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Can health-insurance help prevent child labor? An impact evaluation from Pakistan☆

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ABSTRACT

Child labor is a common consequence of economic shocks in developing countries. We show that reducing vulnerability can affect child labor outcomes. We exploit the extension of a health and accident insurance scheme by a Pakistani microfinance institution that was set up as a randomized controlled trial and accompanied by household panel surveys. Together with increased coverage the microfinance institution offered assistance with claim procedures in treatment branches. We find lower incidence of child labor, hazardous occupations and child labor earnings caused by the innovation. Boys are more often engaged in child labor in our sample, but also seem to profit more from the insurance innovation.

1. Introduction

Poor households in developing countries are especially vulnerable to economic shocks. As a consequence of adverse events such as accidents, they might have to sell productive assets, reduce consumption below critical values, take children out of school to save school fees, or send children to work as an additional income source. The economic literature on child labor (see Edmonds, 2008 for an excellent review) confirms that economic shocks are an important determinant of child labor for low-income households (e.g. Beegle et al., 2006; Dillon, 2013; Duryea et al., 2007). Insurance, on the other hand, is supposed to decrease vulnerability to shocks by smoothing its financial consequences. In this paper we estimate the effects of extending the availability of a health insurance product in Pakistan to additional household members on child labor.

The policy relevance of analyzing this research question is straightforward. Child labor is the focus of development initiatives around the world. Many studies show substantial negative effects of child labor, such as lower human capital accumulation (e.g. Heady, 2003; Rosati and Rossi, 2003; Gunnarsson et al., 2006), lower wages in adult life (Emerson and Souza, 2011) and potentially even negative long-term health outcomes (Kassouf et al., 2001). Evidence on an innovative potential tool in combating child labor therefore should be of substantial interest. Surprisingly, there exists little rigorous research on the effect of microinsurance on child labor so far.[1]

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[1] To the best of our knowledge, there is only one working paper comparing individuals without microcredit, microcredit clients and microcredit clients who

This paper analyzes the extension of an accident and health insurance scheme offered by the National Rural Support Program (NRSP), a large microfinance institution in Pakistan. It is a mandatory insurance for all clients, their spouses and their children below 18 years. In 2009, the program was extended to include supplementary household members (adult children of the client and other household members) on a voluntary basis. In addition, clients were assisted with claim procedures. This package of two innovations was implemented as a randomized controlled trial (RCT) in nine out of thirteen branch offices in urban Hyderabad.

We find robust evidence for less child labor as a result of the innovation package. There is strong evidence for households to rely less on child labor earnings and to reduce hazardous occupations. Effects tend to be larger for boys, which is not surprising as they are more affected by child labor in our sample. In supplementary analyses we find suggestive evidence that the dominant effect might be coming through the extension of insurance.

Two caveats should be pointed out: First, the study covers only 13 branches, which were randomly assigned to treatment and control. While a larger sample size was not possible for this pilot intervention due to operational constraints, a much larger number of branches would be preferable in further studies in order to obtain more precise estimates. We thus rely on a low-powered RCT. Yet, at least the availability of baseline data permits us to assess baseline balance. Second, household data was collected by staff members of the microfinance institution. Although the institution placed great emphasis on ensuring neutral data collection, one might still be concerned that knowledge about the treatment status might have influenced (unconsciously) the household surveying and data collection approach by the interviewers.

2. The health insurance innovation and its background

Pakistan is a poor country: 22.3% of the population live below the poverty line of 1.25 US$ per day and another 20.5% are classified as vulnerable (World Bank, 2012, p. 19). According to the Pakistan Ministry of Health (2009, p. 6) public health expenditures are about 0.6% of GDP which is much lower than in comparable countries, and 75% of health expenditures are paid by patients out of pocket. The quality of health service providers corresponds to this low level of public spending. While some companies and insurers have contracts with hospitals or run their own hospitals (with varying quality), the options for the poor are limited. There are public health facilities that are supposed to be for free, but they often offer poor quality and many elements such as drugs must be paid privately as they are not covered.[2] The Pakistan Ministry of Health (2009, pp. 5–6) describes the situation for low-income households as follows:

> *"Poor are not benefiting from the health system whereas they bear major burden of diseases. Expanded infrastructure is poorly located, inadequately equipped and maintained resulting in inadequate coverage and access to essential basic services. Private health sector continues to expand unregulated mainly in urban areas. Factors contributing to inadequate performance of health sector are deep rooted including weak management and governance, partially functional logistics and supply systems; poorly motivated and inadequately compensated staff, lack of adequate supportive supervision, lack of evidence based planning and decision making, low levels of public sector expenditures and its inequitable distribution."*

Due to the limited capacity and availability of public providers, patients in some situations are forced to seek expensive private medical care. This makes health shocks a substantial economic risk for poor households. Consequently, illness and health are ranked as the top priority by potential microinsurance clients when it comes to unpredictable risk events in Pakistan (World Bank, 2012, p. 28). Moreover, in this country with a majority of informal employment contracts there is no universal health insurance system. Instead, several arrangements coexist at a time. Social security (for police officers, soldiers, civil servants, etc.) only covers a tiny part of the population.[3] There are various alternative health insurance schemes on the provincial level or offered by a multitude of private insurers; however, they are often packaged with other insurance, restricted to formal sector corporate clients and have no national outreach (World Bank, 2012, p. 11). In any case, only 1.9% of households are estimated to use any kind of formal insurance product (World Bank, 2012, p. 21), and the most vulnerable households are generally not the target group. Only microfinance institutions currently provide insurance for the low-income population, but here mainly schemes combining credit with life insurance are prevalent. According to the World Bank (2012, p. 50), only NRSP is offering health microinsurance with significant outreach.

NRSP is a Pakistani non-profit organization committed to support poor and vulnerable households all over the country. It is part of the Rural Support Programs Network consisting of 12 rural support programs that are all active in distinct regions of Pakistan. NRSP is the largest of these support programs and serves more than two million households by offering different microfinance services (mainly credit) and client training.[4]

2.1. NRSP's microinsurance innovation

Given the need to cover health shocks of poor households, NRSP in 2005 started to bundle health insurance to their microcredit product. Before the start of the research project, the insurance was built into the credit and was mandatory for loan clients, for their spouses and all children of the client below 18 years.[5] The product covers hospital stays of more than 24 h with a cost ceiling of 15,000 rupees (approximately 175 US$). Covered expenses range from room charges, doctor's visits, drugs, operations, and pregnancy care to transportation costs. Also accidents leading to death or permanent disability are covered up to 15,000 rupees. Costs of hospitalization are reimbursed after contacting the MFI field officer and submitting bills along with other relevant documents. Similarly, claims after death or disability can be submitted to the MFI field officer. NRSP aims at settling all claims within 15 days.[6]

are covered by additional insurance with respect to their child labor outcomes (Chakrabarty, 2012). Most research focused on impacts of insurance on access to medical services, e.g. Wagstaff (2010), Wagstaff et al. (2009), Dror et al. (2006), Dekker and Wilms (2010), Jütting (2004). Some other work has been done on agricultural investment decisions with insurance (Giné and Yang, 2009) and crowding out effects on informal risk-sharing (Landmann et al., 2012).

[2] This information was gathered through multiple country-specific reports (Asian Development Bank, 2004; Asian Development Bank, 2005; Qamar et al., 2007). They describe the status of the Pakistani health system prior to the innovation that took place in 2009.

[3] Asian Development Bank (2005, p. 2) estimates that ". . .less than 3% of the total employed labor force" are covered under this formal scheme.

[4] See Rural Support Programmes Network (2012) for more detailed information.

[5] The insurance product gradually changed over time. It initially covered loan clients and their spouses and was expanded in 2009 (i.e. before the baseline data used in this paper was collected) to include minor children. Also other details changed, but the basic design is what we describe in the following. For a detailed description of early product characteristics and developments we refer to Qamar et al. (2007).

[6] The appendix provides a more detailed description of the insurance package and reimbursement practices.