Journal of Health Economics 32 (2013) 1180–1193

Contents lists available at ScienceDirect

Journal of Health Economics

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

Financial protection of patients through compensation of providers: The impact of Health Equity Funds in Cambodia

Gabriela Flores[a,b], Por Ir[c,d], Chean R. Men[e], Owen O'Donnell[f,g,h,*], Eddy van Doorslaer[b,g,h]

[a] Institute of Health Economics and Management, University of Lausanne, Switzerland
[b] Institute of Health Policy and Management, Erasmus University Rotterdam, The Netherlands
[c] Institute of Tropical Medicine, Antwerp, Belgium
[d] National Institute of Public Health, Ministry of Health, Cambodia
[e] URC & Centre for Advanced Studies, Cambodia
[f] University of Macedonia, Greece
[g] Erasmus School of Economics, Erasmus University Rotterdam, The Netherlands
[h] Tinbergen Institute, The Netherlands

ARTICLE INFO

Article history:
Received 26 November 2011
Received in revised form 7 January 2013
Accepted 16 September 2013
Available online 6 October 2013

JEL classification:
H42
H51
I18

Keywords:
Health Financing
User fees
Financial protection
Health care
Cambodia

ABSTRACT

Public providers have no financial incentive to respect their legal obligation to exempt the poor from user fees. Health Equity Funds (HEFs) aim to make exemptions effective by giving NGOs responsibility for assessing eligibility and compensating providers for lost revenue. We use the geographic spread of HEFs over time in Cambodia to identify their impact on out-of-pocket (OOP) payments. Among households with some OOP payment, HEFs reduce the amount paid by 35%, on average. The effect is larger for households that are poorer and mainly use public health care. Reimbursement of providers through a government operated scheme also reduces household OOP payments but the effect is not as well targeted on the poor. Both compensation models raise household non-medical consumption but have no impact on health-related debt. HEFs reduce the probability of primarily seeking care in the private sector.

1. Introduction

De jure, the poor are often exempt from user fees levied at public health facilities in low income countries. *De facto*, exemptions are seldom respected. The primary reason is that providers are charged with responsibility for establishing exemption eligibility but are not compensated for revenue lost from exemptions granted. The incentives to be vigilant in honouring legal rights to fee waivers are not strong. They are further weakened by the often vague criteria for eligibility status and the heavy reliance of health facilities on user fee revenue not only to finance supplies but also to provide incomes to staff whose low salaries may be paid intermittently (Creese, 1991; Gilson et al., 1995; Russell and Gilson, 1997). As a consequence, poor households are left exposed to out-of-pocket (OOP) health payments that threaten to drive them further into poverty. They may opt for unqualified, but ostensibly cheap, providers of health care and for self-medication, or even forgo treatment altogether.

Making exemptions effective would appear to require both separation of responsibility for assessment of exemption eligibility from that of provision of care and compensation of providers for lost fee revenue. Health Equity Funds (HEFs), which have been operating in Cambodia since 2000 and have a lesser presence in Lao and Vietnam, are based on this logic. They are mostly financed by international donors and operated by local Non-Governmental Organisations (NGOs), which have responsibility for selecting patients whose fees at selected public health facilities are paid from the fund. Besides having their fees paid, HEF beneficiaries may also be reimbursed for their transport and food costs.

* Corresponding author at: University of Macedonia, Egnatia 156, Thessaloniki 54006, Greece. Tel.: +30 2310 891478.
E-mail addresses: odonnell@ese.eur.nl, ood@uom.gr (O. O'Donnell).

0167-6296/$ – see front matter © 2013 Elsevier B.V. All rights reserved.
http://dx.doi.org/10.1016/j.jhealeco.2013.09.012

This subsidy model has spread rapidly in Cambodia over the last decade. Three-quarters of the population is now resident in areas in which HEFs operate and the government is pursuing a target of nationwide coverage by 2013. HEFs are expanding not only geographically but also from coverage of district hospitals to include health centres. For Cambodia, as well as other low income countries wrestling with the problem of financing public health services while shielding poor patients from prohibitive user fees, it is imperative to establish whether HEFs are succeeding in their primary objective of offering financial protection to poor households and their secondary one of improving access to qualified providers. The existing literature generally argues that HEFs fulfil their promise (Annear, 2010). This conclusion is largely based on small scale studies, which, while providing valuable detail on the operation of HEFs, make only descriptive comparisons between areas with and without a HEF, or of a single area before and after the introduction of a HEF. There has been no country-wide evaluation with a design sufficient to identify the *impact* of HEFs on health care payments and utilisation.

The effectiveness of HEFs in financially protecting the poor from health care costs cannot be taken as given. The model may fail to meet its objectives for a number of reasons. First, targeting of the poor could be weak. All methods that have been employed by HEFs to identify the poor give voice to the community and much latitude in the definition of poverty. While in many respects laudable, this could be exploited to direct subsidies towards cronies. Second, initially most HEFs established eligibility only when someone presented at the hospital for treatment – so-called 'post-identification' (Jacobs and Price, 2008). Many poor may have been unaware that they would be granted exemption from fees. Third, most people in Cambodia do not immediately resort to public health care when sick. Distance to the district hospital and the often unreliable service on offer there, and not only the cost, discourage usage and encourage substitution with medicines purchased from usually unqualified, but convenient, local vendors (Yanagisawa et al., 2004). Waiving fees may not be sufficient to overcome the other deterrents to utilisation of public health care. Fourth, providers may attempt to charge illegally and still claim fees from the HEF. Finally, the NGO itself is usually paid in relation to inputs and estimated workload but compensates facilities on a fee per case basis. To an extent, the disincentive to encourage utilisation by the exempted poor is shifted backward from the providers to the HEF operator.

This paper exploits the geographic spread of HEFs over the last decade to compare changes in outcomes in areas that acquire a HEF with changes in outcomes in areas that remain without a HEF. We implement this difference-in-differences (DID) identification strategy using household data from four nationally representative cross-sectional surveys conducted between 2004 and 2009. Effects on OOP payments for health care, health-related debt, non-medical consumption and health care utilisation are estimated.

We find that HEFs do not reduce the propensity to incur health care payments, which is anticipated since HEFs mainly cover care at the district hospital and will not eliminate all health care expenses, particularly those on self-medication and private sector care. But HEFs do reduce the amount spent on health care by a substantial 35% averaged over all households making some payment. The effect is larger for the poorer households (42%) that HEFs are intended to target. It is also larger for households that mainly rely on public health care (57%), which is what HEFs cover. A government financed and operated funded scheme that reimburses providers for granted fee exemptions is estimated to reduce OOP payments by 29% but, unlike for NGO operated HEFs, the effect on the poor is smaller suggesting a lack of target efficiency. This is important since a policy of tax financed health care for the poor implemented through expansion of the government subsidy scheme is under consideration.

Household non-medical consumption is estimated to increase as a result of HEFs. This suggests that medical expenditures are financed, at least in part, by sacrificing other consumption and so subsidisation of health care has a positive impact on living standards. Despite the fact that the average payment for a hospitalisation in Cambodia has been estimated as equivalent to more than 40 times the daily earnings of a field labourer (Hardeman et al., 2004), a cost that could only be met by most households through borrowing and other coping strategies, we find no significant effect of HEFs on health-related debt, although the point estimate is negative. HEF subsidisation of public care is estimated to reduce the propensity to mainly rely on private care providers when sick, although there is no significant increase in reliance on public care.

In the next section we provide some background on health care financing and the operation of HEFs in Cambodia. In the third section we sketch our identification strategy and describe the data. The models and estimators are set out in Section 4. Results are presented in Section 5. The final section concludes with implications for the financing of health care in Cambodia and further afield.

2. Health Financing and HEFs in Cambodia

2.1. Health Financing

Cambodia, which has a population of a little less than 15 million, is one of the poorest countries in south-east Asia, with GDP per capita in 2009 of only $1915 at purchasing power parity exchange rates (PPP) (US$706), and 28% of the population living on less than $1.25 per day in 2007 (World Bank, 2011). Total expenditure on health per capita is low in absolute terms at only $122 (PPP) in 2009, but at 6% of GDP is the highest relative spending of any ASEAN country except Vietnam (World Health Organization, 2011b). Over 70% of health expenditure is financed from OOP payments (*ibid*), which are mainly for self-medication and private sector care. Around two-thirds of the remainder is estimated to be financed by government, and the rest from external resources.

Utilisation of curative, but not preventive, public health services is low (World Health Organization, 2011a). This reflects perceived low quality of care and unreliability of service provision. Combined with often long distances to public health facilities and cultural preferences for care at home and traditional healers, there is a strong bias towards private sector, often unqualified, providers and self-medication (Annear et al., 2006). This bias is maintained and encouraged by low paid public sector staff moonlighting in the private sector.

Public health facilities are financed through a combination of government funding of salaries, drug supplies and recurrent costs, direct subsidies from international donors and user fees paid by patients and HEFs, as well as some payments through voucher schemes and community based health insurance. The right to charge user fees was established by the 1996 National Health Financing Charter with the objective of providing revenue for the operation of hitherto poorly resourced facilities and to motivate staff paid very low salaries (Jacobs and Price, 2004). All but 1% of user fee revenue is retained by the facility; 60% can be used to provide staff incentives and 39% to supplement operational budgets (Ministry of Health, 2009a). Fees can only be charged after approval by both a local committee, including elected community representatives, and the Ministry of Health (MoH) (Jacobs and Price, 2004). MoH approval is conditional on establishing a system of exemptions of the poor, or rather the poorest.

The opportunity to charge fees is taken up by almost all public health facilities. Fees are estimated to generate around 30%