Social Science & Medicine 96 (2013) 264–271

Contents lists available at SciVerse ScienceDirect

Social Science & Medicine

journal homepage: www.elsevier.com/locate/socscimed

Social health insurance for the poor: Targeting and impact of Indonesia's *Askeskin* programme

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ARTICLE INFO

Article history:
Available online 16 October 2012

Keywords:
Indonesia
Social health insurance
Health care utilization
Out-of-pocket health payments
Impact evaluation

ABSTRACT

A first step towards meeting Indonesia's ambition for universal health insurance was made in 2005 with the introduction of the *Askeskin* programme, a subsidized social health insurance targeted to the informal sector and the poor. This paper investigates targeting and impact of the *Askeskin* programme using panel data for 8582 households observed in 2005 and 2006, and applying difference-in-differences estimation in combination with propensity score matching. We find that the programme is indeed targeted to the poor and those most vulnerable to catastrophic out-of-pocket health payments. Social health insurance improves access to health care in that it increases utilization of outpatient among the poor, while out-of-pocket spending seems to have increased for *Askeskin* insured in urban areas.

Introduction

A first step towards meeting Indonesia's ambition for universal health insurance was made with comprehensive public health sector reforms in 2005, as social health insurance was expanded to the informal sector and the poor. This nationwide social health insurance for the poor (*Asuransi Kesehatan untuk Keluarga Miskin – Askeskin*) intended to complement social health insurance schemes for public and formal private sector employees. But whereas the formal sector schemes are based on mandatory earnings-related contributions, the premiums for *Askeskin* were fully subsidized by a government health fund. Under the programme, households receive comprehensive insurance coverage for public health care, including inpatient and outpatient services.

Although the public health sector had been heavily subsided, with targeted price subsidies to the poor since the economic crisis of 1998 (e.g. Pradhan, Saadah, & Sparrow, 2007), health care utilization and public spending in Indonesia falls behind its South-East Asian neighbours, while inequality in health care utilization in the country is relatively high (O'Donnell et al., 2007). This inequality is of particular concern in light of Indonesia's adoption of fiscal and (partly) political decentralisation in 2001, under which regime public service delivery is now largely dominated by district administrations. As a result, large variation in district public revenue implies larger variation in public spending (Kruse, Pradhan, & Sparrow, 2012).

The combination of low utilization rates and high inequality may explain the observed patterns in private health spending. Out-of-pocket (OOP) health payments are relatively low compared to other Asian countries, as they account for 1.83 percent of total household spending on average. However, this apparent low propensity to spend is accompanied by a high variation across the population, with the non-poor allocating a larger share of their budget on OOP spending (Van Doorslaer et al., 2007).

The key objective of *Askeskin* was to improve access to health care and provide financial protection to health shocks and illness for poor households that lack access to formal insurance. With limited insurance coverage, the cost of required health care can have implications for both transient poverty and long term poverty traps if households are resource and credit constrained. For example, if health payments are financed out of current income, but smoothing is imperfect, this may lead to increased transient poverty. On the other hand, if OOP payments cannot be completely financed through current income, households may resort to traditional coping strategies, such as depletion of assets and buffer stocks, or utilize social networks and incur debt (e.g. De Weerdt & Dercon, 2006; Flores, Krishnakumar, O'Donnel, & Van Doorslaer, 2008). Such strategies can have long term negative effects for

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http://dx.doi.org/10.1016/j.socscimed.2012.09.043

income generating capacity and ability to cope with future shocks. A third possibility would be to forgo treatment altogether, which may have long term consequences through reduced health and depreciation of human capital. Previous studies for Indonesia have indeed shown that with limited access to credit markets, households employ alternative coping mechanisms (Sumarto, Suryahadi, & Bazzi, 2008). However, while small idiosyncratic shocks seem insurable, full insurance is often not feasible (Sumarto, Suryahadi, & Widyanti, 2005). Moreover, when faced with covariate shocks and chronic illness, coping mechanisms are ineffective and informal insurance fails (e.g. Gertler & Gruber, 2002).

In general, the empirical literature suggests that health insurance can be effective in increasing utilization and reducing OOP health spending, although the evidence is sometimes mixed. For example, Wagstaff and Pradhan (2006) find that the introduction of social health insurance in Vietnam during the 1990s has decreased OOP and catastrophic health spending, while increasing utilization and improving health outcomes. They argue that by reducing financial risk, households had to rely less on coping mechanisms such as savings. On the other hand, Wagstaff (2010) finds no impact of Vietnam's recent health care fund for the poor on utilization, although it does seem to have reduced OOP health spending. For rural China, Wagstaff, Lindelow, Jun, Ling, and Juncheng (2009) find positive effects of a voluntary health insurance scheme on the use of health services between 2003 and 2005, but find no effect on OOP. Moreover, Wagstaff and Lindelow (2008) show that in urban China health insurance has in fact increased OOP and catastrophic payments, which they attribute to a combination of increased utilization and behavioural responses by health care providers. Studies in Latin America find evidence of decreased OOP health payments and catastrophic health care spending in Mexico due to the *Seguro Popular* health insurance for the poor (Galárraga, Sosa-Rubí, Salinas, & Sesma, 2008), and increased health care utilization in Colombia due to subsidized health insurance for the poor (Giedion, 2007; Trujillo, Portillo, & Vernon, 2005) and mandatory contributory based health insurance for the non-poor (Giedion, Alfonso, & Díaz, 2007). For Indonesia, Hidayat, Thabrany, Dong, and Sauerborn (2004) find a positive effect of mandatory formal sector health insurance on utilization of outpatient care in the 1990s. Pradhan et al. (2007) find that targeted user fee waivers helped protect access to health care for the poor during Indonesia's economic crisis in 1999.

This paper contributes to the empirical evidence by examining how the *Askeskin* programme has affected access to health care and associated financial risk for the poor. We will first analyse targeting of *Askeskin* and how it reaches those most in need of financial protection. We define need by the level of expected required health spending of households, given a demographic profile and health status. We then proceed with estimating the impact of *Askeskin* on outpatient utilization and OOP health payments. The analysis is based on a panel of 8582 households conducted in 2005 and 2006. The first wave of the survey was conducted just before the start of *Askeskin*, hence providing a baseline. Identification of treatment effects relies on a difference-in-differences approach combined with propensity score matching.

We find that the programme is indeed targeted to the poor and those most vulnerable to OOP health payments. *Askeskin* has improved access to health care in that it increases utilization of public outpatient care. We do not find evidence of substitution effects from private to public care, while there does seem to be a positive impact on OOP payments in urban areas.

The next section sets the context and describes the *Askeskin* programme. Section 3 then describes the data and methods used for the analysis. Section 4 presents the results, while Section 5 concludes.

Social insurance in Indonesia

Formal sector

At the time *Askeskin* was to be introduced, around 10 percent of the Indonesian population was covered by social health insurance (ILO, 2008), through mandatory health insurance for civil servants (*Asuransi Kesehatan – Askes*), the police and military (*Asurasi Sosial Angkatan Bersenjata Republik Indonesia – Asabri*) and the formal private sector (*Jaminan Sosial Tenaga Kerja – Jamsostek*). For all three schemes the premiums for beneficiaries are related to earnings but not to the benefits. The *Askes* and *Asabri* schemes are similar in design and benefit package, where the beneficiary contributions are matched by the government. Premiums for *Jamsostek* are paid by the employers, and enrolment is mandatory for firms in the formal private sector with at least 10 workers or a pay roll of at least than 1 million Rupiah per month. However, firms may opt out of *Jamsostek* in favour of private health insurance if this yields higher insurance benefits. Private health insurance and other schemes covered around 3 percent of the population, and community based insurance less than a percent (Rokx, Schieber, Harimurti, Tandon, & Somanathan, 2009).

Formal insurance coverage remained limited as the informal sector, making up more than 60 percent of the labour force, was excluded from social health insurance. Before the *Askeskin* insurance scheme was introduced, the most prominent health financing programme for the poor was the Social Safety Net (SSN) health card scheme, which was implemented in 1998 as a response to the economic crisis. This programme involved targeted fee waivers and was of a much smaller scale than *Askeskin*. Reimbursement for public health care providers was not tied to services delivered to health card holders, but consisted of block grants based on the estimated number of poor households in the catchment area.

Informal sector: the Askeskin programme

The *Askeskin* health insurance programme was introduced with the objective to expand social security to the informal sector, aiming at a target population of 60 million people. The insurance includes basic outpatient care, inpatient care in third class wards at public hospitals, an obstetric service package, mobile health services and special services for remote areas and islands, immunization programmes, and medicines. Hospitals could submit claims for services delivered to *Askeskin* beneficiaries based on fee for service, while primary health centres were compensated on capitation basis. Although it was initially the intention to cover private health services as well, only a third of the private health care providers accept *Askeskin* insurance. Resources and risk were pooled at the district level, with monthly premiums of Rp. 5000 fully subsidized by the government. The total annual budget for 2005 was set at Rp. 3.9 trillion, (approximately USD 400 million), initially financed through the energy subsidy reductions (Aran, 2007; ILO, 2008).

Targeting of *Askeskin* beneficiaries was based on a combination of geographic (district) targeting and selection of eligible individuals within districts. The district budgets quota for *Askeskin* participants were determined based on district poverty indicators provided by BPS. Districts then identified eligible individuals, using census based welfare and poverty indicators from BPS or the Family Planning Board.

Qualitative studies on the implementation of *Askeskin* highlighted a number of shortcomings in the first year. Arifianto, Budiyati, Marianti, and Tan (2005) report that some individuals declined *Askeskin* insurance. Although allocation of *Askeskin* was based on individual coverage, the targeting process identified