Estimating transition rates for multistate models from panel data and repeated cross-sections

Ogurtsova, Ekaterina

Stellingen behorende by het proefschfit

Estimating Transition Rates for Multistate Models from Panel Data and Repeated Cross-Sections

Ekaterina Ogurtsova

1. Microsimulation is used in this dissertation for evaluating accuracy of different multistate model parameters estimation methods. This tool possesses all necessary characteristics to substitute conventional population projection methods in demography and epidemiology.

2. Difference between panel observations and Interval censored observations is considered in this dissertation. Assumptions about nonlethal events that occurred between panel observations but were not directly observed, should be avoided.

3. In this dissertation, the Markov model is used to describe disability dynamics at advanced ages. Semi-Markov models should be used instead because the duration of disability is an important determinant of recovery.

4. Using covariates in multistate analysis, as was done in this dissertation, allows a more detailed description of associations in the life-course.

5. Diabetes, type 2, is a growing problem worldwide. Epidemiological studies on causes and risk factors of diabetes should define the disease as a continuous variable that is based on glucose blood tests, rather than discrete or even binary variables.

6. 'Crowdsourcing' statistical software, as R-project, strengthens and broadens interdisciplinary collaboration and knowledge sharing.

7. The common metaphor that views human memory as a vast library storing volumes of information is wrong. The human memory is more like a compost heap in a constant state of reorganization. (The idea is published in the book: Bruce Hood. "The Self Illusion: How the Social Brain Creates Identity", Oxford University Press, 2012)