

**NTD Intersections: Which Hinder Progress, and How Can We Tackle Them?**

**Session Date:** Friday, October 26

**Session Time:** 1:00pm – 4:00pm

**Session Location:** Orleans, 3<sup>rd</sup> Floor

**Session Description:** Progress towards control, elimination, or eradication of the most neglected diseases is hindered by a growing number of factors. Whether it be non-communicable diseases, poverty, conflict, environmental changes or political issues, we need to know and formulate strategies to address them. In this session we will hear a summary of two days of discussion on a number of the key intersection and discuss these further to arrive at priority research goals and concrete actions.

**Session Chairs:** Tamar Ghosh, Royal Society of Tropical Medicine and Hygiene  
Dr Adrian Hopkins MBE, Independent Consultant  
Dr Wendy Harrison, SCI  
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**Session Rapporteur:** Kat Rock

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**KEY DISCUSSION POINTS**

During the Annual Meeting session, presentations focused on key neglected tropical diseases (NTDs) and their most challenging intersections. Also focused cross-sector and cross-discipline discussions took place on four of the intersections that most commonly affect progress towards reaching NTD targets – mental health, disability, conflict, and built environments.

**Mental health**

Mental health is a global issue, and no one country has yet found the right approach to tackle this comprehensively. In developing countries access to resources is a barrier to progress in this area, and often there is alignment with NTDs due to shared levels of neglect by affected populations. Mental health, like disability, is relevant to NTDs in three separate ways – 1) the barriers to inclusiveness of NTD programmes to populations with mental health issues, 2) the causation of mental health issues as a result of stigma related to NTDs, for example through resultant wounds, and 3) NTDs that cause mental health issues for patients due to the immense changes in life circumstances. There is a need for evidence-based programmes and scaling up for community-led and African-led research into mental health in order to innovate and reframe the agenda for prioritising elimination vs. quality of life issues. There is a potential for cross-learning opportunities (e.g., from HIV and NTD infections for which people also suffer stigma).

**Disability**

This presentation outlined how many mainstream NTD programmes include tackling the impact of physical disabilities. However, the challenges are not just an NTD issue but a public health one. Disabilities caused by NTDs can be worsened if there is a lack of preparedness to manage subsequent economic consequences. The community is a vital part of support for disability and there are examples of how self-support can reach those affected by specific disability – such as support

groups for Zika mothers. There is a future need to capture and share case studies of how disabled communities are integrated into planning and program delivery.

### **Conflict**

There is an obvious link between many regions affected by NTDs and conflict areas. This encompasses communities directly affected by conflict, populations moving as a result of conflict, and cross-border populations. It is particularly challenging to deal with unstable populations – of either people or parasites – as they move and we need to move with them. Conflict impacts infrastructure and delivery of services, as well as changing priorities in a region. We need to understand how the NTD community can work together to optimise opportunities to intervene, and prevent outbreaks or recrudescence, whilst acknowledging that every conflict region has unique characteristics and risks.

### **One health**

The case for inclusion of veterinary public health is strong – over half the NTDs have an animal as part of their transmission cycle, but many also have 2020 elimination targets. There are a range of possibilities for grouping human and animal interventions: we can vaccinate, and give topical insecticide and pills which impact multiple zoonotic infections at the same time; we can target multiple species (e.g., dogs and humans) for deworming; or we can offer joint services, such as coordinating animal and human interventions at the same time. A strong argument for the One Health approach is the cost-effectiveness of considering the impact on multiple areas (human health, veterinary, and agriculture), which may not show when we consider individual programmes. Additionally, some programmes have a clear need for one health – e.g., Guinea worm eradication is threatened by recently discovered infection in dogs, whilst it was previously thought to only be in humans. We need to ensure similar discoveries for other infections do not jeopardise progress made.

### **Built environment**

The size of this problem is huge – millions of households need large changes in development of housing to make it fit-for-purpose. There are a number of NTDs, infectious and non-communicable diseases, and other injuries such as snakebite affected by the environment in which people live, be that the house or structure itself or the immediate surrounding area. Housing can impact infections, but there are not necessarily clear answers and there are conflicting needs, for example open eaves are good for respiratory tract infections but bad for vector-borne diseases. Often funding is disease-specific but we need to take account of the bigger picture using a holistic approach to view this issue through the lenses of disease transmission, and wider viewpoints ensuring community norms and practices are considered. There is a lack of data across the NTD space to map the issues and complexities of the built environment, and we need to identify causes of existing issues.

### **KNOWLEDGE GAPS IDENTIFIED**

*The groups identified areas that they thought would warrant further discussion at this workshop:*

- Lymphatic filariasis + morbidity management + mental health
- Integration of mental health + disability in health system development
- Minimum mass drug administration (MDA) coverage
- Conflict settings (migration) varieties
- How conflict affects health-seeking behaviour
- Intervention packages for prevention and decreasing morbidity in conflict setting
- The foot
- NTDs + Epilepsy + childhood development.

*The group divided into the areas of conflict, one health, and combined mental health/disability for further discussion.*

#### Conflict

- Settings – varieties
- Time to intervene
- Health-seeking behaviour

#### Mental health and disability

- When NTDs cause disability
- How to be inclusive in NTD progress
- The foot

#### One Health

- Lessons from NTDs
- Overlap of campaigns in animal and human health

### RECOMMENDED NEXT STEPS

#### Conflict

- Research to identify if there are different strategies needed in conflict settings (for example, can we do standard MDA or do we need nuanced strategies?)
- Research to standardize the assessment of interventions approaches needed in each region
- If IDPs/refugees are from different endemicity regions, how do we conduct MDA? Do we need a survey or should we take action immediately when there is opportunity?
- What is the ideal package of NTD interventions in addition to basic health care interventions for IDPs/refugees? **The NTD community should engage with other groups (e.g., MSF) on rapid assessment of these.**
- Map the movement of people to, from, and within conflict regions to inform on risk.
- Where is each NTD on elimination pathway? Act quickly to prevent risks to elimination targets being achieved for disease with high capacity to outbreak quickly.
- How does conflict affect communities and behavior? This is setting dependent, but can influence priorities and health-seeking behavior.
- Can we measure and improve participation in conflict settings?

#### Mental health

- Review of literature of stigma for NTDs.
- Research is needed to document examples of integrating NTDs (i.e., what was done, what changed).
- Research into the impact of self-help groups, as a mechanism that could be inbuilt
- Research carried out across mental health and NTDs to ensure not reinventing the wheel
- The foot – unintentional consequences of managing footcare for diseases
- Understand better links between NTDs themselves.
- Research into how we incentivise those with diseases to seek care

#### One health

- Multiple layers – barriers low
- When animals are given to community members should be educated with respect to NTDs.
- Vet services are private and paid for – map learnings of what this implies and how could be better.

- Potential to link messages around impact
- Cash transfers – swap for giving chickens
- Research needed to understand the drivers of animal health (e.g., financial, status, and how to create a demand for services)
- Research the potentials to link messages
- Map and coordinate where agricultural workers are at same places as MDA – to identify the bonus of combining services