



#### **Fogarty International Center**

#### Global Health Grant Trends: Perspective from the NIH Fogarty International Center

Global Health Tuesday Webinar February 20, 2024

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NIH Acting Associate Director for International Research



#### NIH: Steward of Medical and Behavioral Research



"Science in pursuit of **fundamental knowledge** about the nature and behavior of living systems

and the **application** of that knowledge to extend healthy life and reduce illness and disability."

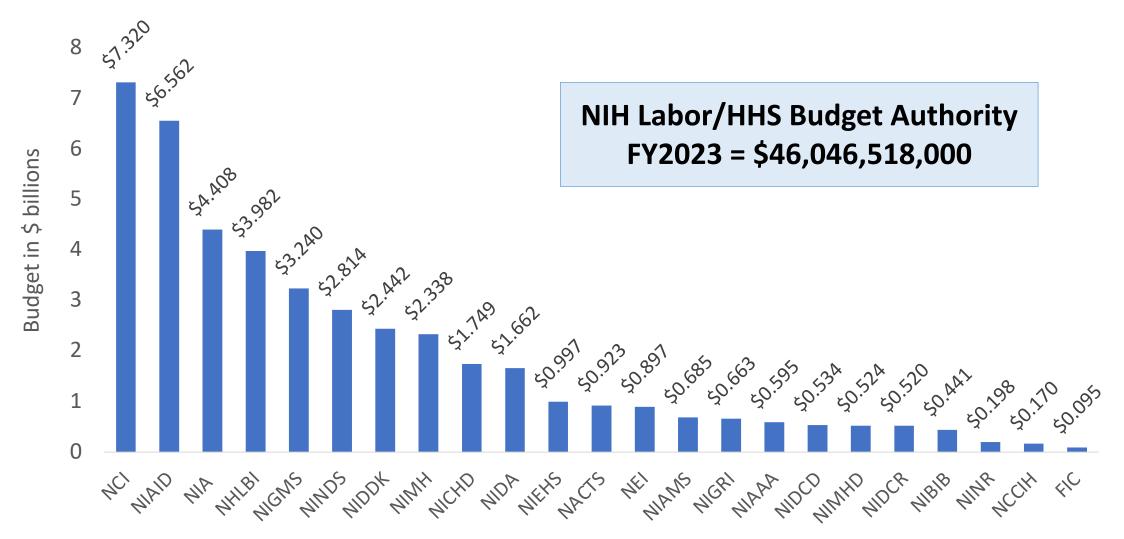






### NIH Budget by Institute and Center – FY 2023





#### Why pursue global health research?

- Unique populations
  - Disease presentations
  - Genetics
- Unusual exposures, environment
  - Infections, diet, cultural context
- Unique interventions
  - Frugal/novel technologies, mobile health
- Insights & expertise of a diverse set of investigators
- Large, potentially treatment-naïve, patient populations
- Alternative health systems
- Increased early-career interest in global health

New tools needed to reach global health goals!



Image by DALL-E

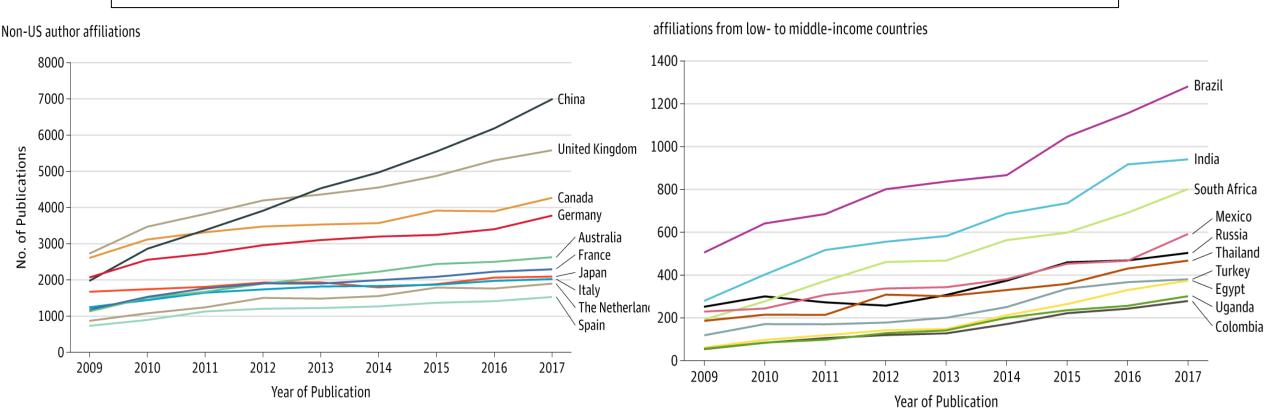


Original Investigation | Global Health

# Coauthor Country Affiliations in International Collaborative Research Funded by the US National Institutes of Health, 2009 to 2017 JAMA Open.

Joshua C. Grubbs, BA; Roger I. Glass, MD, PhD; Peter H. Kilmarx, MD

- 35% of all NIH-funded publications in 2017 had a non-U.S.-affiliated co-author
- Those with both U.S.- and non-U.S.-affiliated coauthors had greatest mean citation impact score

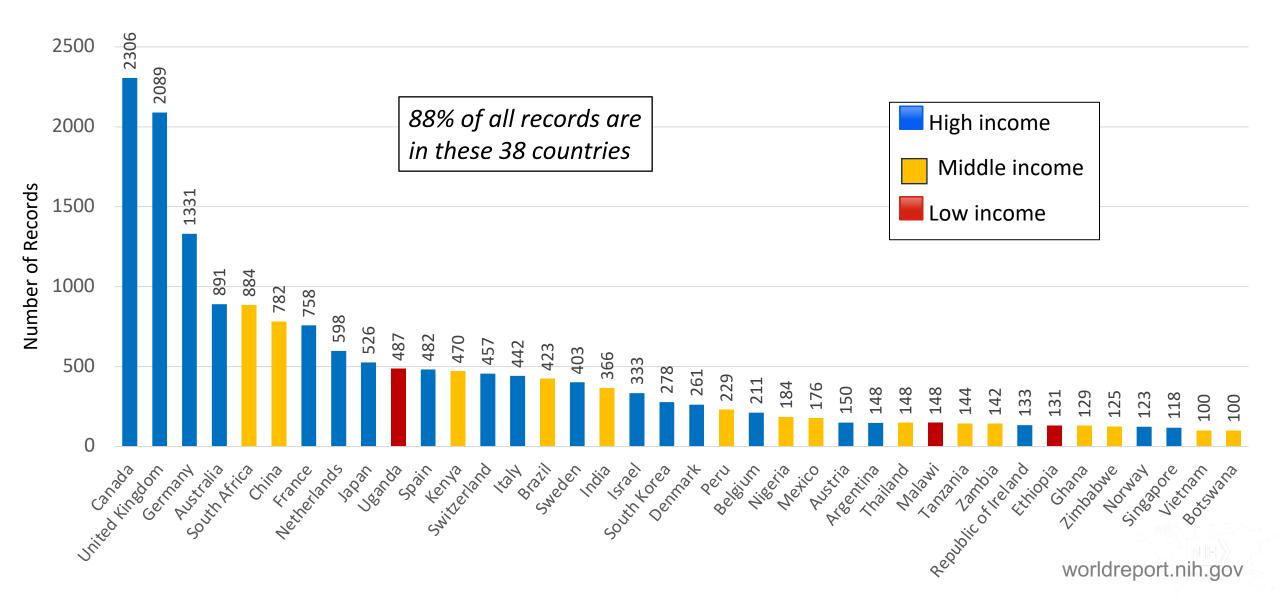




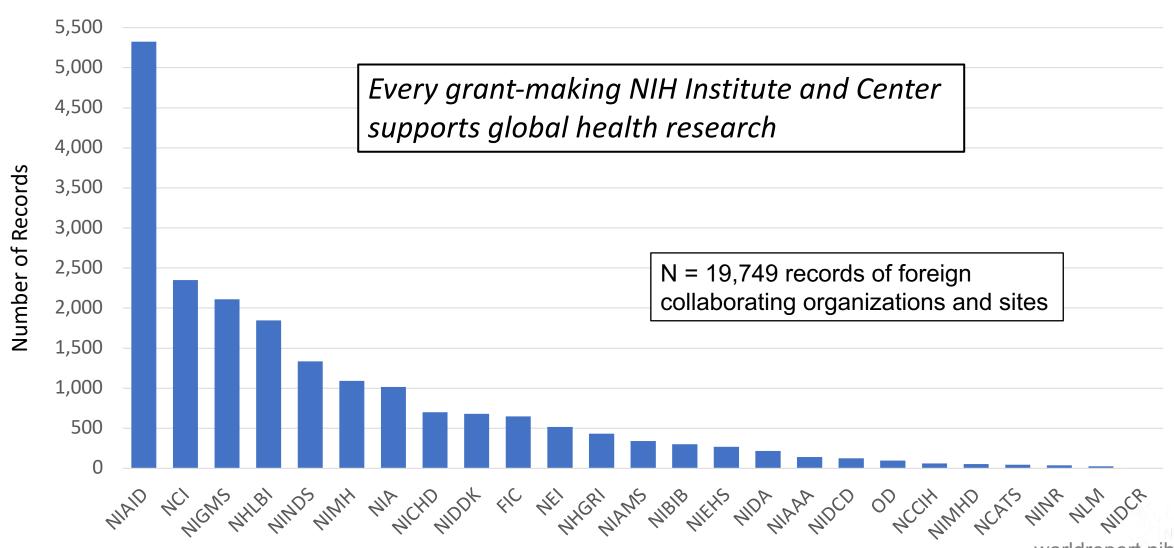
- Maps directly-funded grants and indirectly-funded collaborations
- 14 funding agencies and growing
- Maps 15,000+ research institutions in 195 countries
- 500,000+ program records

- 197 records for "One Health"
- 2,285 for "malaria"
- 53 records for "cysticercosis"
- 51 records for "bats"

### Number of foreign NIH-funded records in World RePORT by Country in Countries with 100+ Records – FY2022



#### Number of foreign NIH-funded records in World RePORT by NIH ICO – FY2022



### The Mission of the Fogarty International Center

- To support & advance the NIH mission thru global partnerships
- To address global health challenges through innovative & collaborative programs for research & training

#### "Advancing Science for Global Health"



"Expanding research is one, perhaps the one, truly global effort in which all nations can and will join as real partners." Rhode Island Congressman John E. Fogarty



# Building sustainable global health research capacity at home and abroad

- 7,000+ scientists worldwide have received significant research training
- Support for 500+ research and training projects, involving collaborations with 100+ academic institutions
- Multidisciplinary programs focus on:
  - Infectious diseases, One Health
  - Chronic conditions
  - Informatics, mHealth, bioethics
  - Implementation science
  - Brain disorders, mental health
  - Tobacco cessation
  - Climate change, environmental health







## Select \*Individual Training\* Opportunities from Fogarty International Center

- Global Health Fellows and Scholars (LAUNCH) students and postdoctoral fellows from U.S. or LMICs apply to university consortia (7) for LMIC placement for 12 months
- International Research Scientist Development Award up to 5 years mentored support for postdoctoral *U.S. research scientists* (K01)
- <u>Emerging Global Leader Award</u> up to 5 years mentored support and protected research time for postdoctoral *LMIC* research scientists (K43)



#### Grantee Spotlight: Dr. Hector Hugo Garcia, MD, PhD



- Fogarty Global Infectious Disease Research Training (GID) – D71, D43
- "Training in Infectious Diseases in Peru -Time for Capacity Strengthening in Clinical Research"
- Principal Institution: Universidad Peruana Cayetano Heredia, Peru
- Collaborators: Johns Hopkins School of Public Health
- Trained 90+ Peruvian scientists, 25+ master's degrees, 5+ PhDs
- Attracted additional funding from NIAID and BMGF

#### Scientists work to eliminate disease carried by pigs

March / April 2015 | Volume 14, Issue 2

■ Full March / April 2015 Global Health Matters newsletter [PDF <1M]

Pigs are an important source of nutrition in many parts of the developing world but can spread a neurological disease that poses serious human health hazards. Cysticercosis is a preventable parasitic infection of the central nervous system caused by the pork tapeworm, *Taenia solium*. A person can get the disease through unhygienic practices, by consuming eggs that have been excreted by someone with an intestinal tapeworm. The larval cysts can infect brain, muscle or other tissue and are a major cause of adult-onset seizures in low-income countries. People with the disease may also experience chronic headaches, depression, strokes and other problems.

Cysticercosis mainly affects rural farming communities, where poor families allow pigs to roam free to search for food that includes feces. "That's the reality in many little towns around the world," according to Dr. Hector "Hugo" Garcia, a Fogarty grantee who has spent his career studying cysticercosis. Garcia, a microbiology professor at both the Universidad Cayetano Heredia in Lima, Peru and Johns Hopkins University in Baltimore, has been leading a decade-long effort to eradicate the disease in Peru's northern coastal region of Tumbes. He is also a researcher at the National Institute of Neurology in Lima.

The research discoveries he and his team have made form the basis for the established standard of care for neurocysticercosis. Their complex, multidisciplinary studies require an understanding of epidemiology, genomics, imaging,





Photos by Miguel Marzal/Universidad Cayetano Heredia

#### Investigator Spotlight – Dr. Sikhulile Moyo



- Fogarty Fellow: 2017-2018
  - Local organization: Stellenbosch University
  - U.S. organization: Harvard T.H. Chan School of Public Health
  - Research focus: Evolutionary trends and dynamics of HIV-1C in Botswana
- Emerging Global Leader (K43): 2022-27
  - Research focus: Viral diversity an innovative biomarker for refining estimates of HIV incidence
- First to sequence and report Omicron variant of SARS-CoV-2



#### Summary

- Strong support from NIH for diverse international research partnerships
- Strong support from Fogarty for research training and capacity building

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