Socio-ecological and environmental factors in underserved communities and LMICs: context and domains matter to address “physical activity insecurity” *by Estelle*

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Abstract Id: 44
Submitted: February 3, 2020
Event: 8th ISPAH Congress 2020
Topic: Minority and/or Low-income Populations (Physical activity, Sedentary behaviour)
Keywords: LMICs, low-income, physical activity insecurity, occupational physical activity, utilitarian physical activity

Socio-ecological and environmental factors in LMICs and underserved communities that impact "physical activity insecurity": context and domains matter

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Background:

There are well-established relationships between physical activity and health outcomes, which present in a dose-dependent manner, in both high- and low-resourced settings. While recent global trends suggest that physical inactivity remains a growing public health concern, with prevalences in higher-income (36.8%) and certain middle-income countries (26.0%) rising over time and remaining stable in lower income countries (16.2%) [1]. Despite these trends, women remain at greater risk than men for insufficient activity, and there is an inverse relationship between occupational- and transport-related activity, which accounts for the largest proportion of physical activity, for example, in the Sub-Saharan region, and leisure-time physical activity [2]. Furthermore, physical activity has become part of the global sustainable development dialogue, which advocates for the benefits of creating environments and policies which support and promote physical activity that

potentially reach far beyond the health sector, and impact on climate change, gender equity, quality education and social cohesion.

Problem statement: Despite the potential and obvious benefits of physical activity, even in lower- and middle-income countries, many LMICs are experiencing or have experienced conflict, humanitarian crises, socio-political unrest and embedded inequalities, such as the legacy of apartheid in South Africa. Many LMICs also experience the co-existence of both non-communicable, and infectious chronic diseases, such as HIV/AIDS, and the juxtaposition of adult obesity with childhood undernutrition and household food insecurity. Similarly, many LMICs and underserved communities experience lack of safety from crime and traffic, poorly designed and often over-crowded urban environments, lack of resources for prioritising physical activity in schools and lack of equitable distribution of green space, making physical activity difficult and often inaccessible. Finally, unemployment remains a major problem in many LMICs and lower-income settings. And where employment does exist, there is a growing body of evidence that suggests that the health benefits alone, associated with occupational physical activity (utilitarian) may be attenuated in comparison to those associated with volitional or leisure time activity.

Studies have previously demonstrated cross-sectional relationships between physical inactivity and obesity, physical activity and the perceived, as well as objectively-measured attributes of the built environment, and prospective relationships between attributes of the built environment and weight gain and inactivity in low-income communities and LMICs [3]. There are also studies which demonstrate a link between users of integrated rapid transit systems and transport-related physical activity, as well, physical activity in upgraded parks, compared to those that have not been refurbished. However, there is some evidence to suggest that the relationships between the built environment, “walkability” and physical activity may also be attenuated or even inverse in some low-income and disadvantaged settings [4][5]. It is clear that physical activity, in urban, low-income settings and LMICs, is linked to issues of social and environmental justice, work-life balance, preferences and aesthetics, knowledge and socio-cultural beliefs and norms.

Structure of the Symposium:

The overarching aim of these presentations will be to identify the factors that lead to physical activity “security” in underserved, vulnerable urban communities and LMICs defined here as:

“when <u>all people, at all times</u>, have physical and economic access to sufficient, safe and enjoyable physical activity to meet, not only their health needs, but to promote physical and emotional well-being and social connectedness, for an active and healthy life (EV Lambert, 2019).”

Implicit in this definition is the distinction between utilitarian physical activity (occupation-

related and transport) and volitional physical activity (recreational). We will explore the evidence concerning health outcomes related to both types of physical activity.

The secondary aim will be to identify possible regulatory and policy responses, community engagement, and sector specific strategies and approaches that have been shown to successfully mitigate against physical inactivity or "physical activity insecurity" in these settings.

Paper 1: The first presentation will focus on the epidemiological evidence, underscoring the trends in physical activity in underserved communities and LMICs as part of a sustainable development dialogue. In this presentation, we will also consider the relationships between utilitarian physical activity and recreational physical activity and health outcomes, and including other so-called correlates and determinants of physical activity, such as the built environment and public transportation, as well as public open spaces.

Paper 2: In the second presentation we will focus on regulatory approaches and policies that have been shown to or have the potential to increase access to and opportunities for safe and enjoyable physical activity, even in the vulnerable, urban poor and LMICs.

Paper 3: In the final presentation, we will specifically address strategies both within and outside of the health sector, that have demonstrated to or have the potential to be implemented and scaled up in LMICs and disadvantaged communities, in a sustainable manner, thereby addressing "physical activity insecurity" by mitigating choice constraints experienced in these groups. Moreover, we will briefly consider the health economics of such strategies in LMICs and disadvantaged settings.

The discussant will complete the symposium by highlighting the issues that may be addressed by various stakeholder groups, including the communities themselves through citizen science and social mobilisation, local government and educational authorities, urban planners and transport authorities, sporting codes and sports councils, non-government organisations, and faith-based groups. This symposium will establish the basis for "physical activity security" as a human rights issue.

References:

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