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The causal effects of home health care on hospital readmissions, emergency visits and survival among the elderly patients

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ABSTRACT

The pressures of population ageing stimulate policy-makers to look for cost-effective opportunities that would go in hand with greater efficiency, quality and better outcomes.

In this study, we analyze the efficiency of home health care services in reducing mortality, readmissions, and emergency visits during 365 days after the hospital discharge among the Latvian elderly patients aged 60 and above. This is the first comprehensive study on utility of home health care in the post-transition context.

The individual-level data used in this study have been collected specifically for the purposes of this project from various Latvian administrative data sources, including registers of the National Health Service, the Centre for Disease Prevention and Control, Oncology Register, Psychiatry Register, etc. The obtained data sets cover the observation period from 2014 to 2018.

In our study, we verify three broad hypotheses: home health care reduces the probability of readmissions and emergency visits during 365 days after the hospital discharge and increases survival among the discharged patients. These hypotheses are tested within the entire group of elderly patients, as well in specific subgroups, including oncology patients, patients with cardiovascular diseases, etc.

Patients who received home health care services are matched with the control patients discharged with "self-care" applying propensity score matching method. Regressions used to adjust for the observed patient characteristics include a wide set of control variables, including various characteristics of inpatient and outpatient care received, implemented manipulations, patient's diagnoses, demographic characteristics, etc.

The obtained results propose that home health care after the discharge significantly reduces the probability of hospital readmission and death, however, the magnitude of these effects differs substantially between various patient groups. The obtained results are of particular importance for the development of the efficient health care models and value-based care plans.

BIOGRAPHY

Irina Mozhaeva is a researcher at the University of Latvia. She holds a PhD in Economics (subfield – Econometrics) from the University of Latvia. Her research and publications focus on long-term care, health economics, social policies, labour market issues etc. She is an administrative data specialist and during the last decade has worked extensively with the Latvian and Estonian (individual level) administrative data, including health care data, social insurance, social assistance data, etc. As an expert she has participated in numerous World Bank and OECD research projects in Latvia and Estonia, e.g. "Estonia: Long-Term Care", "Latvia: Active Ageing", "Developing a Health System Strategy for Priority Disease Areas in Latvia", "Connecting People with Jobs", "Investing in Youth: Latvia", "Latvia: Who is Unemployed, Inactive or Needy? An Assessment of Post-Crisis Policy Options", as well as in other national level projects, including "Assessment for Elaboration of the Public Health Strategy 2014-2020" (commissioned by the Ministry of Health).

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