

RICHE | AFRICA WORKSHOP ON HEALTHY CITIES: Intersectoral approaches to non-communicable disease prevention in Africa



WORKSHOP REPORT

**Stellenbosch Institute for Advanced Study, Cape Town, South Africa,
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Context and Justification

Africa is one of the fastest urbanizing regions of the world. Projections indicate that the continent will triple its urban population from an approximate 395 million people in 2010 to 1.339 billion people by 2050, which will be the equivalent of a fifth of the world's projected urban population at that time. Some African cities with a current population of over 10 million inhabitants include Cairo, Kinshasa, Lagos, Johannesburg-Pretoria, Khartoum, Nairobi and Accra while cities like Luanda and Dar-es-salaam are projected to join these ranks soon.

Living in cities can create an urban advantage given that they avail their inhabitants of access to opportunities such as employment and education, social connections, as well as services such as healthcare. Africa's urban population is mostly young, presenting an insufficiently tapped opportunity for improved regional productivity and economic growth. Currently, many residents and new migrants to cities in Africa live in conditions that are informal, unsafe and without access to the economic opportunities and services that can promote their physical, mental, and social health. Therefore, rather than experiencing an urban advantage, residents of African cities are more familiar with an urban penalty - the complex and multi-layered landscape of risk exposures that are a threat to their wellbeing.

Some of these exposures include rising inequities, stress, injuries, pollution amongst others, and the double burden of infectious diseases and non-communicable diseases (NCDs) they eventually drive. The complexity of these challenges requires a move beyond risk factor aetiology towards the multi-level elements that drive disease. It also requires coordinated impact that can only be achieved through a move beyond sector-specific siloes and toward to multi-sectoral action.

This "Healthy Cities: Intersectoral approaches to non-communicable disease prevention in Africa" workshop, organized by the Research Initiative for Cities Health and Equity (RICHE)|Africa, served as an initial step in this course of action. The workshop was an opportunity to collaboratively identify opportunities to promote health and wellbeing and prevent non-communicable diseases in African cities through investments that support active living and healthy diets. We convened policy, civil society, academic, and private sector actors from various African countries, working in diverse sectors with relevance to health, to identify opportunities to prevent NCDs on the continent through a comprehensive multi-sector lens. In attendance were representatives from several cities in Africa including Cape Town, Dakar, Douala, Accra, Lagos, Kampala, Harare and Maputo.

Workshop Objectives

The workshop took place at the *Stellenbosch Institute for Advanced Study, Stellenbosch*, from the 2nd to the 4th of December 2019 (see workshop programme in Appendix 1). It was organized by the Research Initiative for Cities Health and Equity (RICHE)|Africa, a transdisciplinary collaborative of policy makers and academics working to support the development and implementation of healthy public policies in rapidly growing cities in Africa.

The goals of the workshop were:

- to share perspectives on the aspects of the natural and built environment that pose challenges and opportunities for NCD prevention in participating cities.
- to share experiences of on-going and future inter-sectoral government initiatives and governance mechanisms for health creation in participating cities, and to explore how these could be harnessed for NCD prevention.
- to identify challenges to developing and implementing inter-sectoral initiatives and share approaches to addressing these challenges.
- to facilitate training sessions on how to promote and implement a healthy city approach.
- to explore the role of, and potential for trans-disciplinary research to generate relevant and useful evidence to support inter-sectoral NCD prevention in Africa.
- to explore next steps to support on-going shared learning, and collaborative research on inter-sectoral approaches to NCD prevention in Africa.

Methodology

Participants were invited to participate with consideration for expertise, regional representation, and gender via a snowball sampling of the organizers' networks. We paid attention to representation from several regions (East, West, Central, South), sex (male or female), and sector (housing, health, environment, urban planning, amongst others). The workshop was structured to explore learnings from the past, the present state of African cities, and to look toward the future of these cities. Each day of the workshop built on the preceding day(s) and comprised presentations on contexts and case studies from cities represented, interactive brainstorming sessions to facilitate exchange of ideas and shared learning on the implications for delegates' contexts and training sessions to equip delegates with new tools to enable effective transdisciplinary research partnerships. Also included were opportunities for candidates to apply what they had learnt in tangible ways.

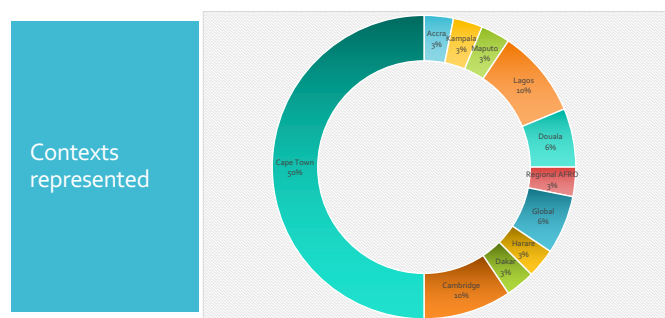


Figure 1: Cities represented by participants

The workshop was iterative, and sessions were modified based on findings and feedback provided by delegates, to ensure the best and most useful learning experience.

Delegates in attendance were from Cape Town, Dakar, Harare, Lagos, Maputo, Kampala, Accra and Cambridge, with the majority of participants being from Cape Town (Figure 1).

Several sectors including human settlements, economics, science, built environment and sustainability were represented, with public health being the majority represented (Figure 2).

Delegates represented the following institutions: Stellenbosch University; University of Cambridge; C40; the Royal Danish Academy of Fine Arts; United Nations Development Project; WHO Headquarters, The WHO Regional Office for Africa, Arctic Infrastructure; Western Cape Government, the City of Dakar, University of Cape Town, the Ministry of Public Health, Cameroon, Douala municipality, and Ministry of Health, Harare.

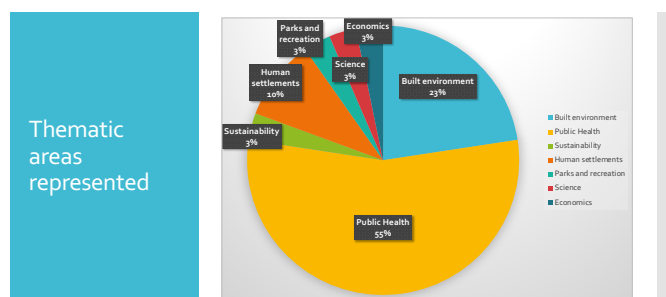


Figure 2: Thematic areas represented by participants

Day 1 (2nd December 2019)

Introduction and Current States of Cities in Africa

Setting the scene and discussing the pre-workshop survey (*Ebele Mogo*)

Upon arrival at the workshop venue, participants were provided with two Venn diagrams on two large flip charts with i) food intersecting physical activity, and ii) the natural environment intersecting with the built environment. For each of the Venn diagrams, participants were asked to use a sticky note to indicate where they thought their work belonged, with the option to place these exclusively in one circle or at the intersection of the circles. Most participants placed their work on the intersections of both Venn diagrams (Figure 3). Once delegates were seated, Dr. Mogo, Research Associate at the

Global Diet and Activity Research Network of the University of Cambridge, asked participants to discuss their selection with the person beside them, and for each person to explore why the other had made the selection. Participants were asked participants to challenge the other to approach their work from different perspectives, if they thought this was necessary. Participants then reconvened to discuss their reasoning with the larger group. The purpose was to encourage participants very early on to reflect on their positionality at the start of the workshop. It also indirectly served to signal to participants that the workshop would be highly interactive.

This discussion segued into sharing of participants' aggregated responses to a pre-workshop survey completed by participants several weeks before the workshop. This survey (Appendix 2) explored participants priorities as well as their roles and responsibilities related to intersectoral approaches to improving urban health.

Figure 3: Participants perceptions of the work relative to food and physical activity

Additionally, it explored the diseases, exposures and behaviours which they considered the main threats to urban health in their cities. It explored planned or existing initiatives taking place in their region and the status of such projects. Finally, it explored participants' motivations and expectations from the workshop and their interest in working with other cities and with researchers to develop and scale appropriate interventions. The presentation provided perspective on the countries represented by participants, their focus areas, their ongoing priorities, as well as their expectations in coming to the workshop. Survey responses indicated that for the majority of participants, the primary motivation for attending the workshop was to gain

knowledge on specific interventions and build collaborations that they could apply to their own settings. Survey responses also suggested that main barriers to developing intersectoral practice was perceived to be the poor integration of mandates and policies, concerns about limited political will, and funding and resource limitations.

Presentation 1: Introduction to the workshop and collaborative (Tolu Oni)

This was followed by a presentation by Prof Oni, Honorary Associate Professor in Public Health at the University of Cape Town, and co-lead of the Global Diet and Activity Research Group of the University of Cambridge. During this presentation, Dr. Oni, who established the RICHE collaborative in 2015, introduced the goals of the workshop as well as the vision for RICHE. This talk touched on key shifts of consequence to urban health in Africa, and the role of non-healthcare sectors in shaping the outcomes and exposures of consequence to health in cities.

Additionally, the relevance a non-communicable disease lens in looking at wellbeing in cities, and the challenges in applying such a lens was discussed. The presentation also set the scene for the vision for healthy African cities, and for the workshop – which would be to **learn from each other about the past, understand the present, and shape the future**. Also shared were the workshop's aims to learn from and gather evidence on delegates' cities, shape perspectives, provide tools and case studies, and develop new partnerships and collaborative action to improve health outcomes in the long term.

Attendee and research team introductions (Ebele Mogo)

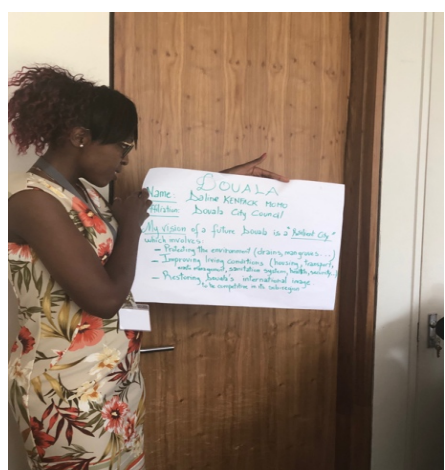


Figure 4: A participant presenting her vision for her city's future

Participants were then asked to introduce themselves, state their institutional affiliation and to create a drawing representing their vision for the future of the cities they represented (Figure 4), which they would then share with other participants as a means of introducing themselves. These responses were aggregated into the word cloud (Figure 5) which showed that their modal interests were urban infrastructure such as transport, green spaces, and opportunities for physical activity, as well as the social components of the city such as inclusivity, safety and happiness.



Figure 5: Word cloud aggregating participants' vision for the future of their cities.

Presentation 2: Intersectoral regional, national and subnational policies in Africa (Maylene Shung-King)

This introduction was followed by a presentation from Professor Shung-King, Associate Professor at the University of Cape Town School of Public Health and Family Medicine on work from the Global Diet and Activity Research Network investigating intersectoral policies at the regional, national and subnational levels. This presentation discussed the potential to understand the policy contexts in various African countries through an ongoing study funded by the UK National Institute of Health Research, and to learn from them in shaping food environments. Participants were encouraged to share what aspects of this ongoing study may be useful to their work in their various contexts.

Presentation 3: Multisectoral initiatives in Africa and relevance for planetary health (Ebele Mogo)

This was followed by a presentation by Dr. Mogo on upstream determinants of health, and the relevance of these determinants to sustainable development and planetary health in Africa. The presentation provided an upstream perspective on the main health challenges in Africa, their connection with upstream drivers, and the role of multi-sectoral action in improving these challenges. Examples of previous multi-sectoral initiatives in various cities in Africa were identified from an ongoing systematic review. The aims of this systematic review were also presented – which were to synthesize existing primary quantitative and qualitative evidence in academic and grey literature, on community, built and social environment interventions in urban Africa to address population and planetary health with a focus on reducing non-communicable disease risk, informal settings, and on adolescent targeted initiatives. Examples of multi-sectoral initiatives shared covered a range of cities including Dakar, Senegal, Akwa Ibom, Nigeria, Cairo, Egypt, and various cities in South Africa.

Brainstorm Session 1: Exploring upstream determinants of health (Lambert Tatah, Trish Muzenda)

To further illustrate the upstream determinants of health, participants were divided into 5 groups by Dr. Tatah, PhD student at the University of Cambridge, and Trish Muzenda, Junior Research Fellow at the Research Initiative for Cities Health Equity Unit. Each group was presented with a fictional persona of a city dweller, created to represent the different spatial, socioeconomic, community and behavioural health realities and priorities, challenges and opportunities raised by participants in their pre-workshop survey responses (Appendix 3).

In their groups, participants discussed the potential impact of upstream determinants of health particularly the food, built and natural environments, in shaping health and wellbeing for each case study. They then explored the connections between the upstream determinants of health, sustainable development and planetary health in their cities, while also being asked to consider the vulnerable populations in their cities and the factors shaping their health.

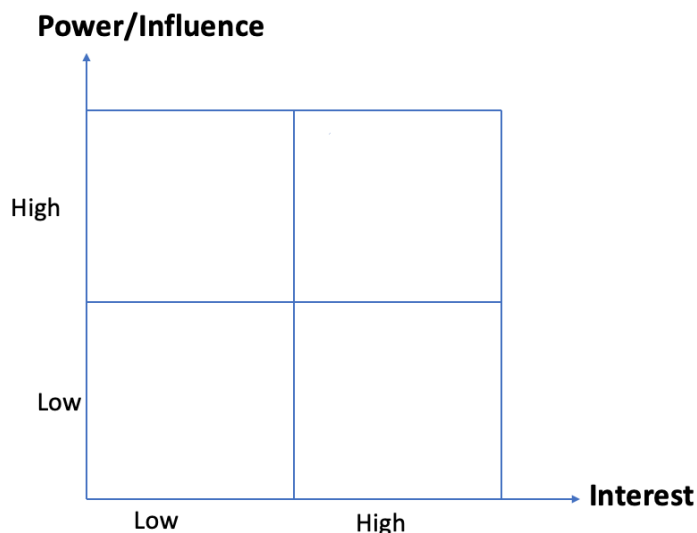


Figure 4: Stakeholder mapping framework.
Available [here](#)

For this exercise, participants were asked to apply a stakeholder mapping framework. Stakeholder mapping exercises allow for understanding how changes to a system will affect relevant parties, weighing their varied interests, and anticipating changes to the system, in order to devise a strategy for that is most likely to yield an impact. Using this framework, participants mapped stakeholders of interest for engagement, with a lens to those who had high or low power, and how this intersected with whether these stakeholders would be expected to have high or low interest in engaging (Figure 6).

Based on this in-depth discussion of the experiences of city dwellers, participants proposed potential solutions. Ideas included the following propositions – provision of improved transport infrastructure, diverse transport options and flexible working arrangements; economic solutions to make sustainability feasible e.g. providing support for recycling businesses; provision of accessible and secure public spaces; efforts to reduce pollution; upgrading informal settlements; social interventions to connect and empower young people; and solutions to improve sanitation in informal settlements.

Building Whole of Society Systems for Health

Presentation 4: Intersectoral action for health in Cape Town (Keith Cloete)

To ground participants on experiences of the process of establishing multisectoral initiatives led by government, the next session was a presentation on building whole of society systems by Dr Keith Cloete, the Chief of Operations for the Western Cape Government: Health, South Africa. This presentation centered on the process of driving intersectoral action for health in Cape Town. A situational analysis of challenges in the Western Cape was provided across inequality, human

development, causes of mortality, education and life expectancy. An overview of the government's strategic plan was also provided, including its theory of change for a whole of society approach – involving shared data across sectors, an area-based approach, community engagement, a participatory methodology and citizen-led action. This was followed by a question and answer session.

Brainstorm session 2: Experiences of intersectoral drivers of health (*Lambert Tatah, Trish Muzenda*)

This was followed by a brainstorm session inviting participants to reflect on intersectoral drivers of health in their own cities. Specifically, they were asked to consider and share thoughts on how food, built and natural environments were shaping health in their cities, then to discuss the challenges they faced in shaping health in their cities. Finally, to ensure an equity lens was maintained, delegates were invited to reflect upon and discuss the population groups in their cities that would be considered most vulnerable.

Multi-sectoral Initiatives for Health

Training session 1: Entry points approach to intersectoral action for NCD prevention (*Pamela Carbajal, Thiago de Sa, Suvajee Good*)

In this first training session, participants received training on the use of a multisectoral lens to address health challenges from Dr. de Sa, Technical Officer, World Health Organization, Ms. Carbajal, Urban Planner Consultant, Regional and Metropolitan Planning Unit, UN Habitat and Dr Good, World Health Organization Regional Office for Africa. This session was focused on delivering training using an entry points approach for effective intersectoral action in their cities.

Examples were provided from the UN Habitat Compendium of Inspiring Practices. One of these at the city level and by the sector entry point was Sanergy from Nairobi, Kenya, a waste management initiative to address sanitation needs in slums through on-site sanitation solutions. Another example provided was at the neighbourhood level, by the ‘principle’ entry point – Violence Prevention through Urban Upgrading (VPUU) initiative which provides life-course strategies such as childhood development and slum upgrading to address multiple health issues. In the practical section of this training session, participants were divided into 5 groups. Each group was required to select an entry point (outcome, setting, principle or sector) and a spatial scale (national, regional or metropolitan, city, neighbourhood) for



Figure 7: Participants deriving solutions of relevance to the Sustainable Development Goals, mapping entry points and actors

intersectoral action. Once these were selected, each group was tasked with conceptualizing an intersectoral initiative focused on their selected entry-point and spatial level (Figure 7). Participants were asked to consider the co-benefits that their proposed solutions would provide across the widest range of sustainable development goals (SDGs). For example, work that aims to promote action that benefits the climate and equity as a core issue can drive multiple benefits across the SDG agenda ranging from ecosystem services to economic interests. They were then asked to list some of the constraints and trade-offs they may encounter in project implementation. Finally, they were asked to list the actors they would need to engage and the purpose they would serve, categorizing them from low to highly relevant. Groups presented in plenary their entry points, spatial scale, the multiple SDGs addressed, constraints and relevant actors.

This exercise yielded potentially feasible solutions which were shared with the rest of the workshop participants.

One of these ideas (spatial scale: neighbourhood; entry point: settings (school)) was a community run food garden that would be powered by solar energy and irrigated with recycled water (Figure 8).

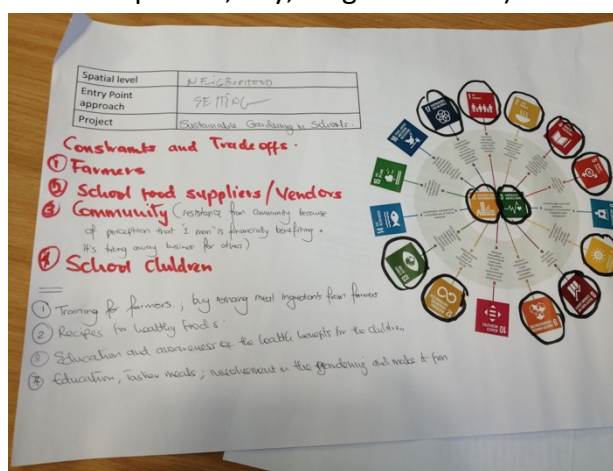


Figure 8: Sustainable gardening in schools: an example of intersectoral initiative at the neighbourhood level and using the “settings” entry point.

Constraints participants identified that would need to be overcome included cultural barriers to healthy eating. This barrier would potentially be overcome by ensuring everyone was engaged e.g. by having children grow the food. By so doing, the group anticipated that they would be able to promote consumption of vegetables.

The second initiative (scale: metropolitan; entry point: principle) proposed was the provision of safe, equitable access to recreational public spaces which would be well-maintained and upgraded over time (Figure 9). This intervention would take place at the metropolitan level with a focus on the principle of equity. One concern in following this course of action was whether or not there would be sufficient demand. That is, “if you build it, will they come?”. Another was the need to ensure local buy-in and the participation of the community from the onset.



Figure 9: Safe and equitable access to recreational public space: an example of an intersectoral initiative at the metropolitan spatial level using the “principle” entry point.

The third initiative proposed (scale: neighbourhood; entry point: outcome) was a community food garden initiative to address food security and nutrition. This project would be organized by the community, which would use the land to grow food which would then be sold to sustain their livelihoods. Some constraints anticipated in following this course of action included the lack of resources such as knowledge and skills in the community, the availability of land, water and startup capital for agricultural resources and management, and competing alternative uses of the land e.g. for economic purposes.

The fourth proposed initiative (scale: city; entry point: outcome) was leveraging the waste management sector to transform spaces where waste was currently dumped into spaces for physical activity (the outcome). Some potential constraints anticipated were a culture of waste dumping and political pressure. These would potentially be overcome by engaging the community to connect physical activity with health, and by demonstrating the economic value of creating new community spaces.

Finally, a national hypertension reduction programme was proposed (scale: national; entry point: outcome). This programme would increase awareness and advocacy for hypertension prevention, including a salt tax to reduce salt consumption and efforts through this programme to promote increased physical activity and reduce hypertension.

The initiatives generated in this exercise formed the foundation of the rest of the workshop. Participants applied training and brainstorming sessions in subsequent days to these ideas.

Day 2 (3rd December 2019)

Transdisciplinary Research Partnerships and Experiences of Intersectoral Action

Day 1 recap and participant reflections (*Tolu Oni*)

Day 2 kicked off with room for participants to reflect on their key takeaways from day 1. Some of the takeaways articulated were as follows:

- i) learning to see health as a social determinant for other sectors in addition to having other sectors being social determinants of health;
- ii) realizing that health is bigger than healthcare and that work in their individual sectors intersects with several sustainable development goals;
- iii) gaining validation that their work in a non-health sector was necessary as a healthcare professional;
- iv) appreciating the various entry points that could be used to approach the same problem;
- v) realizing that there are some community assets that are often taken for granted e.g. informal farmers who could be engaged through urban agriculture activities;
- v) the desire to explore the “how” of transdisciplinary and intersectoral projects especially touching on scale, sustainability and implementation.

Presentation 5: City Case Study 1-Cape Town and Douala (*Amy Weimann, Noxolo Kabane, Daline Momo*)

The first presentation of the day was on the LIRA project integrating health in human settlements in Cape Town and Douala by Amy Weimann, Junior Research Fellow, Research Initiative for Cities Health and Equity (RICHE), Noxolo Kabane, Deputy Director in the Policy and Research Unit of the Western Cape Department of Human Settlements, and Daline Momo of the Douala City Council.

Ms. Momo shared on the city planning challenges faced in Douala, and the city’s intention to move from only responding to challenges to pro-active planning. Furthermore, she shared experiences and outcomes of the first LIRA workshop organized in Douala in May 2019. Participants at that workshop included policymakers, planning practitioners, territorial governance actors, academia, and civil society. The aim of that workshop was to understand the state of housing and health in Douala and to engage stakeholders prior to the conduct of a qualitative study exploring government decision-makers’ perspectives on integrating health into human settlements policy. A second workshop is planned in Douala in 2020 which would re-convene participants from workshop 1 and any other

relevant stakeholders to share findings and explore next steps for action. Participatory methods were used to engage all stakeholders in the co-design and conduct of the Douala workshop 1, with the agenda co-created between academic, policy, private and civil society partners. These partners provided a cross-sectoral understanding of the urban drivers of ill health, and perspectives on strategies to mitigate these health risks through interventions in human settlements. The experiences and findings from this workshop have since been published in the Cities and Health journal (Weimann et al. In Press 2019).

Ms. Weimann and Kabane began by presenting the South African framework for human settlements and the gaps in its delivery of sustainable human settlements. Some challenges in this delivery model were presented. The rationale for and design of a study investigating knowledge, attitudes, barriers and facilitators in incorporating health into housing policy at the Western Cape government was then introduced. Also presented was the make-up of the transdisciplinary research team between the University of Cape Town and at the Western Cape Government. The team provided findings from interviews on the barriers and facilitators to intersectoral action. Their findings indicated that the wider context e.g. population growth pressures, governance, and practical constraints such as budgets, department mandates and ideologies were barriers to intersectoral collaboration. They also shared identified opportunities for intersectoral collaboration. These included the presence of existing human settlements and health data, the presence of community health advocates, optimization of the role of existing institutional structures and the identification and filling of knowledge or skills gaps.

The Cape Town team discussed their intended next steps which were to integrate data from the household level with administrative health data, and to implement the urban health equity assessment and response tool. Finally, they shared what they had learnt in building intersectoral partnerships. Some of these learnings were: i) using existing government and non-government catalysts ii) co-designing the research project iii) establishing win-win situations that work for all stakeholders iv) sharing progress, internal developments, new ideas and knowledge v) gaining support from intersectoral committees or groups within the government vi) leveraging existing relationships to gain support from high-level politicians vii) incorporating the project into government business plans and deliverables viii) having research team members provide access to government data to facilitate the research processes.

The discussion that followed included questions from delegates on the management of the high urban growth rate, the engagement of informal settlements and their potential integration in the formal sector. Ms. Momo discussed some of Douala's efforts to address urban migration through upgrading other cities, plans to improve housing options near drains where a significant number of the population was leading, and plans to upgrade sanitation, contingent on funding. With regard to the role of the informal sector, she noted that there were efforts to incentivize informal businesses to formalize as a means to integrate these activities into the formal life of the city.

The team from Cape Town was asked about their process of identifying best practices for improving informal settlements. The presenters also discussed the challenge of informal settlements, noting a recent shift in approach toward upgrading them in-situ, as against the previously longstanding approach of eradicating these settlements. They also noted that approaches to dealing with informal settlements would need to accept them as a permanent feature of cities. However, it was noted that examples of in-situ upgrading were still few and in small pockets, and that very few of these examples had come to scale.

The team from Cape Town discussed the relevance of knowledge sharing which would ensure the continuity of projects even if their political champions moved to new roles. Also discussed was the need to have community participation in the beginning to avoid high-risk projects being implemented, failing and then leading to community protests. Another issue was sensitivity to timing particularly in relation to ongoing projects in other sectors, and to election season.

Presentation 6: City Case Study 2-Accra (*Desmond Appiah and Thiago de Sa*)

Desmond Appiah, the Chief Sustainability and Resilience Advisor to the Mayor of Accra and Thiago Henrick de Sa, from the World Health Organization provided an overview of city-wide action for a healthy and sustainable future in Accra. In addition to exemplifying key projects to reduce pollution and urban health, in discussion with other delegates, the presenters touched on the political process of driving such projects and some key best practices learnt. For example, it was noted that in this setting, it was crucial to engage the media once tangible results had been produced, rather than simply at the onset of projects, as this helped to building trust with city inhabitants. In the discussion that followed, the policy-level approach to informal waste collection in Ghana and Lagos were compared – in Accra the government was willing to legalize waste collectors whereas in Lagos the government saw informal waste system collectors as waste dumpers and was against formalizing them. Another challenge cited was the need to ensure government did not pull-out from established initiatives, which would pose a major hindrance to project implementation even if there was strong stakeholder agreement. The need for transparency, and strong accountability in dealing with private waste collectors, potentially using tools such as naming and shaming was noted. The use of tax as a means to improve transport mobility issues was also discussed– in Ghana, vehicles over 10 years old were required to pay tax. Finally, Mr. Appiah noted the importance of resourcefulness including engaging with non-profit organisations to ensure that existing funding goes a long way.

Stakeholder Analysis

Brainstorm session 3: Stakeholder mapping (*Lambert Tatak, Amy Weimann*)

Prior to the practical part of this session, delegates completed a Mentimeter survey on the stakeholders needed at the table in planning for sustainable development with a specific focus on healthy eating and sustainable living. Across these desired behaviours, participants were asked about the actors who needed to be approached for engagement, the sectors needed to be invited to initial engagement, and the level of government most critical to target. Building on this question, participants reassembled into their original groups to pick up the project ideas they had developed from Day 1.

Participants then went into more detail in their groups on stakeholder analysis. In their groups, they mapped out the stakeholders they would involve in planning for the projects they developed during the training session on day 1 (Figure 10). They also reflected on stakeholder groups and populations that were overlooked but would be important to engage. Finally, they reflected on catalytic events and entry points that they could use to shape action. Questions posed to delegates to guide their brainstorming included: Who would you involve? How? Who is usually NOT at the table in decision making in cities? Who are the vulnerable? What events can change the social, economic and political landscape and shape the success of your solutions? What community assets can you draw upon?



Figure 10: Stakeholder mapping exercise. Arrows indicate the anticipated directionality of the shift in stakeholders after a situational change

Several key discussion points emerged. One was the potential to use tragedy as a window of opportunity to advocate for positive change. Such tragedies could be incidents that affected specific people, or natural environmental tragedies such as a landslide. Beyond tragedies, there was discussion on other events or activities which could be capitalized on to drive social change - political change, global coalitions, sister cities, incidents in neighbouring cities, and friendly competition between cities. Positive or negative media attention, local evidence, the ratification of global mandates and social media advocacy were all identified as tools that could be used to draw attention to specific social needs, if groups were prepared in advance to capitalize on them.

Another discussion point was the need for local meso-level actors to bridge upstream issues with local action and to serve as political champions at the municipal level. Participants also discussed vulnerable population members and the particular risks they faced, such as the children and women most frequently being the ones to sort waste by burning and thus often exposed to the risk of burns.

Delegates discussed potential stakeholders who would need to be involved in making initiatives work, naming examples of such stakeholders - chiefs, land developers, nutritionists and health promoters.

Also discussed was the potential of not only removing unwanted behaviours but creating positive value in place of negative issues. One example of this was in Ghana where a law was used to ensure waste collection in universities, after which the University of Ghana used this space to grow flowers. Alternate ways to gain access to limited resources were also discussed such as the use of surfaces and roofs to grow plants where there was not enough access to land.

Community Perspectives on Healthy Built and Urban Environments

Presentation 7: NGO perspective (*Rebecca Campbell*)

The importance of community perspectives was then exemplified through perspectives of organizations driving healthy built and urban environments. The first discussion was by Rebecca Campbell from Open Streets Cape Town who shared the experiences, opportunities and challenges in developing collaborations to reimagine streets in Africa. In this presentation, she shared the manifesto for Open Streets, existing partners, and various visuals of their events in Cape Town, Addis Ababa, Abuja, Kampala and Johannesburg.

Brainstorming session 4: The role of community in intersectoral action (Vicki Lambert)

This was followed by a panel discussion on the experiences, opportunities, challenges and community perspectives on intersectoral action. This session was facilitated by Vicki Lambert, Director of Health through Physical Activity Lifestyle and Sport Research Centre (HPALS), Department of Human Biology, University of Cape Town. During this session, delegates' questions explored the source of the push for Open Streets and whether it came from the city. In response, it was noted that Open Streets engages with communities to get petitions out and to provide evidence of community need for such event. The need to ensure a values match between organizations co-designing events and to document such events to provide evidence for their replication elsewhere were also discussed.

In addition to this, participants reflected in their groups on the community dimensions of the intersectoral initiatives they had developed (Figure 11). Questions participants explored centered around identifying who their community was, brainstorming on how they would mobilize their community, and how they would ensure the sustainability and scale of their solutions in the context of their community.

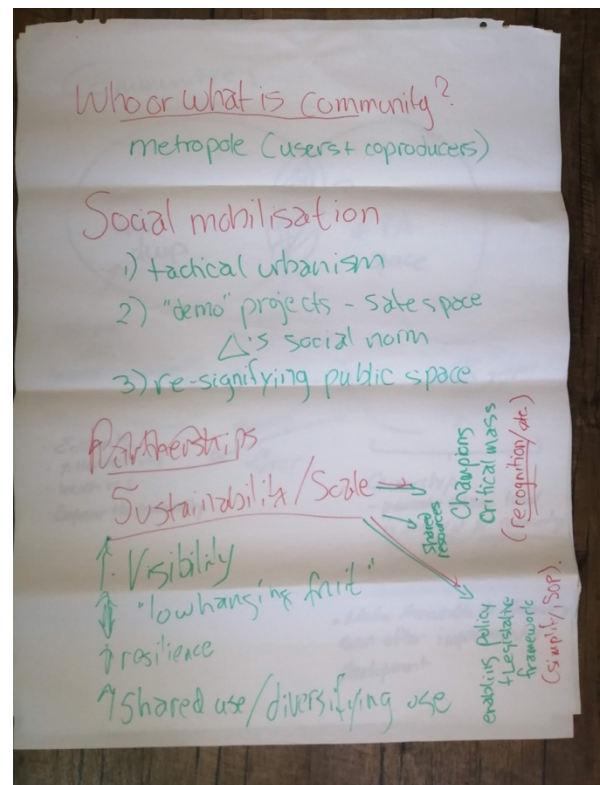


Figure 11: A group's brainstorm on community dimensions for intersectoral initiatives

Training session 2: Transdisciplinary research methods and tools (*Tolu Oni*)



Figure 12: Rationale for Transdisciplinary research

proposed that it would be helpful to conduct research that poses solutions to problems, answering the “hows” of implementation. Delegates also noted the need to build relationships, with all participants being aware of their positionality, to make co-production productive. Delegates proposed that in addition to traditional literature reviews, there be practice reviews focused on solutions in practice. Finally, delegates proposed the design of transdisciplinary questions that allowed for co-design of research projects from the get-go.

Participants were also trained on relevant tools for solution-oriented research at each stage of the transdisciplinary research pipeline. These tools included the outcome space framework, stakeholder

Finally, participants received training on transdisciplinary, solution-oriented research methods. Included in this training was the need for and logic of solution-oriented research (Figure 12), the nature of transdisciplinary research, and difference between the traditional research and the transdisciplinary research pipeline (Figure 13). Delegates were asked for their perspectives on challenges that could arise in transdisciplinary partnerships. Some challenges mentioned include the communication gap between researchers and policymakers, particularly the use of specific academic jargon that isn’t transferable to other disciplines. In addition, they noted that research and recommendations do not always fit the context within which the solutions need to be implemented, and as such, interventions could make academic sense without being able to be replicated in real life. Delegates

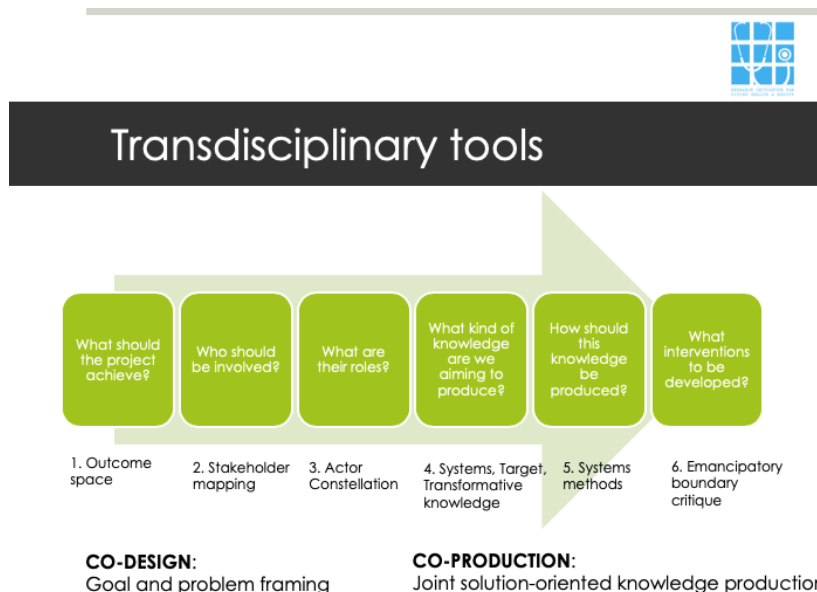


Figure 13: Transdisciplinary tools presented as part of training session. Source: td-net toolbox

mapping, actor constellation, ways of thinking about different kinds of knowledge, and emancipatory boundary critique (Figure 13). Delegates were introduced to the different forms of knowledge that could be used to drive impact – systems knowledge, target knowledge and transformative knowledge. Using examples of existing research projects, participants were guided to understand the uses and differences between these kinds of knowledge.

Day 3 (4th December 2019)

Adapting Population Health Initiatives to African Cities

Brainstorming session 5: Ideas for collaboration (*Tolu Oni*)

The final day of the workshop focused how interventions could be designed and adapted for the future health of African cities. The first presentation reminded participants of the purpose of the workshop, and the ground gained over the preceding two days. This session then explored opportunities to collaborate to drive equitable, sustainable and healthy outcomes. Participants were reminded of the different forms of knowledge that could be used to drive impact – systems knowledge, target knowledge and transformative knowledge. Participants were also asked their opinion of what kind of partnerships would be useful to drive action in their contexts. Some ideas offered included i) opportunities to sustain the exchange and sharing of experience and learning e.g. via evidence and resources, ii) collaborating across shared ideas and themes e.g. via demonstration projects and a cross-city task force and iii) action-oriented transdisciplinary research partnerships e.g. rapid testing of initiatives.

Presentation 8: Exploring typologies of cities in Africa (*Ebele Mogo*)

This was followed by a presentation on the possibility of characterizing African cities and thus to design more appropriate health interventions. This session elucidated potential advantages in going beyond dichotomous classification of human settlements in sharing best practices, understanding the trajectory of cities, anticipating their potential needs, and then devising and transferring solutions. Examples of contextual features of cities and their relevance in facilitating multi-sectoral interventions were discussed. In the Q&A session that followed, participants were then presented with a list of natural and built environment characteristics of city features, and asked to describe what they would add, remove or improve upon from the list while considering what aspects of these city features would be useful to characterize. Furthermore, participants were asked to reflect on how these features may inform action to improve health in their cities, and to explore the policy, economic, institutional and sociocultural levers they would use to drive change in their cities.

Identifying Opportunities for Transdisciplinary Research Partnerships

Brainstorming session 6: Reflection on potential for TD partnerships in existing initiatives (Amy Weimann, Tolu Oni)

The next session involved a reflection on the 3 days of the workshop and the goals that had been accomplished – learning from the past, understanding the present, shaping the future and learning from each other. Participants were reminded of their stated goals in attending the workshop e.g. their interest in collaborating with cities and researchers in Africa to share ideas and experiences of intersectoral interventions, as well as their desire to implement projects to improve urban contexts as well as to share tools, best practices and experiences. In rounding up the workshop, participants were asked reflect via a Mentimeter survey on: i) perceptions of the workshop, ii) existing initiatives and how interdisciplinary research can help support them, iii) opportunities for collaboration, and iv) willingness to collaborate or facilitate partnerships.

When given a chance to reflect on how transdisciplinary research could support their existing initiatives, participants provided the following ideas:

- i) the opportunities to have cooperation agreements within cities to allow sharing of ideas between transdisciplinary teams;
- ii) the opportunity to embed researchers and have them collaborate closely with city decision makers potentially through a city lab;
- iii) the opportunity to replicate the training opportunities provided at the workshop at the city level;
- iv) the opportunity to identify projects that could have an impact on health and wellbeing and to share knowledge, innovation, expertise and ideas in progress;
- v) training opportunities to facilitate sharing the multisectoral vision in sector-specific spaces;
- vi) generating evidence such as health impact assessments to catalyze the mobilization of intersectoral players;
- vii) the provision of case studies and demonstration exercises to impact on intersectoral projects;
- viii) conducting transformative research across various cities;
- ix) creating a marketplace of needs and of capacity in order to facilitate deployment of needed expertise and to allow a space for active discussions, sharing of questions and responses, and the provision of training opportunities;
- x) modelling and testing various scenarios of the health impact of urban development.

Workshop outcomes (Amy Weimann, Tolu Oni)

Finally, delegates were given the opportunity to provide feedback on the extent to which the workshop achieved its goals via a post-workshop Mentimeter survey (Appendix 4). While all goals scored at least 4 on a 5-point scale, the workshop goals with the most positive responses included – “to gain a better understanding of the relationship between health and urban planning” and “to

understand the need for transdisciplinary research approaches to NCD prevention through urban interventions”. The vast majority (19/20) of participants indicated that plans or ideas for collaboration with other workshop participants had arisen from the workshop. When asked to specify the nature of these plans, respondents indicated these were ideas for:

- the exchange of resources (including tools) (14/19 responses);
- transdisciplinary research partnerships (11/19 responses);
- the sharing of promising practices (12/19 responses).

Participants also provided examples of existing initiatives in their settings that could benefit from transdisciplinary research partnerships and support. These initiatives spanned: partnerships for healthy cities, water and sanitation projects, population-based chronic disease screening projects, air pollution monitoring projects, and infrastructure development projects. When asked about the specific role transdisciplinary research could play in advancing their existing project goals, participants noted that their projects could be supported through

- i) support to improve uptake and impact;
- ii) support with data, stories and the narrative for advocacy and community engagement;
- iii) sharing of best practices and potential solutions;
- iv) support in creating city to city collaboration.

Participants were also asked to indicate the kinds of knowledge that would be useful in their context. The majority of delegates stated a need for transformative knowledge (17/18) in a research partnership, with half of delegates also indicating the need for systems knowledge (9/18) and target knowledge (8/18).

Wrap Up and Next Steps

In view of participants’ inputs above, next steps moving forwards will explore strategies to:

- 1) Foster ongoing exchange and shared learning between delegates: We will explore opportunities to facilitate a consistent exchange of knowledge, discussion of user-nominated topics and tools for multisectoral action between participants
- 2) Build transdisciplinary partnerships: We will explore opportunities to facilitate transdisciplinary research partnerships with the organizations represented, supporting them to yield systems, target and transformative knowledge to improve urban health outcomes, especially for the initiatives developed through the group brainstorming session
- 3) Develop collaboration agreements: We will explore having in-person exchanges to allow delegates share best practices within and between cities, and to amplify these initiatives.

These ideas will be further co-developed between the planning team and the delegates present in the year ahead.

Acknowledgements

Workshop Planning Team

Tolu Oni (1, 2); Ebele Mogo (1); Amy Weimann (2); Trish Muzenda (2); Lambed Tatah (1).
1. Global Diet and Activity Research Group (GDAR), MRC Epidemiology Unit, University of Cambridge.
2. Research Initiative for Cities Health and Equity (RICHE), School of Public Health and Family Medicine, University of Cape Town (UCT), South Africa.

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Appendices

Appendix 1: Final workshop programme

<https://www.gdar.net.org/healthy-cities-intersectoral-approaches-ncd-prevention-africa/>

<https://stias.ac.za/events/23940/>

RICHE | Africa workshop
Healthy Cities: Intersectoral approaches to non-communicable disease prevention in Africa
2nd-4th December 2019, Stellenbosch Institute for Advanced Study, South Africa.

Time	Activity	Facilitator
Sunday 01/12/2019		
Informal reception and Braai at STIAS		
Day 1: Monday 02/12/2019		
8 a.m - 9.30a.m.	Welcome	Ebele Mogo, Research Associate, GDAR Tolu Oni, Lead, GDAR / Lead, RICHE / Associate Professor, UCT
8.00a.m.- 8.30a.m.	Registration	
8.30a.m.- 9.00a.m.	Setting the scene and discussing the pre-survey response	
9.00a.m.- 9.30a.m.	Official welcome from organizing team and review of information in program pack, which includes: i) WHO air pollution and physical activity guide, ii) UN Habitat resources on healthy planning, iii) infographic on participants' experiences and existing or planned initiatives in intersectoral action from pre-workshop survey, iv) Bolder action for Health in Africa policy brief, v) aggregated profile of attendees by sector, city, and gender, vi) short individual bios for each delegate, and vii) UN-Habitat and WHO training tools on intersectoral action for health.	
9.30 a.m. – 12.15 p.m.	Introduction: Current State of Cities in Africa	Facilitator: Ebele Mogo

25



9.30 a.m. – 10.00 a.m.	Introduction from attendees: name, affiliation, ‘my vision of a future _cityname_ is’ (e.g. my vision of a future Douala is)	Presenter: Maylene Shung-King, Associate Professor, RICHE/School of Public Health and Family Medicine, UCT.
10 a.m. – 10.25 a.m.	Presentation: Research team share examples of Africa-wide intersectoral policies for intersectoral food policies at the regional, national and subnational levels.	
10.20 a.m. – 10.45 a.m.	Presentation: Research team share on upstream determinants of health, state of upstream determinants of health in cities represented, and health as key to sustainable development and planetary health.	Presenter: Ebele Mogo
10.45 a.m. – 11.15a.m.	Physical activity and healthy snack break	
11.15 a.m. – 11.45 a.m.	Brainstorm session: Participants break out into 4 groups and receive profiles of people living in different cities to represent different spatial, socioeconomic, community and behavioural health profiles. Questions: i) how do upstream determinants (food, built and natural environment) affect health and wellbeing for this person? ii) How does this intersect with sustainable development and planetary health? iii) Would you consider this person vulnerable? iv) Why or why not? v) Who else would you consider vulnerable? Share thoughts on Mentimeter	Facilitators: Trish Muzenda, Research Officer, RICHE, and Lamed Tatah, PhD candidate, GDAR.
11.45 a.m. – 12.15 p.m.	Participants present group discussions in plenary	
12.15 p.m. – 1.15p.m.	Lunch break	
1.15 p.m. – 4.00 p.m.	Building whole of society systems for health Presentation: Intersectoral action in Cape Town, South Africa	Presenter: Keith Cloete, DDG: Chief of Operations for Western Cape Government: Health, South Africa.
1.15 p.m. – 1.45 p.m.	Question and answer session	

1.45 p.m. – 2.00 p.m.		
2.00 p.m. – 2.15 p.m.	Participants asked to think and share via Mentimeter on i) how food, built and natural environments shape health in their own cities; ii) challenges faced in shaping healthy cities in their cities; iii) which populations in their cities are the most vulnerable.	Facilitator: Trish Muzenda, Research Officer, RICHE.
2.15 p.m. – 2.30 p.m.	Physical activity and healthy snack break	
2.30 p.m. – 3.30 p.m.	Training 1: Intersectoral action for health: World Health Organization and UN Habitat training on multisectoral action for urban health	Facilitators: Pamela Carbajal, UN Habitat; Suvajee Good, WHO AFRO; and Thiago Henrick de Sa, WHO.
3.30 p.m. – 4.30 p.m.	Participants break out to practice mapping pathways for multisectoral action and regroup to share responses with other participants	
	Dinner to follow at STIAS	
Day 2: Tuesday 03/12/2019		
9 a.m. – 10.45 a.m.	Transdisciplinary research partnerships and experiences of intersectoral action	
9 a.m. – 9.45 a.m.	City case study 1: Integrating health in human settlements in Cape Town and Douala	Presenters: Daline Momo, Douala City Council, Amy Weimann, PhD candidate, RICHE and Noxolo Kabane, Western Cape Department of Human Settlements.
9.45 a.m. – 10.15 a.m.	City case study 2: Air pollution and health in Accra	
		Presenters: Desmond Appiah, Chief Sustainability and Resilience Advisor to the Mayor of Accra and Thiago Henrick de Sa, WHO.
		Facilitator: Tolu Oni
10.45 a.m.- 11.15a.m.	Physical activity and healthy snack break	

11.15a.m.– 11.45a.m.	Training session 2: Transdisciplinary research: Transdisciplinary approaches to co-creating research from developing partnerships to co-designing research agendas	Presenter: Tolu Oni
11.45 a.m.– 12.15p.m.	Brainstorm session: Interactive session on stakeholder analysis: who should be at the table in planning for sustainable development through healthy eating and safe, active living? Share responses on Mentimeter.	Facilitator: Lambed Tatah, PhD candidate, GDAR and Amy Weimann
12.15p.m. – 1.15p.m.	Lunch	
1.15 p.m. – 3.30 p.m.	What are community perspectives on healthy built and urban environments?	
1.15 p.m. – 1.45 p.m.	A discussion on Open Streets Cape Town's experiences, opportunities and challenges in developing collaborations to reimagine Africa's streets.	Presenter: Rebecca Campbell, Open Streets Cape Town.
2.15 p.m. – 3.15 p.m.	Panel discussion + participants' questions for presenters on experiences, opportunities, challenges and community perspectives on intersectoral action.	Session Facilitator: Vicki Lambert, Director, Health through Physical Activity Lifestyle and Sport Research Centre (HPALS), UCT.
Dinner to follow at STIAS		
Day 3: Wednesday 04/12/2019		
9.00 a.m. – 12.30 p.m.	Adapting population health interventions to African cities	Facilitator: Ebele Mogo
9 a.m. – 9.30 a.m.	Presentation: Characterizing African cities to inform appropriate health interventions	
9.30 a.m. – 10.00 a.m.	Brainstorm: i) How do different urban types compare and differ in Africa? ii) What features, capabilities and constraints are shared, and which differ? iii) How should this inform the creation of	

10.00 a.m. – 10.30 a.m.	interventions to improve population and planetary health? Group discussion	
10.30 a.m. – 11.15a.m.	Physical activity and healthy snack break	
11.15 a.m. – 12.00p.m.	Next steps Mentimeter survey on i) perceptions of the workshop, ii) existing initiatives and how interdisciplinary research can help support them, iii) opportunities for collaboration, and iv) willingness to collaborate or facilitate partnerships. Interactive reflections on workshop experiences in plenary.	Facilitator: Amy Weimann
12.15 p.m. – 1.15 p.m.	Lunch	
1.30 p.m. – 3.00 p.m. 1.30 p.m. – 2.20 p.m. 3.00 p.m. – 3.00 p.m.	Wrap-up Identifying opportunities for transdisciplinary research collaboration and collaboration among delegates Official closing	Facilitator: Tolu Oni
	Dinner to follow at STIAS	

We will be in touch in the next few months to learn more about how you have made use of the tools shared at the workshop, follow up on potential for new partnerships, and any collaborations that have arisen from the workshop.

Appendix 2: Pre-workshop survey

We look forward to seeing you at the RICHE | Africa workshop: “Intersectoral interventions to improve population health in urban Africa”.

We have prepared this short survey to better understand your priorities. Your answers will be used to inform the workshop planning material so that it is suited to your interests.

Email address:

What is your name:

Understanding your work and priorities

- 1) What organization do you work for?
- 2) We would like to learn a little more about your ongoing work. What are your organization’s current priorities as they relate to urban planning?
- 3) What are your specific roles and responsibilities in advancing these priorities within your organization?
- 4) What are your organization’s current priorities as they relate to the natural environment (e.g. air, water, land, etc.)?
- 5) What are your specific roles and responsibilities in advancing these priorities within your organization?
- 6) What are your organization’s current priorities as they relate to promoting physical activity?
- 7) What are your specific roles and responsibilities in advancing these priorities within your organization?
- 8) What are your organization’s current priorities as they relate to access to food?
- 9) What are your specific roles and responsibilities in advancing these priorities within your organization?
- 10) In your opinion, what DISEASES pose the biggest threat to urban health in your region?
Examples of this can be diabetes, cholera, etc.

11) In your opinion, what EXPOSURES pose the biggest threat to urban health in your region?

Examples of this can be pollution, flooding, etc.

12) In your opinion, what BEHAVIOURS pose the biggest threat to urban health in your region?

Examples of this can be smoking, waste dumping, low physical activity, etc.

Understanding your intended or ongoing intersectoral initiatives

Next, we would like to know more about intersectoral initiatives in your setting. Intersectoral initiatives for health involve collaborations between arms of a governance actor e.g. the Ministry of Planning and the Ministry of Health, or between multiple actors e.g. the private sector and the government, that can impact on health outcomes. They could target built features such as access to healthy food outlets, ensuring smoke-free spaces, access to safe, active transport; protecting natural ecosystems e.g. air, water, vegetation and/or human processes e.g. civic participation, inclusion, etc

13) What urban intersectoral initiatives are currently taking place or being planned in your region?

Please provide as many examples as possible.

14) What is the current status of these projects? Select all that apply

- i) Planned
- ii) Ongoing
- iii) Nearing completion
- iv) Other

15) What sectors are involved in these projects?

16) What challenges have you faced in executing intersectoral initiatives?

17) What is the extent of your involvement with these initiatives? Select all that apply:

- i) Conceptualizing
- ii) Technical support
- iii) Advisory
- iv) Implementing
- v) Evaluating
- vi) Funding

Understanding what you want from the workshop.

Lastly, we'd like to explore your motivations for attending the workshop and interest in collaboration with others.

18) What is your motivation for attending this workshop?

19) What would make this workshop a success for you?

20) Would you be interested in collaborating with other CITIES in Africa to share ideas and experiences of intersectoral interventions?

i) Yes

ii) No

If yes, please share details of specific collaborations you may have in mind (if known)

21) Would you be interested in working collaboratively with RESEARCHERS to develop, improve and scale appropriate intersectoral interventions?

i) Yes

ii) No

22) If yes, please share details of specific collaborations you may have in mind (if known)

23) Would you be happy for the organisers to share details of intersectoral initiatives you have provided above with other workshop participants?

i) Yes

ii) No

24) If yes, do you wish for your examples to be shared anonymously?

1) Yes

2) No

Appendix 3: Profiles of city dwellers

Profile of a dweller in Cape Town, South Africa: Lebogang.

Lebogang has been living in Khayelitsha for 10 years now with her four children who are 13, 10, 8 and 5 years old. She is grateful that she can afford to feed her children and often needs to cook with a stove indoors, which seems to worsen her daughter's asthma. She tends to buy snacks, sachet noodles and coke for her children, because she does not have enough space and electricity to store foods. The tap water is not very clean, and she tends to use sachet water for cooking, which is expensive, so she tries not to buy foods that need washing and refrigerating, though she wishes that her children could enjoy fresh fruits as much as she did when she was growing up in the village. Lebogang is worried that her children must walk long distances at night to use the bathrooms. Even though she asks them to go in twos she is always afraid something may happen to them – one of her neighbours was recently shot by a stray bullet that came from a confrontation between two gangs. The toilets are also not very clean. Every now and then she has a urinary infection as a result. She hopes that one day she can give her children the better life she has been working so hard for. She works very hard to save so that they can move to a new neighbourhood, but it is a bit difficult doing so as a single parent and with her job as a cleaner. She is happy at least, that she can send her children to school and hopes it will be their way to a better life.

Profile of a dweller in Lagos, Nigeria: Sola.

Sola grew up and schooled in Agege in Lagos. His parents were not able to pay his university tuition, but he did complete his secondary education and learnt how to repair computers and other electronics. With those skills, he set up an electronics store in his neighbourhood. The neighbourhood has rapidly grown and waste disposal has become a problem. He had played a key role in convincing his neighbours to sign up for the Lagos State's waste management service, but he is now frustrated because the contractors do not come regularly. Their streets get packed on both sides with heaps of waste, which make the neighbourhood smell bad. It is worse in the rainy season when the rain spreads the waste all over the streets and clog drainages. There has been a recent outbreak of cholera in his neighbourhood; although this was controlled in time, two of his friends' parents still died from it. Sola is financially more comfortable than many of his neighbours, but he is sometimes worried that he is one illness away from poverty – the other time when his wife had typhoid, he had to stop the children from going to school for a month to be able to afford treating her in a good hospital all the way in Ikeja. Now his mother in Ogun State has hypertension, and her drugs eat into his pocket a whole lot. He does not get to save much anymore.

Profile of a dweller in Kampala, Uganda: Miremba.

Miremba grew up in Tororo and had always dreamt of moving to the big city and being a successful lawyer with international firms. She worked so hard as a child, and eventually, after she got her law degree, her dream came true – she got a job with a law firm in Kampala; she was so happy and has been living in Kampala for five years now. She makes good money in the city, but as the city grows, she is finding herself spending a lot of time in traffic. Sometimes, she spends up to two hours in traffic to and from work. Coupled with her busy job, it is very stressful for her. The other day she went to the hospital, and the doctor told her that her blood pressure was high. It surprised her, because she is not even forty yet. The doctor recommended that she exercise more and eat healthily but it's difficult to do that because the roads are not good. Whenever she went for a run, she had to keep looking out for cars as she was running on the main road. She also inhaled a lot of smoke and exhaust fumes, which wasn't very enjoyable. Also, men kept calling out to her on the street, which made her feel unsafe. She would go to the gym more often, but after dealing with the traffic to and from work, she doesn't have much time or energy left to drive to the gym. That is also why she doesn't cook as often as she wanted. Most times, she ends up going to the food court of the new mall near their office to buy fries and coke – her comfort foods of choice.

Profile of a dweller in Harare, Zimbabwe: Tatenda.

Tatenda's father died of prostate cancer out of the blue a year ago. He did not have much time to grieve – they had to cough up money for the burial, and soon they had to move out of their first house in Avondale, Harare to Budiro, Harare as they could not renew the lease with his mother's salary. They moved into a block of flats in a very crowded neighbourhood and to a less expensive school. He now has to share a bathroom with two other families, and he hates it. He also hates his new school – the teachers are not as good, and he misses his old friends. His mother took up another job to help with the bills and he too works part time after school, offering tailoring services. He often looks so sad. He has never been sad like that before, and sometimes he even thinks that life would be easier for his mother if he killed himself. It is also harder because he does not know who he can confide in about how he feels. In his old neighbourhood, they had a wide field where they used to play football. He used to enjoy it and it used it to take off some stress. Here it is so overcrowded that he does not have space or even time to play sports. He has started trying to make friends with kids in the neighbourhood. They mostly socialize with alcohol and other drugs. He had his first drink recently and he liked it. It seemed to help him forget his sadness, so he has been drinking more and more. It concerns his mother, but she does not have as much time to be home and monitor him. In their old place, she would tell her best friends' son to talk to Tatenda or send him out to play football with his friends, but she does not know the families here well enough. These days, she feels she now has to carry the whole world on her shoulders alone.

Appendix 4: Post-workshop survey

ORGANIZATIONS REPRESENTED

1. What organization are you from?
 - a. Government
 - b. Civil society
 - c. Private sector
 - d. UN organization
 - e. University
 - f. Media

PERCEPTIONS OF THE WORKSHOP

2. Which of the following expectations for attending this event were met? (Dissatisfied; Somewhat satisfied; Very Satisfied)

<i>Please score their potential for contribution:</i>	<i>Dissatisfied</i>	<i>Somewhat satisfied</i>	<i>Satisfied</i>	<i>Very satisfied</i>
To better understand the relationship between Health and Urban Planning, and the need for inter-sectoral approaches to NCD prevention through urban interventions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To learn about tools and strategies on implementing a “healthy city” approach for sustainable urban development planning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To extend my professional network	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inspiration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Develop collaborations and partnerships	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

HOW INTERDISCIPLINARY RESEARCH CAN HELP YOUR EXISTING INITIATIVES

3. How can interdisciplinary research specifically help your existing initiatives?

<i>Please score their potential for contribution:</i>	<i>Low Potential</i>			<i>High Potential</i>			<i>N/A</i>
By providing data and technical assistance on health statistics and demographics for urban interventions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
By engaging in the process of developing, revising and evaluating urban policies, plans and designs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
By sensitizing decision-makers and the public on the importance of integrating health considerations into urban interventions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identifying and coordinating synergies between public health, other health specialties (e.g. Respiratory Medicine, Immunology, Geriatric Medicine, etc.) and other health-related professions (e.g. Psychology, Nutrition) relevant to urban and territorial planning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
By developing tools for the promotion of health in urban and territorial planning to generate healthier lifestyles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

WILLINGNESS & ROLE

4. How likely are you to advance urban health priorities through urban planning as it relates to physical activity?
 - a. Not at all likely
 - b. Unlikely
 - c. Neutral
 - d. Likely
 - e. Very likely

5. How can your line of work support or advance urban health priorities as it relates to physical activity? (Open-ended)

6. How likely are you to advance urban health priorities through urban planning as it relates to diet and nutrition?
 - f. Not at all likely
 - g. Unlikely
 - h. Neutral
 - i. Likely
 - j. Very likely
7. How can your line of work support or advance urban health priorities as it relates to diet and nutrition? (Open-ended)
8. If any, what are other ways in which your line of work can advance urban health priorities through urban planning? (Open-ended)

PARTNERS NEEDED

9. *In your line of work, what partnership do you most need in order to advance urban health priorities through urban planning?*
 - a. Government
 - b. Civil society
 - c. Private sector
 - d. UN Organization
 - e. University
 - f. Media
10. *In your line of work, what specific sector do you most need to approach for a partnership in order to advance urban health priorities through urban planning?*
 - a. Public Health
 - b. Built environment
 - c. Economics
 - d. Science
 - e. Parks & recreation
 - f. Human settlements
 - g. Environment & sustainability
 - h. Other
11. *What specific roles or responsibilities can you offer for advancing urban health priorities through an intersectoral partnership? (Open-ended)*

ENTRY POINT (EXISTING INITIATIVES):



12. What is the likely entry point category you'll use to advance health priorities through your line of work?
- By setting
 - By outcome
 - By principle
 - By sector
13. Specifically, what is the entry point you are most hoping to use to advance health priorities through your line of work? (Open-ended)
14. In your line of work, what other existing initiatives are available where you could apply intersectoral approaches to improving urban health? (Open-ended question)

BARRIERS/CHALLENGES

15. In your line of work, what do you anticipate will be the greatest challenge for advancing urban health priorities through an intersectoral partnership?
- Time constraints
 - Funding and resource limitations
 - Methodology
 - Will and commitment
 - Data
 - Poor integration of policies, mandates and priorities
 - Other

RICHE

16. *What do you think is the most beneficial role RICHE can play in supporting your intersectoral partnership? (Open-ended question)*

Appendix 5: Participants present

	02-Dec-19	03-Dec-19	04-Dec-19
Name	Signature	Signature	Signature
Amy Weimann			
Ardil Labaroo			
Babacar Mbaye			
Clare Bartels			
Daline Momo			
Daniel Okello			
David Alli			
Desmond Appiah			
Ebele Mogo			
Folayinka Dania			
Jacqui Samson			
Jorgen Eskemose Anderson			
Julien Rumblebow			
Keith Cloete			
Kudzai Masunda			
Lambert Tatah			
Linda Norrelling			
Lisa Micklesfield			
Lookman Oshodi			
Maximus Ugwuoke			
Maylene Shung King			
Natacha Berkowitz			
Nicole McCreedy			
Noxolo Kabane			
Pamela Carbajal			
Rebecca Campbell			
Suvajee Good			
Thiago Herick de Sa			
Tolu Oni			
Trish Muzenda			
Vicki Lambert			
Victor Kame			
Wanda Fajana			
Kufre Okop			
Endersson Akpan			

Appendix 6: Participant biographies



Tolu Oni

Tolu Oni is a Public Health Physician Scientist and urban epidemiologist, a Clinical Senior Research Associate and co-lead of the Global Diet and Activity Research Group, University of Cambridge MRC Epidemiology Unit, and Honorary Associate Professor in Public Health at the University of Cape Town (UCT). Born in Lagos, she completed her medical training at University College London, a Masters degree in Public Health (Epidemiology) at UCT, and a research doctorate in Clinical Epidemiology at Imperial College London. She also leads the Research Initiative for Cities Health and Equity (RICHE) Africa on transdisciplinary urban health, generating evidence to support healthy public policies in rapidly growing cities, and supporting a

coordinated approach between science, policy and societal role players, to identify creative strategies to address complex urban population health challenges in rapidly growing cities globally. She has served as scientific adviser for several organisations including Future Earth, World Health Organisation, International Science Council and the African Academy of Science; and is an editorial board member of Lancet Planetary Health, Cities and Health, and the Journal of Urban Health. Profiled in the Lancet journal (2016), Science magazine (2018), and the British Medical Journal (2019), she is a Fellow of the African Academy of Sciences, immediate past co-chair of the Global Young Academy, 2015 Next Einstein Forum Fellow, and a 2019 World Economic Forum Young Global Leader.



Desmond C. Appiah

Desmond C. Appiah is currently the C40 City Advisor & Chief Resilience & Sustainability Advisor to the Mayor of the City of Accra at the Accra Metropolitan Assembly. He coordinates city programs aimed at ensuring sustainable city development in areas pertaining to waste management, climate change, road safety, disaster planning and management, with a charge to integrate management structures for enhancing urban resilience. With over 21-years' experience in business sustainability related projects in private sector, manufacturing, academia, forestry, mining, agro-business, and commercial entities across Europe, USA and Africa. Desmond has worked on designing and assessing waste management systems to ensure effective planning, community

engagement, monitoring and evaluation of service delivery quality. He has also supported several small and medium scale industries to assess and develop proactive management approaches to

market risks. Desmond holds an MSc (Energy and Sustainable Development) from De Montfort University, Leicester UK, an MS (Environmental Protection & Safety Management) from St. Joseph's University, Philadelphia USA, BA (Hons) (Geography) and Resource Development) from the University of Ghana, a PG Certificate (Group Crisis Intervention) Critical Incidence Stress Management and a First Certificate in Food Safety from The Royal Institute of Public Health. He is a trained Health & Safety, Quality and Environmental Management Systems Auditor and a Trainer.



Jørgen Eskemose Andersen

Jørgen Eskemose Andersen is an architect specialized in urban planning and urban management in the Global south i.e. mostly in Sub-Saharan Africa. He has research relations to Ardhi University College (Tanzania), University of Science and Technology (Ghana), Witwatersrand University and University of Cape Town (South Africa), Lisbon New University (Portugal), Edinburg College of Art (Scotland), Trondheim Technical University (Norway), Technical University (Denmark) and Eduardo Mondlane University (Mozambique). The research covers workshops, conferences, joint research projects and peer reviewed articles in international journals. All research is related

to planning, housing, reconstruction and adaption to climate change in the Global South and is carried out in interdisciplinary teams. He holds a position as associate professor and is head of Department of Human Settlements at the Royal Danish Academy of Fine Arts, School of Architecture.



Maximus Ugwuoke

Maximus Ugwuoke is the C40 City Adviser to Lagos where he is providing technical assistance to the City in the development and delivery of Climate Action Plan in line with the Paris agreement. Prior to joining C40 in 2018, He has had a long and successful career in Lagos State Government for over 20 years serving in different roles and focusing on climate change, solid waste management, air quality, environmental governance and policy, as well as environmental impact assessment. It is under his leadership that Lagos State developed a GHG inventory that is GPC compliant. Maximus was the first head of Lagos State Climate Change Unit, which successfully implemented climate change mitigation and

adaptation projects, including delivering annual Lagos State International Climate Change Summit, which was held for seven consecutive years. As Head of the Climate Change Unit, Maximus was also responsible for managing relationships with so many climate change programme partners for Lagos State, such as C40, ICLEI, UN Agencies, the World Bank, and civil society groups. While doing national service, Maximus was a Corper of the year award

winner. He is also a Commonwealth Professional Fellow obtained from the Center for Global Eco-Innovation of University of Lancaster. He holds a Bachelor's degree from University of Nigeria Nsukka and Master's degree in Environmental Resources Management from University of Lagos. He is a Registered Advertising Practitioner.



Lookman Oshodi

Lookman Oshodi, Commonwealth Professional Fellow is the Project Director of Arctic Infrastructure (AI), a multi-disciplinary private organization with broad focus on infrastructure delivery, urban development and the environment. Lookman Oshodi is an infrastructure, urban development and city system strategist. He, alongside other 10 global experts, was a member of the Technical Committee for 2018 Guangzhou International Award for Urban Innovation (4th Guangzhou Award for Urban Innovation) and was appointed in May 2018 as one of the four International Jury Members by the Metropolis, world association of the major metropolises, based in Barcelona, Spain. He joined three other

global experts from Canada, the Netherlands and Argentina to assessed and selected 6 pilot projects from all the projects submitted by governments of major metropolises across the world as part of the 2nd edition of the Metropolis Pilot Projects 2018 – 2020. In addition to leading multiple urban development and infrastructure projects with different international development partners, he is a Trustee in the Board of Iroko Healthcare Support Initiative (IROHES), a healthcare system provider that is working to expanding access to qualitative community healthcare in the vulnerable communities in Nigeria.



Suvajee Good

Suvajee Good is Programme Manager for Health Promotion and Determinants of Health in the WHO Regional Office for Africa (AFRO). She is also the focal point for the WHO Healthy Cities network in the AFRO region. She has 35 years of international experience in health and development issues, including health promotion, tropical diseases, child labour, maternal and child health, gender rights and migration. She has worked with organizations including the International Labour Organization, UNICEF, Planned Parenthood, the International Organization for Migration, and the Office of the UN High Commissioner for Refugees (UNHCR). She has also held a number of academic positions including Associate

Professor in the College of Public Health at Chulalongkorn University, Thailand and Director of the

Health Social Sciences International Program at Mahidol University, Thailand. Good received her PhD in Sociology from the University of Pittsburgh, USA, and holds an MA degree in Medical Sociology and Urban Planning, and an MA in Social Work.



Pamela Carbajal

Pamela Carbajal is an Architect from the University of Tecnologico de Monterrey, she works in urban and territorial planning on Health and social inclusion approaches. Pamela coordinates the UN Habitat work on Urban and Territorial planning for the improved environment and well-being, where she works both, developing normative work and implementation. She has supported different counties in Latin America on their National Urban Policies development process using UN-Habitat and other Global agendas as frameworks. Pamela has previously worked at the Public Space authority of Mexico City where she was part of the design team of safe,

accessible and inclusive public spaces around the city.



Daline Nora Kenfack Momo

Daline Nora Kenfack Momo is an Architect and Town-planner who has worked in the collaborative innovation cluster of training, research and experimentation on energy and future territories called Seinerger Lab in France. Then she joined the Douala City Council where she worked on the adoption and implementation of the first metropolitan planning and management tool, after the first one of 1959. She is interested in participatory approaches in the production and management of the city, as well as in the integration of environmental, urban health and sustainable mobility concerns. More recently, she worked on the Douala 2050 operational metropolitan project: towards a resilient city.



Natacha Berkowitz

Natacha Berkowitz is the epidemiologist for City Health, City of Cape Town. She trained in South Africa as a primary care clinician and has a background in chronic disease care, as well as HIV and TB medicine. In 2017 she received her Masters in Public Health (specialising in epidemiology) and is currently enrolled as a Public Health Registrar (specialist in training). Natacha has a particular interest in Urban Health, specifically the prevention of non-communicable diseases by addressing the upstream determinants of poor health. She has a passion for intersectoral interventions aimed at improving population health, especially in the urban context.



Victor Kame

Victor Kame an emergency physician and epidemiologist, responsible for the prevention and the fight against epidemics, pandemics and other health events that I intervene in my city. I therefore had to play many times the role of incident manager of the incident management system.



Noxolo Kabane

Noxolo Kabane is a researcher and public policy practitioner working in the field of human settlements in South Africa. She has special interest in urban development, public and housing finance, and public policy. She is currently a Deputy Director in the Policy and Research Unit in the Western Cape Department of Human Settlements where she is responsible for the initiation, development and promotion of research and policies that will inform the development of sustainable human settlements in the province and the country.



Thiago de Sa

Thiago de Sa is a technical officer at World Health Organization (WHO-HQ), working on urban health and urban mobility related issues. His main tasks are to provide technical support for cities and countries on urban health, which involves the development of tools and guidance on assessing the health impacts of sector policies and the strengthening of local knowledge on how to integrate health in urban and territorial planning. Prior, De Sa has worked as a researcher on urban health and environmental epidemiology, with a track record of publications in several academic journals, including the Lancet and the Pan-American Journal of Public Health. De Sá received an MSc and a

Ph.D. in Public Health from the University of Sao Paulo.



Kudzai Masunda

I am a 37-Year-old Medical Doctor and have been working in the City of Harare for the past 10 years. I have a master's degree in public health from University of Liverpool and a Master of Commerce degree in Business Administration from Great Zimbabwe University. I am now the head of epidemiology and disease control for the City of Harare and I am interested in controlling all diseases through public health evidence with implementation and monitoring of interventions.



Folayinka Dania

Folayinka Dania is the Deputy Chief Resilience Officer at the Lagos State Resilience Office (LASRO). LASRO was inaugurated in April 2019 consequent on a partnership between the Lagos State Government and the Rockefeller Foundation via the 100 Resilient Cities Programme. LASRO is tasked with developing the Lagos City Resilience Strategy.



Lisa Micklesfield

Lisa Micklesfield is a Reader at the MRC/Wits Developmental Pathways for Health Research Unit at the University of the Witwatersrand, and an Honorary Associate Professor in the Division of Exercise Science and Sports Medicine at the University of Cape Town. Her research interests and expertise include: (i) physical activity epidemiology and its association with body composition and metabolic disease outcomes, (ii) musculo-skeletal health at the various life stages; and (iii) the role of physical activity in interventions to reduce the risk and prevalence of non-communicable diseases; (iv) biological, environmental and

behavioural determinants of multi-morbidity.



Rebecca Campbell

Rebecca is seeking collaborative ways to build South African cities that are sustainable, safe and welcoming for all citizens. She has played a key role in growing Open Streets Days into an iconic city-wide programme in Cape Town, and a movement of citizens reimagining streets together more broadly. OSCT brings people together to experience streets as places of connection and belonging that promote sustainable mobility, creative expression, local cultures and values, economic opportunities and healthy recreation. By actively demonstrating this potential, they help to shift the culture of streets and public space, and the policies and processes around them.



Ebele Mogo

Ebele Mogo aims to improve global public health through evidence-informed and multi-level investments in the ecological drivers of health and wellbeing. She has a keen interest in the urban transition and the rise of non-communicable diseases, critical and inter-related phenomena taking place on a global scale which need to be better managed to produce health and wellbeing. She continues to move this work forward as a researcher at the Global Diet and Activity Research (GDAR) Network within the MRC Epidemiology Unit, where she develops and manages cutting edge research projects and partnerships centered on the prevention of non-communicable diseases (NCDs), in African and Caribbean countries.



Lamed Tatah

Previously a public health physician and now a PhD student in the University of Cambridge where he models the health impact of different policy options. His focus is on transport policies in African cities: how to quantify impact and how to make estimates relevant to policy makers.



Amy Weimann

Amy Weimann is a Junior Research Fellow affiliated with the Research Initiative for Cities Health and Equity (RICHE) and the African Centre for Cities, and a PhD student at the School of Public Health & Family Medicine at the University of Cape Town. As an urban geographer in the field of Urban Health, her current research focuses on exploring and developing opportunities for intersectoral collaboration within government for the purpose of addressing complex urban health challenges, particularly in the context of informal settlements. Amy also has an interest in exploring the spatial distribution of health outcomes through the use of Geographic Information Systems.



Trish Muzenda

Trish Muzenda is a Junior Research Fellow at the Research Initiative for Cities Health Equity Unit at the University of Cape Town. Her current research explores the availability and use of epidemiological tools to assess adolescent food and physical activity in LMIC.

Her other interests include examining tools and techniques for mapping food and physical activity environments in LMIC urban environments.



Babacar Mbaye

Currently Director of Health Action and People Services of the city of Dakar, I am a multidisciplinary professional, born in St. Louis of Senegal. After obtaining my Bachelor's degree, I studied in several disciplines, including Political Science (Executive Master - Sciences PO-Paris), European and International Tax Law and Private Law (Master 2 - Université Paris 13 Villetaneuse), supplemented by further training at the International Institute for Francophonie/University Jean Moulin Lyon 3 in Francophonie and Mondialisation. Prior to my current position, I was Acting Director of the National Olympic Pool of the City of Dakar in 2017, Finance Officer of the Dakar Municipal Finance Program

(DMFP) specializing in the mobilization of resources to finance the investments of the city of Dakar through innovative financing mechanisms (bond issue), from 2011 to 2017. In 2010, I held the position of Local Taxation Officer in the Administrative and Financial Directorate of the City of Dakar and Councillor for Municipal Affairs. In 2006 Administrative Manager in the Production Directorate of GATE GOURMET CDG Paris and surrounds.

Maylene Shung-King

Maylene Shung-King is an Associate professor at the University of Cape Town School of Public Health and Family Medicine and co-Principal investigator on the NIHR Global Diet and Activity Research network.

Vicki Lambert

Vicki Lambert is Director of Health through Physical Activity Lifestyle and Sport Research Centre (HPALS), Department of Human Biology, University of Cape Town and co-Principal investigator on the NIHR Global Diet and Activity Research network.

Keith Cloete

Keith Cloete is Deputy Director General: Chief of Operations for Western Cape Government: Health, South Africa.

David Alli

David Alli is Chief Town & Regional Planner-Informal Settlement Support at Department of Human Settlements- Western Cape, South Africa.

Julien Rumblebow

Julien Rumblebow is Innovation Economist at the Western Cape Dept. Environment and Development Planning, South Africa.