Public Transport and the Scale of Perceived Neighbourhood Boundaries Among Older Adults in a Super-Aged Megacity: Evidence from Seoul, South Korea

Jinhyun Hong

Professor, Department of Smart Cities, University of Seoul, South Korea

SUMMARY

Neighbourhoods are central to residents' well-being, yet the conceptualisation and operationalisation of their boundaries remain contested. Although prior studies have examined various determinants of neighbourhood boundary scales, empirical evidence on the role of public transport—particularly service satisfaction and inclusiveness for vulnerable groups—is limited, especially in relation to older adults who often face mobility constraints.

Using the 2024 Seoul Survey and statistical modelling, this study examines associations between public transport satisfaction, service inclusiveness, and perceived neighbourhood boundary scale, and whether these differ between the young-old (65–74) and old-old (75+).

Transport inclusiveness for vulnerable groups was consistently and positively associated with perceived neighbourhood scale across both age groups; overall service satisfaction was not. Older adults in areas with high local accessibility tended to perceive smaller, more localised boundaries.

These findings indicate that targeted inclusiveness improvements—such as barrier-free design, step-free vehicles, and priority seating—are more effective in expanding older adults' perceived neighbourhood boundaries than general service quality enhancements.

Keywords: Public transport, neighbourhood boundaries, older adults

1. INTRODUCTION

Neighbourhoods constitute a fundamental spatial unit shaping everyday life and have long occupied a central position across disciplines including urban planning, public health, and transport research (Kallus and Law-Yone, 2000, Kawachi and Subramanian, 2007, Cerin et al., 2017). As the primary arena in which residents conduct daily activities, access services, and form social ties, neighbourhoods exert substantial influence on quality of life, health, and well-being (Hong et al., 2026, O'Campo et al., 2009). Consequently, neighbourhood improvement has been a persistent objective of urban policy interventions worldwide. Despite broad agreement regarding their importance, however, the conceptualisation and operationalisation of neighbourhood boundaries and scales remain theoretically and methodologically contested.

A central challenge lies in the inherently subjective and socially constructed nature of neighbourhoods, which are not fixed administrative units but lived spatial experiences. A growing body of research demonstrates that perceived neighbourhood boundaries vary according to individual characteristics,

social position, and broader political and environmental contexts (Finlay et al., 2023, Baffoe, 2019). This variation is not merely conceptual; it carries substantive implications, particularly for vulnerable populations. For instance, older adults or pregnant women may experience more constrained activity spaces in their daily lives. Although smaller perceived neighbourhoods are not inherently indicative of social exclusion, empirical evidence suggests that larger perceived neighbourhoods are often associated with greater walkability, more frequent physical activity, improved access to various destinations, and stronger social integration (Finlay et al., 2023). Consequently, systematic differences in perceived neighbourhood scale may contribute to inequalities in access and social participation, thereby wellbeing.

These issues become especially salient in ageing societies. Older adults consistently report smaller perceived neighbourhood boundaries than younger adults (Charreire et al., 2016), partly reflecting age-related declines in physical capacity, mobility, and social participation. In addition, older populations are far from homogeneous. The determinants and consequences of neighbourhood scale may differ substantially between the young-old (65–74) and the old-old (75+), reflecting disparities in health status, mobility resources, and transport dependency. From a policy perspective, transport systems—particularly public transport—may play a crucial role in expanding activity spaces by enabling older adults to travel beyond their immediate residential surroundings. Yet despite extensive research on built-environment correlates of neighbourhood perception, empirical evidence on the role of public transport in shaping perceived neighbourhood scales among older adults remains limited, especially in super-aged mega cities.

This study addresses these gaps using the 2024 Seoul Survey, a representative dataset sponsored by the Seoul Metropolitan Government. Employing multivariate statistical models, this study examined how two public transport–related dimensions—(1) overall satisfaction with the public transport system and (2) perceived inclusiveness of vulnerable populations in the transport system—are associated with the size of perceived neighbourhoods. Importantly, this study compared these relationships between young-old and old-old adults, thereby capturing heterogeneity within the older population.

This study makes three primary contributions. First, it advances neighbourhood research by shifting attention from static built-environment indicators to mobility-enabling institutional factors, highlighting public transport as a key mechanism shaping perceived spatial size of neighbourhoods. Second, it introduces an intra-generational ageing perspective by systematically comparing young-old and old-old groups, moving beyond the conventional treatment of older adults as a homogeneous category. Third, it provides robust empirical evidence based on a large, representative metropolitan sample, thereby strengthening the external validity of findings in a rapidly ageing, high-density urban context.

2. DATA AND METHOD

2.1. Data

The study area is Seoul, South Korea (population ~9.3 million), which operates an extensive public transport system comprising 308 subway stations and approximately 6,600 bus stops. In 2024, daily public transport ridership averaged 9.4 million passengers, representing 64.4% of total modal share. The Seoul Metropolitan Government additionally provides free urban railway services for residents aged 65 and over.

Data were drawn from the 2024 Seoul Survey, an annually conducted survey funded by the Seoul Metropolitan Government since 2003, covering quality of life, public policy impacts, socio-demographics, health, and neighbourhood conditions.

The dependent variable in this study is the scale of perceived neighbourhood boundaries among older adults. The survey asks respondents: *"How do you define the spatial boundary of your neighbourhood?"* Responses were measured using four categories: (1) *the same apartment building (a residential area within approximately a 15-minute walking distance)*; (2) *Dong*, the smallest administrative district in Seoul (there are 426 Dongs, with an average size of 1.42 km²); (3) *Gu*, the district-level administrative unit (there are 25 *Gu*s in Seoul, with an average size of 24.2 km²); and (4) *Seoul as a whole*. For the analyses, the variable was recategorised into three groups by combining the *Gu* and *Seoul as a whole* categories due to the relatively small sample size in the latter.

To measure perceived neighbourhood environment, four survey items were used and validated through confirmatory factor analysis (CFA). Respondents were asked: *"To what extent do you agree or disagree with the following statements about the environment within a 1 km radius (approximately a 15-minute walk) of your home?"* The four statements were: (1) *My neighbourhood is suitable for physical activities such as walking, running, and strolling*; (2) *My neighbourhood is convenient for grocery shopping and buying daily necessities*; (3) *My neighbourhood has adequate public facilities*; and (4) *My neighbourhood is safe*. Responses were measured on a five-point Likert scale, ranging from *strongly disagree* to *strongly agree*.

Public transport factors were captured through two dimensions. First, public transport satisfaction was measured for the two main modes in Seoul—bus and subway. The survey asked respondents about their level of satisfaction with different transport modes in Seoul, including bus, subway, taxi, and intercity and express buses. Responses were recorded on a five-point Likert scale, ranging from *very dissatisfied* to *very satisfied*. Only responses related to bus and subway services were included in this study, as these represent the primary public transport modes for intra-city daily travel. A CFA was conducted to construct a latent variable capturing overall public transport satisfaction. Second, public transport inclusiveness was measured using the question: *"Do you think that transport modes in Seoul adequately accommodate vulnerable groups (such as children, older adults, people with disabilities, and pregnant women)?"* Responses were recorded on a five-point Likert scale ranging from *strongly disagree* to *strongly agree*. For the analysis, responses were recategorised into three groups (i.e., disagree, neutral, and agree). In addition, a range of socio-demographic factors were included as control variables in the analysis.

Descriptive statistics (Table 1) indicate that the young-old (65–74) exhibit more favourable socioeconomic status, better health, and larger household sizes than the old-old (75+), consistent with expected ageing effects. Both groups report similar levels of transport satisfaction and inclusiveness, though the young-old express marginally higher subway satisfaction.

Table 1 Descriptive statistics

	Young_old (65-74)				**Old_old (75+)**			
	Mean	SD	Min	Max	Mean	SD	Min	Max
Socio-demographic characteristics								
Age	68.88	2.79	65	74	78.85	3.77	75	97
Sex (male=1)	0.48	0.5	0	1	0.45	0.5	0	1
Social status (1: very low-6 very high)	2.95	0.89	1	6	2.69	0.93	1	6
Health	6.37	1.5	1	10	5.79	1.65	1	10

Household size	1.89	0.71	1	7	1.75	0.82	1	8
Perceived neighbourhood environment (1: Strongly disagree – 5: Strongly agree)								
Good for exercise	3.46	0.85	1	5	3.4	0.82	1	5
Convenient for grocery shopping	3.4	0.88	1	5	3.35	0.89	1	5
Sufficient public facilities	3.23	0.9	1	5	3.13	0.91	1	5
Safety	3.5	0.76	1	5	3.4	0.77	1	5
Public transport factors (1: Strongly disagree – 5: Strongly agree)								
Bus satisfaction	3.93	0.78	1	5	3.93	0.78	1	5
Subway satisfaction	3.82	0.91	1	5	3.72	0.97	1	5
Public transport inclusiveness	2.5	0.66	1	3	2.49	0.67	1	3
Sample size	6067				1816			

2.2. Analytical model

To examine the associations between public transport satisfaction, inclusiveness of vulnerable groups, and the scale of perceived neighbourhood boundaries, multinomial logistic regression models were employed. The probability that individual i chooses neighbourhood boundary scale m, conditional on a vector of explanatory variables x_i is defined as:

$$\Pr(y_i = m|x_i) = \frac{\exp(\beta_m x_i)}{\sum_{j=1}^{J} \exp(\beta_j x_i)} \quad (1)$$

where y_i denotes the scale of perceived neighbourhood boundaries with three categories: (1) the same apartment building—a residential area within approximately a 15-minute walking distance (reference category), (2) *Dong*, and (3) *Gu* or the entire city of Seoul. The independent variables x_i includes socio-demographic characteristics, perceived neighbourhood environment, and public transport factors (satisfaction and inclusiveness). Figure 1 shows the analytical framework.

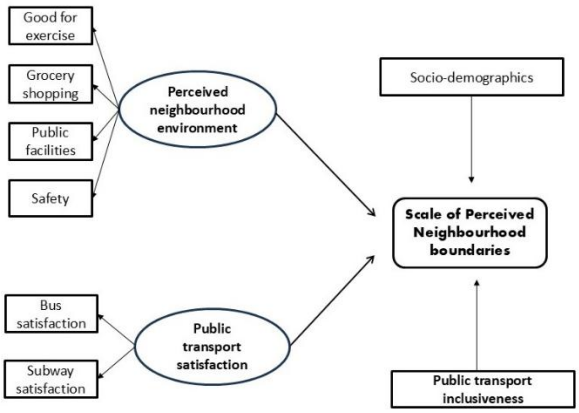


Figure 1 Framework

To account for potential heterogeneity within the older population, the analyses were conducted separately for two age groups: the young-old (65–74) and the old-old (75+).

3. RESULTS AND DISCUSSION

Model fit for the full sample, as well as for the young-old and old-old subsamples, was assessed using standard fit indices (CFI, TLI, RMSEA, and SRMR), all of which indicate a good fit to the data. All indicators load significantly on their respective latent constructs ($p < 0.001$).

Factor loadings for perceived neighbourhood environment are positive and range from 0.61 to 0.73, suggesting satisfactory construct validity. This indicates that higher values of the latent variable represent neighbourhoods with favourable environmental conditions, including supportive infrastructure for physical activity, good access to local facilities, and a safe environment.

Public transport satisfaction is strongly represented by satisfaction with subway services (0.81) and bus services (0.61). Interestingly, the factor loading for subway satisfaction is higher among the young-old group than the old-old group, whereas the opposite pattern is observed for bus satisfaction. This pattern may reflect accessibility differences between transport modes. Subway stations are typically located underground and often require substantial vertical movement, which may present barriers for older adults with reduced mobility.

Table 2 Confirmative factor analyses (CFAs)

	All		**Young-old**		**Old-old**	
	Estimate	P-value	Estimate	P-value	Estimate	P-value
Perceived neighbourhood environment						
Good for exercise	0.70	0.00	0.71	0.00	0.64	0.00
Convenient for grocery shopping	0.61	0.00	0.63	0.00	0.57	0.00
Sufficient public facilities	0.73	0.00	0.73	0.00	0.73	0.00
Safety	0.69	0.00	0.70	0.00	0.67	0.00
Public Transport satisfaction						
Bus satisfaction	0.61	0.00	0.60	0.00	0.64	0.00
Subway satisfaction	0.81	0.00	0.82	0.00	0.77	0.00
Model fit						
CFI	0.997		0.998		0.994	
TLI	0.995		0.996		0.990	
RMSEA	0.035		0.032		0.045	
SRMR	0.021		0.019		0.029	

Table 3 presents the relationships between public transport satisfaction, inclusiveness of vulnerable groups, and the scale of perceived neighbourhood boundaries with the full sample. Several socio-demographic characteristics are significantly associated with the perceived neighbourhood scale. Older adults with higher socioeconomic status tend to report larger neighbourhood boundaries than their counterparts. Socioeconomic status was measured based on respondents' self-assessed social status considering factors such as income, occupation, education, and assets. This finding is consistent with previous studies reporting positive associations between education level, income, and perceived neighbourhood size (Coulton et al., 2013, Finlay et al., 2023). Vallée et al. (2015) also showed that people living in deprived areas tend to report smaller neighbourhood size than those living in affluent areas. Interestingly, healthier older adults are more likely to perceive their neighbourhoods as limited to the same apartment building (a residential area within approximately a 15-minute walking distance) rather than the administrative *Dong*. In contrast, older adults living in larger households tend to perceive their neighbourhoods as larger. Co-residence with other family members may support cognitive functioning and overall well-being among older adults (Pothisiri and Vicerra, 2024, Yuan et al., 2021), thereby potentially enabling them to engage in outdoor activities across broader spatial areas.

Older adults living in neighbourhoods with favourable environmental conditions—including supportive infrastructure for physical activity, good access to local facilities, and a safe environment—tend to report smaller neighbourhood boundaries. This finding is consistent with previous studies showing that residents of dense and well-mixed neighbourhoods tend to perceive smaller neighbourhood areas (Coulton et al., 2013). Specifically, they are more likely to define their neighbourhood as the same apartment building (a residential area within approximately a 15-minute walking distance) rather than the broader *Gu* level. Older adults living in dense and mixed-use neighbourhoods are also more likely to engage in active travel and participate in nearby activities (Lee and Hong, 2026, Cho and Hong, 2026), thereby reducing the spatial extent of perceived neighbourhood boundaries.

Finally, while overall public transport satisfaction does not show a statistically significant association with the scale of perceived neighbourhood boundaries, older adults who perceive transport modes in Seoul as more inclusive for vulnerable groups tend to report larger neighbourhood boundaries. This finding suggests that improvements in transport inclusiveness—particularly for older adults—may enhance mobility opportunities and consequently expand individuals' activity spaces and their neighbourhood boundaries.

Table 3 Relationships between public transport satisfaction, inclusiveness of vulnerable groups, and scale of perceived neighbourhood boundaries (full sample)

	Dong				**Gu+**			
	Estimate	SE	Z-value	P-value	Estimate	SE	Z-value	P-value
(Intercept)	0.15	0.15	1.01	0.31	-2.38	0.22	-10.90	0.00
Social-demographic factors								
Sex (male=1)	0.00	0.05	-0.08	0.93	0.04	0.07	0.62	0.54
Social status	-0.05	0.03	-1.80	0.07	0.16	0.04	3.95	0.00
Health	-0.06	0.02	-3.26	0.00	0.04	0.02	1.56	0.12
Household size	0.26	0.04	7.16	0.00	0.18	0.05	3.58	0.00
Perceived neighbourhood environment								

Perceived neighbourhood environment	0.00	0.05	0.02	0.98	-0.36	0.06	-5.61	0.00
Public transport factors								
Public transport satisfaction	-0.07	0.05	-1.42	0.16	0.11	0.07	1.67	0.10
Public transport inclusiveness - Neutral	0.47	0.09	5.16	0.00	0.67	0.14	4.86	0.00
Public transport inclusiveness - Strongly agree	0.36	0.09	4.07	0.00	0.61	0.13	4.55	0.00

To examine potential heterogeneity between the young-old and old-old groups, the analyses were conducted using separate subsamples, and the results are presented in Table 4. Overall, most findings are consistent with those obtained from the full sample, although some differences emerge between the two age groups. For instance, perceived socioeconomic status shows a statistically significant association with the scale of perceived neighbourhood boundaries only among the young-old group. In addition, among adults aged 75 and over, those reporting better health conditions tend to perceive larger neighbourhood boundaries than those in poorer health. This result is plausible given that health status is closely related to mobility, particularly among the old-old population.

Public transport satisfaction does not show a statistically significant association with the scale of perceived neighbourhood boundaries in either group. In contrast, transport inclusiveness of vulnerable groups exhibits a strong and positive association with the scale of perceived neighbourhood boundaries for both age groups. This finding highlights the important role of inclusive public transport systems in supporting mobility and expanding the spatial extent of perceived neighbourhood boundaries among older adults.

Table 4 Relationships between public transport satisfaction, inclusiveness of vulnerable groups, and scale of perceived neighbourhood boundaries: young-old and old-old groups

	Young-old				**Old-old**			
	Dong		**Gu+**		**Dong**		**Gu+**	
	Estimate	P-value	Estimate	P-value	Estimate	P-value	Estimate	P-value
(Intercept)	0.23	0.19	-2.32	0.00	-0.34	0.23	-3.03	0.00
Social-demographic factors								
Sex (male=1)	-0.04	0.51	0.03	0.70	0.12	0.29	0.09	0.55
Social status	-0.07	0.05	0.18	0.00	0.01	0.87	0.15	0.07
Health	-0.06	0.00	0.02	0.57	-0.03	0.44	0.15	0.00
Household size	0.25	0.00	0.16	0.01	0.34	0.00	0.30	0.00
Perceived neighbourhood environment								
Perceived neighbourhood environment	0.02	0.75	-0.37	0.00	-0.04	0.69	-0.30	0.03
Public transport factors								
Public transport satisfaction	-0.08	0.14	0.08	0.32	-0.04	0.69	0.21	0.16

Public transport inclusiveness - Neutral	0.40	0.00	0.62	0.00	0.75	0.00	0.93	0.00
Public transport inclusiveness - Strongly agree	0.35	0.00	0.63	0.00	0.39	0.03	0.60	0.03

4. CONCLUSIONS

Neighbourhood boundaries have long been studied for their role in shaping health and well-being. Larger perceived boundaries suggest cities can deliver urban services through accessible transport rather than solely through hyper-local facility provision—an increasingly salient issue as cities transition into super-aged societies, where older adults frequently face mobility constraints. This study examines how public transport satisfaction and service inclusiveness for vulnerable groups are associated with perceived neighbourhood boundary scale in Seoul, and whether associations differ between the young-old (65–74) and old-old (75+).

Three key findings emerge. First, transport inclusiveness shows a strong, positive association with perceived neighbourhood scale for both age groups, whereas overall satisfaction does not. Older adults who perceive Seoul's transport as adequately accommodating vulnerable groups tend to define their neighbourhoods at broader spatial scales. Policies targeting barrier-free design, step-free vehicles, priority seating, and user-friendly information systems may therefore be more effective than general service quality improvements in expanding older adults' activity spaces.

Second, older adults in neighbourhoods with high local accessibility to facilities tend to perceive smaller, more localised boundaries. Whilst dense, mixed-use environments benefit older residents, urban policy should avoid excessive reliance on hyper-local provision; given the hierarchical structure of urban services, improving transport connectivity to broader activity centres remains essential.

Third, age-group heterogeneity is evident: health conditions significantly shape perceived boundary scale among the old-old but not the young-old, underscoring the need for mobility policies sensitive to distinct needs across the ageing population.

REFERENCES

ANSOLABEHERE, S., BROWN, J. R., ENOS, R. D., SHAIR, B., SIMKO, T. & SUTTON, D. 2025. City-Defined Neighborhood Boundaries in the United States. *Scientific Data,* 12**,** 1031.

BAFFOE, G. 2019. Understanding the Neighbourhood Concept and Its Evolution: A Review. *Environment and Urbanization ASIA,* 10**,** 393-402.

CAMPBELL, E., HENLY, J. R., ELLIOTT, D. S. & IRWIN, K. 2009. Subjective Constructions of Neighborhood Boundaries: Lessons from a Qualitative Study of Four Neighborhoods. *Journal of Urban Affairs,* 31**,** 461-490.

CERIN, E., NATHAN, A., VAN CAUWENBERG, J., BARNETT, D. W., BARNETT, A., ON BEHALF OF THE COUNCIL ON, E. & PHYSICAL ACTIVITY – OLDER ADULTS WORKING, G. 2017. The neighbourhood physical environment and active travel in older adults: a systematic review and meta-analysis. *International Journal of Behavioral Nutrition and Physical Activity,* 14**,** 15.

CHARREIRE, H., FEUILLET, T., RODA, C., MACKENBACH, J. D., COMPERNOLLE, S., GLONTI, K., BãRDOS, H., LE VAILLANT, M., RUTTER, H., MCKEE, M., DE BOURDEAUDHUIJ, I., BRUG, J., LAKERVELD, J. & OPPERT, J. M. 2016. Self-defined residential neighbourhoods: size variations and correlates across five European urban regions. *Obes Rev,* 17 Suppl 1**,** 9-18.

COLABIANCHI, N., COULTON, C. J., HIBBERT, J. D., MCCLURE, S. M., IEVERS-LANDIS, C. E. & DAVIS, E. M. 2014. Adolescent self-defined neighborhoods and activity spaces: Spatial overlap and relations to physical activity and obesity. *Health & Place,* 27**,** 22-29.

COULTON, C. J., JENNINGS, M. Z. & CHAN, T. 2013. How big is my neighborhood? Individual and contextual effects on perceptions of neighborhood scale. *Am J Community Psychol,* 51**,** 140-50.

CRAWFORD, T. W., JILCOTT PITTS, S. B., MCGUIRT, J. T., KEYSERLING, T. C. & AMMERMAN, A. S. 2014. Conceptualizing and comparing neighborhood and activity space measures for food environment research. *Health & Place,* 30**,** 215-225.

FINLAY, J., JANG, J., ESPOSITO, M., MCCLURE, L., JUDD, S. & CLARKE, P. 2023. 'My neighbourhood is fuzzy, not hard and fast': Individual and contextual associations with perceived residential neighbourhood boundaries among ageing Americans. *Urban Studies,* 60**,** 85-108.

HAYWOOD, L., KONING, M. & MONCHAMBERT, G. 2017. Crowding in public transport: Who cares and why? *Transportation Research Part A: Policy and Practice,* 100**,** 215-227.

HONG, J., LEE, D. & HAM, J. 2026. Examining the roles of perceived neighbourhood environments in shaping social capital and the happiness of older adults in a super-aged Asian City. *Cities,* 168**,** 106437.

JAHANGIR, S., BAILEY, A., HASAN, M. M. U. & HOSSAIN, S. 2024. Inequalities in accessing public transportation and social exclusion among older adults and people with disabilities in Bangladesh: A scoping review. *Transportation Research Interdisciplinary Perspectives,* 26**,** 101138.

JENKS, M. & DEMPSEY, N. 2007. Defining the neighbourhood: Challenges for empirical research. *Town Planning Review,* 78**,** 153-177.

KALLUS, R. & LAW-YONE, H. 2000. What is a Neighbourhood? The Structure and Function of an Idea. *Environment and Planning B: Planning and Design,* 27**,** 815-826.

KAWACHI, I. & SUBRAMANIAN, S. V. 2007. Neighbourhood influences on health. *Journal of Epidemiology and Community Health,* 61**,** 3-4.

LEE, B. A., OROPESA, R. S. & KANAN, J. W. 1994. Neighborhood Context and Residential Mobility. *Demography,* 31**,** 249-270.

LUCAS, K. 2012. Transport and social exclusion: Where are we now? *Transport Policy,* 20**,** 105-113.

MINNERY, J., KNIGHT, J., BYRNE, J. & SPENCER, J. 2009. Bounding Neighbourhoods: How Do Residents Do It? *Planning Practice & Research,* 24**,** 471-493.

O'CAMPO, P., SALMON, C. & BURKE, J. 2009. Neighbourhoods and mental well-being: What are the pathways? *Health & Place,* 15**,** 56-68.

PANG, M., BINDER, C. R. & GOLAY, F. 2024. An empirical comparative analysis of functional and perceived neighbourhood boundaries across Geneva, Switzerland. *Cities,* 146**,** 104786.

PARK, Y. & ROGERS, G. O. 2015. Neighborhood Planning Theory, Guidelines, and Research:Can Area, Population, and Boundary Guide Conceptual Framing? *Journal of Planning Literature,* 30**,** 18-36.

PINCHAK, N. P., BROWNING, C. R., CALDER, C. A. & BOETTNER, B. 2021. Activity locations, residential segregation and the significance of residential neighbourhood boundary perceptions. *Urban Studies,* 58**,** 2758-2781.

POTHISIRI, W. & VICERRA, P. M. M. 2024. Cognitive function, co-residence, and social participation among older persons in Thailand. *The Social Science Journal,* 61**,** 741-754.

SOCIAL EXCLUSION UNIT 2003. Making the connections. *Final Report on Transport and Social Exclusion. Office of the Deputy Prime Minister/SEU*.

STANLEY, J. & STANLEY, J. 2017. The Importance of Transport for Social Inclusion. *2017,* 5**,** 8.

VALLëE, J., LE ROUX, G., CHAIX, B., KESTENS, Y. & CHAUVIN, P. 2015. The 'constant size neighbourhood trap' in accessibility and health studies. *Urban Studies,* 52**,** 338-357.

WONG, R. C. P., SZETO, W. Y., YANG, L., LI, Y. C. & WONG, S. C. 2017. Elderly users' level of satisfaction with public transport services in a high-density and transit-oriented city. *Journal of Transport & Health,* 7**,** 209-217.

YUAN, Z.-Q., ZHENG, X. & HUI, E. C. M. 2021. Happiness Under One Roof? The Intergenerational Co-residence and Subjective Well-Being of Elders in China. *Journal of Happiness Studies,* 22**,** 727-765.