

# Urban Health and Community Resilience in the Context of Lagos State's Development Agenda

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## Abstract

*Two-thirds of the global population will live in cities by 2050. Already, over half of the world's population lives in urban areas. In line with Goal 11 of the Sustainable Development Goals, these urban areas must be made sustainable. Resilient urban development prioritizes urban residents' physical and social environments, not just for their present but also for their future. We asked, "to what extent do health and resilience inform the stated development agenda of the Lagos metropolis?" Additionally, our work serves as a case study for planners and health officials to critically evaluate key planning documents, with the goal of aligning them with the Sustainable Development Goals.*

*In conducting this assessment, we reviewed Lagos State's archives. These documents were compared against a conceptual framework for urban health and resilience derived from the socio-ecological model, the Rockefeller Foundation's resilience framework, and the social determinants of health theory. The analysis was further informed by qualitative research conducted with civil society and civil servants working within the intersections of health, resilience, and Lagos State's present environment.*

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*Lagos State Government's development agenda encompasses health and resilience focus areas such as housing, health, safety and transportation. However, insufficient attention was placed on the processes of governance which are critical for effective and equitable delivery of these determinants of health. Such poorly addressed factors include the need to emphasize, equitable processes, to incentivise cooperation within and across sectors, and to open lines of participation with citizens, especially those in the informal sector. Additionally, reports from surveillance systems were aggregated and thus unable to reveal or adequately monitor inequities. Without such information, health and resilience cannot be delivered especially to the most marginalized.*

*We, therefore, recommend a heightened focus on the processes of governance, investment in surveillance systems to target pockets of intra-urban inequity and deprivation, and resource allocation and capacity building in order to move the focus of urban health beyond health centres to urban living conditions.*

**Keywords:** Resilience; Lagos; Urban health; Urban development; Equity; City; Urban governance

## Introduction

The urban phenomenon is said to be beneficial for human thriving in theory but urbanization is often characterized by the poor distribution of resources, disrupted urban functionality, and stalled economic development, all of which are compounded by poverty in African cities (Prasad et al. 2015; Cobbinah & Erdiaw-Kwasie). Urban health indices are at their lowest in African cities and in settings where they are increasing, inequality is rising (Stauber et al. 2016). Urban challenges in West Africa occur on the intersection of environmental change and human livelihood and include issues such as water, sanitation, unemployment and depletion of greenery (Adelekan 2015; United Nations 2014; Cobbinah & Darkwah 2016). In African countries, communicable disease deaths are declining while non-communicable diseases are increasing (Mberu, Wamukoya, Oti & Kyobutungi 2015). This epidemiological transition affects urban health. Unplanned urbanization exposes residents to poverty, crime, climate threats, chronic diseases and outbreaks like the recent Ebola threat (Akinwale, Adeneye & Musa 2014; Ayodele 2014; Marans 2015; Sekoni, Adelowo & Agaba 2013; Shuaib, Gunnala & Musa 2014). The urban poor are highly disadvantaged and they are at risk for catastrophic health spending, unhealthy lifestyles,



and poor psychosocial outcomes (Adisa 2015; Idowu et al. 2016). In African cities, the disadvantage is compounded by high rates of poverty and the lack of institutional frameworks, which make them vulnerable to disaster (Amusat 2016).

Resilience, defined as the ability of cities to cope with stresses in a way that safeguards health is urgent in Africa because without it, sustainable development will not be feasible (Da Silva & Moench 2014; Amusat 2016). Having acknowledged the urgency of resilience; the next concern is the politics of resilience (Maddox 2015). Scholars have called for a move beyond engineering-based understandings of resilience to progressive understandings of resilience that treat cities as human systems (Vale 2014; Bahadur & Tanner 2014; Smith & Stirling 2010). Progressive resilience involves steering people, politics and power toward urban health equity (Bahadur & Tanner 2014). While resilience needs to be integrated into decision-making, environmental and health issues are typically marginalized by unstable politics and short-term economic interests (Anguelovski 2009). In African countries, efforts to improve urban outcomes have been said to favour the economically empowered without addressing ecological vulnerability, inequalities and sustainable job creation (Obeng-Odoom 2014).

Given that urban health and resilience intersect, understanding city systems, structures and institutional mechanisms are necessary for sustainable societal transformation (United Nations-Habitat 2010). The health sector can play a pivotal role in building political will, analyzing policy, and coordinating intersectoral action for resilience. We used the Lagos metropolis as a case study of how health planners can critically analyze development agendas and work toward healthy and resilient cities. The Lagos metropolis is the fastest urbanizing region of the world and Lagos is one of the 100 resilient cities identified by the Rockefeller Foundation (Coker, Olugbile & Oluwatayo 2015; Kinney 2016). Our study can, therefore, inform the integration of resilience into city planning in Lagos and other similar metropolises.

## **Method**

### **Framework development**

The framework in Figure 1 was derived by integrating the social determinants of health, the resilience framework of the Rockefeller Foundation, and the socio-ecological model (Wilkinson & Marmot 2003; Da Silva & Moench 2014; Bronfenbrenner 1994). The socio-ecological model is relevant to this study because it frames health as a complex adaptive system whose impact goes beyond the sum of its parts to include bi-directional relationships between the individual and the environment, as well as the individual's living,



working and schooling experiences; the model also comprises macro-political forces such as migration, housing policies, environmental policies, social and economic conditions (Golden et al. 2015). The social determinants of health provide a comprehensive view of life-course factors including living and working conditions (Wilkinson & Marmot 2003). The Rockefeller Foundation's resilience framework was used due to its prominence in designing resilience in cities globally (Kinney 2016). The resilience framework is a lens for understanding the drivers of resilience within cities (Da Silva & Moench 2014). Four dimensions of this framework (health and wellbeing, economy and society, infrastructure and environment, and leadership and strategy) informed the framework. The resulting figure frames urban health as the product of regional, local, interpersonal and individual influences.



Figure 1: Conceptual model

Archival analysis processes and documents



Figure 2 is a flowchart of the archival analysis. We reviewed literature and archives on the Lagos State website (Lagos State Government, 2016) to review to capture the state's priorities relative to health and resilience. Through these documents, we also researched the state's financial priorities and urban indices. We found the following documents: The Lagos State Development Plan which was launched in 2014 by the previous Governor Fashola, The 2016 Budget, The 2013 Digest of Statistics and The Manifesto of Governor Akinwunmi Ambode, the current governor.

# FLOWCHART FOR THE ARCHIVAL ANALYSIS

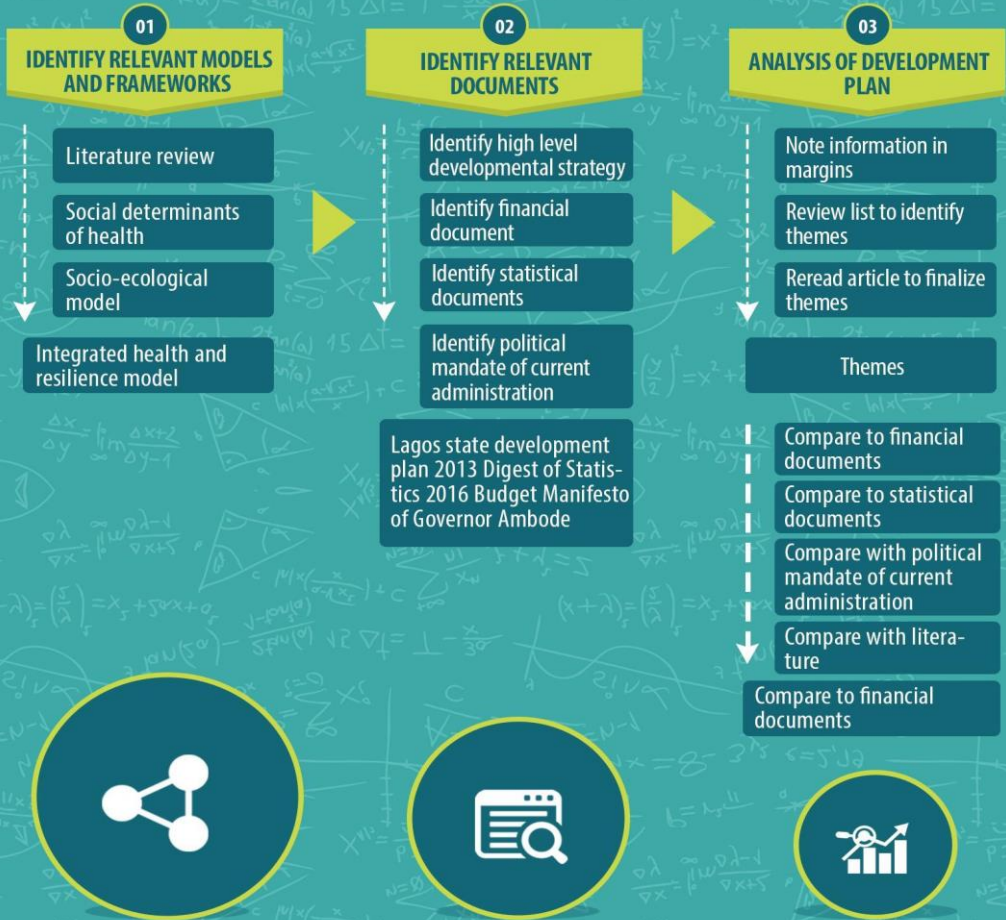


Figure 2: Flowchart of The Archival Analysis

We chose the Lagos State Development Plan because of its function as a high-level strategic planning document. References to this document were made in the 2016 Budget, press releases, and reports in the state archives. Financial records could help confirm the



political objectives expressed in the Lagos State Development Plan and the Governor's Manifesto. As such, financial archives on the state's website were reviewed. An overview of the 2016 Budget was available on the website (Lagos State Government n.d.). Lawrence Vale explains that resilience and urban issues are political (2014); because such politics affects community resilience, it is important to understand the priorities of each administration (hence our analysis of Governor Akinwunmi Ambode's Manifesto).

Monitoring and evaluating urban metrics reduces urban health disparities (World Health Organization 2010). A review of the Lagos government's website for statistics led to the 2013 Digest of Statistics published by the Lagos Bureau of Statistics, Ministry of Economic Planning and Budget, which provides data on socio-economic activities in Lagos. The Digest of Statistics fell into three categories: financial receipts and expenditures, governance decisions such as motions and bills, local government information such as election results, wards, and units. The ten steps stipulated by Hancock were used for the content analysis (2002). They involve the following steps: 1) reviewing the document being analyzed to note relevant information 2) noting the various types of information 3) placing this list of items into relevant and unique categories 4) reviewing the categories to link them, thus creating major and minor categories 5) reviewing the emergent minor and major categories and reviewing them critically, revising as is necessary 6) repeating this process for each new document using the pre-identified categories while identifying any new categories 7) comparing previously reviewed documents against the most updated list of categories to recode as needed 8) reviewing the names and descriptions of categories to ensure their relevance 9) assessing categories to see whether they might form a major theme and 10) reviewing the original documents again incase uncategorized information and previously excluded data may fit in the subsequent categories, then recoding as needed.

## Results

The themes that emerged in reviewing the Lagos State Development Plan centred on the process of developing the plan, ensuring priorities and growth sectors. We cross-referenced these themes with information from the Bureau of Statistics, the manifesto of Governor Ambode, and the 2016 Budget. Finally, we evaluated the collective results from the framework in Figure 1. This framework categorizes critical elements for health and resilience at the regional, local interpersonal and individual levels. We then analyzed the archived information to understand which aspects of the framework for health and resilience planning were integrated into the archival information. The aspects of health



and resilience planning represented were: environment, transport, poverty and unemployment, health, civic participation and integrated communities. Below we discuss these emergent themes and the extent to which they aligned with the framework for health and resilience planning.

### **Governance**

The framework for health and resilience planning notes governance as a major factor for integrating health and resilience into urban development. Key aspects of governance noted include cooperation between transport, health environment and urban planning, and having an emergency preparedness plan. Within the Lagos State Development Plan, various goals are considered such as developing the city master plans, further establishing a climate change framework, and expanding policies and legal support for sewage and sanitation (Lagos State Development Plan 2013). This is equally the case for Governor Ambode's Manifesto which focuses on creating laws, policies and e-governance options (Ambode n.d.). The focal areas of financial investment in the 2016 Budget were on issues, specifically infrastructure (Ambode 2016).

Data from the Bureau of Statistics also did not capture information on governance processes such as citizen involvement and inter-sectoral cooperation which could have taken the form of minutes, frequency and type of meetings between sectors. Rather the information gathered concerned penalties imposed on citizens for contravening laws, suggesting a transactional relationship between the government and the people (Lagos State Government of Statistics 2013). This may suggest that the decision-making process is skewed toward governance issues without sufficient consideration for the equitable processes that need to be in place.

### **Environment**

The framework for health and resilience planning notes environment as a major factor for integrating health and resilience into urban development. Key aspects of the environment noted in this framework include environmental policy, integrated development plans, practices to manage ecosystem risks including floods and aesthetics. There was significant mention of environmental management and pollution control issues in The Lagos State Development Plan. These include environmental management education, reducing flooding, drainage and erosion, and private sector partnerships; they also breached subjects that would clearly affect urban areas: pollution control, slum clearance, accessible



transport, climate change, public toilets, recreation parks and beautification of open spaces (Lagos State Development Plan 2013). Governor Ambode's Manifesto addressed similar concerns on climate change, relocating slums, and responding to floods; he made commitments to the environment, specifically clean air, recycling businesses, and emergencies (Ambode n.d.). Environmental issues were allotted 4.07% of the 2016 Budget, amounting to 27 Billion Naira (Ambode 2016).

### **Infrastructure development (Housing and transportation)**

The framework for health and resilience planning notes both housing and transport as a major factor for integrating health and resilience into urban development. Key aspects of these factors include: housing policy, mortgage policies, land use policies, and building codes, the access, convenience and cost of integrated transport networks. The Lagos State Development Plan states priorities for housing for the urban population by encouraging home-ownership, expanding state housing, engaging the private sector in low-cost housing; the plan addressed needs in providing housing for single families, young, disabled and ageing Lagosians, and increasing land subsidies (2013). The plan's detailed housing agenda highlights the desire for adequate and appropriate housing for Lagos' urban population. Housing comprised 3.82% of the 2016 Budget, amounting to 25.3 Billion Naira (Ambode 2016). Governor Ambode's manifesto spoke on the following housing-related issues: private sector collaborations, slum reduction, and providing options like mortgages and rent-to-own (Ambode n.d.). The Bureau of Statistics monitored housing-related transactions between the state, landowners and developers (World Health Organization 2010). For transportation, The Lagos State Development Plan expresses goals of increasing both the sector's capacity and private sector partnerships in order to improve access to transit such as water transport, roads, and rapid rail (2013). Transportation was another focus for Governor Ambode; his Manifesto said that he would diversify the transport management system, improve roads and pedestrian bridges, bus rapid transit, rail service, waterways transportation, signage and lighting (Ambode n.d.).

### **Poverty and Unemployment**

The framework for health and resilience planning notes both poverty and unemployment as a major factor for integrating health and resilience into urban development. Key aspects of these factors include: employment and skills development. Within the Lagos State



Development Plan the state set a goal of growing the economy, skills training, and supporting the informal sector; in line with growing the economy, the government intended to simplify business creation, which will involve standardizing business creation (2013). Similarly, Governor Ambode articulated his dedication to job creation, scholarships and traineeships to develop skills within the population (Ambode n.d.). Given that poverty and unemployment are not conducive to creating a resilient community; these issues can be addressed by creating supportive infrastructure. To meet the needs for power supply, Governor Ambode also committed to supporting fair pricing options for electricity, alternative emergency sources and the independent power project scheme (Ambode n.d.).

### **Food security**

The framework for health and resilience planning notes food security as a major factor for integrating health and resilience into urban development. Key aspects of this factor include: the availability, quality, purchasing power to ensure access to quality food as well as the sustainability of access to food. The Lagos State Development Plan stated that farming and fishing estates, agro-industrial parks and conditioning centres would be developed (2013). Two methods would take care of funding obstacles: financing small and medium scale farmers, and offering sponsorship, risk management tools, and cooperative benefits for agricultural stakeholders (Lagos State Development Plan 2013). Consumers are part of this equation. On the consumer end, the state plans to protect consumers from foodborne illnesses and to diversify end users of agricultural products (Lagos State Development Plan 2013). Governor Ambode's plan promises to ensure food security and creating jobs; champion optimizing aquatic and seafood resources, providing incentives for agricultural processing companies, fish production, rice processing and sustaining land for agricultural products (Ambode n.d.). Agriculture and food security had the fifth highest allocation within the 2016 Budget (2 Billion Naira) (Ambode 2016). Information collected by the Bureau of Statistics typically concerned animals entered through livestock control, slaughtered in the state, crop production, land size, allocation and acquisition, state abattoir/lairage and slaughter slabs (Lagos State Government Digest of Statistics 2013).

### **Safety**

The framework for health and resilience planning notes safety as a major factor for integrating health and resilience into urban development. Key aspects of this include: trust, transparency and adequacy of policing, the cooperation of local leaders with police, inclusive public spaces, civic education, and fairness in the use of law.



The Lagos State Development Plan recognizes aspects of policing such as improving the rapid response squad, revamping security services, data for security systems, emergency response systems and supportive partnerships with communities (2013). There were only 28 cases of rape reported in 2012 (Lagos State Government Digest of Statistics 2013). Finally, the current administration's manifesto states commitments to rally around residents, with attention towards better funding for security, enhancing security communications technology, reforming the security and justice sectors, and protecting inhabitants' inalienable rights (Ambode n.d.).

## Health

The framework for health and resilience planning notes health as a major factor for integrating health and resilience into urban development. Key aspects of this factor include: public health management, funding, primary health care quality and quantity, and health insurance policy. With regard to health, both The Lagos State Development Plan and Governor Ambode's Manifesto look to upgrade multiple levels of health care, such as the quality and affordability of healthcare services; health infrastructure will be observed so as to increase and raise standards for citizen participation and private sector engagement (2013; Ambode n.d.). Public health was budgeted for 49.6 Billion Naira (7.9% of the 2016 Budget) (Ambode 2016). Although Governor Ambode's Manifesto commits to advocating for better health systems, it specified that it is important to provide free medical care for the following: children from birth to age six, pregnant women, patients 65 and older (Ambode n.d.).

## Participation and Integrated Communities

The framework for health and resilience planning notes civic participation, social networks and integrated communities as a major factor for integrating health and resilience into urban development. Key aspects of these factors include: membership of local organizations, varieties of social support, trust, and ethnic, religious and income diversity in neighbourhoods. Administration plans indicated that Lagos' government will improve corporate social responsibility, community relations, community-focused youth entertainment and development projects, and participation of professional women organizations in the political economy (Ambode n.d.). Community vibrancy was particularly focused on lifting up women and children. Governor Ambode stressed that the state will



ensure inclusive and participatory governance, facilities and legislation to support youth, women and children and services to enhance opportunity and quality of life (Ambode n.d.). Among other plans, Governor Ambode is devoted to delivering education, green spaces, tax incentives for women, equal opportunity in political parties, protection of women against domestic violence, libraries and sustainable support systems for youth. Finally, the Manifesto supports creating jobs, closing the wealth gap, and ensuring community cohesion and civic identity (Ambode n.d.).

## Discussion

City planning and its driving ideology is critical for the health of city dwellers. For example, a pro-growth model megacity ideology can lead to poor health outcomes and inequities; Heynen noted that the privatization of urban environmental management and neoliberal policies correlated with race and place inequities (Heynen, Perkins & Roy 2006, pp. 3-25). Mulligan et al. used an urban political ecological model to show how poor health in India resulted from the low prioritization of health in socio-political hierarchies (2012, pp. 612-620). When a city undergoes neo-liberalization and is touted as a model city (with characters including having intelligent garden ecology), the real city is replaced with a symbolic city; this can negatively impact health and urban outcomes (Mulligan, Elliot & Schuster-Wallace 2012, pp. 613-620). We seek to inform health-focused urban development planning especially in emerging African metropolises like Lagos. We used the Lagos State Development Plan, the Manifesto of Governor Ambode, and data from the Bureau of Statistics as a case study on analyzing urban development through a health and resilience lens. The themes described above interact with each other to affect urban health outcomes on multiple levels (personal, interpersonal, and communal scales). For example, unemployment is related to poor mental health and safety (Opoko & Oluwatayo 2014, pp. 15-26).

The commitments of the government span various aspects of the framework for health and resilience planning such as environment, transport, poverty and unemployment, health, civic participation and integrated communities. It is important to note that the aspects of governance in the conceptual framework were not covered by the documents reviewed. A qualitative study on Lagos' governance priorities found that low levels of population awareness of environmental issues and financial challenges in the government and private sector limited effective community engagement (Mogo et al. n.d.).



Reading through the archival documents, we observed that there was a transactional approach to governance that involved punished individuals for contravening rules rather than active engagement of citizens, as well as a top-down approach to decision making exemplified by the absence of process-based indicators of governance priorities in the surveillance data being collected. The Lagos State Development Plan was created by integrating already existing high-level policy documents (2013). Given that this document sets the long-term vision for Lagos, it could have benefited from feedback by lower levels of power such as civil society groups, local governments and field officers within various ministries. In a previous qualitative study, interviewees working with the Lagos State government mentioned that decision-making was typically at the higher political levels (Mogo et al. n.d.). The study found that decision making was mostly top-down: political offices such as the commissioner, board of directors and permanent secretary made strategic decisions while the local levels of power carried out routine functions but had little agency over decision-making (Mogo et al. n.d.).

Another related component is the concept of equity in delivering health and resilience, which is key to achieving the Sustainable Development Goals. The plan did not have stated processes that could be monitored over time to improve outcomes specifically for the marginalized. For example it was unclear what plan was in place to specifically cater to the needs of low income members of the society, for example those living in the slums which would be cleared and how emergency plans may cater to those living in environmentally vulnerable areas who are low income and being in the informal sector, not counted. Clearly, urban housing was receiving attention from the archival analysis. However, with options like mortgages and rent-to-own requiring formal legitimacy, the question about how this plan would be applicable to those in the informal sectors remains. These are demonstrations that transportation is on the agenda to improve urban living conditions. While the Lagos State Development Plan states a commitment to a multi-tiered approach to health including the individual, family, community and the population, the health data collected by the Bureau of Statistics focused on in-hospital resources and events such as the number of equipment in the hospital, patients seen, and deaths recorded. This data did not address the demand-side of these outcomes such as access to insurance, health literacy, spatial and income inequities in health outcomes and urban environmental indicators. A study by Mogo et al. also found that the government prioritized treatment and control of infectious diseases such as HIV/AIDS, tuberculosis, malaria and maternal



and neonatal health (n.d.). For example, environmental management would be given high priority due to a growing need to prevent malaria (Mogo et al. n.d.). There is need for a conception of health that goes beyond infectious disease management to broad prevention including factors mostly outside the health system such as the environment that affects health outcomes. One of these is housing. Within Lagos' housing sector, the data collected by the Bureau of Statistics focused on the number of housing projects and approvals and transactions between the state, landowners and developers (Lagos State Digest of Statistics 2013). This process will need to transition into an equity-oriented relationship rather than a transactional relationship with the public.

In reviewing the surveillance data, it was clear that this data was not comprehensive and very importantly, not disaggregated to uncover inequity. Additionally, there was no long-term monitoring of governance priorities. For example, the low number of reports on crimes such as suggests underreporting. Furthermore, there is no information on the conclusion of these cases and if justice was delivered eventually. The data on emergencies was substantive, reporting on people and properties lost or saved- but it lacked information on emergency preparedness planning, training, and assessment; Lagos reports for 2013 show 13 fire incidents, 5 road/motor accidents and 12 collapsed buildings (Lagos State Government Digest of Statistics). This number is low given the population size of the metropolis. This poor and aggregated reporting was repeated across most of the state's priorities which we evaluated. For example, despite the goals for food security being laudable goals, it is not clear how these goals will be monitored or whether there is a plan to ensure they need those most in need of such social and economic support. The Bureau of Statistics collected data on jobs at the local government level, omitting information on the private sector, state government, federal government and informal sector jobs (Lagos State Government Digest of Statistics 2013). Likewise, information on the beneficiaries of skills training was also provided although there is no detail on skills imparted and individuals' employment rate post-training (Lagos State Government Digest of Statistics 2013).

Additionally, data on access to housing and identifying the social strata along which inequities are organized were missing. A previous qualitative study found that both government workers and civil society groups identified equitable access to housing as the central determinant of health in the metropolis (Mogo et al. n.d.). Civil society groups were also concerned that while there were state efforts to improve housing, these efforts



excluded the low income who could not access mortgage (Mogo et al. n.d.). This population could benefit the most from improved housing. The data reported by the Bureau of Statistics was aggregated, thus making it difficult to identify areas of deprivation and consequently to target resources. Therefore, the means to monitor, evaluate and improve these goals are unclear. This is particularly important for the most vulnerable who need these health and resilience priorities the most and have access to them the least.

Below, we recommend how to align the results with improved and equitable health outcomes.

### **The need for participatory and multi-level governance**

Decision-making within the State could benefit from being informed by local levels of power, integrating citizens' inputs, and emphasizing processes in addition to issues. Non-participatory governance approaches act as a bottleneck that prevents African cities from having resilient services and urban infrastructure (Chirisa et al. 2016, pp. 113-127). When locals participate in policies that affect them, they advocate for their own needs. Locally-relevant measures must undergird strategic plans, especially allowing for knowledge exchange and engaging civil society stakeholders to ensure effectiveness (Chirisa et al. 2016, pp. 113-127).

To encourage stronger local agency, governments must devolve power and utilize more democratic process. In a previous qualitative study on urban health and resilience in Lagos, both government workers and civil society groups mentioned that community involvement was critical to implementation, environmental stewardship and data collection in the metropolis (Mogo et al. n.d.). In a setting such as Lagos, the informal sector plays a significant role in service provision and partnering with them is critical to environmental sustainability (Nzeadibe & Mbah 2016, pp. 279-298). Decision-making, therefore, must occur in a way that allows stronger agency at the local government level and builds partnerships with the informal sector and communities.

### **The need to embed equity as a core value within surveillance systems**

If urban health indicators are collected, they are more likely to be used; however, this is typically not the case in African cities (Prasad et al. 2015, pp. 237-242). Social factors contribute and detract from successful urban health- therefore they should be followed





closely so as to ensure viable and effective health systems. Data collection needs to be comprehensive, spanning demand and supply-side factors. For example, the Bureau of Statistics collected data on the quantitative supply of food, but collecting demand side factors would help clarify the sufficiency of food supply in order to assess food security (Lagos State Digest of Statistics 2013). In law enforcement, while crime data was reported, even if underreported, comprehensive data on justice would allow for more effective improvement of justice in the metropolis. This entails collecting data such as the presence of inclusive spaces, civic education and trust, transparency, and adequacy of policing. The Bureau of Statistics reports on local government jobs but this data would be more useful in improving employment rates if it also reported on the private sector, state, federal, and informal sector jobs (Lagos State Digest of Statistics 2013). The state collected data on how many skills training programmes existed (Lagos State Digest of Statistics 2013), but it would be more effective at informing action if it detailed these skills relative to the skills gap in the economy and employment rates as a consequence of these training programs.

Technologies of the city in themselves will not improve the city, unless these technologies are managed using a political understanding, and a process approach that incorporates public values in addition to economic gains in resource management (Meijer & Bolivar 2015, pp. 392-408). Equity, as a value, should undergird resource management and data collection given disparities in resource distribution in African cities (Prasad et al. 2015, pp. 237-242). In a previous study, Mogo et al. found that while there were new resources such as mortgages to improve access to housing, these new solutions excluded the informal sector (n.d.). This was reiterated about governance and budgeting processes (Mogo et al. n.d.). The disadvantage is higher among slum dwellers in Nigeria compared to other subgroups (Mberu et al. 2015, pp. 422-445). Catastrophic healthcare spending among the elderly is higher in poor households (Adisa 2015). Deprivation in urban households in Ilorin, Nigeria was associated with 75.5% of the variation in the household health of the city (Raheem 2016). All of this information shows that urban health is not thriving in urban areas - if equity was a core value, it would set metropolises on a road towards stronger health and well-informed resilience.

Within Lagos' housing sector, the data collected by the Bureau of Statistics focused on the number of housing projects and approvals and transactions between the state, landowners and developers (Lagos State Digest of Statistics 2013). If this process transitioned to an equity-oriented relationship (versus a transactional relationship with the public), then the



government can lay a foundation to improve existing infrastructures that support health and wellness. This can be accomplished by collecting data on access to housing and identifying the social strata along which inequities are organized. A previous qualitative study found that both government workers and civil society groups identified equitable access to housing as the central determinant of health in the metropolis (Mogo et al. n.d.). Civil society groups were also concerned that while there were state efforts to improve housing, these efforts excluded the low income who could not access mortgage (Mogo et al. n.d.). This population could benefit the most from improved housing. The data reported by the Bureau of Statistics was aggregated, thus making it difficult to identify areas of deprivation and consequently to target resources. Variations in urban characteristics need to be taken into account when collecting urban data, by disaggregating the data. Specific groups can then be prioritized for impact, with responses fitted to context-specific needs, in alignment with best practices (Adetokunbo 2015).

We, therefore, recommend building strong surveillance systems, with equity embedded into these systems as an underlying public value. Data collection would also need to be more rigorous, as well as collecting demand and supply side information on the determinants of urban health. Data should be disaggregated in order to inform action. Finally, rather than viewing urban health as a consequence of infectious health issues, urban health should be a concurrent priority. This implies that the governing bodies view urban living contexts as sites for health interventions and as determinants of health. By improving governance, data collection and strengthening the capacity of the health sector to deal with the urban living environment, Lagos can move closer to being a healthy and resilient city, with great benefits to its residents.

### **Need for preventive and demand-side health investments**

Health in an African city such as Lagos is related to urban living conditions (Idowu et al. 2016). Mberu et al found a 13% decline in communicable disease death, a 16% increase in non-communicable diseases, and an 11% increase in injuries among the urban poor in Nairobi (2015, pp. 422-445). In urban Nigeria, poorer households had a higher risk for catastrophic spending among the elderly (Adisa 2015). Idowu et al. reported that unhealthy lifestyles were associated with adverse neighbourhood characteristics in Lagos State (2016). Studies across Africa have found that African countries score the lowest on urban health indices with the environment being one of these domains (Stauber et al. 2016, pp.



5-73). These findings point at the urban environment, specifically as an intervention area for urban health. The Manifesto of Governor Ambode states that it will improve equipment, infrastructure and the human resource capacity of medical institutions (Ambode n.d.). In line with this goal, health sector capacity needs to be improved to intervene in the urban environment as a determinant of health. This will include monitoring and designing interventions to improve health within the urban environment rather than focusing solely on health centres. Low levels of trust of the government and low levels of awareness of the population on urban health and resilience issues called for more effective engagement of communities. This would require participatory governance between the government and people.

With such heightened investments in the processes of governance, in surveillance systems to target pockets of intra-urban inequity and deprivation, and resource allocation and capacity building, the focus of urban health can shift beyond health centres to urban living conditions. Additionally, governments can place health and resilience at the centre of development and will be ensuring that the dividends of development are indeed accruing to those who need them the most.

### **Limitations**

Archival analyses provide detailed descriptions of issues across multiple levels of evidence; however, they are also limited by survival bias of the data (Ambode n.d.). Archival analyses omit data that is not available and this leaves open room for incompleteness and subjectivity in the data. Pre-empting this limitation, this analysis was informed by data derived from sixteen key informant interviews with civil society and civil servants working on the nexus of health, resilience and the present environment in Lagos State.

### **Conclusion**

From the ensuing discussion, it is clear that insufficient attention was placed on the processes of governance yet these are critical for effective and equitable delivery of the determinants of health. Such poorly addressed factors include the need to emphasize, equitable processes, to incentivise cooperation within and across sectors, and to open lines of participation with citizens, especially those in the informal sector. Additionally, reports from surveillance systems were aggregated and thus unable to reveal or



adequately monitor inequities. Without such information, health and resilience cannot be delivered especially to the most marginalized.

In conclusion, therefore, we recommend a heightened focus on the processes of governance, investment in surveillance systems to target pockets of intra-urban inequity and deprivation, as well as resource allocation and capacity building in order to intricately link urban health to urban living conditions.

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