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### **Climate change, mobility and health in East Africa: Data needs and challenges**

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# Climate change, mobility and health in East Africa: Data needs and challenges

## BACKGROUND

Despite growing interest in research and policy regarding the interactions among climate change, mobility, and health, a common refrain is that there is a shortage of suitable data across these themes and especially at their intersection. Notable gaps in existing data relate to: (i) how climate change will affect, and is affecting, health systems, (ii) the relationship between climate change, mobility and immobility, and (iii) the health status of migrants before, during, and after migrating in different environmental and social contexts. The lack of data on these issues makes it difficult to understand the intersections between climate change, mobility and health in specific locations, such as East Africa. In turn, this impacts the ability to respond to climate change and its impacts on migrants' health.

This policy brief offers perspectives on the intersection of climate change, mobility and health, with a focus on health system responsiveness to climate change and mobility against a background of data limitations and challenges. The discussion herein draws on interviews conducted in 2020 by the first author with nine practitioners specialising in climate change and/or mobility and/or health in Anglophone East Africa.<sup>1</sup>

Overall, this research indicates that existing data relating to climate change, mobility and health is poorly coordinated, and of poor quality and granularity. Problems include inconsistent formatting of data over time, and aggregation of data to high-level geographic jurisdictions. More specifically, interviewees for this research reported challenges in categorising different types of mobility, representing heterogeneous migrant health needs, health services, and data-responsive health systems. The reported impacts of climate change on the health of migrants varied among interviewees, in line with scientific understandings of climate change as one factor among many on migration and health.

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## ISSUES

### UNDERSTANDING THE LINKS BETWEEN CLIMATE CHANGE, MOBILITY AND HEALTH

<sup>1</sup> Ethical approval for these interviews was granted by the Research Ethics Committee of the London School of Hygiene and Tropical Medicine (Ref: 22494).

While the links between climate change and human mobility in East Africa have been extensively discussed in science, policy and practice, there seems to be a lack of clarity for the practical application of identifying and defining climate change-induced or climate-related migrants. Among the practitioners interviewed for this research, data relating to the nature and reasons for migrants' movement was felt to be poor. This is due, in part, to conceptual challenges in categorising different types and reasons for mobility, as so-called 'push or pull' factors – including environmental factors such as climate change – are rarely clearly delineated, and often overlap. As one interviewee described, a rural-to-urban migrant may be considered an environmental migrant by some, or an economic migrant by others:

She's not necessarily aspiring to be a subsistence farmer... The reality is that the context in which that community has been farming has changed, [so her migration might] be labelled environmentally driven. Or is it that this is a young woman who, you know, wants to go study and live in the city?

Despite assumptions among interviewees that climate change does drive mobility, none of those interviewed had experience of migrants explicitly naming themselves as 'environmental', 'climate', or 'climate change' migrants when asked, nor had they experienced any operational naming of migrants as such.

The act of migrating has recognised health effects — both negative and positive — with different risks and vulnerabilities (including exposure) often associated with different types of mobility. For example, migrants often face financial, cultural, and language barriers to accessing health services. In East Africa, nomads and pastoralists in the region face particular risks and barriers, especially as changes in climate now extend beyond people's previous experiences. Given migrants' heterogeneous health needs, aggregated data might not suffice either for responding to health needs or for determining trends. Instead, high levels of disaggregated data, using multiple variables, are needed to better understand how to provide health support and services.

## **IMPACTS OF CLIMATE CHANGE AND MOBILITY ON HEALTH NEEDS**

Even without taking into account the impacts of climate change, health resources are already stretched, and health services limited, across East Africa. Against this background, interviewees raised concerns regarding the further impact that climate-driven rural-to-urban mobility could have on health, particularly in places where destination communities may express xenophobia and frustration toward incoming migrants. Conversely, some interviewees suggested that mobility may actually be beneficial for regions which are poorly resourced, because of the attention and resources that come with migrants.

For example, forced migrants moving into northern Uganda and Kakuma refugee camp in northwest Kenya can be seen to bring money, resources, and services through the UN and other organisations. As one interviewee noted :

Money has enabled the North of Uganda, which has typically been quite a neglected area of Uganda development-wise, to expand their services. You know,

change facilities from like a level two to a level three or a level four hospital, for example. So forced mobility can increase what is possible in the health system.

Other factors influencing the relationship between incoming migrants and locals include population size, the nature of the destination (e.g., within camps or dispersed within the destination) and the perceptions of destination communities regarding climatic and environmental changes. The collection of data on the perceptions of people in destination locations, as well as on services currently available and services needed, could assist in implementing health responses which reduce resentment toward migrants.

In some cases, inward migration has also been the impetus to implement measures related to climate change which serve locals. Again, in northern Uganda and Kenya, tree planting projects in areas with a migrant influx helped to preserve land integrity while reversing deforestation that was, in part, driven by migrants' housing and fuel needs. One interviewee described the situation as a 'confluence between environmental degradation and the need to ensure peoples' rights, including protection for displaced people'.

## **THE ROLE OF CLIMATE CHANGE AND MOBILITY DATA IN ADDRESSING HEALTH NEEDS**

Among the practitioners interviewed for this research, mobility data was felt to be critical in ensuring health system responsiveness. In the case of communicable or pathogen-driven diseases, mobility data can support surveillance, resistance information, and opportunities to intervene – for example, by screening travellers in known hotspots and vaccinating staff. Mobility data could also enable the focusing of health inputs in areas of high migratory flow, ensuring priority interventions that anticipate potential vulnerabilities. Without adequate data, tracking and testing these suggestions is difficult.

Data relating to the impacts of climate change on mobility is particularly important for meeting health needs. Many interviewees suggested that climate change will alter health demand and impact health services, due to a rise in climate-sensitive disease and the fragility of health systems in the face of what they termed 'climate shocks'.

Interviewees generally characterised health systems as being stretched for resources, with limited 'flex' or 'surge capacity', noting that such systems were inadequate for responding to or engaging with migrants' needs in particular. This was especially the case for informal, circular, or rural-to-urban migrants, due to the lack of coordination between services, inadequate health records, inconsistent guidelines, and the absence of centralised systems. One interviewee described the experience of a pregnant female economic migrant, who chose to deliver in her home town after having been away for some time, leading to frustrations among healthcare providers.

This creates lots of tensions and frustrations, anger from healthcare providers, you know, where were you, why weren't you here? You're a bad sort of pregnant.

These attitudes can, in turn, discourage migrants from seeking needed healthcare, and ruptures in health record communication can lead to worse health outcomes.

## **THE NEED FOR INTEGRATED HEALTH SYSTEMS**

Health service provision that is integrated with other services seems to be the preferable and widely accepted solution, particularly where there are challenges in definitions and poor data sharing and

continuity. One interviewee called for ‘a change, from creating a parallel health system... to an integrated one where most money goes to government systems to serve both host communities and refugees’.

In this context, the value of distinguishing between migrants based on reasons for movement was questioned, with interviewees providing somewhat dichotomous or contradictory suggestions. While gathering data on migratory patterns is viewed as being valuable for health system preparedness and adaptation planning, disaggregation of data based on why someone has migrated (which might or might not involve climate change) may be of questionable value in terms of overall service delivery.

One interviewee elaborated: ‘NGOs are definitely talking about migration, but in our field, it doesn’t really matter the reason why people migrate. The issue is how we’re going to serve the beneficiaries we have.’ Another interviewee noted : ‘It was really hard to tell who came from where... the question from a health professional perspective was, does it really matter?’ Nevertheless, consistently with previous research and practice, migrants were recognised by interviewees as a so-called ‘vulnerable group’, with nomads, refugees, and internally displaced persons (IDPs) noted in particular. Thus, being able to identify migrants, and conduct ‘vulnerability and adaptation assessments’ could help increase access to services including health services.

## **DATA-RESPONSIVE HEALTH SYSTEMS**

Interviewees in this research sought improvements in data pertaining to:

1. Mobility – including short-term, circular, cross-border, and internal migration, as well as the link between mobility and immobility.
2. Climate change – to anticipate and respond to weather and environmental change, and the subsequent impacts on mobility and health.
3. Health – to help ‘forecast and predict’ disease patterns and therefore guide health system preparedness.

Integrating climate and health data with mobility data could identify potential routes of disease spread, alongside opportunities for targeted health interventions, including vaccinating highly exposed populations such as staff and those migrating through hotspots. Improved granularity and disaggregation would support measuring, predicting, and responding to specific health risks including communicable disease, non-communicable disease, mental health outcomes, violence, and abuse including gender-based, child and maternal health, antenatal care, and effectiveness of treatments and treatment resistance. Analyses could then be run to seek correlations with and causations from climate change, migration, and their intersection.

As a first step, and irrespective of challenges in data and delivering targeted care for specific ‘vulnerable groups’, interviewees suggested including all migrants within a Universal Health Coverage (UHC) framework, alongside removing other barriers and improving health financing and legal protection for undocumented migrants.

## **RECOMMENDATIONS**

Using the interviewees' direction, recommendations for data needs and challenges at the nexus of climate change, mobility and health, drawn from experiences in East Africa are:

1. Strengthen mobility data

Mobility data should be strengthened by ensuring coordinated data collection tools to reduce data heterogeneity between countries, organisations, and institutions. Data quality would also be improved through mechanisms encouraging and supporting consistent data collection and data reporting over time. Where data are anonymised (and subject to research ethics approvals), the data could be made open access to permit wider ranging analyses by a variety of disciplines, which could include gathering granular data for people who have moved, who are on the move, and who are not moving.

2. Use data across (im)mobility, climate change, and health streams to anticipate and respond to population needs

Relevant data should be used for forecasting, identifying, and responding to population changes, including for better understanding migrant health vulnerability across gender, age, disability, and place of origin, among other factors. These data could be applied to anticipating and meeting service needs of people and places of origin, along migration routes, and at migration destinations. Using health data to link health records between and across health systems would ensure continuity of care and reduce barriers to access for migrant populations. Benefits would also include service coverage that is responsive to climate/environment driven and/or mobility associated disease and approaches to reduce treatment rupture for migrants in transit. It would be part of anticipating, responding to, and adapting to health risks from climate change. Safeguards are needed to avoid misuse of the health data.

3. Improve coordination and communication

Improved coordination and communication could be achieved by: encouraging mechanisms that facilitate cross-sectoral collaboration; mainstreaming the climate change-migration-health nexus through national departments of health, climate/environment, and mobility; and showing political leadership by countering media narratives and populist rhetoric which may increase vulnerability and discourage accessing health services.

4. Enhance training and education

Inter-agency governmental and UN training on the nexus between climate change, migration and health is important, including technical and research training to improve the quality and use of data tools. Training for those working in health service delivery and adaptation planning who interact with the needs of migrants – including clinicians, settlement coordinators, planners and local leaders – would improve service responsiveness and capacity to reduce migrant vulnerability. Outcomes would include improved public health information and messaging on the nexus – for instance, via the use of mobility hotspots as health promotion and climate change education opportunities.

5. Support connected research and application

All of these recommendations could support ongoing research to continue to develop the knowledge base regarding the intersection of climate change, mobility, and health.

