

A systems approach to urban health and wellbeing has come of age in Africa

Tolu Oni

1. Health is a central part of development, but the majority of factors that influence health lie outside the health sector.
2. Rapid urbanisation across Africa is resulting in changing exposures which influence health, often negatively, but can be harnessed for health creation.
3. To achieve the African Union's Agenda 2063 vision of shared wellbeing, new approaches to improving health and wellbeing are needed.
4. Such approaches will require coordination between health and non-health sectors to ensure Healthy Public Policies.
5. Systems approaches address the complex web of inter-related factors that influence health in cities, promote new forms of intersectoral dialogue and data sharing, and provide tool kits to develop intersectoral health promotion plans and interventions.



About the author

Nigerian by birth, Oni spent her final schooling years in the UK before training in medicine at University College London. After graduating, she worked as a medical doctor in the UK and Australia, including HIV work in London. This sparked her interest in globally significant diseases and the factors that influence health policy and outcomes. She realised that many health conditions are rooted in social determinants, which inspired her to switch from a clinical career to an academic career, with a research doctorate in public health and epidemiology.

Oni came to University of Cape Town (UCT) in 2007 where she spent seven years in a research post at the Institute of Infectious Disease and Molecular Medicine. Oni took up her current position at the School of Public Health and Family Medicine in 2014 where she leads the Research Initiative for Cities Health and Equity (RICHE). Her urban health research focuses on understanding health transition, and the epidemiology of the interaction between common chronic conditions and the unplanned urban environment; providing evidence to support implementation of healthy public policies, and translation of research findings into policy and practice through collaboration with researchers and practitioners across disciplines and sectors. Along with another fourteen of Africa's best young scientists and technologists, Oni was recently selected as an inaugural Next Einstein Forum (NEF) Fellow. She works to promote science and research as key drivers of development in Africa through a coordinated approach between science, policy and society role players, to identify creative strategies to address complex population health and broader societal challenges. Her significant contribution to raising the profile of public health was recognised in a profile in the prestigious Lancet journal.

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The growing majority of urban dwellers (62%) in Africa now live in informal conditions that, without access to basic services or public amenities, expose residents to greater health risk, and health-care systems, are unable to provide affordable or comprehensive cover. Unplanned and unmanaged growth across urban Africa and high rates of poverty, are associated with exposures that increase risk of both infectious and non-communicable diseases (NCDs). For example, the burden of diabetes in Africa is expected to increase by 110% between 2013 and 2035. The complex nature of factors driving these changing patterns of disease necessitate a systems approach.

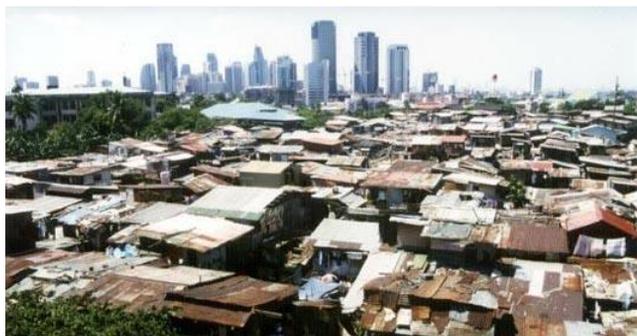


Figure 1: The changing face of cities in Africa.

The Healthy Cities approach is an example of a systems based approach, which recognizes that enhancements to population health will come about through improvements in environmental, socio-cultural and economic conditions, coupled with behaviour changes. Whilst individual behaviour change has been the focus of health promotion strategies in the past, it is important to note that these urban exposures can undermine the ability to change behavior. A central philosophy of this approach is that health should be seen as a core part of overall development.



In 2015, Agenda 2063 was adopted by the African Union (AU) as the united vision for development in Africa. Health is a core part of overall development, and cannot be achieved without a concerted effort to ensure interventions in the economic, environmental and social spaces do not negatively impact health. Beyond merely limiting adverse health impacts, there is an opportunity to embrace the responsibility to create and support healthy public policies across all sectors. The Healthy Cities approach is not new in African cities.

In the 1990s, several African cities adopted this systems approach, from Accra and Bangui, to Cape Town and Dar Es Salaam. While strategies differed, a core component to this was the need to develop a City Health Profile: not only the health status of the city but the processes that undermine health. This profile is then utilized to develop a City Health Plan, a strategic planning document developed in consultation with a wide range of stakeholders across sectors. Given the significant increase in urbanization in the last 30 years, these intersectoral approaches are needed now more than ever.

The Research Initiative for Cities Health and Equity (RICHE) was established to bring together researchers from multiple fields, practitioners and policymakers to co-create and evaluate inter-sectoral interventions to improve health outcomes, resiliencies and address vulnerabilities introduced across the stages of life in cities across Africa.

In 2015, a RICHE workshop organized in Cape Town by Prof Oni, brought together researchers, policymakers and practitioners with a wide range of experience in urban health in Africa. A subsequent symposium of urban health researchers, practitioners and policymakers was organized in 2017 to identify opportunities for research collaboration across Africa, to explore policy priorities and needs for healthy cities, and to further ideas on the development of a training curriculum on urban health for Africa.

These workshops identified key focus areas to advance urban health in Africa:

A. Obesity and food insecurity: The urban food environment in Africa has changed rapidly, with increased access to, and consumption of, sugar, salt, and processed foods. This dietary change has been associated with increasing rates of obesity, diabetes, and cardiovascular disease. Given the high prevalence of food insecurity occurring alongside rising rates of obesity, higher in women, the need was identified for interventions that simultaneously engage both food insecurity and obesogenic food environments, and that engage with the informal food economy. There is evidence that pre-conception and peri-partum nutrition is vital for fetal health and the subsequent health of the child into adulthood. Therefore nutritional interventions to reduce obesity and improve food security are required, with a particular focus on women-headed households, the first 1000 days and female adolescents.

“... despite pressing needs driven by Africa’s considerable and complex burden of disease and high levels of health inequity, urban health and urban health equity have not yet emerged as major research and policy priorities in Africa, and as such South Africa, like many other African countries, lags behind in addressing these issues.” Oni et al. 2016

B. Healthy urban environments: Poor housing quality and inadequate urban planning have been linked to both infectious and NCDs, from pneumonia and diarrhoea, to asthma and obesity. A systems approach considers item 72b of Agenda 2063’s call to action which calls for ensuring Africans have access to decent affordable housing. This approach moves beyond the physical structure of the house and access to healthcare services, and asks how to ensure such housing opportunities can promote health and well-being, by ensuring a settlement that creates health, through access to healthy food, adequate waste removal, sanitation, ventilation and opportunities for safe physical activity. To this end, ongoing research in Cape Town is exploring barriers and facilitators of incorporating health objectives into housing policy, with a view to generating evidence to support co-creation of healthy intersectoral human settlements interventions.

C. Urban health governance and policy: This systems approach requires coordination across health and non-health sectors, and should be shaped by individual and collective identity, the lived environment, and urban policies. The shortage of intersectoral implementing groups to promote accountability for population health across sectors and levels of government was identified as a key gap to developing and implementing an intersectoral city health plan. This highlights the importance of building capacity of local governments to design and implement such a plan.

D. Community strengthening for healthy cities: Citizen engagement and participatory processes, which emphasise the lived experiences of residents, including their capabilities, preferences, and needs, in all stages of policy development and implementation are important to address urban determinants of health. A substantial barrier to citizen engagement is poor education about processes of urban governance to improve health, and this would need to be addressed in any City Health Strategic Plan.

E. Migration, urbanization, and health: Agenda 2063 recognises movement of people as a fundamental characteristic of the African continent, and aspires for an Africa with free movement of people. A systems approach to urban health recognizes the potential for migration and mobility to adversely impact on health, and considers the opportunity for healthy migration and mobility through a better understanding of patterns of circular migration and differential health exposures at each stage of migration; as well as the ways in which health, economic, and social policies and systems can best respond to mobility.

To conclude, the aspirations of Agenda 2063 reflect the desire for shared prosperity and well-being, for unity and integration, for a continent of free citizens and expanded horizons, where the full potential of women and youth, boys and girls are realized, and with freedom from fear, disease and want.

The first aspiration of Agenda 2063, for a prosperous Africa based on inclusive growth and sustainable development, where African countries are amongst the best performers in global quality of life measures, recognises the need for African people to have a high standard of living, and quality of life, sound health and well-being. This aspiration further recognizes cities as hubs of cultural and economic activities, where people have access to affordable and decent housing including housing finance and all the basic necessities of life such as, water, sanitation, energy, public transport and ICT.



Figure 2: The hidden face of the city. 8 S's of urban exposure that influence health.

Beyond merely the vision of skyscrapers and shacks (Figure 1), a systems approach to urban health exposes the hidden face of the city, and reveals the essence of the city's characteristics that influence health, as captured by the 8 S's of urban exposure (Figure 2): Sugar and salt (the food environment); Safe housing and social cohesion; Smoke (indoor and outdoor air pollution) and smoking; Sleep and stress; Sports and recreation; Sanitation and water; Substance and alcohol abuse, and (unsafe) Sex. A systems approach recognises that these Agenda2063 aspirations are interconnected; that sound health and well-being cannot be achieved without due consideration of, and a focus on intersectoral strategies that harness desirable city characteristics for health. Improving performance on quality of life measures cannot be achieved without a focus on the most vulnerable in the population. Therefore, implementing such strategies must take on an equity lens, to ensure those most vulnerable are reached.

Urban exposures (as represented by the 8 S's) represent a complex web of interrelated factors, with often-competing interests and incentives. Beyond merely addressing these exposures, harnessing these for health and wellbeing will necessitate a systems approach that promotes new forms of intersectoral dialogue and data sharing, and that critically engages with the ensuing trade-offs and benefits. This calls for a re-visiting of the Healthy Cities approach, learning from lessons of the past, to develop intersectoral Health Promotion Plans for cities across Africa.

The systems approach can further support development of toolkits to facilitate this process, as well as mechanisms that foster and share interstitial science which ensures that evidence generated addresses these inter-linkages and facilitates processes that support intersectoral science/policy interaction at the community, city, national and regional levels.

References

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The *Urban Health and Wellbeing: a Systems Approach* (UHWB) programme, is a global science programme, of the International Council for Science (ICSU). The vision of the programme is: cities functioning as integrated complex systems which sustainably provide benefits for the health and wellbeing of its residents. It aims at (1) promoting and coordinating research, (2) developing and identifying data needs, (3) building and strengthening capacity and (4) communicating new knowledge.

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The Policy Briefs of the UHWB programme aim at highlighting and drawing attention to policy relevant findings and insights from research and researchers and communicating them with decisionmakers at all levels of society in order to encourage the co-creation of knowledge for healthy urban environments and people.



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