Public Health Leadership in Emerging Global Cities

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Abstract

The growing number of global cities present a new paradigm for domestic public health practice which requires thinking at scale and pace within an international context of population belief patterns and a looming threat of global risk transmission along economic and recreational transport corridors. This expert opinion piece reflects on this emerging paradigm through the perspective of the director of public health at Birmingham, England's second city.

Article Highlights

I. Public health is a discipline dedicated to protecting and improve the health and wellbeing of populations.

II. Cities present unique challenges to public health in terms of scale and the multiple operational levels of individual, families, communities and layering of place.

III. Global cities present additional challenges to public health because of the duality of narratives experienced by citizens that drive beliefs and behaviors as well as increased complexities of migration and trade.

IV. Responding to these challenges presents a new paradigm for public health which requires triangulation of global, regional and local factors and upstream action at a system level to achieve sustainable change at scale.

V. This new paradigm requires a public health leadership workforce that is fluent in global cultural and political contexts of health promotion and is supported by more global networks to support action as well as shared learning.

Keywords: Public Health; Cities; Globalization; Active transport; Food Systems; Birmingham; Ethnic minority health

Introduction

Public health is the art and science of protecting and improving the health of populations through direct and indirect evidence-based interventions and increasingly through partnership and whole system working. Cities are complex and multi-layered systems operating at individual, family/household, community and a variety of place scaled layers. The role of cities as systems to improve, and potentially harm health, are well established [1]. Interventions in cities to improve health and wellbeing are often limited by capacity and resource to achieve the scale required to truly impact on outcomes and deliver sustainable change.

As cities reach a critical size over one million citizens, they start to evolve into global cities visible on economic global landscape and as they expand to become megacities over 10million cities they become world cities. This economic influence sits alongside

cultural and demographic growth and influence. The city itself reflects higher levels of international migration, economic interdependencies and supply chains that flow across the world in real time. In the context of more cities becoming global cities there is a need for a new approach to public health leadership that bridges local and international strategies and implementation techniques.

Public Health Practice

Public health is "the art and science of preventing disease, prolonging life and promoting health through the organized efforts of society" [2]. Public health is sometimes described in three domains of practice [3]: Health Improvement, Health Protection and Health service quality improvement. The Ottowa Charter [4] is seen internationally as a shared framework for health improvement highlighting the fundamental principles for health including

shelter, education, employment, many of which are led at a place level through city municipal regions.

Public health works in slightly different models around the world. In the UK it is led at a city level by Directors of Public Health [5] who train through a standardized clinical specialist training pathway [6]. In this role they are responsible for protecting and improving the health and wellbeing of citizens in their geographical populations through the three domains of practice.

Global Cities

There are many definitions of Global cities building from Sassen's [7] work over the 1990s and there is little difference seen between world and global cities. However common to the variations on the original definition. There are a growing number of indexes of global and world city status [8] looking at different dimensions of influence and impact on international systems. For example, the ATK Global City Index [9] looks at five dimensions of global influence for cities-Political engagement, Business activity, Human Activity, Information exchange, Cultural experience.

There are a number of global city networks focused on health led by cities working with other cities across the world. Some like the Milan Urban Food Policy Pact [10] have a very specific topic, others have broader more diverse including WHO Healthy Cities [11] regional networks and the Bloomberg Foundation supported Partnership for Healthy Cities [12].

Birmingham Context

Birmingham is rapidly evolving as a world city with a population of circa 1.2million citizens and growing ethnic diversity with over 187 countries represented in the city. It is the largest unitary authority in Northern Europe and sits within the West Midlands region of England. Birmingham is ranked globally by GaWC [13] as a Beta level global city ranked joint-second in the UK after London, with Manchester and Edinburgh, and in the Global Metro Monitor [14] report as 192nd in the top 300 largest metro areas in the world based on economic growth alongside Lisbon and Zurich, rising from 263 .

In 2022 the city will host the Commonwealth Games and has a strong network of national and international city links through Euro cities, Core Cities and specific public health networks such as the Milan Urban Food Policy Pact. The city faces significant public health challenges [15] spanning infectious and non-infectious diseases, some of which are more complex in the context of the global population:

a.　Life expectancy for men at birth is two years lower than the England average, with higher mortality under 75yrs for both cardiovascular disease and cancer than the England average.

b.　Infant mortality in the city is almost double the national rate.

c.　39% of adults are not achieving the recommended levels of physical activity for health impact and levels of childhood obesity are over 5% higher than England.

In this context public health approaches have to be positioned at an upstream level of the city to achieve impact at scale and take active consideration of the diversity of the population.

Reflections on Public Health Leadership in a Global City

Global cities, especially emerging global cities, present unique challenges to public health in three ways: scale, behaviors and mobility. The scale of global cities requires a much more upstream approach to public health. Individual level interventions are unaffordable unless they are mainstreamed into routine delivery and interaction with citizens. This scale which increasingly require application of global public health principles of scale and system working and stepping away from individual level interventions to effect change.

An area where this becomes apparent is in tackling obesity where individual citizen level evidence-based interventions cost in the region of £100-150 per person which when scaled to the level of 40,000 individuals this rapidly becomes unaffordable and unsustainable. The scale of a global city requires action that shifts the behavior of tens of thousands of citizens not just tens and hundreds. This means public health has to move into a much more upstream whole system paradigm of action which is more akin to the global thinking of frameworks such as the WHO Global Action Plan on Physical Activity (GAPPA) and the UN Sustainable Development Goals.

Birmingham has faced the challenge of obesity but focusing on creating a healthy food city with the emphasis on using economic and educational levers to drive a healthy sustainable food economy in the city that is economically as well as environmentally sustainable. The theory of change underlying this is that by changing the food environment to enable more affordable healthier choices ultimately levels of obesity will decline as the social norm becomes rebalanced towards a healthier more balanced diet at a population level rather than focusing at addressing this imbalance at an individual level.

The diversity of global city population can present diverse disease challenges based on the demographics of the population, for example growing populations from African countries can bring new demand for sickle cell disease services. However, this isn't in itself particularly new for public health. The new space is in the emergence of global dimensions of health belief and ideation which global cities experience because of the rate of population churn and the affordability of technology which allows citizens to maintain close real time conversations and engagement with countries of heritage. This creates an environment in which behavior change models and approaches need to consider parallel global narratives of health and behavior that may be driving local action.

For example, in Birmingham the public health team have been exploring how to create a mentally healthy city, through our data review we identified Polish and Eastern European populations as a group with increased risk of suicide and self-harm. In discussions with local polish community organizations it became clear that

there was a challenging parallel discourse in Poland around mental wellbeing that was less positive and creating barriers for Polish migrants in the UK accessing services for fear of discrimination. In light of this the city has formed a partnership with the city of Warsaw to work together on shared learning and gain a better understanding of the narrative around mental wellbeing between the two city contexts.

International travel is an area that grows as a city moves towards global city status and it is one of the aspects of economic globalization that presents unique challenges to public health, particularly in the context of transmission and spread of infectious disease through both business and recreation travel.

In Birmingham there have been multiple cases of infectious disease associated with travel and migration, including conditions such as diphtheria which are now rare in the UK due to improved childhood vaccination. The city also experiences the impact of global travel and migration in higher levels of blood-borne viruses, especially Hepatitis B and C and HIV, sometimes associated with medical tourism as well as recreational and business travel.

The evolving nature of global cities creates a paradigm of public health practice that has to be reactive at a scale of 10,000s rather than 10s and 100s within tight financial realities, be aware of global narratives of health belief in the context of the diversity of their population and be able to respond to the rapid transmission of population threats along recreational and business transport flows.

Implications for the Future

Leading public health in a global city requires practitioners to operate within a global knowledge and evidence base and be continually cogniscent of global trends and patterns alongside regional and national ones. Supporting practitioners to operate at this level and in this context means that structured public health training programmes such as the UK consultant public health training programme, should include specific elements of global public health policy and practice especially in the context of developed/high income countries as well as developing/low/middle income countries.

The evidence base needs to expand to explore in more detail the paradigm of globalization for public health and researchers should be exploring how this influences domestic public health challenges and how to respond to these global factors at scale.

Ultimately the trend towards urbanization and globalization are continuing uninhibited and public health needs to move at pace to keep up with this new global context of healthy improvement as it plays out in cities across the world.

Competing Interests

Birmingham City Council is a member of a series of global and domestic city networks and is a grant recipient from the Healthy City Partnership for work on modal shift in active transport.

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