



# Regional disparities in the association between driving status and inconvenience when going out among older adults: A nationally representative study in South Korea



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## OBJECTIVES

- I. To assess the association between driving status and inconvenience when going out among older adults
- II. To examine influence of residential areas on this relationship
- III. To investigate why older adults experienced inconvenience based on their driving status

## METHODS

### 1 Study population & data

- 9,885 older adults from 2020 National Survey of older adults (2020 노인실태조사)

### 2 Measurement

#### ➤ Outcome variable

- Inconvenience when going out (Yes or No)
- 7 reasons of inconvenience when going out

#### ➤ Exposure variable

- Driving status (Never driving, Driving, or Driving cessation)

#### ➤ Effect modifier variable

- Residential areas (Urban or Rural areas)

#### ➤ Potential confounders

- Sociodemographic variables (e.g., living alone)
- Health related variables (e.g., cognitive function)

### 3 Study design & Analysis

#### ➤ Modified Poisson regression (Objective I & II)

- To consider the high prevalence of inconvenience when going out (64.8%)
- The results were presented as prevalence ratio (PR) and 95% confidence interval (CI)

#### ➤ Multinomial regression (Objective III)

- The results were presented as odds ratio (OR) and 95% CI

- All statistical analyses were performed using Stata/SE, version 17.0 (Stata Corp., College Station, TX, USA).

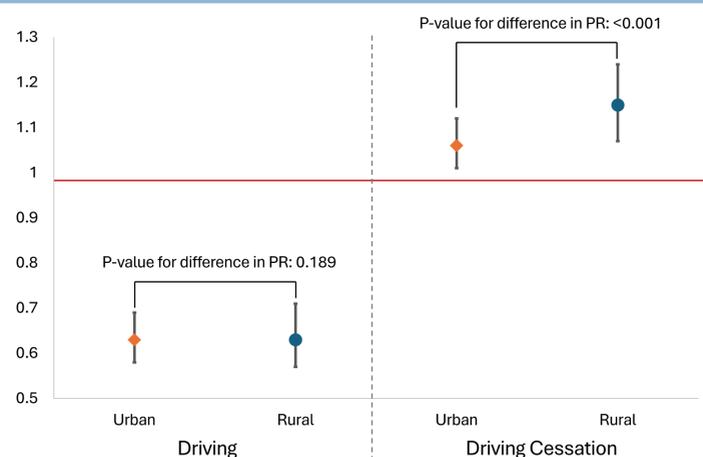
## RESULTS

**Table 1. Association between driving status and inconvenience when going out among older adults in South Korea (N = 9885)**

Driving status	Distribution	Inconvenience when going out		
	Total population	Prevalence N (%)	Prevalence ratio	95% CI
	N (%)			
Never driving	6203 (62.8)	4570 (73.7)	ref	
Driving	2159 (21.8)	771 (35.7)	0.63**	(0.59, 0.68)
Driving cessation	1523 (15.4)	1063 (69.8)	1.08*	(1.03, 1.13)

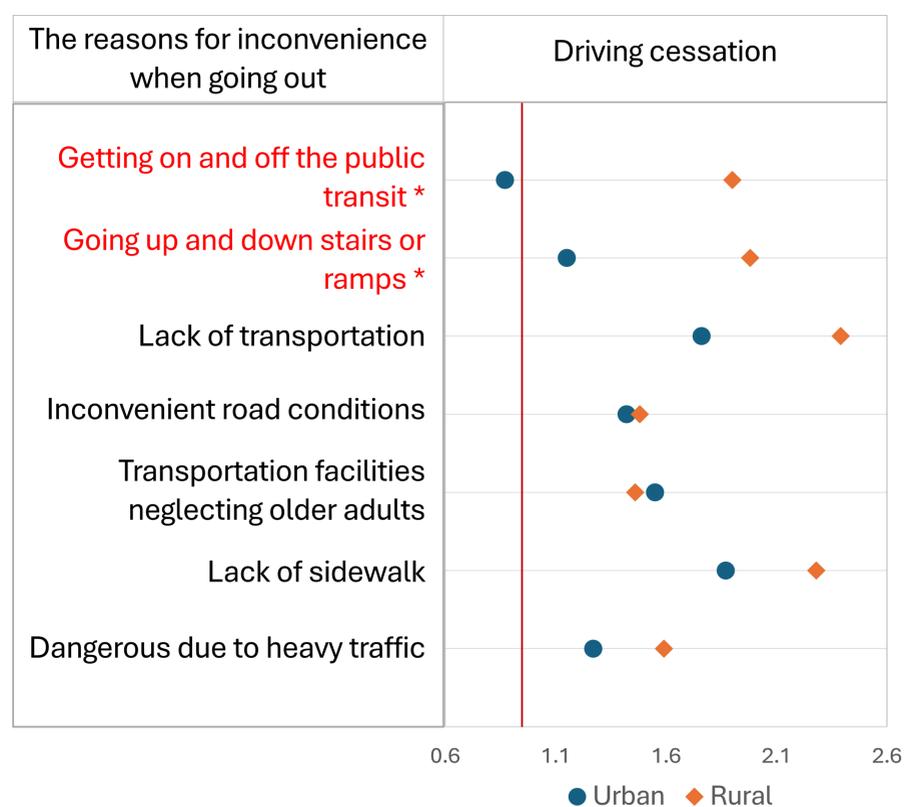
\* P < 0.01, \*\*P < 0.001

Adjusting for age, sex, living alone, educational attainment, employment, household income, depressive symptoms, marital status, social participation, residential region, self-rated health, strength, disability, and cognitive function



**Figure 1. Association between driving status and inconvenience when going out, stratified by regions among older adults in South Korea (N = 9885)**  
PR: Prevalence ratio

- Current driving was associated with less inconvenience, while driving cessation was related to more inconvenience (Table 1)
- **Older adults who ceased driving in rural areas felt more inconvenienced** going out than those in urban areas (Figure 1)



**Figure 2. Association between driving status and reasons for inconvenience when going out among older adults in South Korea (N = 9876)**

\* Statistically significant difference in OR between urban and rural areas

- Older adults who ceased driving in rural areas perceived more inconvenience when going out than those in urban areas because of **having to get on and off public transit or go up and down stairs or ramps** (Figure 2)

## CONCLUSIONS

- The study showed the **regional difference in the inconvenience** of going out due to driving cessation and **reasons of the inconvenience**
- **Targeted interventions**, such as creating walkable and senior-friendly infrastructure, **must be applied before implementing policies** that restrict driving among older adults in rural areas

## ACKNOWLEDGE

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