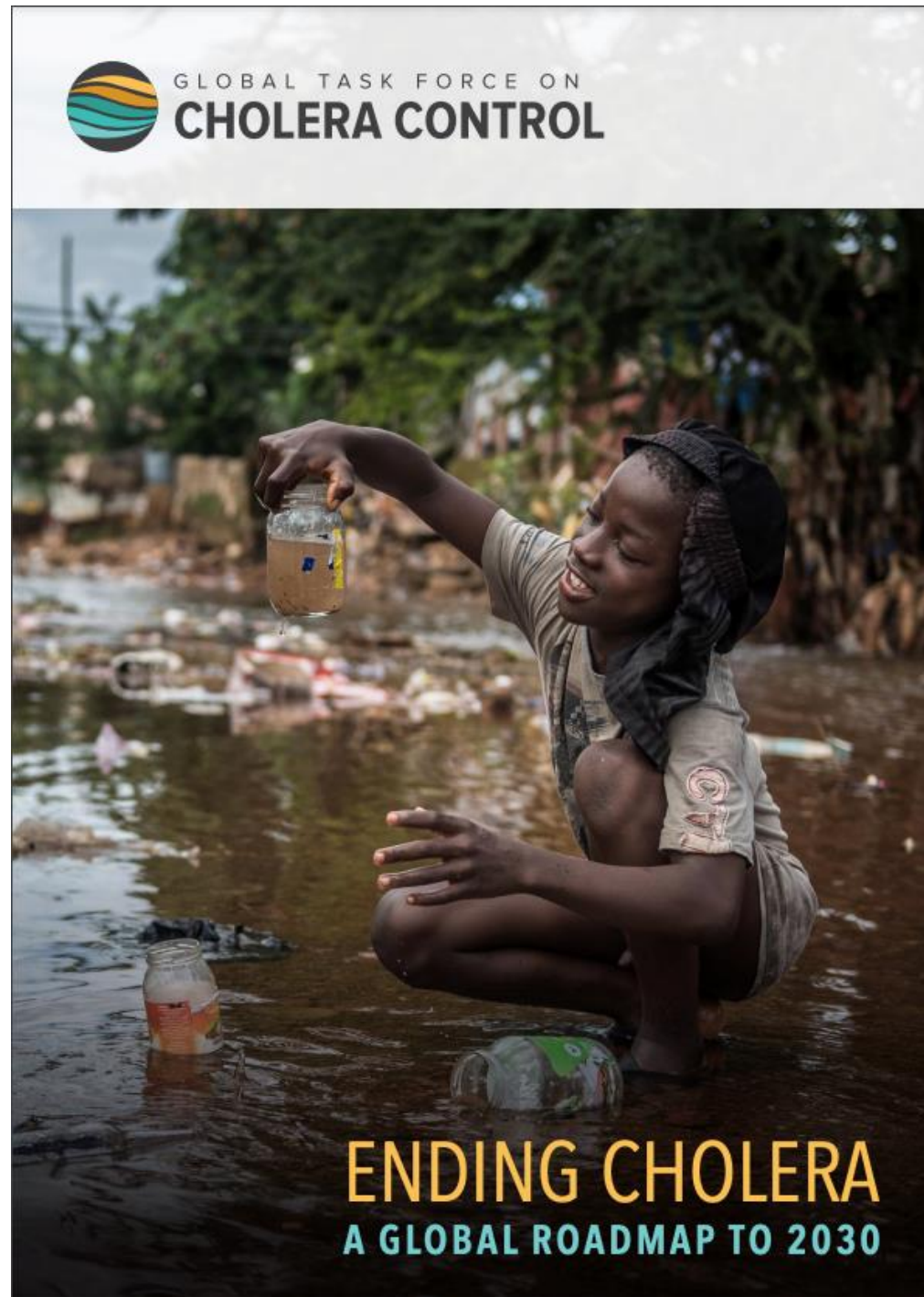# Cholera Roadmap Research Agenda & Research Tracker

10th Annual GTFCC Meeting
Helen Groves, Wellcome Trust
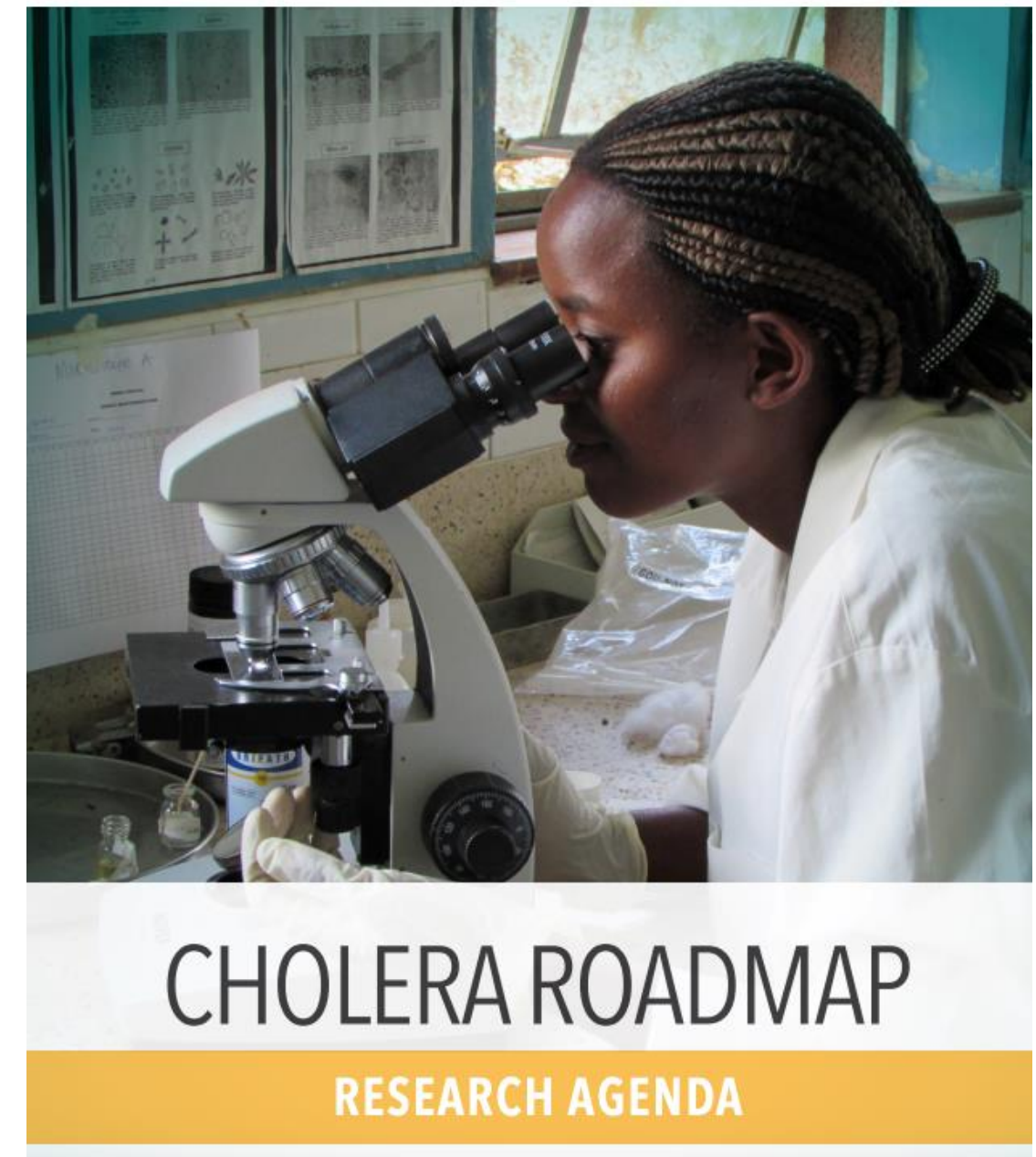
The value of research for cholera control

Research can help us accelerate progress on cholera control: faster, better, at lower cost

What research is most needed to help countries meet the goals of the Ending Cholera Roadmap to 2030?

Cholera Research Priorities

How | Where | When to use existing tools and strategies for cholera control most effectively

Case Management

Rank Within Pillar		Research Question
1		What are the barriers and enablers for integrating cholera treatment into community case management by community health workers?
2		What effect does treatment with antibiotics have on cholera transmission?
3		What is the optimal treatment schedule for antibiotic prophylaxis given to household contacts of cholera patients and does this have an effect on the magnitude, transmission and secondary attack rate of cholera outbreaks?
4		What are the common cholera treatment complications in vulnerable populations (for example: pregnant women, the elderly, those with severe acute malnutrition)?
5		Would rehydration solution for malnutrition (ReSoMal[f]) formulated with higher sodium, or standard oral rehydration solution containing high potassium, result in lower mortality or morbidity, compared to the standard WHO rehydration solution, in children with severe acute malnutrition?

Epidemiology and Laboratory (Surveillance)

Rank Within Pillar		Research Question
1		What is the impact of early diagnosis of cholera using a rapid diagnostic test at the point of care in a community setting compared with testing only in health facilities?
2		How can we improve and fine-tune hotspot definition and identification at a district and sub-district level?
3		What are the optimal designs for surveillance systems (e.g., indicator-based, event-based, community-based, environmental, sentinel site surveillance) to monitor progress of the Cholera Roadmap?
4		What are the optimal surveillance tools (e.g., laboratory methods, case definitions, etc.) to monitor progress of the Cholera Roadmap?
5		How can combined epidemiological and genomic analysis of *V. cholerae* be used to better understand transmission dynamics and inform epidemiological models?

Top 5 per pillar

Oral Cholera Vaccine

Rank Within Pillar		Research Question
1		What are the optimal oral cholera vaccine schedules (number of doses and dosing intervals) to enhance immune response and clinical effectiveness in children 1 to 5 years of age?
2		What are potential delivery strategies to optimize oral cholera vaccine coverage in hard-to-reach populations (including during humanitarian emergencies and areas of insecurity)?
3		What is the optimal number of doses of oral cholera vaccine to be used for follow-up campaigns in communities previously vaccinated with a two-dose schedule?
4		Can the impact of oral cholera vaccine on disease transmission, morbidity and mortality be maximized by targeting specific populations and/or targeted delivery strategies?
5		What impact does the timing of oral cholera vaccine use have on prevention and control of an outbreak?

Water, Sanitation and Hygiene

Rank Within Pillar		Research Question
1		What levels of coverage for relevant water, sanitation and hygiene interventions is required in cholera hotspots to control and ultimately eliminate the risk of cholera?
2		What are the most essential (or what is the minimum set of) infection prevention and control (IPC) interventions in cholera treatment facilities and oral rehydration points to reduce risk of transmission within these facilities?
3		Is improved access to safe water (e.g., water points and distribution networks) effective in controlling and preventing cholera outbreaks?
4		How can "design thinking" be used to improve the delivery and uptake of water, sanitation and hygiene interventions? Design thinking focuses on understanding the needs of people who will use the intervention and working with them to improve it.
5		What are the factors and determinants that lead to sustainable investments in water, sanitation and hygiene at the country level?

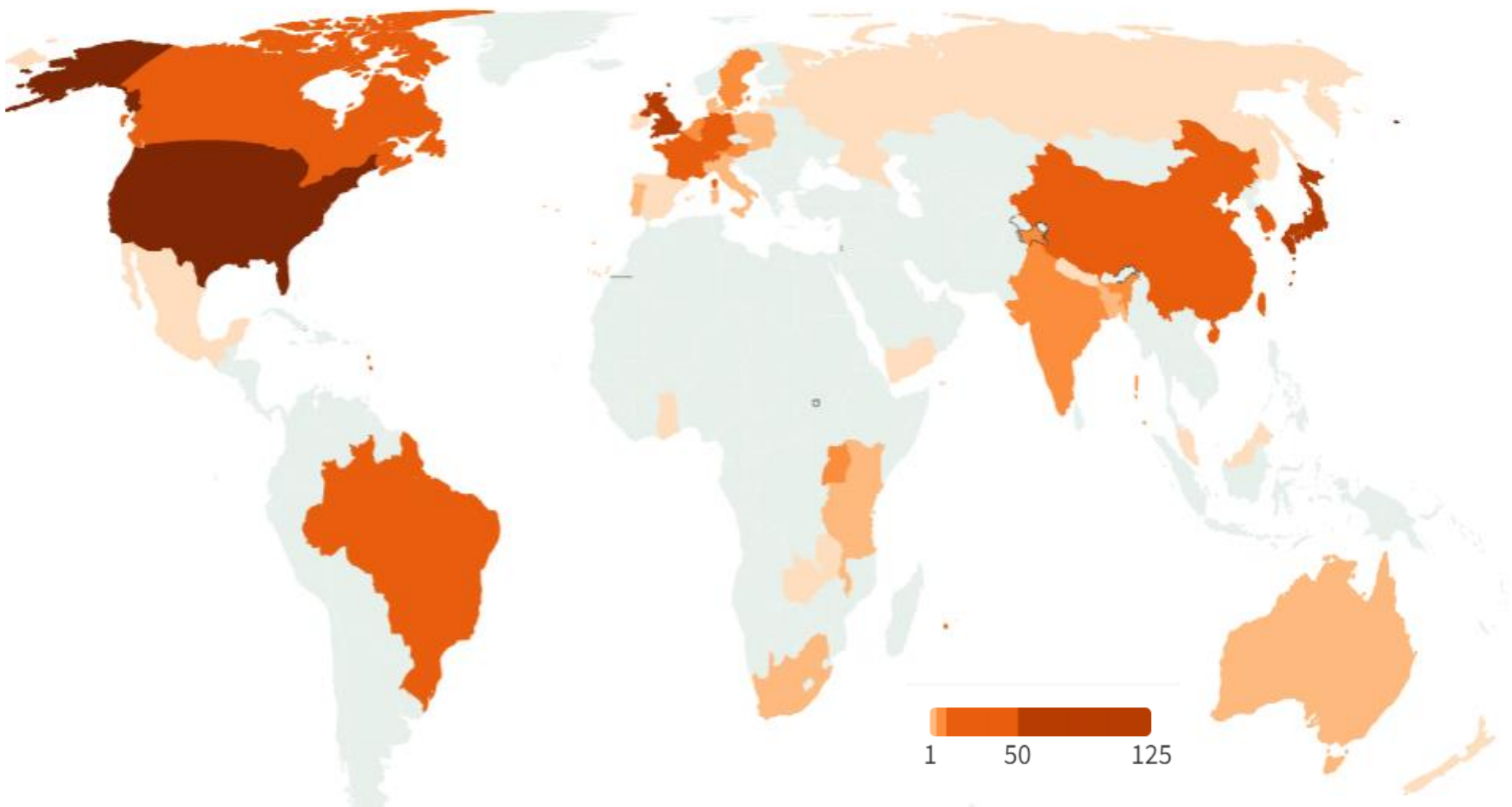| **Discovery research** New tools and databases Longer time to impact | **Novel and innovative diagnostics** | **New and improved vaccines** | **Coordinated genomics database** |

Cholera Research Funding Landscape

Where are the research institutes that are being funded?

1 50 125

Locations of host research institutes receiving funding and how many grants they received during this period. This is does not necessarily reflect where the research is being conducted – this is shown in the Research Tracker

Active and Starting Grants

Active grants (total): 321, 331, 352, 346, 311, 265, 193

Starting grants (total): 85, 78, 89, 81, 52, 32, 10

2017 2018 2019 2020 2021 2022 2023

— — Active grants (total)   — — Starting grants (total)
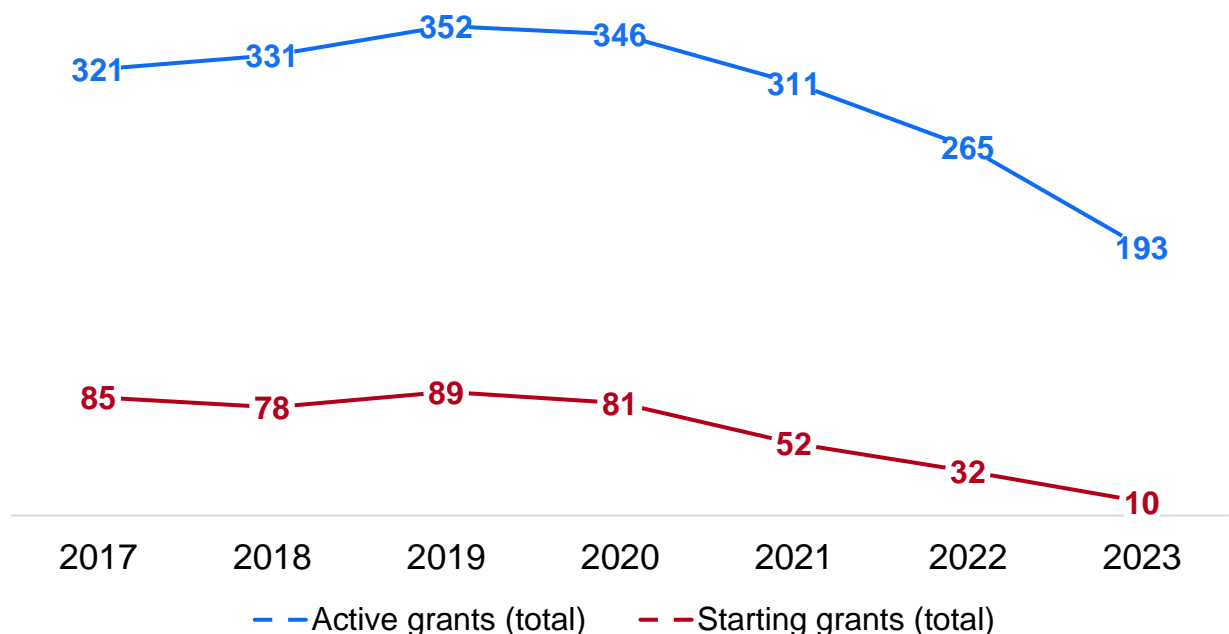
Aggregated funding amount: 245.1M
USD

Where does this funding come from?

27.5% NIAID
17.9% BMGF
9.5% NIGMS
8.8% Wellcome

Cholera Research Tracker

Searchable online platform of ongoing and recently completed cholera research projects that will help support collaboration and highlight trends, knowledge and funding gaps so that resources can be used effectively

PROJECTS
COUNTRIES

62
6 ACTIVE

24
24 ACTIVE

✔ *Epidemiology surveillance - Laboratory surveillance - Vaccines - Water, Sanitation and Hygiene (WASH)*
✔ *Democratic Republic of Congo*

ACTIVE

PROJECT TIMELINE: 20/10/2020 - 31/12/2026

The impact of mass cholera vaccination in Uvira, Democratic Republic of the Congo

Lead Researcher

Dr. Andrew Azman, Johns Hopkins University

View

Search by: Country; Pillar; Keyword
View: Summary; Investigators and Collaborators; Funding Source; Potential for impact on public health decision-making

Advocacy and Action

The Research Agenda and Tracker can be used to raise the profile of cholera research

❖ Shows context of individual projects - the whole is greater than the sum of its parts

❖ Shows momentum and importance placed on research by the cholera community

❖ Provides direction with actionable recommendations and enables monitoring of progress

Call to partners involved in research studies:

Please submit details to the Cholera Research Tracker: https://www.gtfcc.org/cholera-research-tracker/submit-your-project/

Email cholera-research-tracker@gtfcc.org to update your project details
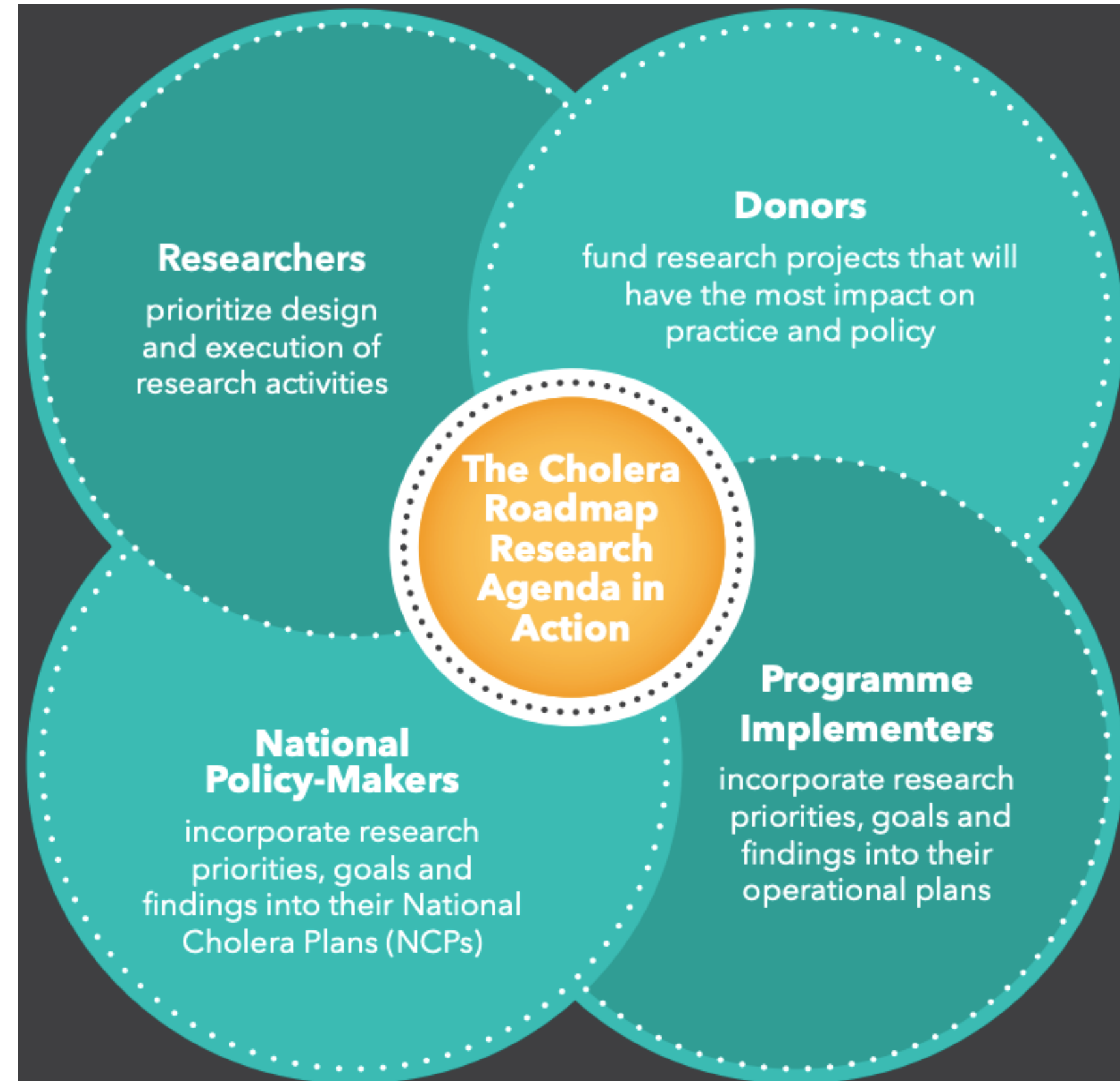
Thank you for listening

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