

## Community participation in the control of disease vectors: Old questions, new approaches

June 12

Institute for Science, Innovation and Society  
University of Oxford  
64 Banbury Road

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|-------------|--|
| 9am         | COFFEE   |
| 9:15-9:30   | Welcome: Workshop rationale and objectives<br><b>Ann H. Kelly</b> (King's College London) and <b>Javier Lezaun</b> (University of Oxford)  |
| 9:30-10:15  | Challenges and lessons learned in large-scale community engagement: the World Mosquito Program experience in Brazil<br><b>Guilherme Costa</b> (World Mosquito Program, Brazil)             |
| 10:15-11am  | The first step in stepwise: engagement during the containment laboratory phase of research<br><b>Megan Quinlan</b> (Centre for Environmental Policy, Imperial College London)              |
| 11am-11:15  | COFFEE   |
| 11:15-noon  | Challenges and opportunities in engaging stakeholders on the genetic control of vector borne diseases<br><b>Lea Toé</b> (Research Institute of Health Sciences, Ouagadougou, Burkina Faso) |
| Noon-1pm    | LUNCH  |
| 1pm-1:45    | From engagement to co-development: how projects can learn and be influenced by stakeholders<br><b>Delphine Thizy</b> (Target Malaria)  |
| 1:45-2:30   | Citizen Science for the Surveillance of Invasive Vector Mosquitoes<br><b>Roger Eritja</b> (Centre de Recerca Ecològica i Aplicacions Forestals, Spain)                                     |
| 2:30-2:45pm | COFFEE   |
| 2:45-3:30pm | Anopheless Africa: Targeting residual malaria transmission in Tanzania<br><b>Fredros Okumu</b> and <b>Lina Finda</b> (Ifakara Health Institute, Tanzania)                                  |
| 3:30-4:15pm | Rockefeller scientists, mosquitos and yellow fever research in 1940s Nigeria<br><b>Megan Vaughan</b> (University College London)   |
| 4:15-5pm    | Final discussion: Next steps   |

## Participants

**Guilherme Costa** is a researcher with a focus on communication and communities studies. He holds a doctorate from the University of Caen - Normandy, France, with a thesis on political dialogue in the participative management of Brazilian protected areas. He also holds a Master's degree in Social Change and Political Participation from the University of São Paulo. He is currently Professor at ESPM in Rio and leader of the World Mosquito Program / WMP Engagement and Communication team, conducted in Brazil by the Oswaldo Cruz Foundation (Fiocruz).

**Roger Eritja** is the entomology manager of Mosquito Alert. Mosquito Alert is a citizen science project initially aimed at tracking the invasive and disease-carrying mosquito species *Aedes albopictus* in Spain, using a dedicated smartphone app that allow citizens to take pictures of the targeted mosquitoes. These reports are forwarded to a server, classified by expert entomologists and rapidly published to a categorized public map at [www.mosquitoalert.com](http://www.mosquitoalert.com). Its rapid growth since 2014 with more than 45,000 downloads resulting in ca. 10,000 reports has turned it to a comprehensive platform sheltering a large user community, interacting via web site and social media and empowering citizenship to deal with mosquito problems at home. Upon this growth, more features have been introduced to the system, like the early detection of *Aedes aegypti* (the Yellow Fever mosquito) should it appear in Spain, plus a dedicated set of management tools to augment already existing authoritative public health data and facilitate decision making by public health managers and stakeholders involved with vector mosquito surveillance and control. This included international expansion such as in Hong Kong, since the system is scalable by its own nature. Roger holds a PhD in Biology. His thesis focused on speciation in the common mosquito *Culex pipiens* in the Baix Llobregat. He works as an entomologist at the Mosquito Control Service of the Baix Llobregat County Council.

**Lina Finda** is a research scientist at the Ifakara Health Institute in Tanzania. She received her BSc in Biochemistry and Biology/Anthropology from Western Washington University (USA) in 2010, and in 2014 received a Masters of Public Health with dual concentrations in Maternal and Child Health and Health Education and Promotion, from Tulane School of Public Health and Tropical Medicine (USA). Ms. Finda joined Ifakara Health Institute on 2015 and since then she has been working on several project to investigate the size and drivers of malaria transmission, and to understand the interactions between Malaria vectors and humans. Ms. Finda also works as a liaison and disseminator between the Ifakara Health Institute, Ifakara office, and its surrounding community. Ms. Finda is currently pursuing her PhD, registered at the University of Witwatersrand in South Africa. Her research is based on investigating the awareness and acceptance of the future alternative technology for Malaria transmission.

**Ann H. Kelly** is a Senior Lecturer in the Department of Global Health and Social Medicine, King's College London and the Co-Deputy Director of the King's Global Health Institute. Her ethnographic work focuses on the socio-material practices of global health research and innovation in Sub-Saharan Africa, recent examples of which have been published in *Cultural Anthropology*, *Social Studies of Science*, *Social Science and Medicine* and *Visual Anthropology*. She is currently collaborating on a number of transdisciplinary initiatives including an NIHR Research Unit on System Strengthening in Sub-Saharan Africa (ASSET) and, with colleagues at the University of Edinburgh and the Indian Institute of Public Health-Hyderabad, an ERC-funded project investigating the Design and Use of Diagnostic Devices in Global Health (DiaDev).

**Javier Lezaun** is Director of the Institute for Science, Innovation and Society and Associate Professor in the School of Anthropology and Museum Ethnography at the University of Oxford. His research interest include the social organisation of pharmaceutical research on tropical infectious diseases, community participation in vector control efforts, and the governance of novel global health biotechnologies. He is currently co-

ordinating the British Council's Newton Fund-sponsored project *Acting in an Uncertain World: Mapping Public Health Responses to the Zika Epidemic*.

**Fredros Okumu** is the Director of Science at Ifakara Health Institute. He originally trained as a Public Health Officer at Moi University, College of Health Sciences in Kenya. He holds a Master's degree in Applied Parasitology from University of Nairobi, Kenya, and a Master's degree in Geo-information Science, Earth Observation and Environmental Modeling from Lund University, Sweden. In 2012, Dr. Okumu earned a PhD in Infectious Tropical Diseases from London School of Hygiene and Tropical Medicine. He is a honorary associate Professor of Public Health at the University of the Witwatersrand, South Africa, and a honorary Research Fellow at the Institute of Biodiversity, Animal Health and Comparative Medicine, University of Glasgow, UK. His research interests include: new technologies to accelerate malaria elimination efforts, quantitative ecology of residual malaria transmission, control of mosquito-borne arboviruses and improved housing for marginalized communities. Dr. Okumu was awarded the American Society of Tropical Medicine and Hygiene Young Investigator Award in 2009, a Wellcome Trust Intermediate Research Fellowship in Public Health and Tropical Medicine (2014-2019) and a Howard Hughes Medical Institute -Gates International Research Scholarship (2017-2023). He co-chaired of the Malaria Eradication Research Agenda consultative group on Tools for Elimination and is Co-Chair of the WHO Vector Control Working Group on New Tools for Malaria Vector Control. He was inducted in June 2016 as a Young Affiliate of the African Academy of Sciences and was named among the 2016 Top 100 Global Thinkers by Foreign Policy Magazine.

**Megan Quinlan** is a Senior Research Fellow at the Centre for Environmental Policy of Imperial College London. She has worked on the challenges of introducing novel vector control over the past decade, in projects funded by WHO/TDR, FNIH and the BMGF. This work builds on 20 years previous experience of areawide control of agricultural pests and development work in biosecurity. Her focus is on the organisational preparation and implementation of applied research, including coordinating research for regulatory decisions in plant health. Megan holds a Bachelor's degree from Duke University, USA, and an MSc in tropical agriculture from CATIE, Costa Rica. Her recent PhD research (under final revision) at Imperial College relates to decision makers along the first steps in delivery of a novel intervention for vector control.

**Delphine Thizy** is the Stakeholder Engagement Manager of Target Malaria, a non-for-profit consortium of researchers developing an innovating vector control approach to save million of lives from malaria. She has over 10 years experience in the field of stakeholder engagement in lower-income countries, with a particular attention on conflict drivers. After receiving her Masters Degree in development studies and project management from the University Pierre Mendes France (Grenoble, France), she worked in advocacy for Palestinian farmers' rights before holding several positions within PlaNet Finance in the Middle East and South Asia. There she was responsible for technical assistance to microfinance institutions in post-conflict countries as well as leading a team for capacity strengthening of various civil society groups. Afterwards she joined a consultancy company, Channel Research, specialising on social impact of projects. In that role she conducted a number of projects evaluations in the field of humanitarian aid and development for a variety of donors and organisations – including the European Commission, members of the Red Cross and Red Crescent Movement and private foundations. After creating her own consultancy company she specialised in social performance and stakeholder engagement for infrastructure and extractive industries. She led several teams for large social impact assessments across Africa. Since 2014 she became the Stakeholder Engagement Manager of Target Malaria and works with teams in Mali, Uganda and Burkina Faso, as well as at the global level to engage stakeholders to co-develop and share an innovative long-term, sustainable and cost-effective vector control technology.

**Lea Toé** is Stakeholder Engagement Leader with the Target Malaria program in Burkina Faso. Target Malaria is a not-for-profit research consortium that aims to develop and share novel genetic technologies for malaria control and elimination. Her research interests centred on understanding community perceptions of malaria control tools which have been shown to be efficacious in the laboratory and under experimental conditions (i.e. impregnated insecticide nets, medication). She has investigated the conditions leading to an effective

integration of bed nets in communities, pointing out economic, social and cultural factors influencing the acceptability of bed nets as well as the social perception of mosquito adult and larval control. She is currently focused on community acceptance of genetically modified mosquitoes, and on the social framework required to help reduce people concerns and enhance acceptance.

**Megan Vaughan** is Professor of African History and Health at the Institute of Advanced Studies in London. She was formerly Smuts Professor of Commonwealth History at the University of Cambridge and Professor of Commonwealth Studies at the University of Oxford. She is a Fellow of the British Academy and of the Royal Historical Society. Her work, which crosses disciplinary boundaries, has focused on the history of medicine and psychiatry in Africa, on the history of famine, food supply and gender relations and on slavery in the Indian Ocean region. Most recently she held a major AHRC award on the history of death and death practices in Eastern and Southern Africa. She is now working on a Wellcome Trust-funded history of epidemiological change in Africa, focusing on 'chronic' diseases. She began her career at the University of Malawi and maintains strong links there and elsewhere in the region. She is committed to working collaboratively with African scholars and institutions and is a past President of the African Studies Association of the UK. Professor Vaughan holds a five-year Wellcome Trust Investigator Award in Medical Humanities to research Chronic Disease in Sub-Saharan Africa: a critical history of an 'Epidemiological Transition'. The study is being carried out collaboratively with colleagues in Ghana, South Africa and Malawi and aims to produce a clearer historical analysis of the rise in incidence of non-communicable diseases in sub-Saharan Africa and a critical account of epidemiological change, contextualising this within a larger environmental, economic and social history. This is an interdisciplinary project involving public health experts, social epidemiologists, social psychologists, historians and anthropologists. Among the issues we will be addressing are changing nutrition, the incidence of diabetes mellitus, obesity and 'metabolic disorders'; the experience of co-morbidities; changing patterns of cancer in Africa; environmental health, 'exposures' and the role of epigenetics; the history of hypertension and heart disease and the relationship between infectious and non-communicable diseases.