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## TNO report

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## The Effects of Transition Points on Older Persons Activity Patterns and Travel Behaviour

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This report presents results of research performed in the SENTRIP project. SENTRIP (“Senior Life Transition Points and their Implications for Everyday Mobility: perspectives, patterns, scenarios and the issue of car use”) is an European Research Area/ERA-NET project within the call Keep Moving.

The project is carried out in cooperation between six research environments in Austria, the Netherlands and Sweden. It comprises six sub projects exploring different aspects of how mobility in old age is affected by transition points. The transition points that are studied are transition from working life to retirement and from a two-person household to a one-person household.

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## Samenvatting

### Inleiding

In 2020 hebben we in Nederland te maken met een krimpende en oudere populatie. Deze demografische ontwikkelingen hebben samen met bijvoorbeeld economische, technologische en gezondheidstrends, effect op de activiteitenpatronen van ouderen, hun reisgedrag en de toekomstige configuratie van het transportsysteem. De effecten van demografische veranderingen in populatiegrootte en –samenstelling zijn relatief gemakkelijk te voorspellen. Veranderingen in gedrag (zoals dagelijkse activiteiten en reisgedrag) zijn moeilijker in te schatten. Nu en in de toekomst zijn er echter specifieke veranderingen (transitiemomenten) in het leven van ouderen die een belangrijk effect hebben op hun mogelijkheden, alledaagse activiteiten en dus mobiliteit. Dit rapport onderzoekt de impact van twee transitiemomenten (d.w.z. met pensioen gaan en alleen komen te staan) op de dagelijkse activiteiten en het reisgedrag van ouderen. Aangezien de groep ouderen heterogeen is qua samenstelling kunnen er regionale, sekse en leeftijdsverschillen worden verwacht.

### Methode

In juni 2009 zijn 32 diepte-interviews met ouderen afgenomen. De respondenten zijn geworven uit de groep ouderen die had deelgenomen aan de vragenlijststudie uitgevoerd in 2008 (Dicke-Ogenia, van Beek, & Jorritsma, 2009). De interviews zijn semi-gestructureerd afgenomen. De interviewer had een lijst met onderwerpen, maar was vrij om bewoordingen, inhoud en volgorde van de vragen aan te passen.

### Resultaten

Dit onderzoek vond dat vooral de effecten van alleen komen te staan anders worden ervaren door oudere vrouwen dan door oudere mannen. Nadat hun partner is overleden, maken mannen minder recreatieve wandel- en fietstochten en blijven ze de auto gebruiken; vrouwen moeten (opnieuw) leren hoe ze moeten autorijden en ze maken meer gebruik van openbaar vervoer. De veranderingen in dagelijkse activiteiten en reisgedrag lijken minder groot te zijn voor de transitie naar pensioen. De meeste respondenten geven aan dat met pensioen gaan er alleen voor heeft gezorgd dat ze niet meer naar het werk reizen. Daarnaast maken ze nog steeds gebruik van dezelfde vervoersmiddelen en reizen ze nog steeds naar dezelfde bestemmingen als voor hun pensioen. In het algemeen zijn de respondenten sinds hun pensioen meer gaan wandelen en fietsen zowel voor vervoer naar bestemmingen als voor recreatieve doeleinden omdat ze meer vrije tijd hebben.

### Toepassing

De resultaten van dit onderzoek vormen de basis voor het ontwikkelen van verschillende scenario's die rekening houden met demografische veranderingen (d.w.z. vergrijzing, veranderingen in populatiegrootte en –samenstelling) en de effecten van specifieke transitiemomenten in het leven van ouderen, namelijk met pensioen gaan en alleen komen te staan. De uitkomsten van deze scenario's vormen de basis voor aanbevelingen voor politici over hoe de mobiliteit van ouderen in de toekomst gehandhaafd en vergroot kan worden.

## Summary

### Introduction

By 2020 The Netherlands will face the situation of a shrinking and older population. These demographic developments have, in combination with other trends (e.g. economic, technological, health), an impact on activity patterns of older people, their travel behaviour and the future configuration of the transport system. The effects of demographic changes in population size and composition are relatively easy to estimate. Changes in behaviour (such as activities and travel behaviour), however, are much more difficult to estimate. The activity patterns and travel behaviour of the elderly of today may also be different from the elderly of the future. Now and in the future, however, there are specific changes in older persons lives (i.e. transition points) that significantly affect their opportunities, behaviour, everyday practice and thus everyday mobility. This report addresses an in-depth study of the impact of two transitions points (i.e. transition to retirement and to a one-person household) on older persons activity patterns and travel behaviour. As the group of older persons is heterogeneous significant regional, gender and age differences can be expected.

### Method

In June 2009, 32 in-depth interviews have been carried out. The respondents have been recruited from the questionnaire-study carried out in 2008 in The Netherlands (Dicke-Ogenia, van Beek, & Jorritsma, 2009). The form of the interviews was semi-structured. The interviewer had an outline of topics or issues to be covered but was free to vary the wording, content and order of the questions to some extent.

### Results

This study found that especially the effects of the transition to a one-person household on daily activities and travel behaviour were experienced differently by men and women. While men walk and cycle less for recreation and keep using the car, women have to (re)learn how to drive and use public transport more often after their partners die. Changes in daily activities and travel behaviour patterns seem smaller for the transition to retirement. Most respondents reported that their retirement only resulted in them not travelling to work (and work-related destinations) anymore. Besides that, they continued using the same transport modes and visiting the same destinations as before their retirement. In general, after the transition to retirement, respondents walk and cycle more for transportation as well as for recreation due to more spare time.

### Application

The results of this in-depth study will form the basis for development of different scenarios that take into account the demographic changes (i.e. ageing, changes in composition, and changes in population size) and the effects of specific transition points in older persons' lives, namely retirement and becoming a widow(er). The outcomes of these scenarios will provide the basis for recommendations for politicians on how to achieve sustainable improvement in mobility for elderly people.

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# 1 Introduction

By 2020 The Netherlands will face the situation of a shrinking and older population. These demographic developments have, in combination with other trends (e.g. economic, technological, health), an impact on activity patterns of older people, their travel behaviour, and the future configuration of the transport system. The effects of demographic changes in population size and composition are relatively easy to estimate. Changes in behaviour (such as activities and travel behaviour), however, are much more difficult to estimate. The activity patterns and travel behaviour of the elderly of today may also be different from the elderly of the future. Now and in the future, however, there are specific changes in older persons' lives (i.e. transition points) that significantly affect their opportunities, behaviour, everyday practice and thus everyday mobility (e.g. daily travel, choice of transport mode).

Issues on mobility in old age are addressed in SENTRIP, an ERA NET-transport project entitled Senior Life Transition Points and their Implications for Everyday Mobility: perspectives, patterns, scenarios and the issue of car use. The transition points that are studied are transition from working life to retirement and from a two-person household to a one-person household. The project is carried out in cooperation between six research institutes in Austria, Sweden and The Netherlands and comprises six projects exploring different aspects of how mobility in old age is affected by transition points.

This report addresses an in-depth study of the impact of transitions points on older persons activity patterns and travel behaviour. This in-depth study employs a user-oriented approach that investigates how different groups of older persons perceive their mobility situation and how they shape their daily practices with regard to mobility. The group of older persons is heterogeneous with respect to the following dimensions: demographics, access to public transport or car, age, gender, health, income, retirement, and household composition. Therefore, significant differences in impact of transition points on activity patterns and travel behaviour can be expected on the following matters:

- Urban vs. rural regions,
- Men vs. women,
- Younger older persons vs. older older persons.

The results of this in-depth study will form the basis for development of different scenarios that take into account the demographic changes (i.e. aging, changes in composition, and changes in population size) and the effects of specific transition points in older persons lives, namely retirement and becoming a widow(er).

In the following sections, I will shortly describe some background on the transition points and regional, gender and age differences.

## 1.1 Transition points

Recent transportation research in Europe has indicated that key transition points or "lifecycle events" are highly significant in influencing mobility patterns and choice of transport modes among older persons (van der Waerden & Timmermans, 2003; Verhoeven, Arentze, Timmermans & Van der Waerden, 2005).

Two important transition points are:

- the transition from working life to retirement,
- the transition from being a two-person household to being a single-person household, i.e. when an older person's partner passes away.

These two transition points can be expected to occur in different stages of an older persons life. The transition to retirement typically occurs at the age of 60-65. Note however, that although the pension age is about 65 years in many European countries, the average retirement age has decreased in most European countries in recent years. The second transition point, that is when a two-person household becomes a single-person household, often occurs a few decades later and often not before the age of 80 as the ageing population gets healthier.

#### 1.1.1 *Becoming a pensioner*

The transition from having been engaged in working life to a situation of going into retirement and becoming a pensioner is arguably one of the most important identity-defining transitions that occurs in older persons lives. This transition point has potentially significant consequences for patterns of everyday mobility in numerous ways (Whelan, Langford, Oxley, Koppel & Charlton, 2006). When an older person stops commuting to a workplace on a daily or weekly basis, the new life situation has implications for time use (e.g. through absence of rush hour congestion), the structuring of daily life, patterns of sociality and modes of travel. For example, the start of retirement might mean that local travelling for errands, shopping, or medical appointments that was previously tightly coupled in time and distance to an employment schedule, is no longer determined by the rhythm of working life. Similarly, the opportunities for local and non-local leisure activities that entail various forms of travel are no longer restricted to off-work times such as evenings, weekends, holidays and semester periods. For many pensioners in good health, retirement also opens new opportunities for socializing with friends, children and grandchildren in ways that have consequences for mobility, including assisting in transporting grandchildren to/from day care facilities, after-school activities and the like (Rosenbloom & Ståhl, 2002).

#### 1.1.2 *Becoming a widower*

The transition point of becoming a widow(er) has potentially significant consequences for patterns of everyday mobility in many ways. When an older person suddenly becomes alone in the household the need for travelling for some purposes might change. As shown in earlier studies, for example in Ståhl (1986), it also very often means a change in the use of mode of transport, which in practise often means a transition from using a car for doing errands and visiting friends and relatives to becoming quite dependent on public transport. Similarly, the opportunities for local and non-local leisure activities that entail various forms of travel might change simply due to the fact that the person is now alone or that many of his/her friends also get older with reduced health and fewer needs to socialize (or that they are no longer alive). Suddenly being a single-person household may also mean, at least in very old age, that one no longer can rely on one's own resources for fulfilling transport needs, but instead the older person is dependent on society (and being eligible for the use of special transport service) or dependent on relatives or friends.

## 1.2 Regional differences

Regions within The Netherlands differ significantly with respect to destinations, travel options and travel distances. In urban settings most destinations are within a short distance, and people have many travel options such as going by train, bus, metro, bicycle or walking. Rural regions show more sparse destinations with fewer travel options and longer distances. As a result, impacts of transition points on activity and travel patterns are expected to be different for older people living in urban compared to older people living in rural regions.

## 1.3 Gender and age differences

Men and women and younger older persons and older older persons differ significantly with respect to possessing a valid driving license, ability to drive a car and having access to a car. Among older men 85% lives in a household with access to a car, while only 45% of the female segment has access to a car (Transek, 2005). This difference increases with age. In the oldest cohort of today's older population, access to a car is low among women mainly due to lack of a driving license. In the oldest age group, 80+, studies from Sweden (Transek, 2005) show that 45% of women do not have a driving license, while the corresponding figure for men is less than 20%. Women also stop driving earlier in life than men and also to a higher degree. On average women stop driving at the age of 65-74 and men at the age of 70-79. The reasons for stopping driving differ between men and women. While men often refer to health reasons, women often claim lack of practise or that the partner often does the driving. To sum up, impacts of transition points on activity patterns and travel behaviour are expected to be different for men compared to women and for younger older persons compared to older older persons.

## 1.4 Purpose

The purposes of this in-depth study are:

- To describe activity patterns and travel behaviour of different groups of older persons;
- To analyze the effects of becoming a pensioner on older persons everyday activities and travel behaviour: what are the experiences and patterns among heterogeneous groups of elderly (living in urban vs. rural area, women vs. men, and young old vs. old old)?
- To analyze the effects of becoming a widow(er) on older persons everyday activities and travel behaviour: what are the experiences and patterns among heterogeneous groups of elderly (living in urban vs. rural area, women vs. men and young old vs. old old)?

## 1.5 Methodology

By conducting in-depth interviews this study captured the impact of the changes in life course on activity patterns and travel behaviour within different groups of older persons.

*Identifying respondents.*

The results of the questionnaire-study carried out in 2008 in The Netherlands (Dicke-Ogenia, van Beek, & Jorritsma, 2009) have been used to identify and recruit older persons for in-depth study by including questions as to the willingness of

respondents to participate in such a study.

People who have entered retirement or early retirement pension within the last 48 months or have experienced a change in household composition during the last 48 months will be the focus of the work.

*Formulating research questions.*

The research questions have been formulated on the basis of the results of WP 1.

The form of the interviews was semi-structured.

In this approach, the interviewer has an outline of topics or issues to be covered but is free to vary the wording, content and order of the questions to some extent.

*Carrying out interviews.*

32 single interviews have been carried out. Single interviews allow respondents to describe what is meaningful or important to them using their own words without being influenced by the pressure of another interview.

*Doing coding and analysis.*

All interviews were audiotaped and transcribed. The material was condensed, categorized and interpreted using codes based on the semi-structured interview format. Consequently the researcher conducted multiple readings of the interviews. Then, using open coding the researcher identified emerging themes from the data by studying the scripts repeatedly.

## 2 Results

### 2.1 Characteristics of the respondents

In June 2009, 32 in-depth interviews were carried out. See Table 1 for more details about the participants.

Table 1 Respondent characteristics.

	Transition to retirement		Transition to one-person household	
Region	Urban: 3	Rural: 13	Urban: 11	Rural: 5
Gender	Female: 7	Male: 9	Female: 9	Male: 7
Age	61 – 74: 16	75+: 0	61 – 74: 8	75+: 8

All of the respondents were entirely retired or entered early retirement pension. However, 18 of the respondents were still working voluntarily (14) or paid (4).

All of the respondents lived in one and two-person households, of which one-person households made up 56 % and two-person households 44 %. Of those who lived in a two-person household, 86 % shared their household with their spouse or partner, and 14 % shared their household (temporarily) with their grown-up child(ren).

### 2.2 Activity patterns

In this section, I will describe the activity patterns of today's older persons.

Most respondents live very active lives. Only three out of 32 persons said they live a quiet life. When the respondents were asked to describe what activities they undertake during a typical week they mentioned homebound activities, social activities, running errands, social recreational activities, sport-related activities and work-related activities. As the group of older persons is heterogeneous, I will describe regional, gender and age differences where relevant. Between brackets I will report the number of times different activities were mentioned.

#### 2.2.1 *Activities performed at home e.g. gardening, housekeeping, watching TV (mentioned 57 times);*

Respondents reported performing a lot of activities at home, such as housekeeping (9 x), using the computer (8 x), watching television (8 x), reading the newspapers and books (6 x), gardening (6 x) and creative activities (painting, writing, sewing clothes, doing odd jobs (6x).

Respondents living in rural areas reported almost as many home-bound activities as respondents living in urban areas. With regard to the different home-bound activities there seems to be no difference between people living in rural and urban areas except for gardening. All respondents who said they spent time on gardening live in rural areas.

Females reported more home-bound activities than males. With regard to the different home-bound activities women spent more time on housekeeping and on watching TV than men. Younger old respondents reported more home-bound activities than older old respondents.

- 2.2.2 *Social activities e.g. visiting friends and family (32 x);*  
 Most social activities were related to visiting friends and family (22 x) or having friends and family over to their home (5 x). Some respondents stated that having social contact with other people is very important to them. They like to chat with someone, for example their neighbours. Respondents living in rural areas reported almost as many social activities as respondents living in urban areas. Females reported almost as many social activities as males. Older old respondents reported more social activities than younger old respondents.
- 2.2.3 *Running errands or going to the market (32 x);*  
 Almost every respondent reported running errands (28 x) or going to the market place (3 x) as an activity that they performed in a typical week. Some people reported running errands every day, just to be out of the house for a while. Other respondents ran errands once a week and sometimes they also ran errands for friends or family who were temporarily not able to run their own errands.  
 Respondents living in urban areas reported running errands as many times as people living in rural areas. Males reported running errands almost as many times as females. Older old respondents reported running more errands than younger old respondents.
- 2.2.4 *Social recreational activities e.g. playing card games, bingo, going shopping (28 x);*  
 Especially activities organised in a club-like setting were popular, such as playing cards or bingo at an elderly - or women's club (11 x). Also visiting a museum, concert, zoo, movie or city for shopping was mentioned often by the respondents (15 x).  
 Respondents living in rural areas reported almost as many social recreational activities as respondents living in urban areas. With regard to the different social recreational activities there seems to be no difference between people living in rural and urban areas. Females reported more social recreational activities than males. With regard to the different social recreational activities women spent more time on activities in organised club-like settings than men.  
 Younger old respondents reported more social recreational activities than older old respondents.
- 2.2.5 *Sport-related health-promoting activities e.g. walking, bicycling, swimming, yoga class (26 x);*  
 Sport-related health-promoting activities seemed especially popular among respondents living in rural areas. Respondents living in rural areas reported more sport-related health-promoting activities than respondents living in urban areas. In particular activities that can be performed without constraints, such as walking (alone, with partner/friends, or dogs) and cycling were mentioned (14 x), solely by people living in rural areas.  
 Females reported more sport-related health-promoting activities than males.  
 The sport-related health-promoting activities that were organised in a club-setting (fitness, yoga, line dancing) were more popular among women than among men.  
 Older old respondents reported almost as many sport-related health-promoting activities as younger old respondents.
- 2.2.6 *Work-related activities e.g. being member of committee, bus driver (18 x);*  
 Of the 32 respondents, 18 mentioned that they were still working a few hours every week on voluntarily (14 x) or paid (4 x) basis.  
 Respondents living in rural areas reported more work-related activities than respondents living in urban areas. Males reported more work-related activities than females.

Older old respondents reported almost as many work-related activities as younger old respondents.

Other activities that were mentioned a few times were visiting the physical therapist, doctor and dentist as well as chauffeuring (grand)children.

So, it can be concluded that the largest regional, gender and age differences are found for home-bound, social recreational, sport-related and work-related activities. The findings of the interviews show that women reported more home-bound, social recreational and sport-related activities than men and men reported more work-related activities than women. Respondents living in rural areas reported more sport-related and work-related activities than respondents living in urban areas. Younger old respondents reported more home-bound and social recreational activities than older old respondents and older old respondents reported more running errands and social activities than younger old respondents. These differences in activity patterns can be linked to differences in travel behaviour patterns, which will be described next.

### 2.3 Travel behaviour patterns

In this paragraph, I will describe which transport modes older persons use nowadays and why.

Driving by car, walking and cycling were the most popular modes of transport among the respondents. Twenty-three respondents mentioned using the car as transport mode. Many of the respondents used their car to run errands, to visit friends and family who live further away, for a day out, to go to the hospital or just for a ride. They used the car because: “it is a convenient way of getting to places”, “it is faster than other modes of transport”, “I can transport many and heavy groceries better by car than by bicycle”, “I like to drive the car, it gives me a sense of freedom and independency”, “it is from-door-to-door, and I like that”, “when the weather is bad I do not want to walk or use my bicycle”, “the train is too expensive” and “I am not able to walk or bicycle due to physical impairments”. So most respondents used the car because of its instrumental value, however, a few respondents also mentioned the affective value of the car.

Twenty-three respondents mentioned walking as transport mode. Many respondents walked to the city centre or market place for running (few and light) errands, to visit friends in the neighbourhood or just for a walk. They walked because: “it is healthy to go outside and be physically active”, “the places I go to are nearby”, “I really like it, I am a walker”, “I am not able to bicycle because I have chronic rheumatism and I can not drive a car because I never learned how to drive”, “I do not use a bicycle because I am afraid since a near-accident” and “the doctor advises me to walk”. So some respondents walked because they thought walking to be convenient and pleasurable and other respondents walked because they had no other transport options or for health reasons.

Twenty-three respondents mentioned bicycling as transport mode. Many respondents used their bicycle to go to the centre of the city/ village or market place to run errands, to do some shopping, to visit friends in the neighbourhood, to go the church or just for a ride. They used their bicycle because: “it is a convenient way to get to places you can not reach in other ways”, “groceries are better to handle by bike than while walking”, “the destinations are too far to walk”, “it is faster than walking”, “I like to ride my

bicycle for health reasons”, “for relaxation”, “it is the best way of transport”, “it is cheaper than using the car”, “it is nice to bicycle when the weather is fine”, “I am afraid of driving a car” and “I cannot walk because my knees are bad”. So some respondents used a bicycle as a transport means because they found it pleasurable and healthy and others used their bicycles because it was considered a better (less expensive, more flexible, faster) way than other transport modes or because they were not able to walk due to physical impairments.

Nineteen respondents mentioned using public transport as a means of transport. Many respondents used the train to visit their family and friends living in cities with a train station, to get to the airport for a holiday or to make a day trip to another city. Few respondents used the bus or tram to reach their destinations. Respondents used the train because: “it is free (7 times a year)”, “I do not want to drive my car outside my region”, “I get a discount”, “I enjoy travelling by train”, “it is convenient, quiet and comfortable”, “the parking fees for cars are too expensive and there are too few parking places”, “I do not want to drive and park my car in the busy, crowded city centre” and “I cannot reach those destinations otherwise”. So some respondents travelled by train, because it was considered comfortable and they got a discount or free ride and others travelled by train because, certain destinations were better reachable by train than by car.

Fourteen respondents mentioned using a taxi or special transportation services as a transport mode. Respondents used a taxi/special transportation services, to go to the doctor and hospital, to visit family, get from the trainstation to the final destination, to go out and to get to the airport for a holiday. Respondents used the taxi/ special transportation services mostly because: “otherwise I have to use public transport”, “my friends can not drive me”, “I have no car”, “my sister can not pick me up at the train station” and “I do not want to use public transport because I dread the (too) high step. So when other transport options failed, they used a taxi/special transportation services. Although some respondents did use taxis/special transportation services, they were not very positive about this mode of transport: “it is expensive”, “they never arrive on time” or “they do not show up at all”.

Six respondents mention that they are sometimes chauffeured by other people to their destinations. They are being chauffeured to the cards club, to the church, to places not reachable early in the morning by public transport, for running errands, or to go out. Respondents are being chauffeured because: “it is pleasant and sociable to drive together” and “I do not have a car myself”.

Three respondents mentioned using a scooter or scoot mobile as a means of transport. They used them to reach destinations within 5 km of their home, such as the doctor and the grocery shops. They used the scooter and scoot mobile because: “it is fun when the weather is nice”, “it is often faster than the car” and “I have trouble walking and cycling due to falling off my bicycle”.

In the next sub-sections, I describe regional, gender and age differences with regard to travel behaviour patterns.

### 2.3.1 *Regional differences*

Of the 32 respondents, 25 respondents had a valid driving license and 23 respondents had a car at their disposal. Three out of the seven persons without a valid driving license lived in an urban area. And five out of nine respondents who had no car at their disposal lived in urban areas. So there seems to be no difference between people living in rural and urban areas with regard to having a valid driving license and having a car.

Among people living in urban areas walking (11 x) was the most popular mode of transport, followed closely by using the car (10 x) and riding the bicycle (9 x), using public transport (7 x) and using a taxi/special transportation services (7 x). Among people living in rural areas using the bicycle (14 x) was the most popular mode of transport, followed closely by using the car (13 x), walking (12 x) and using public transport (8 x) and taxi (5 x).

With regard to the different transport modes that the respondents use, there were no remarkable differences between people living in rural or urban areas, except for using a bicycle. People in rural areas used their bicycle more often than people living in urban areas. In addition, people living in rural areas also take walks for fun and make recreational tours by bicycle, while people living in urban regions used walking mainly as a functional transport mode, i.e. for running errands in the city centre.

The reasons for cycling, walking and using the car differed between people living in urban and rural areas. While people living in rural areas often referred to health reasons for bicycle use and walking, people living in urban areas often emphasized the convenience of bicycle use and the closeness of destinations for walking. And while people living in rural areas mentioned using the car more often because they cannot reach the desired destinations otherwise, people living in urban areas noted the convenience of car use and the ability to carry goods by car.

To sum up, travel behaviour patterns were different for people living in rural areas and urban areas, especially for cycling, walking and car use. Also the reasons for using these transport modes differed.

### 2.3.2 *Gender differences*

Of the 32 respondents, 25 respondents had a valid driving license and 23 respondents had a car at their disposal. Six out of the seven persons without a valid driving license were female. And seven out of nine respondents who have no car at their disposal were female. So fewer women had a valid driving license and a car at their disposal than men.

Among men, using the car (14 x) was the most popular mode of transport, followed closely by riding the bicycle (12 x) and walking (11 x). Somewhat less popular were using public transport (6 x), using a taxi (4 x) and being chauffeured (1 x). Among women, walking (12 x) was the most popular mode of transport, followed closely by riding the bicycle (11 x), driving the car (9 x), using public transport (9 x), taxi (8 x) and being chauffeured (5 x).

So women were being chauffeured more often and used public transport and taxis/ special transportation services more often than men. This was mainly due to those women having no driving license and/or car.

In addition, men took a taxi/special transportation services to the hospital more often than women. The men reported that they took a taxi because they could not drive themselves to the hospital when they were ill.

Men and women had mainly the same reasons for using the car: it is considered an easy transport mode, from-door-to-door and suitable in bad weather. However, two women mentioned that they did drive the car but would rather not. They preferred to use other transport modes, such as the bicycle, but that was impossible due to invalidity and when not-otherwise-reachable destinations had to be visited.

Both men and women walked to reach their destinations because they liked to walk and to be outside. Besides that, men and women mentioned that walking was an easy way to be physically active and stay healthy. However, three women reported that they walked because they had no other transport options. They would rather bicycle but could not do that due to invalidity and fear because of a near-accident. They also could not use a car because they did not learn how to drive as their husbands always used to drive the car.

Both men and women reported the same reasons for using their bicycle: it is considered an easy, fast way of transport, it is considered a nice way to be physically active and it is considered easier to park your bicycle than your car in the city centre.

To sum up, travel behaviour patterns were different for men and women, especially, for car use, walking, using public transport and taxi and being chauffeured. Also, the reasons for using different transport modes varied.

### 2.3.3 *Age differences*

Of the 32 respondents, 25 respondents had a valid driving license and 23 respondents had a car at their disposal. Three out of the seven persons without a valid driving license were 75+. And three out of nine respondents who had no car at their disposal are 75+. So in the proportion of 24 younger old respondents to 8 older old respondents in our sample, fewer 75+ respondents had a valid driving license and a car at their disposal than respondents aged 61 – 74.

Among younger old respondents using the car (18 x) and bicycle (18 x) were the most popular modes of transport, followed closely by walking (15) and using public transport (13 x). Somewhat less popular were using a taxi (8 x) and being chauffeured (6 x). Among older old respondents, walking (8 x) was the most popular mode of transport, followed closely by riding the bicycle (5 x), driving the car (5 x), using a taxi (4 x) and using public transport (2 x). So younger old respondents preferred using the car and bicycle while older old respondents depended mostly on walking to reach their destinations.

Both younger old respondents and older old respondents used the car to visit destinations that were not easily reachable by other transport modes and because it is considered a convenient way of transport.

Both younger old respondents and older old respondents walked to reach their destinations because they liked to walk and to be outside. Besides that, they mentioned that walking was an easy way to be physically active and stay healthy.

However, two older old female respondents reported that they walked because they had no other transport options. They would rather bicycle but could not do that anymore due to invalidity and fear because of a near-accident. They also could not use a car because they did not learn how to drive as their husbands always used to drive the car.

Both younger old respondents and older old respondents reported mainly the same reasons for using their bicycle: it is considered an easy, fast way of transport, it is considered a nice way to be physically active and it is considered easier to park your bicycle than your car in the city centre. However, one older old respondent mentioned that she used her bicycle because she did not like to drive a car anymore. She was afraid of the fast pace of traffic and her slow reactions to that.

The reasons for using public transport differed between younger old respondents and older old respondents. While younger old respondents often referred to the convenience of public transport use and the free rides, older old respondents emphasized that they used public transport because they did not want to drive their car in busy, crowded cities or outside their known region.

To sum up, travel behaviour patterns were different for younger old respondents and older old respondents, especially, for walking and using public transport. Also the reasons for using different transport modes varied.

## **2.4 Effects of transition to retirement on activity and travel patterns**

In this section, I will describe the effects of the transition to retirement on older persons daily activities and travel behaviour. As this group of older persons is heterogeneous, I will highlight regional, gender and age differences in impact on activity patterns and travel behaviour where relevant.

Before retirement, the respondents led very regular, almost monotonous, lives. Most respondents worked 40 hours per week, or even more. Most respondents had regular working hours, but some had irregular shifts. Besides their 40-hour work week, several respondents also worked (voluntarily or paid) during the evenings, weekends and holidays. After working hours, respondents that had a full time job (mainly men) went home or to play sports. Almost none of the respondents mentioned visiting friends or family on week-nights. Respondents that had a part time job (mainly women) visited friends on their days off, did housekeeping and ran errands. At home on week-nights, respondents were busy with housekeeping or watching TV. Due to their working schedules, appointments with friends and other trips had to be planned in advance. Working life also provided much contact with other people, at work as well as after work with colleagues.

The transition from working life to retirement had consequences for respondents activities in daily life. Many respondents, men as well as women, became a bit bored after retirement. Therefore many of them sought one or more voluntary jobs (e.g. committees) and new hobbies (e.g. setting up cooking club, sports, attending courses). Some respondents mentioned that now they are retired they do not go on holidays as much as during working life. An urban, younger old woman for example, says she has less money to spend since she became a pensioner. She is, therefore, not able to visit her sister in South Africa once a year. She regrets that.

Several respondents mentioned that social contacts with colleagues decreased as they do not see them regularly anymore. Starting to work in voluntary jobs led to new acquaintances for those respondents. Respondents also felt that activities, such as visiting friends and running errands, are no longer bound to certain time frames. A male respondent mentioned that since his retirement he feels free and unattached. He can run his errands whenever he likes and is no longer bound to the weekends for running errands. Another man said he also visits his friends and family more often on week-nights now instead of only during weekends in his working life.

Only a minority of the retired respondents, however, reported that changes have occurred in their travel behaviour patterns. Nine of the sixteen respondents claim that no changes have occurred. These respondents report that their retirement only resulted in them not traveling to work (and work-related destinations) anymore. Besides that, they continued using the same transport modes and visiting the same destinations as before their retirement.

Some of the respondents who reported a change in travel behaviour mentioned that they walked and cycled more often since their retirement because they have more spare time. They did not only walk and cycle to get to and from places, but also walked and cycled more for recreation and health. Other respondents who reported a change in travel behaviour stated that they used public transport more often. A woman (urban, younger old) for example, said that just after her retirement, she had sold her car because she had used the car mainly to travel to work. She found the car too expensive to keep. She then traveled more often by public transport, using a reduced-fare card. After a while, she started missing her car and therefore she bought a car once more to travel to destinations not easily reachable by public transport. A male respondent (urban, younger old) reported that he was given a scooter by his company when he retired from work. So instead of using his bicycle he uses his scooter more often. A woman stated that it is also easier to avoid traffic jams because she can travel when she wants. She is no longer strictly bound to working hours. Only one respondent mentions that he walks and cycles less often since he retired. After his retirement, he and his partner moved from a large city to a smaller town in a rural area. Therefore, he could not go by bicycle to visit his daughter anymore. He also mentioned that he walks less because of his bad knees. Overall, there seem to be no large regional, gender and age differences for the effects of retirement on travel behaviour patterns.

## **2.5 Effects of transition to one-person household on activity and travel patterns**

In this section, I will describe the effects of the transition to a one-person household on older persons daily activities and travel behaviour. As this group of older persons is heterogeneous, I will highlight regional, gender and age differences in impact on activity patterns and travel behaviour where relevant.

Before their partners died, most respondents undertook many activities together with their partners, such as walking, bicycle trips, going on holidays (in The Netherlands as well as abroad), weekend trips, city trips and visiting friends. Some respondents had to care for their ill partner at home for some time. They did not have much time to undertake other activities. Men as well as women felt very lonely just after their partners had died. They also did not make trips anymore on their own after their partner died (dining out, holidays, walking and cycling for recreation). Instead they have

involved themselves in voluntary work or social-recreational activities that they felt they could do without their partner, such as card games, bingo, elderly club, and gymnastics. Some women mention that no large changes in activities have occurred after their husbands passed away as they were already used to undertaking activities on their own next to their collective activities.

Compared to the transition to retirement, respondents report more changes in travel behaviour patterns after their partner passed away. Only two of the sixteen respondents say that no changes have occurred. These two respondents are male. So it seems that the transition from a two-person household to a one-person household has more effect on travel behaviour patterns of females than of males.

Men mainly report a change in cycling and walking for recreation since their partners have passed away. Some used to walk and cycle for recreation together and now that is not possible anymore. They do not like to walk or cycle alone. A rural older old man for example, says that when his wife still lived at home they used to walk and cycle a lot. After she went to live in a nursing home, he used to visit her there by car and drive her around for recreation. When she passed away he did not have to drive to the nursing home anymore. And he had no energy and liking for walking or cycling. After a while, however, his physical and mental well-being improved and he started walking and cycling again, but not as much as before. Another rural older old man mentioned, that he started walking more often after his partner died. He walks to the cemetery and continues with a walk through a nearby forest. However, he now cycles less. He and his wife used to cycle often for recreation. Frequently they drove by car and carried the bicycles with them to a nice spot. He does not do that anymore. An urban older old man mentions that he still uses the same transport mode (mainly car) since his partner died. He has, however, sold their folding trailer, as he does not like to go on vacation by himself.

Women mainly report a change in car use and public transport use since their partners have passed away. Women often used to be chauffeured by their husband, especially when they had no driving license themselves or on longer distances. A rural younger old woman for example, reports using the car less often since her husband died. Her husband used to drive when they visited the theater, movies, cafe or other cities. As her husband passed away, she does not make those trips anymore. She now drives the car herself, but she has fewer places to visit. An urban older old woman told that her husband used to drive the car on trips outside their own region (before his illness). Since her husband has passed away, she takes the train more often. She was already used to using public transport when she made visits on her own to, for example, the beach or the swimming pool. Another woman (urban, older old) also reports that she already got used to using public transport during her husband's illness. They had then decided to sell the car as she had no driving license. So after her husband passed away, her travel behaviour patterns did not change much. Another woman (urban, younger old) sold the car when her husband died, because she had no driving license. She now used her bicycle and public transport more often. Another urban, older old woman kept walking and cycling as she always did. But she replaced the trips by car (her husband used to drive) with trips by taxi/special transportation services.

So both men and women experience changes in travel behaviour patterns when their partners pass away. There are, however, some differences. While men walk and cycle

less for recreation and keep using the car, women have to (re)learn how to drive and use public transport more often.

### 3 Concluding remarks

The aim of this report is to describe the effects of the transitions to retirement and to a one-person household on daily activities and travel behaviour patterns of a heterogeneous group of older persons. Regional, gender and age differences regarding impact of transition points on activity patterns and travel behaviour were expected. This study found that especially the effects of the transition to a one-person household on daily activities and travel behaviour were experienced differently by men and women. While men walk and cycle less for recreation and keep using the car, women have to (re)learn how to drive and use public transport more often, after their partners die.

Changes in daily activities and travel behaviour patterns seem smaller for the transition to retirement. Most respondents reported that their retirement only resulted in them not travelling to work (and work-related destinations) anymore. Besides that, they continued using the same transport modes and visiting the same destinations as before their retirement. In general, after the transition to retirement, respondents walk and cycle more for transportation as well as for recreation due to more spare time. The results of this in-depth study will form the basis for development of different scenarios that take into account the demographic changes (i.e. ageing, changes in composition, and changes in population size) and the effects of specific transition points in older persons' lives, namely retirement and becoming a widow(er). The outcomes of these scenarios will provide the basis for recommendations for politicians on how to achieve sustainable improvement in mobility for elderly people.

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## 5 Signature

Soesterberg, January 2010



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