Mobility of disabled people and its evolution in France

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Description of the studied topic:

The two last French national travel surveys (e.g. in 1993 and 2007) point out an interesting fact: while 8% of the population had difficulty while travelling in 1993, this proportion has risen to 9% in 2007, which represents a further 700,000 people having difficulty for their daily mobility.

With regard to the political contexts and the efforts to promote accessibility, this fact is at first sight surprising. Since the end of the eighties, France has constantly been reminded her backwardness in accessibility and has tried to improve it. For instance, in 1989, a policy for the access of people with a disability to common transport was established and in 1991 a law for their accessibility is promulgated. Ten years later, in 2000, another policy is established for people with a disability to reach ordinary places of life. More recently in February 2005 France passed a law to promote accessibility, with the objective of making every places and building accessible to anybody. These actions of the Government, the associations and transport companies have simultaneously evolved together for a better accessibility of the whole population and particularly of disabled people and we can point out now that, in spite of these measures, people having difficulties while travelling have increased; while mobility which used to be considered as a “social victory” is now viewed as a “pressing necessity” (Orfeuil, 2006).
In the paper we firstly address the factors of this increase of people having difficulty while travelling in France. Hence we try to understand how the structure of population has influenced the rate of people having difficulty while travelling: Why has there been such an increase? Has the perception of “difficulty while travelling” evolved? What are the explicative parts of generational, age and period effects on disability (V. Dejoux et al., 2009)? Secondly what are the health factors of the difficulties in travelling?

Theoretical focus

This study fits into the ageing of population and mobility schemes – both linked with disability. The considered definition of disability encompasses the health and environment of the persons: “Disability refers to the negative aspects of the interaction between individuals with a health condition and personal and environmental factors (such as negative attitudes, inaccessible transportation and public buildings, and limited social supports)” (WHO, 2011).

Difficulty while travelling synthesizes situation of disability (Hauet & Ravaud, 2002; Dejoux, 2010) and indicates how much difficulty people have in their environment in order to realize outside activities. Nevertheless, this question asked in the national travel surveys and health surveys (which may roughly differ according to the survey): “Do you have physical difficulty or are you limited in your mobility outside your home?” is subjective and describes the feeling of the individual.

The issue of difficulty while travelling cannot be tackled without knowing the structure of the population. For example, in the United States the generation of baby boomers is expected to keep on being mobile in the future and adapt their mode of transport and create new demands (Coughlin, 2009). In France we also expect generational effects of mobility (Dejoux et al., 2009), but we have not identified the generational effects on difficulty while travelling yet.

The older people are, the more they feel difficulty while travelling (Hauet & Ravaud, 2002). Today, men and women aged 50 will live 60% of their life without activity limitations. The disability-free life expectancy had tended to decrease in the 90’s while it has stagnated since the 21st century in France as people live longer with functional limitations (Sieurin, Cambois & Robine, 2011). But inequalities remain: firstly there are differences between sexes, secondly according to socio-demographic characteristics (Cambois, Laborde, Robine, 2008). According to these results, life expectancy free of difficulty while travelling should have decreased since 1993.

Data and research methods

Three sources of data are used in this paper: On the first hand the national transport surveys of 1993-94 and 2007 to compare the evolution of difficulty while travelling over the
last two decades; on the other hand we use the national survey on impairment, disabilities and dependence.

The two last French National Travel Survey (FNTS) are run by the French national Institute of Statistics and Economics Studies with the scientific supervision of the French Research Institute for Transport and their Safety (Now Ifsttar - The French institute of science and technology for transport, development and networks). In 1993, about 14200 respondent households participated in the survey and in 2007 this figures was about 20000 the main objectives of these surveys are to study the spatial mobility of households living in France and their mode of transport.

The other survey HID (Impairment, disabilities and Dependence), with a sample of about 16000 respondents individuals, that main aim is to quantify disability in France and collected in 1999 includes the following question: “Have you difficulties linked to a disability or a health problem in your travels outside your home?” , it allows to widen our perspective since we not only analyze a person’s mobility behaviors but their health too. In a second part, the criteria of disability and the reasons for people having these difficulties are studied according to variables such as impairments and disabilities etc.

We try to explain the difficulty while travelling which has 4 classes:

- Yes, I have difficulties while travelling but I can travel alone whatever the itinerary is.
- Yes, I have difficulties while travelling and I can travel alone only on a few itineraries.
- Yes, I have difficulties while travelling and I cannot travel alone.
- No, I am not limited in travelling.

Life expectancy free of difficulty while travelling are calculated with mortality tables of the French national Institute of Statistics and Economics Studies with difficulty while travelling rates of the surveys by using Sullivan’s method (Sullivan, 1971).

For the model, we use socio-demographic variables such as gender, age, professional activity, zone of residence, number of persons in the household, number of vehicles in the household and the highest diploma in both FNTS surveys. We hence use a logistic regression to estimate difficulty people feel while travelling.
Expected findings

Difficulty while travelling is highly influenced by the structure of the population: in 2060, one third of French population will be aged 65 and over (Blanpain and Chardon, 2010). The part of people aged 65 and over is 14% in 1993 against 16% in 2007. Difficulty while travelling is highly correlated with age: that is the main reason for the increase of the part of population with difficulty while travelling.

Figure 1: Age-pyramid and difficulty while travelling, in France (1993, 2007):


Furthermore, from 1993 to 2007, not only the social environment but the perception of disability has also changed, from a physical impairment view to a more generalized concept of disability including any kind of impairment: it widens the reasons of difficulties in travelling. Indeed, according to the surveys on transport, there are more people who have difficulties while travelling in 2007 than in 1993. Nevertheless this fact is not true for every age band: the part of people with difficulties while travelling among people aged 75 and over is lower in 2007 than in 1993. Life expectancy free of difficulty in travelling at 65 is 12 years in 1993 and 13.5 in 2007. Since 1993, better health conditions have permitted to live longer without difficulty while travelling.

The factors of disability while travelling are summed up in three effects: age, generational and period. After isolating each effect, and in a given structure of population, how age is linked to health condition? And what are the explicative impairments of difficulties while travelling? A logistic regression of the difficulty in travelling on deficiencies (explicative variables are: motor, visual, hearing, language, visceral, cognitive and other impairments) indicates how much an impairment influences difficulty while travelling. Whatever the group of impairment is, a person with impairment (other than language) has
more chance of having difficulty while travelling. An individual with a motor impairment is 5 more likely to feel difficulty while travelling; those with cognitive impairment are 1.8 more likely.

From this study, it results that age is the main socio-demographic factor of difficulties while travelling - which may hide, with ageing of the population, a better accessibility in France than it used to be. Age is highly linked to these difficulties while travelling by health condition. If previous older generations were having more difficulties to travel, today’s older generations are less limited which is a sign of better health on the one hand and better accessibility on the other.

References