NIH Strategic Planning and the NIH Roadmap and Common Fund

Strategic Planning

Strategic planning at NIH takes place at many levels. The U.S. Congress, through the NIH authorization and appropriations processes, sets NIH and IC funding levels and directs NIH attention to particular areas of research interest or emphasis. The Administration establishes specific priorities for improving the health of the Nation, such as those in Healthy People 2010, a comprehensive set of disease prevention and health promotion objectives aimed at increased quality and years of healthy life and the elimination of health disparities for the Nation. Through progress reviews, HHS tracks trends in data that measure advancement toward the plan’s objectives. NIH efforts are contributing toward Healthy People 2010 objectives, ranging from reducing uncorrected visual impairment due to refractive errors to increasing the proportion of persons with arthritis who have had effective, evidence-based arthritis education as part of management of their condition. Healthy People 2020 objectives are now in development, and will reflect assessments of major risks to health and wellness, changing public health priorities and emerging issues related to our Nation’s health preparedness and prevention that also will need to be addressed by NIH. In addition, NIH establishes its own goals and priorities fully cognizant of the framework of the HHS Strategic Plan Goals and Objectives - FY 2007-2012, which sets the stage for individual performance plans and outcome measures across NIH.

Strategic planning at NIH is a highly consultative process involving many constituencies that generate and provide input on public health needs and research gaps, opportunities, and priorities. Importantly, strategic plans can serve as a framework for ICs to measure and report on portfolio balance and progress relative to their missions. NIH stays constantly tuned to twin touchstones for priority-setting—public health need and scientific opportunity.

The majority of strategic planning at NIH is IC-based. IC strategic plans function as guideposts to the investigative and NIH communities. Each NIH IC has unique processes for generating and disseminating its strategic plans, but by developing and articulating consensus on today's most pressing health needs and research questions, all IC strategic plans influence the research directions and methods proposed by investigators in their applications. By the same token, strategic plans inform IC decisions about areas of research that require stimulation—achieved through a variety of means including meetings, workshops, conferences, and various FOAs—to move science planning into the implementation stage. Finally, strategic plans influence IC priority-setting and funding decisions.

While each of the 24 grant-making ICs has a broad strategic plan that clearly states its mission and priorities, many of the ICs also have disease- and program-specific strategic plans and research agendas as well as reports from workshops, “blue ribbon” panels, and other expert working groups that contain recommendations for research goals or priorities within the IC mission.

NIH also has a significant tradition of trans-NIH strategic planning, which has been strengthened through the creation of DPCPSI in the NIH OD. DPCPSI was created to identify important areas of emerging scientific opportunity, rising public health challenge, and knowledge gaps that deserve special emphasis and would benefit from strategic coordination and planning or the conduct or support of trans-NIH research that involves collaboration between two or more national Institutes or Centers. As noted above, DPCPSI is the organizational home for the NIH Common Fund (see section below on Common Fund).
Strategic Planning Processes. Another important facet of DPCPSI’s role in support of NIH-wide planning and coordination is its development and application of resources (e.g., databases, analytic tools, and methodologies) in support of portfolio analyses and priority setting.

Trans-NIH strategic plans focus on areas that are best addressed by involving multiple ICs in identifying research goals and priorities. A prominent example is the annual Trans-NIH Plan for HIV-Related Research to guide the NIH investment in biomedical and behavioral AIDS-related research and to provide the framework to translate critical research findings into improved prevention and treatment strategies. The development of the plan is led by OAR, using a collaborative process involving broad input from scientists across NIH, other government agencies, and non-governmental organizations, as well as community representatives and other experts from the United States and abroad. Another example is the March 2009 Report, Opportunities and Challenges in Digestive Diseases Research: Recommendations of the National Commission on Digestive Diseases—a 10-year plan for digestive diseases. The Commission was led by NIDDK and was composed of 16 members, including academic researchers, medical professionals, and patient advocates, who were appointed by the NIH Director, and 22 representatives of NIH ICs, as well as other Federal agencies involved in digestive diseases research, who served as ex officio members. Other trans-NIH research plans address goals and objectives in areas that include neuroscience research, liver disease, diabetes, health disparities, muscular dystrophies, autoimmune diseases, and more. (Lists of both IC and trans-NIH strategic plans appear at the end of each disease/disorder topic section of Chapter 2).

Common Fund Strategic Planning Processes

The NIH Common Fund was established by the 2006 Reform Act to support the mission of NIH. The trans-NIH strategic planning for the Common Fund occurs continually and on many levels. The most visible activity occurs every 3 to 5 years and was first initiated before the Common Fund existed as a process to address fundamental barriers to research or unique opportunities that affect the NIH mission as a whole. The programs that resulted from these early planning processes are known collectively as the NIH Roadmap for Medical Research. With the establishment of DPCPSI and the Common Fund, the goals for the Roadmap have been maintained, but the planning activities have been expanded to increasingly foster inter-IC collaboration and coordination and to allow the NIH Director added flexibility to develop new programs continually rather than only on a 3- to 5-year schedule.

NIH uses iterative planning processes, involving NIH stakeholders and NIH leadership, to generate, select, prioritize, and develop recommendations for Common Fund initiatives. Various assessments and portfolio analyses, supported by new and evolving databases, analytic tools, and evaluation methodologies, inform the planning processes. NIH solicits ideas for new initiatives from the intramural and extramural scientific community, patient advocates, and the general public to help senior NIH staff identify crosscutting challenges in biomedical research that meet criteria established for Common Fund initiatives (see text box). This solicitation is conducted formally every 3 to 5 years through an expanded process involving brainstorming workshops, Requests for Information, and widespread staff involvement. In other years, ideas are presented to the NIH Director through continual interaction with IC directors and leaders in the scientific and lay communities. As required by the Reform Act, on a biennial basis, NIH issues a Common Fund Strategic Planning Report. The latest such report, issued in June 2009, is provided in Appendix C.

To facilitate the prioritization of ideas, NIH conducts a programmatic review of the ideas that are gathered—assessing their responsiveness to the Roadmap initiative criteria, as well as conducting a
preliminary assessment of the currently funded NIH portfolio of research related to the broad areas highlighted by the ideas presented. Informed by this analysis and following scientific discussion with IC directors, the NIH Director selects areas that are to be pursued. Trans-NIH Working Groups then form to develop funding announcements and to implement programs in the selected areas.

A Council of Councils,\textsuperscript{12} also established by the Reform Act, advises the NIH Director on scientific areas pursued through the Common Fund and considers concepts for new Common Fund programs.

### Criteria for Common Fund Initiatives

The goals established for Common Fund initiatives by the 2006 Reform Act include identifying research that:

- Represents important areas of emerging scientific opportunities, rising public health challenges, or knowledge gaps
- Deserves special emphasis
- Would benefit from conducting or supporting additional research that involves collaboration between two or more national research institutes or national centers, or otherwise benefit from strategic coordination and planning.

In addition to these criteria, NIH expects Common Fund programs to:

- Have the potential for exceptionally high impact and accepts a high level of risk that may be associated with innovation and creativity
- Catalyze research funded through the ICs and to synergize with IC program

\textsuperscript{12} The Council of Councils is composed of approximately 30 members selected from the IC National Advisory Councils and nominated by the OD program offices, as well as broad lay representation, including a member of the NIH Council of Public Representatives. The Council advises the NIH Director on matters related to the policies and activities of DPCPSI, and acts as an external advisory panel to the IC directors during the “concept approval” stage of the Common Fund/Roadmap initiative review process through its recommendations to the NIH Director and DPCPSI Director.