

## **Summary: Climate Change, Malaria, and Neglected Tropical Diseases**

### **Heading: New major scoping review highlights significant gaps in our understanding of the impact of climate change on malaria and neglected tropical diseases (NTDs)**

The World Health Organization (WHO) Task Team on Climate Change, NTDs and Malaria, led by Dr. Socé Fall with support from the global health philanthropy, Reaching the Last Mile, has published a major new scoping review on the intersection of climate change, malaria and NTDs. The paper, published in [\*Transactions of the Royal Society of Tropical Medicine and Hygiene\*](#), draws on extensive research spanning over a decade and lays a foundation for understanding how climate shifts are likely to influence disease dynamics. It also outlines potential pathways for developing greater understanding of the future impact and critically points to the need for more comprehensive research to better inform refined strategies in response to climate-related health challenges.

#### **Importance of the study:**

The paper underscores a critical reality; climate change disproportionately affects the poorest populations, who are also the most vulnerable to diseases like malaria and NTDs. With changes in climate conditions such as temperature, humidity, and weather patterns, vectors and pathogens that carry these diseases can alter their behaviours and habitats, potentially leading to increased disease spread and new areas of transmission.

The findings further highlight the need for greater evidence with regard to a number of the 21 diseases and disease groups that come under the NTD banner. Understanding these dynamics is vital not just for predicting disease spread but also for preparing and investing in effective public health interventions.

As such, the paper calls for a dual focus on mitigation efforts to combat the root causes of climate change and adaptation strategies to help communities adjust to these changes. This is crucial for safeguarding progress made in fighting these diseases and for preventing potential setbacks due to environmental changes.

#### **The path forward:**

The findings serve as a call for global health communities to rethink and reframe their strategies in light of climate change. It emphasizes that understanding and responding to the environmental determinants of health is no longer optional but a necessity for controlling and eliminating malaria and NTDs. The path forward requires a concerted, well-resourced, and multi-sectoral response that is adaptable to the challenges posed by a rapidly changing global climate.

##### **1. Enhanced research collaboration:**

The review highlights the need for more robust collaborative research efforts to refine models and predictions about climate change's impact on health. It highlights significant gaps in current models, particularly the lack of integration of climatic, ecological, and socio-economic variables, which are crucial for accurate predictions and effective interventions. The study points out disparities in research focus, such as the concentration on regions with lower disease burdens and higher healthcare access, and a deficiency in studies on non-vector-borne NTDs.

To bridge these gaps, there is a need for a standardized, flexible modelling framework that considers a comprehensive range of environmental and social determinants of health. This would enable more precise disease trajectory predictions and region-specific public health strategies.

## **2. Integration of climate data into public health planning:**

Public health strategies must now integrate detailed climate data and projections to anticipate and mitigate the impacts of climate change on disease prevalence and spread. This integration is key to developing proactive approaches that consider future scenarios.

## **3. Policy and advocacy:**

There is a clear call for increased advocacy to raise awareness about the intersection of climate change, malaria, and NTDs. This involves engaging policymakers to ensure that health systems are resilient and adaptable to the changing climate.

## **4. Resource allocation:**

Strategic allocation of resources to the most vulnerable populations can ensure that those at greatest risk receive the necessary support not only to deal with the current disease burden but also to handle future challenges due to climate change.

## **5. Community engagement and education:**

Educating communities about the effects of climate change on health and engaging them in developing local solutions are essential. Community-driven initiatives can lead to more sustainable practices and better health outcomes.