### Title:
The interface of Transport and Health Engineering for the understanding of Brazilian urban mobility from the perspective of the elderly person

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- seniors
- equity
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- urban mobility
- social inclusion

### Background:

From the middle of the 20th century, Brazil began to experience a new social geography due to the migratory flow, causing people to seek the transition from rural zone to urban. As a result of this migratory movement, a marked urbanization process was observed, often in a disorderly way, and also demanded the expansion of the transports supply. Depending on the mobility model, inequities can be intensified considering the value of tariffs or when there is a restriction of the supply of transportation in peripheral areas. The challenges of mobility are still accentuated by insufficient investment or poor public management. Other factors that impact mobility are the demographic transition and the morbidity and mortality profile. In Brazil, public transportation is free of charge to those over 65, but it is emphasized that the transportation is basically funded by the paying passenger and the with gratuitous the expense ends up having a tariff impact inflating the value of the tickets. Although it is the result of social conquest, gratuitousness is a challenge for managers. It stands out the close relationship between urban mobility and social development and, considering public transport and its supply as social goods, recruits the theory of the spheres of justice, perceiving justice as the creation of a political community in a given understanding an egalitarian society oriented by an egalitarianism linked to freedom in which no good can serve as a domination. Based on the assumption that people have differentiated needs and expectations regarding mobility and that transport is a basic condition for access to services, it is inferred that the theme needs to be approached in the light of citizenship, equity, social inclusion and life.

### Aim:

To argue as to the need to carry out studies that deal with urban mobility from the interface of Transport and Health Engineering, including the right to the city, road safety, transport behavior, traffic epidemiology and life cycle.

### Method or methodological issues:

Theoretical study using as a method the review of the literature and, additionally, the reference chain technique extensive to scientific articles having as inclusion criteria articles from the areas of Transport Engineering and Health (Gerontology), institutional documents and normative letters. For the treatment of the findings, the content analysis was used.

### Results obtained or expected:

There are several ways of perceiving and experiencing old age. From the point of view of legislation, reading is chronological, however, when taking into account subjective variables, it is not an easy task to demarcate when the age-old phase begins in the life cycle. There is also the distinction between senescence and senility. The first is a sequential, cumulative and non-pathological process and occurs for all; the second is related to the aging marked by physical decline and mental disorganization.

The aging process is sensitive to social determinants. Considering the intersection between Transport Engineering and Health, urban mobility and traffic are perceived as social determinants impacting on
access to services, possibilities for social interaction, belonging to the city and epidemiology inherent to the elderly segment

It is important to point out that technological advances in the daily life of the elderly, considering the characteristics of the age group, can create barriers in their interaction with the urban space, in this way the knowledge of the physiological and cognitive components inherent to the elderly population can contribute to the decisions regarding the urban setting.

Considering the transit, the high prevalence of the elderly population in the accident outcomes stands out. Even if death is not verified, an elderly victim who survives an accident is temporarily or permanently disabled, so it is important to create protective measures aimed at this segment, especially in the case of pedestrians.

Conclusions:

When addressing the theme of urban mobility from the perspective of the elderly, it is necessary to consider the specificities of this population. Studies that establish the interface between Transport Engineering and Health can favor the understanding of this universe, its demands and challenges in the attempt to mitigate them. It is intended, in addition to this study, the application of surveys with the reference population in order to obtain more robust results in addition to the theoretical appraisal.