

What comprises effective formal elder care at home? Estimating effects for combinations of multiple services

Shinya Sugawara
Tokyo University of Science

Abstract

I estimate effects of multiple services in formal elder care at home on health status. As a reasonable substitute to expensive institutional care, formal care for elders at their own home is obtaining popularity in developed countries. Because care at home consists of many small and complement services, it is required to analyze effects for combination of services, but high-dimensionality of combinations yields difficulty in estimation. This research employs regression analysis which introduces combination of care services as cross-dummy explanatory variables. To reduce the dimension of combinations, I detect combinations which are jointly purchased by a sufficient number of elders using basket analysis. I apply this method to claims data for Japanese long-term care, where establishment of the social insurance program caused emergence of markets for many care services for elders at home. My empirical analysis finds that from 14 care services at home in Japan, only 200 combinations are actually utilized by more than 0.05% of insurance users. Among these combinations, joint utilization of long-term and medical care at home considerably improve health status of elders. This result implies importance of corporation between long-term and medical care sectors to provider efficient formal care for elders at home.