A perspective on urban health systems and research for equitable healthcare in Africa

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INTRODUCTION

Over half of the world's population reside in urban areas[1] and 40% of the 30 fastest growing cities by population are in Africa.[2] While it is expected that 68% of the world's population will live in urban areas by 2050, the Population Division of the UN Department of Economic and Social Affairs projects that 90% of this increase will occur in Africa and Asia, with India, China and Nigeria alone accounting for 35%.[3] The health and well-being of urban residents are linked to all dimensions of urbanisation including the natural and built environment, socioeconomic factors and institutional factors (eg, governance), and should be prioritised areas of action. Rapid urbanisation, more so in contexts of unresponsive governance and policies, significantly impacts the quality of life of people in many low/middle-income countries.

Critical assessments by the WHO and the United Nations Human Settlement Programme (UN-HABITAT) show that, globally, urban dwellers disproportionately have poorer health outcomes. These are traceable to inequitable healthcare access, increased environmental and occupational hazards, as well as increased vulnerabilities to disease outbreaks due to the rapid growth of informal settlements.[4] Urban areas are critical hotspots of overall population health, the most recent example seen in the geographical pattern of outbreaks during the early phase of the COVID-19 pandemic. Cities were epicentres, globally accounting for about 90% of confirmed cases.[1] Because they are widely networked to other global cities, capital cities in Africa are themselves key nodes in global health.[5]

Without a framework for understanding how urban health systems are conceptualised, planned and governed, local health systems

KEY MESSAGES

⇒ Urbanisation in Africa poses complex challenges for health due to ill-informed planning and governance, worsening gaps in the built environment and the quadruple burden of disease.
⇒ Achieving equitable urban (health) benefits requires a framework for understanding how urban health systems are conceptualised, planned and governed.
⇒ Five approaches and frameworks for analysing or implementing urban health strategies in sub-Saharan Africa were identified, but there is limited evidence on their use and effectiveness for informing equitable urban health systems.
⇒ Participatory research and theory building can inform contextual adaptation of frameworks which are effective in other settings, contributing to closing gaps in differential outcomes.

will remain ill adapted to the rising challenges of urbanisation, including the complex disease burden, growing urban poverty levels (presently at 23%),[1] and shrinking resources in comparison to urban growth. To better understand existing approaches for understanding and implementing urban health systems interventions in sub-Saharan Africa, in February 2022, we conducted a rapid review of the literature in PubMed and Web of Science databases without date limits. This was supplemented by articles identified through snowballing, ultimately leading to the identification of 42 papers that reported on urban health, urban health interventions or frameworks and approaches for urban health in sub-Saharan Africa. Summarily, there was scant information on frameworks for urban health systems, with a predominant focus on the built environment as a determinant of health outcomes. In this commentary, we present our reflections from reviewing the literature, starting with the framing of urban health through a complexity lens, followed by advancements in understanding urban health

systems in Africa. We conclude with recommendations for future research and implementation.

URBAN HEALTH AS A FRAMEWORK FOR HEALTH SYSTEMS RESEARCH

The framing of urban health in Africa rightly extends beyond simply adressing the health needs of urban dwellers. Most researchers have adopted a holistic view that acknowledges that urban health and equity can only be achieved when the physical, social, economic and political determinants of urban environments are addressed.[6] 'Urban health equity' implies that all urban residents stand the chance to attain their full health potential and that class, ethnicity, gender, or other sociostructural determinants do not limit the attainment of this potential.[7] While the context may vary from one country to the other, the main challenges facing health in urban areas remains similar. They include the rising burden of non-communicable diseases linked to poor access to affordable healthy options; pollution and waste management; inadequate housing, infectious diseases and the consequences of global warming. As cities continue to grow organically in many African countries, limited and inequitable access to basic amenities, including healthcare services, will become more pronounced.[6] This intensifies the need to adopt and scale socially inclusive and effective multisectoral strategies and improving access to quality primary and preventive care.[6 8]

Health systems have been described as open adaptive systems with an emphasis on the multiple interactions and unintended consequences that characterise their complexity.[9] The multiple relationships and interactions between urban dwellers, health system elements, and the environment (including social, cultural, economic, political and ecological systems) have led to shared acknowledgement that urban health systems are complex and adaptive systems[9] and that such interactions trigger dynamic feedback loops that impact health. Despite the urgency, urban health is, however, yet to become a mainstream issue in health policy and systems research—a field that tackles complex and intersectional problems. Effective and efficient health systems and policies that are adapted to counter the threats to health and equity within an urban context are paramount. While the health of urban dwellers relates to health system factors, evidence from literature suggest the effect of factors beyond the health sector.

URBAN HEALTH SYSTEMS IN AFRICA

Challenges in responding to urbanisation are not unique to Africa, as many nations face different realities in their response to urbanisation. Holistic and systemwide approaches to improving urban health have continued to gain policy attention globally. African leaders and the African Union adopted the United Vision for African development[10] in 2015 and the New Urban Health Agenda in 2016.[10] Both agendas are systematically geared towards improving the health and well-being of urban residents.

We have identified five approaches or frameworks for understanding and analysing urban health in Africa. The first, and most commonly used, compares urban health indicators to national, rural or other urban areas with the intent of highlighting inequities in outcomes.[11–15] Such comparisons are useful for unveiling and quantifying inequities, but are ineffective to tackle the complex health problems in urban areas without holistic strategies or frameworks.

The second approach is the use of the Urban Health Equity assessment and Response tool (Urban HEART), codeveloped by the WHO, researchers, academics, representatives of countries and major cities.[16] Urban HEART is a participatory tool for assessing and addressing intracity and intercity inequalities with a focus on environmental as well as socioeconomic determinants of health in urban areas. While the tool has an assessment and response component which is multisectoral, only evidence from Swaziland suggests a robust response,[7] compared with Egypt[17] and Kenya[18] where the tools have also been used. There is scant evidence that the impact of the 2018 assessment in Swaziland, which was heavily supported by international aid organisations, has been sustained today and that systemic or policy actions resulted from the analysis.

The third approach is Urban Health in all Policies (HiAP), which advocates that all public policies be made or enacted with health implications in mind. It seeks to harness synergies across policy areas as cities drive towards improving urban health and equity. HiAP recognises the importance of socioeconomic, environmental and structural factors in the framing of urban health, and promotes intersectoral approaches for solving complex issues facing urban health systems.[19 20] Proponents of HiAP believe that it could expedite the achievement of the sustainable development goals (SDG)—at least 48 SDG targets have been mapped among the 15 SDGs as being related to urban health.[19] Intersectoral collaboration has unfortunately been extremely difficult to attain and sustain for many urban health projects in low-income and middle-income African countries.[18]

A systems approach that aims to address the complex factors that influence health in cities by promoting multisectoral dialogues, planning, health promotion and intervention design[21 22] was the fourth approach we identified. It underpins different interventions and frameworks suggested or used in African settings, including the Healthy Cities Initiative,[23 24] the Research Initiative for Cities and Health conceptual framework,[6] the Dar es Salaam Urban Health Project,[25] and the Southern African Development Community project.[26] While this approach appears promising, difficulties with getting stakeholders to work together, limited resources (at the termination of donor support) and lack of robust evaluations limit its adoption across settings. Contextual adaptation of global initiatives, such as the Healthy Cities approach, may also require critical consultations in each setting as uptake

and impact in the global north and south remain largely parallel despite using the same framework.[23]

Finally, the knowledge coproduction framework describes three recursive processes (codesigning, coanalysing, and cocreating knowledge) for generating knowledge on urban health between researchers and societal partners, including policy-makers, civil societies, private organisations and health consumers. Called 'co-production loops', these processes have a set of building blocks, which are activities or other interactions that bring stakeholders together for the purpose of knowledge coproduction. The coproduced knowledge framework guides decisions and serves as a benchmark for assessing policy or project impact. Implementation of this framework in Ghana, for example, showed that it is a time and resource consuming approach and as such, clarity on the value proposition of all participants will be necessary for continued engagement.[27]

As integrated multisectoral approaches for the development and implementation of urban health policies are adapted in African nations, adequate exchange and coordination could help reduce duplication while creating room for synergy and ensuring that available resources are maximised.[24] Likewise, urban health governance must be effective and inclusive, ensuring all actors work together to achieve the overarching urban health system goals.[28] The highly dynamic and rapidly changing nature of African cities raises other issues. Yet, how these dynamic attributes influence urban health has been poorly studied. In contexts where urban sprawl (ie, movement of people from the city centre to surrounding areas) occurs, it will, for instance, be helpful for policy-makers to understand the pathways and quantify the health impact of movement into and out of the city, while considering other environmental, economic and health system factors driving health outcomes. Researchers highlight that given the rapid urbanisation and ongoing epidemiological transition being witnessed across Africa, understanding how the health system needs to adapt in response to these changes is crucial for sustainable urban health systems.[6]

Rapid urban growth and the urban informality that characterises many African cities implies that Western-originated urban (health) planning will not suffice in the African context and urban health systems will need to be agile to respond to ever-evolving and sometimes newly emergent challenges.[29] While there are several promising frameworks for urban health planning and action in Africa, there are gaps in testing out and evaluating these frameworks as well as knowledge management for shared learning across Africa. There may be value in facilitating subregional collaborative platforms within and across countries, where urban health actors can readily access data and learnings from policy and programme impact evaluations. This will also foster peer learning, as cities adopt and adapt interventions based on lessons from a peer country (see for instance the South African Cities Network: SAcities.net). Many studies rightly call for increased awareness of the health system as nested within a broader social system and how recognising and appropriately modifying the inter-relationships within this social system may influence health behaviours, choices and population-level outcomes in an urbanising context.[6 28]

CONCLUSIONS

This commentary was inspired by attempts to inform implementation of urban health system interventions in sub-Saharan Africa. While there are a number of existing frameworks, their empirical application and subsequent translation into contextually relevant health policy is limited. The growing spate of inequalities in urban settings has heightened the urgency for locally owned and regional collective action to test, evaluate and adapt effective frameworks through participatory research. If almost 70% of the world's population will live in urban areas by 2050, the next few years will be critical for laying the foundation for resilient, equitable and future-proof urban health systems. The views presented in this commentary are not geared towards a call for more frameworks on urban health. Rather, we advocate for more implementation research into existing frameworks, robust evaluations and theory building, and knowledge management strategies which could guide adaptation of learnings from one context to another. Ultimately, our aim is to inform the pathway towards stronger multisectoral policies that allow stakeholders to understand and act within the complex nature of urban health systems.

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