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TRANSPORT FINDINGS

Examining the Use and Non-use of Special Transport Services in Sweden's Large City-Regions: The Last Resort?

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Findings

This study examines the extent of the gap between the proportions of survey respondents reporting (1) having the possibility to use and (2) using special transport services (STS) compared to the corresponding gaps for other transport modes. For persons eligible for STS, differences between those who use them and those who do not use them are explored. The frequencies with which these two groups leave the home are then compared. Those aged 65-69, those with higher self-rated health and those cohabiting were less likely to use STS, despite being eligible. Those using STS tend to leave the home less often.

1. Questions

A gap between potential and realized mobility can be considered an indicator of emerging disengagement among older people (Mollenkopf et al. 2011). Disengagement negatively affects participation-derived well-being (Fox et al. 2017), and is an indicator of future health decline (Portegijs et al. 2016). Those who rely on special transport services (STS, *färdtjänst* in Swedish, also known as 'paratransit' in the US and 'community transport services' in the UK) are considered particularly susceptible to disengagement. In Sweden, an application requesting access to STS must first be submitted to the municipality in which a person lives. Eligibility for STS is only approved if a person is deemed by the relevant municipality to fulfil certain criteria, e.g. having a disability for more than three months which results in considerable difficulty to travel by bus, train or by one's own means (an example from Malmö Municipality (2022)).[1]

Considering the role of STS in fulfilling mobility needs, disentangling the factors behind the use and non-use of STS and associated participation is critical.

The aim of this study is to examine:

1. The extent of the gap between the proportions reporting (1) having the possibility to use and (2) using STS compared to the corresponding gaps between the possibility to use and use of other transport modes (in the entire sample).

1 See Transport Analysis (2022) for information and data on STS in different parts of Sweden.

2. The socio-demographic characteristics of STS-eligible users and STS-eligible non-users.

3. Differences in the frequency with which STS-eligible users and STS-eligible non-users leave the home.

2. Methods

This analysis was carried out using survey data. The data was gathered as part of the *Mobility opportunities among older people in Sweden's large metropolitan regions* survey. The survey was conducted among a stratified random sample of people aged 65-79 and living in Sweden's large city-regions of Stockholm, Gothenburg and Malmö. In total, 1149 people participated, resulting in an effective response rate of 54%. The data was collected using computer-assisted telephone interviews (CATI). Due to sample size limitations, this study drew on a sample from the three city-regions combined. For more information on the survey, see Ryan et al. (2019).

For persons eligible for STS, differences between users and non-users were analyzed using binary logistic regressions. Socio-demographic characteristics were employed as independent variables in the regression analyses. Independent variables that did not produce statistically significant results or negatively affected the fit of the models were excluded.[2] The final model consisted of three independent variables. 'Age' comprised a categorical variable split into younger (65-69) and older (70-79, reference category) age groups. Self-rated health was divided into two categories ('good' or 'very good', with other ratings aggregated to form the reference category). Cohabitation status was divided into those who cohabit and those who do not cohabit (reference category).

Differences in the frequency with which these two groups leave the home were also studied. In addition, comparisons were made with self-reported access to and use of other transport modes.

3. Findings

Of the unweighted sample (N=1149), 246 (21%) respondents reported having access to STS. In all, 76 (5%) reported using STS for at least some proportion of their actual everyday trips. This amounted to just 25% of those who reported having access to STS. As a point of reference, the corresponding proportions of actual reported use among those who report having access to other transport modes (from the entire sample of those aged 65-79) was 78% for transit and 90% for car. This suggests that many of those eligible for STS either rely on other transport modes or do not travel, or a combination of both. Our results suggest they mainly rely on other transport modes with 94% of STS-eligible

2 Variables such as income, gender, age (continuous), the possibility to be given lifts/rides by a friend, family member or a person known to the respondent.

Table 1. Binary logistic regression results of comparison between using and not using STS (not using STS = reference category)

Independent variables	p-value	Odds ratio (OR)
Age group (65-69 = 1; 70-79 = 0)	0.015	0.40
Self-rated health ('good' or 'very good' = 1; other rating = 0)	≤0.001	0.07
Co-habiting (cohabiting = 1; not cohabiting = 0)	≤0.001	0.27
Constant	≤0.001	3.73

Cox & Snell pseudo R^2: 0.30. Nagelkerke pseudo R^2: 0.45. Hosmer & Lemeshow test: chi-square 2.80 (p =0.73).

non-users reporting that they use conventional public transport (compared to 55% of STS users); 86% reported walking (50% of STS users); 76% reported driving (20% of STS users, n =15) and 60% reported being a passenger in a car (58% of STS users). However, there could be discrepancies in the interpretation of 'having access to'. Nonetheless, our findings suggests that there could be a sub-group of STS users who could be described as 'captive users', see Fang et al. (2021).

The results indicate significant differences between the two groups (see Table 1). For people with access to STS, those who are younger (65-69 versus 70-79), those with higher self-rated health and those cohabiting were *less* likely to actually use STS. Non-users of STS report that they leave the home more often than STS users. Among non-users, 80% report leaving the home at least once a day or more often, while among users, only 55% report leaving the home at least once a day or more often.

This study indicates that there is a larger gap between the potential to use and actual use of STS than the corresponding gaps for other modes. STS users are likely to be at a higher risk of disengagement in out-of-home activities in that they are older, do not co-habit, leave the home less often and have a lower self-rated health than those who have access to but do not use STS.

Our results suggest that those who are less at risk may rely on other means of fulfilling their travel and general day-to-day needs. Factors such as proximity to services – and the absence of the need to travel using a motorized vehicle – have not been examined here and could explain some of the differences observed. Likewise, those using (arguably more reliant on) STS tend to report a lower health rating, meaning their scope for action and possibility to leave the home may be more limited in general. Even though the principle behind STS eligibility is based on having no other option, many people who report being eligible seem to find other means of travelling if at all possible. There could, however, be a discrepancy in the interpretation of having access to STS.

The results of our study highlight that further investigation is needed in order to examine why these differences in use and non-use exist. Identifying those who have no other option than STS ('captive users') and supporting their out-of-home participation may result in a reduced risk of disengagement and

thereby better opportunities for active ageing. Ensuring that standards (for waiting times, etc.) for STS are set and that actors comply with such standards is crucial.

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