# Group A-5 | Transit for Health and Mobility among Older Adults in El Paso, TX: Benefits, Barriers, and Promotion Strategies

COA ⟩ SHOWCASE

## Background and Purpose

Public transit remains significant in promoting physical activity and providing alternative transportation modes to better serve the mobility needs of older adults. However, the low public transit ridership in El Paso reflects the potential barriers that may prevent residents from using it (U.S. Census Bureau, 2021). Apart from the individual-level health and mobility barriers, neighborhood environment characteristics and the reliability of the transit services may also impact older adults' access to public transit. Despite the growing interest in the neighborhood features in association with transit use, limited studies have focused on older adults (Yang et al., 2018). This study aims to (1) compare the transit users and non-users regarding demographics and health behaviors and outcomes; (2) examine the role of neighborhood environment features for public transit use; and (3) identify barriers and strategies for promoting transit use.

## Methods

The data of this study is from a larger project on public transit and health and mobility. Survey data was collected from El Paso, TX residents aged 20 years or older from June 2018 through May 2019. In this study, we only focused on the older participants aged 60 years or older (N=573). Descriptive analyses were conducted between transit users (N=172) and non-users (N=364) to understand their differences in personal characteristics and the perceived barriers to transit use. Bivariate and multivariate logistic regression analyses were conducted to examine the neighborhood environment's impact on transit use.

## Results

Descriptive analyses showed significant differences between users and non-users in terms of their personal characteristics. Compared to non-users, there was a higher percentage of users with low household income, speaking Spanish, without their own homes, private automobiles or health insurance, but walking at least once a week. Also, transit users tended to have more transportation walking (Δ diff = 142.31 min/week) and less sedentary time (Δ diff = -69.69 min/week). The multivariate logistic regression results highlighted that after adjusting for personal factors, environmental factors were significantly associated with transit use. Those who lived in neighborhoods with the presence of crosswalks and pedestrian signals (OR=2.30) and higher safety from crime (OR=1.44) were more likely to use public transit. There were four major perceived barriers to transit use - unreliable bus services/schedules, difficulty in planning the routes, safety/privacy concerns, and a lack of bus stops near homes or destinations - but no significant differences were found between users vs. non-users. In addition, first-mile and fare were another two barriers identified from the responses to the two hypothetical scenario questions. We found that older adults would make significantly more one-way trips for any purposes (e.g. work, personal errands, leisure, exercise) if free bus shuttle service was available between home and the nearest bus stop or if public transportation was free.

## Conclusions and Implications

Our study suggests the potential health benefits of using public transit among older adults - more walking and less sedentary time. Transportation planning and design efforts need to prioritize pedestrian safety and crime safety and adjust existing transit services and policies to promote transit use and healthy aging in place.

Xi Chen