The effects of New Cooperative Medicine Scheme coverage on health outcomes and health care in rural China

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Introduction

Who:
Rural population in China.
What:
Health insurance program: the New Cooperative Medicine Scheme (NCMS).
Why:
To estimate the effects of NCMS on health outcomes and health care.

Data

Source:
Sample:
Rural residents 10-65 years old
Treated Group:
three counties of participants of the NCMS during 2004-2006
Two Control Groups:
(1) Non-participant Group
Consisting of individuals residing in the counties covered by the NCMS but not choosing to participate
(2) Non-exposed Group
Consisting of individuals not residing in the counties covered by the NCMS and thus didn’t have the chance to participate

Methods: Triple Difference Model

Table 1: Effects on Health Care Outcomes by Income group

<table>
<thead>
<tr>
<th>Income Group</th>
<th>Treated Group (cf. Non-exposed Group)</th>
<th>Treated Group (cf. Non-participant Group)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Income</td>
<td>(0.33) (0.30)</td>
<td>(0.33) (0.30)</td>
</tr>
<tr>
<td>Middle &amp; High Income</td>
<td>(0.33) (0.30)</td>
<td>(0.33) (0.30)</td>
</tr>
</tbody>
</table>

Methods Merit:
It allows for heteroscedasticity (i.e., unequal/diagrammatic nature).
It can release the parallel trend assumption in difference-in-difference method.
It does not require exclusion restrictions nor does it need assumptions on functional form.
It can be combined with the regression method for controlling unobservable variables.

Results

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The NCMS does have a significant effect on reducing the price of health care services.

The NCMS significantly reduces the health care expenses of the low/middle income group patients.

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Conclusion

After controlling for the effects of unobservable variables in the triple difference model, the effects on health outcomes and health care expenses of the NCMS are found to be different from the previous estimates using the DID method or simply using the regression method.

The NCMS can:
- increase the supply of health care services (via reducing distance to a facility and waiting time inside the facility);
- reduce health care expenses of the low/middle income rural residents.

However, the study finds that the NCMS:
- has no effect on participants’ self-assessment of feeling healthy;
- has no effect of increasing the price of health care services.

Limitation of the Study

The data were collected only up to 2006, at which point the NCMS had only been implemented for a short period of time. More comprehensive results may be obtained if the data can be extended to reflect more recent development and usage of the program.

Reference


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