

# Getting our Priorities Straight: Aligning Cost-Effectiveness Evidence with Disease Burden

Friday, July 24<sup>th</sup>, 2020

12:00 PM – 1:00 PM EDT

**Always  
Thinking  
Ahead.**



# Today's Presenters



Peter Neumann, ScD



Dan Ollendorf, PhD



Amanda Glassman, MSc



# Special Comments From



Maryam Huda, MBBS, MSc



THE AGA KHAN UNIVERSITY

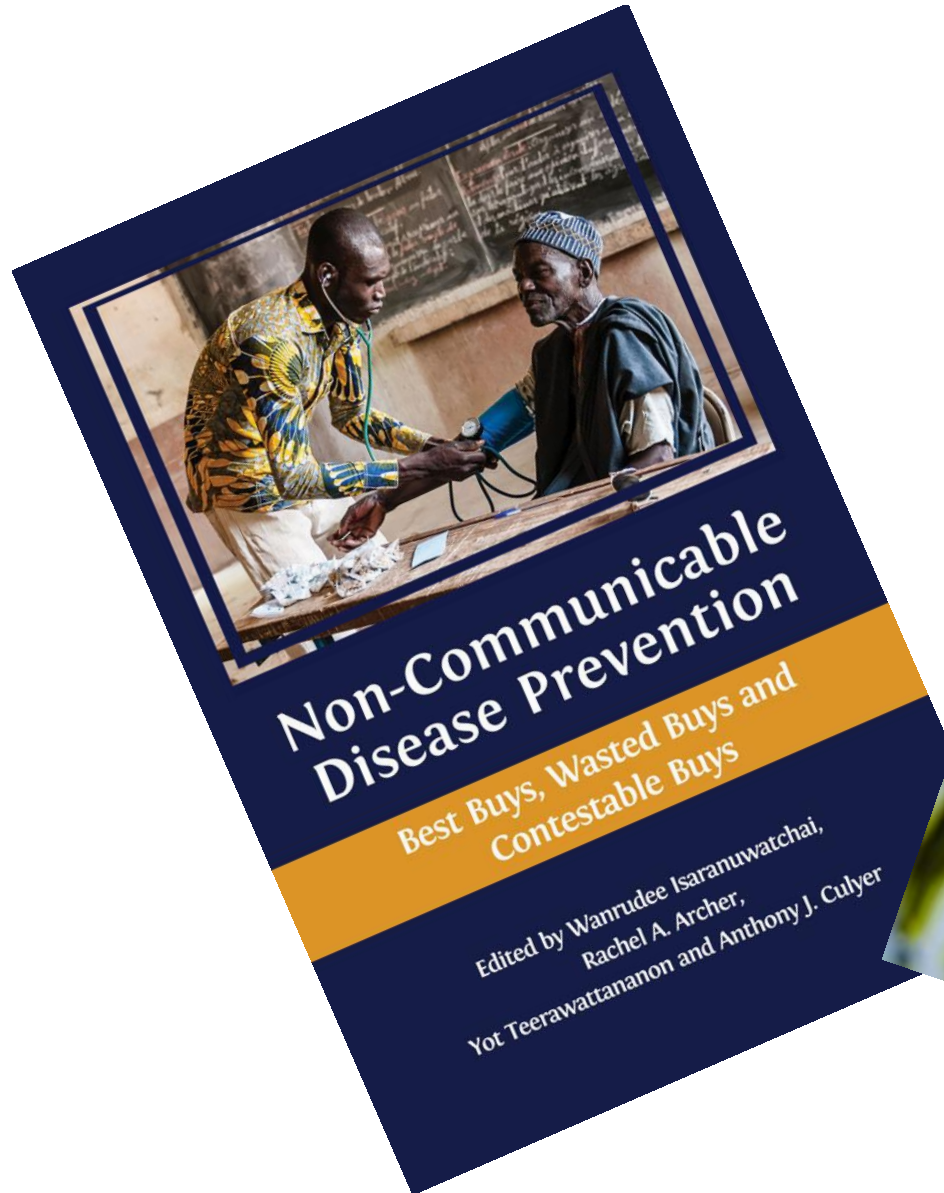
# Agenda

1. The State of Global Health Cost-Effectiveness Analysis (CEA)
2. Evolving Global Burden of Disease
3. Does CEA Evidence Align with Disease Burden?
4. Discussion: CEA in a Pandemic

# State of Global Health Cost-Effectiveness Analysis



# CEA is a Prioritization Tool



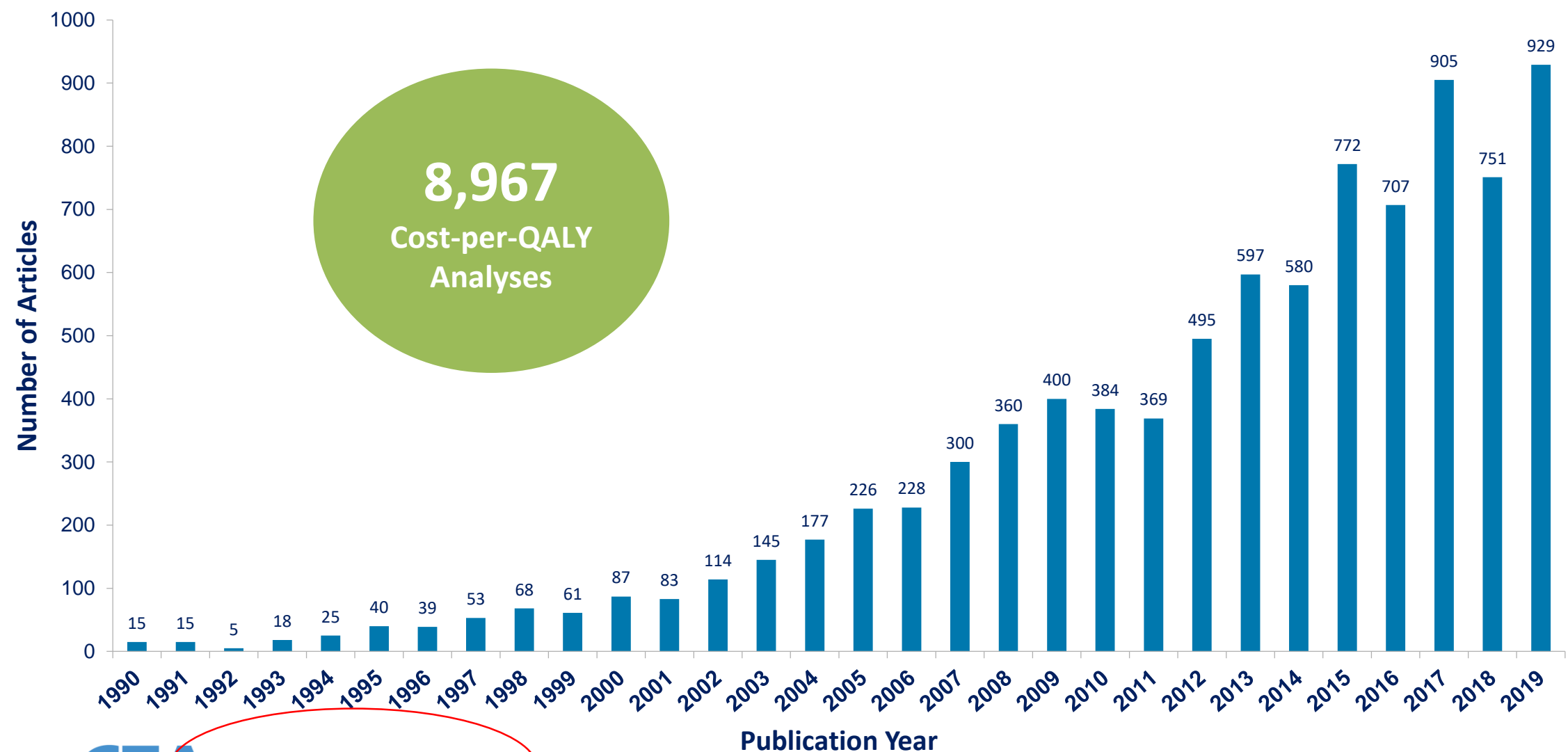
# Tufts Medical Center, CEVR

~9,000 Cost/**QALY** analyses



**CEA**  
REGISTRY

# Cost-per-QALY Studies



Source: **CEA** ([www.cearegistry.org](http://www.cearegistry.org))  
REGISTRY



**Tufts** Medical  
Center

**GLOBAL  
HEALTH**

**CEA**

**REGISTRY**

Funded by:

**BILL & MELINDA**  
**GATES** *foundation*

# A Standardized Database of Published Cost-per-DALY averted Studies

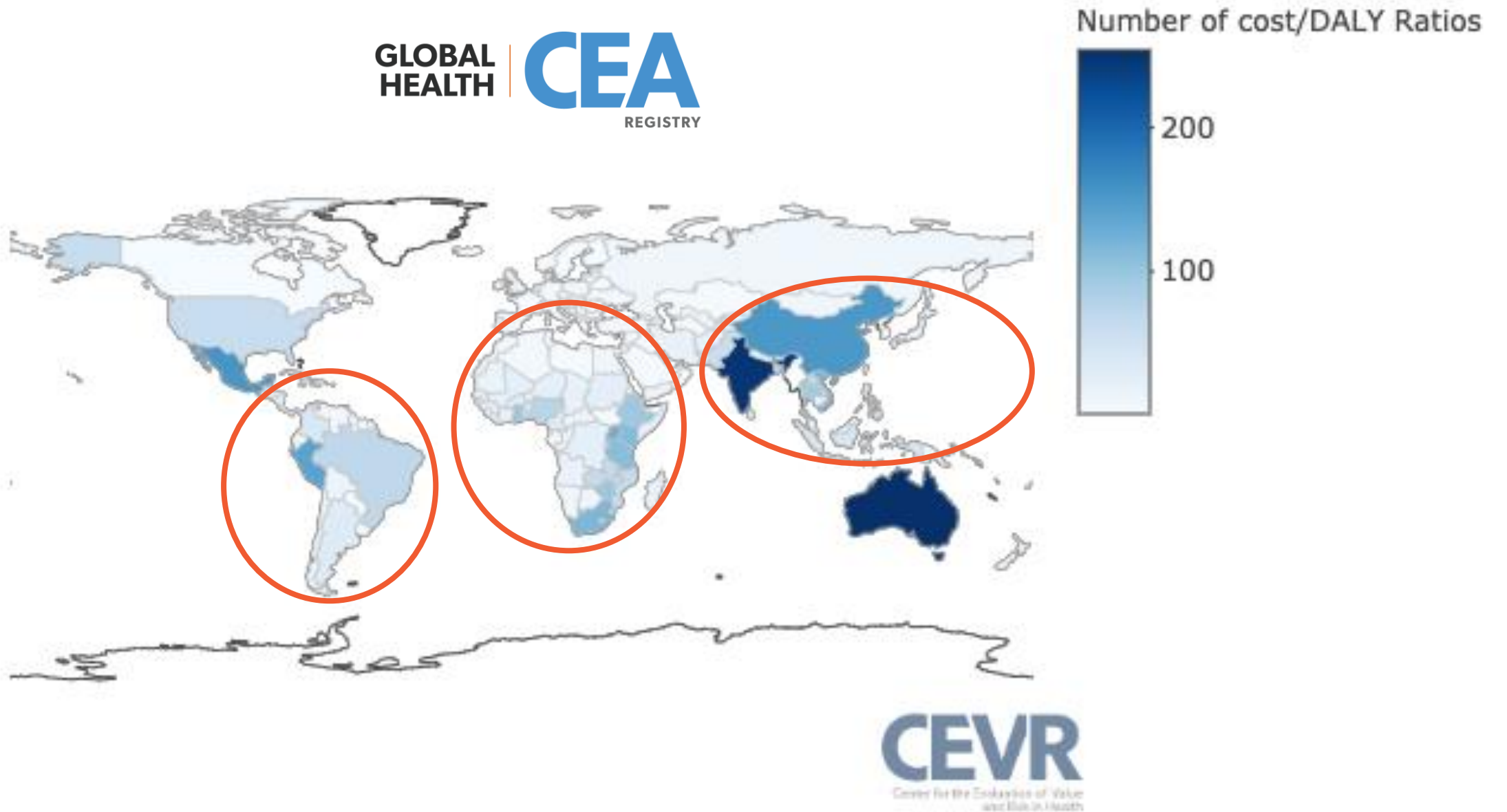
- ✓ Continually-updated
- ✓ Policymaker-friendly search tools
- ✓ Open access and available for download



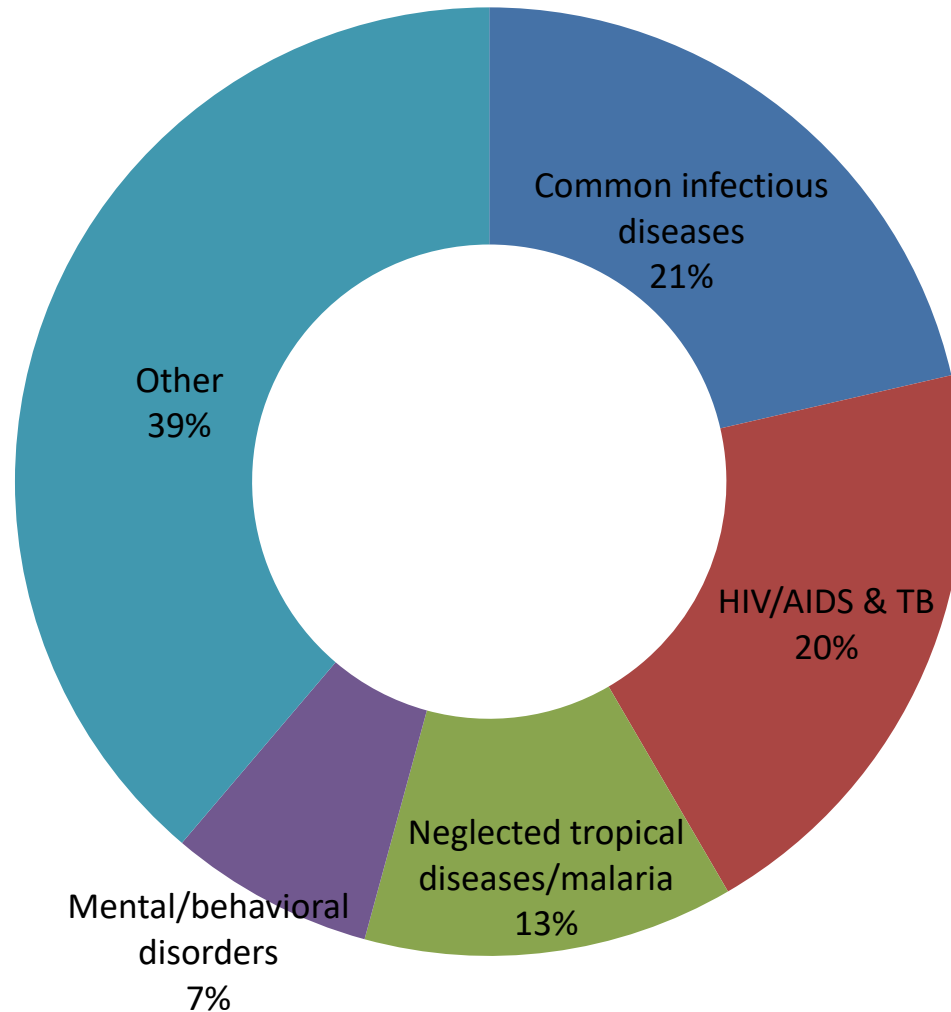
[ghcearegistry.org](http://ghcearegistry.org)

# Cost-per-DALY Studies



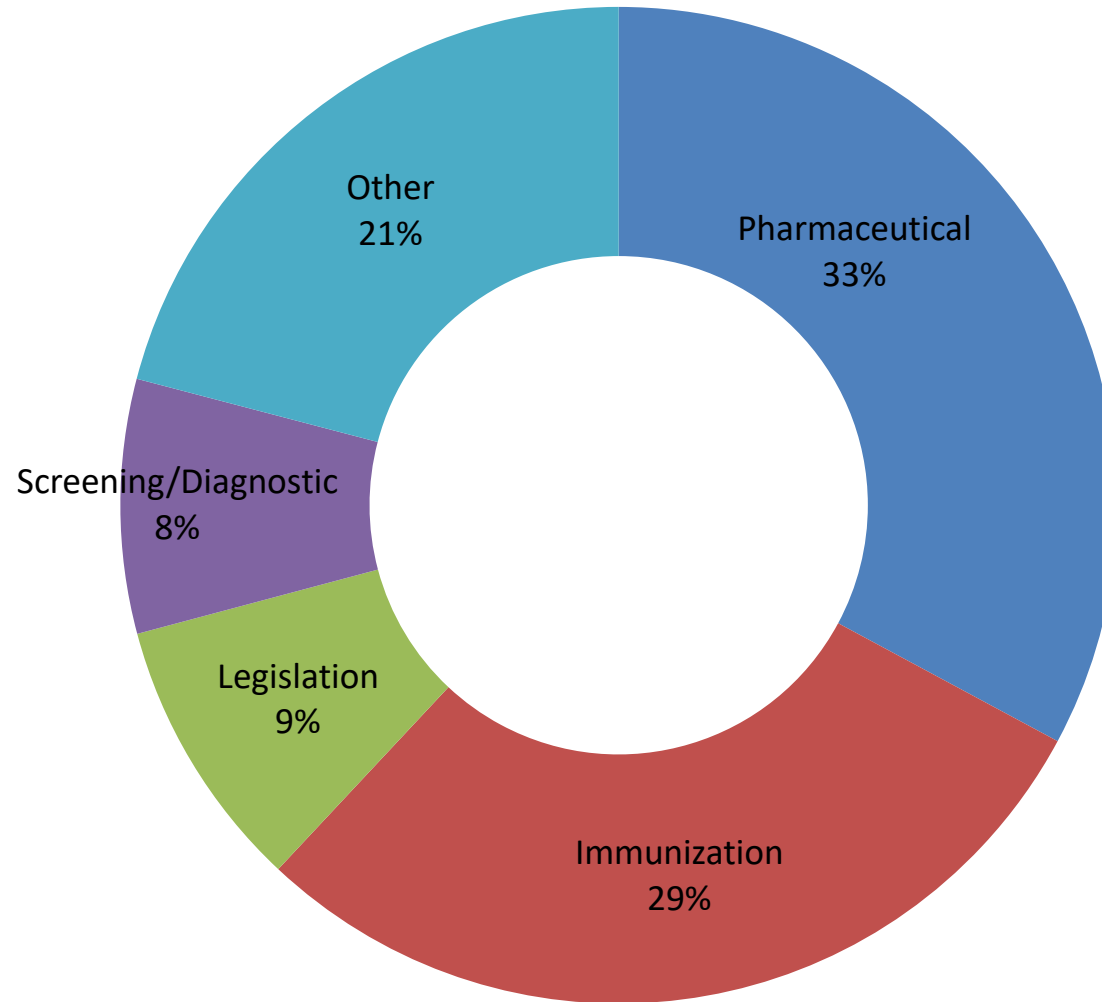


# Cost-per-DALY studies by disease area

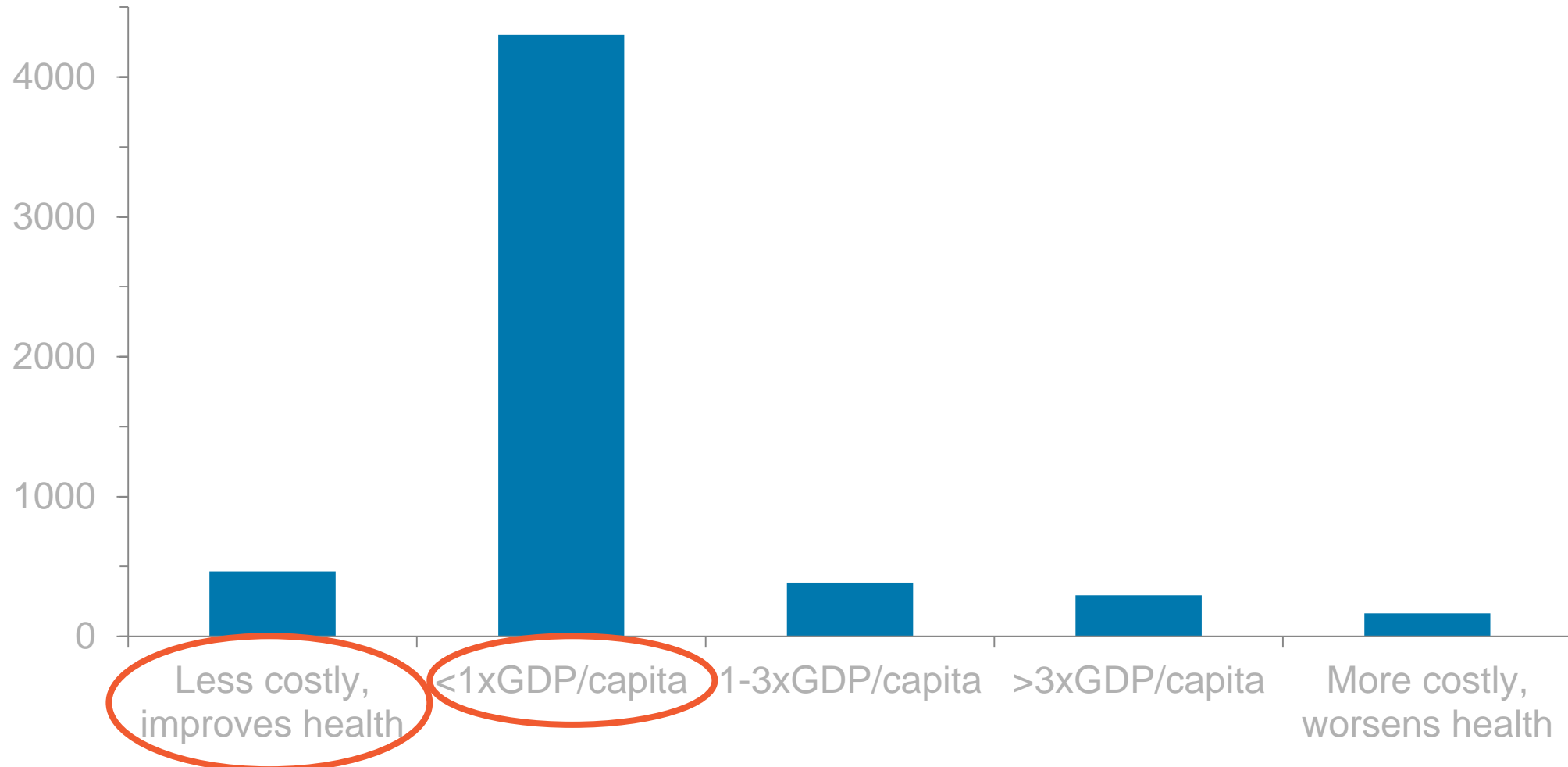




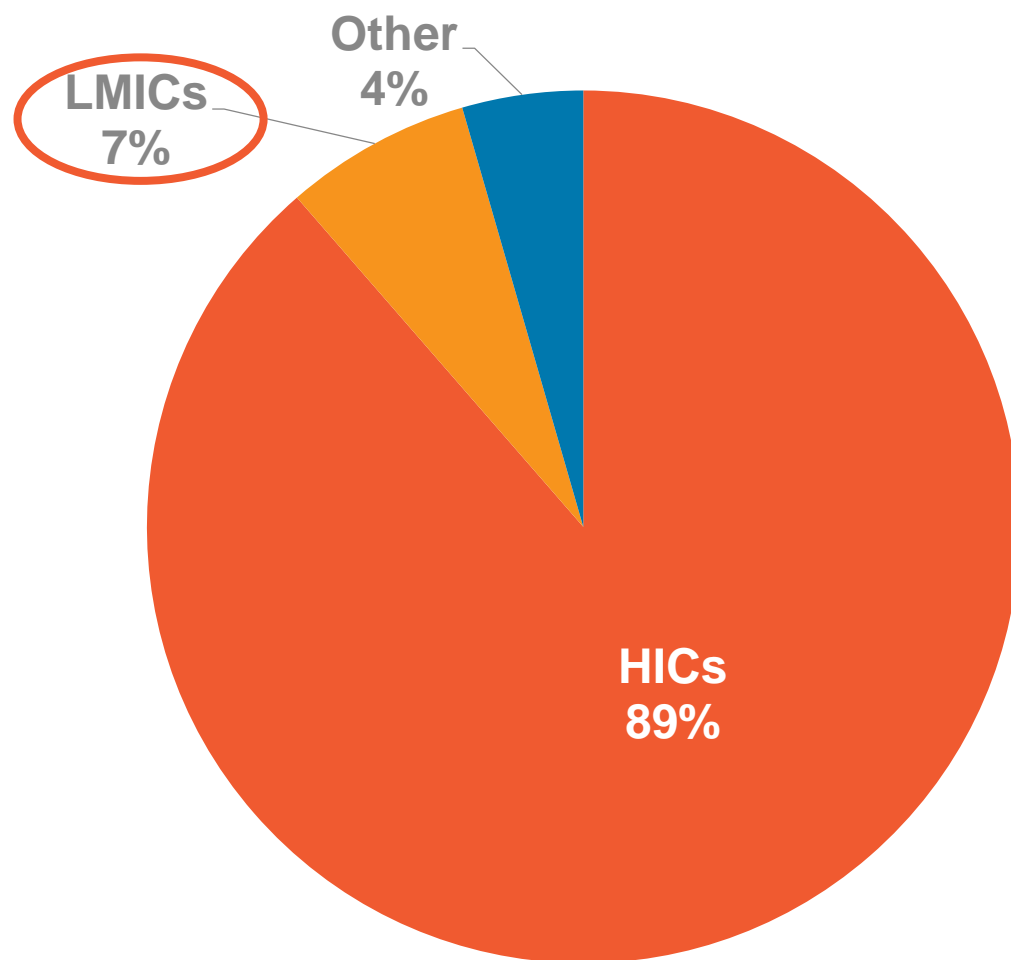
# Intervention types



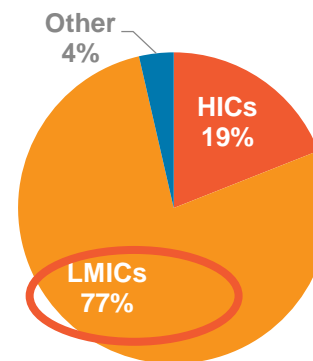
# Distribution of Cost-per-DALY Ratios



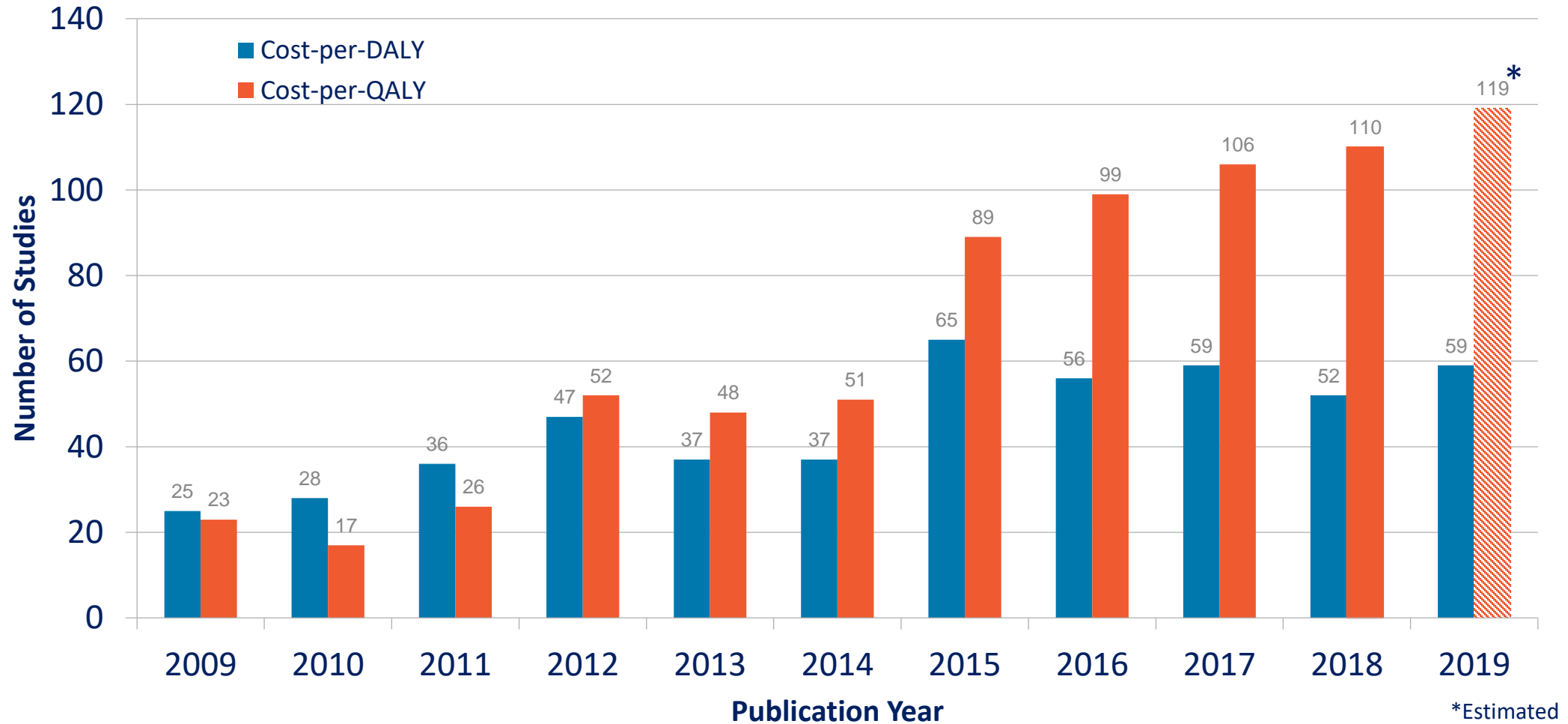
## Cost-per-QALY studies





## Cost-per-DALY studies



# Growth of Cost-per-DALY and Cost-per-QALY Studies in LMICs



# Research Using the Registry

Received: 29 October 2019	Revised: 11 March 2020	Accepted: 14 April 2020
DOI: 10.1002/hec.4029		
<b>HEALTH ECONOMICS LETTER</b>		<b>Health Economics</b> WILEY
<b>Growth and capacity for cost-effectiveness analysis in Africa</b>		
Ari D. Panzer <sup>1</sup>   Joanna G. Emerson <sup>1</sup>   Brittany D'Cruz <sup>1</sup>   Avnee Patel <sup>2</sup>   Saudamini Dabak <sup>2</sup>    Wanrudee Isaranuwatthai <sup>2,3</sup>   Yot Teerawattananon <sup>2,4</sup>   Daniel A. Ollendorf <sup>1</sup>   Peter J. Neumann <sup>1</sup>   David D. Kim <sup>1</sup> 		
<sup>1</sup> Center for the Evaluation of Value and Risk in Health, Tufts Medical Center, Boston, Massachusetts, USA <sup>2</sup> Health Intervention and Technology Assessment Program (HITAP), Ministry of Public Health, Nonthaburi, Thailand <sup>3</sup> Institute of Health Policy, Management and Evaluation, University of Toronto	<b>Abstract</b> As economic evaluation becomes increasingly essential to support universal health coverage (UHC), we aim to understand the growth, characteristics, and quality of cost-effectiveness analyses (CEA) conducted for Africa and to assess institutional capacity and relationship patterns among authors. We searched the Tufts Medical Center CEA Registries and four databases to identify CEAs	



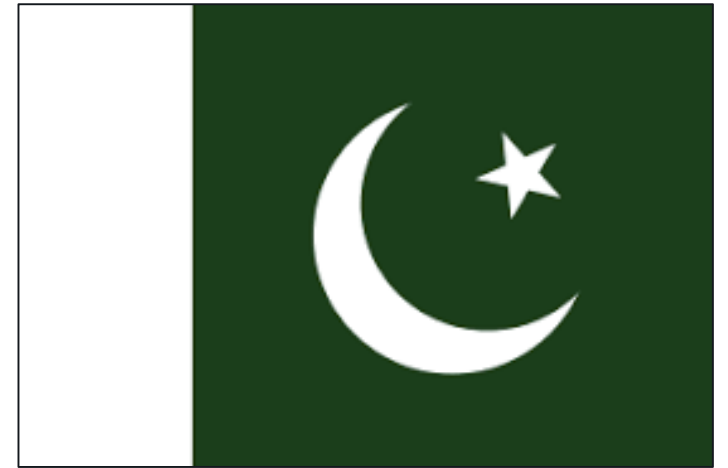
# Registry Support for National Benefits Packages



Malawi



Ethiopia



Pakistan

# Registry Support for National Benefits Packages



**Maryam Huda, MBBS, MSc**  
The Aga Khan University, Pakistan



Pakistan

# Summary

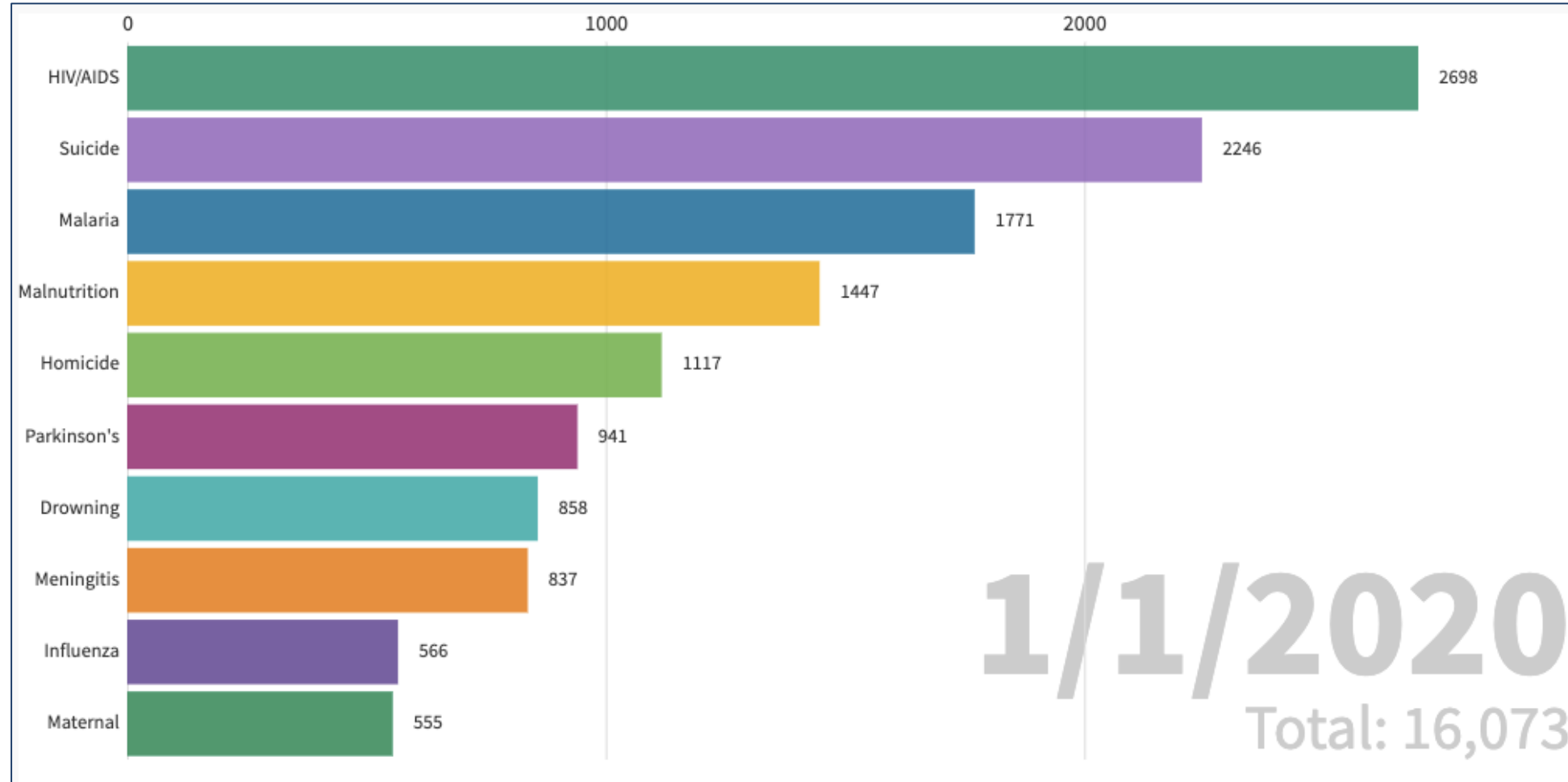
- ☒ GH CEA Registry is a global public good
- ☒ CEA literature in global health continues to grow
- ☒ CEA is a powerful tool for priority-setting
- ☒ Does the CEA evidence align with burden of disease?

# Evolving Global Burden of Disease

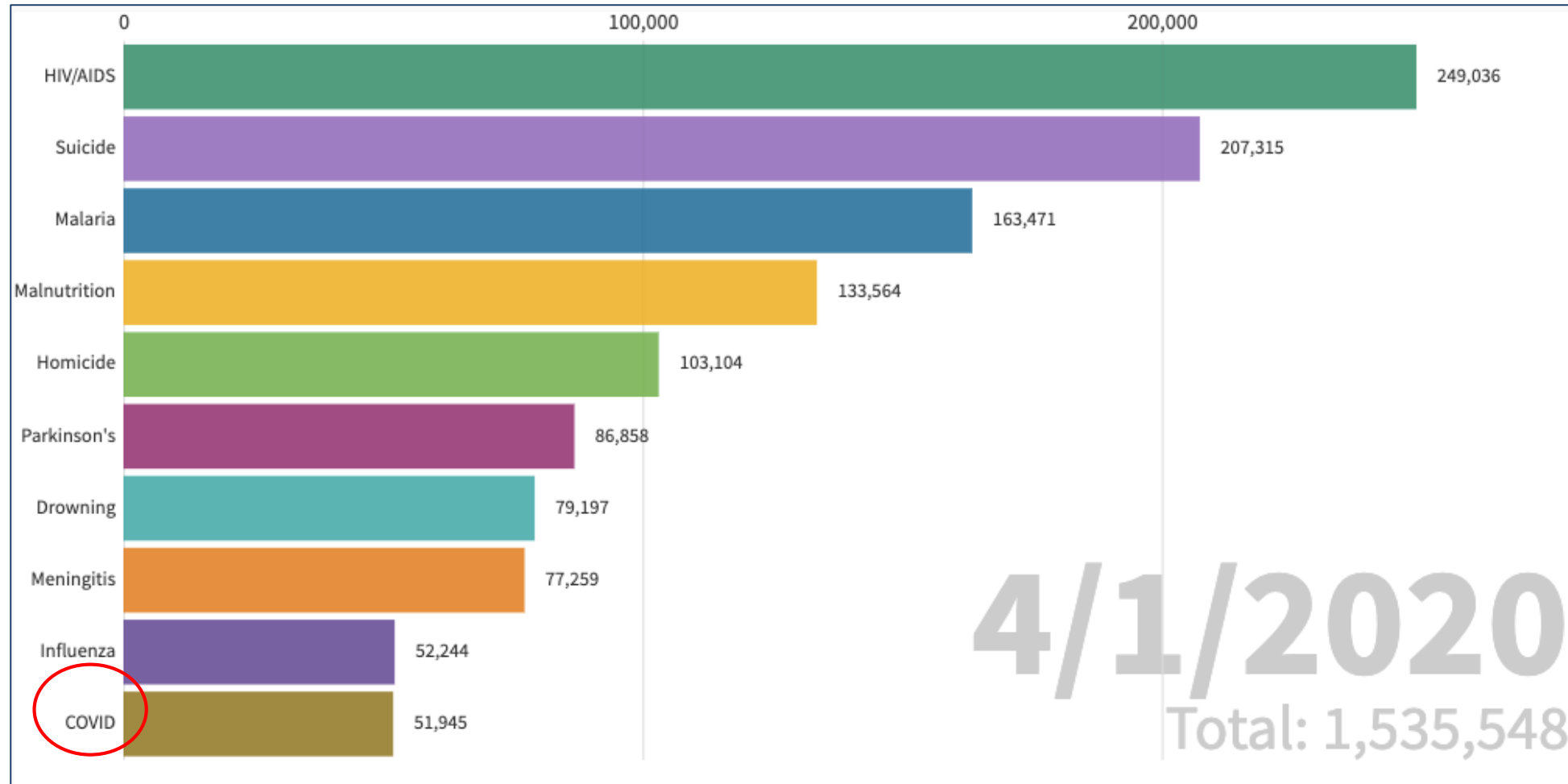




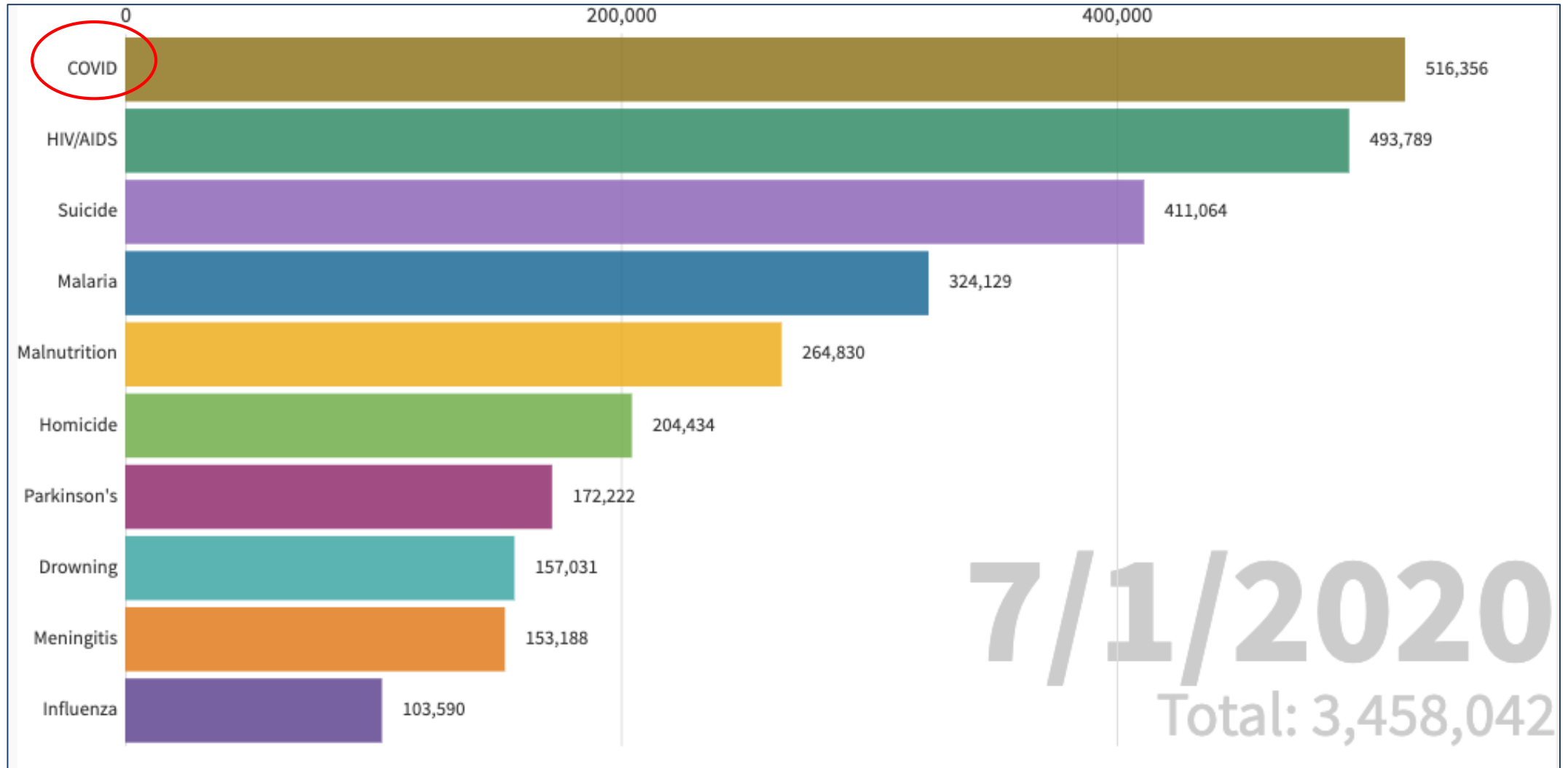
# Leading causes of death worldwide



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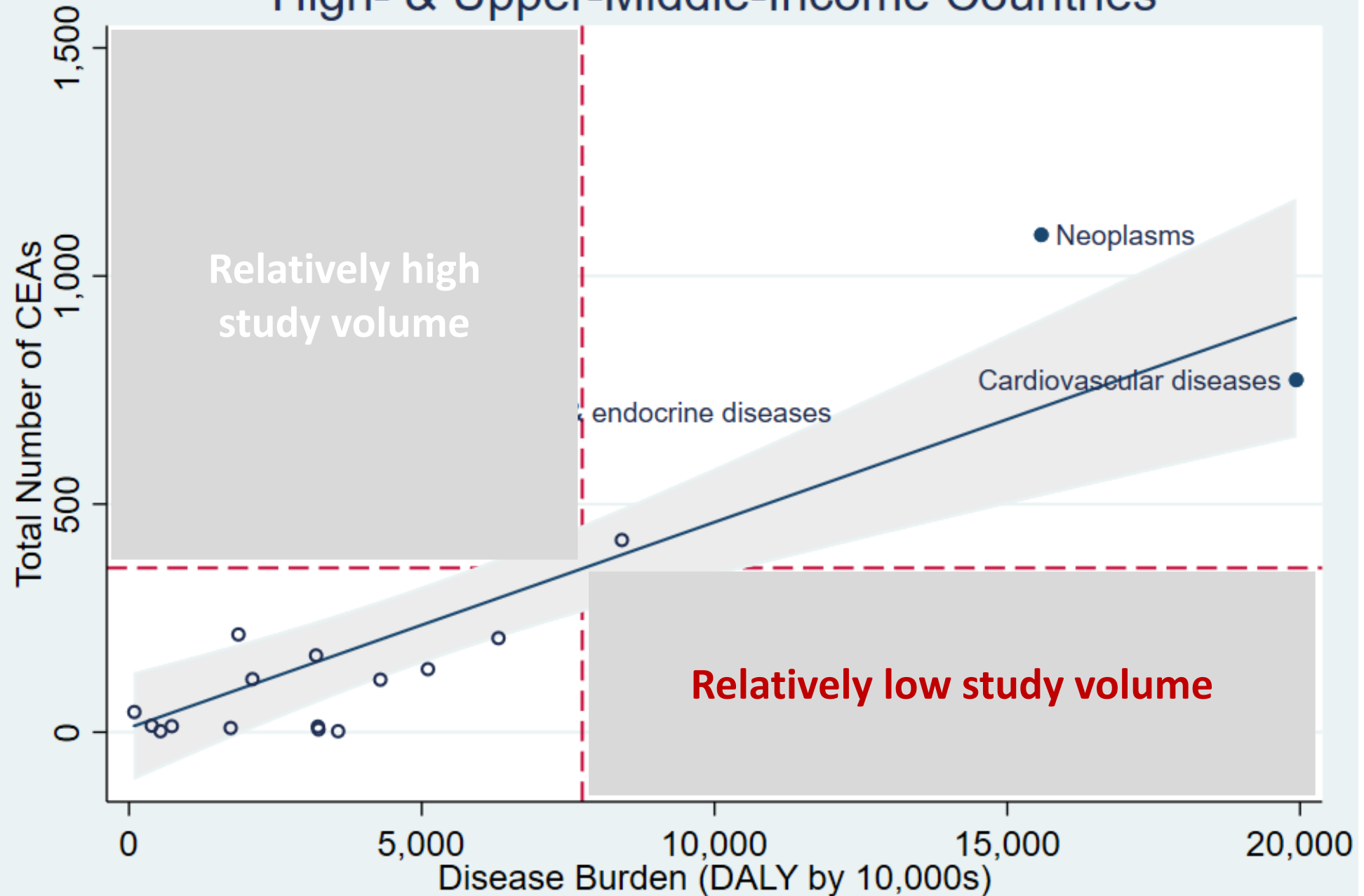
# Does CEA Evidence Align with Disease Burden?

# Analysis: CEA vs. Burden

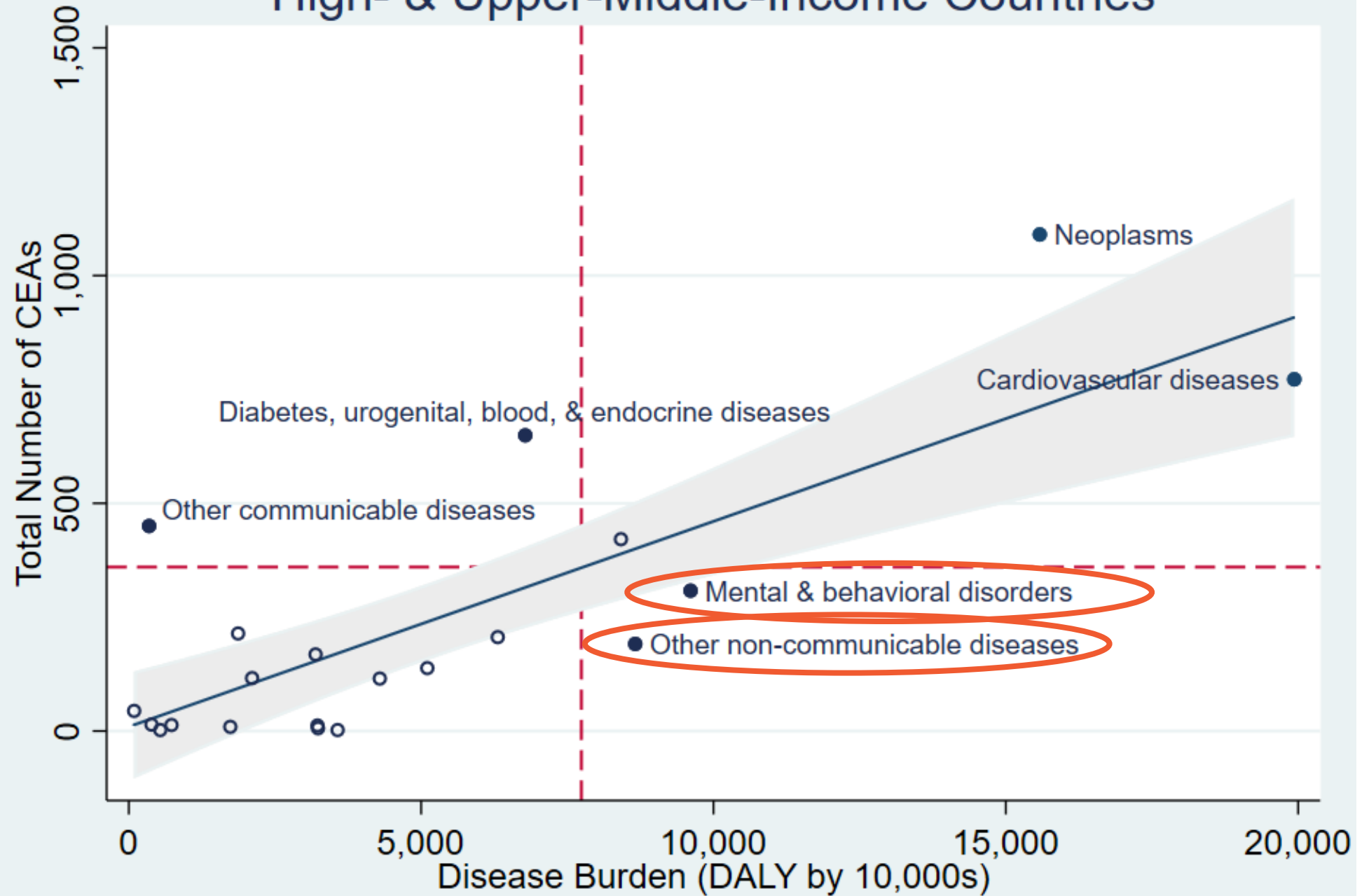
- # of CEAs compared to total DALYs by disease area
- QALY and DALY studies
- Identification of understudied diseases



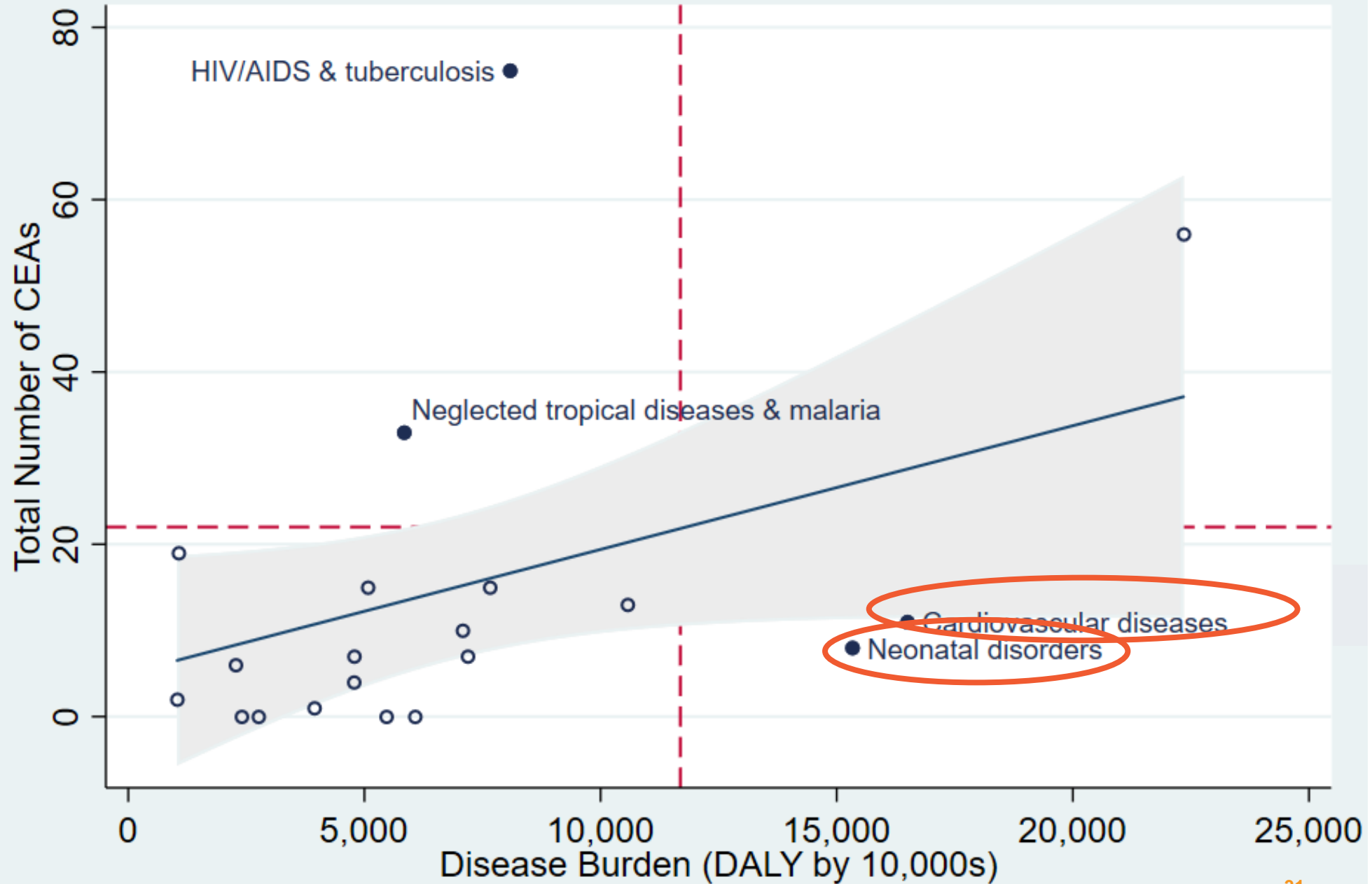
## High- & Upper-Middle-Income Countries



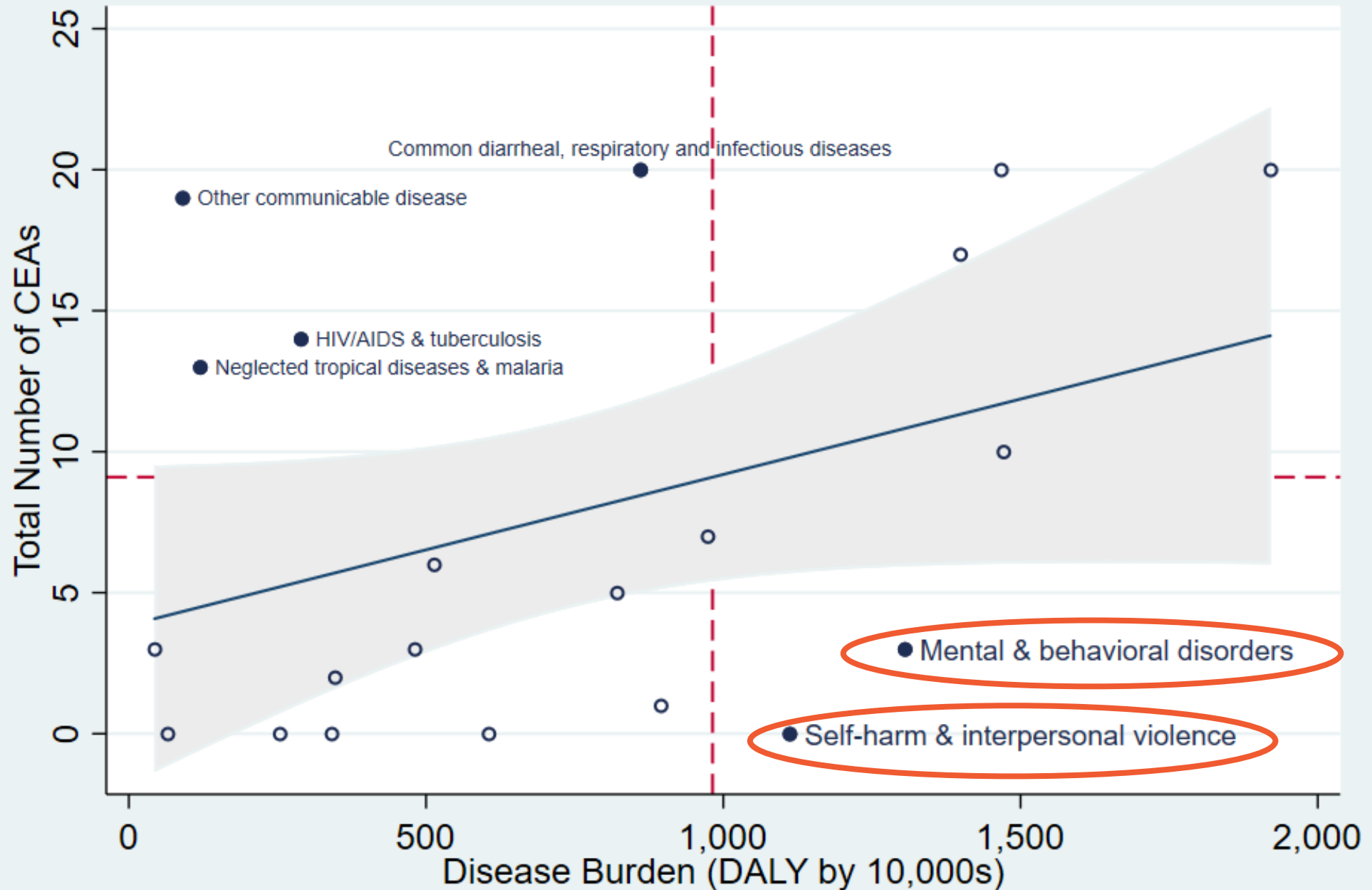
## High- & Upper-Middle-Income Countries



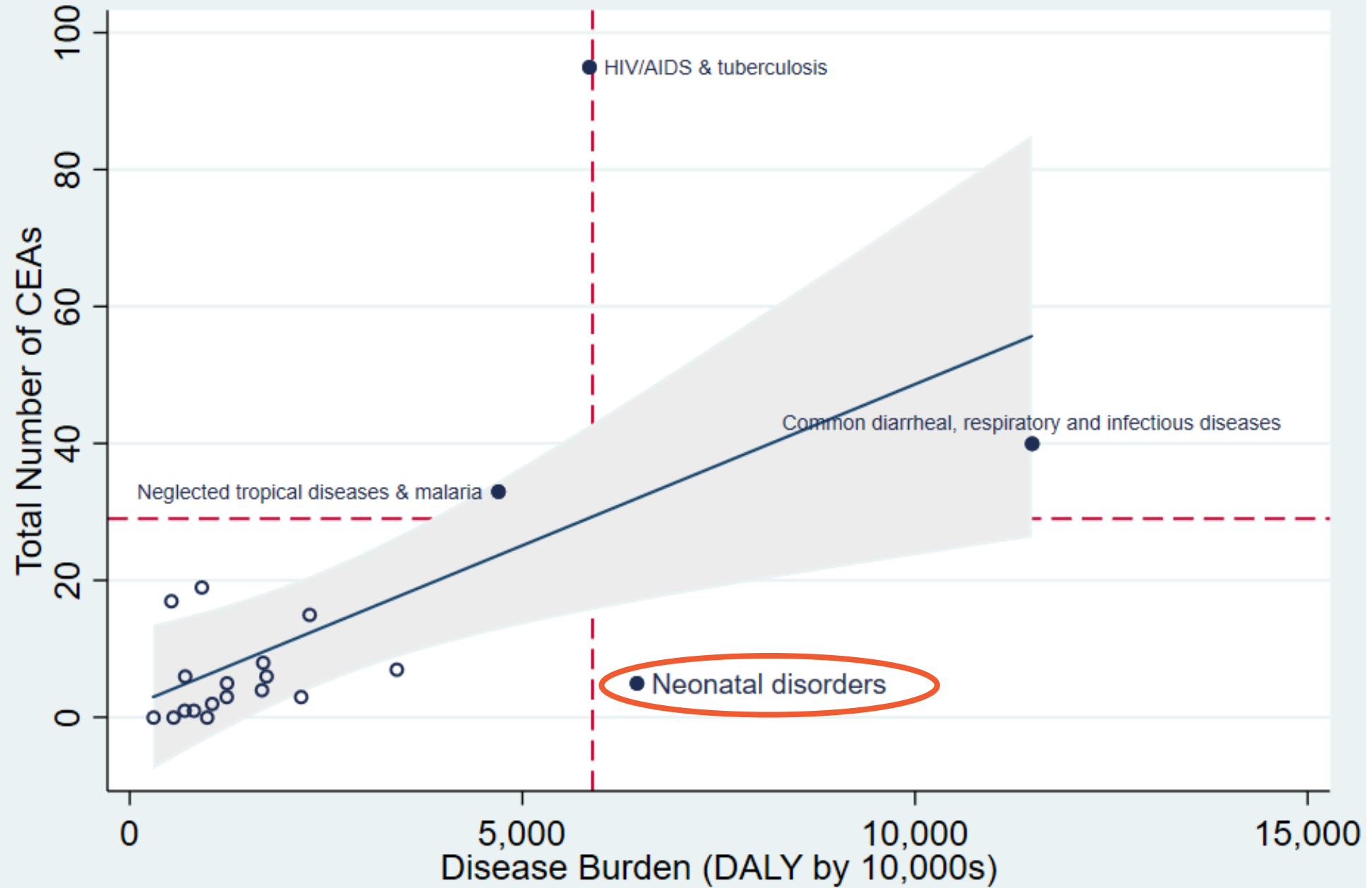
## Low- & Lower-Middle-Income Countries



# Latin America & The Caribbean

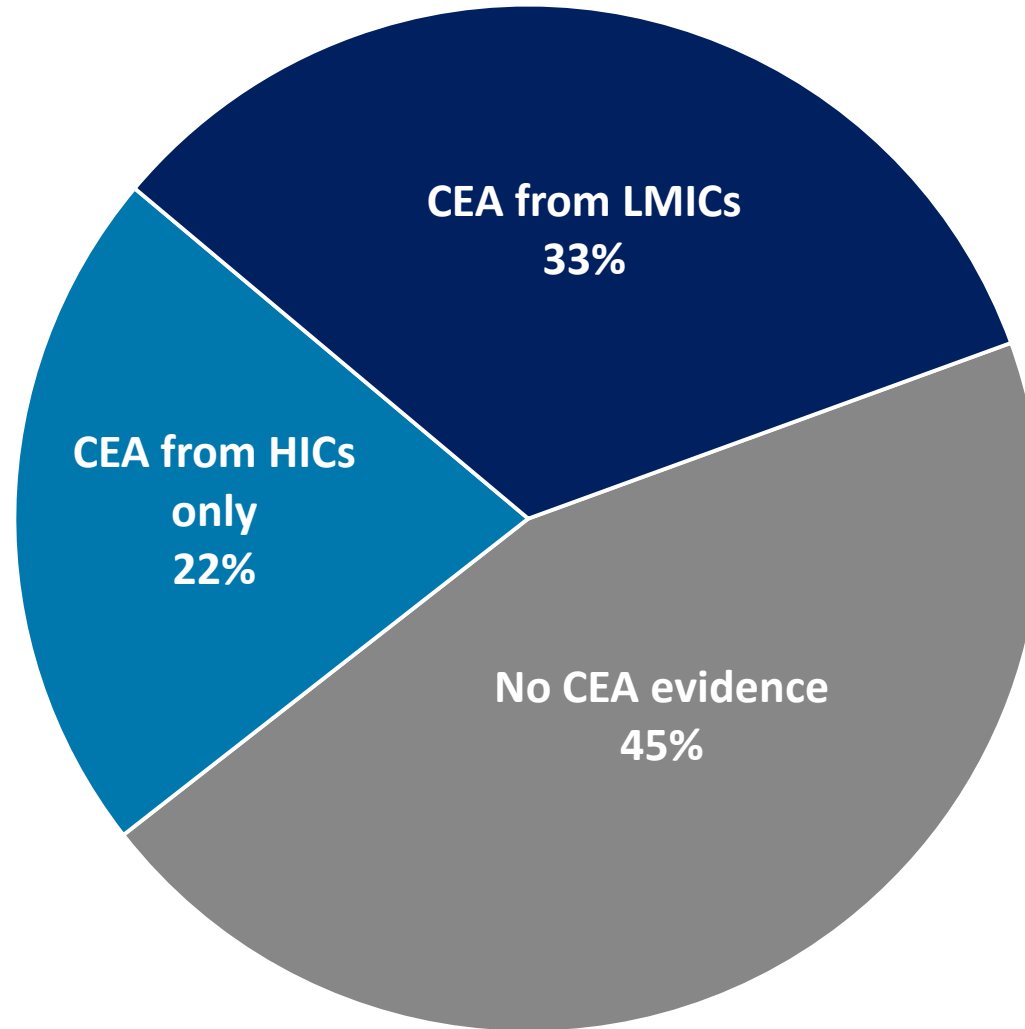


## Sub-Saharan Africa



# CEAs and UHC-Critical Interventions

# Of 60 UHC-Critical Interventions...

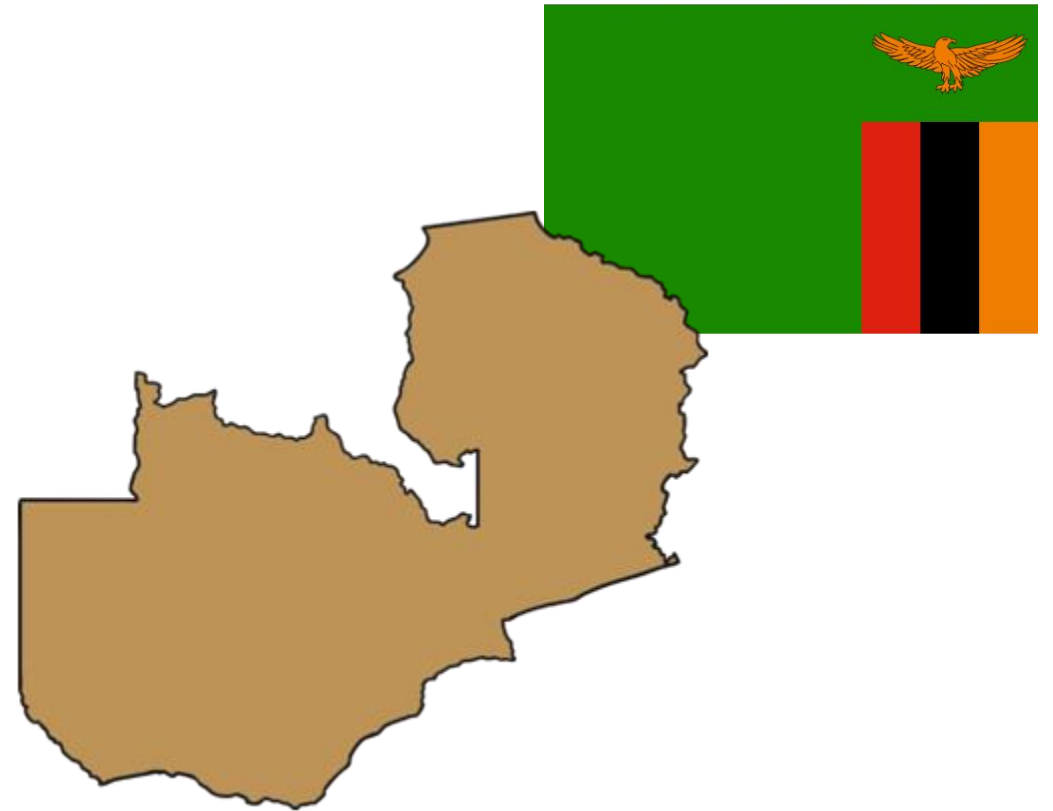




# Selected Study Examples

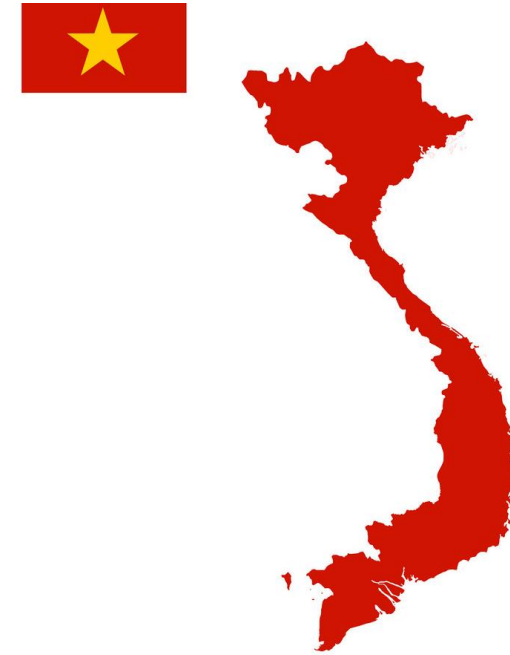
# Example 1: Birth attendant training

- Zambia
- Intervention:
  - Intensive training sessions
  - Additional emergency supplies
- Comparator: usual care
- Results: \$176/DALY averted
  - <1x GDP per capita



# Example 2: CVD Prevention

- Vietnam
- Interventions:
  - Media campaigns
  - Drug therapy
- Comparator: usual care
- Results: \$78-\$118/DALY averted
  - Education: reducing salt intake
  - Treat hypertension
  - <1X GDP per capita



# Summary

- *Misalignment:* CEA evidence and disease burden
- CEA must inform UHC
- A “Call to Action” for:
  - Researchers
  - Governments
  - Funders

# Discussion:



## Cost-Effectiveness Considerations in a Pandemic

Executive Vice President & Senior Fellow, CGD  
Chief Executive Officer, CGD Europe

# Audience Questions & Answers





**For registry support & inquiries**  
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