

National Institutes of Health (NIH) Funding: FY1996-FY2024

Updated May 17, 2023

SUMMARY

R43341

May 17, 2023

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National Institutes of Health (NIH) Funding: FY1996-FY2024

This report details the National Institutes of Health (NIH) budget and appropriations process with a focus on FY2023 and FY2024. NIH is the primary federal agency charged with conducting and supporting medical, health, and behavioral research. It is made up of 27 Institutes and Centers and the Office of the Director (OD). More than 84% of the NIH budget funds extramural research through grants, contracts, and other awards to universities and other research institutions. About

10% of NIH funding goes to intramural researchers at NIH-operated facilities. Almost all of NIH's funding is provided in the annual Departments of Labor, Health and Human Services, and Education, and Related Agencies (LHHS) Appropriations Act. NIH also receives smaller amounts of funding from the Interior, Environment, and Related Agencies (INT) Appropriations Act and a mandatory budget authority for type 1 diabetes research.

The FY2023 NIH program level of \$49.183 billion represents a \$3 billion increase (+6.5%) relative to FY2022 enacted program level. The FY2023 enacted total for NIH is also \$13.324 billion (-21.3%) less than the FY2023 budget request program level. (The budget request included a \$12 billion pandemic preparedness mandatory appropriations proposal that was not adopted by Congress.) In FY2023, all Institute and Center (IC) accounts receive an increase relative to FY2022 funding levels (see **Table A-1**). In addition, the NIH FY2023 program level in this CRS report includes \$1.5 billion in FY2023 funding for the Advanced Research Projects Agency for Health (ARPA-H), a new agency within NIH that was first funded in FY2022. ARPA-H received FY2023 appropriations in a separate account under the HHS Office of the Secretary. ARPA-H was formally authorized as a part of the PREVENT Pandemics Act (P.L. 117-328, Division FF, Title II), which placed the agency within NIH by statute.

The FY2024 budget request for NIH proposes an increase of \$1.92 billion (+3.9%) relative to the FY2023 enacted funding level. Under this request, most ICs would receive no changes in funding compared with FY2023 enacted levels. The FY2024 budget request also proposes \$2.5 billion for ARPA-H, an increase of \$1.0 billion from the FY2023 enacted level. The request also proposes \$2.69 billion in new mandatory appropriations for pandemic preparedness to be made available for five years. Accounting for this proposed mandatory funding, NIH and ARPA-H would receive a total FY2024 program level of \$53.788 billion, a \$4.610 billion (+9.4%) increase from FY2023 enacted levels.

NIH has seen periods of high and low funding growth during the period covered by this report, as illustrated in **Figure 1**. Between FY1996 and FY1998, funding for NIH grew from \$11.928 billion to \$13.675 billion (nominal dollars). Over the next five years, Congress and the President doubled the NIH budget to \$27.167 billion in FY2003. In each of FY1999 through FY2003, NIH received annual funding increases of 14% to 16%. From FY2003 to FY2015, NIH funding increased more gradually in nominal dollars. In some years (FY2006, FY2011, and FY2013), agency funding decreased in nominal dollars. From FY2016 through FY2023, NIH has seen funding increases each year.

When looking at NIH funding adjusted for inflation (in projected constant FY2022 dollars using the Biomedical Research and Development Price Index; BRDPI), the purchasing power of NIH funding initially peaked in FY2003—the last year of the five-year doubling period—and then declined fairly steadily for more than a decade until funding increases were provided in each of FY2016 through FY2023. In inflation-adjusted dollars, the FY2023 program level is 1.2% greater than the FY2003 program level at the end of the doubling period. However, the inflation-adjusted FY2023 program level includes funding for the new ARPA-H, and therefore is not directly comparable to the FY2003 level. Excluding ARPA-H, the inflation-adjusted FY2023 program level is -1.9% less than the FY2003 level. The FY2024 proposed inflation-adjusted NIH program level is 1.9% greater than the FY2003 program level, but -2.7% less than the FY2003 level when excluding proposed ARPA-H funding.

This CRS report details NIH budget and appropriations for FY2023 and FY2024, and provides an overview of funding trends in regular appropriations to the agency from FY1996 to FY2024 (proposed). Coronavirus supplemental funding for NIH is discussed in **Appendix B** of the report, but is generally not included in the budgetary figures elsewhere in the report. **Appendix A** includes funding tables by account and program-specific funding levels for FY2023. **Appendix C** provides a list of acronyms and abbreviations used in the report.

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NIH Funding: FY1996-FY2023

This report details the National Institutes of Health (NIH) budget and appropriations process with a focus on FY2022, FY2023, and the FY2024 request. Almost all of NIH's funding is provided in the annual Departments of Labor, Health and Human Services, and Education, and Related Agencies (LHHS) Appropriations Act. NIH also receives smaller amounts of funding from the Interior, Environment, and Related Agencies (INT) Appropriations Act and a mandatory budget authority for type 1 diabetes research.¹

NIH is the primary federal agency for medical, health, and behavioral research. It is the largest of the agencies that make up the Public Health Service (PHS) within the Department of Health and Human Services (HHS).² NIH consists of the Office of the Director (OD) and 27 Institutes and Centers (ICs) that focus on aspects of health, human development, and biomedical science. Of these, 24 ICs and OD support research programs. The OD sets overall policy for NIH and coordinates the programs and activities of all NIH components, particularly in areas of research that involve multiple institutes. Through the annual appropriations process, Congress provides funding to the 24 research ICs, OD, and a Buildings and Facilities account. Three support centers are funded through transfers from other accounts.

In addition, FY2022 appropriations established a new entity that has been placed within NIH: the Advanced Research Projects Agency for Health (ARPA-H), as discussed further in this report.

NIH activities cover a wide range of basic, clinical, and translational research, focused on particular diseases, areas of human health and development, or more fundamental aspects of biology and behavior. Its mission also includes research training and health information collection and dissemination.³ More than 84% of the NIH budget funds extramural research (i.e., external) through grants, contracts, and other awards. This funding supports research performed by more than 300,000 individuals who work at over 2,500 hospitals, medical schools, universities, and other research

Supplemental Funding for NIH

In FY2021 and prior years, NIH received supplemental appropriations provided as an emergency requirement. Given that this report examines trends in regular annual appropriations to NIH enacted by Congress and the President for the normal operations of the agency, amounts provided to NIH pursuant to an emergency requirement are generally excluded from this report. In some years, supplemental funding to NIH was substantial, such as the over \$10 billion in appropriations provided in the American Recovery and Reinvestment Act of 2009 (ARRA; P.L. 111-5), which was a 33% increase to the regular FY2009 appropriations NIH received. NIH has also received supplemental appropriations during several infectious disease emergencies, such as for the Ebola and Zika outbreaks. Given ongoing interest, a summary of the FY2020 and FY2021 amounts for the Coronavirus Disease 2019 (COVID-19) pandemic is provided in Appendix B.

¹ "Mandatory spending" is controlled by authorization acts; "discretionary spending" is controlled by appropriations acts. For further information, see CRS Report R44582, *Overview of Funding Mechanisms in the Federal Budget Process, and Selected Examples.*

² The Public Health Service (PHS) also includes the Centers for Disease Control and Prevention (CDC), the Food and Drug Administration (FDA), the Agency for Healthcare Research and Quality (AHRQ), the Health Resources and Services Administration (HRSA), the Substance Abuse and Mental Health Services Administration (SAMHSA), the Indian Health Service (IHS), and the Agency for Toxic Substances and Disease Registry (ATSDR). HHS also made an administrative decision to change the preexisting Office of the Assistant Secretary Preparedness and Response to a PHS operating division, the Administration for Strategic Preparedness and Response.

³ For further information on the National Institutes of Health (NIH), see CRS Report R41705, *The National Institutes of Health (NIH): Background and Congressional Issues*.

institutions around the country. About 10% of the agency's budget supports intramural research (i.e., internal) conducted by nearly 6,000 NIH physicians and scientists, most of whom are located on the NIH campus in Bethesda, MD.⁵

Funding Sources

The vast majority of NIH funding comes from annual discretionary appropriations. NIH additionally receives some mandatory funding and other funding due to unique transfer or budgetary rules, as explained below. The total funding available for NIH activities, taking account of add-ons and transfers, is referred to as the NIH "program level."

Discretionary budget authority: NIH's discretionary budget authority comes primarily from annual LHHS Appropriations Acts, with an additional smaller amount for the Superfund Research Program and related activities from the INT Appropriations Act.⁷

PHS Evaluation Set-Aside: Through LHHS appropriations, some funding is subject to the PHS Evaluation Set-Aside or the "PHS Evaluation Tap" transfer authority. Authorized by Section 241 of the Public Health Service Act, the evaluation tap allows the Secretary of HHS, with the approval of appropriators, to redistribute a portion of eligible PHS agency appropriations across HHS for program evaluation and implementation purposes. The PHSA section limits the set-aside to not less than 0.2% and not more than 1% of eligible program appropriations. However, LHHS Appropriations Acts have commonly established a higher maximum percentage for the set-aside and have directed transfers of specific amounts of "tap" funding to selected HHS programs. In the context of NIH, these transfers have been made to National Institute of General Medical Sciences in recent years. Since FY2010, and including in FY2023, this higher maximum set-aside level has been 2.5% of eligible appropriations. ¹⁰ By convention, totals in this report and NIH source documents include amounts "transferred in" pursuant to the PHS tap as directed by appropriations

⁴ NIH, "What We Do - Budget," August, 2022, at https://www.nih.gov/about-nih/what-we-do/budget.

⁵ Ibid.

⁶ NIH program levels in this report reflect total funding for all Institutes and Centers (ICs), the Office of the Director (OD), the PHS Evaluation Set-Aside ("PHS Evaluation Tap"), the Superfund Research Program, mandatory type I diabetes research (provided in Public Health Service Act [PHSA] Section 330B), the nonrecurring expenses fund (NEF), and, when applicable, and mandatory pandemic preparedness funding proposed in the FY2023 budget.

⁷ The Hazardous Substance Basic Research and Training Program (Superfund Research Program) funds research on the health effects of exposures to hazardous substances and related solutions at the National Institute of Environmental Health Sciences. It is authorized by 311(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. §9660(a)) and Section 126(g) of the Superfund Amendments and Reauthorization Act of 1986.

⁸ For more information on the PHS Evaluation Tap, or PHS Evaluation Set-Aside, see discussion in CRS Report R44916, Public Health Service Agencies: Overview and Funding (FY2016-FY2018).

⁹ Prior to FY2015, NIH had traditionally been by far the largest net donor of tap funds, rather than a net recipient. The joint explanatory statement accompanying the FY2015 omnibus explained this shift as being intended to ensure that tap transfers are a "net benefit to NIH rather than a liability" and noted that this change was in response to a growing concern at the loss of NIH funds to the tap. Joint Explanatory Statement, Proceedings and Debates of the 113th Congress, Second Session, Congressional Record, vol. 160, no. 151, Book II, December 11, 2014, p. H9832.

¹⁰ See Section 204 of Division H, Title II, of P.L. 117-328 for the FY2023 maximum set-aside level. The last time that an appropriations act set the PHS tap percentage at a level other than 2.5% was in FY2009, when it was 2.4% (see P.L. 111-8). The FY2023 omnibus also retained a change to this provision, first included in the FY2014 omnibus, allowing tap transfers to be used for the "evaluation and the implementation" of programs funded in the HHS title of the LHHS Appropriations Act. Prior to FY2014, such provisions had restricted tap funds to the "evaluation of the implementation" of programs authorized under the Public Health Service Act.

measures or proposed in the budget request, but do not include any amounts "transferred out" under this same authority.

21st Century Cures Act Innovation Account: NIH also receives funding through LHHS appropriations subject to different budget enforcement rules than the rest of the NIH funding in the act: appropriations to the NIH Innovation Account created by the 21st Century Cures Act ("the Cures Act," P.L. 114-255) to fund programs authorized by the act for FY2017 through FY2026. For appropriated amounts to the account—up the limit authorized for each fiscal year—the amounts are subtracted from any cost estimate for enforcing discretionary spending limits (i.e., the budget caps). In effect, appropriations to the NIH Innovation Account as authorized by the Cures Act are not subject to discretionary spending limits. The NIH Director may transfer these amounts from the NIH Innovation Account to other NIH accounts, but only for the purposes specified in the Cures Act. All amounts authorized by the Cures Act have been fully appropriated to the Innovation Account from FY2017 to FY2023, including \$1.085 billion for FY2023. For FY2024, \$407 million is authorized to be appropriated.

Mandatory Type I Diabetes Funding: In addition, NIH has received mandatory funding of \$150 million annually that is provided in Public Health Service Act (PHSA) Section 330B for a special program on type 1 diabetes research, most recently extended through FY2023 by the Consolidated Appropriations Act, 2021 (P.L. 116-260; Division BB, Title III).

Advanced Research Projects Agency for Health (ARPA-H)

President Biden's FY2022 budget request to Congress proposed the creation of an Advanced Research Projects Agency for Health (ARPA-H) within the National Institutes of Health (NIH). The budget request proposed \$6.5 billion for ARPA-H "to build platforms and capabilities to deliver cures for cancer, Alzheimer's disease, diabetes, and other diseases." The agency was proposed to follow a Defense Advanced Research Projects Agency (DARPA) approach to funding research. Funding was requested for a period of three years.

Consolidated Appropriations Act, 2022 (P.L. 117-103), provided \$1 billion to HHS to establish the Advanced Research Projects Agency for Health (ARPA-H). The law created a new ARPA-H account at HHS, with funding available until September 30, 2024, and allowed the HHS Secretary to place the new agency anywhere within the department within 30 days of enactment. On March 30, 2022, HHS Secretary Xavier Becerra submitted a notice to the appropriations committees that ARPA-H was to be housed within the NIH, while the ARPA-H Director was to report directly to the HHS Secretary.

The Consolidated Appropriations Act, 2023 (P.L. 117-328) provided additional funding of \$1.5 billion for ARPA-H, available until the end of FY2025, in a separate account under the HHS Office of the Secretary. The law also formally authorized the new agency as a part of the PREVENT Pandemics Act in Division FF, Title II, Section 2331. The new authorization places ARPA-H within NIH by statute with the Director reporting to the HHS Secretary. For further information and analysis regarding ARPA-H, see CRS Report R47074, Advanced Research Projects Agency for Health (ARPA-H): Congressional Action and Selected Policy Issues.

FY2023 Budget Request

President Biden's FY2023 budget request would have provided NIH with a total program level of \$62.508 billion, an increase of \$16.330 billion (+35.4%) from FY2022 enacted levels. The proposed FY2023 program level would have provided (see **Table A-1**)

- \$43.962 billion in discretionary LHHS budget authority (nontransfer; does not include funding for ARPA-H);
- \$1.272 billion pursuant to the PHS program evaluation transfer;

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¹¹ See section on 21st Century Cures Act in CRS Report R41705, *The National Institutes of Health (NIH): Background and Congressional Issues*.

¹² CRS Report R45778, Exceptions to the Budget Control Act's Discretionary Spending Limits.

- \$83 million for the Superfund research program and related activities from Interior/Environment appropriations;
- \$141 million in annual funding for the mandatory type 1 diabetes research program;¹³
- \$12.05 billion in proposed mandatory appropriations for pandemic preparedness, to be available for five years;14 and
- \$5 billion for ARPA-H, to be available for three years.

FY2023 Enacted Funding

On December 29, 2022, Congress and President Biden finalized NIH FY2023 appropriations by enacting the Consolidated Appropriations Act, 2023 (P.L. 117-328), which includes final FY2023 LHHS appropriations in Division H and Interior/Environment appropriations in Division G. The enacted FY2023 NIH program level is made up of the following (see **Table A-1**):

- \$46.042 billion in discretionary LHHS budget authority (nontransfer; does not include ARPA-H);¹⁵
- \$1.412 billion in PHS program evaluation transfers;
- \$83 million for the Superfund research program and related activities from Interior/Environment appropriations; and
- \$141 million in annual funding for the mandatory type 1 diabetes research program.¹⁶

In total, the NIH FY2023 program level as enacted is \$47.678 billion. In addition, the law provides \$1.5 billion for ARPA-H in an account under the Office of the Secretary with funds available until the end of FY2025. According to the new authorization for ARPA-H, also enacted in Consolidated Appropriations Act, 2023 (P.L. 117-328; Division FF; Title II, Section 2331), the new agency is established within NIH (see textbox above for further details).

Accounting for the ARPA-H funding, the NIH FY2023 enacted program level is \$49.178 billion. This FY2023 NIH program level is a \$3 billion increase (+6.5%) relative to the FY2022 enacted program level of \$46.178 billion. The FY2023 enacted total for NIH is also \$13.329 billion (-21.3%) less than the FY2023 budget request. The difference between FY2023 enacted and FY2023 requested program level is primarily because Congress did not fund the Administration's

¹³ This proposed amount for the mandatory type 1 diabetes research program differs from the already enacted amount for FY2023 of \$150 million in PHSA Section 330B, as amended in P.L. 116-260, Division BB, Title III. According to the budget request, the FY2023 amount reflects sequestration of \$8.55 million. See "Budget Mechanism Table," p. 44, at https://officeofbudget.od.nih.gov/pdfs/FY23/br/Overview%20of%20FY%202023%20Presidents%20Budget.pdf.

¹⁴ The FY2023 budget request proposed an HHS-wide total of \$81.7 billion for pandemic preparedness to "transform U.S. capabilities to prepare for and respond rapidly and effectively to future pandemics and other high consequence biological threats." The \$12.05 billion directed to NIH would have been for "NIH research and development of vaccines, diagnostics, and therapeutics against high priority viral families, biosafety and biosecurity, and to expand laboratory capacity and clinical trial infrastructure." See HHS, Budget in Brief: FY2023, p. 55, https://www.hhs.gov/ sites/default/files/fy-2023-budget-in-brief.pdf.

¹⁵ Includes some post-appropriations adjustments.

¹⁶ The FY2023 enacted amount for the mandatory type 1 diabetes research program differs from the appropriated amount for FY2023 of \$150 million in PHSA Section 330B (42 U.S.C. §254c-2), as amended in P.L. 116-260, Division BB, Title III. According to the FY2024 budget request, the FY2023 amount reflects sequestration of \$8.55 million. See "Appropriations Adjustments Table for FY 2023," p. 102, at https://officeofbudget.od.nih.gov/pdfs/FY24/br/ Overview%20of%20FY%202024%20Presidents%20Budget.pdf.

\$12 billion Pandemic Preparedness mandatory funding proposal¹⁷ and also funded ARPA-H at a lower level than requested. The President's budget requested \$5 billion for ARPA-H, while in the FY2023 enacted law, ARPA-H instead receives \$1.5 billion.

In FY2023, all Institutes and Centers (IC) accounts receive an increase relative to FY2022 funding levels. For the Innovation Account, the full amount authorized by the 21st Century Cures Act (\$1.085 billion) is appropriated. Among the ICs, the National Institute of Minority Health and Health Disparities (NIMHD) saw the largest percentage increase compared with FY2022 (+14.2%). Of the total \$65 million increase for NIMHD, \$25 million was directed for health disparities research in the explanatory statement.¹⁸

The explanatory statement also directed increases for certain diseases and research areas within NIH accounts (see **Table A-2**). For example, a \$226 million total increase for Alzheimer's disease and related dementias research across NIH, including increases specified for the National Institute of Neurological Disorders and Stroke (\$75 million) and for the National Institute on Aging (\$151 million). The explanatory statement also directed \$75 million for implementing the Accelerating Access to Critical Therapies for ALS Act (ACT for ALS Act; P.L. 117-79), an increase of \$50 million within the Office of the Director account. ²⁰

FY2024 Budget Request

President Biden's FY2024 budget request proposes a NIH total program level of \$48.598 billion, an increase of \$920 million (+1.9%) from FY2023 enacted levels. The proposed FY2024 program level would provide (see **Table A-1**)

- \$46.317 billion in discretionary LHHS budget authority (nontransfer);
- \$1.948 billion in PHS program evaluation transfers;
- \$83 million for the Superfund research program and related activities from Interior/Environment appropriations; and
- \$250 million in proposed funding for the mandatory type 1 diabetes research program.²¹

The FY2024 budget request also proposes \$2.5 billion for ARPA-H, an increase of \$1.0 billion from the FY2023 enacted level.²² Accounting for the ARPA-H funding, the FY2024 request includes a total program level of \$51.098 billion for both NIH and ARPA-H, a proposed increase of \$1.92 billion (3.9%) from the FY2023 enacted level.

Under this request, almost all accounts would receive no changes in funding compared with FY2023 enacted levels (see **Table A-1**), except for the National Cancer Institute (+\$503 million; +6.9%), the National Institute of Neurological Disorder and Stroke (+16 million; +0.6%), the

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¹⁷ The FY2023 request proposed \$12 billion in new mandatory appropriations for pandemic preparedness activities at NIH, to be made available for five years. This is out of a \$81.7 billion HHS-wide total. See NIH, *Overview of FY2023 Presidential Budget Proposal*, p. 17, https://officeofbudget.od.nih.gov/pdfs/FY23/br/Overview%20of%20FY%202023%20Presidents%20Budget.pdf.

¹⁸ Congressional Record, vol. 168, no. 198 (December 20, 2022), p. S8884.

¹⁹ Congressional Record, vol. 168, no. 198 (December 20, 2022), pp. S8882-S8883.

²⁰ Congressional Record, vol. 168, no. 198 (December 20, 2022), p. S8885.

²¹ Under current law, funding for the type 1 diabetes research program expires at the end of FY2023. See Public Health Service Act Sec. 330B; 42 U.S.C. §254c-2.

²² NIH, *Overview of FY 2024 Presidential Budget Proposal*, p. 100, https://officeofbudget.od.nih.gov/pdfs/FY24/br/Overview%20of%20FY%202024%20Presidents%20Budget.pdf.

National Institute of Environmental Health Sciences (+\$25 million; +2.7%), the National Institute of Mental Health (+\$200 million; +8.5%), and the Office of the Director (+\$251 million; +9.5%). (The National Institute of General Medical Sciences would be flat-funded when taking into account proposed PHS evaluation tap transfers.) The Innovation Account would receive the full amount authorized to be appropriated: \$407 million.²³

The budget request also proposes \$2.69 billion in new mandatory appropriations for pandemic preparedness, to be made available for five years. Accounting for this proposed mandatory funding, NIH and ARPA-H would receive a total FY2024 program level of \$53.788 billion, a \$4.61 billion (+9.4%) increase from FY2023 enacted. (CRS follows conventions used in the budget request documents and treats the pandemic preparedness proposed funding as a non-add within the request.) The pandemic preparedness proposal generally did not designate specific amounts for NIH ICs but describes a number of activities the new funding would support, including vaccine and therapeutic development, expanding laboratory capacity, manufacturing drugs for research, and developing next-generation diagnostics to fill critical gaps.²⁴

The Administration estimates that the proposed FY2024 funding level would support 44,410 research project grants, an increase of 790 from FY2023 enacted, with a total of 10,414 new and competing grants.²⁵ With respect to specific research areas and initiatives, some selected funding requests include (see **Table A-3** for a full list) the following:²⁶

- Cancer Moonshot: \$716 million total for the Cancer Moonshot initiative at the National Cancer Institute, an increase of \$500 million more than FY2023 enacted. This research would support the President's goal of reducing the cancer death rate by half within 25 years and improving the lives of people with cancer and cancer survivors.
- All of US Precision Medicine Initiative and Brain Research Through Advancing Innovative Neurotechnologies (BRAIN): An additional \$462 million to continue these two initiatives authorized by the 21st Century Cures Act.
- Innovating mental health research and treatment: An increase of \$200 million to support better diagnostics, improved treatments, and enhanced precision of care for mental health.
- Impact of climate change on human health: Increase of \$25 million.

Trends

Table 1 outlines NIH program level funding from FY1996 to the FY2024 request. **Figure 1** illustrates funding trends in both current (also called nominal dollars) and projected constant (i.e., inflation-adjusted) FY2022 dollars (funding shown is total budget authority).

NIH has seen periods of high and low funding growth. Between FY1996 and FY1998, funding for NIH grew from \$11.928 billion to \$13.675 billion (nominal dollars). Over the next five years, Congress and the President doubled the NIH budget to \$27.167 billion in FY2003. In each of FY1999 through FY2003, NIH received annual funding increases of 14% to 16%. From FY2003

²³ NIH, *Overview of FY 2024 Presidential Budget Proposal*, p. 7, https://officeofbudget.od.nih.gov/pdfs/FY24/br/Overview%20of%20FY%202024%20Presidents%20Budget.pdf.

²⁴ NIH, *Overview of FY 2024 Presidential Budget Proposal*, p. 7, https://officeofbudget.od.nih.gov/pdfs/FY24/br/Overview%20of%20FY%202024%20Presidents%20Budget.pdf.

²⁵ HHS, *Budget in Brief: FY2024*, p. 47, https://www.hhs.gov/sites/default/files/fy-2024-budget-in-brief.pdf.

²⁶ HHS, Budget in Brief: FY2024, pp. 47-51, https://www.hhs.gov/sites/default/files/fy-2024-budget-in-brief.pdf.

to FY2015, NIH funding increased more gradually in nominal dollars.²⁷ In some years, (FY2006, FY2011, and FY2013) funding for the agency decreased in nominal dollars.²⁸ From FY2016 through FY2023, NIH has seen funding increases each year. The largest increase was from FY2017 to FY2018, where the program level increased by \$3.010 billion (+8.8%), making this the largest percentage increase since FY2003. The FY2023 program level represents a 6.5% increase over the FY2022 level (including ARPA-H funding). The FY2024 budget request would provide a 3.9% increase to the FY2023 enacted level.

The lower half of **Figure 1** shows NIH funding adjusted for inflation (in projected constant FY2022 dollars) using the Biomedical Research and Development Price Index (BRDPI).²⁹ It shows that the purchasing power of NIH funding initially peaked in FY2003 (the last year of the five-year doubling period) and then declined fairly steadily for more than a decade until consecutive funding increases were provided in each of FY2016 through FY2023. The FY2023 program level is 1.2% greater than the peak FY2003 program level, although the FY2023 program level includes funding for a new agency, ARPA-H, and therefore may not be comparable to the FY2003 level. When excluding funding for ARPA-H, the FY2023 level is 1.9% less than the FY2003 level. The FY2024 proposed inflation-adjusted NIH program level is 1.9% greater than the FY2003 program level, but 2.7% less than the FY2003 level when excluding proposed ARPA-H funding.

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²⁷ Amounts shown in **Table 1** include appropriations for the Global Fund to Fight AIDS, TB, and Malaria (FY2002-FY2011) that were subject to transfer-out. As of FY2012, NIH no longer receives appropriations for the National Institute of Allergy and Infectious Diseases (NIAID) identifying resources for the Global Fund; this responsibility was transferred to another federal agency. For further details on the amounts transferred out by fiscal year, see the "Supplemental Appropriation Data Table" for "History of Congressional Appropriations, Fiscal Years 2000-2012" at http://officeofbudget.od.nih.gov/approp_hist.html.

²⁸ For instance, the FY2006 total was 0.1% lower than the previous year, the first time that NIH appropriations had decreased since FY1970; the FY2011 total, provided in the Full-Year Continuing Appropriations Act, 2011 (P.L. 112-10), was 1.0% less than the previous fiscal year; the FY2013 total, provided in the Consolidated and Further Continuing Appropriations Act, 2013 (P.L. 113-6), was reduced by the March 2013 sequestration and a transfer of funding under the authority of the HHS Secretary (\$1.553 billion and \$173 million, respectively), resulting in a budget that was 5.0% lower than the prior year.

²⁹ The index is developed for NIH by the Bureau of Economic Analysis of the Department of Commerce. It reflects the increase in prices of the resources needed to conduct biomedical research, including personnel services, supplies, and equipment. It indicates how much the NIH budget must change to maintain purchasing power. See "NIH Price Indexes," at https://officeofbudget.od.nih.gov/gbiPriceIndexes.html.

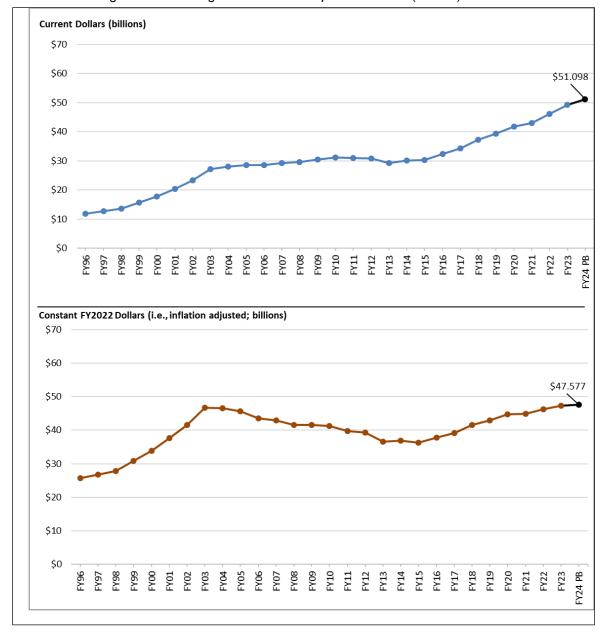


Figure I. NIH Funding, FY1996-FY2024

Program Level Funding in Current and Projected Constant (FY2022) Dollars.

Source: Sources used for FY2024 and FY2023 program levels are in **Table A-1**. The FY2022 (and earlier) program levels are from NIH Budget Office, Appropriations History by Institute/Center (1938 to Present), at http://officeofbudget.od.nih.gov/approp_hist.html. Inflation adjustment reflects the Biomedical Research and Development Price Index (BRDPI), updated January 2023, at https://officeofbudget.od.nih.gov/gbiPriceIndexes.html.

Notes: By convention, program level totals include amounts "transferred in" pursuant to PHS tap but do not include any amounts "transferred out" under this same authority. Program level includes all budget authority, including appropriations for the Global Fund to Fight AIDS, TB, and Malaria (FY2002-FY2011) that were subject to transfer-out. As of FY2012, NIH no longer receives appropriations for the National Institute of Allergy and Infectious Diseases (NIAID) identifying resources for the Global Fund; this responsibility was transferred to another federal agency. In general, amounts provided to NIH designated for emergency requirements are

excluded from these totals (e.g., the FY2020 and FY2021 amounts do not include the amounts provided in the coronavirus supplemental appropriations acts, summarized in **Appendix B**). PB = President's Budget.

Table 1. NIH Funding, FY1996-FY2024Program Level Funding in Current and Constant (FY2022) Dollars (Billions)

	Program Level		Program Level Projected Constant	% Relative to
Fiscal Year	Current \$	% Change	FY2022 \$	FY2003 ^a
1996	11.928	5.6%	25.763	
1997	12.741	6.8%	26.774	
1998	13.675	7.3%	27.795	
1999	15.629	14.3%	30.792	
2000	17.841	14.1%	33.886	
2001	20.459	14.7%	37.608	
2002	23.321	14.0%	41.496	
2003	27.167	16.5%	46.697	
2004	28.037	3.2%	46.461	-0.5%
2005	28.594	2.0%	45.611	-2.3%
2006	28.560	-0.1%	43.541	-6.8%
2007	29.179	2.2%	42.858	-8.2%
2008	29.607	1.5%	41.543	-11.0%
2009	30.545	3.2%	41.640	-10.8%
2010	31.238	2.3%	41.328	-11.5%
2011	30.916	-1.0%	39.764	-14.8%
2012	30.861	-0.2%	39.191	-16.1%
2013	29.316	-5.0%	36.545	-21.7%
2014	30.143	2.8%	36.785	-21.2%
2015	30.311	0.6%	36.253	-22.4%
2016	32.311	6.6%	37.822	-19.0%
2017	34.301	6.2%	39.134	-16.2%
2018	37.311	8.8%	41.532	-11.1%
2019	39.313	5.4%	42.855	-8.2%
2020	41.690	6.0%	44.666	-4.4%
2021	42.941	3.0%	44.885	-3.9%
2022	46.178	7.5%	46.178	-1.1%
2023	49.178	6.5%	47.242	1.2%
2024 Proposed	51.098	3.9%	47.577	1.9%

Sources: Sources used for FY2024 and FY2023 program levels are in **Table A-I**. The FY2022 (and earlier) program levels are from NIH Budget Office, Appropriations History by Institute/Center (1938 to Present), at http://officeofbudget.od.nih.gov/approp_hist.html. Inflation adjustment reflects the Biomedical Research and

Development Price Index (BRDPI), updated February 2023, at https://officeofbudget.od.nih.gov/gbiPriceIndexes.html.

Notes: By convention, budget tables, such as **Table I**, include amounts "transferred in" pursuant to PHS tap but do not include any amounts "transferred out" under this same authority. Program level includes all budget authority, including appropriations for the Global Fund to Fight AIDS, TB, and Malaria (FY2002-FY2011) that were subject to transfer-out. As of FY2012, NIH no longer receives appropriations for the National Institute of Allergy and Infectious Diseases (NIAID) identifying resources for the Global Fund; this responsibility was transferred to another federal agency. In general, amounts provided to NIH for emergency requirements are excluded from these totals (e.g., the FY2020 and FY2021 amounts do not include the amounts provided in the coronavirus supplemental appropriations acts, summarized in **Appendix B**). FY2022, FY2023, and FY2024 amounts include funding for the Advanced Research Projects Agency for Health (ARPA-H). PB denotes "President's Budget."

a. FY2003 was the year that NIH received the most program level funding (prior to FY2023) in 2022 constant dollars.

Appendix A. NIH Funding Details

Table A-I. National Institutes of Health Funding

(budget authority, in millions of dollars)

	FY2023	FY2023	FY2024
Institutes/Centers Cancer Institute (NCI)	Request \$6,714	Enacted \$7,317	Request \$7,820
			• •
Heart, Lung, and Blood Institute (NHLBI)	\$3,823	\$3,985	\$3,985
Dental/Craniofacial Research (NIDCR)	\$513	\$520	\$520
Diabetes/Digestive/Kidney (NIDDK) ^a	\$2,206	\$2,303	\$2,303
Neurological Disorders/Stroke (NINDS)	\$2,768	\$2,809	\$2,825
Allergy/Infectious Diseases (NIAID)	\$6,268	\$6,562	\$6,562
General Medical Sciences (NIGMS) ^b	\$1,826	\$1,827	\$1,292
Child Health/Human Development (NICHD)	\$1,675	\$1,748	\$1,748
National Eye Institute (NEI)	\$853	\$896	\$896
Environmental Health Sciences (NIEHS) ^c	\$932	\$914	\$939
National Institute on Aging (NIA)	\$4,011	\$4,412	\$4,412
Arthritis/Musculoskeletal/Skin Diseases (NIAMS)	\$676	\$688	\$688
Deafness/Communication Disorders (NIDCD)	\$509	\$534	\$534
Alcohol Abuse/Alcoholism (NIAAA)	\$567	\$597	\$597
Nursing Research (NINR)	\$199	\$198	\$198
National Institute on Drug Abuse (NIDA)	\$1,843	\$1,663	\$1,663
National Institute of Mental Health (NIMH)	\$2,211	\$2,342	\$2,542
Human Genome Research Institute (NHGRI)	\$629	\$661	\$661
Biomedical Imaging/Bioengineering (NIBIB)	\$419	\$441	\$441
Complementary/Integrative Health (NCCIH)	\$183	\$170	\$170
Minority Health/Health Disparities (NIMHD)	\$660	\$525	\$525
Fogarty International Center (FIC)	\$96	\$95	\$95
National Library of Medicine (NLM)	\$472	\$495	\$495
Advancing Translational Sciences (NCATS)	\$874	\$923	\$923
Office of Director (OD) ^d	\$2,315	\$2,647	\$2,898
(Common Fund)	(\$646)		
(Office for Research on Women's Health)	(\$53)		
Innovation Accounte	\$419	\$419	\$235
Buildings and Facilities (B&F)	\$300	\$350	\$350
Subtotal, NIH (LHHS Discretionary BA)	\$43,962	\$46,042	\$46,317
PHS Program Evaluation (provided to NIGMS)	\$1,272	\$1,412	\$1,948
Superfund (Interior approp. to NIEHS) ^g	\$83	\$83	\$83
Mandatory type I diabetes funds (to NIDDK) ^h	\$141	\$141	\$250 ⁱ

Institutes/Centers	FY2023 Request	FY2023 Enacted	FY2024 Request
NIH Program Level	\$45,458	\$47,678	\$48,598
Advanced Research Projects Agency for Health (ARPA-H) ^f	\$5,000	\$1,500	\$2,500
NIH and ARPA-H Program Level	\$50,458	\$49,178	\$51,098
Pandemic Preparedness (proposed mandatory)i	\$12,050	_	\$2,690
Total w/ Pandemic Preparedness	\$62,508	\$49,178	\$53,788

Source: The FY2024 Request and FY2023 Enacted program levels are from NIH, *Congressional Justification:* FY2024, "Supplementary Tables," March 9, 2023, p. 100-102, https://officeofbudget.od.nih.gov/pdfs/FY24/br/Overview%20of%20FY%202024%20Supplementary%20Tables.pdf. FY2023 request amounts are from *Congressional Record*, vol. 168, no. 198, Book II, December 20, 2022, pp. S9145-S9147, S8853.

Notes: Totals may differ from the sum of the components due to rounding. Amounts in table may differ from actuals in many cases. By convention, budget tables such as **Table A-I** do not subtract the amount of transfers to the evaluation tap from the agencies' appropriation. In general, amounts provided to NIH for emergency requirements are excluded from these totals (e.g., FY202 I amounts do not include the amounts provided in the coronavirus supplemental appropriations acts, summarized in **Appendix B**).

- a. Amounts for the NIDDK do not include mandatory funding for type 1 diabetes research (see note h).
- b. Amounts for NIGMS do not include funds from PHS Evaluation Set-Aside (§241 of the PHS Act).
- c. Amounts for NIEHS do not include Interior/Environment Appropriations amount for Superfund research (see note g).
- d. Includes \$12.6 million transfer from the Pediatric Research Initiative Fund (PRIF) as authorized by the Gabriella Miller Kids First Research Act P.L. 113-94).
- e. The amount shown for the NIH Innovation Account in each column represents only a portion of the total appropriation to the account (\$1.085 billion for FY2023; \$407 million for FY2024 proposed). The remaining funds for this account are reflected, where applicable, in the totals for other ICs. For FY2023, this includes \$216 million to NCI for cancer research and \$225 million to each of NINDS and NIMH for the BRAIN Initiative (\$450 million total). For FY2024, this includes a total of \$172 to both of NINDS and NIMH for the BRAIN Initiative. NIH, Overview of FY2024 President's Budget, March 9, 2023, p. 56.
- f. ARPA-H was funded under a separate account under the Office of the Secretary in FY2023. For FY2023, ARPA-H authorizing legislation in Division FF (P.L. 117-328) established it as a component of NIH. In addition, both the FY2023 and FY2024 budgets proposed ARPA-H funding as a part of NIH. Therefore, ARPA-H is shown within the NIH program level in this report.
- g. This is a separate account in the Interior/Environment appropriations for NIEHS research activities related to Superfund research.
- h. Mandatory funds are available to NIDDK for type I diabetes research under PHSA Section 330Bm, which was most recently extended through FY2023 by the Consolidated Appropriations Act, 2021 (P.L. I16-260; Division BB, Title II). The FY2023 amounts for the type I diabetes research program (\$141 million) are lower than the enacted funding level for FY2023 (\$150 million). According to the budget request, the amount reflects sequestration of \$8.55 million. See "Budget Mechanism Table," p. 44 in https://officeofbudget.od.nih.gov/pdfs/FY23/br/Overview%20of%20FY%202023%20Presidents%20Budget.pdf.
- i. Proposed amount.
- j. The FY2023 request proposed new mandatory funding for pandemic preparedness to be available for five years. The request proposed an HHS-wide total of \$81.7 billion for pandemic preparedness, with \$12.05 billion of the total designated for NIH. The FY2024 request proposes new mandatory funding for pandemic preparedness to be available for five years. The request proposes an HHS-wide total of proposes an HHS-wide total of \$20 billion for pandemic preparedness with \$2.69 billion of the total designated for NIH. This amount is shown as a non-add in the request. NIH, Overview of FY2024 President's Budget, March 9, 2023, p. 7.

Program-Specific Funding

In recent years, Congress and the President have increasingly specified funding levels for programs or research areas within NIH accounts throughout the budget and appropriations process. Congress uses appropriations report language to designate funding for specified purposes, whereas the President proposes amounts in his annual budget request.³⁰ This practice has expanded since FY2015.³¹ For the most part, Congress does not specify NIH funding for particular diseases or research topics in the appropriations process and instead allows the ICs to award funding within their mission areas based on their own strategic planning and priority-setting processes. Research funding is generally awarded on a flexible and competitive basis through various funding mechanisms intended to balance scientific and health priorities.³²

In FY2023, Congress used appropriations report language to specify a certain amount of IC funding for designated purposes, as summarized in **Table A-2**. Most of these amounts are specified in the explanatory statement accompanying enacted appropriations;³³ in a few cases, amounts specified in the House Appropriations report (H.Rept. 117-96) are incorporated by reference.³⁴ Sometimes the language specifies a certain amount for a certain purpose; in other cases, the language provides increased or additional funding. The appropriations reports also include many general statements recommending the agency to fund certain programs or areas of research, as well as statements expressing the opinion or concerns of Congress regarding NIH. These broad statements are not summarized here.

Table A-2. Specified NIH Funding Levels in FY2023 Explanatory Statement

<u> </u>		
Institute/Center	Program/Activity	Amount
National Cancer Institute (NCI)	Childhood Cancer Data Initiative (CCDI)	No less than \$50 million including no less than \$750 thousand to continue to support enhancement of the CCDI Molecular Characterization Initiative.
	Childhood Cancer Survivorship, Treatment Access, and Research (STAR) Act	No less than \$30 million (including \$2 million for cancer registry case capture efforts for childhood and adolescent cancers.*)
	NCI Paylines	An increase of \$150 million

³⁰ For a general overview, see CRS Report R44124, Appropriations Report Language: Overview of Development and Components and CRS Report R47019, The Executive Budget Process: An Overview.

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³¹ For example, in December 2014, the explanatory statement on the FY2015 omnibus stipulated, "In keeping with longstanding practice, the agreement does not recommend a specific amount of NIH funding for this purpose [Alzheimer's disease] or for any other individual disease. Doing so would establish a dangerous precedent that could politicize the NIH peer review system. Nevertheless, in recognition that Alzheimer's disease poses a serious threat to the Nation's long-term health and economic stability, the agreement expects that a significant portion of the recommended increase for NIA should be directed to research on Alzheimer's. The exact amount should be determined by scientific opportunity of additional research on this disease and the quality of grant applications that are submitted for Alzheimer's relative to those submitted for other diseases." See *Congressional Record*, daily edition, vol. 160, no. 151, Book II (December 11, 2014), p. H9832.

³² CRS Report R41705, The National Institutes of Health (NIH): Background and Congressional Issues.

³³ Congressional Record, vol. 168, no. 198, Book II, December 20, 2022, pp. S8881-S8887, S8853.

³⁴ House report amounts cited where not superseded by the explanatory statement per direction in the explanatory statement, "Unless otherwise noted, the language set forth in H.Rept. 117-403 carries the same weight as language included in this explanatory statement and should be complied with unless specifically addressed to the contrary in this explanatory statement" (*Congressional Record*, vol. 168, no. 198, Book II, December 20, 2022, p. S8874).

Institute/Center	Program/Activity	Amount
	Health Disparities Researcha	An increase of \$10 million
National Heart, Lung, and Blood Institute (NHLBI)	Community Engagement Alliance Against COVID-19 Disparities (CEAL) Initiative	\$30 million
	Health Disparities Researcha	An increase of \$15 million
	Valvular Heart Disease Research	\$20 million
National Institute of Dental and Craniofacial Research (NIDCR)	Pain Management Research ^a	An increase of \$9 million
National Institute of Diabetes and Digestive	Special Diabetes Program	\$8.55 million to restore cuts for SDP from sequestration
and Kidney Diseases (NIDDK)	Pain Management Research	An increase of \$5 million
National Institute of Neurological Disorders and Stroke (NINDS)	Alzheimer's Disease and Alzheimer's Disease Related Dementias (AD/ADRD)	An increase in \$75 million for NINDS out of the \$226 million increase for AD/ADRD across NIH
	HEAL Initiative (opioids, stimulants, and pain management)	No less than \$280.295 million, an increase of \$10 million
	Undiagnosed Diseases Network (UDN)	\$18 million
National Institute of Allergy and Infectious	Consortium of Food Allergy Research (CoFAR)	\$12.1 million, an increase of \$3 million
Diseases (NIAID)	Regional biocontainment laboratories (RBL)	\$52 million of which not less than \$1 million shall be provided to each of the 12 RBLs to support the maintenance of a capable research workforce, facilities, and equipment.
	Centers for AIDS Research (CFARS) ^a	\$71 million
	Responding to infectious diseases/Antimicrobial Resistance	No less than \$565 million, an increase of \$25 million
	Universal flu vaccine	No less than \$270 million, an increase of \$25 million
	Health Disparities Researcha	\$10 million
National Institute of	Health Disparities Research	An increase of \$5 million
General Medical Sciences	Increasing diversity in biomedical research	An increase of \$10 million
(NIGMS)	Institutional Development Award (IDeA) Program	\$425.956 million, an increase of \$15.503 million
Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD)	Heath Impacts on Children of Technology and Social Media Use	\$15 million
	Impact of COVID-19 on children	An increase of \$2.5 million
	Impact of COVID-19 on Pregnant and Lactating Women	An increase of \$3 million
	Implementing a Maternal Health and Pregnancy Outcomes Vision for Everyone (IMPROVE) Initiative	No less than \$43.4 million
National Institute of Environmental Health Sciences (NIEHS)	Additional Research	An increase of \$40 million

Institute/Center	Program/Activity	Amount
National Institute on Aging (NIA)	Alzheimer's disease and related dementias	An increase in \$151 million for NIA out of the \$226 million increase for AD/ADRD, including \$1.5 million for a National Academies of Sciences, Engineering, and Medicine (NASEM) report on research priorities on AD/ADRD informed by an expert panel.
National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)	Opioids and pain/pain management research	An increase of \$5 million
National Institute on Drug Abuse (NIDA)	HEAL Initiative (opioids, stimulants, and pain management)	No less than \$355.295 million
	Pain and pain management	Additional \$10 million
	Youth and Perinatal Marijuana Use ^a	\$2 million to enter into contract with NASEM to study youth and perinatal marijuana use
National Institute of	Impact of COVID on mental health	An increase of \$5 million
Mental Health (NIMH)	Mental Health Treatment Research	An increase of \$5 million
National Institute of Nursing Research (NINR)	Health disparities research	An increase of \$10 million
National Institute on	Chronic Disease Centers	An additional \$11 million
Minority Health and	Health disparities research	An increase of \$25 million
Health Disparities (NIMHD)	Research Centers in Minority Institutions Coordination Network	\$88.765 million
	Research Endowment Program	\$12 million
National Center for Complementary and Integrative Health (NCCIH)	Pain and pain management research	An additional \$5 million
National Center for Advancing Translational	Clinical and Translational Science Awards (CTSAs)	\$629.56 million, an increase of \$22.914 million
Sciences (NCATS)	Cures Acceleration Network (CAN)	\$70 million
John E. Fogarty International Center (FIC)	Health disparities researcha	An increase of \$5 million
Office of the Director	Administration Offices	\$4.55 million
(OD)/ Multi-Institute Research Initiatives	Amyotrophic lateral sclerosis (ALS)	\$75 million for implementation of the Accelerating Access to Critical Therapies for ALS Act (P.L. 117-79), an increase of \$50 million.
	All of Us Precision Medicine Initiative ^a	\$541 million, including \$419 million from the Innovation Account

Institute/Center	Program/Activity	Amount
	Artificial Intelligence/Machine Learning (AI/ML)	\$135 million including \$85 million for Office of Data Science Strategy (an increase of \$15 million), \$50 million for Al/ML focused investment, and \$3 million for the Office of Portfolio Analysis
	Autoimmune Diseases	\$10 million to establish an Office of Autoimmune Disease Research (OADR) within the Office of Research on Women's Health (ORWH).
	Grants for biomedical research facilities	\$80 million
	Brain Research through Advancing Innovative Neurotechnologies (BRAIN) Initiative	\$680 million, ^b including \$95 million for the Human Brain Cell Atlas, \$10 million for the Armamentarium for Brain Cell Access, and \$30 million for the Brain Connectivity Map
	Foreign Threats to Research	\$5 million transferred from NIH to the Inspector General to conduct investigation into foreign threats to research*
	Common Fund	Increase of \$65 million
	Office of Nutrition Research (ONR) ^a	\$40 million
	Cybersecurity	\$265 million, an increase of \$40 million
	Developmental Delays	\$10 million
	Environmental Influences on Child Health Outcomes (ECHO) ^a	\$180 million, the same level as FY2022
	Firearm injury and mortality prevention research	\$12.5 million, the same level as FY2022
	HHS Office of Extramural Research allocation for foreign influence	\$2.5 million
	NASEM Study on Heritable Genetic Information	\$1.3 million
	Investigation of Co-Occurring Conditions Across the Lifespan to Understand Down Syndrome (INCLUDE)	No less than \$90 million
	Office of AIDS Research, for HIV/AIDS research	An increase of \$100 million

Institute/Center	Program/Activity	Amount
	Office of Research on Women's Health (ORWH)	\$76.48 million, including \$5 million, an increase of \$1 million, for the Building Interdisciplinary Research Careers in Women's Health (BIRCWH) program. \$10 million to establish an Office of Autoimmune Disease Research (OADR) (mentioned earlier).
		on a study on gaps in knowledge of women's health.
	Office of the Chief Officer for Scientific Workforce Diversity (COSWD)	\$22.415 million

Source: Congressional Record, vol. 168, no. 198, Book II, December 20, 2022, pp. S8881-S8887, S8853. House report amounts cited where not superseded by the explanatory statement per direction in the explanatory statement, "Unless otherwise noted, the language set forth in H.Rept. 117-403 carries the same weight as language included in this explanatory statement and should be complied with unless specifically addressed to the contrary in this explanatory statement" (p. S8874).

Notes: Table does not include amounts already shown in **Table A-2**. Dollar amounts are at the level of detail used in the appropriations report text.

- a. From H.Rept. 117-96
- b. Amount includes \$450 million from the Innovation Account for the BRAIN Initiative as authorized by the Cures Act (split between NINDS and NIMH in FY2023 appropriations).

Table A-3. Specified NIH Funding Levels in the FY2024 HHS Budget in Brief

Institute/Center	Program/Activity	Amount
National Cancer Institute (NCI)	Cancer Moonshot	\$716 million total, an increase of \$500 million
Office of the Director (OD)/Office of Nutrition Research	Nutrition research	\$121 million
Several ICs	All of Us Precision Medicine Initiative and Brain Research Through Advancing Innovative Neurotechnologies (BRAIN)	Additional \$462 million for total of \$1.2 billion for both initiatives ^a (same funding level as FY2023)
Several ICs	Opioids, stimulant and pain research	\$1.8 billion (same as FY2023 enacted), including \$636 million for the Helping to End Addiction Long-term (HEAL) Initiative
National Institute on Minority Health and Health Disparities (NIMHD) and other ICs	Health disparities and inequities research	\$95 million
National Institute of	Developing a universal influenza vaccine	\$270 million
Allergy and Infectious Diseases (NIAID) and other ICs	Ending the HIV epidemic in the United States	\$26 million (same as FY23 enacted)

Institute/Center	Program/Activity	Amount
Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD)	Impact of COVID-19 on pregnant and lactating women	\$3 million
National Institute of Mental Health (NIMH)	Innovating mental health research and treatment, including to support better diagnostics, improved treatments, and enhanced precision of care for mental health.	An increase of \$200 million
Not specified	Impact of climate change on human health	An increase of \$25 million
Buildings and Facilities	Address NIH's backlog of maintenance and repair on its intramural campus	\$350 million

Source: HHS, *Budget in Brief: FY2024*, pp. 46-51, https://www.hhs.gov/sites/default/files/fy-2024-budget-in-brief.pdf.

Notes: Table does not include amounts already shown in **Table A-2**. Dollar amounts are at the level of detail used in the budget request and are presented in the order they appear in the budget in brief.

a. Total amount includes \$407 million from the Innovation Account for the BRAIN Initiative and PMI as authorized by the Cures Act.

Appendix B. Coronavirus Supplemental Appropriations (FY2020 and FY2021) and Additional American Rescue Plan Act funding

NIH received FY2020 and FY2021 emergency supplemental appropriations to several IC accounts and as transfers from the Public Health and Social Services Emergency Fund (PHSSEF) account as provided by four coronavirus supplemental appropriations acts:³⁵

- **First Measure:** Division A of the Coronavirus Preparedness and Response Supplemental Appropriations Act, 2020 (P.L. 116-123), enacted on March 6, 2020.
- **Second Measure:** Division B of the Coronavirus Aid, Relief, and Economic Security Act (CARES Act, P.L. 116-136), enacted on March 27, 2020.
- **Third Measure:** Division B of the Paycheck Protection Program and Health Care Enhancement Act (PPPHCEA, P.L. 116-139), enacted on April 24, 2020.
- **Fourth Measure:** Division M of Consolidated Appropriations Act, 2021 (P.L. 116-260), enacted on December 27, 2020.

NIH received a total of \$3.031 billion to NIH IC accounts, along with directed transfers from the PHSSEF account to NIH accounts totaling not less than \$1.806 billion. Accounting for transfers, NIH received a total of at least \$4.837 billion (see text box below for information on American Rescue Plan Act funding). All appropriations to NIH accounts are available until September 30, 2024, and all transfers from the PHSSEF are available until expended. This funding was primarily provided in three categories:

Broadly Available Funding. In the first (P.L. 116-123) and third measure (CARES Act; P.L. 116-136), funding was made available to several NIH IC accounts "to prevent, prepare for and respond to coronavirus, domestically and internationally." NIH IC accounts that received broadly available funds and their totals include the following:

- National Institute of Allergy and Infectious Diseases (NIAID): \$1.542 billion, including \$836 million in the first measure and \$706 million in the CARES Act. Some transfers or set-asides were directed for specific purposes in the NIAID appropriations. The first measure directed a transfer of not less than \$10 million to the National Institute of Environmental Health Sciences (NIEHS) for "worker-based training to prevent and reduce exposure of hospital employees, emergency first responders, and other workers who are at risk of exposure to coronavirus through their work duties." The third measure set aside not less than \$156 million of the total for "the study of, construction of, demolition of, renovation of, and acquisition of equipment for, vaccine and infectious diseases research facilities of or used by NIH, including the acquisition of real property."
- National Heart, Lung, and Blood Institute (NHLBI): \$103 million in the CARES Act.
- National Institute of Biomedical Imaging and Bioengineering (NIBIB): \$60 million in the CARES Act.

³⁵ NIH did not receive supplemental appropriations from the Families First Coronavirus Response Act (FFCRA, P.L. 116-127), enacted on March 18, 2020.

- National Library of Medicine (NLM): \$10 million in the CARES Act.
- National Center for Advancing Translational Sciences (NCATS): \$36 million in the CARES Act.
- Office of the Director (OD): \$30 million in the CARES Act.

Diagnostic Testing Research and Development (R&D). In the fourth and fifth measures, NIH received funding for specific purposes related to diagnostic test R&D. This funding was directed to NIH as "not less than" transfers from the PHSSEF account in the fourth measure, and directly to the OD account in the fifth measure. These amounts included the following:

- National Cancer Institute (NCI): Transfer of not less than \$306 million from PHSSEF to NCI "to develop, validate, improve, and implement serological testing and associated technologies" in the fourth measure.
- **NIBIB:** Transfer of not less than \$500 million from PHSSEF to NIBIB "to accelerate research, development, and implementation of point of care and other rapid testing related to coronavirus" in the fourth measure.
- **OD:** Transfer of not less than \$1 billion from PHSSEF to OD "to develop, validate, improve, and implement testing and associated technologies; to accelerate research, development, and implementation of point of care and other rapid testing; and for partnerships with governmental and non-governmental entities" in the fourth measure. In the fifth measure, not less than \$100 million of the \$1.250 billion total provided to the OD account is for "the Rapid Acceleration of Diagnostics."

NIH's Rapid Acceleration of Diagnostics (RADx) initiative is an effort to innovate and scale up COVID-19 diagnostic technologies. As communicated to CRS, the \$1.5 billion total for NIBIB and OD in the fourth measure was used to support RADx initially, with additional funds in the fifth measure as specified above.³⁶

Long-Term Studies of COVID-19. The fifth measure directed \$1.15 billion of the total \$1.25 billion provided to the OD account "for research and clinical trials related to long-term studies of COVID-19." The \$1.15 billion has since been directed toward NIH's REsearching COVID to Enhance Recovery (RECOVER) Initiative, a large coordinated research initiative to study Long COVID.³⁷ The fifth measure also allows the total \$1.25 billion appropriation to OD to be transferred to other IC accounts (in addition to other HHS transfer authorities in the law).

³⁶ CRS communication with NIH, July 24, 2020.

³⁷ See "How is RECOVER being paid for" at RECOVER: Frequently Asked Questions, https://recovercovid.org/faqs#paid. As reported by the Government Accountability Office (GA)-22-105497), HHS transferred \$1,063.5 million of the \$1.25 appropriation for NIH OD in the fifth measure to the Administration for Children and Families' Unaccompanied Children Program (see "Appendix: HHS COVID-19 Funding," GAO-22-105397). NIH's RECOVER website states that "the primary funding source for RECOVER has changed to the American Rescue Plan (ARP) Act of 2021 (Sec. 2401), the \$1.15 billion budget remains and NIH RECOVER research activities have neither stopped nor had any delays."

American Rescue Plan Act of 2021 (ARPA; P.L. 117-2) Appropriations

The ARPA did not provide any mandatory appropriations directly to NIH but made available several appropriations that could be allocated to NIH. For example, \$6.05 billion was provided to the HHS Secretary in mandatory appropriations (i.e., direct appropriations) for research, development, manufacturing, production, and the purchase of vaccines, therapeutics, and ancillary medical products and supplies—available to address COVID-19, SARS-CoV-2 or its variants, and any disease with potential for creating a pandemic (Title II, Section 2303). The HHS Secretary can allocate a portion of these funds to NIH accounts at his discretion. In addition, NIH has reported that the HHS Secretary has allocated other ARPA funding in Section 2401 toward the RECOVER Initiative (see above) after an initial transfer of \$1,063.5 from NIH to HHS's Administration for Children and Families' Unaccompanied Children Program of the original appropriation for that program in the fifth measure (see footnote 27).

Appendix C. Acronyms and Abbreviations

Acronym/ Abbreviation	Organization/Term	
ARPA-H	Advanced Research Projects Agency for Health	
DARPA	Defense Advanced Research Projects Agency	
DOD	Department of Defense	
FIC	Fogarty International Center	
FY	Fiscal Year	
IC	Institutes and Centers	
NASEM	National Academies of Sciences, Engineering, and Medicine	
NCATS	National Center for Advancing Translational Sciences	
NCCIH	National Center for Complementary and Integrative Health	
NCI	National Cancer Institute	
NEF	Nonrecurring Expenses Fund	
NEI	National Eye Institute	
NHGRI	National Human Genome Research Institute	
NHLBI	National Heart, Lung, and Blood Institute	
NIA	National Institute on Aging	
NIAAA	National Institute on Alcohol Abuse and Alcoholism	
NIAID	National Institute of Allergy and Infectious Diseases	
NIAMS	National Institute of Arthritis and Musculoskeletal and Skin Diseases	
NIBIB	National Institute of Biomedical Imaging and Bioengineering	
NICHD	National Institute of Child Health and Human Development	
NIDA	National Institute on Drug Abuse	
NIDCD	National Institute on Deafness and Other Communication Disorders	
NIDCR	National Institute of Dental and Craniofacial Research	
NIDDK	National Institute of Diabetes and Digestive and Kidney Diseases	
NIEHS	National Institute of Environmental Health Sciences	
NIGMS	National Institute of General Medical Sciences	
NIMH	National Institute of Mental Health	
NIMHD	National Institute on Minority Health and Health Disparities	
NINDS	National Institute of Neurological Disorders and Stroke	
NINR	National Institute of Nursing Research	
NLM	National Library of Medicine	
OD	NIH Office of the Director	
PHS	Public Health Service	

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Acknowledgments

CRS Research Assistant John Gorman provided assistance for this report.

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