Strategic Plan for the Office of Evaluation, Performance, and Reporting



National Institutes of Health Office of Evaluation, Performance, and Reportin

Fiscal Years 2023-2027



DIRECTOR'S MESSAGE

The mission of the National Institutes of Health (NIH) is to seek fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to enhance health, lengthen life, and reduce illness and disability. As a steward of public funds, NIH is committed to pursuing that mission effectively, efficiently, and transparently through continual improvement.

The creation of the Office of Evaluation, Performance, and Reporting (OEPR) in July 2018 is a demonstration

of that commitment. OEPR's establishment within NIH's Division of Program Coordination, Planning, and Strategic Initiatives was intended to centralize coordination of aspects of NIH stewardship—both operational and scientific—which support evidenced-based decision-making efforts across agency programs, policies, and processes.

Specifically, this includes efforts to systematically improve strategic planning, performance monitoring, evaluation and other assessments, and reporting efforts at NIH. By partnering with all the Institutes, Centers, and Offices (ICOs) of NIH, OEPR seeks to foster greater harmonization in NIH's approach to these aspects of stewardship, ultimately resulting in increased transparency and enhanced accountability to the public for all that NIH does. These key themes all are woven throughout the *21st Century Cures Act* (P.L. 114-255),^a which OEPR plays a significant role in implementing.

Importantly, the creation of OEPR coincided with the enactment of the *Foundations for Evidence-Based Policymaking Act of 2018* (P.L. 115-435).^b The *Evidence Act* calls on all federal agencies to further develop data, methods, and approaches to increase the use of evidence in policymaking. Working in collaboration with NIH ICOs, OEPR is leading the agency's efforts to implement Title 1 of the Act (Federal Evidence-Building Activities) with the aim of enhancing NIH's existing capacity to generate and use evidence and address limitations and barriers in service of improving evidence-based decision-making.

The *NIH-Wide Strategic Plan for Fiscal Years 2021–2025* calls for NIH to further foster a culture of good stewardship. The four objectives put forth in this plan address many of the components necessary to realize this goal.

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a https://www.congress.gov/bill/114th-congress/house-bill/34
b https://www.congress.gov/bill/115th-congress/house-bill/4174

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Mission

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To capture, communicate, and enhance the value of National Institutes of Health (NIH) research through stewardship activities including strategic planning, performance monitoring, evaluation, and reporting.



To achieve the mission of the Office of Evaluation, Performance, and Reporting through its goal areas of strategic planning, performance monitoring, evaluation, and reporting, team members with expertise in each of these areas work together, and innovation in any one area will influence how the other functions are conducted.



INTRODUCTION

The Office of Evaluation, Performance, and Reporting (OEPR) was established within NIH's Office of the Director's Division of Program Coordination, Planning, and Strategic Initiatives (DPCPSI) in July 2018. Given DPCPSI's role in planning and coordinating NIH-wide initiatives and developing resources for use by all NIH Institutes, Centers, and Offices (ICOs), the inclusion of OEPR within the Division signals a commitment to the strategic and systematic strengthening of stewardship activities across NIH. OEPR works with NIH ICOs to develop strategies to strengthen strategic planning practices and identify approaches for better monitoring progress toward the goals identified in strategic plans. Furthermore, OEPR works across NIH to increase its capacity to assess programs, policies, and operations that are designed to meet those goals. In strengthening NIH's strategic planning, progress monitoring, and assessments of programs, policies, and operations, OEPR helps to increase NIH's ability to generate and use evidence to improve its activities' effectiveness. This evidence can not only be used internally to strengthen the management of NIH resources, but also to better inform NIH's many external community members by strengthening the communication of NIH's value, providing transparency and accountability to the public.

Key to OEPR's role is its engagement and collaboration across the entire NIH. OEPR works closely with each of the ICOs, primarily through the representatives of the NIH Planning and Evaluation (P&E) community. OEPR also collaborates with other DPCPSI Offices. The OEPR office is organized into interconnected teams working together to fulfill the four goal areas of the office. See <u>Appendix B</u> for the current organization chart.

To further its mission, OEPR will undertake the following four goals during fiscal years 2023–2027:

- 1. Enhance and harmonize strategic planning at NIH.
- 2. Optimize progress monitoring at NIH.
- 3. Strengthen evaluation and other assessments of NIH activities and impacts.
- 4. Report on the value of NIH.

GOAL 1: ENHANCE AND HARMONIZE STRATEGIC PLANNING AT NIH

Objective: To strengthen and harmonize strategic plan development, implementation, and tracking across NIH through coordination and resource development

NIH depends on the scientific community to help direct its research investments, as a large portion of the science it funds is investigator-initiated, and funding decisions rely in part on peer review. For the purposes of this Strategic Plan, all references to scientific research encompass all areas of NIH research, including biological, behavioral, and social sciences. By also setting high-level priorities, NIH communicates areas of emphasis and how it plans to address them. Stewardship at NIH begins with setting these priorities to achieve a stated mission or advance a specific area of focus. Strategic plans articulate these priorities, identify strategies for achieving them, and optimally identify metrics and milestones to operationalize the plan and track progress. For NIH, these priorities may address specific areas of research, research capacity building (e.g., training, workforce, and infrastructure), or research conduct and operations.

The scope of a strategic plan at NIH may range from NIH-wide to focusing on a particular program or disease within an ICO. Yet at the heart of all strategic planning at NIH stand three key pillars of stewardship—harmonization, transparency, and accountability. Each plan provides an opportunity to show how priorities align with the specific mission of the ICO producing the plan and how these priorities align with the overall NIH mission, maintaining harmony across the agency. Strategic plans are a key component of NIH's drive for transparency, communicating priorities to NIH staff and the broader NIH community in the form of knowledge gaps, scientific opportunities, and public health needs. Strategic plans can outline approaches toward accountability, help with decisions regarding allocation of funding, and, in some cases, respond to external mandates. They can broadly outline directions, or alternatively, be prescriptive in focusing activities. For many external or public-facing strategic plans, complementary internal implementation plans operationalize the public-facing document.

OEPR works across NIH to provide advice and resources for conducting many aspects of strategic planning, from responding to mandated requirements, to facilitating NIH-wide working groups, to operationalizing plans and tracking progress toward strategic plan goals. To address the latter, OEPR encourages consideration of monitoring and evaluation from the inception of NIH planning efforts and is developing resources to facilitate the implementation of this approach, which will, in turn, boost transparency and accountability across NIH. Optimal strategic planning depends on an understanding of current conditions, such as the existing research portfolio in a scientific area, areas of emerging scientific opportunity or public health need, and a vision outlined by NIH leadership for realistic goals within the given time frame of a plan. The process should be informed by subject matter experts and other community members, including the public. OEPR works to facilitate and strengthen different approaches to capturing and analyzing these important inputs to inform the strategic planning process.

Importantly, each entity within NIH—whether a specific program, an ICO, or an initiative encompassing several institutes—has its own unique mission that contributes to the overall mission of NIH. Understanding how all these separate goals and priorities harmonize with one another to advance the mission of NIH is another key aspect of good stewardship. This begins with articulating NIH's overarching priorities through the *NIH-Wide Strategic Plan for Fiscal Years 2021–2025*,¹ mandated by the *21st Century Cures Act*.

As the centralized strategic planning office for NIH, OEPR is uniquely poised to work across NIH on the development of the NIH-Wide Strategic Plan² and operationalize and track progress on its implementation. Furthermore, OEPR works with all the ICOs to harmonize their plans with the overarching NIH-Wide Strategic Plan using the NIH Common Template for Strategic Plans,³ a requirement also stated in the *Cures Act*. In addition, OEPR leads, as assigned, the process for other NIHwide strategic planning efforts and coordination of NIH input to the U.S. Department of Health and Human Services (HHS) Strategic Plan. oOo OEPR will implement the following strategies to advance Goal 1:

Strategy 1.1: Lead and collaborate across NIH to develop, operationalize, and track progress on the NIH-Wide Strategic Plan.

To advance its mission and fulfill requirements of the Cures Act, NIH updates its strategic plan every 5 years. OEPR provides leadership in both the development of the NIH-Wide Strategic Plan and in operationalizing and tracking progress of its implementation by adopting a process designed to be transparent, focused on science and effective use of resources, guided by evidence, and informed by NIH's many community members. The plan outlines NIH's vision for scientific research direction, capacity, and stewardship by articulating the highest priorities of NIH over the 5-year period covered by the plan. In addition, the plan addresses specific requirements outlined in the Cures Act and provides illustrative examples of accomplishments under the previous plan and new initiatives under the current one. OEPR works across NIH to coordinate development of the NIH-Wide Strategic Plan, ensuring that it is a true collaboration among NIH leadership, staff, and other key community members-including the research community, professional societies, advocacy groups, and the public. OEPR also maintains the NIH-Wide Strategic Plan website⁴ as an accessible, useful, and updated resource for NIH's many community members.

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¹ https://www.nih.gov/sites/default/files/about-nih/strategic-plan-fy2021-2025-508.pdf

² https://www.nih.gov/sites/default/files/about-nih/strategic-plan-fy2021-2025-508.pdf

³ https://dpcpsi.nih.gov/sites/default/files/Common_Template_Public_FINAL_508.pdf

⁴ <u>https://www.nih.gov/about-nih/nih-wide-strategic-plan</u>

OEPR ensures that the NIH Common Template for Strategic Plans, a requirement set forth in the Cures Act, accurately reflects the framework of the current NIH-Wide Strategic Plan, ensuring continued harmonization of NIH ICO strategic plans with the overarching NIH-Wide Strategic Plan. OEPR works to include consideration of monitoring and evaluation from the inception of the NIH-Wide Strategic Plan, developing processes to apply this approach. This will, in turn, boost transparency and accountability with regard to implementation of the NIH-Wide Strategic Plan. Because ICOs are responsible for implementing the objectives set forth in the plan, OEPR will work with the appropriate entities across NIH to operationalize, track, and evaluate representative activities aligning with each objective.

In the next 5 years, OEPR will—

- > Update the NIH Common Template for Strategic Plans to accurately reflect the framework of the NIH-Wide Strategic Plan for Fiscal Years 2021–2025.
- Identify representative activities for each of the objectives of the NIH-Wide Strategic Plan for Fiscal Years 2021–2025 and work across NIH to operationalize and track progress on each.
- Identify congruency in priorities and the means for capturing progress on the many NIH strategic plans, aligning to the NIH-Wide Strategic Plan.

Strategy 1.2: Lead or collaborate across NIH to develop, operationalize, and track progress on NIH ICO strategic plans, NIH-wide strategic plans, or HHS-wide strategic plans.

OEPR is uniquely positioned to play a key role in strategic planning activities across NIH and HHS. OEPR's centralized function enables increased harmonization of NIH planning processes through sharing and encouraging the use of common strategic planning approaches, best practices, and resources. Integral to this is OEPR's role to ensure compliance across NIH ICOs, as applicable, with the NIH Common Template for Strategic Plans. By harmonizing all ICO plans with the NIH-Wide Strategic Plan, NIH will be better suited to operationalize, track, and evaluate progress on the priorities set out in these strategic plans, as well as the NIH-Wide Strategic Plan.

OEPR staff's involvement in strategic planning activities across NIH and HHS ranges from consultations on mechanisms for gathering community input, to participation on strategic plan working groups, to leadership of some strategic planning activities. Common to all these engagements, OEPR provides planning expertise rather than content expertise and gathers content from subject matter experts across NIH as necessary.

In the next 5 years, OEPR will—

- Coordinate clearance of NIH Institute and Center (IC) strategic plans and DPCPSI Office strategic plans in accordance with the NIH Common Template for Strategic Plans, including review and approval of final strategic plans, in addition to informal review of draft plans and guidance on adjustments.
- Provide consultations to NIH ICOs to assist with development of their strategic plans.
- Work across NIH to better integrate implementation, tracking, and evaluation considerations into the strategic planning process.

- > Lead or assist with the development of NIH-wide topical strategic plans, as assigned, including coordination of the NIH-Wide Strategic Plan for Diversity, Equity, Inclusion, and Accessibility.
- > Act as NIH liaison for departmentwide and other HHS strategic planning efforts.

Strategy 1.3: Develop and facilitate the use of resources that NIH ICOs can utilize in their strategic planning efforts.

OEPR develops resources for NIH ICOs to facilitate their strategic planning efforts. These resources include helpful information in an accessible format on facets of strategic planning at NIH, from use of the NIH Common Template for Strategic Plans to strategic planning approaches and best practices. OEPR also has developed a Strategic Tracking and Reporting Tool (START) designed to help implement, operationalize, and track progress on strategic plans (see box, "An Information Technology Platform to Strengthen NIH Stewardship"). OEPR disseminates these resources and those developed elsewhere at NIH and HHS, advocating their use.

OEPR staff also are a key resource, providing a significant source of institutional knowledge on strategic planning processes, approaches, and products across NIH, facilitating the cross-

pollination of this information throughout NIH by presentations and consultations. The sharing and increased use of information and common resources by NIH's P&E community will improve the strategic planning knowledge base across NIH and help the NIH community coalesce around common approaches and best practices for strategic planning. These efforts will contribute to OEPR's goal of increased harmonization, transparency, and accountability through strategic planning at NIH.

In the next 5 years, OEPR will-

- > Continue refining the START to guide ICOs through the set-up of a strategic plan in the module and provide examples of metrics to be used for operationalizing, tracking, and evaluating plans.
- > Develop and identify resources for strategic planning at NIH and across HHS, including guides on applying the NIH Common Template for Strategic Plans, to increase awareness and understanding of how strategic planning is approached across NIH.
- Continue to disseminate carefully curated resources and update them regularly.



AN INFORMATION TECHNOLOGY PLATFORM TO STRENGTHEN NIH STEWARDSHIP

To help improve the effectiveness, efficiency, and transparency of NIH's work, OEPR is further developing integrated information technology (IT) modules that together provide a platform to capture information on NIH planning, activities, and results and organize that information in multiple ways to allow for analyses and evaluations, as well as streamlined reporting. Collectively, these modules will provide NIH with an IT platform that will assist NIH staff in—

- Strategic plan development, tracking, and reporting. The Strategic Tracking and Reporting Tool (START) serves both as a resource-by bringing information from across NIH into one platform-and a tool that allows for data analyses and reporting. NIH entities (whether a program, a division, an institute, or an NIH-wide initiative) may use the module to develop strategic plans; design implementation plans to accomplish the goals of the strategic plan; identify metrics and measures to track progress on strategic priorities; collect and collate data based on the metrics and measures; and create visualizations, dashboards, and reports.
- Performance reporting to satisfy requirements of the Government Performance and Results Act (GPRA). The GPRA performance module has been used for nearly two decades by NIH staff to submit, manage, and archive GPRA-related performance data. It provides an easy-to-

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use platform that supports the tracking and reporting of NIH's performance measures as part of the annual budget development process.

- Collaborations reporting and analysis. The Collaborations Reporting module provides a centralized resource to capture aspects of NIH's collaborations with other U.S. Department of Health and Human Services (HHS) operating divisions, other federal agencies, and, potentially, public– private partnerships.
- Other functions. OEPR continues to expand the suite of modules it offers NIH staff. New modules have been built to support document management and archiving, project management, and identification of data sources, tools, and methodologies for evaluation and other analyses.

The OEPR modules are developed on a common software platform, and each consists of data that are intended to help inform progress on NIH strategic priorities and provide critical data that can be leveraged by NIH leadership for evidencebased decision-making. Further development of this platform is a central component of OEPR's efforts because these newly developed resources and tools bridge all four OEPR priority areas and serve as an essential anchor for OEPR's comprehensive strategy to provide NIH staff with additional sustainable resources and tools to further stewardship activities.



GOAL 2: OPTIMIZE PROGRESS MONITORING AT NIH

Objective: To strengthen NIH's decision-making by enhancing and expanding progress tracking toward strategic goals and priorities

NIH is committed to ensuring that every dollar is spent to maximize long-term public benefit. NIH's role as a steward of public resources requires not only supporting innovative research, but also fostering innovation across the entire research enterprise by enhancing individual and collective scientific stewardship. A fundamental aspect of good stewardship is closely monitoring progress toward stated goals, which provides a wealth of benefits across NIH, such as—

- > The opportunity to change course
- Identification of emerging patterns that may indicate scientific opportunity or public health needs
- Transparency and accountability to the public by communicating a clear picture of NIH's progress toward its mission

Understanding the effectiveness and efficiency of federal activities and spending related to specific missions has been a recurring focus within the federal government at large. This focus led to many legislative requirements and presidential initiatives to make federal agencies more transparent and accountable to the public. The Government Performance and Results Act (GPRA) is perhaps the longest-standing example of such efforts. Signed into law in 1993 and subsequently updated in 2010,⁵ GPRA seeks to improve federal performance by requiring federal agencies⁶ to measure progress toward goals and, more importantly, use that information to identify and correct problems and make decisions related to internal management and resource allocation. GPRA is the foundation of the Federal Performance Framework⁷ and a key driver behind Office of Management and Budget (OMB) efforts to cultivate results-oriented planning, performance measurement, and public reporting across the federal government.

Progress monitoring of strategic goals and priorities is used to strengthen NIH's internal capabilities to generate accurate and timely information for decision-making. To lay a solid foundation for these efforts, OEPR collaborates with ICOs on several fronts: creating a common framework to operationalize progress measurement within the NIH context; informing development of practical approaches for meeting NIH decision-makers' information needs; developing tools to bring together internal and external data for NIH to use to effectively and efficiently monitor the progress of its programs, policies, and operations; and providing guidance and resources to help NIH staff incorporate progress measurement into their day-to-day work.

⁵ <u>https://www.congress.gov/bill/111th-congress/house-bill/2142</u>

⁶ In the context of GPRA, the term "federal agencies" refers to executive departments and independent agencies identified in the <u>Chief Financial</u> <u>Officers Act of 1990</u>.

⁷ https://www.performance.gov/about/performance-framework

Progress monitoring also fulfills legislative and administrative requirements. OEPR supports HHS implementation of GPRA by liaising with HHS's performance team, adapting its guidance for NIH's use, and working with the ICOs to meet the HHS' requirements. NIH's GPRA measures, progress toward meeting those measures, and final results are published in the NIH Congressional Justification,⁸ and selected measures are incorporated into the HHS Annual Performance Plan and Report.⁹

OEPR seeks to improve and strengthen NIH's internal progress-monitoring efforts to leverage this vital activity to advance NIH's mission, ensure good stewardship, and foster data-driven decisionmaking. An important focus area for OEPR is the realignment and streamlining of NIH's GPRA performance activities so that GPRA measures are better aligned to ICO or NIH-wide priorities and practices. OEPR envisions a new generation of validated performance measures that reflect existing activities that have a direct connection to NIH priorities, such that they are more valuable and relatable to HHS, Congress, and the public, as well as useful to support internal monitoring or decisionmaking.

Another important area of opportunity is the development of a large repository of progressmonitoring data that can be leveraged for forecasting future scientific opportunities, public health needs, or program and policy adjustments. To ensure the best chances for successfully improving and strengthening NIH's progress monitoring, it will be crucial to promote and facilitate harmonization and benchmarking across NIH. Developing and applying similar validated methods and standards for progress monitoring will allow better utilization of disparate data and comparisons across NIH.

OEPR will implement the following strategies to advance Goal 2:

Strategy 2.1: Support, promote, and enhance the progress-monitoring efforts of NIH ICOs.

Although current approaches to progress monitoring have served NIH well in its internal decision-making and responsiveness to legislative requirements like GPRA, NIH may not be maximizing the opportunities that a strong progress-monitoring culture provides. Diligently tracking progress on strategic goals and priorities not only documents concrete examples of accomplishments that NIH can use to communicate its value to the public, but it also offers the opportunity to make data-driven decisions and modify course if progress is not as expected or new areas of investment are identified. Expanding and harmonizing progress tracking across all NIH ICOs and all business areas will allow NIH to benefit from economies of scale—for example, a large repository of data can be used to identify emerging patterns that may point to scientific opportunity or public health needs-that are limited if progress monitoring is siloed. Progress monitoring is a crucial and indispensable part of ensuring public transparency and accountability because it provides the evidence base needed to demonstrate how NIH spends the taxpayers' money and what they are getting for their investment.

⁸ https://dpcpsi.nih.gov/oepr/performance_gpra_archive

9 https://www.performance.gov/agencies/hhs

In the next 5 years, OEPR will—

- Promote the benefits of progress monitoring to NIH's mission.
- Work across NIH to better integrate progress monitoring and tracking into regular office operations across many business areas.
- Consult with ICOs on how to launch, validate, and manage progress-monitoring efforts, how to integrate progress monitoring and data-driven decision-making into strategic planning and other business activities, and how to identify baselines and set milestones.

Strategy 2.2: Develop and disseminate resources for tracking progress toward specified goals and priorities.

A barrier to creating a culture of progress tracking across NIH is the lack of sufficient resources and tools for collecting, organizing, consolidating, and using data collected from progress monitoring to improve NIH's ability to make data-driven decisions. Several ICOs have centralized tools for progress tracking, and OEPR maintains a centralized online module for entering, managing, reporting, and archiving GPRA-related performance information (see box, "An Information Technology Platform to Strengthen NIH Stewardship"). However, this disaggregated and ad hoc approach may not allow NIH to fully maximize the opportunities a strong progress-monitoring culture provides. In addition to its GPRA performance module, OEPR has developed and is continually refining its START module to help implement and track progress on strategic plans and other NIH priorities and to associate progress monitoring with strategic planning. By integrating OEPR's current GPRA performance module with the START module, it will be possible to effectively leverage GPRA data for internal NIH decisionmaking and provide tools for ICOs to independently track progress of their programs. Furthermore, the integrated modules will help harmonize and benchmark progress monitoring across NIH by centralizing methods and standards to facilitate better utilization of disparate data and comparisons across NIH. It also will serve as a large repository of data necessary to identify emerging patterns that may indicate scientific opportunity and/or public health need.

In the next 5 years, OEPR will-

- Further develop and expand use of the START to help ICOs track progress toward specified goals and priorities, such as those identified in NIH strategic plans, implementation plans, NIH-wide initiatives, and other programs and policies.
- Work to harmonize and benchmark progress monitoring across NIH by developing validated tools, methods, and standards to facilitate better utilization of disparate data and comparisons across NIH.

Strategy 2.3: Foster the development and use of quantitative and qualitative measures that can inform internal management decisions as well as help satisfy legislative and departmental mandates.

As part of the executive branch and an operating division within HHS, NIH is responsible for satisfying many legislative and departmental mandates, like GPRA, HHS Agency Priority Goals, HHS Annual Performance Plan and Report, and *ad hoc* requests for progress updates on executive orders and supplemental congressional funding. OEPR plays a major role in many of these activities by coordinating the development, clearance, and publication of NIH's GPRA performance measures, targets, and results in accordance with legislative statute and OMB, HHS, and NIH policies and procedures. OEPR also represents NIH at HHS Performance Officers meetings and assists HHS in developing, tracking, and reporting on HHS Agency Priority Goals and NIH measures in the HHS Annual Performance Plan and Report.

Although NIH is fully compliant with these mandates and provides timely, accurate, and meaningful information, there are opportunities for improvement. NIH's current approach for satisfying these requests can at times be fragmented and ad hoc. Data collected for executive orders are tracked using time-consuming manual data entry that is not easily adaptable for repurposing. Furthermore, there is an opportunity to utilize staff time more efficiently by consolidating and repurposing the vast amounts of progress-tracking data being collected across NIH. OEPR is uniquely poised to seize this opportunity by working across NIH to harmonize and consolidate these siloed progress-monitoring efforts so that they can be leveraged for multiple legislative and departmental mandates, reporting activities, and, importantly, used for internal decision-making.

In the next 5 years, OEPR will-

- > Update and streamline GPRA performance monitoring and reporting to leverage and maximize this mandated performance exercise for NIH's own internal uses, such as supporting internal monitoring or decision-making.
- Integrate OEPR's module for entering, managing, reporting, and archiving GPRArelated performance measure information with OEPR's START module to better integrate GPRA performance monitoring with other progressmonitoring efforts for NIH strategic plans, NIHwide initiatives, and other programs and policies.
- Develop a large repository of progressmonitoring data that can be leveraged for forecasting future scientific opportunities, public health needs, or program and policy adjustments.



GOAL 3: STRENGTHEN EVALUATION AND OTHER ASSESSMENTS OF NIH ACTIVITIES AND IMPACTS

Objective: To lead a coordinated and systematic effort to strengthen NIH's ability to gather evidence about the effectiveness of its programs, policies, and operations

NIH has long recognized that incorporating data and evidence into decision-making is a critical component of sound stewardship. Accurate, timely, and targeted evidence is essential for informed decision-making about effective and efficient use of resources. Effective evidence-building approachesincluding, but not limited to, evaluation, research portfolio analysis, bibliometric analysis, network analysis, meta-analysis, systematic review of the literature, and performance monitoring-help NIH manage its resources and provide accountability to the public. Assessments conducted at any stage of a process, program, or policy life cycle provide NIH leadership a data-driven approach for evidencebased decision-making and for understanding the outcomes from NIH investments. For example-

- Conducting assessments during the early planning stages of a program or policy can help define and focus goals and determine how a program should be designed to be maximally efficient and effective.
- Assessments conducted before the launch can provide findings to identify priority areas.
- Conducting assessments during implementation, when course corrections can still be made, supports proactive management to prevent wasted effort, time, and resources.

Outcome evaluations and other forms of assessment conducted after a process, program, or policy is fully implemented or comes to an end provide information about its effectiveness and impact relative to the expected outcome.

Accurate, timely, and targeted evidence derived from continuous evaluation and analysis is critical for the improvement of NIH functions and to NIH's ability to meet its mission. OEPR plays an essential role in this approach to organizational learning by focusing and collaborating on activities that aim to strengthen NIH's evaluation and assessment capabilities. As part of its core mission, OEPR works with the P&E community to advance a systematic and strategic approach toward improving NIH's ability to generate evidence on the effectiveness of its programs, policies, and operations.

OEPR's systematic approach for building NIH assessment capacity has begun with gathering a shared understanding across NIH of current strengths and weaknesses in evidence gathering. During 2022, OEPR and its partners considered the data and tools available; the workforce competencies present within the ICOs; and NIH Leadership's evidence needs at all levels of the agency. With this understanding, over the next 5 years OEPR will build strategies to increase

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capacity by identifying new data sources and tools, increasing the use of existing tools and data sources, further developing the evaluation and assessments workforce, and strengthening the community of evaluation and assessment practice at NIH. In addition to its capacity-building activities, OEPR serves as a centralized resource for NIH, consulting on any number of evaluations and other evidence-gathering activities. As the community of practice grows at NIH, this role as a centralized resource will increasingly take on additional coordinating functions.

Optimizing programs, policies, and operations is made more challenging in the absence of knowing their outcomes. The outcomes of significance for NIH are those that demonstrate it is successfully achieving its mission by improving health, which, in turn, strengthens society. In addition, as a science agency, it is incumbent on NIH to demonstrate how it advances scientific practice. In today's information- and data-rich world, NIH has many new opportunities to draw the connections between research and its eventual application. OEPR works with its many partners within and outside NIH to move beyond traditional metrics of research productivity and identify sources of evidence that can demonstrate NIH's impact on health, society, and science.

OCO OEPR will implement the following strategies to advance Goal 3:

Strategy 3.1: Lead and collaborate across NIH to better understand, on an ongoing basis, evidence-based decision-making needs in order to identify priorities for building evaluation and assessment capacity.

Advancing the use of evaluation and other assessments in support of evidence-based decision-making requires a systematic and strategic approach, beginning with a comprehensive understanding of NIH evidence needs and the current assessment capacity to meet those needs. NIH's capacity to conduct evaluations and other assessments has grown in the last decade with greater availability of data and the development of tools to query such data. The capacity to effectively utilize these tools varies across NIH, and currently available data resources and tools may not fully address NIH assessment needs. OEPR, in collaboration with the P&E community, is systematically analyzing how NIH leadership use data, evidence, and other information in their decision-making processes. As a first step, structured interviews with IC leadership formed the basis of a report that is now informing OEPR's continued efforts to further strengthen NIH's assessment capacity by leveraging current strengths, expanding on existing capabilities, and identifying and addressing limitations and barriers.

In the next 5 years, OEPR will-

- Build on the initial activities performed to better understand how the NIH community—including NIH and ICO leadership—define, prioritize, value, and utilize evidence.
- Work across NIH on an ongoing basis to identify and prioritize opportunities to enhance the use and quality of data and tools used in NIH assessments.
- Work across NIH to continually gather information regarding the number, qualifications, and roles and responsibilities of evaluation and analytical personnel.

Strategy 3.2: Develop and prioritize new strategies to support evidence-building activities using the many data resources, tools, and methods developed across NIH.

Evaluation and other forms of assessment are intended to help answer whether NIH goals and objectives have been met and to what extent they have been successful. The basis for this assessment is underpinned by the creation of NIH data resources and validated analytic tools, primarily developed by the Office of Extramural Research and the Office of Portfolio Analysis. To further strengthen existing assessment capacity, OEPR engages with these and other NIH Offices to better integrate existing resources and bridge the gaps between resource providers and the practitioner community of tool users. To further advocate the use of these validated tools and streamline the efforts for the assessment and evaluation community, OEPR develops resources to integrate and aggregate disparate data sources to enable comprehensive and holistic analysis of all NIH investments.

In the next 5 years, OEPR will—

- Work with the NIH community to capture and describe evidence-building methodologies and lessons learned from working with different data sources.
- Collaborate with NIH data resource and tool developers to enhance the utility of data used in decision-making, based on identified priorities, through improved data sharing and integration across NIH platforms.
- Update on an ongoing basis a web-based inventory that describes existing NIH data resources and tools and their best fit for use in evidence-building activities.
- Work with NIH staff to create a web-based catalog of metrics used in assessments across NIH.

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Strategy 3.3: Work with the NIH community to implement programs based on identified needs to strengthen evaluation workforce capacity and expertise.

A foundational pillar of NIH's evidence-building capacity is maintaining an adequate pool of skilled and experienced evaluators and analysts whose work can influence the quality and utility of evaluations and other assessments across NIH. NIH is a large organization, composed of 27 separate ICs and several Offices within the Office of the NIH Director. The evidence-building capacity across this NIH landscape varies significantly. Some ICOs have devoted substantial resources to evaluation and analytical activities, while others have a less robust capacity due to limited resources and competing priorities. OEPR seeks to close these gaps by strengthening the evaluation expertise of staff across NIH by strategically increasing NIH's evaluation workforce competencies and capacity and further strengthening evaluation practice across the agency.

In the next 5 years, OEPR will—

- Facilitate the development of recruitment materials for use in increasing evaluative and assessment expertise at NIH.
- Work with partners across NIH to supplement existing evaluation and assessment training opportunities.
- Provide opportunities for NIH staff to gain additional experience in the generation of evidence by participating in evaluation work groups and other analytic activities.

Strategy 3.4: Strengthen NIH's ability to better measure its outcomes and capture its impact.

With the unprecedented growth of data and information in the last several years, opportunities to better understand the longer-term outcomes and impact of NIH-supported research have increased considerably. To capitalize on these opportunities, OEPR will work across NIH to identify and capture new sources of data that demonstrate NIH's outcomes and impact. This effort requires that NIH look not only within, but also to its many partners in the health ecosystem and the scientific ecosystem. Based on its mission, the outcomes of greatest interest are those in which NIH research is used to improve health. Building the chain of evidence that demonstrates how research is translated into improving health is not simple and requires data indicating success at multiple stages of the translational pathway. This pathway almost always includes other components of HHS, whether through regulatory decisions by the U.S. Food and Drug Administration (FDA), recommendations by the Centers for Disease Control and Prevention (CDC), or payment determinations by the Centers for Medicare & Medicaid Services (CMS). Improving health has further societal implications, such as strengthening the economy or increasing public scientific literacy. As a science agency, NIH plays a vital role in growing the scientific enterprise, from ensuring a talented workforce to developing new methodologies and technologies. Capturing all of these impacts requires a systematic, strategic approach involving a multitude of partners and linkages to extensive data from a myriad of sources.

OEPR works across NIH and collaborates with its partners to collect and aggregate data used to describe the outcomes and impacts of NIH programs, policies, and operations. This includes, but is not limited to, capturing publications that cite NIH grants, clinical trial outcomes, changes in practice that inform clinical guidelines, FDA approvals of new devices and drugs, CDC recommendations, and CMS determinations that can be traced back to NIH funding. Aggregating these data not only allows insights into the outcomes of NIH investments, but also allows for the interrogation of the scientific process and the identification of factors that can be leveraged to accelerate the translational process. By partnering with the ICOs, OEPR undertakes case study analyses to highlight the progress of bench science and its translation to implementation and, ultimately, long-term impacts. OEPR promotes a broadened perspective on how to capture NIH's impact by coordinating efforts across NIH to bring data together and through collaborative development of resources.

In the next 5 years, OEPR will—

- Collaborate with ICOs to gather evidence linking scientific breakthroughs and their impact on health, society and science through case studies and other targeted strategies.
- Further develop its information technology (IT) modules to identify, store, and track information that captures the impact of NIH investments.
- Seek opportunities to associate and link the use of NIH-generated evidence by other components of HHS and to incorporate these linkages into its IT modules.



GOAL 4: REPORT ON THE VALUE OF NIH

Objective: To strengthen NIH's capacity to effectively communicate the value of NIH programs, policies, and operations and their impact on improving health and benefitting society

As the world's largest public funder of biomedical research, NIH invests in research that, when applied, will enhance health, lengthen life, and reduce illness. NIH's investments in fundamental, cutting-edge research have enabled millions of people to leave their doctor's office with prevention strategies, treatments, and cures that were not available to their parents or grandparents. This significant achievement is the culmination of scientific stewardship that includes careful priority setting, consistent tracking of progress, and assessment of outcomes that not only demonstrate return on investment of federal dollars, but also uphold transparency and accountability. True transparency and accountability, in turn, requires community-focused communications that are credible, interpretable, and useful.

OEPR works across NIH to improve how NIH collects, synthesizes, and reports on NIH programs, policies, and operations and evidence of their outcomes and impact. The number of mandated reports and their overlapping purviews provide opportunities to create efficiencies by organizing NIH evidence for use in reporting. It is also possible to reduce reporting burden by repurposing information included in existing reports.

By coordinating efforts across NIH and developing new tools for effective stewardship, OEPR can contribute to a wide range of communications to

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HHS, Congress, the public, and other community members that directly address the value of NIH. Long-term impacts of NIH activities can be gleaned and assembled through careful analyses and evaluations and then communicated through various channels and to different audiences. In addition to being used in mandated and other reporting exercises designed for specific recipients, this evidence can also demonstrate accountability to the public at large. Often the public asks for better understanding of the scientific process and how NIH-supported science has benefitted them. By using the evidence generated through strategic plan tracking and assessments of programs, policies, and operations, NIH can build on its already extensive and highly influential public communications efforts to help educate the public on how science works and how basic, fundamental scientific discoveries are turned into innovative health interventions. This can help combat misinformation and hasten public acceptance of scientific results.

OEPR works with the ICOs to catalogue examples on the NIH Impact webpages¹⁰ that communicate to the public how NIH research has been successfully translated into practice. The NIH Impact website also includes examples of NIH advances and achievements that have made significant contributions to scientific progress, societal wellbeing, and public health worldwide.

¹⁰ https://www.nih.gov/about-nih/what-we-do/impact-nih-research/our-society



OEPR will implement the following strategies to advance Goal 4:

Strategy 4.1: Lead and coordinate reporting activities in such a way as to minimize the burden to NIH staff while maximizing the usefulness of the information gathered and provide greater accountability to NIH partners and community members.

When responding to the many mandates for reporting and other reporting requests, those NIH components responsible for generating these reports, including OEPR, rely on data calls to gather information from the NIH ICOs. NIH can make better use of the information generated through these many data calls and introduce efficiencies into reporting efforts by organizing information for use in multiple reporting exercises. For example, OEPR is responsible for generating a yearly Report on NIH Collaborations with Other HHS Agencies.¹¹ This requires OEPR to call on staff across NIH to gather information on NIH activities with other HHS agencies and divisions. Many of these activities also are pertinent to other mandated reports, such as the Biennial Report of the Advisory Committee on Research on Women's Health¹² coordinated by the Office of Women's Health Research. The capability to access and guery information from previous reports would enable OEPR and other NIH staff tasked with reporting to provide faster and more consistent responses. This will streamline reporting processes and reduce the amount of time and effort expended by NIH staff.

In addition to data calls, as NIH's capacity to monitor and assess its programs, policies, and operations expands, it will increasingly gather quantitative and qualitative evidence demonstrating its progress and outcomes. In addition to informing NIH-decisionmakers, this evidence can be used to communicate to the public NIH's commitment to responsible stewardship. Such quantitative measures and other evidence derived from evaluative and analytic activities will not only shed light on how NIH operates, but also demonstrate and communicate responsible stewardship of taxpayer dollars.

In the next 5 years, OEPR will—

- Continue to synthesize reports in a timely manner, ensuring appropriate review and clearance of reports.
- Further develop and validate its IT modules to simplify and lessen the burden of information collection from across NIH for reporting purposes and identify data derived from progress monitoring, analysis, and evaluation for use in reporting and other communication efforts.
- Develop tools to gather, archive, and track reports so that the information can be applied toward drafting new reports more quickly.
- > Where possible, identify areas of overlap in these reports to reduce reporting burden.
- Work across NIH to disseminate the use of these reporting tools.
- Work across NIH to better use data gathered through progress monitoring, evaluations, and other assessments to contribute to communications on the value of NIH to its communities.

¹¹ https://dpcpsi.nih.gov/oepr/nih-collaborations-report

¹² https://orwh.od.nih.gov/research/funded-research-and-programs/research-reports/biennial-report

Strategy 4.2: Work across NIH to develop strategies to more effectively communicate to the public how NIH research advances health, furthers large-scale scientific achievement, and benefits society.

In assessing the progress and effectiveness of NIH programs, policies, and operations, evaluations and assessments also amass evidence of their long-term outcomes (Goal 3). As short-term achievements progress into significant changes that improve public health and revolutionize science, it is important to communicate not just the achievements themselves, but also the story of the journey to reach these achievements. The goal of the NIH Impact Pages¹³ is to communicate to the public-including members of Congress, media, and advocacy groups-the long-term impact of NIH research on science, public health, and society. By compiling information from many different sources ranging from program-specific studies to broader field or economic analyses, the content found on the Impact Pages allows OEPR to showcase a data-driven approach to capturing outcomes and accomplishments from NIH investments. This includes long-term impacts of NIH-supported research on health outcomes—as demonstrated by changes in health practice, health behaviors, and burden of disease-of morbidity, mortality, mortality, incidence, and quality of life. Similarly, advances from NIH research continue to impact the entire scientific endeavor, resulting in new scientific fields, tools, and resources and, ultimately, changing the course of how science is conducted.

Beyond fueling the scientific research enterprise, NIH-supported science leads to improvements in health that can bolster the economy, improve productivity, and reduce the costly burden of illness in the United States and worldwide. The Impact Pages also capture information on how NIH funding spurs economic growth, both by supporting jobs in research and by generating biomedical innovations that lead to growth in the biotechnology and pharmaceutical sectors. Beyond synthesizing information from the Impact Pages and the case studies, this type of impact analysis allows NIH leadership and the research community to learn from past successes and to accelerate progress in research and public health.

In the next 5 years, OEPR will-

- Update and maintain current information on the Impact Pages by working with the P&E, Communications, and Legislative communities to collect content from across NIH.
- Share resources and methodology that would make these types of impact analyses more accessible.
- Through case studies, communicate long-term outcomes in various successful interventions resulting from NIH research to identify the key factors and potential points of leverage that enable the successful translation of basic, fundamental scientific discoveries into innovative health interventions.

SUMMARY

OEPR provides coordination and capacity building through partnering and collaborating across NIH in the areas of (1) strategic planning, (2) performance monitoring, (3) evaluation, and (4) reporting of activities and impacts resulting from NIH investments. Through harmonizing these processes, OEPR enhances NIH's accountability and transparency. These efforts—combined with leveraging an innovative IT platform to introduce greater efficiencies, increase communication, and strengthen coordination—will enable NIH to optimize its programs, policies, and operations so that it can be best positioned to capitalize on scientific opportunities, successfully meet public health challenges, reduce health disparities, and improve the health of people in this country and worldwide.



APPENDIX A: STRATEGIC PLAN DEVELOPMENT PROCESS

Preliminary Planning and Visioning

Development of the Office of Evaluation. Performance, and Reporting (OEPR) strategic plan was led by the OEPR Director, with assistance from all members of the OEPR team. OEPR mapped out a plan development process that maximized staff involvement and community input and began with an extensive visioning process. To develop the objectives and goals driving the plan, OEPR completed an internal listening process during which the Director met individually with each member of the OEPR team to understand their goals for the work of the office in the upcoming years. These conversations and all-staff OEPR visioning meetings led to the development of a strategic plan framework with draft objectives, goals, and strategies. The framework was developed so that each objective reflects one of OEPR's four areas of focus: strategic planning, performance monitoring, evaluation, and reporting.

Community Input

To further refine the strategic plan framework and ensure that OEPR's proposed goals and strategies will meet community needs, OEPR staff shared the draft framework with Directors of offices within the Division of Program Coordination, Planning, and Strategic Initiatives (DPCPSI). Each DPCPSI Director was interviewed, and feedback was requested on the goals and strategies outlined in the plan. This feedback was consolidated and shared internally with the OEPR team to inform the development of the plan. This framework was also shared with the DPCPSI Director and Deputy Director for their additional suggestions and input. OEPR revised the framework, incorporating feedback from DPCPSI Directors and leadership.¹

The revised framework was shared with the Planning and Evaluation (P&E) Committee and the broader NIH community for their feedback through a presentation during a monthly P&E meeting, and through an online crowdsourcing (IdeaScale) campaign. Through this campaign, contributors were asked to reflect on how OEPR's plan can help the office achieve its mission to provide leadership, coordination, and capacity building to strengthen NIH efforts to capture, communicate, and enhance the value of NIH research through stewardship activities. NIH staff were asked to consider the objectives, goals, and strategies in the draft framework and were invited to suggest additional areas for consideration that were not reflected in the framework. The framework was also presented to the DPCPSI Council of Councils to provide the opportunity for public feedback.² OEPR consolidated the feedback that came from these sources and began drafting the text of the plan.

Drafting and Approval

Initial drafting of the narrative for each of the four objectives of the OEPR strategic plan was conducted by team leads for each area, and the combined plan narrative was shared with the full OEPR team for feedback. The OEPR team was then divided into drafting groups, one per objective, responsible for revising the narratives and further refining the goals, strategies, and adding proposed activities to illustrate how OEPR will work toward implementing the goals and strategies. Each member of the OEPR team participated in more than one drafting group to ensure consistency across the objectives. The full OEPR team reviewed the final plan before it was shared with DPCPSI leadership for approval prior to publishing.

¹ DPCPSI leadership was consulted throughout all phases of the OEPR strategic plan development process. ² <u>https://dpcpsi.nih.gov/council/may-15-2020-agenda</u>

APPENDIX B: ORGANIZATIONAL CHART

The Office of Evaluation, Performance, and Reporting (OEPR) has three interconnected teams all working to fulfill the four goal areas of the office: strategic planning, performance monitoring, evaluation, and reporting. Together these teams provide leadership, coordination, and capacity-building to strengthen NIH efforts to capture, communicate, and enhance the value of NIH research.





