Preschool and Child Health: Evidence from China’s Subsidized Child Care Program
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Abstract
Using a quasi-experiment of the first universal child care program in China from 2010, this paper aims to identify whether preschool attendance together with nutrition and health services at school produces any short-term effects on health-related outcomes of preschoolers.

- The program is effective in promoting preschool attendance and reducing underweight.
- The program has encouraged caregivers of preschoolers to refer kids to a doctor when kids get sick, instead of finding medicines by themselves.

Background
- China’s enrollment rate in pre-primary education was only 50.9% in 2009 due to insufficient supply of facilities and cost barriers.
- “Preschool” refers to all center-based early childhood education programs for kids ages between 3 and 6 in China.
- Three common practices of local government: increase the accessibility, affordability, and accountability of preschools.

Effects on preschool attendance
Outcome: Have you ever attended preschool?
Methodology: Difference-in-differences (DID)
- Difference 1: high intensity provinces vs low intensity provinces (the program intensity is defined as the provincial number of newly established preschools per 1,000 children)
- Difference 2: young cohort (age below 6 in 2010) vs old cohort (age 9-13 in 2010)
Result: Significant positive effects on preschool attendance rates that result from providing access to affordable preschool education.

Effects on health-related outcomes
Outcome: Health-related outcomes in each year for kids aged 1-6
Methodology: Triple-difference (DDD)

Y_{ist} = \alpha_{i} + \alpha_{t} \text{Post} + \alpha_{s} \text{High} + \alpha_{ist} \{ \text{Post} \times \text{High} \} + \alpha_{i} \{ \text{Presch} \times \text{High} \} + \alpha_{st} \{ \text{Presch} \} + \gamma \text{Post} + \epsilon_{ist}

<table>
<thead>
<tr>
<th>Year Dummy*Pre-reform Enrollment</th>
<th>Household Controls</th>
<th>Demographic Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post<em>High intensity</em>Preschooler</td>
<td>Underweight</td>
<td>Overweight</td>
</tr>
<tr>
<td>(0.022)</td>
<td>(0.035)</td>
<td>(0.037)</td>
</tr>
<tr>
<td>Year Dummy*Pre-reform Enrollment</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Household Controls</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Demographic Controls</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.028</td>
<td>0.044</td>
</tr>
<tr>
<td>N</td>
<td>17220</td>
<td>17220</td>
</tr>
<tr>
<td>Mean of dep. variable (aged 3-6)</td>
<td>0.128</td>
<td>0.117</td>
</tr>
</tbody>
</table>

Main Takeaways
- Nutritional meals and healthy eating habits in school
- Common interactions between caregivers and health physicians on campus
- Potential impact on kid’s probability of getting sick
- Potential impact on caregiver’s labor supply and income

Mechanisms
- Find a sizeable impact of the first universal child care program in China on preschool attendance rate.
- Preschool attendance together with nutrition and health services at school reduces the prevalence of underweight.
- Underweight alleviation mainly comes from kids living in rural areas.
- The program has encouraged caregivers of preschoolers to refer kids to a doctor when kids get sick, instead of finding medicines by themselves.

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