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Title of thesis The Effect of COVID-19 on Health Outcomes in Developing Countries – an Empirical Study from India

Degree Master of Science in Economics and Business Administration

Degree programme Economics

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Year of approval 2023**Number of pages** 60+5**Language** English

Abstract

The detailed effects of the COVID-19 pandemic on e.g., global poverty is not yet fully known. However, it seems obvious that there have been effects, and that the strength of the effects may also vary depending on the countries' demographic structure and level of economic development. This work examines health, which is not only significantly related to poverty, but also an important background factor for economic growth and development. The research question is whether there have been changes on health outcomes in developing countries during the COVID-19 pandemic. The focus is on the indirect effects operating through economic channels, which are examined separately from the direct health effects of infected people. The thesis is carried out with the help of fifth Demographic and Health Survey (DHS) of India. In addition, the work makes use of the full lockdowns that unexpectedly and unpredictably stopped data collection for six months in March 2020.

The thesis briefly reviews the literature related to health and economic development. Thereafter, 14 different health outcomes are selected for more detailed research. These outcomes that have been shown to be associated with later economic development are related to immunization levels, nutrition, exposure to domestic violence, alcohol usage and smoking level.

In the empirical part, probit and OLS models are built to investigate potential changes in selected health outcomes during the first wave of COVID-19 pandemic. In addition to the time of the interview, household wealth is also used as a variable of interest. Data balance and model robustness are addressed separately. In addition, a detailed analysis of vaccination- and nutrition outcomes of children is performed, using the guidelines and indicators set by WHO. To account for possible long-term trends, the results are compared to figures from previous DHS surveys. Finally, the Oxford COVID-19 Government Response Tracker (OxCGRT) dataset is used to examine possible differences that may have been due to differences in adopted policy responses by states.

The results seem to be twofold. Improving development in immunization coverage in recent years seems to have stalled in India. The long-term downward trend in the proportion of underweight children in low-wealth households also seems to have stopped. In addition, nutritional indicators seem to have worsened, especially among breastfed children. On the other hand, the proportion of anaemic children and adults appears to have decreased significantly. In addition, the results related to men's smoking and alcohol use and women's experience of domestic violence have improved significantly.

The results indicate that the sudden and complete lockdowns imposed by India in March-May 2020 may have indirectly affected health outcomes.

Keywords Development economics, health, COVID-19, economic development, nutrition, vaccinations, India, policy implications
