

Report on Integrative Interventions across Neglected Tropical Diseases to Support Sustainable public health policy workshop

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The workshop was organized as a two half-day event. Starting at 12h00 Thursday 9th May and finishing at 12h30 on Friday 10th May 2024. The event was coordinated and chaired by Dr Joaquin Prada, with an organizing committee including Dr Matha Betson (FHMS), Dr Katherine Pond (PEPS), Prof Dan Horton (Animal and Plant Health Agency), Dr Olaa Mohamed-Ahmed (UK Health Security Agency) and Dr Rachel Tidman (World Organization for Animal Health). The event was hybrid, with around 20 attendees in the room and almost 100 registered online.

Background

Neglected Tropical Diseases are ancient diseases with a large burden of chronic illness and mortality, which have devastating human, social and economic impact on over 1 billion people worldwide, predominantly among the most vulnerable, marginalized populations, sometimes referred to as the “Bottom Billion”. Because of their huge impact, they perpetuate the cycle of poverty. There are many challenges for the control and elimination of these diseases, with resource constraints being a key limitation. As control and elimination programmes are generally created to target a specific disease in isolation, integrative approaches across diseases can provide the sustainable solutions that are needed to support progress towards the ambitious control and elimination goals set out by the World Health Organization for 2030, and to curtail the effects that these diseases have in under-served communities.

Aims

The overarching aim of the workshop is to drive forward new proposals, projects, and guidelines to support endemic countries with integrated public health programmes to combat these diseases. This requires collaboration from experts across disciplines, from parasitology, veterinary sciences and medicine to mathematics, engineering, and social sciences. The workshop aims to answer the following questions:

1. What criteria and requirements are needed for integration across programmes, and what are the barriers?
2. How important are the different criteria and requirements relative to each other and what solutions (or roadmaps) exist that could help?

Day 1

The first day started with talks from national and international stakeholders. Dr Bernadette Abela from the World Health Organisation opened the discussion presenting on integrating interventions across Neglected Tropical Diseases and beyond, and when it makes sense to do so. It was followed up by Dr Rachel Tidman from the World Organisation for Animal Health who focused on dog-mediated rabies as a model for One Health implementation. We then heard from Dr Katinka de Balogh, the former One Health focal point at the Food and Agriculture Organisation, who discussed what are the key elements for integrated approaches. Nationally, Prof Dan Horton and Dr Olaa Mohamed-Ahmed from the Animal and Plant Health Agency and the UK Health Security Agency respectively presented on integrated approaches in the context of zoonotic viral diseases (Horton) and working across countries, sectors, and disciplines, and what is the UKHSA perspective on global One Health work (Mohamed-Ahmed). The session was closed by Dr Ryan Wallace, from the US Centers for Disease Control and Prevention, who discussed One Health on both ends of the spectrum, reflecting on two examples of multisectoral collaboration from the US and Haiti.

After a short break, the first breakout activity was initiated, focused on addressing the first aim of the workshop, which as stated above is to define what are the requirements for integration and what barriers might exist. This was framed as a group exercise with the following activities:

1. How do you define programmatic integration?
2. What do you mean by cross-cutting programmes?
3. Consider you are running an NTD programme with limited resources. You must work across disease programmes. What criteria would you consider?
4. State One Strength, Weakness, Opportunity and Threat (SWOT) for each criteria
5. If you have time: name some examples



After the breakout, the day ended with a summary of the discussions and a wrap up. Consolidating across the different groups, the following criteria were identified for their relevance in facilitating integration of activities:

1. Integration across priority pathogens
2. Common Host(s)
3. Common Vector/Transmission
4. Similar Programmatic Goals
5. Similar Severity
6. Similar Geography
7. Similar Intervention
8. Similar Diagnostics
9. Similar Delivery Requirements
10. Improving Efficiency in one or both diseases
11. Similar Community Engagement



Day 2

The second day started with additional presentations by internal and external colleagues. We heard from Prof Guy Howard, from the University of Bristol, who reflected on Water, Sanitation and Hygiene (WASH), as “the forgotten key” to tackling NTDs. It was followed up by Prof Rachel Simmonds from FHMS showcasing the integrative measures to fight skin NTDs, using the Global Buruli Ulcer Initiative as an example of good practice. Two colleagues from the Global Institute for Disease Elimination, Drs Ngozi Erundu and Diana Yousef, discussed their work on integrated approaches in the context of disease elimination. The session was closed by Dr Jo Widdicombe from FHMS who challenged the audience to reflect on Equity through an online questionnaire.

After a break, the second breakout was carried out, tackling the second aim of the workshop on the assessment of the different criteria and requirements identified previous day relative to each other. These were summarized into the 12 (relatively broad) criteria mentioned above. The groups were then tasked with the following:

1. Define and characterise each of these criteria, in a way that is measurable/relevant for a given disease programme.
2. More criteria could be added (up to 20 in total)
3. Each member of the group was given 120 points to allocate across all the criteria (based on how important they feel they are).



After the breakout, the day ended with an overview of the discussions across both days and a discussion on the future plans. From the second breakout, a few criteria were identified across the group as more important, namely having a common Vector or transmission pathway, a similar programmatic Goal/s, improving efficiency in one or both diseases, and a similar community engagement, although it is important to highlight that the last one scored high on average due to one group member assigning a very high score. The lowest impact criteria identified were having a similar diagnostic or a similar disease severity.



Next steps

Contributions and outcomes from the workshop will be published in a peer reviewed One Health Journal.

The workshop stimulated discussions in many different directions, with new collaborations emerging. There was a strong networking element and the prospect of a future grant proposal developing a framework to facilitate integration and promote sustainability in disease control and elimination programmes.

Closing thoughts

The workshop led to networking opportunities, and experiences across all academic levels (from one undergraduate who joined the event, to PGRs, ECRs, and more established academics). The workshop “put Surrey on the map” for a wide range of international stakeholders on the topic of Neglected Tropical Diseases and integrative approaches.

Overall, the attendees enjoyed the event, with very positive feedback:

“I’m an undergrad student at the school of Veterinary medicine and for me personally, I really **value the opportunity** to speak to people in sort of para-professions adjacent to veterinary medicine, clinicians. I think epidemiology and One Health are such exciting and important subjects and the people from the field that have attended this event are incredible and it’s been just invaluable to be able to talk to them and hear about the work that they’re doing.”

“My favourite part of the event yesterday was the breakout session where we had **different groups brainstorming** on what are the different types of parameters that we should look at to figure out how we can get programmes working to help control and to eliminate the various neglected tropical diseases, how we can get them to marry up or find ways for collaboration across sectors, across different disease programmes, and not just focused within the NTDs but also looking at other health promotion or disease control programmes for completely different types of pathogens.”

“For me, the biggest take home so far has been around how much people really value integrative approaches. I think **people appreciate the opportunity to learn from others’ disciplines** to get a better understanding of how the way people understand things can be applied to their own work. So that’s one of the things that I personally will be taking forward in my own work.”

“My takeaway from the workshop was really **about people**. Amazing to hear different people’s experiences in NTDs, but also working together, collaborative approaches and different people’s experiences of it really across the world. The expertise that we have in the room has been amazing.”

“My favourite part of the workshop so far has been **listening to speakers from various countries** and various organisations discussing their approaches to tackling some of these really important diseases. And particularly starting to understand the role of the environment, which is critical when taking one health approach.”

“My favourite part of the workshop was learning about the different ways that we could potentially integrate across different neglected tropical diseases. And actually, even before getting into that, it’s just **how to think** about this and developing a framework for moving

forward with integration and cross cutting across different techniques and research. I have really enjoyed this workshop, it's been very interesting and it's given me a lot to think about and ways that I can apply to my own research.”



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