World Health Organization

# Launch of the WHO Global Arbovirus Initiative

Meeting report

31 March 2022

**Launch- Global Integrated Arboviruses Initiative**
**World Health Organization, Geneva, Switzerland**
**31 March 2022 13:00 -14:30 CET, Virtual meeting**

The meeting was attended by 12 panelists and 443 audience participants with representation from all WHO regions (Africa 9%, Americas 45%, Eastern Mediterranean 3%, Europe 27%, Southeast Asia 7%, and Western Pacific 9%).

Meeting Summary

WHO launched the Global Arbovirus Initiative through a virtual event on March 31, 2022. **Dr. Diana P. Rojas, WPE/EPP/EZD**, welcomed attendees and presented a short video introducing the initiative. **Dr. Michael J. Ryan, EXD WHE**, **Dr. Ren Minghui, ADG UCN/UCA**, and **Dr. Sylvie Briand, Director WPE/EPP**, provided opening remarks, expressing their enthusiasm and support for this cross-cutting and collaborative initiative at a time when arboviral threats are increasing and pandemic preparedness is critical. Dr Ryan emphasized the need to be ready, fast, and agile and leverage the benefits of global coordination demonstrated during the COVID-19 pandemic. Dr Minghui described the amplification and spread of these viruses sharing common mosquito vectors, the need for global cooperation, and articulation with global health targets. Dr Briand outlined the need for collaboration, trust, and community engagement to better manage the risk of the next high impact event, which could be due to a new arbovirus.

Dr. Rojas presented an overview of GLAI, highlighting the growing global threat of *Aedes* (*stegomyia*)-borne arboviruses and outlining the six Pillars of the initative. An approach that integrates the diseases and also the critical components of detection, prevention, and control is essential for addressing arboviruses globally. GLAI is an integrated strategic plan to tackle emerging and re-emerging arboviruses with epidemic and pandemic potential and is part of a larger plan implementing the One Health approach across all aspects of high-threat pathogens. Led by WHO, it is under the umbrella of the WHO Triple Billion Targets, and it is complementary to the Eliminate Yellow Fever Epidemics strategy, Global Vector Control Response Initiative and the Neglected Tropical Disease Roadmap. GLAI aims to raise the global alarm, convene partners across different sectors, and enable optimal use of limited resources to achieve the greatest impact. GLAI has six Pillars, with corresponding priority actions: 1) Monitor risk and anticipate, 2) Reduce epidemic risk, 3) Strengthen vector control, 4) Prevent and prepare for pandemics, 5) Enhance innovation and new approaches, and 6) Build a coalition of partners.

Responding to a heavy burden of dengue, Zika, and chikungunya viruses, **Dr. Arnaldo Medeiros,** Secretary of Health Surveillance, Ministry of Health, Brazil, discussed Brazil's focused efforts on monitoring and adequate clinical management of severe cases, with the main objective of preventing disease progression and deaths. Brazil has experienced numerous large dengue epidemics over the years and more recently, faced the introduction of chikungunya and Zika viruses. In addition, there remains the threat of yellow fever spread to urban areas. Brazil has taken an integrated approach to arboviruses, recognizing social and structural drivers of arbovirus transmission, investing in vector control activities, and engaging local to federal levels of government in the national response. In November 2021 the Ministry of Health launched a national media campaign on dengue, chikungunya, and Zika to promote multisectoral engagement in arbovirus control and prevention.

**Dr. Jeremy Farrar, Director Wellcome Trust**, advocated for leadership that follows our changing world. Arboviruses are diseases of the 21st century, with drivers including changes in climate, ecology, and land use, and increasingly linked trade and global travel. Therefore, the arbovirus research agenda must address this. Integration in public health and research is critical, as no one intervention will be a magic bullet. It must also be pursued actively, as scientists can easily remain in their respective silos. Social and behavioral sciences are critical, and they must be combined with medical and biomedical interventions. Surveillance for arboviral diseases should be smarter, integrated into health systems, and driven by the needs to the community.

Working as a longstanding WHO Collaborating Center, **Dr. Amadou Sall, Director Institute Pasteur Dakar**, described how Senegal has integrated surveillance, testing human samples and mosquitos for a range of viruses, conducting syndromic surveillance and establishing human sentinel sites. They have invested in entomological surveillance, including monitoring insecticide resistance to allow for real-time adjustments in their response. WHO networks have enabled Senegal to work with regional partners to gain information and characterize arbovirus epidemics in the region. They have also been manufacturing Yellow Fever vaccine since 1937 and have started developing rapid tests for yellow fever and dengue.

**Dr. John Reeder, Director, Special Programme for Research and Training in Tropical Diseases (TDR)**, discussed TDR's research activities to tackle arboviral diseases over the past 15 years. Arboviral disease outbreak response capacity surveys conducted in 47 African and 34 Caribbean countries revealed weaknesses in national outbreak detection capacity and that outbreak response is strengthened in regional networks. TDR has supported research and training initiatives on vector control, including medical entomology courses and research networks like the Worldwide Insecticide Resistance Network and the Caribbean Vector-Borne Disease Network. The Early Warning and Response System (EWARS) for arbovirus outbreaks has been implemented in 17 countries, and it can support aspects of GLAI's Pillar 1. GLAI is informing TDR's new 5-year strategy, and TDR is committed to supporting GLAI by providing relevant evidence collected through research activities and by building capacity for surveillance and response in countries.

**Dr. Katherine O'Brien, Director IVB,** highlighted the role of vaccination and immunization programs in preparing for and controlling arboviral diseases. The yellow fever vaccine has significantly reduced incidence of the disease and the risk of urban outbreaks, though vaccine shortages during the Angola and DRC outbreaks required the use of fractional doses and showed how important market shaping and healthy global markets are to maintain this prevention tool. While 2nd generation dengue vaccine will be reviewed by SAGE soon, and chikungunya vaccines are expected in the near future, the need for a Zika vaccine is unmet. Vaccines are cost-effective, scalable, and can have a significant impact on arboviruses, but they must be implemented in the right context and with appropriate regulatory, policy, and market support.

**Dr. Qasem Mohammed Buhaibeh, Minister of Public Health and Population, Yemen** , explained that unplanned urbanization, poor water storage practices and waste management, environmental factors, and ongoing conflict in the region has exacerbated the transmission of dengue between regions and provinces. He acknowledged that active participation from other developmental sectors is required to control and prevent dengue fever and other arboviral diseases, in addition to engaging and empowering the local community with knowledge, tools and resources to scale up the effective role of the community.

Field experiences from Colombia and Singapore emphasized how the integrated approach of the Global Arbovirus Initiative can help the countries to prepare to early detect and control the next arbovirus outbreak. Information from entomological and virological surveillance established an early warning system for the city of Medellín to respond quickly to changes in virus circulation or mosquito populations. This, with the aid of strong community engagement and digital tools, led to record lows in dengue cases in 2021. Singapore employs intersectoral approaches, with a focus on prevention, preparedness, and innovation to combat arboviruses in its tropical and urban environment, including investment in new tools. Strong partnerships across the public and private sectors along with community mobilization support their environmental management programs to prevent mosquito breeding.

**Dr. Maria Van Kerkhove, WPE/EPP/EZD,** and **Dr. Raman Velayudhan, UCN/NTD/VVE,** provided final remarks for the event. They congratulated the Global arbovirus Initiative on its launch and thanked WHO leadership and partners for their participation in it. They also reiterated WHO's commitment to preventing the next pandemic by disease X, including one of arboviral origin, and making the world more aware of arboviral threats. WHO is updating their arboviral technical tools and guidance, including hotspot mapping, working with local partners to strengthen surveillance and prevention activities, and supporting arboviral research and development. WHO promotes the collaborative approach of Global arbovirus Initiative and invites public feedback and support to make the initiative successful and impactful. Now is the time to move forward proactively and position ourselves, throughout areas at risk, to better address the ongoing arboviral disease burden and prepare for what comes next.