

# Preserving Equity in Health in Cambodia: Health Equity Funds and Prospects for Replication

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## 1 Introduction

Responding to budget shortages, many developing nations around the world have adopted formal or informal systems of user fees for health care in public hospitals and health centers. In most countries user fee proceeds represent a small share of total public health facility recurrent costs, but they tend to account for a significant proportion of the resources required to pay for non-personnel costs.

A main problem with user fees is that the lack of provisions to confer partial or full waivers to the poor often results in inequity in access to health services. The dilemma, then, is how to make a much needed system of user fees compatible with the goal of preserving equitable access to services.

Different countries have tried different approaches. This paper discusses the experience of Cambodia's health equity funds (HEFs), or the mechanism devised there to compensate providers for the cost recovery revenue forgone from waivers and exemptions provided to indigent patients. It is argued here that in an environment like Cambodia's, where cost recovery proceeds represent a sizable share of health workers' income, unless workers are compensated for the income lost from free care, a system of waivers and exemptions will not work properly. But timely and fair compensation to health care providers for indigent care requires the existence of swift administrative procedures and sufficient funding. As Bitran and Giedion (2002) show in a recent review, these are rare conditions in low-income countries. In Cambodia, however, these conditions are present in a few places, largely thanks to donor support. But can these circumstances be replicated on the larger scale required in Cambodia and elsewhere?

In section 2 this paper provides background information on Cambodia, its health system, the cost recovery policies and practices in place in the health sector, and the mechanisms that exist, including the so-called health equity funds (HEFs), to preserve equitable access to care. Section 3 reviews the findings from several evaluations of HEF performance and offers concluding remarks about HEFs and their prospect for replication in Cambodia.

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## 2 Cambodia

### 2.1 Background

Cambodia is emerging from decades of civil war and unrest. It is estimated that between one-fourth and one-third of Cambodia's population died during the war, from violence and starvation. Since the early 1990s Cambodia has begun to rebuild its economy, achieving significant economic growth rates, and the government has pledged to improve the provision of social services. Still, Cambodia remains a very poor nation with a national prevalence of poverty of 36 percent, a per capita gross domestic product (GDP) of \$ 276.00 in 2001, and with a high concentration of poverty in rural areas. Meager public budgets for health have done little to reduce reliance on user fees in the public system and to alleviate the burden that fees represent for the poor. Deprived of a satisfactory public service, rural households forgo treatment or rely on informal private practitioners delivering expensive but highly ineffective health care (Van Damme and Meessen 2001).

### 2.2 User fee policy

Cambodia's health sector relies heavily for its financing on private payments for health care. Knowles (2001) states that

Overall health sector funding in Cambodia absorbed 12-13 percent of GDP in 1996-97, by far the highest share among Asian developing countries. Another striking feature of the financing of Cambodia's health sector is the large role played by out-of-pocket household expenditures, which accounted for 82-84 percent of total sector financing during the same period. In contrast, the government plays a relatively minor role in sector financing, accounting for only about 4-5 percent of the total. Official donor assistance (ODA) and direct funding by NGOs also contribute significantly to sector financing, accounting for about 8-12 and 2-3 percent respectively of total sector financing during this period.

According to the 1996 Health Care Demand Study (Ministry of Health –MOH/WHO/GTZ, 1998), on average health care accounted for 22 percent of all estimated household expenditures. This percentage increased with income, except for the poorest families that devoted 28 percent of their total spending to health care. In 1996 the monthly mean expenditure on health care per household was estimated at \$13.90 (MOH/WHO/GTZ, 1998); adjusted by internal inflation this was equivalent to \$27.10 per person per year in 1999.<sup>2</sup>

The World Bank (2001) carried out an analysis of affordability of government-provided health services, by expressing health care spending in relation to household non-food expenditure per capita (a proxy for discretionary household income). The Bank concluded that health care was expensive for the poor. In 1996 the MOH introduced the National Charter on Health Financing (NCHF). This initiative sought to formalize cost recovery in the form of user fees around the country. It also made possible the development of health financing pilots (with user fees or other financing mechanisms) in public facilities, with the explicit purpose of "increasing financial resources to the sector and obtaining better value for money" (MOH, 1996). Three specific goals were implicit in this statement: to reduce unofficial charges and household out-of-pocket expenditures; to improve quality of care through increased and timely availability of medical supplies; and to motivate staff through performance-related payments funded by fees. In accordance with the third goal, the government defined a revenue allocation rule whereby 49

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<sup>2</sup>. The Cambodia Socioeconomic Survey of 1997 found that monthly household health expenditure was \$18.60 per month, equivalent to an annual per capita out-of-pocket expenditure of \$42.

percent of user-fee revenue could be used to improve salaries, 50 percent could be devoted to pay for the facility's non-salary operating costs, and a nominal 1 percent must be transferred to the National Treasury. Under the NCHC, therefore, facilities retain and control locally 99 percent of all user fee revenue.

## 2.3 Protection mechanisms

Most government health facilities provide waivers in Cambodia, although only a small portion of patients get waved from user fees. The World Bank (1999) reported that in 1997 only about 18 percent of users of health care services received fee waivers around the country, and noted that individuals from higher income households were more likely to get waivers than the poor.

A major obstacle to acceptable levels of exemptions, i.e., ones consistent with Cambodia's high levels of poverty, is the conflict that exists between health staff income and their awarding of waivers to patients. The average employee of a government health facility earns a monthly salary of between \$10 and \$15, an income level that is below the poverty line. To subsist, government health workers depend heavily on revenue from user fees and from other remunerated activities. In interviews with facility health staff in three provinces (Takeo, Sotnikum, Kandal) and the capital city of Phnom Penh, Bitran (2002) found that owing to cost recovery from user fees, the average monthly income of a government health worker may be as much as \$180, of which less than 10 percent comes from his or her official salary, and the rest from user fees. Wilkinson *et al.* (2000) note the following:

There is an inherent tension in a facility seeking to operate a viable exemption scheme and a viable salary incentive scheme. The two systems are essentially in competition, especially in facilities which are operating at, or near to full capacity. In this situation, every exemption provided is effectively paid for by the staff themselves from their salary uplift. If, as in Takeo, the hospital is operating at full capacity, and is striving towards improving efficiency, then granting exemptions would be virtually intolerable. Ironically, exemptions are more likely to be granted in facilities which are performing less well, and where serving a patient for free does not necessarily mean excluding a fee-paying patient. The competition, outlined above, between patients for more exemptions and staff for greater salary incentives is actually part of a broader systemic tension, inherent in the design of the health financing scheme, between equity and efficiency. There is a real danger that increasing equity, by lowering prices and providing more exemptions to the poor, will undermine efficiency, both at facility level and [Operation District] O.D. level. Conversely, as facilities strive towards greater efficiency, there is a real danger that the poor will become even more marginalized. If the tensions outlined above are to be relieved, it is clear that the mechanism for financing exemptions must be completely separated from the mechanism for financing salary supplements and operating costs.

Waiver policies vary widely among provinces and districts in Cambodia (Espinosa and Bitran 2000). For example in 1999 one-fourth of the population under the responsibility of Rovieng health center was waived from fees. By contrast, at Pereang operational district the rule is that no waiver is granted, except in very special cases. The policy, there, is to keep fees low enough to make everybody pay while at the same time avoiding problems of financial accessibility for the poor. In Takeo Hospital, the rate of waivers was estimated at 2 percent while at Pursat Hospital the value of waivers accounted for 13 to 15 percent of cost recovery revenue (Pursat Report on User Fee Payments, 2000).

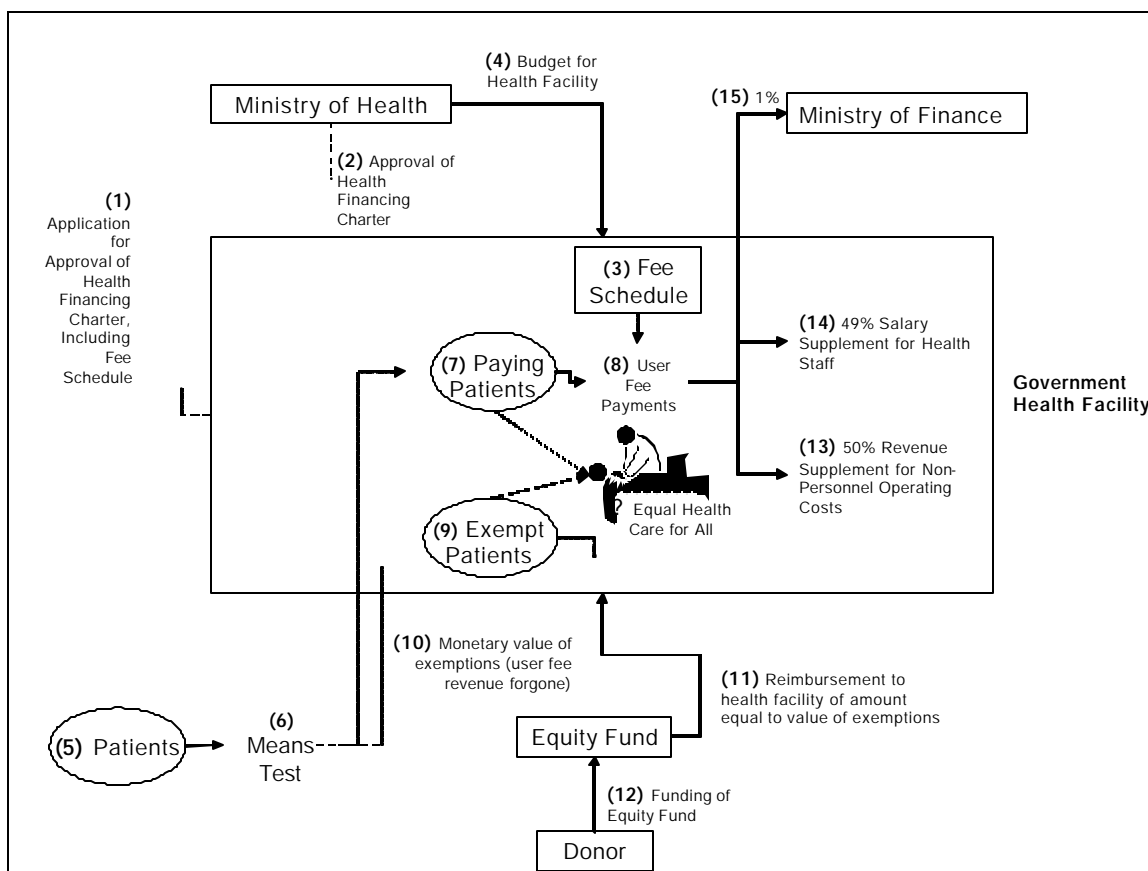
Aside from the system of informal waivers already discussed, two interesting formal models exist in Cambodia for promoting equitable access to health services by the poor: the Calmette Hospital model and the HEF model.

**Calmette Hospital waivers model.** Calmette Hospital, also known as the National Hospital, is a semi-autonomous, 250-bed public facility located in Phnom Penh that provides health services free of charge to the poor and that gets reimbursed for it by the government on the basis of a fixed payment of \$26.00 per hospitalization. A special legal mechanism known as Chapter 31 (a budget line item reserved for social allowances for health staff), operating exclusively in Calmette, makes this protection system

possible. Calmette has a formal fee schedule for non-poor patients and a formal means test to classify patients into the paying and waived categories on arrival. Calmette devotes about one-third of its beds to indigent care. Occupancy rates are 65 percent for paying beds and 100 percent for the beds devoted to the poor. Calmette Hospital also receives financial and technical support from the French Cooperation, an agency that is currently seeking government approval for expanding the Calmette model to six other hospitals, of which two are in Phnom Penh and four in the provinces. Unfortunately, tight public budgets make this prospect unlikely and government officials seem unwilling to generalize or expand this system.

**Health Equity Fund model: a third-party payer for the poor.** HEFs were conceived in Cambodia to finance waivers for the poor by compensating providers for their income forgone due to waivers. In practice, however, HEFs may also help defray other costs faced by the poor and related to health care, such as transport, lodging, and food for the patient and for his or her relatives. Under the HEF model, waivers to poor patients may be partial (only part of the user fee is waived to the poor) or full. Unlike the Calmette model, which so far remains a single exception, the HEFs model is likely to become more widespread. A new Asian Development Bank, UK Department for International Development and World Bank joint financed project (the Health Sector Support Project) aims at promoting and financing HEF expansion. The basic mode of operation of an HEF is illustrated in Figure 1. The process of setting up an HEF begins with the submission by the health facility to the MOH of an application for approval of its health financing charter, including its fee schedule (Action 1). Once the charter is approved by the MOH (Action 2), the facility officially adopts its fee schedule (Action 3), including some criteria to waive the poor. The MOH, in turn, quantifies the budget for the health facility, in principle taking into account the provider's expected ability to generate complementary revenue from users (Action 4). Patients arriving in the facility (Action 5) and wishing to be waived from fees are subject to a means test to determine their eligibility (Action 6). Patients applying but found not eligible for waivers, along with patients not applying for waivers (Action 7), must pay the provider's customary fees (Action 8). Waived patients, instead, are offered care for free or at a reduced price (Action 9).

**Figure 1 Cambodia: Operation of health equity funds**



Source: Bitran 2002.

Periodically the health facility reports to the HEF on the level of waivers provided as well as on the monetary value equivalent of the subsidized services (Action 10). For example, the provider may keep a record of all services delivered for free and then, based on the user fee revenue foregone, at established prices, it bills the HEF. The latter in turn reimburses the provider, after controlling and approving the statement submitted by the provider (Action 11). The HEF requires a periodic refill of its fund (Action 12), which gets depleted with the reimbursements to the provider. HEF financing has been, until now, the role of donors (e.g., the Swiss Red Cross in Takeo Hospital, Médecins Sans Frontières (MSF) in Thmar Pouck, Médecins Sans Frontières and UNICEF in Sotnikum, and the U.K. in the Phnom Penh Urban Health Project), but there is nothing in the design that would preclude the government from financing HEFs.

Not all HEFs operate in exactly the same way. There are variations which may have important behavioral implications and consequences on the performance of the health system. They include the management of the waiver process; who holds the responsibility to establish eligibility; the method used to pay the provider; the insertion of HEF in referral system; and the type and extent of financial protection.

The third-party payer function may be entrusted to the hospital health staff (e.g., Takeo) or to an organization that is independent from the hospital. For example, in Sotnikum and Thmar Pouck, Médecins Sans Frontières (MSF) entrusted the management of the fund to a local social welfare NGO posted in the hospital compound.

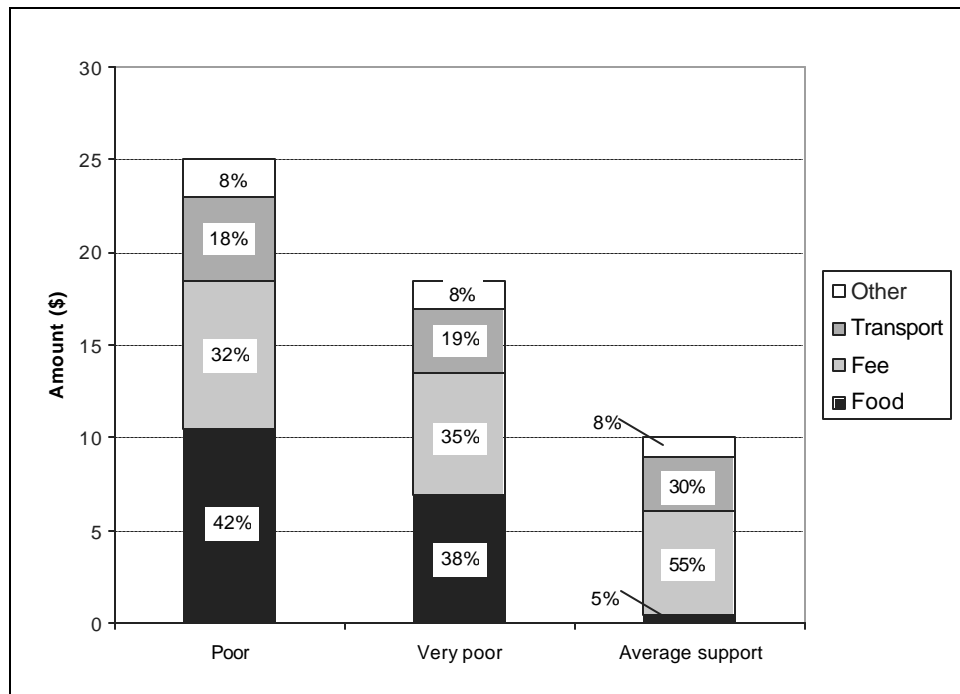
Thus, waivers may be managed either by health staff, as in Takeo Hospital, or by the combined and coordinated work of health staff and HEF clerks, as in Sotnikum and the Phnom Penh Urban Health Project (PPHUP). In Sotnikum, for example, health staff in the referral hospital first detects signs of indigence among patients, and then refers these patients to the HEF for a means test. Likewise, the responsibility to determine eligibility may be in the hands of HEF clerks, health staff, or both. In Sotnikum the ultimate decision about the granting of waivers rests with a specially trained professional who carries out a formal means test of applicants. Also in Sotnikum HEF staff visit patients in their homes after discharge, to confirm the information provided during the means test.

Providers may be given a fixed budget to finance waivers, as in Takeo or in the PPUHP, or they may get paid by the HEF on a fee-for-service or per case basis, as in Sotnikum. The HEF may promote patient flow through the referral system as in PPUHP, where patients seen in health rooms who need a referral get a waiver for the fees associated with health services required at the higher level. In Sotnikum, instead, as in Takeo, waivers are granted when patients show up in the hospital, because the HEF there does not operate at, or in coordination with the primary care facilities.

The extent of protection afforded by the HEF varies as well, in terms of the types of services it covers and the proportion of the services' costs it pays for. Thus, an EF may provide protection against catastrophic health problems, or it could finance all or part of the costs of an episode of illness. All three HEFs studied by Bitran (2002) provide financial protection for high-cost services in hospitals, but they have implicit or explicit limits in what they cover and therefore may not be providing true catastrophic coverage. Aside from the extent of coverage of health expenditures, HEFs may or may not cover other health-related expenses, such as transportation to and from the health facility, food for the patient and family members, and the like. Hardeman (2001) examined this issue, among other aspects of HEFs, through a case study in Sotnikum. He examined a sample of 51 individuals who had been hospitalized in June-July 2001 to assess patient expenditures and level of patient financial support, if any, by Sotnikum's HEF. He found that among the poor and the very poor, the highest expenditure associated with a hospitalization was food, on average varying in the range 38-42 percent (Figure 2). Hospitalization fees were the second most important patient expenditure, representing about 32-35 percent of all expenses. Transport costs were the third most important category and accounted for just below 20 percent. Other expenses represented 8 percent. Whereas Sotnikum's HEF supported all four kinds of patient expenditure, the structure of its support did not match that of patient spending: one-half of the aid was directed toward hospitalization fees and one-third toward transport expenses. Only 5 percent of the average support to patients was devoted to food outlays. In absolute terms, the average support per patient amounted to \$10.00, and covered the bulk of hospital fees and transport costs. Total average expenditure by the poor and the very poor amounted to \$25.00 and \$18.00, respectively, and therefore Sotnikum's HEF covered 40 percent of average spending by the poor and 56 percent of spending by the very poor.

The impressive results of the Sotnikum experience have raised enthusiasm in Cambodia. They have triggered the development of and further experimentation with new models. In Svay Rieng and Sotnikum, for example, pre-identification of the poor at village level is currently being tested. These new strategies have not been evaluated so far.

**Figure 2 Cambodia: Mean patient expenditure per hospitalization and average support by Sotnikum equity fund, 2001 (\$)**



Source: Hardeman 2001

### 3 Results

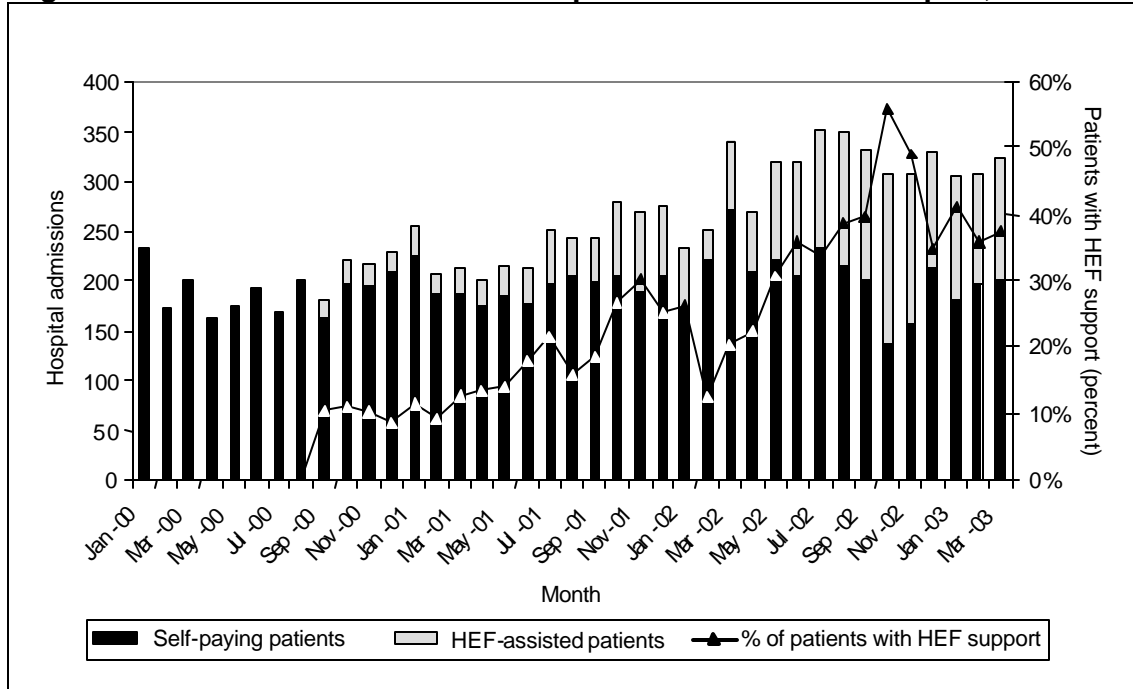
Knowles (2001), who conducted an evaluation of the PPUHP HEF, concluded that the project effectively protected the poor against the high costs of health care, and also prevented people from falling into poverty as a consequence of high health care costs. He also estimated that the HEF was a fiscally efficient policy, because the costs of running the HEF were smaller than those associated with poverty alleviation for those who, as a consequence of health care payments, would otherwise fall into poverty. Knowles also noted that the costs of running the HEF in PPUHP were high because of the high incidence of expatriate managers' costs.

Hardeman (2001), who evaluated the Sotnikum HEF, found that the HEF improved equity in access to health services by not discriminating in the provision of care between the poor and the non-poor. The cost of supporting each hospitalized patient was, on average \$10.00, making it possible for poor and near poor patients to receive medical services worth \$45.00 (\$5.00 co-financing by the HEF; \$40.00 financed by the government on average, through the support of recurrent hospital expenditures).<sup>3</sup> He also found that there was virtually no leakage of benefits to the non-poor. He concurred with Knowles' finding about the HEF's ability to prevent poverty from high health-related expenditure households vulnerable to poverty.

<sup>3</sup>. As previously noted (see Figure 2) the \$10.00 worth of support provided by the HEF comprised about \$5.00 in the form of fee waivers and \$5.00 for other patient costs (transport, food, etc.).

Figure 3 shows that an HEF can boost output in a rural hospital in Cambodia and make the facility more “poor-friendly”. The HEF started in September 2000. After 2 years of operation, the poor, with support from the HEF, made up over 30 percent of total users, while the number of paying users remained roughly equal.

**Figure 3 Evolution in HEF assistance of patients at Sotnikum Hospital, 2000-2003**



Source: MSF and Institute of Tropical Medicine.

### 3.1 Lessons learned

Hardeman (2001) identified a number of limitations in the Sotnikum HEF model. First, he noted that the HEF was passive in the sense that it did not actively search for the poor in need of assistance, but instead waited for them to show up. This likely resulted in under-coverage of the poor, a phenomenon that may be overcome gradually as the HEF becomes known to the local residents. He reported that an estimated 30-40 percent of the population was poor or near-poor in Sotnikum district, but only 15-20 percent of the hospitalized patients fell in those two categories. He also concluded that there was a lack of awareness about the HEF, noting that the total number of patients so far receiving HEF support (309 people) was still small in relation to potential beneficiary population of 220,000. He felt, however, that awareness would improve in response to current community involvement in HEF promotion. He also remarked that the poor were still subject to financial uncertainty associated with health care demand, since the outcome of the means testing procedure was unknown to them prior to seeking care. He remained concerned about the HEF’s ability to improve accessibility and to have a noticeable impact on use by the poor. He also worried about the replication of this model of HEF, particularly its management structure and its methods for identifying recipients and paying providers. A final concern was the ability of future HEFs to control and maintain appropriate levels of quality of subsidized health services.

In his evaluation of the PPUHP HEF, Knowles (2001) recommended that the existing caps in the size of HEF support of patient expenditures be removed, that case-based be maintained as the reimbursement system for providers, that a proposal for the adoption of a flat fee reimbursement to providers be rejected, and that the HEF reimburse providers at full cost instead of the current 70 percent of cost. He also advised that the means testing procedures used in the HEF to avoid type I errors (wrongly



denying benefits to the truly poor) be discontinued. Other recommendations included the addition to HEF benefits of vouchers for home-based obstetric care; the provision of patient partial assistance for referrals to all higher-level facilities; the continuation of provision by the HEF of supplementary welfare payments to individuals to encourage the continuity of care in higher level facilities; the turning over of HEF management to a local NGO; and the future opening up of the HEF to the participation of the non poor in exchange for a monthly fee.

Main lessons arising from the Cambodia case follow:

- HEFs seem to be an effective mechanism for targeting assistance to poor individuals in need of health care in Cambodia.
- Private patient costs of care other than the health professional's fees and medicines can be quite substantial; to be effective, HEFs should also contemplate paying for such costs as transportation and food for patients and accompanying relatives.
- The initial operation of HEFs has been characterized by under-coverage. Further dissemination of e HEFs may lead to greater demand for their assistance.
- The provision by HEFs of waivers at the time of care involves uncertainty for prospective beneficiaries who do not always know their chances of getting a waiver. This may limit demand for HEF assistance and for health care by the poor. This problem is currently being tackled by the active identification of HEF beneficiaries at the community level (distribution of cards or vouchers), a policy that is currently being tested in several projects.
- Paying providers for the medical services delivered to HEF beneficiaries seems a key factor in assuring access by the poor to timely and good quality care. Such a payment confers an economic benefit to providers which makes them indifferent between treating HEF beneficiaries and regularly paying patients. Thus, they do not discriminate against patients receiving HEF assistance.
- Adoption of the HEF model in a hospital can lead to major gains in access by the poor and thus in the provision of timely care to them. This in turn may help to avoid complications from untreated health problems and may limit the occurrence of catastrophic health events.
- The presence of the social worker in the hospital compound is an opportunity to defend patient rights and dignity during their stay in the facility.
- Replicating the HEF model in Cambodia requires appropriate management skills. Most HEFs in operation are currently being managed with substantial expatriate input, although Sotnikum's HEF is successfully managed by a Cambodian NGO (Hardeman, 2001). Transferring those skills to local staff is a priority, but also a challenge, if the HEF model is to become generalized in the country.
- The replication of the HEF model also requires substantial financial resources in amounts that may exceed the current levels of spending by the government of Cambodia. Aid by the donor community will be necessary for a while. In 1999 the government spent \$2.85 per capita on

health care, an amount that, although significantly higher than that spent in previous years,<sup>4</sup> remains relatively small compared to the per capita cost of providing a minimum package of health services. The World Bank (year) estimated that the annual per capita cost of providing a minimum health benefits package was \$12.00. Another estimate was obtained by Bitran (2001), using empirical information on unit costs of services contained in the Minimum Package of Activities (MPA, ambulatory care) and the Complementary Package of Activities (CPA). He estimated that the annual per capita cost of these two basic packages combined was \$2.85 at observed utilization rates and about three times as much, or \$8.55, at higher, standard utilization rates.<sup>5</sup> Hardeman estimated that the annual per capita cost of the Sotnikum EF was only \$0.30, but this modest amount is a reflection of very low per capita utilization rate or hospital services, which are those supported by the Sotnikum EF. Likewise, Knowles estimated an annual per capita cost of the health rooms of PPUHP equal to between \$0.73 and \$1.70. Again, Knowles' estimates are based on small utilization rates for hospital care, equal to about 1.5 percent per year.

- How the HEF pays the providers for the services waived to patients is a critical issue. Fee-for-service, case-based, and flat reimbursement all contain different incentives and thus have a different influence on HEF's effectiveness.
- The replication of HEFs involves not only financing, but also political commitment by the government. HEFs have certainly a role to play in a pro-poor health policy by enhancing access to services by the poor. But unless other conditions are met –for example that health centers and hospitals deliver good quality health care– the benefits of HEFs in Cambodia will obviously be very limited (Meessen et al. 2002).

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<sup>4</sup> Knowles, 2001. Between 1994 and 1998 per capita government health spending varied from a minimum of \$1.05 and \$1.67).

<sup>5</sup> By 2000 the per capita rate of contacts with the health system by Cambodians was a staggering 0.30 visits, or one-tenth the per capita contacts seen in Viet-Nam. Per capita health care costs appear low in Cambodia owing to the low utilization rate, not to low unit costs of care.

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