charitable Foundation

F. Felix Foundation

John E. Fetzer Institute, Inc.

The Bill & Melinda Gates Foundation

George Family Foundation

The Greenwall Foundation

The William and Flora Hewlett

Foundation

Henry M. Jackson Foundation for the

Advancement of Military Medicine

Jewish Healthcare Foundation

The Robert Wood Johnson Foundation

W. K. Kellogg Foundation

The Susan G. Komen Breast Cancer

Foundation

The John D. and Catherine T. MacArthur

Foundation

Josiah Macy, Jr. Foundation

March of Dimes Birth Defects Foundation

Milbank Memorial Fund

Missouri Foundation for Health

The Ambrose Monell Foundation

The New York Community Trust

The Randolph Foundation

The Rowe Family Foundation

The Seattle Foundation

The Clara J. Szekely Foundation, Inc.

The Whitehead Foundation

Corporations

Abbott Laboratories

Aetna Inc.

Amgen, Inc.

Anheuser-Busch Companies, Inc.

Arch Chemicals, Inc.

AstraZeneca Pharmaceuticals L.P.

AWAB, Incorporated

Becton Dickinson and Company

BlueCross and BlueShield Association

Blue Shield of California Foundation

Bristol-Myers Squibb Company

Cargill, Inc.

Celtic Therapeutics Holdings L.P.

CEO Roundtable on Cancer, Inc.

ConAgra, Inc.

Covidien

Eli Lilly and Company

Experient, Inc.

General Mills, Inc.

Genetic Alliance

GlaxoSmithKline

Johnson & Johnson

Johnson & Johnson Pharmaceutical Research & Development, LLC

Lundbeck Research USA, Inc.

Kaiser Permanente

Kellogg Company

Kraft Foods, Inc.

Mars Incorporated

McDonald's Corporation

Mead Johnson Nutritionals

Merck & Company, Inc.

Merck Company Foundation

Merck Partnership for Giving

Monsanto Company

Morgan Stanley Smith Barney Global

Impact Funding Trust, Inc.

Novartis Pharmaceuticals Corporation

Partners HealthCare Systems, Inc.

PepsiCo, Inc.

Pfizer, Inc.

RBC Wealth Management

Sanofi Pasteur

sanofi-aventis

Strvker

T. Rowe Price Foundation

United Health Foundation

University Physicians, Inc.

Wyeth

Other Organizations

American Academy of Nursing

American Association for Cancer Research

American Association of Cancer Institutes

American Association of Emergency Medi-

cal Technicians

ABIM Foundation

American Cancer Society, Inc.

American Chemistry Council

American College of Emergency Physicians

American College of Medical Genetics

American Diabetes Association

American Hospital Association

American Medical Association

American Nurses Association

American Society for Clinical Pathology

American Society for Microbiology

American Society of Clinical Oncology

Association of State and Territorial Health

Officials

Association of American Medical Colleges

C-Change

College of American Pathologists

Critical Path Institute

Emergency Nurses Association

Fidelity Charitable Gift Fund

Infectious Diseases Society of America

Institute of International Education, Inc.

Joan and Sanford I. Weill Medical College & Graduate School

Massachusetts Medical Society

Meals on Wheels Association of America

National Association of Chain Drug Stores Foundation National Association of Emergency Medical Technicians

National Society of Genetic Counselors

Oncology Nursing Society

Parkland Health & Hospital System

Pharmaceutical Research and Manufacturers of America

Task Force for Child Survival and Development

University of California, San Francisco

Vanguard Charitable Endowment Program

We have made every effort to list donors accurately and according to their wishes. If we have made an error, please accept our apologies and contact the Development Office at (202) 334-2431 so that we can correct our records.

IN MEMORIAM 73

Insitute of Medicine Members whose deaths occurred since October 2009.

Myrtle K. Aydelotte

Robert N. Butler

Barton Childs

William D. Fullerton

Norman Garmezy

Ruth L. Kirschstein

Stephen W. Lagakos

Marshall Nirenberg

Leena Peltonen-Palotie

Daniel W. Pettengill

James G. Price

Helen M. Ranney

Sheldon J. Segal

Carl E. Taylor

Paul C. Zamecnik



500 Fifth Street, NW Washington, DC 20001 TEL 202.334.2352 FAX 202.334.1412

www.iom.edu

The Institute of Medicine serves as adviser to the nation to improve health.

Established in 1970 as the health arm of the National Academy of Sciences, the Institute of Medicine is a nonprofit organization that works outside of government to provide unbiased and authoritative advice to decision makers and the public.