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National Institutes of Health (NIH) Funding: FY1995-FY2021

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National Institutes of Health (NIH) Funding: FY1995-FY2021

R43341

May 12, 2020

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This report details the National Institutes of Health (NIH) budget and appropriations process with a focus on FY2020 and FY2021, and on coronavirus supplemental funding for NIH. The report also provides an overview of funding trends in regular appropriations to the agency from FY1995 to FY2021. **Appendix A** includes funding tables by account and program-specific funding levels for FY2020 and FY2021.

The NIH is the primary federal agency charged with conducting and supporting medical, health, and behavioral research, and it is made up of 27 Institutes and Centers and the Office of the Director (OD). About 80% of the NIH budget funds extramural research through grants, contracts, and other awards. 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 Appropriations Act. NIH also receives smaller amounts of funding from Interior/Environmental appropriations and a mandatory budget authority for type 1 diabetes research.

NIH has an FY2020 program level of $41.685 billion and has received emergency supplemental appropriations in three coronavirus supplemental appropriations acts, totaling over $3.59 billion—an 8.6% funding increase over regular enacted FY2020 appropriations. The administration's FY2021 budget request, as amended by a March 2020 letter, proposes an FY2021 program level of $39.133 billion—a 6.1% decrease from the FY2020 program level (regular appropriations).

NIH has seen periods of high and low funding growth during the period covered by this report, as illustrated in **Figure 1**. Between FY1994 and FY1998, funding for NIH grew from $11.0 billion to $13.7 billion (nominal dollars). Over the next five years, Congress and the President doubled the NIH budget to $27.2 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), funding for the agency decreased in nominal dollars. From FY2016 through FY2020, NIH has seen funding increases of over 5% each year. The largest increase was from FY2017 to FY2018, where the program level increased by $3.0 billion (+8.7%), making this the largest single-year nominal dollar increase since FY2003.

When looking at NIH funding adjusted for inflation (in projected constant FY2021 dollars using the Biomedical Research and Development Price Index; BRDPI), the purchasing power of NIH funding peaked in FY2003—the last year of the five-year doubling period—and then declined fairly steadily for more than a decade until back-to-back funding increases were provided in each of FY2016 through FY2020. The FY2021 budget request would provide a program level that is 13.0% below the peak FY2003 program level.

NIH Funding: FY1995-FY2021

This report provides a historical overview of federal funding provided to the National Institutes of Health (NIH) between FY1995 and FY2021. It also provides a brief explanation of the discretionary spending funding sources for NIH associated with the annual appropriations process (via the Labor, HHS, and Education and Interior/Environment Appropriations Acts) and the mandatory funding for special program on type 1 diabetes research.[1]

NIH is the primary federal agency for medical, health, and behavioral research. It is the largest of the eight health-related 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. 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.

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 80% 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 institutions around the country.[4] 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]

Supplemental Funding for NIH

In FY2020 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 current interest, a summary of the FY2020 amounts for the COVID-19 pandemic is provided in **Table 1**.

Funding Sources

Funding for NIH comes primarily from annual Labor, HHS, and Education (LHHS) Appropriations Acts, with an additional smaller amount for the Superfund Research Program

[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 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).

[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*.

[4] NIH, "What We Do- Budget," March 3, 2020, at https://www.nih.gov/about-nih/what-we-do/budget.

[5] Ibid.

from the Interior/Environment Appropriations Act.[6] Those two bills provide NIH discretionary budget authority.

Through LHHS appropriations, some funding is also transferred to NIH pursuant to the PHS Evaluation Set-Aside or the "PHS Evaluation Tap" transfer authority.[7] 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 distributed specific amounts of "tap" funding to selected HHS programs. Since FY2010, and including in FY2020, this higher maximum set-aside level has been 2.5% of eligible appropriations.[8] Readers should note that totals in this report and NIH source documents include amounts "transferred in" pursuant to PHS tap but do not include any amounts "transferred out" under this same authority.

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.[9] 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.[10] 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. If the NIH Director determines that the funds for any of the four Innovation Projects are not necessary, the amounts may be transferred back to the NIH Innovation Account. All amounts authorized by the Cures Act have been fully appropriated to the Innovation Account from FY2017 to FY2020, including $492 million for FY2020. For FY2021, $404 million is authorized to be appropriated.[11]

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 FY2020 by the CARES Act (P.L. 116-136), with

[6] 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.

[7] 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)*.

[8] See Section 204 of Division A of P.L. 116-94 for the FY2020 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 FY2020 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.

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

[10] CRS Report R45778, *Exceptions to the Budget Control Act's Discretionary Spending Limits*.

[11] P.L. 114-255, §1001.

additional partial-year FY2021 funding of $25,068,493 for October 1, 2020, through November 30, 2020.

The total funding available for NIH activities, taking account of add-ons and PHS tap transfers, is referred to as the NIH "program level."

FY2020-Enacted Funding

The enacted FY2020 NIH program level is made up of the following:[12]

- $40.228 billion in discretionary LHHS appropriations, including the $492 million authorized for the Cures Act Innovation Account;
- $1.231 billion pursuant to the PHS program evaluation transfer and a $225 million transfer from the HHS non-recurring expenses fund (NEF);[13]
- $81 million for the Superfund research program in Interior/Environment appropriations; and
- $150 million in annual funding for the mandatory type 1 diabetes research program.

Accounting for transfers and other adjustments, cited FY2021 budget documents from the Administration show the NIH FY2020 program level as $41.685 billion.[14]

Coronavirus Supplemental Appropriations

NIH has also received emergency supplemental appropriations to several IC accounts as provided by the first and third, coronavirus supplemental appropriations acts, shown in **Table 1**, totaling $1.8 billion. In addition to these appropriations, the fourth coronavirus supplemental required that a total of not less than $1.8 billion of $25 billion appropriated to the Public Health and Social Services Emergency Fund be transferred to two NIH institutes and the Office of the Director. When accounting for these transfers, total funding directed to the NIH would come to not less than $3.6 billion across the three acts—an 8.6% funding increase over regular enacted FY2020 appropriations.

These acts also include various other transfer authorities that would allow for additional transfers to and from NIH accounts (explained in the table notes).

[12] Except for the full FY2020 mandatory diabetes program extension, all FY2020 NIH funding was provided by the Further Consolidated Appropriations Act, 2020 (P.L. 116-94).

[13] The nonrecurring expenses fund (NEF) permits HHS to transfer unobligated balances of expired discretionary funds from FY2008 and subsequent years into the NEF account. The use of funds is authorized by law for capital acquisitions including information technology (IT) and facilities infrastructure (42 U.S.C. §3514a).

[14] This program level accounts for a transfer of $5 million from the Office of the Director to the HHS Office of the Inspector General (OIG). In addition, FY2021 budget request tables do not reflect the Nonrecurring Expenses Fund transfer of $225 million to NIH in the FY2020 program level, as directed by P.L. 116-94.

Table 1. NIH Funding in Coronavirus Supplemental Appropriations Acts

(budget authority, in millions of dollars)

Account	Coronavirus Preparedness and Response Supplemental Appropriations Act, 2020 (P.L. 116-123): First Coronavirus Supplemental, Amount	Coronavirus Aid, Relief, and Economic Security Act (CARES Act; P.L. 116-136): Third Coronavirus Supplemental, Amount	Paycheck Protection Program and Health Care Enhancement Act (P.L. 116-139),[a] Amount
National Institute of Allergy and Infectious Diseases (NIAID)	$836	$706[b]	
Transfer to NIH National Institute of Environmental Health Sciences (NIEHS) (non-add)	*($10)*		
National Heart, Lung, and Blood Institute (NHLBI)		$103.4	
National Institute of Biomedical Imaging and Bioengineering (NIBIB)		$60	NLT transfer of $500[c]
National Library of Medicine (NLM)		$10	
National Center for Advancing Translational Sciences (NCATS)		$36	
Office of the Director (OD)-Common Fund		$30	NLT transfer of $1,000
National Cancer Institute (NCI)			NLT transfer of $306

Source: Supplemental appropriations acts, as cited.

Notes: All funding is designated as being provided as an emergency requirement. All funding in the first and third supplemental appropriations acts is available until September 30, 2024. Funding in the fourth appropriations act is available until expended. The three acts include HHS transfer authorities. Per the first supplemental, HHS may transfer funds between the Centers for Disease Control and Prevention (CDC), Public Health and Social Services Emergency Fund (PHSSEF), and NIH accounts, as specified. Pursuant to the third supplemental, HHS may transfer funds between the Administration for Children and Families (ACF), Administration for Community Living (ACL), CDC, NIH, and PHSSEF accounts, as specified. In addition, the CDC Director may transfer funds appropriated to the Infectious Disease Rapid Response Fund (IRRRDF) to NIH. Per the fourth supplemental, HHS may transfer certain funds among the CDC, NIH, PHSSEF, and the Food and Drug Administration accounts, as specified.

a. Amounts provided in P.L. 116-139 are provided as transfers from the Public Health and Social Services Emergency Fund (PHSSEF) and are provided specifically for research and development related to COVID-19 tests, as specified for each transfer.

b. Of this total, not less than $156 million shall be provided 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."

c. NLT stands for "not less than."

By convention, CRS does not add amounts provided as an emergency requirement to the NIH program levels in the remainder of this report. The FY2020 regular and emergency appropriations amounts are presented separately.

FY2021 Budget and Appropriations

President Trump's FY2021 initial budget request (February 10, 2020) proposed that NIH be provided with a total program level of $38.694 billion, a decrease of $2.99 billion (-7.2%) from FY2020-enacted levels. The proposed FY2020 program level would have been made up of[15]

- $37.630 billion in LHHS appropriations, including the $404 million for the Cures Act Innovation Account (the full amount authorized for FY2021);
- $741 million in transfers to NIH pursuant to the PHS Evaluation Tap authority;
- $74 million for the Superfund Research Program in Interior/Environment appropriations; and
- $150 million in proposed annual funding for the mandatory type 1 diabetes program.

Under the request, all existing IC accounts would receive a decrease compared to FY2020-enacted levels (see **Appendix A**). The Building and Facilities account would receive an increase in LHHS budget authority, from $200 million in FY2020 to $300 million in FY2021.[16]

Subsequently, on March 17, 2020, the Office of Management and Budget submitted an amendment to President Trump's original request that would increase funding for the National Institute of Allergy and Infectious Disease (NIAID) by $440 million relative to the original request.[17] The purpose of this additional requested funding was "to ensure [NIAID] has the resources beginning October 1, 2020, to continue critical basic and applied research on coronaviruses and other infectious diseases." This amendment to the original proposal, if enacted, would result in NIAID receiving an increase of $9.3 million above the FY2020 level. Taking into account this amendment, as of the date of this report, the FY2021 budget request would provide NIH with a total program level of $39.133 billion, a decrease of $2.55 billion (-6.1%) from FY2020-enacted levels, with a total of $38.811 billion by provided by LHHS appropriations.

In addition, the FY2021 budget request proposes consolidating the Agency for Healthcare Research and Quality (AHRQ) into NIH, forming a 28th IC—the National Institute for Research on Safety and Quality (NIRSQ). The creation of a new NIH institute would require amendments to the PHSA, especially Section 401(d), which specifies that "[i]n the National Institutes of Health, the number of national research institutes and national centers may not exceed a total of 27." Under the FY2021 request, NISRQ would receive a total appropriation of $355.112 million, including $256.66 million in discretionary LHHS budget authority and $98.452 million in mandatory appropriations from the Patient-Centered Outcomes Research Trust Fund (PCORTF)

[15] NIH, *Congressional Justification: FY2021*, February 10, 2020, p. 75, at https://officeofbudget.od.nih.gov/pdfs/FY21/br/1-OverviewVolumeSingleFile-toPrint.pdf.

[16] P.L. 116-94 directed a transfer of $225 million from the HHS Nonreccurring Expenses Fund to the NIH Buildings and Facilities account in FY2020-enacted appropriations. However, this transfer is not reflected in the budget tables of the NIH FY2021 Congressional Justification.

[17] Letter from Michael R. Pence, President of the Senate, to Donald Trump, President of the United States, March 17, 2020, at https://www.whitehouse.gov/wp-content/uploads/2020/03/Letter-regarding-additional-funding-to-support-the-United-States-response-to-COVID-19-3.17.2020.pdf.

in Social Security Act Section 1181.[18] Congress did not adopt the Administration's similar proposals to consolidate AHRQ into NIH as NIRSQ in FY2018 through FY2020.[19]

The budget request proposes select specified FY2021 funding levels for programs and activities within and across the NIH accounts based on the Administration's research priorities, as summarized in **Table A-3**. If adopted, these funding levels would likely be specified in report and/or explanatory statement language accompanying LHHS appropriations bills. For the most part, Congress does not specify NIH funding for particular diseases or areas of research, instead allowing the ICs to award funding within their mission areas. Funding awards are generally made on a competitive basis through various funding mechanisms intended to balance scientific opportunity with health priorities.[20]

Trends

Table 2 outlines NIH program level funding over the previous 25 years; **Figure 1** illustrates funding trends in both current (also called nominal dollars) and projected constant (i.e., inflation-adjusted) FY2021 dollars (funding shown is total budget authority).

NIH has seen periods of high and low funding growth. Between FY1994 and FY1998, funding for NIH grew from $11.0 billion to $13.7 billion (nominal dollars). Over the next five years, Congress and the President doubled the NIH budget to $27.2 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.[21] In some years, (FY2006, FY2011, and FY2013) funding for the agency decreased in nominal dollars.[22] From FY2016 through FY2020, NIH has seen funding increases of over 5% each year. The largest increase was from FY2017 to FY2018, where the program level increased by $3.0 billion (+8.7%), making this the largest single-year nominal dollar increase since FY2003.

The lower half of **Figure 1** shows NIH funding adjusted for inflation (in projected constant FY2021 dollars) using the Biomedical Research and Development Price Index (BRDPI).[23] It

[18] For more information about the Patient-Centered Outcomes Research Trust Fund, see CRS Insight IN11010, *Funding for ACA-Established Patient-Centered Outcomes Research Trust Fund (PCORTF) Extended Through FY2029*.

[19] See NIH sections of CRS Report R44888, *Federal Research and Development Funding: FY2018*; CRS Report R45150, *Federal Research and Development (R&D) Funding: FY2019*; and CRS Report R45715, *Federal Research and Development (R&D) Funding: FY2020*.

[20] CRS Report R41705, *The National Institutes of Health (NIH): Background and Congressional Issues*.

[21] Amounts shown in **Table 2** 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.

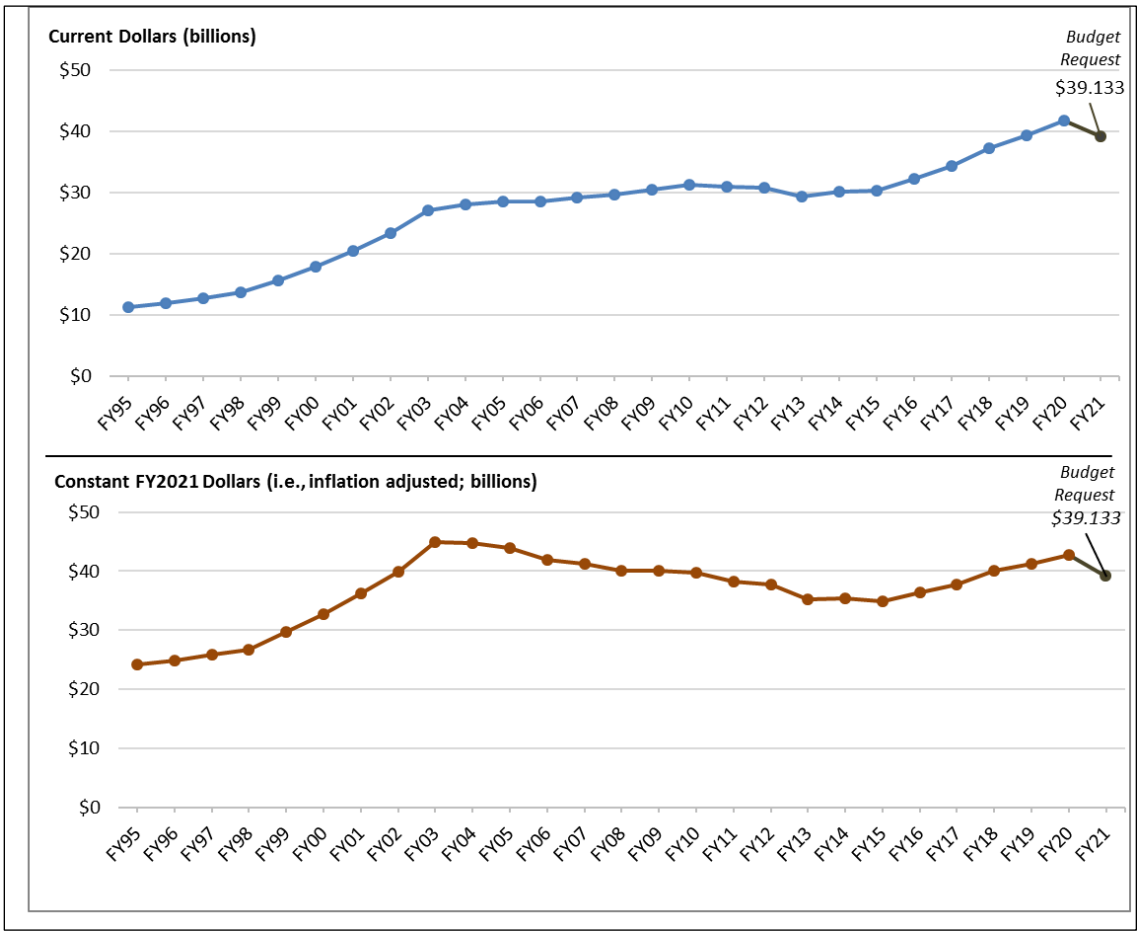
[22] For instance, the FY2006 total was 0.1% lower than the previous year, the first time that NIH appropriations had decreased since FY1970; the FY2011 total, provided in the Full-Year Continuing Appropriations Act, 2011 (P.L. 112-10), was 1.0% below the previous fiscal year; the FY2013 total, provided 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.

[23] 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.

shows that the purchasing power of NIH funding peaked in FY2003 (the last year of the five-year doubling period) and then declined fairly steadily for more than a decade until back-to-back funding increases were provided in each of FY2016 through FY2020. The FY2021 budget request would provide a program level that is 13.0% below the peak FY2003 program level.

Figure 1. National Institutes of Health (NIH) Funding, FY1995-FY2021

Program Level Funding in Current and Projected Constant (FY2021) Dollars.



Sources: NIH Budget Office, Appropriations History by Institute/Center (1938 to Present), at http://officeofbudget.od.nih.gov/approp_hist.html. The FY2020 and FY2021 program levels are based on NIH, "FY2021 Budget Request by IC (Summary Table)," https://officeofbudget.od.nih.gov/pdfs/FY21/br/5-SupplementaryTables.pdf), with FY2021 request amended to reflect budget request amendment in letter from Michael R. Pence, President of the Senate, to Donald Trump, President of the United States, March 17, 2020, at https://www.whitehouse.gov/wp-content/uploads/2020/03/Letter-regarding-additional-funding-to-support-the-United-States-response-to-COVID-19-3.17.2020.pdf. Inflation adjustment reflects the Biomedical Research and Development Price Index (BRDPI), updated January 2020, 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., FY2020 amount does not include the amounts provided in the coronavirus supplemental appropriations acts, summarized in **Table 1** of this report).

Table 2. NIH Funding, FY1995-FY2021

Program Level Funding in Current and Constant (FY2021) Dollars (billions)

Fiscal Year	Program Level Current $	% Change	Program Level Projected Constant FY2021 $	% Below FY2003[a]
1995	11.300	3.1%	24.101	
1996	11.928	5.6%	24.806	
1997	12.741	6.8%	25.780	
1998	13.675	7.3%	26.762	
1999	15.629	14.3%	29.648	
2000	17.841	14.1%	32.628	
2001	20.459	14.7%	36.212	
2002	23.321	14.0%	39.955	
2003	27.167	16.5%	44.963	
2004	28.037	3.2%	44.736	-0.5%
2005	28.594	2.0%	43.917	-2.3%
2006	28.560	-0.1%	41.924	-6.8%
2007	29.179	2.2%	41.266	-8.2%
2008	29.607	1.5%	40.000	-11.0%
2009	30.545	3.2%	40.093	-10.8%
2010	31.238	2.3%	39.793	-11.5%
2011	30.916	-1.0%	38.288	-14.8%
2012	30.861	-0.2%	37.736	-16.1%
2013	29.316	-5.0%	35.187	-21.7%
2014	30.143	2.8%	35.419	-21.2%
2015	30.311	0.6%	34.906	-22.4%
2016	32.311	6.6%	36.418	-19.0%
2017	34.301	6.2%	37.681	-16.2%
2018	37.311	8.8%	39.990	-11.1%
2019	39.313	5.4%	41.256	-8.2%
2020	41.685	6%	42.686	-5.1%
2021PB	*39.133*	*-6.1%*	*39.133*	*-13.0%*

Sources: NIH Budget Office, Appropriations History by Institute/Center (1938 to Present), at https://officeofbudget.od.nih.gov/approp_hist.html. The FY2020 and FY2021 program levels are based on NIH, "FY2021 Budget Request by IC (Summary Table)," at https://officeofbudget.od.nih.gov/pdfs/FY21/br/5-SupplementaryTables.pdf, with FY2021 request amended to reflect budget request amendment in letter from Michael R. Pence, President of the Senate, to Donald Trump, President of the United States, March 17, 2020, at https://www.whitehouse.gov/wp-content/uploads/2020/03/Letter-regarding-additional-funding-to-support-the-United-States-response-to-COVID-19-3.17.2020.pdf.

Inflation adjustment reflects the Biomedical Research and Development Price Index (BRDPI), updated January 2020, at https://officeofbudget.od.nih.gov/gbiPriceIndexes.html.

Notes: By convention, budget tables, such as **Table 2**, 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 amount does not include the amounts provided in the coronavirus supplemental appropriations acts, summarized in **Table 1** of this report). PB denotes "President's Budget."

a. FY2003 was the peak funding year for the NIH program level.

b. The FY2020 program level shown in table differs from enacted amounts in Further Consolidated Appropriations Act, 2020 (P.L. 116-94), accounting for a transfer of $5 million from the Office of the Director to the HHS Office of the Inspector General (OIG). In addition, FY2021 budget documents do not reflect the Nonrecurring Expenses Fund transfer of $225 million to NIH in the FY2020 program level, as directed by P.L. 116-94.

Appendix A. NIH Funding Details

Table A-1. National Institutes of Health Funding

(budget authority, in millions of dollars)

Institutes/Centers	FY2020 Final	FY2021 Request	FY2021 House	FY2021 Senate
Cancer Institute (NCI)	$6,440	$5,881	—	—
Heart, Lung, and Blood Institute (NHLBI)	$3,625	$3,298	—	—
Dental/Craniofacial Research (NIDCR)	$478	$435	—	—
Diabetes/Digestive/Kidney (NIDDK)[a]	$2,115	$1,924	—	—
Neurological Disorders/Stroke (NINDS)	$2,447	$2,245	—	—
Allergy/Infectious Diseases (NIAID)[b]	$5,876	$5,885	—	—
General Medical Sciences (NIGMS)[c]	$1,706	$1,931	—	—
Child Health/Human Development (NICHD)	$1,557	$1,416	—	—
National Eye Institute (NEI)	$823	$749	—	—
Environmental Health Sciences (NIEHS)[d]	$803	$730	—	—
National Institute on Aging (NIA)	$3,546	$3,226	—	—
Arthritis/Musculoskeletal/Skin Diseases (NIAMS)	$625	$568	—	—
Deafness/Communication Disorders (NIDCD)	$491	$446	—	—
National Institute of Mental Health (NIMH)	$2,043	$1,845	—	—
National Institute on Drug Abuse (NIDA)	$1,458	$1,432	—	—
Alcohol Abuse/Alcoholism (NIAAA)	$547	$497	—	—
Nursing Research (NINR)	$172	$157	—	—
Human Genome Research Institute (NHGRI)	$604	$550	—	—
Biomedical Imaging/Bioengineering (NIBIB)	$405	$368	—	—
Minority Health/Health Disparities (NIMHD)	$336	$305	—	—
Complementary/Integrative Health (NCCIH)	$152	$138	—	—
Advancing Translational Sciences (NCATS)	$833	$788	—	—
Fogarty International Center (FIC)	$81	$74	—	—
National Library of Medicine (NLM)	$457	$416	—	—
Office of Director (OD)[e]	$2,247	$2,099	—	—
Innovation Account[f]	$157	$109	—	—
Buildings and Facilities (B&F)	$200	$300	—	—
National Institute for Research on Safety & Quality (NIRSQ)	—	$257	—	—
Subtotal, NIH (LHHS Discretionary BA)	**$40,223**	**$38,811**	—	—
PHS Program Evaluation (provided to NIGMS)	$1,231	$741	—	—
Superfund (Interior approp. to NIEHS)[g]	$81	$74	—	—

Institutes/Centers	FY2020 Final	FY2021 Request	FY2021 House	FY2021 Senate
Nonrecurring Expenses Fund (NEF) Transfer (to Buildings and Facilities)[h]	*($225)*[i]	—	—	—
Mandatory type 1 diabetes funds (to NIDDK)[j]	$150	*$150*	—	—
Patient-Centered Outcomes Research Trust Fund (PCORTF)	—	$98		
NIH Program Level	**$41,685**	**$39,133**	—	—

Source: NIH, "FY2021 Budget Request by IC (Summary Table)," at https://officeofbudget.od.nih.gov/pdfs/FY21/br/5-SupplementaryTables.pdf, except as noted below.

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-1** do not subtract the amount of transfers to the evaluation tap from the agencies' appropriation. Amounts for the columns headed "FY2021 House," and "FY2021 Senate" will be added, if available, as each action is completed. In general, amounts provided to NIH for emergency requirements are excluded from these totals (e.g., FY2020 amount does not include the amounts provided in the coronavirus supplemental appropriations acts, summarized in **Table 1** of this report).

a. Amounts for the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) do not include mandatory funding for type 1 diabetes research (see note h).

b. The White House amended the NIAID FY2021 budget request on March 17, 2020, in a supplemental request letter for COVID-19 funding, to $5,885,470,000, which is $439,584,000 above the original FY2021 budget request.

c. Amounts for National Institute of General Medical Sciences (NIGMS) do not include funds from PHS Evaluation Set-Aside (§241 of the PHS Act). Though the budget request provides an increase to NIGMS through discretionary LHHS budget authority (BA) compared to FY2020, the total amount for NIGMS with the PHS evaluation transfer included would be less than FY2020-enacted levels.

d. Amounts for National Institute of Environmental Health Sciences (NIEHS) do not include Interior/Environment Appropriations amount for Superfund research (see note g).

e. Includes $12.6 million for the Gabriella Miller Kids First Research Act.

f. The amount shown for the NIH Innovation Account in each column represents only a portion of the total appropriation to the account ($492 million for the FY2020; $404 million for FY2021). The remaining funds for this account are incorporated, where applicable, into the totals for other ICs. For FY2021, this includes $195 to NCI for cancer research and $50 million to each of NINDS and NIMH for the BRAIN Initiative.

g. This is a separate account in the Interior/Environment appropriations for National Institute of Environmental Health Sciences (NIEHS) research activities related to Superfund research.

h. The nonrecurring expenses fund (NEF) permits HHS to transfer unobligated balances of expired discretionary funds from FY2008 and subsequent years into the NEF account. Congress authorized use of the funds for capital acquisitions including information technology (IT) and facilities infrastructure (42 U.S.C. §3514a).

i. Though FY2020 LHHS enacted appropriations (P.L. 116-94) directed an NEF transfer of $225 million to the Buildings and Facilities account, this transfer was not reflected in the FY2021 budget request tables and therefore is shown as a non-add in this table.

j. Mandatory funds are available to NIDDK for type 1 diabetes research are under PHSA Section 330Bm. For FY2020, this funding has been extended by the Coronavirus Aid, Relief, and Economic Security Act (P.L. 116-136) through FY2020, with a temporary FY2021 extension through November 30, 2020. Cited FY2021 budget request documents show $150 million as the FY2021 proposed funding level.

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 language in reports and explanatory statements accompanying appropriations bills to designate funding for specified purposes. The Administration requests NIH

program-specific funding, as outlined in the HHS and NIH budget request documents. For the most part, Congress does not specify NIH funding for particular diseases or areas of research, instead allowing the ICs to award funding within their mission areas. Funding is generally awarded on a competitive basis through various funding mechanisms intended to balance scientific opportunity with health priorities.[24]

In FY2020, Congress used explanatory statement language to specify a certain amount of IC funding for designated purposes, as summarized in **Table A-2**. Sometimes the language specifies that "no less than" a certain amount can be designated for a certain purpose; in other cases, language "provides" or "recommends" that an amount be spent on a certain purpose. For FY2020, while the House report (H.Rept. 116-62) also included funding levels for some of the below programs, the amounts in the explanatory statement supersede those. Both the explanatory statement and the House report include many additional statements directing the agency to prioritize certain programs or areas of research, as well as expressing the opinion or concerns of Congress regarding NIH; these broad statements are not summarized here.

Table A-2. Specified NIH Funding Levels in FY2020 Explanatory Statement

Institute/Center	Program	Amount
Cancer Institute (NCI)	Childhood Cancer Data Initiative	$50 million
	Additional cancer research awards	$212.5 million
	Childhood Cancer Survivorship, Treatment Access, and Research (STAR) Act	$25 million
Neurological Disorders/Stroke (NINDS)	Opioid misuse and addiction	$250 million
Allergy/Infectious Diseases (NIAID)	AIDS2020 Conference (International AIDS Conference)	$5.1 million
	Combating antimicrobial resistance (AMR)	$511 million, an increase of $50 million
	NASEM study on the long-term medical and economic impacts of increased AMR in the United States	$1.7 million
	HIV/AIDS research	an increase of no less than $25 million over FY2019 level
	Centers for AIDS Research	$51 million
	Universal flu vaccine	$200 million, an increase of $60 million
General Medical Sciences (NIGMS)	Institutional Development Award (IDeA) Program	$386.6, an increase of $25 million
Environmental Health Sciences (NIEHS)	Hurricane Harvey research	$3 million
Aging (NIA)	Alzheimer's disease and related dementias	Increase of $350 million; total funding no less than $2.818 billion

[24] CRS Report R41705, *The National Institutes of Health (NIH): Background and Congressional Issues*.

Institute/Center	Program	Amount
Drug Abuse (NIDA)	Opioid misuse and addiction	$250 million
Genome Research (NHGRI)	Emerging Centers of Excellence in Genomic Sciences	$10 million
Minority Health/Health Disparities (NIMHD)	Research Centers in Minority Institutions	$75 million
Advancing Translational Sciences (NCATS)	Clinical and Translational Science Awards (CTSAs)	$578.1 million
	Cures Acceleration Network	up to $60 million
Office of the Director (OD)/ Multi-Institute Research Initiatives	*All of Us* Precision Medicine Initiative	$500 million (including $149 million from the Innovation Account)
	NASEM study of NIH research on autoimmune conditions that predominately affect women.	$1.5 million
	Big data- Chief Data Strategist's work	$30 million
	Grants for biomedical research facilities	$50 million
	Brain Research through Advancing Innovative Neurotechnologies (BRAIN) Initiative	$500 million (including $140 million from the Innovation Account)
	Firearm injury and mortality prevention research	$12.5 million
	HHS Office of National Security allocation for foreign threats program	$5 million
	IDeA States Pediatric Clinical Trials Network	$15 million
	NASEM study related to organ donation and transplantation.	$1.5 million
	Best Pharmaceuticals for Children Act research	$25 million
	Investigation of Co-Occurring Conditions Across the Lifespan to Understand Down Syndrome (INCLUDE)	$60 million
	NASEM study on long-term medical and economic impacts of the inclusion of women and racial minorities in clinical research.	$1.2 million

Source: U.S. Congress, House and Senate Committees on Appropriations, Subcommittee on the Departments of Labor, Health and Human Services, Education, and Related Agencies, *Division A—Department of Labor, Health and Human Services, and Education and Related Agencies [LHHS] Appropriations Act, 2020*, committee print, 116th Cong., 2nd sess., December 16, 2019, pp. 49-85, 187-189.

Notes: NASEM is the National Academies of Sciences, Engineering, and Medicine, private nonprofit institutions that advise on policy related to science, technology, and health. The predecessor organization, National Academy of Sciences, was created by congressional charter in 1863.

Table A-3. Specified NIH Funding Levels in FY2021 Budget Request

Program/Activity	Amount
Opioids and Pain Research	$1.4 billion—$533 million for the Helping End Addiction Long-Term (HEAL) Initiative and more than $900 million to support ongoing research.
Methamphetamine and Other Stimulant Use-developing medication-assisted treatment and evidence-based psychosocial treatment	$50 million
Childhood Cancer Data Initiative	$50 million
Centers for AIDS Research	$16 million
Influenza research	$423 million—$200 million for developing a universal influenza vaccine
Tick-borne diseases research	$115 million
Artificial Intelligence for Chronic Disease—utilizing artificial intelligence to deepen understanding of the underlying causes of chronic diseases and identify successful early treatments	$50 million
Gene Vector Production—creating a consortium with industry, academic, and federal stakeholders to increase the efficiency of vector production and speed up gene therapy clinical trials and treatments	$30 million
Ruth L. Kirschstein Institutional National Research Service Award Program	$848 million
IDeA States Pediatric Clinical Trials Network	$15 million
Neonatal research	$100 million
National Institute for Research on Safety and Quality (NIRSQ) Programs	
Health Services Research, Data, and Dissemination Research Portfolio	$57 million
Improving Maternal Health in America Initiative	$7 million
Patient Safety Research	$60 million
Medical Expenditure Panel Survey (MEPS)	$72 million

Source: HHS, "FY2021 Budget in Brief," pp. 54-61, at https://www.hhs.gov/sites/default/files/fy-2021-budget-in-brief.pdf. For the most part, the budget request does not specify funding amounts by institute/center or account.

Appendix B. Acronyms and Abbreviations

Acronym/ Abbreviation	Organization/Term
FIC	Fogarty International Center
FY	Fiscal Year
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
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

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