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FREE BUS TRAVEL AS A POLICY TOOL FOR IMPROVING RURAL OLDER ADULTS' ACCESS TO OPPORTUNITIES

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Abstract. In recent decades, many countries have experienced population ageing. In Estonia, for example, the share of older adults has nearly doubled from 11.6% in 1990 to 20.3% in 2023. Although most older adults live in towns and cities, an increasing number opt to age in place, including hamlets and villages in isolated areas, far from urban facilities and services. This means that most of them use their car to get around. However, life changes such as ageing and the cessation of driving can hinder older adults' access to basic amenities such as food shops and doctors' offices, putting them at risk of social exclusion. In this case, public transport remains their lifeline to friends, family, and the wider community. In this paper, we conduct ride-along interviews with non-driving older adults in an isolated rural area to examine whether the introduction of free bus travel has improved their access to urban facilities and services. Our findings suggest that while the policy has been financially, psychologically, and socially beneficial for non-driving older adults, its full accessibility benefits have not been realised due to the lack of public transport service improvements. We therefore conclude that in rural areas, free bus travel should be accompanied by other measures to ensure at least a basic level of accessibility.

Keywords: rural accessibility; basic accessibility; rural ageing; ageing in place; transport poverty; transport-related social exclusion

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JEL Classifications: Z18, O18, H76

1. Introduction

The global population is ageing. Around the world, the share of older adults has almost doubled between 1974 and 2024, from 5.5% to 10.3%, and is expected to reach 17% by 2050 (United Nations, 2023). In Europe, older adults already represent more than a fifth of the population; by 2050, this is expected to rise to almost 30% (Eurostat, 2024). This has led many to refer to population ageing as one of the most significant public policy challenges of the twenty-first century (Sander et al., 2015).

One of the challenges posed by population ageing is to create age-friendly neighbourhoods that facilitate ageing in place. This is especially relevant in rural areas, which tend to have proportionately more older adults than urban areas but lack the necessary amenities and services to support ageing in place (Chapman & Peace, 2008). As a result, older adults in rural areas rely on their cars to meet basic needs such as grocery shopping, getting to the doctor's office and visiting friends and family (Walsh et al., 2020). The problems, however, start when they can no longer drive a car and have to rely on others (typically, their children and neighbours). This reduces their autonomy and potential to participate in out-of-home activities, increasing the risk of social exclusion (Browning & Sims, 2007).

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Public transport is generally seen as an alternative to the car when it comes to providing access to out-of-home activities. In rural areas, however, it tends to be very limited and catered to the needs of school children. Therefore, it may not meet the needs of older adults both in terms of where and when it takes them. Furthermore, public transport tends to be more expensive in places where fares are based on distance than in urban areas, where fares are usually fixed and monthly travel passes are available. This adds another barrier to public transport use among older adults in rural areas, who often have lower incomes than their urban counterparts.

In Estonia, the introduction of free bus travel in rural areas was seen as an attempt to address this problem, among others. The policy sparked much debate: while some supported the government's effort to remove one of the main barriers to public transport, others remained sceptical. Nevertheless, an apparent result was a 20% increase in patronage during the first year following the removal of fares. Additional bus services were introduced to keep up with the growing demand. However, while the increase in public transport use is evident, no research has been carried out to assess whether this increase has led to greater accessibility benefits, particularly for those who rely on it most, for instance, non-car-driving older adults.

The study presented in this paper addresses this gap by investigating the effectiveness of free bus travel in improving rural older adults' access to key opportunities and supporting ageing in place. What makes this case study unique is that it takes place in a so-called naturally occurring retirement community (hereafter NORC). Hunt & Gunter-Hunt (1986) coined the term NORC to describe retirement communities "that were not planned (...) for older adults, but over time came to house predominantly older adults". In our case study, these are hamlets and villages that have "grown old": according to the 2011 census, more than 60% of residents are over 60 years old, making this rural community a textbook example of a rural NORC. Although it is home to dozens of older adults, it lacks basic amenities such as a grocery store, pharmacy, library, and post office, among others. The nearest grocery store is a half-hour's drive away, and those without a car have to rely on their children and neighbours or take the bus to Jõhvi, a regional centre about an hour's bus ride away (see Figure 1).

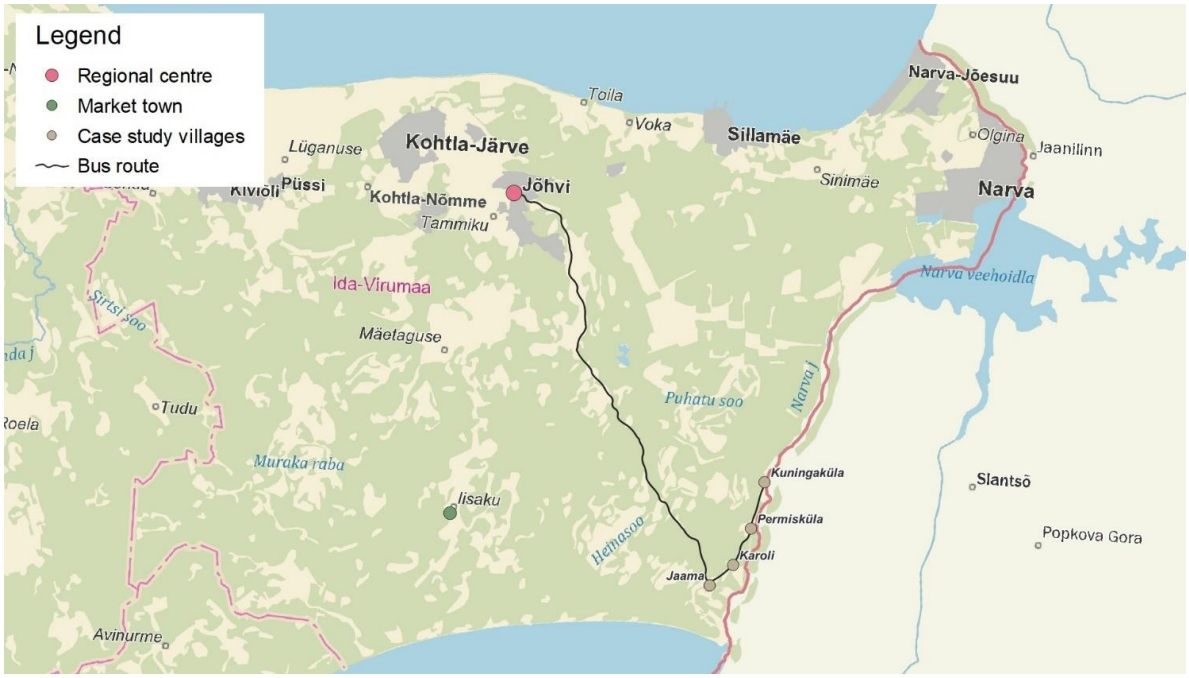

Figure 1. A map of the case study area. The nearest supermarket, pharmacy, and GP's office are located in the small market town of Iisaku (pop. 700), but the bus takes people all the way to Jõhvi, the regional centre (pop. 10 000).

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The bus makes four return trips a week during the summer months (May to October) and three return trips a week in the winter (November to April). Before the removal of fares, a return ticket to Jõhvi cost 3.20 euros, which means that a single-person household could save up to 30 euros per month on shopping trips to the city twice a week (note that monthly passes were not available at the time)[*]. With this in mind, this paper seeks to answer the following research question: How has the introduction of free bus travel in the case study area affected non-driving older adults' access to key destinations and activities?

2. Theoretical background

2.1 On mobility and accessibility

As John Urry (2007) once observed, "it sometimes seems that all the world is on the move". The clearest example of this can be seen in the rise of the car as the "default" mode of transport and its "overwhelming impact (…) in transforming the time-space 'scape' of the modern urban/suburban dweller" (Sheller & Urry, 2000). The "automobilization" of time-space did not happen overnight, though, as its foundations were laid in the second half of the twentieth century, backed by "an aggressively supportive social, political, and economic environment" (Monkkonen, 1988). In the following years, as Sassen (1996) puts it, "the urban environment, built (...) for the convenience of the car, has "unbundled" territorialities of home, work, business, and leisure that had historically been closely integrated and fragmented social practices that occurred in shared public spaces". As a result, "much of what many people now think of as "social life" could not be undertaken without the flexibilities of the car and its availability 24 hours a day" (Urry, 2006). Therefore, "mobility", as Bauman (1998) argues, "climbs to the rank of the uppermost among the coveted values—and the freedom to move (...) fast becomes the main stratifying factor of our late-modern or postmodern times".

It is well established that limited mobility opportunities contribute to social exclusion (see, e.g., Delbosc & Currie, 2011; Allen & Farber, 2020; Luz & Portugal, 2022; Székely & Novotný, 2022). A widely cited 2003 report by the UK Social Exclusion Unit (hereafter SEU) highlights how "problems with transport and the location of services contribute to social exclusion by preventing people from participating in work or learning, or accessing healthcare, food shopping, and other local activities". The report also stresses that "those living in rural areas without a car face particularly acute problems", as "distances to key services are often greater and public transport is often infrequent or inadequate". Furthermore, transport problems are not limited to those without a car but also affect those who have a car, but cannot afford the cost of necessary trips, leading to missed employment and other opportunities.

Similarly to the SEU report, researchers studying the links between transport disadvantage and social exclusion suggest that the latter occurs "not due to a lack of (…) opportunities, but a lack of *access* [emphasis added] to those opportunities" (Preston & Rajé, 2007). Thus, rather than examining the availability of public transport, they argue that the focus should instead be on examining "the consequences of [poor public transport availability] in terms of [people's] (in)ability to access key life-enhancing opportunities, such as employment, education, health and their supporting social networks" (Lucas, 2012). Appropriate policy measures should aim to improve people's access to key destinations and activities (that is, accessibility) rather than mobility, as improvements in mobility can, but do not necessarily, lead to improvements in accessibility (Martens & Bastiaanssen, 2014; Martens, 2016; Levine et al., 2019; Ryan & Martens, 2023; Walker, 2024). Some examples of policies and practices that should be considered include improving the level of accessibility provided by the public transport network so that people without cars could access a broader range of out-of-home activities; providing facilities and services closer to people's homes, making them accessible by walking and cycling, thus reducing the need for motorised transport; facilitating the building of social networks and social relationships within the community, thereby increasing people's social capital (see also Bourdieu, 1979).

[*] For context, the average old-age pension at the time was less than 500 euros per month.

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2.2 On naturally occurring retirement communities

The SEU report and other authors (see, e.g., Kamruzzaman & Hine, 2011; Lange & Norman, 2018; and Dabelko-Schoeny et al., 2021) suggest that older adults in rural areas are much more likely than their urban counterparts to experience accessibility poverty. This is particularly relevant given the increasing prevalence of naturally occurring retirement communities (NORCs). Hunt & Gunter-Hunt (1986) coined this term to describe housing developments "that were not planned for older people, but which over time came to house largely older people". While NORCs share some characteristics with planned retirement communities, such as relatively small populations, they differ in age structure, funding, and size. NORCs can emerge in various ways but most commonly result from either ageing in place or in-migration of older adults, particularly young retirees. This is especially true in rural areas with abundant natural amenities (e.g., lakes, rivers, forests, and mountain ranges), which young retirees often see as "more beautiful, tranquil, or inspirational than their current, usually urban environment" (Borsdorf et al., 2012).

A rural NORC, as the name implies, is a naturally occurring retirement community located in a rural area. Based on census data from Wisconsin, Marshall & Hunt (1999) developed a typology of rural NORCs based on the characteristics of the older migrants they attract and the community features these migrants find appealing. They identified three types of rural NORCs: Amenity, Bi-Focal, and Convenience NORCs. Amenity NORCs are rich in natural amenities and tend to attract "younger, healthier, and more active retirees who move to the area to escape urban life and enjoy the natural environment". Initially, retirees in amenity NORCs are not concerned about access to urban services and facilities. Bi-Focal NORCs, on the other hand, attract retirees "seeking natural amenities but wishing to remain close to friends and family". Convenience NORCs differ from the rest by attracting retirees from nearby rural areas who "want to be near relatives, often due to recent widowhood, or because they need to be closer to town-based services such as healthcare". Based on Marshall & Hunt's (1999) typology, older adults in amenity NORCs are most vulnerable to transport-related social exclusion. Although these NORCs offer scenic views and recreational opportunities, they often lack basic amenities, such as grocery stores and public transport to nearby towns and cities. As a result, ageing in place can be particularly difficult for non-driving older adults, especially those who have recently stopped or reduced driving.

Rural NORCs are also not limited to the United States. For example, the 2021 Population and Housing Census shows that in Estonia, more than a tenth of adults over 60 years live in rural areas that meet the criteria of a rural NORC; that is, more than half of their neighbours are also over 60 years old (Statistics Estonia, 2021; Table RL003, authors' calculations). Marshall & Hunt (1999) suggest that the structural ageing of the population, combined with the growing preference of rural adults to age in place, will likely "lead to an influx of retirees into rural retirement destinations", contributing to the rise of more rural NORCs in the coming decades. This calls for a rethinking of the role of public transport in rural areas generally and NORCs particularly, both for researchers and practitioners.

3. Materials and methods

3.1. Research design

This study adopts an interpretivist perspective, recognising that "reality is constructed by individuals interacting with their social worlds" (Merriam, 1998). It, therefore, relies on "[participants'] views of the situation being studied" (Creswell, 2003). With this in mind and based on similar studies (see, e.g., Casas, 2007; Engels & Liu, 2011; and Broome et al., 2012), this study uses Stake's qualitative case study approach to address the research question.

In "The Art of Case Study Research", Stake (1995) defines a case study as "a study of the particularity and complexity of a single case, coming to understand its activity within important circumstances". In Stake's (2003) approach, "the bulk of case study work", as he puts it, "is carried out by individuals who have intrinsic interest in

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the case and little interest in the advance of science". Cases are selected based on whether they are "interesting in themselves or can facilitate the understanding of something else", that is their practical relevance rather than theoretical contribution (Stake, 2006). For Stake, case study research is about “discovering and portraying the multiple views of the case” rather than seeking generalisability. Therefore, his approach relies on analytical generalisation, which requires the researcher to “specify evidence, make arguments explicit, and then allow the readers to judge the soundness of the claim” (Swanson & Holton, 2005). In doing so, it combines the strengths of both quantitative and qualitative data collection methods to create a “thick description” of each case (Stake, 1995).

To achieve this, this study employs go-along interviews (hereafter go-alongs), described by Kusenbach (2003) as “a hybrid between participant observation and interviewing”. Used by scholars from a range of disciplines, including sociology (Carpiano, 2009), geography (Anderson, 2004), and public health (Garcia et al., 2012), go-alongs involve the researcher "accompanying inform-ants on (...) outings and through asking questions, listening and observing, actively exploring their subjects' stream of experiences and practices as they move through, and interact with, their physical and social environment" (Kusenbach, 2003). Go-alongs can be conducted while walking, in which case they are referred to as “walk-alongs”, and while driving, cycling or using public transport, in which case they are referred to as “ride-alongs”. Because of their contextual sensitivity, go-alongs are particularly suitable for exploring environmental perceptions, spatial practices, biographies, social architecture, and social domains.

Go-alongs have their strengths and limitations. Carpiano (2009) highlights two main benefits: first, go-alongs reduce the typical power dynamics between the interviewer and interviewee, which is especially important when conducting research with marginalised populations; second, they are crucial for establishing rapport with the community. Therefore, go-alongs minimise the risk of what Bourdieu (1979) refers to as “symbolic violence”. However, the success of go-alongs, and especially walk-alongs, depends on several factors beyond the researcher’s control, including weather conditions, the walkability of the neighbourhood, and the mobility of the participants (although these are less of an issue in ride-alongs). Furthermore, transcribing audio data from a walk-along in a busy area or a ride-along on a bumpy road can be challenging, even for the most experienced transcriptionists.

3.2. Data collection

The first stage of data collection took place on the morning departure of bus no. 546 in early 2020, just before the onset of the Covid-19 pandemic. Purposive convenience sampling was used to recruit passengers who met the following sampling criteria: permanent residents of the case study area, aged 60 and older, with no or limited access to a car. As passengers boarded the bus, potential participants were invited to share their experiences with free bus travel. Those who agreed to participate were seated in the middle of the bus, close to the voice recorder. Of the 25 passengers who boarded the bus during the ride-alongs, 18 met the sampling criteria, and 12 agreed to participate in the study (see Tables 1 and 2). Once the bus passed through the last village before reaching the main road to Jõhvi, the researcher introduced the purpose of the study and its context and assured participants of the confidentiality of the data. It was emphasised that the data would be presented in aggregate form, ensuring that individual participants could not be identified.

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Table 1. An overview of the ride-alongs

	Ride-along 1	Ride-along 2	Ride-along 3
Day of the week	Wednesday	Friday	Sunday
Duration	2 hours	2 hours	1 hour[1]
Number of passengers	13	7	5
Number of passengers who met the sampling criteria	10	5	3
Number of passengers interviewed	5	4	3

[1] *The third interview was shorter than the first two, as the bus used to take a different route on Sundays.*

Table 2. Ride-along participants

	Ride-along(s)	Gender	Age group[2]	Household size	Car availability
Participant A	1	Female	Middle-old	1	None
Participant B	1	Male	Middle-old	1	None
Participant C	1	Male	Young-old	1	None
Participant D	1 and 3[1]	Female	Middle-old	2	Sometimes
Participant E	1	Female	Middle-old	1	None
Participant F	2	Male	Young-old	1	None
Participant G	2	Male	Young-old	1	Sometimes
Participant H	2 and 3[1]	Female	Young-old	2	Sometimes
Participant I	2	Female	Young-old	2	Sometimes
Participant J	3	Female	Young-old	1	None

[1] *Participants D and H participated in two ride-alongs.*
Note: Following Zizza et al. (2009), the term "young-old" refers to individuals aged 65–74, while the term "middle-old" refers to individuals aged 75–84. ride-alongs.

3.3. Data analysis

This study follows Elo & Kyngäs' (2008) inductive approach to content analysis, which is used when "there is not enough former knowledge about the phenomenon or if this knowledge is fragmented". After each ride-along, the recording was transcribed verbatim and supplemented with the researcher's field notes and reflections. Once all ride-alongs were completed, the transcripts were read to gain a general understanding of the participants' responses. The transcripts, along with the field notes and reflections, were then open-coded separately by two researchers to identify recurring themes related to the research question. These themes were grouped into higher-order categories (Strauss & Corbin, 1998), making the process more collaborative and allowing for researcher triangulation.

4. Results

The following section summarises the results of the ride-along interviews. A total of three ride-alongs were held with 10 unique participants (though 12 in total, as two people participated in two ride-alongs), who were encouraged to share their experiences of using public transport to reach desired destinations and activities before and after fares were removed. These interviews' key findings and implications are organised into three categories, highlighting the policy's 1) benefits, 2) drawbacks, and 3) other issues that, while not directly related to free bus travel, still limit the policy's usefulness.

4.1. Policy's benefits

Financial benefits. The most common benefit mentioned is financial support, which means that older adults have more money to spend on participating in activities rather than getting there. This, in turn, also increases their use of public transport.

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Participant D, for instance, says that the removal of fares is particularly helpful when she needs to visit the doctor's office more often than usual:

> RESEARCHER: So how much you used to spend on public transport?
> PARTICIPANT D: Well, let's see... If I used to make four trips a month... three twenty for a return ticket, so it's about thirteen euros.
> RESEARCHER: That sounds about right.
> PARTICIPANT D: Yes, but if I had to go to the doctor more often or if there were other things I had to take care of, then I spent more than that... now that it's free, I'd say there's more... freedom

Similarly, Participants E and F say that after the fares were removed, they participate in out-of-home activities more often than they used to:

> RESEARCHER: Would you say that public transport has become more useful to you?
> PARTICIPANT E: I would say that we use the bus as much as we used to... or maybe a little bit more, not much, but certainly a little bit more than we used to (...) In the summer there are definitely more people on the bus, some go to town for no reason, there are even people I've never seen take the bus when it wasn't free... (...) and because it's free, it's full of people. (...) as for today, I see that there are quite a lot of people [on the bus], that's because Wednesday is the best day of the week to go shopping.
> PARTICIPANT F: I usually go when I need to, but since it's free, I probably use it a bit more than I used to... I'd rather go to the doctor more often while I can.
> PARTICIPANT E: My neighbour takes the bus once a week, or maybe even once a fortnight, she buys her groceries and she's happy with that... as for me, with my bad health, I wouldn't mind going to town a couple of times a month instead of every week, but I've got pets, I have to go every week to buy minced meat, wheat grits and everything... some people I know who go to the doctor regularly are very happy [with free bus travel], they can go to town as often as they like.

Participant G also shared that:

> RESEARCHER: So, you take this bus as often as you used to?
> PARTICIPANT G: Of course, I take it more often!
> RESEARCHER: Is there a particular reason for that?
> PARTICIPANT G: Well, I visit the city once a month, and also Kuremäe [a village halfway between the case study area and Jõhvi] (...) now I can go there more often.
> RESEARCHER: But do you feel that public transport gets you where you need to go?
> PARTICIPANT G: Sure, it does, why wouldn't it? But of course, the more departures, the better.

However, some participants noted that the financial benefits of free bus travel are rather modest, with Participant I jokingly calling it a "pension supplement". Participants A and B also feel that free bus travel does not improve their accessibility, as there is still only one day a week when they can go to town without having to wait too long for the bus home:

> RESEARCHER: I've heard people say that they use public transport more often since it became free. Is this the case for you?
> PARTICIPANT A: We only use it when we need to... to go to the doctor, for example, or to buy some food because we don't have any shops out here.
> PARTICIPANT B: Some time ago the schedule was different, there used to be a bus on Friday, Saturday and Sunday, but now it's only on Wednesday, when it leaves town at a quarter past two... (...) it's convenient, you arrive in town, buy groceries and go back while the sun's still shining... so even though it's free, I only use it on Wednesdays.
> PARTICIPANT C: ...Wednesday is the best, I think everyone will tell you that... because while you don't have to sit at the bus station for six hours waiting for the bus to take you back to the village, there's still enough time to go to the doctor and take care of things.
> RESEARCHER: So, you don't take this bus on other days of the week?
> PARTICIPANT C: No... if you only go shopping, why should you do it more often? Once a week is enough. If there's something urgent, I just get on the bus and go.

Here it is important to note that the bus only runs three times a week on Wednesdays, Fridays, and Sundays. Although it always arrives in town at 10 a.m., the departure time varies. On Fridays and Sundays, it leaves at 5:15

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p.m., meaning there are roughly eight hours in town. On Wednesdays, however, it leaves earlier at 2:15 p.m., thus allowing for a much shorter stay. The Wednesday departure is the most popular among the locals, as it provides enough time for everyday activities without having to wait too long for the bus home. However, Participant B points out that even a four-hour stay in town feels too long when there is "nothing else to do there":

> PARTICIPANT B: I don't feel that anything has changed for me [for the better]. I used to spend... how much... one sixty, three twenty, some twenty euros a month... that's nothing (...) after the village shop closed, I used to take the local bus to town on Thursdays, it was free and we only had to spend two hours in town... you could go to the shop, buy your food and go back home... now this bus is free, but there are four hours in town... I get the food and then there's nothing else for me to do there.

According to the participants, they use public transport mainly for grocery shopping, visiting the doctor's office, and seeing friends and relatives:

> RESEARCHER: There are only four hours in town today, how will you spend them?
> PARTICIPANT B: Well, I'll go to the doctor (...) and then do some shopping... what else?
> PARTICIPANT C: There are crossword puzzles, of course!
> PARTICIPANT B: Well, there's nothing else to do in town... I could go to the library, but I have a small library at home, so why bother? That's why I take the bus on Wednesdays.

When discussing his plans for the day, Participant G mentions that he is on his way to the food shop in Kuremäe. Getting groceries takes about half an hour, but then he has to wait around eight hours for the bus back home. Instead of waiting, he explains that he plans to take another bus to Jõhvi simply to "kill time" before taking the bus home:

> RESEARCHER: What if you could visit other places besides Jõhvi?
> PARTICIPANT G: Well, that would be good, I guess, but I don't really want to go anywhere else, honestly... it would be good if the bus went to Kohtla-Järve [another town close to Jõhvi], let's say, on Fridays and Sundays (...) maybe someone would take [the bus] to work, to school... but as for me, once a week is enough, I just go to Kuremäe, then I take another bus to Jõhvi, and then I come back (...) but as I said, there is a convenience store in Kuremäe, I get all my food there, so there's not much for me to do in Jõhvi except kill time.
> RESEARCHER: So, you've been doing this for a while?
> PARTICIPANT G: No, but now that it's free, why not.

Psychological benefits. Some participants note that since the fares were removed, public transport has become much easier to use. For instance, Participant A shares that she no longer has to withdraw money from the ATM in town before heading home, nor worry about whether the bus driver has enough change. This, as she puts it, gives her peace of mind:

> PARTICIPANT A: Well, of course, it saves money... and now it's easier to take the bus, you don't have to worry about having small bills... you don't have to think "what if I only have large bills"... what if I get on the bus and the bus driver tells me "I don't have any change, look for smaller bills!" (...) When public transport wasn't free, I used to make sure that before I went back to the village, I had some money in my pocket for a trip back to town, but now my mind is free from such worries... I don't have to look for money, I don't have to count the coins... as my eyesight is not so good, it [counting the coins] was a problem for me... Once I dropped the coins in front of the bus driver and he told me to bend down and pick them up.

Social benefits. The ride-alongs also revealed that for older adults, the bus is more than just a way to get from A to B. Similarly to Green et al. (2014), it was observed that the bus acted as a kind of "Facebook on wheels", a third place where older adults from different villages could meet, chat, and gossip on their way to town (for more on third places, see Oldenburg, 1989):

> RESEARCHER: So, do you always chat on the bus or is there something special going on today?
> PARTICIPANT E: Of course we do!... All the latest news, from start to finish. And it would be great if we could see each other more often.

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This way, removing fares made this social space more accessible for those who might have struggled to participate due to financial constraints.

4.2. Policy's drawbacks

One drawback highlighted during the ride-alongs was overcrowding. The case study area is a popular summerhouse destination, and during the warmer months, when seasonal residents arrive, the bus often becomes overcrowded, leading to conflicts over seating. This is especially the case on Wednesdays, the only day of the week when there is a four-hour stay in town.

The participants' observations are interesting, as ticket sales data do not show signs of overcrowding. Participant G explained that this is because seasonal residents usually travel light, while permanent residents often bring large shopping bags and trolleys that take up extra seats. They typically buy a week's worth of groceries, not only for themselves but also for their friends and neighbours who cannot take the bus on their own. These shopping bags and trolleys take up extra seats, but this is not reflected in the ticket sales data:

> RESEARCHER: You mentioned that there are some problems with the bus in the summer. Can you tell me more about that?
> PARTICIPANT G: Well, yeah... [the bus] is full of dachniks [seasonal residents] trying to squeeze in, pushing and shoving everyone and shouting that they have nowhere to sit because we're carrying too many bags.
> PARTICIPANT J: On Wednesday, there are only four hours in town.
> PARTICIPANT G: But what they don't understand is that [Wednesday] is the only day we can go shopping, and so we buy food for a week ahead, and not only for ourselves but for our families and neighbours who can't take the bus themselves... So of course, we carry a lot of bags, sometimes three big bags for bread, milk, something that our neighbours have asked us to bring... and of course, we put these bags on the seats, and so the dachniks [seasonal residents] are angry because they don't have a place to sit.
> PARTICIPANT I: They have flats in the city, they can go there whenever they want [because they have a place to stay], but they still take the bus on Wednesday just because there're four hours in town and it's free... on Friday it's seven hours, but unlike us, they don't have to sit at the bus station all day.

Overcrowding was brought up again by another participant when discussing the free shopping bus provided by the local municipality in Vasknarva, a neighbouring village not included in the study:

> RESEARCHER: What if this bus stopped in Vasknarva? Would people use it?
> PARTICIPANT I: In the summer they probably would... I know some people and our [rural municipality] mayor also said that there are people who aren't registered here, who have two, sometimes three cars in their front yard, but they take the free shopping bus to Iisaku every week... I mean, it doesn't look good, they don't pay local taxes, but they use the bus for free, and sometimes there's not enough room for everyone.

Participant I's comment suggests that the local government is aware of the community's concerns about seasonal residents using the free shopping bus. Participant H even felt that seasonal residents without a "propiska" (i.e. registration) in the local municipality were 'robbing' permanent residents of local amenities, such as food shops:

> RESEARCHER: Have you noticed any new people moving into the area in recent years?
> PARTICIPANT H: Well, judging by the new houses, there seem to be quite a few.
> RESEARCHER: Do they live here all year round or...
> PARTICIPANT H: No, only in the summer; they live in the city, they don't register here, they don't pay taxes to the municipality, so there's no food shop here even in the summer.

It should be noted that here, Participants I and H are referring to a different free bus service provided by the local municipality, which serves neighbouring villages but not the case study area. The issue of overcrowding on the free bus service serving the case study area was raised only once, and no other drawbacks were mentioned.

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4.3. Other issues

During the ride-alongs, participants raised concerns that, while not directly related to free bus travel, still limit its usefulness. One key issue highlighted was the poor quality of the public transport infrastructure, particularly the lack of raised kerbs at bus stops. For example, Participant A shared that, due to her mobility impairment, she finds it difficult to take the bus on her own:

> PARTICIPANT A: The steps of the bus are too high for me... about five years ago I could have climbed them by myself, but now I can't take the bus by myself. (...) Not long ago, when I was getting on the bus, I asked a man standing behind me for help, but he replied: "I don't know how to!". At that point I was already holding on to the railing, trying to pull myself up, but I didn't have the strength, so I shouted: "Push me up from behind!", and he said: "I don't understand...", then I replied: "Push me up the steps, they're too high!". So he pushed me from behind and that's how I got on the bus.

Similarly, Participant D described her walk to the bus stop as "painfully long". However, when asked how far she lived from the bus stop, she said it was "about three or four houses away":

> PARTICIPANT D: It would be nice if there was another bus stop in the village... today the walk to the bus stop was painful and it took me a long time to get there.
> RESEARCHER: I'm sorry to hear that. But how far do you live from the bus stop?
> PARTICIPANT D: Well, about three or four houses away.
> RESEARCHER: Would it help if you could get off the bus closer to where you live?
> PARTICIPANT D: Yes, that would be good, especially in the summer when there are even more old people out here.

Participant C summed it up as follows:

> RESEARCHER: Do you find it difficult to take the bus?
> PARTICIPANT C: It's fine... as long as I can walk and nothing bad happens to me... it's much more difficult for older people, so I try to help them as much as I can, carrying their bags onto the bus and so on."

In all three ride-alongs, participants expressed frustration with the long waiting times in town, particularly on Fridays and Sundays. Several mentioned that everyday activities such as grocery shopping and taking care of personal business take a couple of hours at most. Once these are taken care of, they end up waiting at the bus station for the rest of the day:

> RESEARCHER: What about the time in town, is it enough for you?
> PARTICIPANT E: Well, today it's four hours.
> PARTICIPANT D: And that's more than enough!
> PARTICIPANT E: Well, yes, there could be another day like Wednesday.
> RESEARCHER: Like maybe Saturday?
> PARTICIPANT E: Yes, that's right! I was going to say that... because, well... my health is very bad, I can't take all the medication with me every time I go to town... and I must sit there until five o'clock? When I arrive in town, I need an hour, maybe two, to do everything I need to do, but where do I have to sit until five o'clock? I have no acquaintances there, let alone places to pass the time... and waiting at the bus station is so exhausting, especially since the meds make me sleepy... and I want to sleep in my bed, not on the bench at the bus station... so yes, it would be helpful if there was another short day in town.

Another issue raised during the ride-alongs was access to the hospital, which is about a 10-minute drive from the bus station (or 10 to 30 minutes by public transport). Participant A, who was on her way there with a relative, described the journey as follows:

> PARTICIPANT A: You know, when I call the hospital to book an appointment ... the first thing I say is "don't even look at Monday, I can't make it on Monday because there's no bus on Monday", and if there's an appointment on Wednesday, I tell them right away that "I can't get there before 11 o'clock" ... (...) Of course, it would have been more convenient if this bus went through Ahtme [the district where the hospital is located]... but now we don't know how to get from Jõhvi to Ahtme... we don't even know the timetables of the city buses, we don't know what bus goes to the hospital... maybe there is a timetable at the bus stop?

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Similarly to Participant A, Participants D, F, and G also expressed concerns about getting to the hospital on Mondays, Tuesdays, and Thursdays. If they have a doctor's appointment on those days, they often have no choice but to take a taxi:

> PARTICIPANT D: The thing is that I can't use this bus for anything other than going shopping. If I must go to the doctor, I must hire a car because most days of the week there's no bus. The only day when there's enough time to go to the doctor is Friday.
> RESEARCHER: Have you ever had to cancel or postpone an appointment because there was no bus that day?
> PARTICIPANT F: Things like that happen.
> RESEARCHER: And what do you do then?
> PARTICIPANT F: Well, I take a taxi.
> RESEARCHER: A taxi?
> PARTICIPANT F: Well, yes, because... if the doctor only sees patients on Monday, and there's no bus on Monday, you must think of something to get there.
> RESEARCHER: How much does it cost to take a taxi to the hospital?
> PARTICIPANT F: Well, let's say it depends on how lucky you are.

Another option is to arrive in town the night before the doctor's appointment and stay overnight:

> RESEARCHER: What about visiting the hospital?
> PARTICIPANT G: Well, we ask if there's an appointment on Wednesday or Friday.
> RESEARCHER: And that works?
> PARTICIPANT G: Well, I'd say it does, but appointments get postponed, and you have to wait longer... and if that doesn't work, then we take a taxi.
> RESEARCHER: How much does that cost, if I may ask?
> PARTICIPANT G: Well, the other day I had an appointment in the morning, so I took the bus to Jõhvi [to stay there overnight] and paid 35 euros for a hostel there... and if I took a taxi, it would cost me about 40 euros as well.
> PARTICIPANT H: ...and if you need to go to Kuremäe, then it's 20 euros.

Overall, the findings suggest that the policy was well accepted by older adults who use public transport as their main mode of transport. All participants brought up at least one positive aspect related to free bus travel, including its financial, psychological, and social benefits. One negative aspect reported was overcrowding during the summer months, as both permanent and seasonal residents prefer to take the bus on Wednesdays, leading to conflicts over seating. This is also linked to a major issue that does not seem related to free bus travel but is mentioned throughout the ride-alongs: the limited public transport service, including long waiting times in town and no service on Mondays, Tuesdays, Thursdays, and Saturdays, which limits older adults' access to opportunities. These are discussed further in the next section.

5. Conclusions

The research reported in this paper sought to explore the impact of free bus travel on improving non-driving older adults' access to key opportunities. To achieve this, three ride-along interviews were carried out, during which older adults were encouraged to share their experiences with free bus travel and how it affected their access to various destinations and activities. The data collected from these ride-alongs were transcribed, coded, and analysed using inductive content analysis. This process identified several recurring themes, which were then grouped into higher-order categories presented in the "Results" section.

The research question was: How has the introduction of free bus travel in the case study area affected non-driving older adults' access to key opportunities?

Based on the results of the ride-along interviews, we conclude that the introduction of free bus travel in the case study area has been financially, psychologically, and socially beneficial for non-driving older adults. However, the policy's accessibility benefits have not been realised due to the lack of public transport service improvements.

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First of all, it was revealed that the introduction of free bus travel had potentially substantial benefits for non-driving older adults, which can be summarised as financial, psychological, and social benefits. The financial benefits, described by one participant as a "pension supplement", were rather straightforward: older adults saved around 30 euros a month (ca. 6% of the average pension at the time) on public transport fares, money they could then spend on other activities. This provided financial relief for older adults who were financially disadvantaged, such as those receiving the so-called survivor's pension, which was around 200 euros at the time. The psychological benefits were closely related to the financial ones, as they provided older adults with peace of mind, knowing they no longer had to worry about having enough money for their next trip to town. This was particularly important because there were no ATMs in the case study area, and bus drivers only accepted cash. As a result, older adults had to plan their trips to town well in advance, sometimes days or weeks ahead. Since the removal of fares, using public transport involved less of what Ravensbergen et al. (2021) describe as "emotional work", making it easier to use and allowing for more spontaneous trips. In our case, this proved particularly beneficial for older adults with cognitive impairments, e.g. due to the side effects of medications. The social benefits were mentioned less frequently, possibly because the bus acted as a "third place" well before the fares were removed. Again, it should be taken into account that there was no other "third place" in the case study area, so it makes sense that the bus would serve this function. This is in line with recent findings from Hagan (2020), who further noted that the use of the bus as a place for socialisation "may be particularly valuable for those whose life is becoming more restricted due to later-life transitions, such as poorer health and mobility, and bereavement". Previous studies have also highlighted other benefits of free bus travel for older adults, such as lower obesity rates (Webb et al., 2012) and improved mental health (Reinhard et al., 2018), although the study participants did not mention these. However, the latter could be seen as part of the social benefits discussed above.

Nonetheless, study participants reported one negative consequence of free bus travel: overcrowding during the summer months, particularly on Wednesdays, when there is a four-hour stay in town. Although this might seem a logical consequence of free bus travel, in our case it reveals a deeper issue that free bus travel failed to address: the limited public transport service, which reduces the policy's potential accessibility benefits. According to most of the participants, free bus travel would have been more useful if there were more than three departures per week. Despite the removal of fares, many participants reported having to skip or postpone doctor's appointments and other important activities due to the limited public transport service. Furthermore, even though everyday activities such as grocery shopping usually take a couple of hours at most, they can take up to eight hours, as participants often have to wait a long time for the bus home. This means that even though free bus travel somewhat improves the spatial accessibility of urban facilities and services, it does not improve their temporal accessibility, as it still takes an unreasonable amount of time to carry out everyday activities. As participants pointed out, the bus takes them to the grocery store free of charge but leaves them there for eight hours, a disproportionately long time. This is why, even though the bus makes three trips per week, most permanent residents, as well as seasonal residents, as it turned out, prefer to take the bus on Wednesdays when there is a shorter, four-hour stay in town. Another accessibility issue that was not addressed concerns the route of the no. 546 bus, which heads straight to the bus station in Jõhvi, skipping several important destinations along the way, including the regional hospital, one of the most important destinations for older adults. As a result, reaching the regional hospital requires a transfer to Jõhvi, making the trip longer (if taking a city bus), more expensive (if taking a taxi), and more complicated (having to figure out how to get there). This can nullify the financial and psychological benefits of free bus travel. Finally, the poor quality of public transport infrastructure, particularly bus stops, makes public transport less accessible for older adults with reduced mobility. This issue is well known (see, e.g., Ravensbergen, 2021), and it is particularly pronounced in winter—when the study was carried out—when walking a few hundred metres to the bus stop can take up to half an hour. To summarise, these issues may not seem directly relevant to free bus travel, but together, they greatly impact the policy's effectiveness, including its potential accessibility benefits.

In conclusion, we offer several policy recommendations and suggest directions for future research. The findings of this study indicate that the introduction of free bus travel in the case study area provided financial,

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psychological, and social benefits for non-driving older adults. However, the removal of fares alone did not significantly improve their access to urban facilities and services, as several underlying issues remained unaddressed. For example, the limited public transport service (three return trips per week) continued to limit older adults' ability to participate in the full range of potential out-of-home activities. Therefore, we strongly advise that free bus travel should be complemented by additional policy measures aimed at improving accessibility, ensuring that public transport provides "a level of access that guarantees that each member of society can fulfil his or her life opportunities" (Martens et al., 2012). Three departures per week fall below any reasonable minimum standard.

This research involved a series of ride-alongs with participants on their way to town. However, future research could expand the ride-alongs to include walk-alongs with participants once they arrive in town. As one participant noted, getting to town was the easy part; the difficult part was getting to the destination. Walk-alongs could provide valuable insights into challenges that could otherwise go unnoticed. Furthermore, it would be beneficial to include older adults who neither drive nor use public transport and rely on others, most likely their neighbours and relatives, for groceries, medications and other essentials.

While the research presented in this paper aimed to improve older adults' well-being, methodological limitations should be considered when interpreting the findings. Firstly, the modest sample size (n=12) and convenience sampling limit the generalisability of the results and the range of conclusions that can be drawn. Another limitation is the research design itself—specifically, a case study based on a rural NORC—which means the findings may only be applied to similar contexts and settings. Finally, although the implemented changes—such as an additional departure on Saturdays with a two-hour stay in town, as well as the addition of new bus stops, including one near the regional hospital—received positive feedback from the residents, no follow-up studies have been conducted to assess their long-term impact. Finally, although free bus travel was discontinued in 2024, it remains free for those under 20 and over 63.

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