

Fogarty International Center

CONGRESSIONAL JUSTIFICATION
FY 2023

Department of Health and Human Services
National Institutes of Health



Fogarty International Center
Advancing Science for Global Health

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DEPARTMENT OF HEALTH AND HUMAN SERVICES

NATIONAL INSTITUTES OF HEALTH

Fogarty International Center (FIC)

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Director's Overview

The mission of the Fogarty International Center is to advance the mission of the National Institutes of Health (NIH) by supporting and facilitating global health research conducted by U.S. and international investigators, building partnerships between health research institutions in the U.S. and abroad, and training the next generation of scientists to address global health needs.

Programmatically, Fogarty complements and supports work of other NIH Institutes, Centers, and Offices by identifying scientific opportunities and catalyzing science on global issues of relevance to Americans. With a focus on countries with less developed research capacity, we support early-career scientists who often go on to receive support from other NIH institutes. Fogarty also serves as a focal point for global health and international activities across NIH, representing the NIH international research agenda within the U.S. Government, with foreign governments, and with key international research organizations.

Diseases know no borders while the health of Americans is increasingly intertwined with that of populations around the world, as clearly demonstrated by the COVID-19 pandemic. Our programs strengthen the scientific workforce and develop global research networks that are prepared to combat existing and future threats that affect us all, including pandemic response, climate impacts on health, health disparities, and a wide range of diseases and conditions.

In addition, Fogarty investments benefit the United States by extending the reach and competitiveness of U.S. universities. Currently, Fogarty supports 385 research and research training awards involving 124 U.S. universities. Nearly all of these awards involve U.S. researchers and two-thirds of Fogarty grants are awarded to U.S. institutions which partner with research institutions in low- and middle-income countries (LMICs). These collaborations result in long-term relationships that provide scientific and training opportunities for both partners and help American scientists remain globally competitive and stay at the forefront of scientific discovery.

NIH in a Changing World: Science to Enhance Human Health

Since its establishment more than 50 years ago, Fogarty has laid the groundwork to respond to the changing world by making foundational investments in the scientific workforce, developing global research networks that can quickly respond, harnessing new tools and research approaches, and devoting attention to emerging global challenges such as pandemics, climate change, and social injustice and serve as the focal point for international affairs at NIH.

Developing the Scientific Workforce

Central to Fogarty's mission is our focus on preparing the next generation of scientists to respond to current and future threats to health by providing opportunities to tie biomedical research to real world applications. For example, Fogarty's **HIV Research Training program**



Roger I. Glass, M.D., Ph.D.
Director of FIC and
Associate Director for
International Research

and its predecessor programs have developed generations of global health leaders who have contributed to breakthroughs in the prevention, treatment, and care of people living with HIV. For example, Dr. Lloyd Mulenga received his Ph.D. with Fogarty support and is now a leading infectious disease researcher at the University of Zambia. He designed a clinical trial demonstrating the effectiveness and safety of a drug that has become the World Health Organization's (WHO) preferred treatment option for many people living with HIV. Fogarty's support for HIV research training has helped build human capacity and develop institutional capabilities that are now being applied to address other diseases.

Fogarty supports cross-cutting research and research training programs that apply to a broad range of health threats, enabling grantees and trainees to anticipate new challenges. Fogarty programs also support training for researchers in the development and use of powerful tools such as data science, mobile health, and bioinformatics, which can be applied to a wide range and variety of health challenges. More than 7,500 individuals from 132 countries trained through Fogarty programs since 1989.

Fostering Collaborative Global Networks

Across our scientific portfolio, Fogarty supports networks of U.S. and international scientists who collaborate across borders and can rapidly respond to new and emerging health threats. For example, Fogarty supports the **African Forum for Research and Education in Health (AFREhealth)**, a leadership and convening organization that brings academic health research professionals – including doctors, nurses, pharmacists, lab scientists, and allied health professionals – together to develop and share best practices, innovations, curricula, and policy. The powerful network was designed to address health workforce issues and the HIV/AIDS crisis. However, when the COVID-19 pandemic hit, the network rapidly pivoted to help identify and share best practices for dealing with the pandemic across Africa.

Harnessing Promising Research Approaches

Fogarty leverages several cutting-edge research approaches to respond to our changing world. For example, Fogarty's **in-house epidemiology team** uses advanced computational modeling and genomic analysis tools to better predict and respond to emerging infectious disease outbreaks. Through support from the NIH Common Fund and in partnership with 10 NIH Institutes, Centers, and Offices, Fogarty helped launch the new **Harnessing Data Science for Health Discovery and Innovation in Africa (DS-I Africa)** program. DS-I Africa supports an African-led consortium that will employ innovative approaches such as big data analysis, artificial intelligence, and computational modeling to transform health in Africa over the next five years.

Fogarty's Mobile Health: Technology and Outcomes in LMICs (mHealth) program

implements an innovative two-phase funding approach that emphasizes rigorous evaluations at the proof-of-concept stages followed by opportunities for scaling up only the interventions that are proven effective.

Dissemination and implementation research is woven throughout Fogarty programs as an important strategy for translating evidence into policy and practice. For example, Fogarty leads the **Clean Cooking Implementation Science Network (ISN)** in partnership with the NIH

Common Fund, U.S. Agency for International Development (USAID), Centers for Disease Control and Prevention (CDC), Environmental Protection Agency (EPA), and the Global Alliance for Clean Cookstoves (GACC). Household air pollution from cooking on open fires or traditional stoves results in premature death in many LMICs, including places where cleaner cooking alternatives are available. The ISN supports collaboration between researchers and implementation organizations to study how to improve uptake of evidence-based clean cooking interventions in these settings.

Responding to the COVID-19 Pandemic

Fogarty's investments in the scientific workforce and collaborative networks enabled researchers around the world to quickly respond to the pandemic. Past and current grantees and trainees played major roles in the research response to the COVID-19 pandemic in their countries while also providing expert analysis to policymakers. In her native South Africa, former Fogarty fellow Dr. Glenda Gray co-led the Johnson & Johnson COVID-19 vaccine clinical trial, which demonstrated high efficacy and supported global use of the vaccine. Fogarty grantee Dr. Christian Happi of Nigeria was the first to sequence the full COVID-19 viral genome in Africa and continues to lead the scientific response to the pandemic in his country. Members of the Fogarty network are also leading pandemic responses in China, Haiti, Peru, South Africa, and other locations.

Recently, Fogarty further supported this powerful research network by awarding \$3.3 million in administrative supplements to support research on unique scientific questions and research training activities related to COVID-19. These projects covered critical issues such as mental health, interactions between COVID-19 and other infectious diseases (e.g., HIV and tuberculosis), vaccine hesitancy, intimate partner violence, stigma related to mental health, and other topics.

Fogarty's **Division of International Research (DIR)** played an important role in the response as well, helping coordinate COVID-19 response activities across NIH and the U.S. Government, with multilateral organizations, and in partnership with several specific countries.

Preparing for Future Pandemics

Fogarty's foundational investments in the scientific workforce and global networks promise to be effective against future pandemics. Dr. Andrew Kambugu received advanced training in infectious disease research in the United States with Fogarty support and then returned to Uganda, ultimately rising to the position of Executive Director of the Infectious Disease Institute (IDI). Under his leadership, IDI established a global health security program in 2016, enabling the institute to contribute to the COVID-19 response and prepare for future threats.

Fogarty's **Division of International Epidemiology and Population Studies (DIEPS)** further supports pandemic preparedness through its ongoing research and research training on epidemiological modeling and genomic epidemiology. Fogarty will continue to accelerate research capacity strengthening in LMICs in several areas of importance to pandemic preparedness, such as mathematical modeling, medical countermeasure research, genomic surveillance of emerging infectious diseases, and other areas of research such as epidemiology, mental health, and social factors.

Responding to Climate Change

Over the past decade, several Fogarty programs have explored the impacts of environmental and climate change on human health, especially on underserved populations. The **Global Environmental and Occupational Health (GEOHealth) program** supports interdisciplinary research and research training hubs composed of clinicians, public health professionals, medical students, and undergraduates from across academia, government, and non-governmental organizations (NGOs). The network has contributed to scientific advancements and informed policies related to outdoor air pollution, household air pollution, heat stress, agricultural health, environmental contamination, and industrialization. The GEOHealth Hubs recently led gap analyses on the impacts of climate change on human health in Ethiopia, Kenya, Rwanda, and Uganda, outlining recommendations for improved coordination across sectors, policy guidelines, and considerations for gender and community-related perspectives.

Global climate change is expected to fuel more frequent and intense heat waves in many parts of the world, including the United States as seen in the deadly 2021 heat wave in the Northwest. Following a lethal heat wave in India several years ago, an international research team supported by Fogarty and the National Institute of Environmental Health Sciences (NIEHS) worked with local officials in India to consider how to better prepare for future heat waves. Research activities such as this offer opportunities for shared learning in dealing with intense changes in climate worldwide.

Looking to the future, Fogarty is partnering with NIEHS to lead the planning of a new, NIH-wide effort to identify, understand, and address the health impacts of climate change, with special attention to the underserved communities in the United States and abroad that are often disproportionately impacted.

Towards Social Justice and Health Equity

Fogarty stands with NIH in condemning racism and bigotry in all its forms and remains committed to contributing to health equity for all the world's people. The COVID-19 pandemic laid bare the inequities in our health systems – both at home and abroad. Meanwhile, the harsh health impacts of climate change and the pandemic are disproportionately felt by the underserved populations around the world.

Health equity is at the heart of our mission as we focus our scientific activities on disadvantaged populations in low-resource settings globally. Across our grant programs and scientific activities, we strive to foster equitable research partnerships, ensure that participating communities benefit from knowledge gained, and empower local scientists to lead research and publications. For example, Fogarty's **Reducing Stigma to Improve HIV/AIDS Prevention, Treatment and Care in LMICs program** includes grants focused on particularly marginalized or vulnerable communities. As stigma is a global phenomenon, Fogarty recently highlighted several case examples of interventions developed abroad that have been successfully transferred from LMICs to the United States, thus offering valuable lessons to the stigma research community in the United States.

Fogarty is also committed to improving diversity among our staff and the global health research workforce. Diverse perspectives are essential to advancing science, especially in the global health arena where there are many differences in regional, gender, and cultural experiences.

Addressing health disparities is integral to Fogarty's approach to the scientific workforce. For example, the **Health-Professional Education Partnership Initiative (HEPI)** is led by African institutions working to strengthen the local health and research workforce, informed by the needs of local communities. Developing a workforce that serves both urban and rural areas helps address health disparities that arise within these communities.

Fogarty will continue to work towards greater equity in global health research, in our own investments and in partnership with other Institutes and Centers at NIH. With input from our grantees, trainees, and partners, we are currently developing strategies to achieve this goal. This commitment will complement investments in research and research training that confront disparities in health in low-resource settings globally. It is essential to achieving Fogarty's vision – a world in which the frontiers of health research extend across the globe and advances in science are implemented to reduce the burden of disease, promote health, and extend longevity for all people.

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IC Fact Sheet



Overview

The Fogarty International Center is dedicated to advancing the NIH mission by supporting and facilitating global health research conducted by U.S. and international investigators, building partnerships between health research institutions in the United States and abroad, and training the next generation of scientists to address global health needs.

Since the 1980s, Fogarty has supported innovative programs that train future global health leaders and harness scientific talent around the world to tackle complex health challenges and accelerate discovery. Fogarty invests in people--U.S. and low- and middle-income country (LMIC) scientists who serve on the front lines of the fight against diseases that threaten populations in the United States and around the world. Fogarty also serves as a focal point for international activities at the NIH, helping to advance global health research agendas, develop NIH-wide cooperative activities, establish agreements between NIH and foreign institutions, and represent the NIH international research agenda within the U.S. Government.

Facts and Figures (FY2021)

- 431 active awards through Fogarty programs
- \$58 million of Fogarty funding coupled with \$71 million in contributions from 27 other NIH Institutes, Centers and Offices and other U.S. Government partners
- 462 Principal Investigators including scientists from 74 American universities
- Nearly 1,700 articles published by grantees
- 752 individuals from 45 countries trained
- 58 full-time employees

Director



Roger I. Glass, M.D., Ph.D.

Director of the Fogarty International Center and Associate Director for International Research

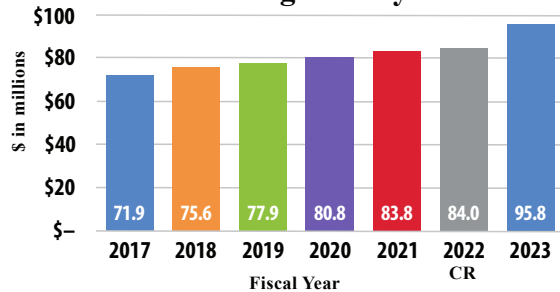
Dr. Glass received an M.D. from Harvard Medical School, an M.P.H. from the Harvard School of Public Health, and a doctorate from the University of Goteborg in Sweden.



Research and Training Highlights

- Former trainees are now global health leaders, such as WHO's first Chief Scientist Dr. Soumya Swaminathan and the Africa Centers for Disease Control and Prevention's (Africa CDC) first Director Dr. John Nkengasong.
- Past trainees and grantees are leading COVID-19 efforts, for example running COVID-19 vaccine trials in South Africa, sequencing the virus' genome in Nigeria, establishing COVID-19 hospital patient registry in Malaysia, and advising policymakers in several countries.
- Former trainees support ground-breaking research, improving HIV treatment in LMICs and informing treatment protocols in the U.S.
- A mobile health app developed for HIV patient care in Uganda was adapted by a U.S. company to help patients adhere to medication regimen for opioid addiction, tuberculosis, and hepatitis C.
- Grantees in Egypt studied the highly addictive and abused opioid, Tramadol, and helped inform the government and WHO on treatment protocols.

Funding History



FY2023 President's Budget request is \$95.8 million

Recent Accomplishments

Reducing pregnancy risks in Guatemala with mHealth

Researchers at Emory University are partnering with a Guatemalan NGO to better predict pregnancy risks for indigenous Mayan women. Dr. Gari Clifford and colleagues combined a \$10 ultrasound device, blood pressure cuff, and pulse oximeter to feed health data directly into a smartphone. A screening and referral app on the phone helps midwives spot issues and make referrals to health facilities when needed. After promising early studies, the innovative solution has been used in several thousand births over the past five years, improving pregnancy outcomes and saving the lives of countless mothers and newborns.



Courtesy of Bryan Watt, Photographers Without Borders

Modeling to inform the COVID-19 response

Early in the pandemic, Fogarty's in-house team of epidemiology experts and their global network of collaborators began collecting and sharing data on the novel coronavirus while using advanced computational tools to model its spread. This work yielded several important discoveries and high-profile publications. Their modeling projections have been shared with the White House, CDC, WHO, as well as state governments, informing their responses to the deadly virus. The team has also trained LMIC scientists on genomics, enabling them to understand how the virus changes and help their countries' governments respond accordingly.

Current Activities

- **Harnessing Data Science for Health Discovery and Innovation in Africa (DS-I Africa):** A new five-year, \$75 million NIH Common Fund program aiming to transform health in Africa through a consortium of grants, including a data science platform and coordinating center, several research hubs and training programs, and grants exploring the ethical, legal, and social implications of data science research.
- **Chronic, Noncommunicable Diseases and Disorders Research Training:** A long-standing program supporting collaborations between institutions in the U.S. and LMICs to train researchers to study disease like mental illness, cancer, heart disease, and diabetes. Since 2001, the program and its predecessors have provided training opportunities for 690 scientists.
- **Global Health Program for Fellows and Scholars:** Provides junior investigators from the U.S. and LMICs with hands-on, mentored research training in low-resource settings around the world. Fellows go on to become leaders in global health research, making important scientific advances and informing health policies and clinical practices.



Photo courtesy of Dr. Christian Happi

Future Initiatives

- **Climate Change and Human Health:** Fogarty and the National Institute of Environmental Health Sciences (NIEHS) are leading the planning of a new, NIH-wide effort to identify, understand, and address the health impacts of climate change, which disproportionately affects underserved communities in the U.S. and abroad.
- **Interventions for Stigma Reduction to Improve HIV/AIDS Prevention, Treatment and Care in LMICs:** Fogarty's new R01 research program builds on previous programs to support the development and testing of interventions that reduce the impact of stigma and discrimination, which continue to hinder the uptake evidence-based HIV interventions.
- **Health Disparities Research:** New activities are being designed to better understand and address the health disparities of disadvantaged populations around the world and confront disparities in the international scientific workforce.

Major Changes in the Fiscal Year 2023 Budget Request

Major changes by budget mechanism and/or budget activity detail are briefly described below. Note that there may be overlap between budget mechanism and activity detail, and these highlights will not sum to the total change for the FY 2023 President's Budget request for FIC, which is \$95.8 million, an increase of \$11.8 million from the FY 2022 Continuing Resolution (CR) level. FIC will pursue research priorities through strategic investments and careful stewardship of appropriated funds. \$10.0 million of the increase will be directed to Health Disparities Research, which will fund research in multiple mechanisms and activities.

Research Project Grants (RPGs) (+\$3.0 million, total \$15.8 million):

FIC will support a total of 69 Research Project Grant (RPG) awards in FY 2023, an increase of 14 awards and \$3.0 million, or 23.4 percent, from the FY 2022 CR level. A portion of this increase will be for Health Disparities Research.

Research Centers and Other Research (+\$7.0 million, total \$52.4 million):

Research Center awards will increase by \$0.2 million, or 15.4 percent, relative to the FY 2022 CR level; Career awards will increase by \$1.3 million, or 15.4 percent; and Other-Other awards will increase by \$5.6 million, or 15.4 percent. Most of the increases will be for Health Disparities Research.

Research Management and Support (+\$1.3 million, total \$21.6 million):

Research Management and Support (RMS) will increase \$1.3 million, or 6.4 percent, relative to the FY 2022 CR level. This will cover pay cost increases and other inflation, an increase in cyber-security costs, and additional support needed to manage the expanded Health Disparities Research portfolio.

Budget Mechanism Table

NATIONAL INSTITUTES OF HEALTH Fogarty International Center

Budget Mechanism - Total¹

(Dollars in Thousands)

MECHANISM	FY 2021 Final		FY 2022 CR		FY 2023 President's Budget		FY 2023 +/- FY 2022 CR	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount
<u>Research Projects:</u>								
Noncompeting	41	\$7,784	23	\$5,689	35	\$8,329	12	\$2,640
Administrative Supplements	(10)	1,062	(10)	1,000	(10)	1,000	(0)	0
<u>Competing:</u>								
Renewal	0	437	0	437	0	437	0	0
New	22	3,965	32	5,700	34	6,056	2	356
Supplements	0	0	0	0	0	0	0	0
Subtotal, Competing	22	\$4,401	32	\$6,137	34	\$6,493	2	\$356
Subtotal, RPGs	63	\$13,248	55	\$12,825	69	\$15,822	14	\$2,996
SBIR/STTR	0	0	0	0	0	0	0	0
Research Project Grants	63	\$13,248	55	\$12,825	69	\$15,822	14	\$2,996
<u>Research Centers:</u>								
Specialized/Comprehensive	0	\$1,069	0	\$1,038	0	\$1,199	0	\$160
Clinical Research	0	0	0	0	0	0	0	0
Biotechnology	0	0	0	0	0	0	0	0
Comparative Medicine	0	0	0	0	0	0	0	0
Research Centers in Minority Institutions	0	0	0	0	0	0	0	0
Research Centers	0	\$1,069	0	\$1,038	0	\$1,199	0	\$160
<u>Other Research:</u>								
Research Careers	80	\$8,603	78	\$8,356	90	\$9,646	12	\$1,290
Cancer Education	0	0	0	0	0	0	0	0
Cooperative Clinical Research	0	0	0	0	0	0	0	0
Biomedical Research Support	0	0	0	0	0	0	0	0
Minority Biomedical Research Support	0	0	0	0	0	0	0	0
Other	157	37,058	152	35,993	175	41,547	23	5,555
Other Research	237	\$45,661	230	\$44,349	265	\$51,193	35	\$6,844
Total Research Grants	300	\$59,978	285	\$58,213	334	\$68,213	49	\$10,001
<u>Ruth L. Kirschstein Training Awards:</u>								
Individual Awards	0	\$0	0	\$0	0	\$0	0	\$0
Institutional Awards	0	0	0	0	0	0	0	0
Total Research Training	0	\$0	0	\$0	0	\$0	0	\$0
Research & Develop. Contracts (SBIR/STTR) (non-add)	0 (0)	\$4,563 (0)	0 (0)	\$5,537 (0)	0 (0)	\$6,000 (0)	0 (0)	\$462 (0)
Intramural Research	0	0	0	0	0	0	0	0
Res. Management & Support SBIR Admin. (non-add)	58 (0)	19,220 (0)	61 (0)	20,294 (0)	61 (0)	21,588 (0)	0 (0)	1,294 (0)
Construction		0		0		0		0
Buildings and Facilities		0		0		0		0
Total, FIC	58	\$83,761	61	\$84,044	61	\$95,801	0	\$11,757

¹ All items in italics and brackets are non-add entries.

Appropriations Language

NATIONAL INSTITUTES OF HEALTH

JOHN E. FOGARTY INTERNATIONAL CENTER

For carrying out the activities of the John E. Fogarty International Center (described in subpart 2 of part E of title IV of the PHS Act), \$95,801,000.

Summary of Changes

NATIONAL INSTITUTES OF HEALTH Fogarty International Center

Summary of Changes

(Dollars in Thousands)

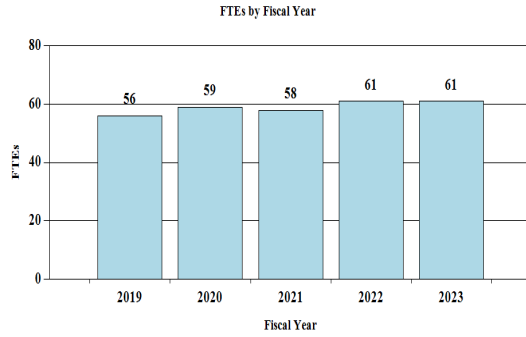
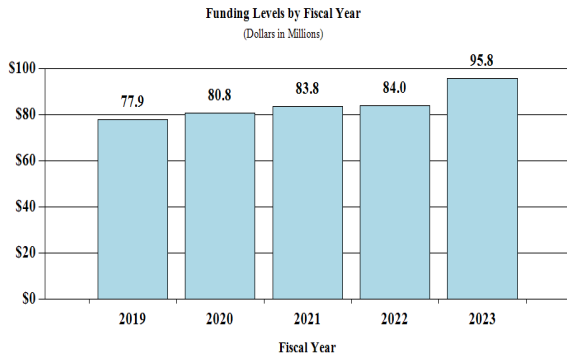
FY 2022 CR		\$84,044
FY 2023 President's Budget		\$95,801
Net change		\$11,757

CHANGES	FY 2022 CR		FY 2023 President's Budget		Built-In Change from FY 2022 CR	
	FTEs	Budget Authority	FTEs	Budget Authority	FTEs	Budget Authority
A. Built-in:						
1. Intramural Research:						
a. Annualization of January 2022 pay increase & benefits		\$0		\$0		\$0
b. January FY 2023 pay increase & benefits		0		0		0
c. Paid days adjustment		0		0		0
d. Differences attributable to change in FTE		0		0		0
e. Payment for centrally furnished services		0		0		0
f. Cost of laboratory supplies, materials, other expenses, and non-recurring costs		0		0		0
Subtotal						\$0
2. Research Management and Support:						
a. Annualization of January 2022 pay increase & benefits		9,998		\$10,363		\$66
b. January FY 2023 pay increase & benefits		9,998		10,363		337
c. Paid days adjustment		9,998		10,363		-38
d. Differences attributable to change in FTE		9,998		10,363		0
e. Payment for centrally furnished services		0		0		0
f. Cost of laboratory supplies, materials, other expenses, and non-recurring costs		10,296		11,225		223
Subtotal						\$588
Subtotal, Built-in						\$588

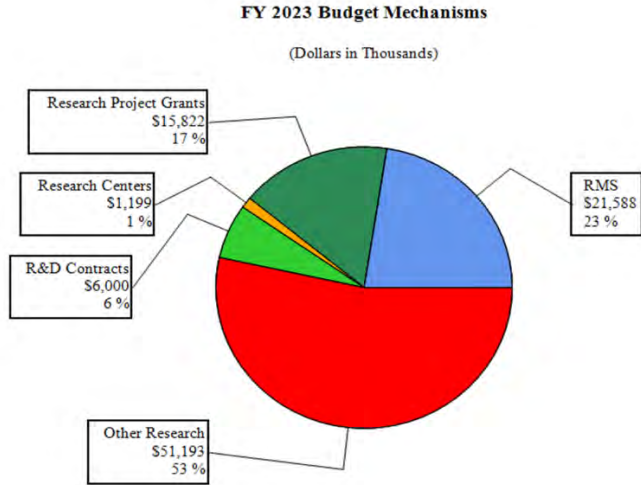
CHANGES	FY 2022 CR		FY 2023 President's Budget		Program Change from FY 2022 CR	
	No.	Amount	No.	Amount	No.	Amount
B. Program:						
1. Research Project Grants:						
a. Noncompeting	23	\$6,689	35	\$9,329	12	\$2,640
b. Competing	32	6,137	34	6,493	2	356
c. SBIR/STTR	0	0	0	0	0	0
Subtotal, RPGs	55	\$12,825	69	\$15,822	14	\$2,996
2. Research Centers	0	\$1,038	0	\$1,199	0	\$160
3. Other Research	230	44,349	265	51,193	35	6,844
4. Research Training	0	0	0	0	0	0
5. Research and development contracts	0	5,537	0	6,000	0	462
Subtotal, Extramural		\$63,750		\$74,213		\$10,463
6. Intramural Research	<u>FTEs</u> 0	\$0	<u>FTEs</u> 0	\$0	<u>FTEs</u> 0	\$0
7. Research Management and Support	61	20,294	61	21,588	0	706
8. Construction		0		0		0
9. Buildings and Facilities		0		0		0
Subtotal, Program	61	\$84,044	61	\$95,801	0	\$11,169
Total built-in and program changes						\$11,757

Fiscal Year 2023 Budget Graphs

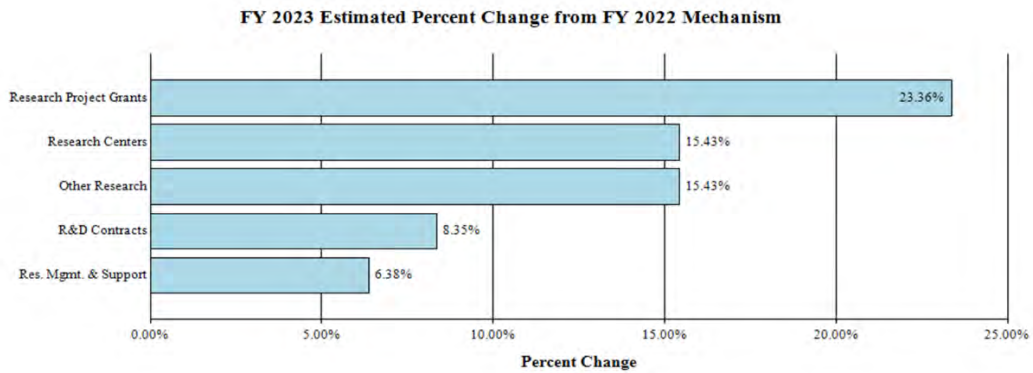
History of Budget Authority and FTEs:



Distribution by Mechanism:

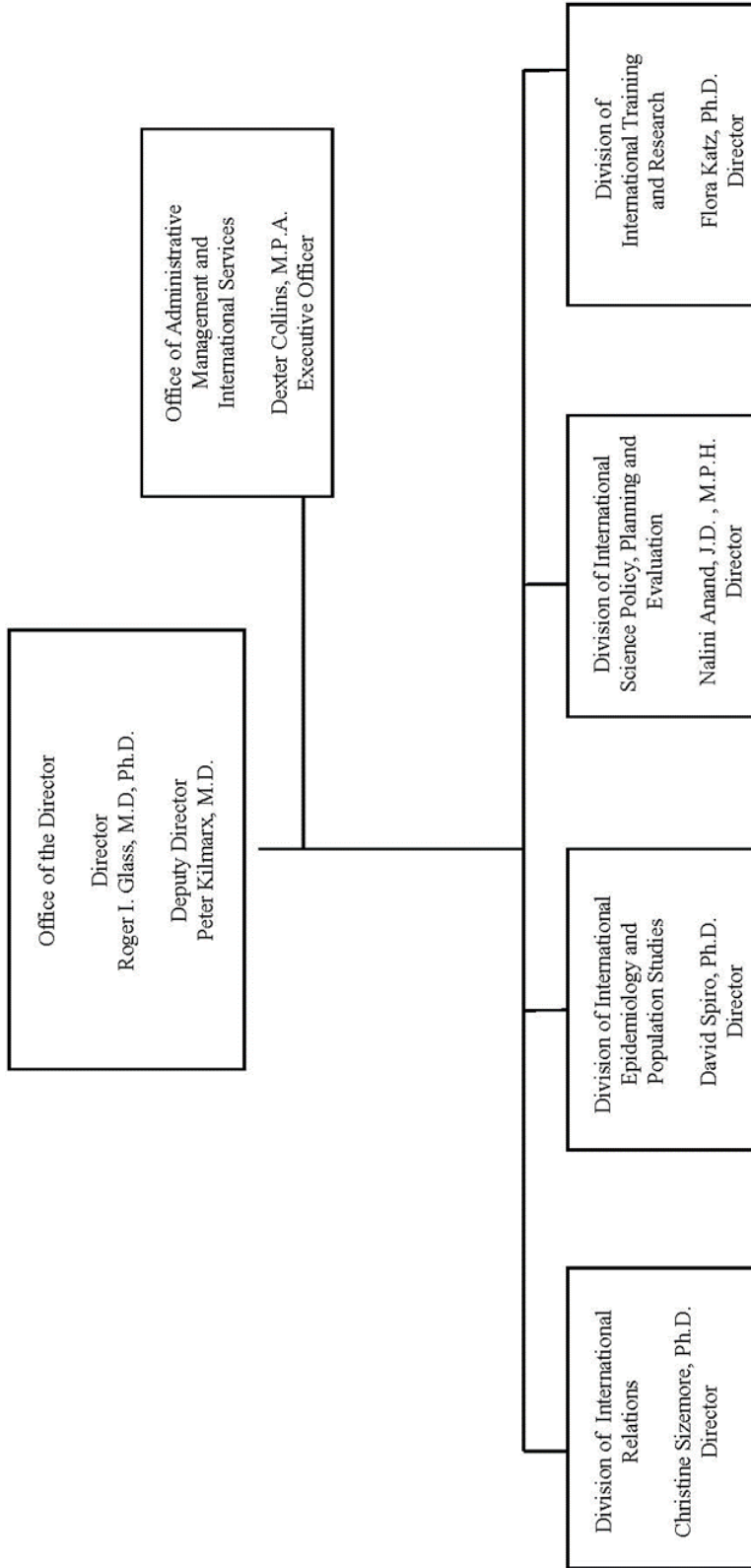


Change by Selected Mechanisms:



NATIONAL INSTITUTES OF HEALTH

John E. Fogarty International Center



Organization Chart

Budget Authority by Activity

NATIONAL INSTITUTES OF HEALTH Fogarty International Center

Budget Authority by Activity¹ (Dollars in Thousands)

	FY 2021 Final		FY 2022 CR		FY 2023 President's Budget		FY 2023 +/- FY 2022 CR	
	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>
<u>Extramural Research</u>								
<u>Detail</u>								
Research Capacity Strengthening		\$20,016		\$19,771		\$23,016		\$3,245
Development of Human Resources for Global Health		29,657		29,293		34,101		4,808
International Collaborative Research		14,868		14,686		17,096		2,410
Subtotal, Extramural		\$64,541		\$63,750		\$74,213		\$10,463
Intramural Research	0	\$0	0	\$0	0	\$0	0	\$0
Research Management & Support	58	\$19,220	61	\$20,294	61	\$21,588	0	\$1,294
TOTAL	58	\$83,761	61	\$84,044	61	\$95,801	0	\$11,757

¹ Includes FTEs whose payroll obligations are supported by the NIH Common Fund.

Justification of Budget Request

Fogarty International Center

Authorizing Legislation: Section 301 and Title IV of the Public Health Service Act, as amended.

Budget Authority (BA):

	<u>FY 2021 Final</u>	<u>FY 2022 Continuing Resolution</u>	<u>FY 2023 President's Budget</u>	<u>FY 2023 +/- FY 2022</u>
BA	\$83,761,000	\$84,044,000	\$95,801,000	\$11,757,000
FTE	58	61	61	0

Program funds are allocated as follows: Competitive Grants/Cooperative Agreements; Contracts; Direct Federal/Intramural and Other.

Overall Budget Policy: The FY 2023 President's Budget request is \$95.8 million, an increase of \$11.8 million or 14.0 percent compared with the FY 2022 Continuing Resolution level. This includes an increase of \$10.0 million to expand Fogarty research into issues of health disparities.

Program Descriptions

Research Capacity Strengthening: The development of effective measures to address shared health challenges requires U.S. and LMIC institutions that can conduct robust research and train the next generation of scientists to solve complex problems. These institutions can stimulate innovative and multidisciplinary research, generate effective and implementable solutions, and build a nimble and networked research workforce. Given that important scientific findings can come from anywhere in the world, Fogarty’s research capacity strengthening approach provides LMIC institutions and researchers with the tools to develop strong, sustainable research environments that contribute to the advancement of global health. This program area includes extramural research programs addressing a broad range of health and disease areas, including bioethics, infectious diseases, information and communication technology, trauma and injury, and epidemics such as Ebola and HIV/AIDS.

Budget Policy:

The FY 2023 President’s Budget request is \$23.0 million, an increase of \$3.2 million, or 16.4 percent, from the FY 2022 CR level.

Global Trauma and Injury Research Training Program

Injuries and trauma are among the leading causes of death and disability around the world, accounting for about 10 percent of all deaths globally – more than the combined deaths due to HIV/AIDS, tuberculosis, malaria, and Ebola. This includes injuries and trauma caused by traffic accidents, drownings, poisonings, falls, burns, natural disasters, war, self-inflicted violence, and assault.

The Fogarty **Global Trauma and Injury Research Training Program** aims to strengthen injury and trauma research capacity at academic institutions in LMICs. The program supports in-depth training in research design, methods, and analytic techniques to help scientists study how to develop interventions to prevent and treat trauma and injury based on local culture and circumstances.

For example, a grant to the University of Maryland has been building research capacity in trauma and injury throughout the Middle East and North Africa, providing intensive summer courses and mentored research projects over the past 15 years. More than 450 trainees have participated from Egypt, Iraq, Sudan, Libya, the West Bank, and Afghanistan, with many going on to leadership positions in national health ministries or health care systems.

One such trainee, Dena Abozaid, is a physician on faculty at Ain Sharms University in Egypt. The program strengthened her skills in epidemiology, research methodology, and ethics. Upon returning to Egypt, she applied her learning to study workplace violence against physicians and nurses at the hospital level. She implemented and evaluated a training adapted from Occupational Safety and Health Administration (OSHA) guidelines to help nurses identify and manage potentially violent situations in the healthcare sector.



Photo by Daniel Snyder for FIC/NIH

Ecology and Evolution of Infectious Diseases

Human interaction with animals and the environment has a significant impact on the emergence and spread of infectious diseases. For example, deforestation, expansion of human settlements, global trade and travel, and livestock production can influence spillover events, which occur when diseases jump from animals to humans.

Fogarty's **Ecology and Evolution of Infectious Diseases (EEID) Program** is a partnership with the National Science Foundation to help understand the relationships between human-induced environmental changes and infectious diseases. The program funds highly interdisciplinary research projects that apply both ecological and biomedical methods, and study how environmental events such as climate change, habitat alteration, biological invasion, and pollution alter the risks of emergence and transmission of viral, parasitic, and bacterial diseases in humans and other animals.

Under an EEID grant, a research team led by Dr. Jason Rohr at the University of Notre Dame has been studying schistosomiasis, a debilitating disease that affects nearly 240 million people worldwide. The team partnered with a Senegalese biomedical research institute to study the environmental interactions of snails that hosts a parasite that causes schistosomiasis, which was affecting nearly 80 percent of rural children in the area. They discovered that construction of a dam and the use of agricultural chemicals and insecticides played a role in the spread of the parasite. Through a carefully planned intervention, the team was able to greatly reduce the scourge of schistosomiasis on the local community. On a broader scale, the researchers have used epidemiological modeling and computational simulations to show how sensitive the host and parasite organisms are to temperature change, suggesting that global climate change will increase health risks from schistosomiasis in some parts of the world.



Photo Courtesy of NSF

International Collaborative Research: Fogarty supported research collaborations between U.S. and LMIC scientists make U.S. academic institutions more globally competitive and enable U.S. scientists to lead and participate in international research teams that address key global health priorities. These partnerships lead to more robust solutions to global health problems, as the respective strengths and expertise of local and U.S. scientists are brought to bear on complex challenges. Whether the focus is international collaborative research on disorders and diseases of the brain and nervous system, or the prediction and containment of emerging infectious diseases, discoveries and evidence generated by these projects have implications for U.S. populations. This program area includes extramural research programs addressing a broad range of health topics, including brain disorders, ecology of infectious diseases, non-communicable diseases (NCDs), environmental and occupational health, mobile health, and HIV/AIDS-related stigma.

Budget Policy:

The FY 2023 President's Budget request is \$17.1 million, an increase of \$2.4 million, or 16.4 percent, from the FY 2022 CR level.

Sustainable Development of Human Resources for Global Health Research:

Breakthrough scientific advances in global health are built upon a foundation of well-trained researchers. Investing in the best and brightest minds and catalyzing research and training partnerships between talented U.S. and LMIC scientists continues to be a high priority. Well-trained LMIC researchers bring an understanding of the unique biological, epidemiological, social, and cultural contexts of their communities, thereby contributing this knowledge to research on health challenges that often have broader, global implications. This program area includes a range of multidisciplinary fellowships for U.S. and LMIC scientists.

Budget Policy:

The FY 2023 President’s Budget request is \$34.1 million, an increase of \$4.8 million, or 16.4 percent, from the FY 2022 CR level.

Emerging Global Leader Award for LMIC scientists

Health research conducted abroad is increasingly relevant to U.S. populations suffering from the same conditions. Furthermore, health crises easily spread across borders, as demonstrated by the COVID-19 pandemic. Fogarty’s portfolio includes training activities for LMIC scientists, preparing them to serve on the frontlines of current and future global health crises.

The **Fogarty Emerging Global Leader Award** provides 3 to 5 years of research support and protected time to an early-career research scientist from a LMIC. Scientists from any health-related discipline may apply by proposing critically needed career development activities and a research project that is highly relevant to the health priorities of their home country. The program provides intensive, mentored research career development, increasing capabilities in research methodologies, analysis, research administrative skills, responsible conduct of research, scientific presentation, and manuscript and grant writing. The program not only builds scientific capacity, but it also helps foster long-lasting collaborations between U.S. scientists and grantees.

Simone Badal is an early-career investigator in the Fogarty program supported by the National Cancer Institute (NCI) and Fogarty. Her research at the University of West Indies in Jamaica is focused on prostate cancer in Black men. In this field, there are almost no cell models available derived from men of African ancestry, making it difficult to assess the efficacy of potential treatments in Black men. Dr. Badal and her team recently developed the first prostate cancer cell line to address this critical research gap. Support from the Emerging Global Leader Award helped her make this discovery, paving the way for personalized treatments for Black men with prostate cancer in the Caribbean and beyond.



Photo Courtesy of NCI

Research Management and Support (RMS): This program area includes several units within Fogarty.

The **Office of Administrative Management and International Services (OAMIS)** provides administrative, budgetary, logistical, and scientific support to review, award, and monitor research grants, training awards, and contracts. OAMIS also ensures regulatory compliance, supports all NIH international travel by issuing and tracking official government passports and international visas, reviews and approves of Notice of Foreign Travel requests, and then creates and coordinates official travel cables to U.S. Embassies.

The **Division of International Epidemiology and Population Studies (DIEPS)** is an in-house research program focusing on mathematical modeling and genomic analysis of infectious diseases, household air pollution implementation sciences, biosafety/biosecurity training, and data science analytical capacity building for LMIC partners.

The **Division of International Science Policy, Planning and Evaluation (DISPPE)** leads strategic planning and evaluation of Fogarty's programs, coordination of international science policy, and legislative affairs. DISPPE manages Fogarty's Center for Global Health Studies, a platform for international scientific dialogue and collaboration in global health research at the NIH.

The **Division of International Relations (DIR)** develops new partnerships between U.S. scientists, institutions, and counterparts abroad to advance research and training in the biomedical and behavioral sciences. The division works on behalf of Fogarty and the whole of NIH to identify opportunities for collaboration with foreign science funding agencies, the Department of State, U.S. technical agencies, and international organizations. DIR advises NIH on bilateral arrangements with foreign governments and non-governmental organizations and establishes and manages multi-lateral international arrangements that govern trans-NIH projects and programs.

Budget Policy:

The FY 2023 President's Budget request is \$21.6 million, an increase of \$1.3 million, or 6.4 percent, from the FY 2022 CR level.

Appropriations History

NATIONAL INSTITUTES OF HEALTH Fogarty International Center

Appropriations History

Fiscal Year	Budget Estimate to Congress	House Allowance	Senate Allowance	Appropriation
2014	\$72,864,000		\$72,380,000	\$67,577,000
Rescission				\$0
2015	\$67,776,000			\$67,786,000
Rescission				\$0
2016	\$69,505,000	\$68,627,000	\$70,944,000	\$70,447,000
Rescission				\$0
2017 ¹	\$70,117,000	\$72,141,000	\$73,026,000	\$72,213,000
Rescission				\$0
2018		\$73,353,000	\$74,380,000	\$75,733,000
Rescission				\$0
2019	\$70,084,000	\$76,637,000	\$78,150,000	\$78,109,000
Rescission				\$0
2020	\$67,235,000	\$84,926,000	\$82,338,000	\$80,760,000
Rescission				\$0
2021	\$73,531,000	\$86,455,000	\$83,460,000	\$84,044,000
Rescission				\$0
2022	\$96,322,000	\$96,842,000	\$96,268,000	\$84,044,000
Rescission				\$0
2023	\$95,801,000			

¹ Budget Estimate to Congress includes mandatory financing.

Authorizing Legislation

NATIONAL INSTITUTES OF HEALTH Fogarty International Center

Authorizing Legislation

	PHS Act/ Other Citation	U.S. Code Citation	2022 Amount Authorized	FY 2022 CR	2023 Amount Authorized	FY 2023 President's Budget
Research and Investigation	Section 301	42§241	Indefinite		Indefinite	
Fogarty International Center	Section 401(a)	42§281	Indefinite	\$84,044,000	Indefinite	\$95,801,000
Total, Budget Authority				\$84,044,000		\$95,801,000

Amounts Available for Obligation

**NATIONAL INSTITUTES OF HEALTH
Fogarty International Center**

Amounts Available for Obligation¹
(Dollars in Thousands)

Source of Funding	FY 2021 Final	FY 2022 CR	FY 2023 President's Budget
Appropriation	\$84,044	\$84,044	\$95,801
Secretary's Transfer	-\$252	\$0	\$0
OAR HIV/AIDS Transfers	-\$31	\$0	\$0
Subtotal, adjusted budget authority	\$83,761	\$84,044	\$95,801
Unobligated balance, start of year	\$0	\$0	\$0
Unobligated balance, end of year (carryover)	\$0	\$0	\$0
Subtotal, adjusted budget authority	\$83,761	\$84,044	\$95,801
Unobligated balance lapsing	-\$9	\$0	\$0
Total obligations	\$83,752	\$84,044	\$95,801

¹ Excludes the following amounts (in thousands) for reimbursable activities carried out by this account:
 FY 2021 - \$10,331 FY 2022 - \$10,641 FY 2023 - \$10,960

Budget Authority by Object Class

NATIONAL INSTITUTES OF HEALTH Fogarty International Center

Budget Authority by Object Class¹

(Dollars in Thousands)

	FY 2022 CR	FY 2023 President's Budget	FY 2023 +/- FY 2022 CR
Total compensable workyears:			
Full-time equivalent	61	61	0
Full-time equivalent of overtime and holiday hours	0	0	0
Average ES salary	\$0	\$0	\$0
Average GM/GS grade	13.0	13.0	0.0
Average GM/GS salary	\$120	\$120	\$0
Average salary, Commissioned Corps (42 U.S.C. 207)	\$0	\$0	\$0
Average salary of ungraded positions	\$103	\$104	\$0
OBJECT CLASSES	FY 2022 CR	FY 2023 President's Budget	FY 2023 +/- FY 2022
Personnel Compensation			
11.1 Full-Time Permanent	6,074	6,301	227
11.3 Other Than Full-Time Permanent	664	689	25
11.5 Other Personnel Compensation	231	239	9
11.7 Military Personnel	0	0	0
11.8 Special Personnel Services Payments	109	113	4
11.9 Subtotal Personnel Compensation	\$7,078	\$7,343	\$265
12.1 Civilian Personnel Benefits	2,919	3,019	100
12.2 Military Personnel Benefits	0	0	0
13.0 Benefits to Former Personnel	0	0	0
Subtotal Pay Costs	\$9,998	\$10,363	\$365
21.0 Travel & Transportation of Persons	0	0	0
22.0 Transportation of Things	4	4	0
23.1 Rental Payments to GSA	0	0	0
23.2 Rental Payments to Others	0	0	0
23.3 Communications, Utilities & Misc. Charges	18	18	0
24.0 Printing & Reproduction	0	0	0
25.1 Consulting Services	1,161	1,184	24
25.2 Other Services	3,802	4,135	334
25.3 Purchase of Goods and Services from Government Accounts	9,159	10,161	1,002
25.4 Operation & Maintenance of Facilities	0	0	0
25.5 R&D Contracts	488	499	11
25.6 Medical Care	0	0	0
25.7 Operation & Maintenance of Equipment	565	578	12
25.8 Subsistence & Support of Persons	0	0	0
25.0 Subtotal Other Contractual Services	\$15,175	\$16,557	\$1,382
26.0 Supplies & Materials	42	43	1
31.0 Equipment	399	408	9
32.0 Land and Structures	191	195	4
33.0 Investments & Loans	0	0	0
41.0 Grants, Subsidies & Contributions	58,218	68,213	9,996
42.0 Insurance Claims & Indemnities	0	0	0
43.0 Interest & Dividends	0	0	0
44.0 Refunds	0	0	0
Subtotal Non-Pay Costs	\$74,046	\$85,438	\$11,392
Total Budget Authority by Object Class	\$84,044	\$95,801	\$11,757

¹ Includes FTEs whose payroll obligations are supported by the NIH Common Fund.

Salaries and Expenses

**NATIONAL INSTITUTES OF HEALTH
Fogarty International Center**

Salaries and Expenses

(Dollars in Thousands)

OBJECT CLASSES	FY 2022 CR	FY 2023 President's Budget	FY 2023 +/- FY 2022
Personnel Compensation			
Full-Time Permanent (11.1)	\$6,074	\$6,301	\$227
Other Than Full-Time Permanent (11.3)	664	689	25
Other Personnel Compensation (11.5)	231	239	9
Military Personnel (11.7)	0	0	0
Special Personnel Services Payments (11.8)	109	113	4
Subtotal Personnel Compensation (11.9)	\$7,078	\$7,343	\$265
Civilian Personnel Benefits (12.1)	\$2,919	\$3,019	\$100
Military Personnel Benefits (12.2)	0	0	0
Benefits to Former Personnel (13.0)	0	0	0
Subtotal Pay Costs	\$9,998	\$10,363	\$365
Travel & Transportation of Persons (21.0)	\$0	\$0	\$0
Transportation of Things (22.0)	4	4	0
Rental Payments to Others (23.2)	0	0	0
Communications, Utilities & Misc. Charges (23.3)	18	18	0
Printing & Reproduction (24.0)	0	0	0
Other Contractual Services:			
Consultant Services (25.1)	1,161	1,184	24
Other Services (25.2)	3,802	4,135	334
Purchases from Government Accounts (25.3)	5,605	6,180	574
Operation & Maintenance of Facilities (25.4)	0	0	0
Operation & Maintenance of Equipment (25.7)	565	578	12
Subsistence & Support of Persons (25.8)	0	0	0
Subtotal Other Contractual Services	\$11,133	\$12,077	\$944
Supplies & Materials (26.0)	\$42	\$43	\$1
Subtotal Non-Pay Costs	\$11,197	\$12,142	\$946
Total Administrative Costs	\$21,194	\$22,505	\$1,310

Detail of Full-Time Equivalent (FTE)

NATIONAL INSTITUTES OF HEALTH Fogarty International Center

Detail of Full-Time Equivalent Employment (FTE)

OFFICE/DIVISION	FY 2021 Final			FY 2022 CR			FY 2023 President's Budget		
	Civilian	Military	Total	Civilian	Military	Total	Civilian	Military	Total
Common Fund									
Direct:	-	-	-	-	-	-	-	-	-
Reimbursable:	2	-	2	2	-	2	2	-	2
Total:	2	-	2	2	-	2	2	-	2
Division of International Epidemiology and Population Studies									
Direct:	3	-	3	4	-	4	4	-	4
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	3	-	3	4	-	4	4	-	4
Division of International Relations									
Direct:	7	-	7	7	-	7	7	-	7
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	7	-	7	7	-	7	7	-	7
Division of International Science Policy, Planning and Evaluation									
Direct:	7	-	7	7	-	7	7	-	7
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	7	-	7	7	-	7	7	-	7
Division of International Training and Research									
Direct:	10	-	10	11	-	11	11	-	11
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	10	-	10	11	-	11	11	-	11
Office of Administrative Management									
Direct:	17	-	17	17	-	17	17	-	17
Reimbursable:	-	-	-	-	-	-	-	-	-
Office of Administrative Management									
Reimbursable:	-	-	-	-	-	-	-	-	-
Office of Administrative Management									
Total:	17	-	17	17	-	17	17	-	17
Office of the Director									
Direct:	12	-	12	13	-	13	13	-	13
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	12	-	12	13	-	13	13	-	13
Total	58	-	58	61	-	61	61	-	61
Includes FTEs whose payroll obligations are supported by the NIH Common Fund.									
FTEs supported by funds from Cooperative Research and Development Agreements.	0	0	0	0	0	0	0	0	0
FISCAL YEAR	Average GS Grade								
2019	12.0								
2020	13.0								
2021	13.0								
2022	13.0								
2023	13.0								

Detail of Positions

NATIONAL INSTITUTES OF HEALTH Fogarty International Center

Detail of Positions¹

GRADE	FY 2021 Final	FY 2022 CR	FY 2023 President's Budget
Total, ES Positions	0	0	0
Total, ES Salary	0	0	0
General Schedule			
GM/GS-15	8	8	8
GM/GS-14	18	20	20
GM/GS-13	12	13	13
GS-12	6	6	6
GS-11	2	2	2
GS-10	0	0	0
GS-9	3	3	3
GS-8	2	2	2
GS-7	2	2	2
GS-6	0	0	0
GS-5	0	0	0
GS-4	0	0	0
GS-3	1	1	1
GS-2	0	0	0
GS-1	0	0	0
Subtotal	54	57	57
Commissioned Corps (42 U.S.C. 207)			
Assistant Surgeon General	0	0	0
Director Grade	0	0	0
Senior Grade	0	0	0
Full Grade	0	0	0
Senior Assistant Grade	0	0	0
Assistant Grade	0	0	0
Subtotal	0	0	0
Ungraded	13	13	13
Total permanent positions	54	57	57
Total positions, end of year	67	70	70
Total full-time equivalent (FTE) employment, end of year	58	61	61
Average ES salary	0	0	0
Average GM/GS grade	13.0	13.0	13.0
Average GM/GS salary	127,785	131,363	131,894

¹ Includes FTEs whose payroll obligations are supported by the NIH Common Fund.