Reviewer's report

Title: Using targeted subsidies to improve access to skilled birth attendance for poor women: a case study of vouchers plus health equity funds in three rural health districts in Cambodia

Version: 2 Date: 30 July 2009

Reviewer: Anna Cornelia Cornelia Gorter

Reviewer's report:

This is an excellent paper. Voucher schemes in health is a new and promising approach to provide priority services to currently underserved populations. There are many voucher schemes underway or planned to be implemented in other developing countries, while the evidence base for these interventions is still being build and needs considerably strengthening. The paper clearly describes the results of a voucher scheme implemented in Cambodia and does considerably contribute to the much needed best practice guidance and body on evidence of the potential impact of voucher schemes.

The question: `assessing the extent to which the voucher and HEF schemes improved access to skilled birth attendance for poor women in three rural health districts in Cambodia` is well defined. The methods are appropriate and well described, and the data are sound. Limitations are clearly pointed out. The manuscript adheres to the relevant standards for reporting and data deposition and the discussion. Nevertheless the authors made a conceptual mistake regarding the nature of the delivery incentive scheme implemented by the Government and will need to correct this. The delivery incentive scheme is a demand side subsidy scheme and not a supply-side subsidy scheme (see comments). Conclusions are well balanced and are adequately supported by the data, although the discussion needs some revision. The limitations of the work are clearly stated. The authors clearly acknowledge any work upon which they build. The title and abstract accurately convey what has been found. The writing is acceptable, but the English of the discussion could be improved.

- Discretionary Revisions ADD docs

- Minor Essential Revisions
  1. Page 6: “In Kampong Cham, 12.3% of women delivered in a health facility and
only 8.2% occurred in public facilities. Fifty three percent of the women delivered at home with traditional birth attendants [12]. Add province to distinguish from town and make clear that this are the DHS data: In Kampong Cham province, the DHS 2005 found that 12.3%...

2. Page 10: “In exchange, at the end of each month the contracted health centres will get the user fees paid for their services.” It is not entirely clear how much these are. Are these the 7.5 US$ users normally have to pay? And the health centre will also receive the extra payment of 12.5US$ -15 US$ from the government? Maybe add here that the centre also will receive the costs for transportation to be paid to the pregnant women and the costs occurred for the referral services.

3. Page 12: “For this reason, we decided not to use the deliveries by trained health personnel reported in the health information system for our study.” This phrase is unclear. Do the authors mean that they did not use the data collected by the volunteers?

4. Page 12: “For comparison, similar data were also gathered for other ODs in Kampong Cham province.” This is the first time the authors mention that they intend to compare the data from the intervention area with those from other ODs in the target province. Should be mentioned under methods, Study setting.

5. Page 15: “A total of 2 725 vouchers were distributed in the three health districts within less than two years of operation. During this period, 2 062 vouchers were used by poor pregnant women for ANC1, 1 498 for ANC2, 1 140 for ANC3, 1 280 for delivery and 684 for postnatal care.” The voucher books have 5 coupons and pregnant women may choose to use only 1, either for ANC, delivery or PNC. The figures presented here do not show how many women did not use any of the coupons. After rereading I do understand that 2062 pregnant women made use of their voucher book. Maybe better to rephrase for easy understanding. For example: During this period, 2 062 poor pregnant women made use of their voucher; for ANC1 ...

6. Page 15: “In 2006, HEF supported 132 poor pregnant women who delivered at the three district hospitals, 295 in 2007 and 549 in 2008, excluding the voucher holders.” I do not understand. From the text on page 10 I do understand that HEF paid for the deliveries of voucher holders who were transferred to the district hospital.

7. Page 15: “The total number of beneficiaries of voucher and HEF together represents 25.4% of the total facility deliveries, 11.4% of the total expected births and 40.6% of the total expected births among poor women in the three ODs in 2008.” For easy reading write for example: “The total number of 1 425 beneficiaries of voucher and HEF together represents 25.4% of the total facility deliveries. Of the number of xxxx (insert number) expected births, vouchers and HEF financed 11.4% in the three ODs in 2008, and 40.6% of the total expected births among poor women in the three ODs in 2008.

8. Page 17: “The steep increase in the percentage of facility deliveries in the three study ODs highlights the positive impact of the voucher and HEF schemes, especially for the poor.” Figure 4 does not present data regarding the poor.
Possible addition: ...“especially for the poor. As referred above, 40.6% of the total expected births among poor women in 2008, were financed/subsidized through voucher and HEF.”

9. Page 17: “The whole operational process of voucher schemes can be split in three stages...” Better write: “The operational process of the voucher scheme described can be split in three stages...”. In practice voucher schemes include more stages/components, including design (deciding recipient policies, benefit policies, price policies and so on), tendering/identification of providers, accreditation, contracting, marketing of vouchers, quality assurance, definition of M&E plan, definition of management and information system, claims processing and payment, verification mechanism and fraud control, etc.

10. Page 21: “Furthermore, the focus group discussions and in-depth interviews indicated that all poor pregnant women who used vouchers to deliver at health centres and hospitals had no past history of facility delivery, as they used to deliver at home with traditional birth attendants.” Is a result and would be better placed under results.

- Major Compulsory Revisions

OBSERVATION: the delivery incentive scheme of the Government can be considered as a demand side financed scheme (or even as a voucher scheme without “physical” vouchers). If pregnant women do not come to the health facility, the providers are not paid. The key defining feature of a demand-side subsidy is the direct link between the intended beneficiary, the subsidy, and the desired output (such as delivery in a health facility). The level of funding received by the provider therefore depends on the outputs produced. Demand-side subsidies can be consumer led or provider led. They can be provided before or after service utilization. The delivery incentive scheme is a Provider-Led Demand Subsidy Scheme Provided after Service Provision. Provider-led demand subsidies transferred after service provision include fee-for-service subsidy claims and target payments. Under a fee-for-service subsidy, the provider receives a subsidy from the government for having provided eligible services to eligible individuals. An example is the New Zealand General Medical Subsidy, in which general practitioners receive a payment from the government for each child consultation they give. Receipt of the subsidy may be made conditional on the provider limiting or eliminating the fee paid by the patient. This form of provider subsidy may be administratively simpler than a voucher scheme, but it can be more difficult to control, as an independent mechanism is required to verify that the service was actually provided. Fee-for-service subsidies have also been criticized for leading to too little service among subsidized groups. They do provide a strong incentive to increase productivity, as the provider’s subsidy income is directly related to the rate at which the services are provided. (Reference: A guide to competitive vouchers in health. Washington DC: Private sector advisory unit, the World Bank Group; 2005).

1. Page 5: “other supply-side strategies such as performance-based contracting and delivery incentive schemes”. TAKE OUT supply side. As explained above the delivery incentive scheme is in practice a demand financed scheme, money
follows the patient.

2. Page 16: “whereas the increase in the percentage of self-paid deliveries reflects the effect of the supply-side schemes, especially the delivery incentive scheme” TAKE OUT supply side.

3. Page 24: “In this study, supply-side interventions such as performance-based contracting and the delivery incentive scheme contributed to the quality of services.” Take out supply side.

4. Figure 1 should be revised as well. Delivery incentive scheme should be at the right hand under demand side financed scheme.

5. Page 21: “Yet, it seems that the impact of both schemes remains limited at this stage. The total number of voucher and HEF beneficiaries in 2008 accounted for only 25.4% of the total facility deliveries and 40.6% of the total expected births among poor women.” Impact of the scheme of poor women, cannot be considered as limited, since almost none of poor women had a facility delivery before the intervention and with HEF and vouchers this increased to 40.6% in a very short period.

6. Page 23: Include in discussion the fact that apart from the mentioned barriers there also may be cultural barriers.

7. Include in discussion that 2 years of implementation is rather short and that innovative schemes need time to refine their functioning, and overcome shortcomings in distribution and utilization of vouchers, and improve other relevant issues, such as promotion/marketing of deliveries at health facilities. With time these schemes mature and become more efficient and effective. Include in discussion a short phrase regarding the future of the schemes, are these still running, for how long, what are the plans.

8. Page 24: “Yet, these demand-side financing schemes cannot overcome many non-financial barriers, especially supply-side barriers.” Take out this phrase or change in for example: Demand-side financing schemes can have strong effects on the quality and efficiency of the provision of services, especially if these are competitive. In non-competitive schemes the result may be much less.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests