

# Examining Health Inequalities

A mixed-methods study in Boon Lay, Singapore

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SCIENCE OF CITIES  
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## HEALTH BEHAVIOURS, Q-METHODOLOGY, SOCIOECONOMIC STATUS

### BACKGROUND

- Studies in low-income and high-income neighbourhoods worldwide have found that health behaviours and health outcomes vary by neighbourhood characteristics and socioeconomic status (SES).
- However, little is known about the influence of individual socioeconomic position and neighbourhood environment on the health behaviours of people living in mixed-income, high density neighbourhoods in Southeast Asia.

Therefore, to understand health inequalities within a mixed-income residential neighbourhood in Boon Lay, Singapore, we:

- Examined the perceptions of health behaviours and neighbourhood characteristics,
- Investigated their impact on the person-environment relationships
- Identified individual/environmental facilitators and barriers of health behaviours among residents from different SES.

### MIXED-METHODS

01 Participatory Asset mapping

02 Q-Methodology

03 Capability Opportunity Motivation Behavioural Change (COM-B) model

Participants  
(N=222)



#### Renters

(residents living in one and two-room rental units)

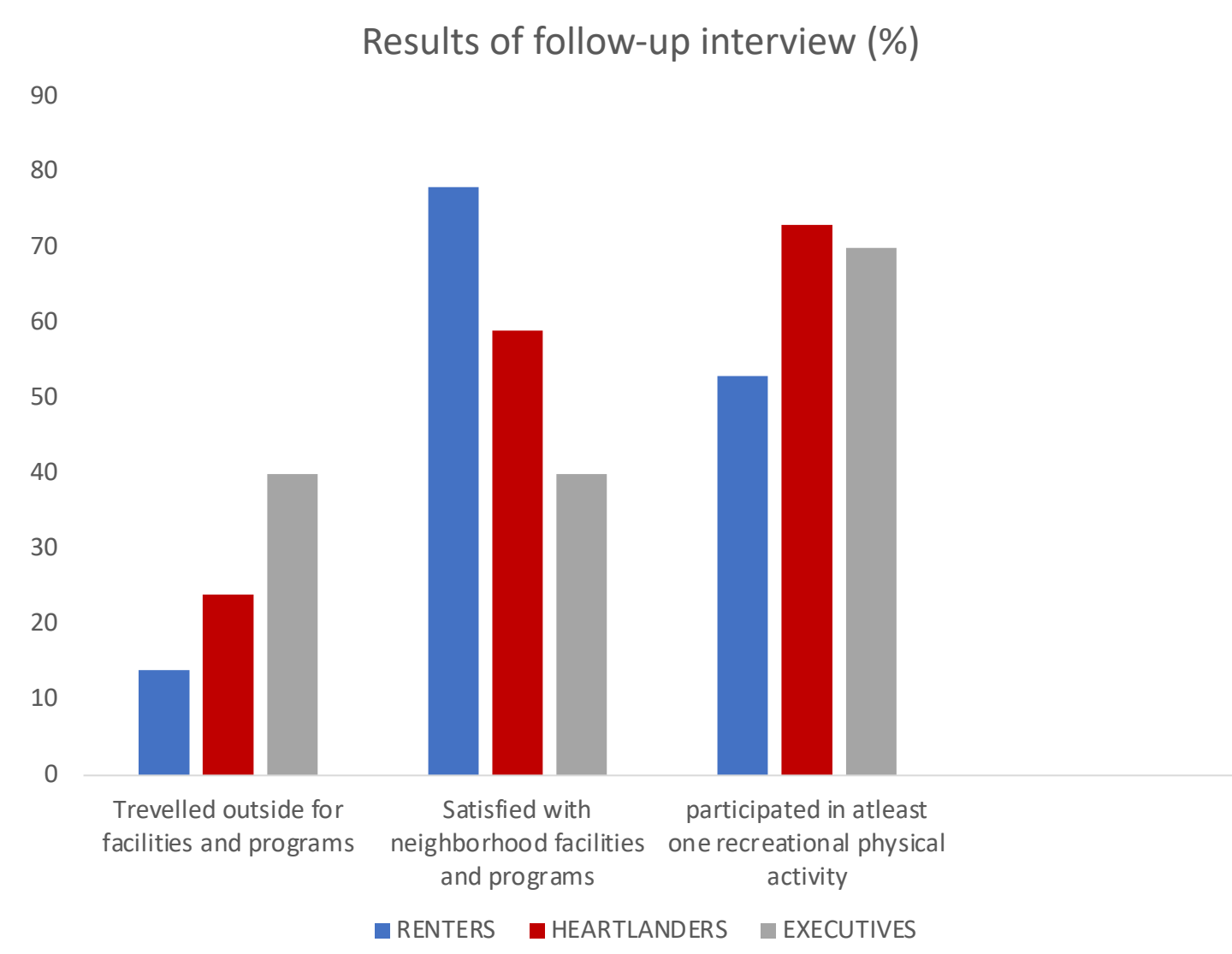
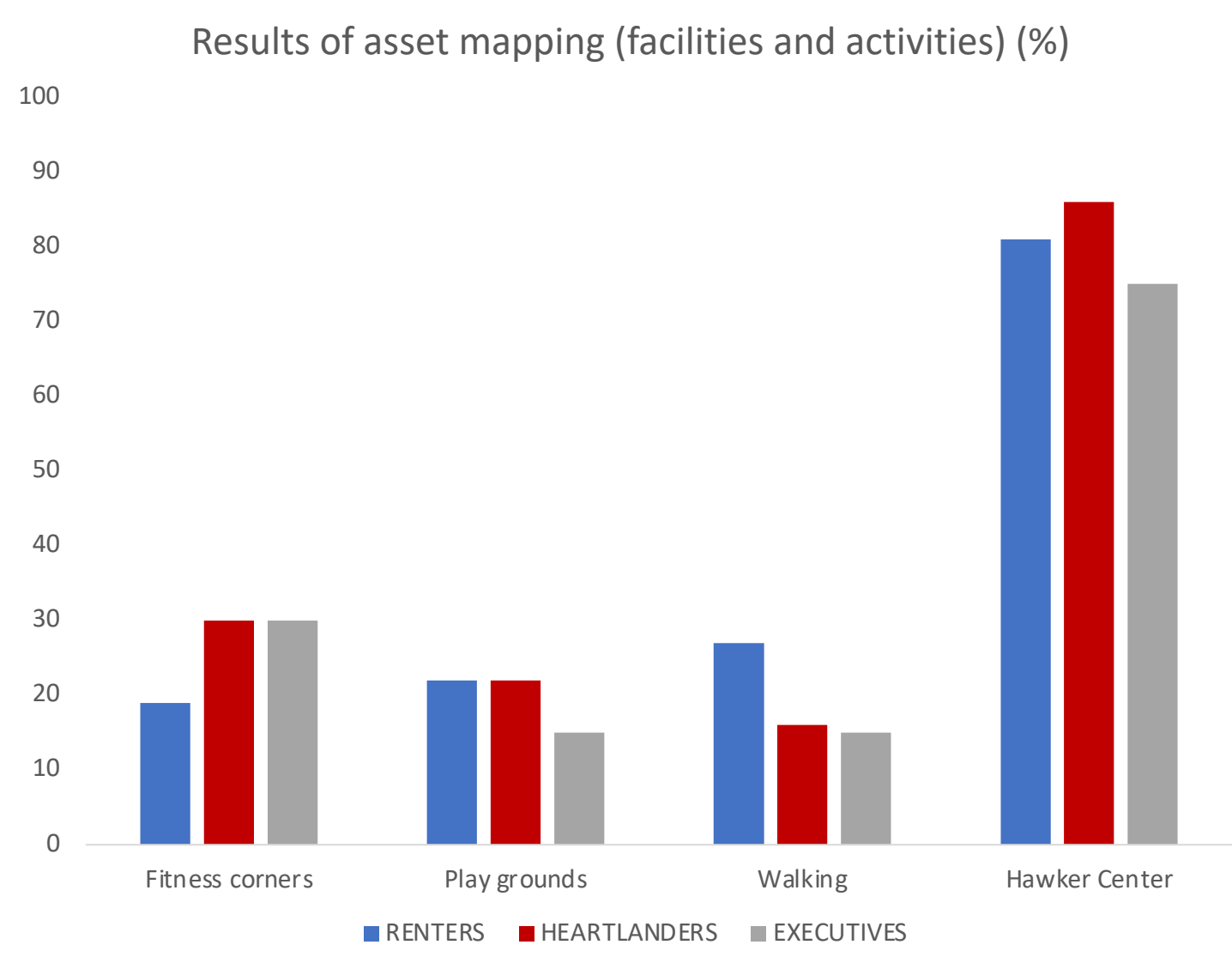
#### Heartlanders

(residents living in three and four-room apartments)

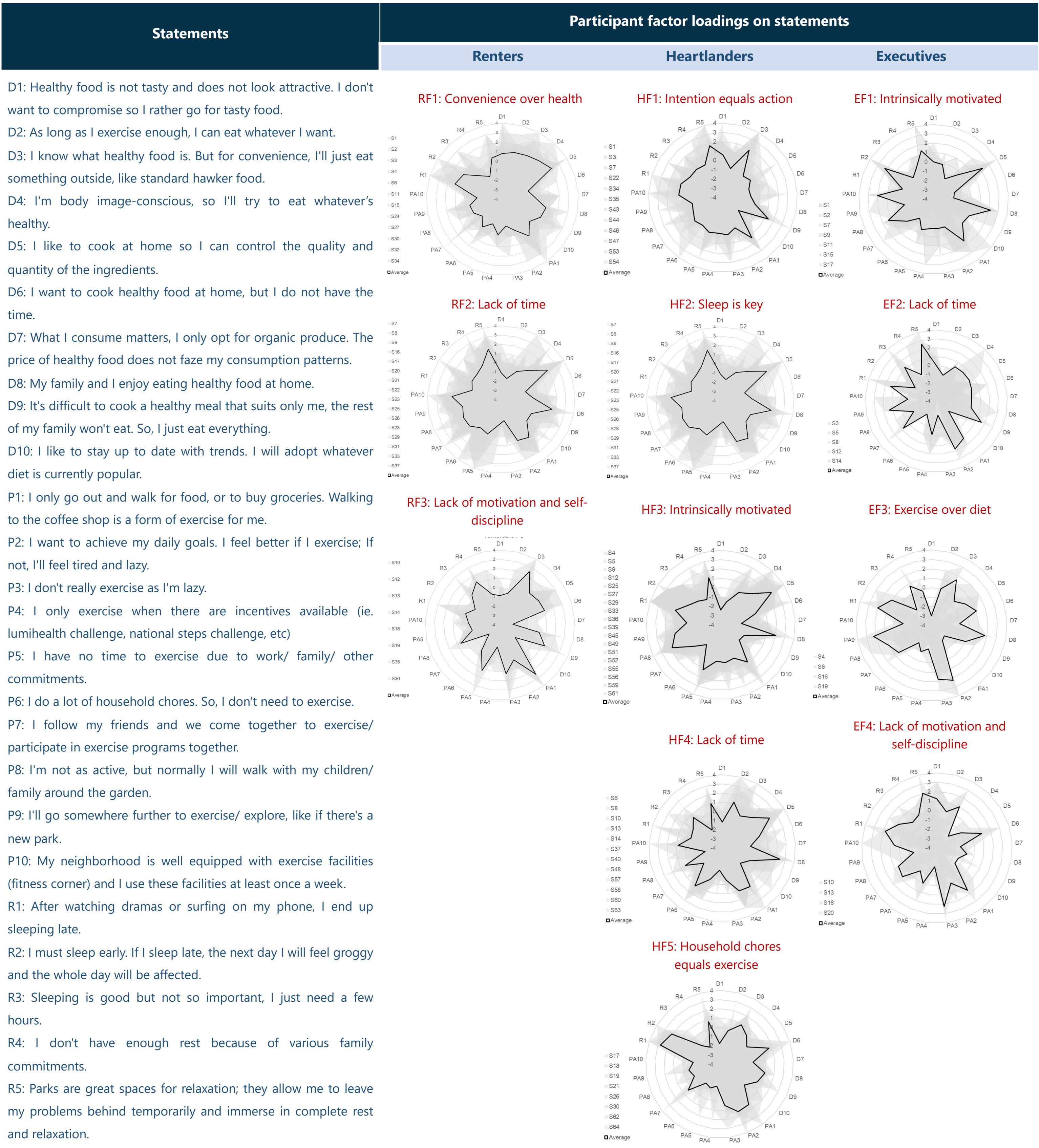
#### Executives

(residents living in five-room, and private condominiums)

### FINDINGS



FACTORS AND COM-B INTERPRETATIONS		
RENTERS	HEARTLANDERS	EXECUTIVES
<b>RF1: Convenience over health</b> Convenience and time determine their physical activity and meal choices. <b>LACK/REDUCED PHYSICAL AND PSYCHOLOGICAL CAPABILITIES</b> <b>RF2: Lack of time</b> Work and family takes precedence over recreational physical activity and rest. <b>LACK OF PHYSICAL OPPORTUNITY</b> <b>RF3: Lack of motivation and self-discipline</b> These residents are less motivated to exercise or to eat healthy. <b>LACK OF AUTOMATIC AND REFLECTIVE MOTIVATION</b>	<b>HF1: Intention equals action</b> Proponents of healthy living, they eat home cooked food, engage in light to moderate utilitarian physical activity. <b>PHYSICAL AND PSYCHOLOGICAL CAPABILITY</b> <b>HF2: Sleep is key</b> Sleep and rest takes precedence over regular physical activity. <b>LACK OF AUTOMATIC AND REFLECTIVE MOTIVATION</b> <b>HF3: Intrinsically motivated</b> Highly motivated, they engage in regular walking and light exercising within the neighborhood with family and friends. <b>SOCIAL AND PHYSICAL OPPORTUNITY, AUTOMATIC MOTIVATION</b> <b>HF4: Lack of time</b> Work and family takes precedence over recreational physical activity and rest. <b>LACK OF PHYSICAL OPPORTUNITY</b> <b>HF5: Household chores equals exercise</b> They hold the belief that household chores suffice as an effective form of exercise <b>LACK OF PSYCHOLOGICAL CAPABILITY</b>	<b>EF1: Intrinsically motivated</b> Regular physical activity within and outside neighborhood along with adequate sleep for healthy living. <b>AUTOMATIC MOTIVATION, PHYSICAL AND SOCIAL OPPORTUNITY</b> <b>EF2: Lack of time</b> Work and family takes precedence over recreational physical activity and rest. <b>LACK OF PHYSICAL OPPORTUNITY</b> <b>EF3: Exercise over diet</b> Due to their regular exercise routine, they do not follow any dietary restrictions. <b>LACK OF PSYCHOLOGICAL CAPABILITY</b> <b>EF4: Lack of motivation and self-discipline</b> Despite knowing the benefits of healthy lifestyle and resources, they refrain from exercise due to laziness and/or lack of interest. <b>LACK OF AUTOMATIC AND REFLECTIVE MOTIVATION</b>



### KEY DISCUSSION POINTS

Despite living in the same neighbourhood, having equal access to high quality infrastructure and amenities, the association between the physical environment, neighbourhood perception and health behaviours was:

- Weakest among the Renters** - Many prioritized work and family commitments over their own health, mistakenly considering physical and mental exhaustion from work as sufficient physical activity.
- Strongest among the Heartlanders-** They actively utilized the available amenities, driven by their consistent physical and social activity routines within the neighborhood.
- Moderate among the Executives** – Despite their regular usage, they were less affected by its inadequacy as they had the resources to compensate, i.e., time and money to travel outside the neighbourhood to upkeep their healthy lifestyle.

### CONCLUSION

- Residents' perception of health behaviours and neighbourhood environment varied significantly with respect to their SES.
- Planners and policy makers should go beyond providing equal access to facilities and amenities, prioritizing equity of access by considering targeted interventions for different socioeconomic groups.

#### Contact

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