

Achieving the Twin Objectives of Efficiency and Equity: Contracting Health Services in Cambodia

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ERD POLICY BRIEF NO. 6

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Over 25 years of conflict has left Cambodia with a depleted human resource base and no functioning public service infrastructure. From a near zero base, development of a health care system has been in progress for less than a decade. Although considerable strides have been made, health indicators are still among the worst in the Asian and Pacific region. Average life expectancy at birth is estimated at only 56.4 years: 54.4 years for males and 58.3 years for females. Infant mortality rate is estimated to be 95 per 1,000 live births, while the under-five mortality rate is 124 and the maternal mortality ratio is 437 per 100,000 live births (NIS et al. 2001). The public health care system is still rudimentary, with the use of facilities at a low 0.35 contact per capita per year.

The low health status contrasts sharply to relatively high levels of expenditures on health care. While annual government health care expenditure is only about US\$2 per capita, private expenditure is very high at US\$33.30 per capita (World Bank 1999). Clearly, high expenditure on health care does not necessarily translate into good health because, in Cambodia, much of this expenditure is on inefficient use of health services and purchases of pharmaceuticals. Health care expenses are a major cause of distress sales, indebtedness, landlessness, and poverty (ADB 2001, NIS et al. 2001, Oxfam 2000).

Government Contracting of Health Services

From 1998 to the present, the Ministry of Health of the Royal Government of Cambodia has conducted an operations research on the feasibility, impact, and cost-effectiveness of government contracting with nongovernment organizations (NGOs) to deliver health services as an alternative to conventional government provision. Funded by the Asian Development Bank, the research evaluated two models of contracting for health services against a number of nonintervention areas, which served as controls.

In the model for contracting-out, contractors had full responsibility for the delivery of specified services in an operational district; directly employed their staff; and had full management control.

In the contracting-in model, contractors provided only management support to civil service health staff, and recurrent operating costs were provided by the government through normal government channels. An additional budget supplement of \$0.25 per capita was provided out of loan funds. A comparable operating budget supplement was made available to the control districts. Contractors had full management control over allocation and disbursement of the budget supplement, but were obliged to follow government rules and regulations with respect to the government-provided resources.

Intervention and control areas consisted of an entire district selected randomly, each with a population of 100,000-200,000 people. There were three contracted-in, two contracted-out, and four control districts. Evaluation indicators were established and baseline household and health facility surveys were conducted prior to the start of the intervention. An independent evaluation, including repeat household and health facility surveys, was conducted in mid-2001, 2½ years after the contractors had commenced work (Keller and Schwartz 2001). All districts at baseline had less than 20 percent of planned health facilities as functional, and had extremely poor health service coverage. All districts were comparable with each other in terms of socioeconomic status and health service coverage.

Results

Was Contracting Effective?

The results of the final survey show that contracted districts consistently outperformed the control districts with respect to the pre-defined coverage indicators. The contract-out model performed better than the contract-in model.¹ Table 1 summarizes the changes in 11 health service coverage indicators over the 2½ year trial period.

¹The differences in performance are statistically significant at the 5 percent level or better. Nevertheless, the results (based on bivariate analysis) are only preliminary and indicative. More rigorous analysis is being undertaken to arrive at firmer results.

Table 1. Average Change in Health Service Coverage Indicators (percent)

Indicator	Control	Contracted-in	Contracted-out
Antenatal Care	160.1	233.3	401.5
Trained Delivery	26.0	0.0	0.0
Facility Delivery	0.0	225.1	142.0
Antenatal Tetanus Immunization	149.1	148.6	400.0
Family Planning			
Knowledge – all	307.4	317.4	599.5
Family Planning			
Knowledge – lower 50% SES	271.0	301.4	559.5
Contraceptive Prevalence Rate	93.4	104.5	122.6
Child Immunization	55.7	81.8	158.1
Vitamin A Capsule			
Receipt – all	-25.1	18.1	20.9
Vitamin A Capsule			
Receipt – lower 50% SES	-24.1	29.9	23.9
Percent of Illnesses Treated in Public Health Facility – lower 50% SES	81.7	490.5	1096.0

SES means socioeconomic status.

Starting at comparable levels, contracted-out districts increased use of public health services (preventive and curative) to 1.7 contacts per capita, and contracted-in districts increased to 1.2 contacts per capita per annum. Control districts had an annual per capita contact rate of only 0.8. Contracting-out also appears to be the most cost-effective among the three options (least cost at \$22.7, see Table 2). A large part of the increased contact rate in contracted districts is attributable to better access to primary health care in village health centers. Moreover, it appears that improved health care prevents the occurrence of health complications that require more expensive cure.

Table 2. Recurrent Costs of Contracting by Source (US\$)

Source	Control	Contracted-in	Contracted-out
Private			
Out-of-pocket	25.0	23.6	18.2
Government/ Donors	1.9	2.8	4.5
Total	26.9	26.4	22.7

Contracted-out districts experienced an impressive increase in the use of reproductive health services, where, for example, coverage of antenatal care increased by more than 400 percent, compared to contracted-in and control districts where coverage rose by 233 and 160 percent, respectively.

Success in the coverage of child health services also followed a similar pattern. Immunization rates increased in contracted-out districts by 158 percent, in contracted-in districts by 82 percent, and in control districts by 56 percent.

Was Contracting Efficient?

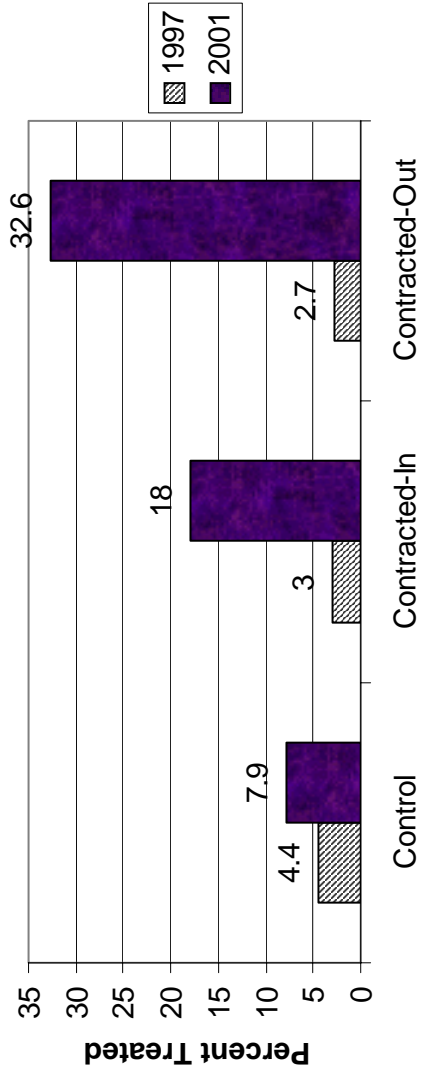
The evaluation survey measured the productive time lost due to illness by patients and their caretakers. The results showed that on an average, people in contracted-out districts lost about 15 percent less time on illness and seeking health care compared to control districts. People in contracted-in districts lost about 5 percent less. Thus, the results suggest that contracting-out, besides being cost-effective, is also the most efficient option for providing health care services. Comparable data were not available in the baseline survey to make an assessment of changes in lost time over the contract period.

Was Contracting Equitable?

The evaluation study shows, furthermore, that the contracted districts provided more than proportionate benefits to the poor. Much of the increase in health care utilization in contracted districts was attributable to the increased use of services by households of low socioeconomic status. For example, use of curative health services at district hospitals by the bottom half of the socioeconomic group increased about twelve fold in contracted-out districts and six fold in contracted-in districts in 2½ years. The corresponding increase in the control districts was considerably less than double (Figure 1). The poor benefited more than proportionately in the contracted-out districts because of the improved accessibility of health services in villages, where most poor people live. The reduction in costs of health services also raised the demand for health services by the poor.

While the use of government-financed services by the households with low socioeconomic status increased in contracted-out districts, their actual out-of-pocket payment for health care utilization substantially decreased. Contracting-out of health services significantly reduced the financial burden of the poor for health care. Private out-of-pocket health care expenditures by the bottom half fell by 70 percent during the contract period. The reduction in out-of-pocket costs was greater among this population than among the overall population, indicating successful targeting of the desired beneficia-

**Figure 1. Utilization of District Health Facilities
by Households (Bottom Half of Socioeconomic Group)**



ries and improvement in efficiencies. Out-of-pocket health care expenditures for households in the bottom half of the socioeconomic scale decreased by US\$35 per capita per year, which is a very attractive return on about US\$4 per capita annual public investment through contracting of services. This benefit to the poor was achieved perhaps through decreases in the private purchase of inefficient services² combined with a reduction in travel expenditures in access to services closer to home. (Table 3)

In contrast, both control and two of the three contracted-in districts showed an increase in private expenditures (Table 3). Interestingly, the one contracted-in district where private expenditure decreased had instituted official user fees and had linked user fees with incentives to providers. A large part of user fees were used to supplement the salaries of health care providers. This discouraged private practice and corruption and helped in bringing “under the table” payments for services formally into the system. The evaluation suggests that official public sector charges were lower than the fee charged in private practice and therefore more affordable to the poor. In other two contracted-in districts and control districts, however, due to their low salaries, the government health care providers had greater motivation for private practice. This perhaps explains why private expenditure on health care did not decrease in these districts over the years.

Conclusion

The Cambodia case study suggests that government contracting of the provision of health services to nongovernmental entities is not only feasible but can potentially increase the coverage of health services in a short time. Contracting could deliver interventions to reduce infant, child, and maternal mortality to more people and faster than conventional government service delivery mecha-

²This may have been achieved through more rational use of drugs and diagnostic services and greater use of preventive services, thereby reducing the need for more expensive cure.

Table 3. **Changes in Out-of-pocket Health Care Expenditure
by the Lower 50% Socioeconomic Group**

Model	Control^a	Contracted-in, User Fee^b	Contracted-in, No User Fee^c	Contracted-out^d
Percent Change	+7	-40	+36	-70

Notes:

^aControl districts paid salaries far below living wage, charged user fees, were unable to control under-the table payments, and allowed after hours private practice.

^bContracted-in contractors with user fee was able to provide a living wage and enforce a ban on private practice.

^cContracted-in contractors without user fee were unable to provide adequate staff compensation, or prevent under-the-table payments and after-hours private practice.

^dContracting-out arrangements provided staff with a living wage and none charged user fees.

nisms. The pilot study suggests, moreover, that efficiency gains in the provision of health services do not come at the expense of equity. Rather, improvement in efficiency appears to also lead to better access of health services by the poor, relieving them of the burden of health care expenditures.

In developing countries where governments have severe fiscal constraints, contracting NGOs or similar private entities for the provision of primary health care services may represent an attractive alternative. The constrained resources of the government may be better used in this manner to maximize the efficiency of service provision. The Cambodian experience suggests how a move away from the traditional government-financed and government-provided health services model to government-financed and monitored contracts for health services can be an effective approach to expand coverage especially for the low-income groups.

Further, the Cambodian experience suggests that successful contracting requires:

- (i) predetermined and objectively verifiable performance indicators measured prior to contracting, coupled with well-defined and contracted performance targets;
- (ii) political support for contracting at both central and local levels;
- (iii) civil service arrangements that allow government health care professionals to work for NGOs at market wage rates; and
- (iv) "management by results" wherein contractors are given maximum latitude to achieve the predefined indicators.

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