

# Planning and Designing Walkable City for Health: **Understanding Relationship Between Walkability** and Sense of Well-being in Hong Kong

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#### **Thereotical Framework**

GEOGRAPHY

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## **Research Background & Significance**

- Surging trend of planning and design of healthy cities; Walking promoted as a tool for improving physical health; There could be more health benefits than just the physical ones
- Hong Kong, as an ultra-dense city, is starting slow in planning and designing walkable city for health; Transport Department has commenced "Walk in Hong Kong" initiative to improve walkability in Hong Kong; Central and Sham Shui Po as pilot areas
- This study fills the gaps of the lack of walkability and well-being research in Hong Kong; draws solutions for planning and designing walkable city

#### **Research Objectives**

• To establish a theoretical framework examining the relationship between walkability and sense of well-being in the context of Hong Kong with case



GIS Walkability Index

**Residential** Density Land Use Mix **Net Retail Floor Area Ratio** Intersection Density



Methodology

**On-street Walkability Audit** 

**Counting**based **Observation**based



Questionnaire **Survey** 

n=201 Perceived Walkabilty **Walking Behavior** 

Sense

## **Major Findings**

#### **GIS Walkability Index**

- Higher residential density and land use mix in Sai Ying Pun, Sheung Wan & Cheung Sha Wan and Sham Shui Po
- Higher NRFA in Sai Ying Pun, Sheung Wan, Central & Cheung Sha Wan and Sham Shui Po
- Even distribution of intersection density

#### **On-Street Walkability Aduit**

- Highest walkability found in streets underneath Central-Mid-Levels Escalator and Walkway System at Central & Lai Kok Estate in Cheung Sha Wan
- Lowest walkability found in street at Mid-levels & industrial areas at Cheung Sha Wan
- Vehicle-free as main feature of most walkable streets

#### **Questionnaire Survey**

- Presence of urban design qualities (presence of sidewalk, pedestrain infrastructure, green space) affects emotional well-being
- Accessible walking environment encourages walk for recreation ("walk to green space"), thus social well-being
- Daily walking routine (distance to transit, diversity of paths) affect psychological well-being



In-dept

2 sets

of

• To have multi-measurement of the overall walkability (both objective) and perceived) and conduct a comparison among them, and measure inidivual's sense of well-being in Central and Sham Shui Po

- Interview • To conduct multi-level analysis, including statistical, interpretational, and contextual analysis to examine relationships between walkability and sense of well-being Interviews
  - To evaluate the current walkability planning strategies, identify opportunities and challenges, and generate evidence-based recommendations

















**Tactical Urbanism for Community Initiated Walkability** Improvement

#### • A bottom-up approach

• The community and NGOs to host a tactical urbanism walkability improvement



#### **Connection to Quality Open Space** Physical and visual Connection to open Space

- Biophilic and active design for open space
- Water features and bird soundscape for emotional wellbeing
- Pleasant and sociable walking environment for social well-being

Considering multi-level walkablity planning and design (elevated and at-grade level) for better connection and shorter perceived distance among destinations

A Multi-level Approach to

• Walkable and accessible environment for psychological well-being

Setting up guidelines, standards, or even regulation for pedestrain planning to utilize the regional and ciritical role of Comprehensive Development Area

**Inclusion of** 

**Pedestrains in CDA** 

• Enhances psychological wellbeing

### **Planning and Designing Walkable City for Health in Hong Kong**

**Rethinking the Spectrum of Streets** 

 Review and reclassification of types of streets in Hong Kong

More efficiency in studying or planning walkable streets

t		
M3/P1	M3/P2	M3/P3
Core Road	High Road	City Hub
M2/P1	M2/P2	M2/P3
Connector	High Street	City Street
M1/P1	M1/P2	M1/P3
Local Street	Town Square	City Place
	t M3/P1 Core Road M2/P1 Connector M1/P1 Local Street	t M3/P1 M3/P2 Core Road High Road M2/P1 M2/P2 Connector High Street M1/P1 M1/P2 Local Street Town Square