

Concept Note

Strengthening the Operationalization of One Health in East Africa

Africa Union HQ, Addis Ababa, Ethiopia

1-2 October 2018

Table of Contents

Rationale	Error! Bookmark not defined.
Complexity and regionalization	Error! Bookmark not defined.
The workshop	Error! Bookmark not defined.
1. Participants	Error! Bookmark not defined.
2. Goals	Error! Bookmark not defined.
3. Expected outputs.....	Error! Bookmark not defined.
4. Agenda	Error! Bookmark not defined.
5. Group work description	Error! Bookmark not defined.
References	Error! Bookmark not defined.

Rationale

As the One Health (OH) concept gains support, it is critical to assess the performance of networks and initiatives operating in this space to ensure the growing momentum is benefiting human health, animal health, and the environment in a sustainable way. One Health operationalization (OHO), or the identification of concrete actions to better implement OH approaches in the 'real world', remains a challenge despite early recommendations to that effect (1). Importantly, a 2011 US CDC report highlighted the need for OH interventions to demonstrate the delivery of better (health) outcomes across the relevant domains (e.g. public health, animal health, and environment). In other words, OH actions must contribute value over and above the status-quo traditionally characterised by domain-specific approaches. Inherently related, operationalization is generally defined as the process of defining a phenomenon or concept, not directly measurable (e.g. health), so as to make it measurable in terms of some observable variables or indicators (e.g. blood pressure). It follows that scale and index development are required to support operationalization.

The Centre on Global Health Security at Chatham House¹, in collaboration with academic and private sector partners², recently mapped out and characterised 100 One Health networks in three continents (2). The most relevant results indicated that the majority of networks engaged in one of three activities—communication and collaboration, data and information sharing, and capacity building; only 15% mentioned a monitoring and evaluation (M&E) strategy on their website, and fewer provided details of this strategy; 78% of networks worked with government and academic actors, and 23% involved the private sector and 10% involved communities. The results in general revealed significant variation in how OH is being operationalised and outline a pathway towards improvement. Specifically, there seem to be opportunities to develop models/frameworks to better monitor and evaluate OH value contribution and implementation. These must account, as appropriate, for the interests and goals of all relevant stakeholders across the One Health spectrum, from local communities and national governments, to those of donors, international agencies and the private sector. Khan et al. (2018) also reported the increasing number of OH networks in recent years. This trend, combined with the glaring absence of M&E metrics seem to indicate an increasingly saturated market where rationalization and standardisation may be the next logical step, if only to prioritise attention and resources towards those efforts delivering greater value.

¹ See here for details: <https://www.chathamhouse.org/about/structure/global-health-security>

² See here for details: <https://www.zoetis.com/>

Here, we suggest that OHO can be achieved in two generic ways: i) via the identification of specific interventions across the entire spectrum of possible OH interventions that, regardless of their domain of origin, deliver the greatest value and hence are prioritised into deployment (e.g. dog vaccination against rabies), and ii) via identification, refinement and monitoring of

those processes at the interface between the three sectors (human, animal and the environment) that deliver greater efficiencies. The former will benefit from the development of outcomes research solutions to improve decision-making; the latter from operational research efforts. The workshop will provide a platform to discuss the implementation of these two operationalization mechanisms. In addition, the workshop will explore the solution space for a greater contribution of communities and the private sector towards sustainable OH implementation.

Complexity and regionalization

The implication of multiple domains (animal health, public health, environment), and the delegation of decisions to subnational entities are complexity features of OH. Other features, described more commonly in financial contexts (3) can also be applicable to OH problems: i) feedback loops, ii) non-stationarity, iii) extreme behaviour, iv) paired with a specific context, and v) with multiple agents (or stakeholders) commonly seeking individual improvement. At this point, we identify two types of OH problems: external and internal. To the multiple possible scenarios at the environment-animal-human interface, stemming from the number of possible health threats and their countless manifestations and combinations (external OH problems), we argue that there is an array of internal OH problems defined by the prevailing occurrence of governance challenges and suboptimal decision making mechanisms between agents to strategically address cross-sectoral issues. These organizational OH problems originate from the multiple interactions between agents and processes at the environment-animal-human interface, amplifying the effects of loss correlation stemming from mis/aligned hazards and/or systems and their agents. While complexity features are relevant to both external and internal OH problems, this workshop targets the latter.

Whereas generic standards and guidelines for OHO can be developed centrally, and analyses of aggregated data (for global advocacy and impact assessment) are better conducted at this level, we recognise the relevance of local heterogeneities on the degree and quality of OHO. In more detail, the regionalization of OHO would require a number of

methodological developments and organizational solutions. More specifically on the former, we stress the need for the spatial and temporal characterization of:

- i) Risks (as exhaustively measured as possible, e.g. for zoonoses with the integration of evidence from all data sources informing the risk pathway (4));
- ii) Health capacities (e.g. as informed by the International Health Regulations or others (5)) and vulnerabilities (e.g. of social and economic nature);
- iii) Evidence asymmetries (to inform the impact of ambiguity in the uptake of OH (6));
- iv) Values alignment between locally relevant stakeholders (7); and
- v) Risk attitudes (8).

The workshop

The workshop is a coordinated effort between the Chatham House Centre on Global Health Security, and the Africa Centres for Disease Control and Prevention (ACDC). The workshop is funded by Chatham House, the ACDC and Zoetis.

We plan a 1.5 day workshop on 1 and 2 October to forge a consortium towards the preparation of a feasibility study to support the enhanced operationalization of OH in Africa, honing in on the East Africa region as a first step. The workshop will comprise presentations to introduce the different themes and group work to deliberate and produce inputs towards the preparation of the feasibility plan. Inputs from the groups will be discussed in plenary. The workshop will be recorded. Chatham House Rule will apply³.

In order to collect as wide a range of opinions as possible, attendees will be grouped by domain (e.g. environment, public health, animal health, one health,), or stakeholder (public officials, international agencies, corporations, NGOs) depending on the questions to answer (see work group description). Given the limited time, the workshop will not seek consensus on every theme under discussion but will follow up remotely with interested participants in refining and including any further contributions into the final workshop report, and the feasibility plan.

1. Participants

The workshop will gather officials and representatives from government departments (e.g. ministries of health, ministries of agriculture, and environment departments), international agencies (e.g. Africa Centres for Disease Control and Prevention, World Health

³ Chatham House Rule: “When a meeting, or part thereof, is held under the **Chatham House Rule**, participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed”. <https://www.chathamhouse.org/chatham-house-rule#>

Organization), corporations (e.g. Zoetis), civil society organizations, and a number of other institutions with a role in OHO.

In order to support further networking, the complete list of participants, their affiliations and contact details will be provided at the meeting.

2. Goals

The workshop aims to build a coalition towards the development of a feasibility study on the integrated operationalization of OH in Africa across all domains and relevant scales.

The underlying objective is to assess the value (a multi-dimensional entity across stakeholders and scales) from OH approaches derived from improved efficiency (or other relevant outcomes), and taking into account performance/delivery issues (as influenced by local heterogeneities). In doing so we aim to assess what benefits would come from a regional approach towards the identification of local benchmarks. In order to do that we first need to identify and contextualize how OH is operationalised within programmes, between stakeholders, and across scales, to then measure its value versus the status quo adjusted for the local differences.

3. Expected outputs

- I. A collection of OHO issues across stakeholders
- II. A collection of technical, and organizational barriers, and solutions, by stakeholder towards OHO. This will directly populate the justification/rationale of the feasibility plan.
- III. A collection of processes and governance structures for the operationalization of OH.
- IV. A short-term action plan to start working towards the preparation of the feasibility plan, and strategies towards its funding and implementation.

All the previous will populate a meeting report for which we will seek publication, and a feasibility plan for the strengthened operationalization of OH in Africa. The feasibility study/research proposal will advise standardised methodologies towards value delivery, development and implementation of M&E mechanisms, and suggested processes and structures to support operationalization on a regional basis. The feasibility plan will address both methodological and organizational challenges. The former stem from the

development of guidelines towards value elicitation, OH complexity features, and the regionalization of OHO (as described above). The latter stem from failures to deliver against the elements of a successful OH operationalization (10), which we fully subscribe to and reproduce here for their relevance: “when agencies with different mandates are responding to a common external threat; adequate funding is available to enable each sector to contribute to the outcome; individual entities are willing to accept non-traditional liaisons within their organizations; key individuals have established trusting relationships with counterparts in other agencies; optimal outcomes are mutually agreed upon and are science based; leadership rotates among agencies; and the value of a collaborative One Health approach is visibly demonstrated”. We would only contribute one additional element: shared and mutually relevant M&E indicators to track the deployment of all the other elements.

The feasibility plan will comprise parallel developments, as follows:

1. OHO mapping. This includes mapping of value metrics (ideally quantified) for OH interventions for priority threats across programmatic areas. For example, value can be delivered in the form of reduced uncertainty around risk classification of health units (that would support enhanced resource allocation) from the integrated analysis of

animal data and public health data (4). Value can also be delivered from the integrated risk characterization of emerging threats in the form of more comprehensive and timely joint risk communications. These examples show that value can be generated from threat-specific and cross-cutting OH interventions. To support further analyses and comparisons the project will develop a template to standardise data collection. This component will build on the work of Khan et al. (2018) on One Health networks. The comprehensive mapping of all OH activities will allow the identification of synergies across threats and stakeholders.

2. Mapping of threats, health capacities, and risk perceptions to inform local heterogeneities. There is abundance of risk maps for single threats. However, multi-hazard approaches, in combination with capacity developments, are complex and relatively new (11). The work will have to build on those, and expanding to include better characterised capacities. In addition, models will have to be developed to allow integration of risk perceptions. Psychometric approaches are commonly used for the elicitation of risk perceptions. This type of approaches presents limitations, of particular interest to our setting is the lack of out-of-sample generalizability of the results and the logistic difficulties associated with the deployment of the survey instruments. Here we will explore the application of vector space semantic models (12) to predict and track risk perceptions for a number of OH threats and interventions.

3. Methodological development to support integration of all evidence to inform comparisons and identification of benchmarks, adjusted for local heterogeneities. For example, a recent study found that integrated analysis of rodent population data and human cases of tularemia improved risk estimation in 75% of health districts (4). Further analyses are required to ascertain what local characteristics, e.g. related to surveillance operationalization, threat level, could explain why integrated surveillance analysis did not bring value, in the form of more precise risk estimates, for 25% of health districts. The availability of resource data assigned to OH interventions and the elicitation of willingness-to-pay thresholds, by the spatial unit of interest for example, would refine comparisons, of cost effectiveness this time, between spatial units.
4. Active dissemination of policy-friendly reports and engagement with relevant stakeholders to facilitate change.

Through the delivery of the above components, the plan will enhance standardisation of OH activities, contribute methods to measure OH activity across different scales and stakeholders (which, in turn, will allow OHO progress monitoring against specific objectives), identify efficiencies and benchmarks, and promote OH in the region.

