

The Global Institute for Disease Elimination (GLIDE)

Presents

The Falcon Awards for Disease Elimination – The Climate Edit



After a successful first iteration of the Falcon Awards for Disease Elimination, where five winners from endemic countries were awarded up to \$200,000 to lead projects tackling polio, malaria, and NTDs in their respective communities, The Global Institute for Disease Elimination (GLIDE) launched its second iteration of the awards in early 2023, the Falcon Awards for Disease Elimination - The Climate Edit. This global initiative aims to expand the evidence base of the intersection of disease elimination and climate and provide catalytic support to researchers to examine new and under-explored areas of the climate and infectious disease nexus with a view to:

1. Elevate consideration of infectious diseases in the climate change discourse and drive momentum towards improved understanding of the intersection between infectious disease and climate.
2. Support formative research to enhance understanding of infectious diseases within the climate-health nexus and inform potential intervention design.
3. Disseminate knowledge to increase understanding and catalyse action in the climate and health space.

In May 2023, we proudly unveiled the winners of our highly competitive selection process which were chosen by a distinguished Scientific Panel consisting of global health experts including:

- Marina Maiero, WHO Climate Change and Health Partnerships and Advocacy Officer
- Dr Alan Dangour, Wellcome Trust Director of Climate & Health
- Dr Ngozi Erondu, GLIDE Technical Director
- Dr Githinji Gitahi, AMFREF Health Africa Group CEO
- Dr Renzo Guinto, St Luke's College of Medicine Associate Professor of Global Public Health

Nine outstanding applications were selected to undertake a six-month formative research project, with a grant of up to US\$50,000 to catalyse efforts to expand the evidence base on the nexus between climate and infectious diseases. The final research papers will be published around the UNFCCC COP28 taking place in Dubai at the end of 2023.

About GLIDE:

GLIDE is a global health Institute based in Abu Dhabi, focused on accelerating the elimination of preventable infectious diseases of poverty: currently malaria, polio, lymphatic filariasis, and river blindness, by 2030 and beyond. Founded in 2019 as the result of a long-standing collaboration between His Highness Sheikh Mohamed bin Zayed Al Nahyan, President of the UAE, and the Bill & Melinda Gates Foundation, GLIDE works to elevate awareness and engagement, advance elimination strategies, and foster and scale innovation.

Country	Institution(s)	Project Title	Research Question(s)
Ghana	University of Health and Allied Sciences, Ho, Ghana	Examining the relationship between climate change and transmission of lymphatic filariasis and malaria in sub-Saharan Africa and the local perceptions of the relationship in Ghana.	<ol style="list-style-type: none"> 1. What is the effect of climate change on the prevalence of lymphatic filariasis and malaria in Sub-Saharan Africa? 2. What are the levels of knowledge, attitudes and perceptions of community members, health providers and other stakeholders about the link between climate change, and lymphatic filariasis and malaria transmission in Ghana?
Zambia	Zambia National Public Health Institute	Influence of Climate Change on Rainfall Patterns and its Effects on Malaria Incidence and Elimination in Sub-Saharan Africa; a Focus on Zambia	What is the relationship between malaria incidence and mortality with rainfall patterns influenced by climate change in the last 15 years in Zambia and how will this affect malaria incidence in the next 5-7 years?
Peru	Health Innovation Laboratory, Institute of Tropical Medicine, UPCH, Lima, Peru	Use of novel low-cost technologies to reduce the barriers of vector-borne diseases forecasting in the Peruvian Amazon	What is the feasibility and contribution of low-cost technologies to improve fine-scale vector-borne diseases forecasting and their uptake in the Peruvian Amazon?
Madagascar	Department of Ecology and Evolutionary Biology, Princeton University	Accelerating malaria elimination in the face of extreme weather disruptions	How do disruptions due to increasing frequencies and intensities of extreme weather events threaten disease elimination goals? For malaria, what pre and post-disaster interventions are best suited to minimize the impact of disruptions and enable continuous progress towards elimination in stubborn foci of transmission?
Nepal	Oriole Global Health	Projecting impacts of environmental and climate change on transmission dynamics of visceral leishmaniasis in Southeast Asia and implications for regional elimination	What is the current spatiotemporal distribution of risk of VL transmission in the South-East Asia Region and how will risk be affected by climate change? What should a regional strategy for VL elimination look like to be successful in the context of climate change?

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Mozambique	PATH, Maputo, Mozambique	Identification of Mozambique Ministry of Health climate data needs	What climate data is available and needed for national and subnational health system managers to prepare and respond to rising infectious diseases in Mozambique? And to what extent is the data being used to inform decision making?
Nepal	Nepal Health Research Council, Kathmandu, Nepal	The impacts of climate change on spatiotemporal distribution of dengue and malaria and its implications on dengue control and malaria elimination in Nepal	What is the spatial and temporal distribution pattern of dengue and malaria incidence in Nepal? How will the climate change affect the spatio-temporal distribution of dengue and malaria incidence in different emission scenarios (below 1.5°C, below 2°C, below 3°C and up to 4.5°C temperature by the end of 21st century) What are implications of climate change on dengue control and malaria elimination in Nepal?
Zimbabwe	University of Johannesburg, South Africa	Combining earth observation, secondary data, and citizen science in exploring the nexus between climate change and malaria in Chiredzi district, Zimbabwe	1) Can earth observation data, secondary data and citizen science be combined to improve knowledge of climatic and environmental factors influencing malaria in Chiredzi District, Zimbabwe? 2) How can a joint vision from the data obtained be used to develop a targeted approach in eliminating malaria?
Tanzania	Kilimanjaro Christian Medical University College (KCMUCo)	Community-led surveillance and responses to eliminate lymphatic filariasis under climate change	1. Are the community-led surveillance that takes consideration of climate effects effective and sensitive in identifying focal transmission hotspots for lymphatic filariasis? 2. Are the community-led interventions address incomplete coverage and high-cost of traditional LF surveillance? 3. Is a 30 years climatic data on temperature, precipitation and humidity integrated with entomology data effectively predict the LF hot spots in areas showing positive and negative MDA responses in Tanzania?

