



Maintains

Research supporting social services to adapt to shocks

Seven recommendations for building the climate shock-responsiveness of Kenya's health system

Learning from the Arid and Semi-Arid Lands (ASALs)

POLICY BRIEF | January 2021

Introduction

The formal health system of the ASALs of northern Kenya has to contend with high levels of endemic disease and undernutrition alongside surges in demand for health and nutrition services associated with recurrent climate shocks – especially drought and flood events – which are increasing in frequency.

With county governments now responsible (since devolution) for providing health and nutrition services, there is an urgent need to understand the ability of the Kenyan health system at the county level to meet these needs, and reduce undernutrition, morbidity and death.

This brief presents key findings and emerging policy recommendations from our [working paper](#) on how the health system prepares for and responds to climate shocks in the ASAL counties of Marsabit, Turkana, and Wajir. The working paper analysed the experiences and perspectives of county and sub-county government, NGO, and United Nations health and nutrition actors in relation to drought and flood events in 2019, investigating shock-responsiveness within and across the formal health system building blocks of governance, finance, information systems, medical and nutrition products, infrastructure, and the workforce.

The study found that Kenya has strengthened its shock-responsiveness in recent years as a result of new county-level institutions for multi-stakeholder and multi-sector coordination, the use of integrated planning and contingency budgeting tools, and improved early warning and health information capacities. However, there remains work to do: this brief provides seven broad recommendations to stimulate national policy dialogue and change to build the climate shock-responsiveness of Kenya's health system.

Key policy recommendations

1. Better integrate health and nutrition concerns into county and national disaster governance mechanisms.
2. Develop a human resource strategy for emergency response that defines thresholds for triggering actions, including managing employees' leave and the rapid temporary deployment of health and nutrition workers.
3. Integrate health information into early warning systems to improve the timeliness of health system responses to the surges in demand associated with climate shocks.
4. Adapt the Integrated Management of Acute Malnutrition (IMAM) Surge approach to monitor caseloads and set health facility capacity thresholds for morbidities, such as malaria and diarrhoea, in addition to the approach's current focus on undernutrition.
5. Fully integrate health and nutrition needs into flexible, prearranged disaster risk financing mechanisms at county and national levels.
6. Improve resource efficiencies and increase long-term investment in basic health system capacities (e.g. staffing and infrastructure) to ensure there is spare capacity to respond when climate shocks occur.
7. Strengthen relations with communities by increasing community participation in surge approaches and disaster governance mechanisms, and learn from communities about how to remove barriers to households accessing formal health and nutrition services during climate shocks.

1. Better integrate health into disaster governance mechanisms

While much progress has been made in developing a shock-responsive approach to climate shocks since devolution, disaster governance arrangements are inadequately adapted for, or applied to, health. For example, the health issues of droughts and floods are inadequately represented in county policies, contingency plans, and disaster financing. The Ministry of Health tends to use its already stretched resources, particularly human resources, to respond to surges in admissions during climate shocks, rather than also accessing and using contingency funds. The connection between county and national levels of the health system during emergencies also remains weak, as does health leadership for climate shock response. Moreover, the government health sector is generally focused on infectious disease outbreak response (emergency health), with less focus on the public health impacts of climate shocks and dealing with associated surges in demand/utilisation (health in emergencies). Thus, health sector contingency plans tend to concentrate on disease epidemics, while county-level disaster management institutional arrangements focus most on droughts.

All of these findings suggest that national and county government should review, adapt, strengthen, and accelerate the integration of existing shock response mechanisms into the health system at policy and operational levels.

2. Develop a human resource strategy for emergency response

Without sufficient additional human and financial resources being made available to the health system during climate shocks, extra pressures on health facilities are absorbed by health workers deploying personal coping strategies that adversely affect their productivity and wellbeing, including working longer hours, not taking leave, and task-shifting, which cause stress, exhaustion, absenteeism, and staff retention issues. The resulting lower standard of care can dissuade households from using formal health and nutrition services. Wellbeing impacts affect women most since they comprise the largest proportion of frontline staff, while women also experience increased workloads at home because of climate shocks.

In the long term, there is a need to employ and retain sufficient numbers of staff, particularly at the grassroots level. In the short to medium term, a human resource strategy for emergency response should be developed that defines thresholds for triggering actions, including managing employees' leave and associated compensation, and that proscribes procedures for rapid temporary (re)deployment of health staff from government, faith-based, and aid organisations, as well as from the Kenya Red Cross Society, within counties and sub-counties. Furthermore, county or Ministry of Health contingency plans could include financing mechanisms for emergency human resource strategies.

3. Integrate real-time health information into the early warning system

Kenya has well-developed early warning and health information systems, but these systems are not currently meeting the shock response needs of the health system. The National Drought Management Authority (NDMA), which leads on drought risk reduction, preparedness, and response, consistently disseminates early warning bulletins, which are used to raise awareness of, and plan for, drought across sectors, but these bulletins are too general – with a focus on food security and productive livelihoods – to support health system decision-making and early action. Nor do the bulletins predict future impacts, or provide early warning of health and nutrition service demand surges. At the same time, health information systems, such as the District Health Information System (DHIS2), cannot currently be used to anticipate the need for action or adapt responses to changing needs because of lag times between data collection and publication – unlike the IMAM Surge approach, which provides near real-time information on nutrition service utilisation at participating health facilities (Box 1). Further, neither IMAM Surge data nor DHIS2 data are integrated into early warning systems to provide analysis that is useful for planning anticipatory health system responses, prioritised either geographically or by population group.

It is therefore recommended to incorporate parts of the IMAM Surge data into the NDMA early warning bulletins so as to better connect the information systems used in counties for climate shock responses. In the medium term, there should also be a comprehensive review of the DHIS2 and IMAM Surge approach to identify opportunities to develop and adapt tools and processes to inform county and national health and nutrition shock-responsiveness. A statistical analysis of associations between spikes in undernutrition and morbidity admissions and predictive climate data could also inform a predictive model of the health system impacts of climate shocks.

Building capacities to detect and respond to surges in the utilisation of nutrition services

IMAM is a service managed by the Ministry of Health aimed at managing acute malnutrition in children under five years old. In 2012, an additional component of IMAM, IMAM Surge, was developed to enable health facilities and sub-county health teams to respond to surges in demand for nutrition services. This is now being rolled out to all health facilities and counties in the ASALs of Kenya. It involves health facilities setting thresholds for acute malnutrition caseloads, monitoring trends in caseloads against the thresholds, and actioning internal health facility plans and/or seeking additional resources (such as medical and nutrition products) from higher levels of the Ministry of Health when thresholds are crossed. These thresholds and actions are pre-agreed by health teams and recorded in a surge plan held at each health facility and in some sub-counties.

4. Expand the IMAM Surge approach to monitor morbidity and community cases

Where adopted, the IMAM Surge approach is increasing health shock response capacities, enabling health facilities and sub-county health teams to: analyse acute malnutrition admissions data against health facility capacity thresholds in near real-time; effectively detect early onsets of admission spikes associated with drought or other shocks; make changes to health facility functions according to pre-agreed plans; and alert decision makers to a deteriorating nutrition situation. Among other uses, this analysis informs management of staff leave, and the redistribution and deployment of nutrition products to health facilities, and triggers the deployment of mass screening and integrated outreach services to communities. IMAM Surge therefore offers a promising approach for improving the timeliness of health system responses to acute malnutrition during drought. However, the approach is not yet applied to caseloads of common morbidities, or to monitor trends in demand within communities (where some households do not utilise formal nutrition services because of access and utilisation barriers).

We recommend that the IMAM Surge approach be adapted and expanded to monitor trends in malnutrition incidence and thresholds at the community level: this would involve working with community health volunteers to establish thresholds for the number of people screened as malnourished. Earlier understanding of caseloads at the community level could trigger earlier preparations at the health facility and sub-county level. We also suggest that the IMAM Surge approach integrate the monitoring of other morbidities, such as diarrhoea and malaria, both at the health facility and community level. Moving to a multi-morbidity model would allow the approach to account for the diverse health impacts of climate shocks and the total workload at health facilities, rather than caseloads for a single condition.

5. Develop flexible and prearranged financing for health and nutrition

Kenya has developed a number of disaster financing mechanisms, including the European Union-supported National Drought Contingency Fund (to be succeeded by the National Drought Emergency Fund). However, existing contingency funds are considered insufficient to meet needs and they take time to be released, with most financial solutions still arranged after the onset of a climate shock, which frustrates early action. While prearranged financing mechanisms also exist within aid organisations, they involve relatively limited funds and again financing is more often arranged after the onset of drought or flood events, delaying the release of resources. Finally, financing through budgets is difficult because budgets are inflexible: county budgets for health are decided annually and reallocation of funds requires formal approval.

We recommend that health and nutrition concerns be more fully integrated into prearranged and transparent disaster

risk financing mechanisms in order to flexibly scale up health system financing to meet needs during climate shocks.

6. Strengthen the health system building blocks

While government health expenditure increased by 55% between 2012 and 2017, as did the average proportion of county government budgets allocated to health, in Turkana and Wajir (and less so in Marsabit) there remains insufficient coverage of health facilities and staff for sparse populations that are spread over vast geographic areas.

At the same time, while there have been considerable improvements to the procurement and distribution system for medical and nutrition products, there remain regular shortages of medicines at health facilities, especially during drought and flood events. For these reasons (and others) the government health sector struggles to absorb the additional caseload associated with climate shocks.

There is a need to build adequate spare capacity (e.g. physical, human, and financial resources) to better enable the health system to absorb expected and unexpected spikes in demand for health and nutrition services in a timely manner, in order to minimise the need for emergency response.

While this ultimately requires long-term investment in health system strengthening, existing health system resources could be used more efficiently during climate shocks, including through applying a human resource strategy (proposed above) and making further improvements to the procurement and distribution of medical and nutrition products.

7. Strengthen relations with communities

In recent years there have been efforts to strengthen the capacity of the community health system, including by recruiting and training community health volunteers, who support frontline health workers and nutritionists in the delivery of services. However, data on cases of malnutrition and morbidity in the community that are, or could be, recorded by community health volunteers are not utilised in IMAM Surge analysis or early warning bulletins. There are also limited opportunities for communities to contribute their knowledge and perspectives, or to participate in decision-making, to ensure health systems cater to their context, and to remove barriers to accessing formal services during climate shocks. Lack of trust and weak communication between communities and the formal health system also dissuades households from seeking formal healthcare during a shock.

Adapting the IMAM Surge approach to the community level, as suggested above, could be a first step towards integrating community knowledge and strengthening community participation in preparing for and responding to the health and nutrition impacts of climate shocks. More widely, there is also a need to understand how communities and their knowledge could better feed into disaster governance mechanisms, such as contingency plans and disaster management committees. Towards this aim, upcoming Maintains programme research will explore the role of the community health system, and its connections with the formal health system, to offer insights on how healthcare access barriers during climate shocks could be addressed, and what contribution indigenous knowledge can make to health system shock-responsiveness.

Towards a government-led shock-responsive health system

Significant advances have been made towards building government capacity to respond to climate shocks in the ASALs of Kenya, but the health system there remains dependent on international aid to address demand surges. However, this will need to change, as Kenya's new lower middle-income status, with the attendant withdrawal of donor financial assistance, means health system shock responses will increasingly need to be government-led and financed.

The challenge moving forward will be to adapt and strengthen county mechanisms and decision-making to better include health (and nutrition) in shock response arrangements, building on promising innovations such as IMAM Surge, the work of NDMA, and the emerging national disaster risk financing mechanisms. This will require a shift from a post-shock mentality to a risk-informed mentality within the health system.

At the same time, deeper transformative change towards a health system resilience paradigm is required, whereby capacities are strengthened for continuous proactive absorption of and adaptation to surges and contractions in caseloads associated with the multi-shock context and highly variable climate of the ASALs, in order to minimise the scale and frequency of externally-led emergency responses.

About this study

In Kenya, the Centre for Humanitarian Change, in partnership with Oxford Policy Management, is delivering demand-led and applied research on health and nutrition. The overarching aim of the Maintains Kenya research is to answer, and develop solutions in relation to, the question: 'How can health systems be made climate shock-responsive for all?'

This brief results from the first working paper of Maintains Kenya, which presents Work Package 1's analysis of the formal Kenya health system. The exploratory findings from the study will be validated and discussed by partners, and will inform policy dialogue and subsequent Maintains Kenya research, including on IMAM Surge (Work Package 2) and the informal community health system (Work Package 3). You can read more about the programme of research in the [Maintains Kenya research protocol](#).

The Kenya research is action-orientated, engaging development and humanitarian practitioners, and national and local government stakeholders, as collaborators. We welcome feedback, questions, and collaboration with stakeholders on the issues and solutions raised in this brief. **Please contact Peter Hailey (Principal Investigator, Centre for Humanitarian Change): peter.hailey@whatworks.co.ke**

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About Maintains

Maintains is a five-year (2018–2023) operational research programme building a strong evidence base on how health, education, nutrition, and social protection systems can respond more quickly, reliably, and effectively to changing needs during and after shocks, whilst also maintaining existing services. Maintains is working in six focal countries — Bangladesh, Ethiopia, Kenya, Pakistan, Sierra Leone, and Uganda — undertaking research to build evidence and providing technical assistance to support practical implementation. Lessons from this work will be used to inform policy and practice at both national and global levels.

Maintains is funded with UK aid from the UK government; however, the views expressed in this material do not necessarily reflect the UK government's official policies.

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