ALL LIVES HAVE EQUAL VALUE

An introduction to the Bill & Melinda Gates Foundation

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Integrated Development, Global Health

BILL & MELINDA GATES foundation

4 November 2021


WE ARE IMPATIENT
OPTIMISTS WORKING
TO REDUCE
INEQUITY
AROUND THE WORLD

FOCUSING ON THE AREAS OF **GREATEST NEED**


TAKING
RISKS
THAT OTHERS
CAN'T OR WON'T

WHAT WE DO

The foundation has four missions that help us achieve our vision of a world where every person has the opportunity to live a healthy, productive life:

Ensure more children and young people survive and thrive

Empower the poorest, especially women and girls, to transform their lives

Combat infectious diseases that particularly affect the poorest

Inspire people to take action to change the world

HOW WE DO WHAT WE DO

Grantees and partners are at the center of our work

Together, we take risks, push for new solutions and harness the power of science and technology

This work requires support from governments, the private sector, communities, nonprofits and individuals

WHAT KINDS OF INVESTMENTS DO WE MAKE?

We listen and learn so we can identify pressing problems that get too little attention. Then we consider whether we can make a meaningful difference with our investments.

We make 3 major kinds of investments:

1. **Grants**
   Funding for projects, products, and infrastructure
2. **Direct Charitable Expenses**
   Support for activities that benefit the public or charitable sector
3. **Program-Related Investments**
   Tools to stimulate private-sector innovations, encourage market-driven efficiencies, and attract external capital to priority initiatives

Our program-related investments are made in the form of:

TAKING RISKS USING GRANTS: CAPITALIZING ON UNEXPECTED OUTCOMES

- Several studies highlighted the secondary benefits of azithromycin MDA for trachoma
  - 1995-1999. Bailey, Mabey et al: malaria, respiratory infections
  - 2002. Fry et al: respiratory infections, diarrhea, impetigo
  - 2009, 2011. Porco, Keenan et al: mortality
  - 2011-2013. West, Coles et al: respiratory infections, diarrhea

- The TANA Study (Porco et al. 2009 JAMA – effect size 0.51 (0.29-0.90; P=.02) specifically formed the basis of MORDOR.
  - 1-5yo effect size: 0.47 (0.26-0.84; P=.01)
  - Main challenges:
    - Relatively short study length of one year, few deaths
    - Ages 1-9 (~12,000 int and ~5,000 ctrl)
    - Directionality of difference between and quarterly administration
    - Largest effect between in the 2nd to 4th year of life

	Mortality (% deaths/year)		
Age at initial census	Treated (N=36)	Control (N=12)	Odds Ratio
1 year	1.5%	1.8%	0.8
2 years	0.3%	1.9%	0.2
3 years	0.4%	1.0%	0.4
4 years	0.4%	0.7%	0.6

MORDOR TRIAL: 3 STUDY SITES

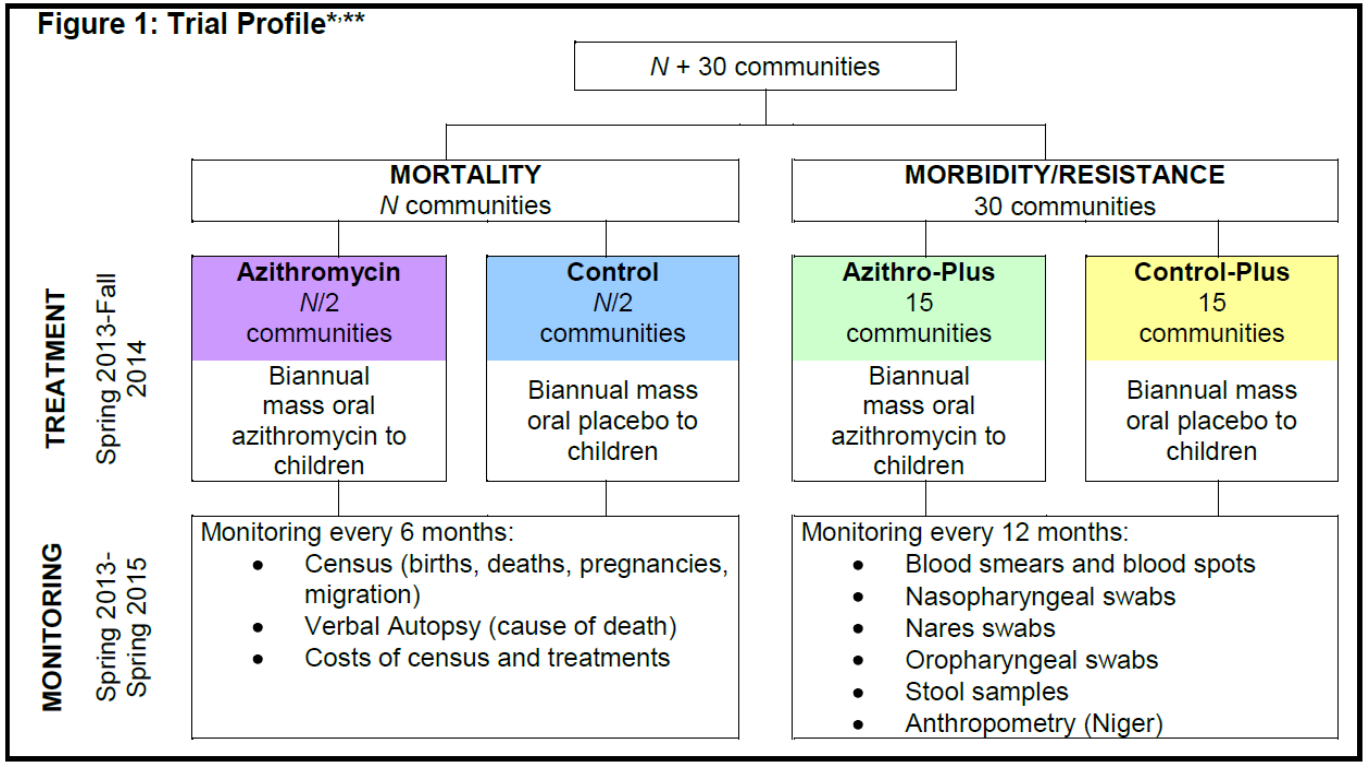
Niger site led by overall PI team at UCSF
- Loga and Boboye Districts
- Ingoing assumption of 215 U5MR, 2015 national est 96
- 67% DTP3 and 64% PCV3 coverage (introduced 2014)

Tanzania site led by JHU
- Kilosa District
- Ingoing assumption of 108 U5MR, 2015 national est 49
- 97% DTP3 and 96% PCV3 coverage (introduced 2012)

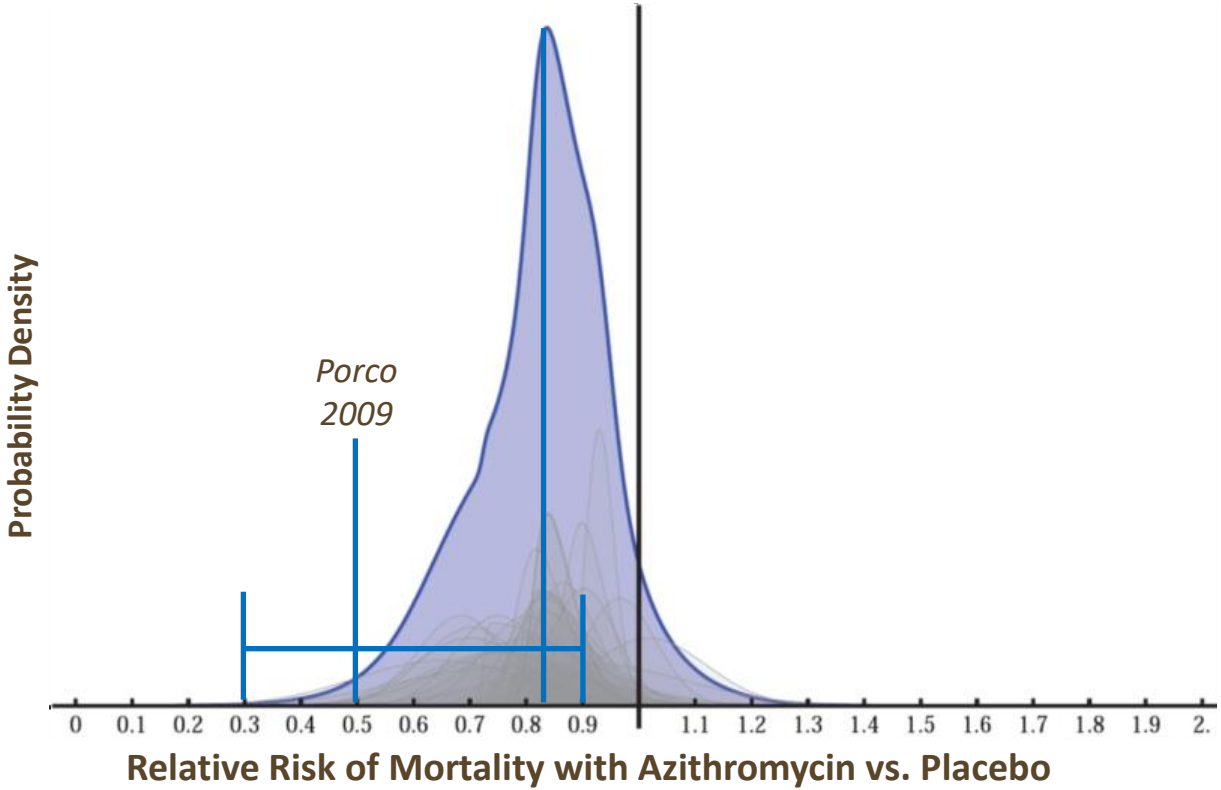
Malawi site led by LSHTM
- Mangochi District
- Ingoing assumption of 135 U5MR, 2015 national est 64
- 84% DTP3 and 83% PCV3 coverage (introduced 2012)

STUDY POPULATION AND RANDOMIZATION

- Each randomization unit (community) with 200-1000 population
- 600-2000 randomization units per country



BEFORE THE STUDY STARTED, HERE IS WHAT EXPERTS (N=28) PREDICTED FOR THE TRIAL OUTCOME



IMPACT OF TAKING THE RISK

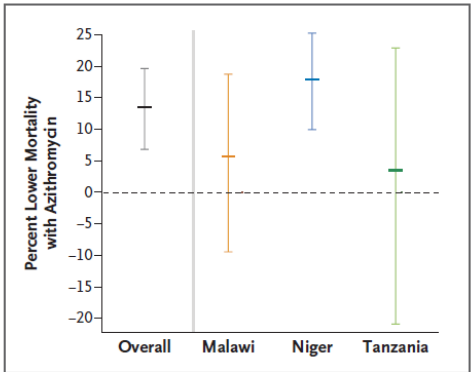


Figure 2. Efficacy of Azithromycin Overall and by Country.
Shown is the estimated percent lower mortality with twice-yearly distributions of oral azithromycin than with placebo. I bars indicate 95% confidence intervals.

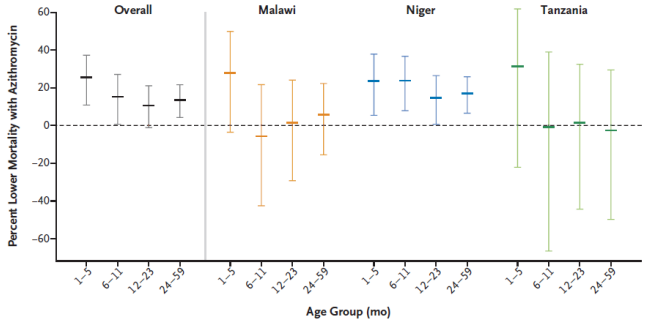


Figure 3. Efficacy of Azithromycin by Age Group.
Shown is the estimated percent lower mortality with twice-yearly distributions of oral azithromycin than with placebo, according to age group at the time of treatment. Younger children had the greatest benefit in all three countries. I bars indicate 95% confidence intervals.

N Engl J Med 2018;378:1583-92.
DOI: 10.1056/NEJMoa1715474

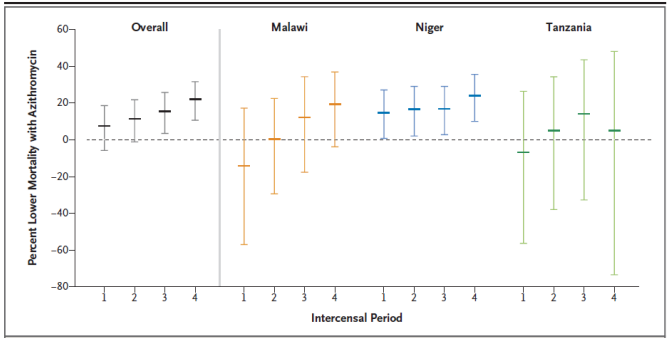
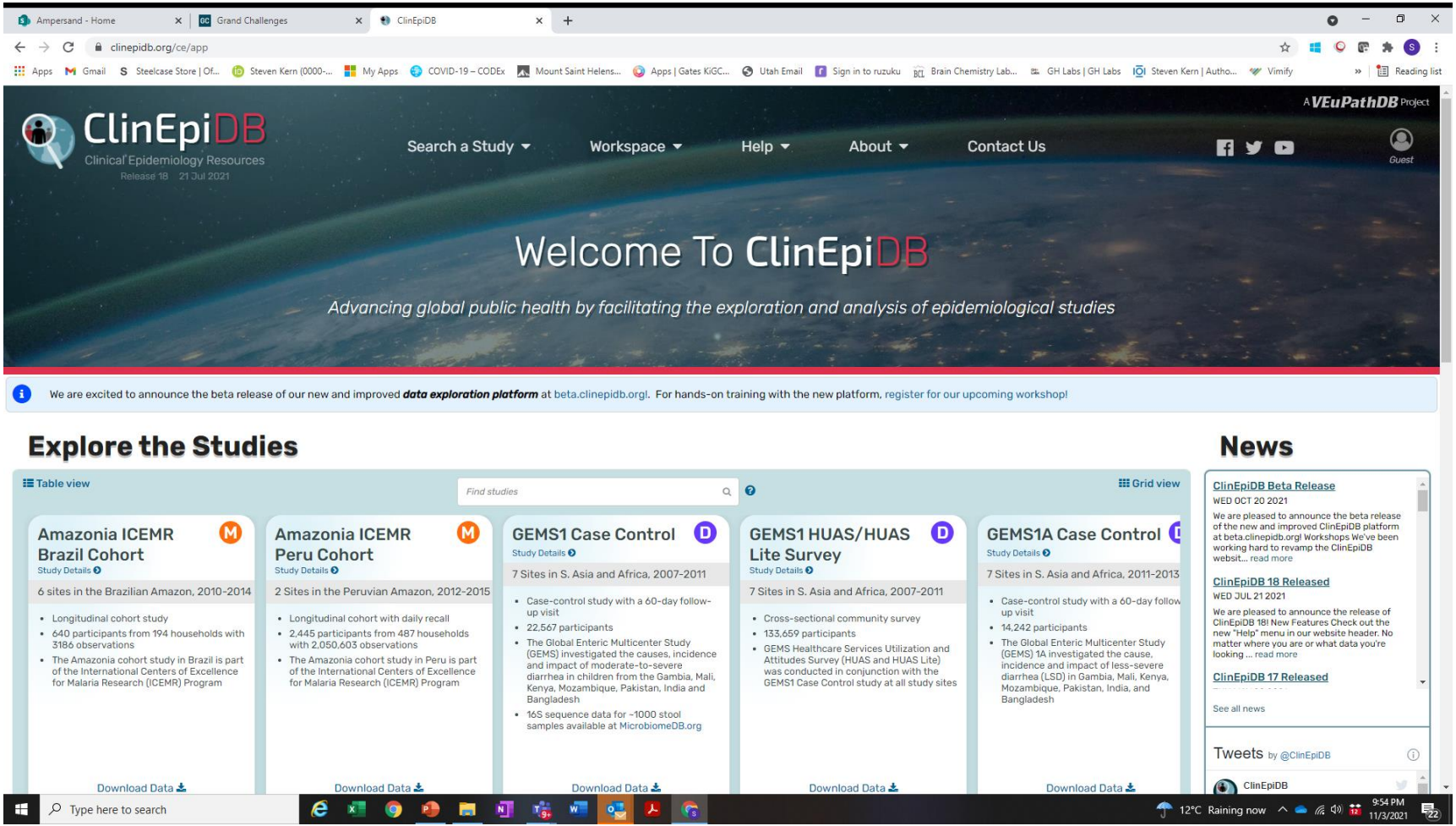


Figure 4. Efficacy of Azithromycin over Time.
Shown is the estimated percent lower mortality with twice-yearly distributions of oral azithromycin than with placebo over each of the four 6-month time periods. The aggregate efficacy of azithromycin as compared with placebo increased in each progressive time period. I bars indicate 95% confidence intervals.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Advancing global public health by facilitating the exploration and analysis of epidemiological studies
We are excited to announce the beta release of our new and improved data exploration platform at beta.clinepidb.org!. For hands-on training with the new platform, register for our upcoming workshop!
Explore the Studies
Table view
Find studies
Grid view
Amazonia ICEMR Brazil Cohort
Study Details
6 sites in the Brazilian Amazon, 2010-2014
Longitudinal cohort study
640 participants from 194 households with 3186 observations
The Amazonia cohort study in Brazil is part of the International Centers of Excellence for Malaria Research (ICEMR) Program
Download Data
Amazonia ICEMR Peru Cohort
Study Details
2 Sites in the Peruvian Amazon, 2012-2015
Longitudinal cohort with daily recall
2,445 participants from 487 households with 2,050,603 observations
The Amazonia cohort study in Peru is part of the International Centers of Excellence for Malaria Research (ICEMR) Program
Download Data
GEMS1 Case Control
Study Details
7 Sites in S. Asia and Africa, 2007-2011
Case-control study with a 60-day follow-up visit
22,567 participants
The Global Enteric Multicenter Study (GEMS) investigated the causes, incidence and impact of moderate-to-severe diarrhea in children from the Gambia, Mali, Kenya, Mozambique, Pakistan, India and Bangladesh
16S sequence data for ~1000 stool samples available at MicrobiomeDB.org
Download Data
GEMS1 HUAS/HUAS Lite Survey
Study Details
7 Sites in S. Asia and Africa, 2007-2011
Cross-sectional community survey
133,659 participants
GEMS Healthcare Services Utilization and Attitudes Survey (HUAS and HUAS Lite) was conducted in conjunction with the GEMS1 Case Control study at all study sites
Download Data
GEMS1A Case Control
Study Details
7 Sites in S. Asia and Africa, 2011-2013
Case-control study with a 60-day follow
14,242 participants
The Global Enteric Multicenter Study (GEMS) 1A investigated the cause, incidence and impact of less-severe diarrhea (LSD) in Gambia, Mali, Kenya, Mozambique, Pakistan, India, and Bangladesh
Download Data
News
ClinEpiDB Beta Release
WED OCT 20 2021
We are pleased to announce the beta release of the new and improved ClinEpiDB platform at beta.clinepidb.org! Workshops We've been working hard to revamp the ClinEpiDB websit... read more
ClinEpiDB 18 Released
WED JUL 21 2021
We are pleased to announce the release of ClinEpiDB 18! New Features Check out the new "Help" menu in our website header. No matter where you are or what data you're looking ... read more
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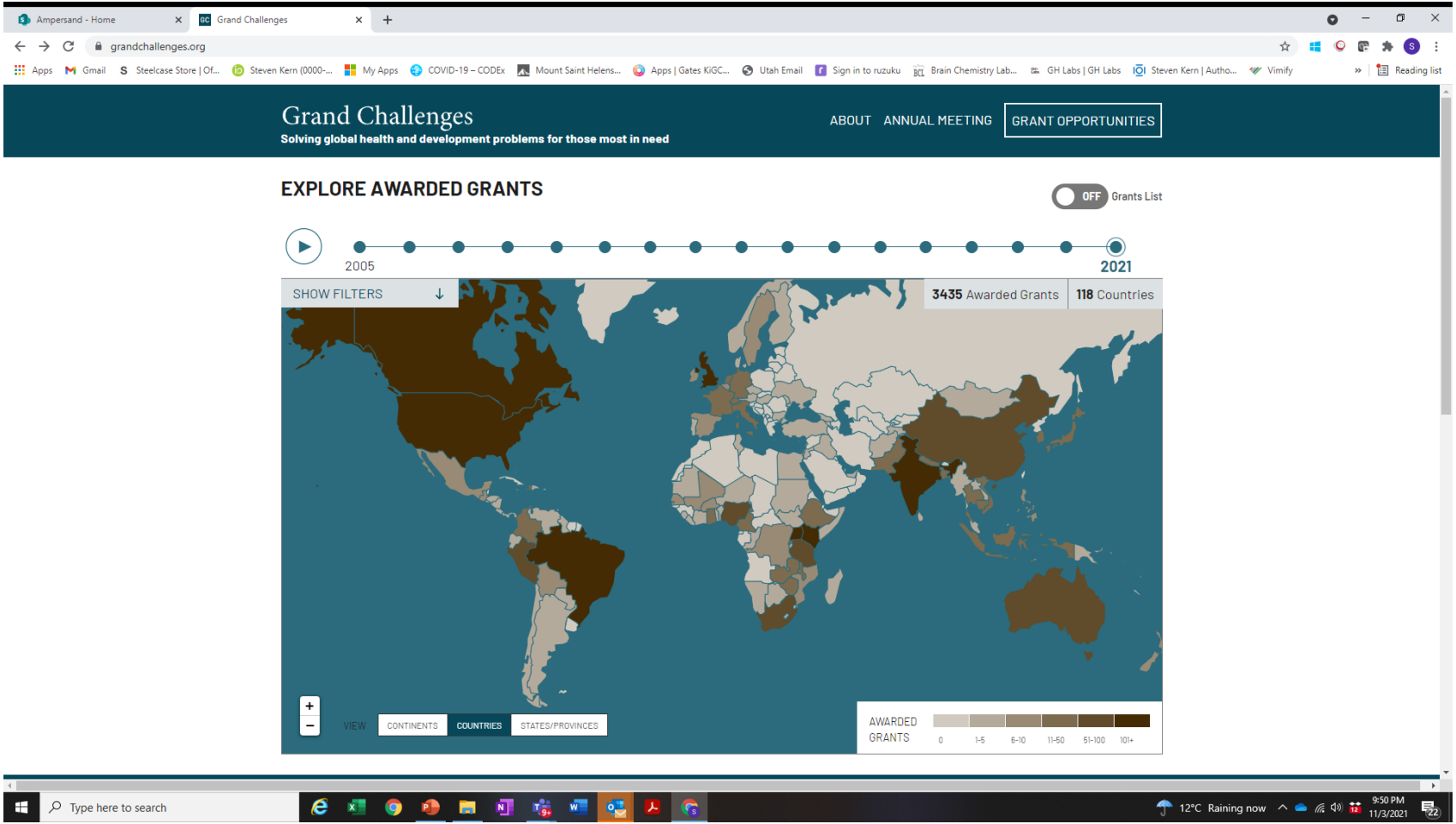
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ANNUAL MEETING
GRANT OPPORTUNITIES
EXPLORE AWARDED GRANTS
OFF
Grants List
2005
2021
SHOW FILTERS
3435 Awarded Grants
118 Countries
VIEW
CONTINENTS
COUNTRIES
STATES/PROVINCES
AWARDED GRANTS
0
1-5
6-10
11-50
51-100
101+
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11/3/2021

Innovations for Improving the Impact of Health Campaigns (Round 25)

THE OPPORTUNITY

Countries rely on both routine health systems and campaign-based delivery to extend the reach of important health products. Many programs, including immunization, neglected tropical diseases, nutrition, malaria, and polio regularly rely on such campaigns to support accelerated disease control, make progress towards elimination/eradication goals, and achieve large scale health impact.

Campaign-based delivery of health interventions is typically time-limited, intermittent, and implemented at-scale. All countries utilize health campaigns in some capacity - such as for outbreak response - and campaigns have been shown to be an effective way of driving health impact. For example, Vitamin A supplementation is estimated to reduce risk of all-cause child mortality by 12% [1] Measles campaigns are estimated to reach 66%

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INITIATIVE
Grand Challenges Explorations

DATE OPEN
Feb 26, 2020, 11:00 am PST

DATE CLOSED
Apr 22, 2020, 11:30 am PDT

AWARDED GRANTS
Using Interactive High-Resolution Geospatial Mapping to Inform Health Campaign Targeting in Mozambique
Adding Human Movement Models to Geospatial Planning Tools
A Digital Gateway for Evidence-Based Planning of Health Campaigns
Using Behavioral Insights to Improve the Efficiency and Reach of Mass Drug Administration (MDA) Campaign Outreach Teams in a Lower-Middle Income Context

SEE FULL LIST →

HISTORY OF THE CHALLENGE
Health Campaigns - Rules and Guidelines
Health Campaigns RFP - English
Health Campaigns RFP - Chinese
Health Campaigns RFP - French
Health Campaigns RFP - Korean
Health Campaigns RFP - Portuguese
Health Campaigns RFP - Spanish
Tips for Applicants: English; Chinese; French; Korean;

THE CHALLENGE

We are seeking innovative solutions that accelerate the improvement of coverage, reach, efficiency, and effectiveness of mass health campaigns that deliver health products or services in low-and middle-income countries, specifically through improved planning/microplanning and focus on unreached populations.

Specifically, we are looking for innovations in approaches, practices, or tools that dramatically improve the **planning/microplanning** that will lead to improved effectiveness of campaigns. We are also looking for **innovative tools and technologies to more effectively identify and reach the most vulnerable populations** when countries are designing and implementing mass campaigns.

In order to contribute to the development and spread of campaign "best practices", a solution should be applicable to campaigns beyond the context in which it is originally tested (e.g., applicable in *multiple* lower- to middle-incomes countries and/or applicable *across multiple types of health campaigns* such as immunization, NTDs, malaria, or nutrition).

We are especially interested in novel approaches that draw on innovation from large-scale delivery models outside of the health sector, which may include interventions used in the private sector.

Successful proposals should consider the following:

Planning and microplanning: This includes the planning processes - led by governments and often supported by partners - at the national, sub-national, facility, or community levels. Overall planning supports the mobilization of information and resources needed to conduct the campaign, and microplanning specifically addresses the detailed, delivery-level planning required to reach intended populations with the health intervention. Innovations might include/consider:

- Interactive or adaptive microplans that better incorporate past or real-time data (e.g. based on prior campaign performance or operational monitoring data) to guide planning and implementation.
- Increased automation of microplans (e.g. updating, adapting microplans for other platforms).
- Modeling and analytics to test, identify, and recommend more effective implementation approaches (e.g. modeling to identify optimal location of campaign fixed sites and outreach posts in order to improve community access).
- Novel or nontraditional information or data sources to improve the accuracy of planning (e.g. geospatial data to improve population estimation or location and more accurately plan for and target campaign delivery).
- Technologies for developing and using community maps or populations that can help campaigns to better reach their intended age groups or sub-populations.
- Novel approaches to understanding the effectiveness of campaign planning and implementation while campaigns are ongoing or during post-campaign evaluations.

Identifying and reaching high-risk or unreached populations: This includes innovative approaches to better understand, identify, and reach un/underserved communities and unreached or "zero-dose" children. This wil likely include novel tools, technologies, and methodologies to more effectively identify and reach high-risk or unreached populations at a subnational level (e.g. approaches to leverage data, maps, or other information to support campaign planning, appropriate use of targeted or sub-national campaigns, and post-campaign assessments).

Criteria for success include solutions that:

- Are transformative, novel, or innovative. These interventions will significantly change the way in which campaigns are planned, conducted, or evaluated by proposing new ways of working, leveraging lessons from other sectors, or increasing transparency and effectiveness.
- Could be used by various health campaigns beyond the campaign in which the innovation is originally conceptualized or tested, such as for immunization (measles, yellow fever, meningitis, etc.), neglected tropical diseases (trachoma, onchocerciasis, schistosomiasis etc.), nutrition (vitamin A, deworming), malaria (bed net distribution, seasonal malaria chemoprophylaxis), and polio.
- Could be used in various low- and middle-income countries beyond the country in which the innovation is originally conceptualized or tested.
- Can be designed, tested, and scaled as a "best practice".
- Can be applied in low- and middle-income countries.
- Are cost effective.

We will not consider funding for:

- Proposals that are **not innovative**; proposals that only offer **incremental / non-transformative** improvements (e.g., use of mobile data collection instead of paper-based collection) with no clear link to dramatically improved campaign effectiveness; proposals that repeat **conventional** approaches without novel application.
- Proposals addressing one specific health need/campaign platform, rather than an innovation that would improve health campaigns in general.
- Proposals focused on educational campaigns or are **not specifically focused on campaign-based delivery of health goods and services**. Interventions that are better classified as technical assistance or campaign implementation (e.g., focused on the delivery or improvement of a single campaign).
- Proposals focused on improving access to existing tools or technologies or seeking to apply existing tools in ways that do not transform the current practices used for campaign-based delivery.
- Proposals where the solution is to leverage one health campaign for co-delivery of other goods or services (e.g., using a NTD campaign to deliver vaccine reminders).
- Approaches not directly relevant to **low-income settings** and that do not clearly consider the local context of available financial systems and infrastructure for resource poor health settings (e.g., using expensive devices; require government issued IDs where few people have them; require hospital deliveries in settings where this is not the norm).
- Secondary analysis of existing studies or systematic reviews unless there is a clear way in which the analysis can be scaled and will fundamentally change practice.
- Approaches that circumvent the **public sector** completely.
- Approaches which would require a donor's long-term financial support to **sustain**.
- Approaches that are clinic based.

TAKING RISKS ON PRIVATE PHILANTHROPY:

- Hyper focused on “strategy” so you need to align with that focus
- Don’t always fund ideas via RFPs. (Directed Funding, Collaborative Grants, Consortium Programs)
- Staying connected in their channels to find out what’s in scope.
- Shorter times for submission, shorter duration of awards
- Partner and Investment are purposefully chosen words
- It’s not always grants


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WORLD WHERE
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PERSON
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