Abstract

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Modelling the Effect of Health Indicators on Commute Mode Choice: a cross-sectional study in southern Sweden.

The impact of commuting on the environment and health depends on the mode of travel that is used. Little is known about how health is associated with mode choice among commuters. We investigated associations between health and commuting mode choice using population-based public health questionnaire data collected from 7,574 commuters in southern Sweden in 2012, integrated with register data on residential and work place location, information on transportation networks, and other spatial data. Discrete Multinomial Logit (MNL) models were used to study the relationship between health indicators (everyday stress, vitality, long term illness, walking difficulties, and body mass index) and commuting mode (car, active transportation, and public transit). Along with the health indicators, the models included conventional mode choice indicators such as socio-demographic attributes, commuting characteristics, and spatial variables. Everyday stress, obesity, and difficulty walking were associated with mode choice, as were most of the conventional indicators. Understanding the relationship between health and mode choice in commuting can help decision-makers develop more efficient interventions aiming at making car commuters switch to more environmentally friendly modes such as active transportation and public transit.