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Contracting for the Delivery of Community Health Services: A Review of Global Experience

Benjamin Loevinsohn and April Harding

September 2004



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**CONTRACTING FOR THE DELIVERY OF COMMUNITY HEALTH
SERVICES: A REVIEW OF GLOBAL EXPERIENCE**

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September 2004

Health, Nutrition and Population (HNP) Discussion Paper

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ISBN X-XXXXXXX-XX-X

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Health, Nutrition and Population (HNP) Discussion Paper

Contracting for the Delivery of Community Health Services: a Review of Global Experience

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Paper prepared for the World Bank's Resource Allocation and Purchasing Project

Abstract: To achieve the health-related Millennium Development Goals, it will be necessary to improve the delivery of health services, particularly to poor people. One proposed approach to improving both coverage and quality of care is to contract with NGOs or other non-state entities to deliver health services. This paper reviews experiences with contracting in which some coherent form of evaluation was carried out, using at least before and after, or controlled evaluation designs.

Ten examples of contracting with NGOs were found and from these studies, it appears that in developing countries, contracting with non-state providers to deliver primary health or nutrition services can be very effective and that improvements can be rapid. These results were found in a variety of services and settings. Six of the ten studies compared contractor performance to government provision of the same services and all six found that the contractors achieved better results.

There are a number of concerns about contracting that have been raised, including scale, cost, sustainability and contract management. Scaling up appears not to be a problem. Four of the examples studied involved populations of many millions of beneficiaries. On the issue of cost, four of the studies found that NGOs performed better even when provided the same resources as the public sector. Of the nine studies with three or more years of elapsed experience, seven have been continued and expanded. Contract management was seen as a significant issue in at least three of the examples reviewed, however, it did not prevent contractors in those instances from being successful.

Based on the success thus far, health services contracting appears to improve service delivery and may help achieve the MDGs. The approach should be carefully expanded in developing countries using large scale pilots initially. Future efforts at contracting should include rigorous evaluations.

Keywords: resource allocation and purchasing, health care financing, private sector, health systems development and reform, service delivery.

Disclaimer: The findings, interpretations and conclusions expressed in the paper are entirely those of the authors, and do not represent the views of the World Bank, its Executive Directors, or the countries they represent.

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FOREWORD

Great progress has been made in recent years in securing better access and financial protection against the cost of illness through collective financing of health care. This publication – *Purchasing Basic Health Services in the Community Setting* by Benjamin Loevinsohn and April L. Harding – is part of a series of Discussions Papers that review ways to make public spending on health care more efficient and equitable in developing countries through strategic purchasing and contracting services from nongovernmental providers.

Promoting health and confronting disease challenges requires action across a range of activities in the health system. This includes improvements in the policymaking and stewardship role of governments, better access to human resources, drugs, medical equipment, and consumables, and a greater engagement of both public and private providers of services.

Managing scarce resources and health care effectively and efficiently is an important part of this story. Experience has shown that, without strategic policies and focused spending mechanisms, the poor and other ordinary people are likely to get left out. The use of purchasing as a tool to enhance public sector performance is well documented in other sectors of the economy. Extension of this experience to the health sector is more recent and lessons learned are now being successfully applied to developing countries.

The shift from hiring staff in the public sector and producing services “in house” from non governmental providers has been at the center of a lively debate on collective financing of health care during recent years. Its underlying premise is that it is necessary to separate the functions of financing health services from the production process of service delivery to improve public sector accountability and performance.

In this Discussion Paper, Loevinsohn and Harding review review the evidence on purchasing of basic health services from non governmental and private providers. To achieve the health-related Millennium Development Goals (MDGs), there is a need to increase access by the poor to efficient and high quality basic health services. Nearly six out of 10 child deaths in developing countries could be prevented through better access to a few effective and low-cost interventions. Even when there is a shortage of resources in the publicly owned health care system, providers that offer such services already exist in the non governmental and private sector. The authors emphasize that emerging evidence shows that purchasing health services from non governmental and private providers can be done in such a manner that it is not only efficient but also pro poor and of relatively high quality.

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ACKNOWLEDGEMENTS

The authors gratefully acknowledge the kind assistance and insights of Gerard La Forgia, Tonia Marek, Rena Eichler, Anita Johnson, Nurul Islam, Ashraf Uddin, Brad Schwartz, Indu Bhushan, Ritva Reinikka, Sarbani Chakraborty, Diana Weil, Knut Lonnroth, Silvia Albert, K.J R. Murthy, Jacques Baudouy, Chiaki Yamamoto, and Shanta Devarajan.

The authors are grateful to the World Bank for publishing this report as an HNP Discussion Paper.

INTRODUCTION

To achieve the health-related Millennium Development Goals (MDGs) in developing countries, health services delivery, particularly for poor people, will have to be improved. Nearly 6 of 10 child deaths in developing countries could be prevented through the full implementation of a few effective and low-cost interventions (Bryce and others 2003). Additional resources for the public sector will not be enough, especially as most curative services in developing countries are provided by the private sector (World Bank 2004). Contracting with nongovernmental organizations (NGOs) or other nonpublic entities to manage or deliver health services has been proposed as one approach to improve both coverage and quality of care.

WHY CONTRACT—IDEOLOGY OR PRAGMATISM?

Serious government capacity constraints throughout the developing world have undermined attempts to improve the delivery of health care and other services (Mills, Bennett, and Russell 2001). The evidence base for most service delivery reforms in developing countries is weak, however, and the debate related to contracting is heated. Contracting with nonstate providers is often seen as arising out of an ideological desire to “privatize” publicly financed health services and ultimately to limit or end government involvement in health care (Pfeiffer 2003; Turshen 1999). Another view is that purchaser-provider splits such as contracting are technocratic, neoliberal solutions (driven by the “new public sector management” model), focused excessively on efficiency and giving too little attention to equity.

Discussions with people involved in contracting in developing countries suggest that they are motivated by practical concerns, not ideology. Most contracting initiatives arise either from an absence of government services or from frustration with the poor quality and coverage of government services, especially for poor people. Most advocates of contracting express a desire for increased government financing so that services in the community can be expanded and improved. They also want to see governments engage with private providers, which already deliver the bulk of curative services in developing countries, in order to improve quality of care, access, and coordination.

POTENTIAL ADVANTAGES OF CONTRACTING

Contracting for health service delivery is attractive because it has the potential (Loevinsohn 2000) to:

- Ensure a greater focus on the achievement of measurable results, particularly if contracts define objectively verifiable outputs and outcomes.
- Overcome “absorptive capacity” constraints that often plague government health care systems and prevent them from effectively utilizing the resources made available to them.
- Tap the private sector’s greater flexibility and generally better morale to improve services.
- Broaden managerial autonomy and decentralize decisionmaking to managers on the ground.
- Use competition to increase effectiveness and efficiency.

- Allow governments to focus on other roles they are uniquely placed to carry out such as planning, standard setting, financing, and regulation.

POTENTIAL DIFFICULTIES OF CONTRACTING

A number of potential problems have been raised in connection with contracting (Abramson 1999; England 1997; Frick-Cardelle 2003; Mills 1998; Palmer 2000; Slack and Savedoff 2001; Soderlund, Mendoza-Arana, and Goudge 2003). They include concerns that

- Contracts will not be feasible at a sufficiently large scale to make a difference at the country level.
- Contracts will be more expensive than government provision of the same services, partly reflecting greater transaction costs.
- The higher levels of financing usually associated with contracts explain their success, and providing the same resources to public institutions would accomplish the same or better results.
- NGOs and other nongovernmental entities will not want to work in remote or difficult areas and are less capable of providing services to the very poor, thus increasing inequities in health service delivery.
- Governments will have limited capacity to manage contracts effectively.
- Tenders and contract management will create additional opportunities for fraud and corruption.
- NGOs and governments are so weary of each other that they will not be able to work together effectively.
- Even if successful, contracting will not be sustainable.

This review of contracting experience examines the effectiveness of contracting for health service delivery, taking into account the methodological rigor of the evaluations, to find out the extent to which the potential difficulties posited actually occur during implementation. Recommendations are also made for future contracting efforts.

APPROACHES TO CONTRACTING

Contracting for health service delivery can be approached in several different ways. For example, under a *management contract* (Table 1, arrangement 3), a government contracts with a nonstate entity or an individual to manage existing government services in a specified area. Under a *service delivery contract* (Table 1, arrangement 4), the contract specifies that a provider will both manage and supply the production infrastructure such as personnel, equipment, and drugs. The arrangements described in Table 1 are not exhaustive, and there are clearly hybrids. For example, the line between a management contract and a service delivery contract blurs when the contractor uses government health workers but pays them much more than their civil service salaries.

This paper generally deals with examples of these two types of contracts, management and service delivery contracts, sometimes in comparison with government services. Some experience has been acquired with contracts between national governments and local governments to

achieve certain goals (Table 1, arrangement 2). Though interesting, this arrangement rarely involves a true contract into which the parties enter voluntarily and the contractor can be fired for nonperformance (although other rewards and sanctions may be available). In a few evaluated instances of this approach, a government, a donor, or both commonly make a grant to NGOs (arrangement 5), and define where and what services are delivered. However, these are generally not true contracts, partly because the government has little say in what services are delivered and where. Also, few of these grants have been rigorously evaluated (Connor 2000). Contracts between different levels of government and grants to NGOs are not examined in this review.

Table 1: Some Service Delivery Arrangements

<i>Arrangement</i>	<i>Initiator (defines services)</i>	<i>Manager</i>	<i>Production infrastructure</i>	<i>Financing</i>	<i>Example</i>
1. Government services	Govt.	Govt.	Govt.	Govt. ^b	Govt. primary health care centers
2. Intergovernmental agreements	Govt.-1 ^a	Govt.-2 ^a	Govt.-2	Govt.-1 ^b	Transfer of funds from federal to provincial governments
3. Management contracts	Govt.	Private sector	Govt.	Govt. ^b	Govt. hires a private sector manager to manage existing govt. health services
4. Service delivery contracts	Govt.	Private sector	Private sector	Govt. ^b	Govt. hires NGO to provide services where none currently exist
5. Government grants to private sector	Private sector (most often)	Private sector	Private sector	Govt. (+/- NGO or community contribution)	NGOs submit proposals to govt. for needs identified by community or NGO
6. Vouchers	Private sector or govt.	Private sector	Private sector	Govt. and/or donor	Female sex workers are provided vouchers for curative care, which they can redeem at practitioners of their choice
7. Franchising	Private sector	Private sector	Private sector	Consumer (+/- subsidy from govt. or donor)	Private practitioners join franchise network providing reproductive health services
8. Private sector services	Private sector	Private sector	Private sector	Consumer or NGO/donor	1) NGO establishes health services in slum areas using its own funds 2) For-profit providers establish private clinic

Govt., Government; +/-, with or without; NGO, nongovernmental organization.

^a Govt.-1 and govt.-2 refer to different levels of government.

^b This may be supplemented by formal or informal user charges.

Source: Authors.

STUDY METHODOLOGY

This review focuses on evaluated instances, in developing countries, of contracts between governments, or their agents, and identifiable nonstate providers for delivery of primary health care services including nutrition (but excluding referral hospital care or ancillary services such as food provision in hospitals).

INCLUSION CRITERIA

To be included in the review, the evaluation had to measure quality of care, outputs such as increase in the volume of services provided, or impact on health status. The evaluations also had to, at a minimum, involve before-and-after or controlled designs. Hence, evaluations were excluded that described the contracting process but that did not measure some tangible outputs. Also excluded were studies that just provided “after” evaluations with no “before” data or without contemporaneous controls. Although instances of contracts with for-profit entities were not excluded, all the contracting initiatives reviewed involved nonprofit organizations.

SEARCH AND REVIEW METHODOLOGY

To find as many examples of contracting as possible, experts from a variety of institutions were asked about examples of contracting of which they were aware. Previous reviews of contracting in developing countries were also examined (Abramson 1999; Mills 1998; Palmer 2000; Slack and Savedoff 2001). A computerized search of the published literature was also carried out using ECO (Electronic Collections On-Line, a broad database covering scholarly journals in a wide variety of fields); Periodical Abstracts (covering general and academic journals in business and economics, including transcripts of television and radio news programs); EconLit (covers journals, books, working papers, and dissertations in economics); WorldCat (a database covering books and other resources in a large number of libraries); PAIS (Public Affairs Information Service, which provides selective subjects and bibliographic access to periodicals, books, hearings, reports, gray literature, government publications, Internet resources, and other publications from 120 countries); and PubMed (the U.S. National Library of Medicine’s search service for access to Medline and other related databases).

The electronic search was supplemented by a manual review of journals that often publish articles related to health systems in developing countries (*Health Policy and Planning* and *Social Science and Medicine*). Written reports or presentations of the evaluated examples were reviewed and summarized, and considerable attention was given to the evaluation methodology employed. Then an attempt was made to conduct structured interviews with people who had intimate knowledge of the particular example. The summaries were modified accordingly, and the same people were asked to review the summaries before they were finalized. The summaries are provided in the annex.

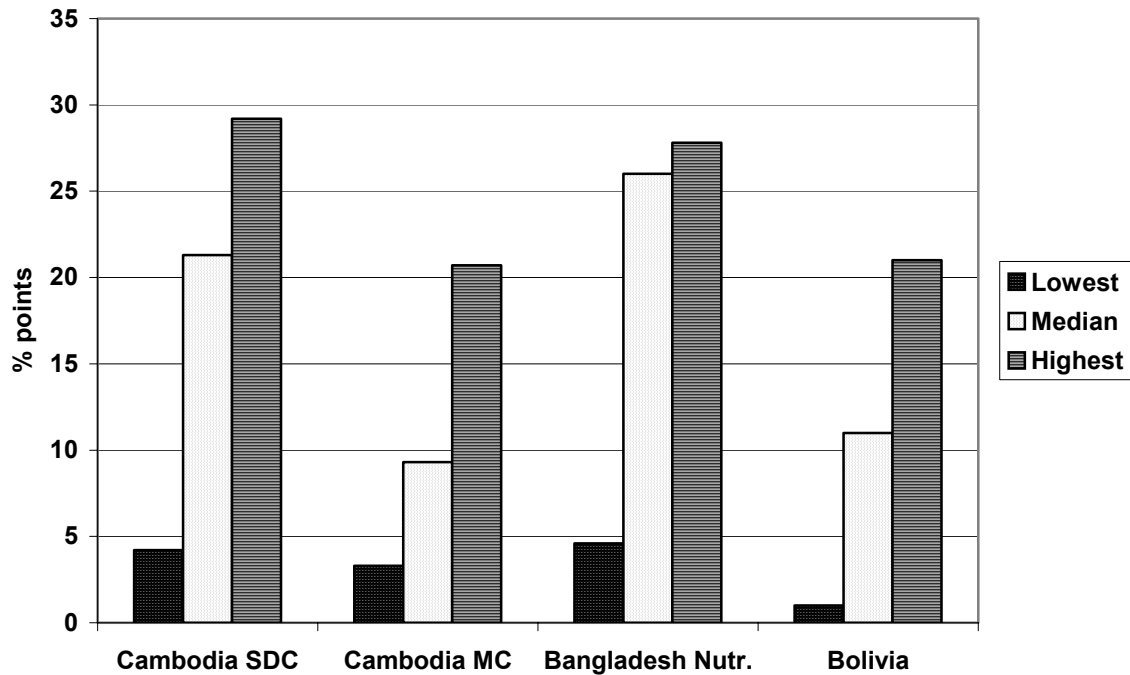
In the instances where before-and-after data were available from experimental and control groups, the “double differences” were calculated. The *double difference* is the difference between follow-up and baseline results in the experimental group minus the difference between follow-up and baseline results in the control group. Wherever possible, differences are expressed as percentage points.

RESULTS: CONTRACTING CAN QUICKLY IMPROVE SERVICE DELIVERY

From the 10 studies summarized in Table 2, contracting with NGOs appears to deliver effective primary health or nutrition services, and impressive improvements can be achieved rapidly. Good results have been achieved in a variety of settings and for a variety of different services.

All the studies found that contracting yielded positive results. The most rigorously evaluated cases demonstrated the largest impact. In the four studies where it was possible to calculate it, the median double differences ranged from 9 to 26 percentage points (Figure 1). All the double differences were positive. Larger double differences were observed for the parameters that are easier to change such as immunization, vitamin A, and antenatal care coverage. Smaller changes were observed in parameters that require important behavioral changes such as family planning and institutional delivery.

Figure 1: Double Differences (in percentage points) in Coverage Rates from Studies with Controlled, Before-and-After Methodology



SDC, service delivery contract; MC, management contract.

Note: As an example of the way the double differences were calculated, in Cambodia baseline full immunization coverage was 25.5 percent in SDC districts, 29.9 percent in MC districts, and 34.0 percent in the control districts. The coverage rates found at the follow-up survey were 65.8 percent, 54.4 percent, and 53.0 percent, respectively. This yields a double difference (follow-up minus baseline in the experimental group minus follow-up minus baseline in the control) for SDC versus control of 21.3 percentage points and of 5.5 percentage points for MC versus control. The range and median double differences for the seven indicators included in the contracts are described in figure 1 for the Cambodia study.]

Table 2: Summary of Contracting Experiences

<i>Location and service type</i>	<i>Contract and intervention type</i>	<i>Scale</i>	<i>Contracting arrangement</i>	<i>Evaluation methodology</i>	<i>Main results</i>	<i>Subsequent history</i>	<i>Comments</i>
Cambodia Rural PHC and district hospital services	SDC compared with MC and CC, that is, government provision of services.	1.5 million population	Competitively bid, formal contract, managed by special unit of MOH. Some problems ensuring good relations with provincial officials. NGOs were paid on time.	Randomized controlled study with 12 districts as experimental units. Household and health facility surveys conducted before and after 2.5 years of implementation.	SDC and MC much better than CC. Median double difference ^a on 7 indicators for SDC vs. CC was 21.3%p ^b ; for MC vs. CC double difference was 9.3%p.	Expanded to twice as many districts.	Impressive results in contracted districts achieved quickly. SDC performed better than MC but both outperformed government provision. Rigorous methodology. SDC more expensive but reduced out-of-pocket expenditure by community.
Bangladesh Rural community nutrition services	SDC with NGOs compared with control areas with no organized nutrition services (that is, normal government health services with no nutritional component).	15 million population	Fixed-price MOU. Initially sole source selection of NGOs, then competitive. Serious problems with payment and other aspects of contract management.	Controlled, before and after study with 6 experimental and 2 control upazillas. Household surveys conducted by third party.	Malnutrition rates declined 18% in SDC upazillas compared with 13%p in controls (double difference = 5%p. Double difference for vitamin A was 27%p.	Expanded to more than 30 million population.	NGOs were able to successfully implement nutrition interventions on very large scale. Modest difference in change in nutrition status, but larger in coverage of related services. No indication of how government would have done implementing nutrition services.
Bangladesh Urban PHC	SDC with NGOs compared with government provision of services, that is, CCC.	4 million population	Competitively bid formal contracts, managed by special unit of local government division. Difficulties encountered paying contractors on time and monitoring adequately.	Controlled before-and-after study with 15 contracts compared with one large area implemented by CCC. Household and health facility survey by third party.	Coverage data not yet published. Double difference for availability of specific services (immunization, family planning) was very large, 57% to 92%.	Contracts not yet completed. Planning for expansion of contracts far advanced and funding secured.	NGOs performed better in ensuring availability of services in spite of having same amount of resources. CCC unable to provide broad package of services in newly built facilities. Coverage data not yet available.
Bolivia Urban PHC	Limited MC in phase 2. MC with expanded authority in phase 3. Control area had continued public sector management.	250,000 population	Single source contract with NGO. Contract management by committee including community representatives.	Controlled, before and after design, but data from routine reporting system; only a few indicators examined.	Double difference for deliveries between MC and control was 21%p, and 1%p for bed occupancy.	Unknown	Relatively small-scale study showed large changes in MC district. Methodological issues. Contract giving greater autonomy to NGO resulted in larger changes.
Guatemala Rural PHC in mountainous areas	MC in selected municipalities and SDC in more remote areas, compared with government provision (control).	3.4 million	Competitively bid contracts with NGOs. Difficulties with financial management and supervision of contracts.	Controlled design based on household survey conducted by third party 3 years after contracting began.	Median difference between MC and control on 5 indicators was 11% (range 5–16%p).	Started as small pilot but expanded rapidly. Now covers 27% of country.	MC appeared to make modest difference in service delivery. Difficult to assess SDC because of remoteness. No baseline data available.

<i>Location and service type</i>	<i>Contract and intervention type</i>	<i>Scale</i>	<i>Contracting arrangement</i>	<i>Evaluation methodology</i>	<i>Main results</i>	<i>Subsequent history</i>	<i>Comments</i>
Haiti Bonuses for NGOs delivering PHC in rural areas	NGOs with SDCs offered performance bonuses based on agreed targets.	534,000 population	Input type of contract changed to one focused on outputs.	Before-and-after (7 months later) design based on household surveys carried out by third party.	Average of follow-up minus baseline ranged from -3%p (prenatal care) to +32%p (vaccination coverage).	Expanded to cover 1.5 million people, 19% of Haitian population.	Rapid and large change in some easy-to-change indicators. No control group.
India Urban TB control services in Hyderabad	NGO under SDC delivered TB control services in defined population and worked with private providers. Compared with publicly managed area of similar size.	500,000 population	Informal contract with existing NGO changed to formal MOU. Government provided drugs and other inputs, NGO paid for staff.	Controlled design with after only data from recording system verified by national TB program officials. Cost data collected by third party.	NGO found 21% more TB cases and had 14% better treatment success rate. Cost per successful treatment \$118 for NGO vs. \$138.	Being scaled up in various parts of India with ongoing evaluation.	NGO achieved better results at lower cost than public sector. No baseline data available; relied on recorded but audited data.
Madagascar and Senegal Community nutrition services	Madagascar: SDCs with 50 NGOs. Senegal: SDCs with NGOs that worked through small groups of unemployed youth.	460,000 in Madagascar; 490,000 in Senegal	Madagascar: contract management done by unit in office of the president; in Senegal by parastatal. No serious problems encountered.	Before-and-after (17 months) household survey of nutrition status in Senegal. Third party survey of participation in project and control areas.	Severe and moderate malnutrition declined 6%p and 4%p, respectively. Participation was 72% in project and 35% in control areas.	Continued with NGOs in both countries, but in different format.	Modest effect on malnutrition but effect size uncertain because of absence of control group. NGO successfully used unemployed youths to deliver services.
Pakistan Rural PHC	MC for the 104 basic health units in 1 district.	3.3 million population	Sole source contract with NGO by local government. Received monthly tranche of funds regularly.	Interrupted time-series design based on routine recording and reporting system.	Nearly fourfold increase in number of outpatient visits.	Only started in May 2003.	Dramatic increase in outpatient visits achieved with same budget. Data only from recording system, data on other indicators not available.
India Improving quality of care by private practitioners	SDC for NGO working with private providers to improve MCH services.	54,000 population	NGOs applied for grant from U.S. Agency for International Development and then informally contracted with private providers.	Before-and-after (6 months later) design based on household surveys by community health workers.	Rapid improvement in provider skills ranging from 25%p to 57%p compared with baseline.	Unknown	Small-scale, uncontrolled study, but large and rapid improvement achieved in quality of care.

PHC, primary health care; MC, management contract; SDC, service delivery contract; CC, control contract; NGO, nongovernmental organization; MOH, Ministry of Health; CCC, Chittagong City Corporation; MOU, memorandum of understanding; TB, tuberculosis; MCH, maternal and child health.

a. *Double difference* = difference between follow-up and baseline results in the experimental group minus the difference between follow-up and baseline results in the control group.

b. %p = percentage points.

Source: Authors based on interviews and cited references.

CONTRACTOR VS. GOVERNMENT PERFORMANCE

Of the 10 studies, 6 compared contractor performance with government provision of the same services. All 6 found that the contractors were consistently more effective than the government, based on a variety of parameters related to both quality of care and coverage of services. The few studies done in industrial or middle-income countries report similar results. In the studies reviewed here, the differences between contractor and government performance tended to be large.

Box 1: Contractor versus Government Performance in Industrial and Middle-Income Countries

There are few examples of contracts initiated for primary health care services in industrial countries. Most countries that contract have always done so. In countries where both contracted and public (salaried) physicians deliver primary health care services, the distinct reimbursement schemes make it virtually impossible to assess the impact of contracting alone (as distinct from that of the payment basis). Hence, opportunities to compare performance are rare. Nevertheless, a few scholars have attempted to assess the difference.

Several Central European countries have initiated contracting for packages of primary health care services. Where contracted services have been compared with those still provided by salaried physicians, results have generally been favorable. In Croatia, evidence of higher productivity was found in contracted practices, including indicators of patient accessibility (Hebrang and others 2003).

In Estonia, where salaried physicians converted to contracted status, a “before-and-after” analysis found improvements in allocative efficiency indicators, technical efficiency indicators (for example, annual number of visits per doctor, number of visits per inhabitant), and immunization rates (from 74 percent to 88 percent) (Koppel and others 2003).

AUTONOMY

A number of approaches to contracting appear to work quite well, but maximizing the amount of autonomy given to contractors is likely to enhance success. This comes out clearly in the studies from Bolivia and particularly Cambodia, where service delivery contracts were superior to management contracts. This finding is consistent with the experience with hospital autonomy reforms. In conjunction with these reforms, in instances where the hospital management has been given only limited autonomy, performance has improved little (Harding and Preker 2003).

SCALE OF CONTRACTED SERVICES

A number of possible difficulties have been posited about contracting, some of which can be addressed by the examples reviewed. The concern that contracts are unlikely to provide services on the large scale needed to make a difference at the country level appears to be unwarranted. Half of the examples studied involved populations of millions of beneficiaries, and in one example, contracts now cover a third of rural Bangladesh, more than 30 million people. Furthermore, it appears that there are economies of scale and that larger contracts may be less expensive on a per capita basis than smaller ones.

COST OF CONTRACTING

Contracting is not necessarily more expensive than government provision of the same services, as the studies from Pakistan, urban Bangladesh, Hyderabad in India, and the management contracts in Cambodia suggest. Nongovernmental entities performed better, even when public

institutions were provided with similar amounts of resources. Some of the contracts studied were more expensive than government delivery of the same services, although the contractors invariably performed better, and they also appeared to save people in the community money by reducing other out-of-pocket health expenditures. Although the services provided under the different contracts are not strictly comparable, a basic package of primary health services ranged from US\$0.65 per capita per year in urban Bangladesh to US\$6.25 per capita per year in rural Guatemala. The low price in Bangladesh likely reflects the fact that the better-off urban residents received their care from for-profit providers. Nonetheless, large examples from low-income countries demonstrate that basic primary health care services, including first-level referral hospital care, can be delivered for US\$3 to US\$6 per person per year.

EQUITY

The concern that nongovernmental entities will not want to work in remote or difficult areas and are less capable of providing services to the very poor also appears to be unwarranted from the experiences examined. Given the resources and the explicit responsibility, many contractors were willing to work in difficult, previously underserved areas. However, only the evaluation in Cambodia explicitly addressed the issue of whether contracting could improve equity. It found that, when contracts included explicit targets for reaching the poor, contractors were able to significantly improve health services for them. This study also showed that contractors were much better than the government in reducing inequities.

CONTRACT MANAGEMENT

Considerable concern has been expressed that governments will not have the capacity to manage contracts effectively. The experience thus far is that contract management has sometimes been an issue and will require further attention. However, it has not prevented contracting efforts from being successful. Even in rural and urban Bangladesh and Guatemala, where observers believed contract management was not done well, contractors still successfully implemented large programs. The fact that in some situations, as in Cambodia and Senegal, for example, contract management was not an issue, suggests that the problem is tractable. The cases with successful contract management appear to have benefited from either external management support or a limited number of contracts to be administered.

GOVERNMENT–CONTRACTOR RELATIONS AND CORRUPTION

In most of the situations studied, contracts appeared to have made it easier for governments and NGOs to have a productive relationship. Because of its sensitive nature, it is difficult to know whether corruption was an important issue. However, those with intimate knowledge of the contracting experiences generally believed that it was not a significant issue. In one example, it was only through the presence of an NGO contractor that the central government and the donor discovered the extent and scale of local government corruption.

SUSTAINABILITY

Given its apparent success, the sustainability of contracting is a genuine concern. Nine of the examples of contracting reviewed had sufficient elapsed experience to judge whether they were sustainable or not. Seven of the nine have been continued and expanded, often dramatically. (Information on the two exceptions is not available.) In Cambodia, Guatemala, rural Bangladesh,

Haiti and India, the scope of contracting has more than doubled from what it was initially, demonstrating that contracting in those countries has been sustainable.

METHODOLOGICAL LIMITATIONS OF THIS REVIEW

This review was based primarily on papers in the gray literature, some of which had not undergone peer review. The review included 10 contracting examples, not a large number from which to draw definitive conclusions. It is almost certain that there are other examples of contracting that we were unable to identify. Other experiences may not have been written up because the results were poor, which would lead this review to more positive conclusions than are warranted. This type of positive results bias is usually more profound when only published articles are used.

APPLICABILITY OF FINDINGS

All the cases summarized in Table 2 and summarized in the Annex focused on primary care and nutrition services, where outputs are relatively easy to measure. Other health services, such as specialist inpatient care, present much larger measurement challenges related to quality of care. Also, the providers in these cases were nonprofit organizations. Contracting with for-profit entities, especially self-employed physicians, is common in industrial and middle-income health systems, but not in low-income countries.

POSSIBLE STUDY BIASES

Of the 10 examples of contracting that met the inclusion criteria (that is, had at least before-and-after data or data from contemporaneous controls), 4 had before-and-after controlled designs, 3 had controlled designs with a single measure in time, and the remaining 3 were before-and-after evaluations. There was only one randomized trial. Three of the studies also relied on routinely collected data from health information systems of unknown accuracy. In addition, there could have been a pilot-test bias in the examples considered. Because contracting is new and different, it may have received extra attention from managers, donors, and the NGOs, thereby limiting the external validity of the studies. It is difficult to know how serious this problem is. There is some comfort in the fact that many of the contracting examples were done on a very large scale and provided services to many millions of beneficiaries. The history of contracting for social service delivery in the United States and Australia suggests that the initial experiences were problematic and that results improved as governments and contractors ironed out the difficulties they encountered (Domberger 1999; Savas 2000).

In light of the methodological concerns about the cases studied, there is still a need for future contracting efforts to include rigorous evaluations. However, the current weight of evidence suggests that contracting with nongovernmental entities will provide better results than government delivery of the same services. No longer should contracting be considered an untested intervention or a “leap of faith.”

IS CONTRACTING A SUSTAINABLE APPROACH?

Almost all the contracting efforts studied have been sustained and substantially expanded. Nonetheless, four major questions have been raised about sustainability:

- Will contracting be financially sustainable, given that sometimes contracts have been more expensive than government delivery?
- Will reliance on international NGOs or expatriate individuals impede development of local capacity?
- What is the long-term role of the government?
- How might contracting affect NGOs and other parts of civil society?

FINANCIAL SUSTAINABILITY

Contracting appears to be an effective means of improving service delivery, and, in some instances, these results have been achieved at the same cost or lower than government delivery of the same services. For these cases, financial sustainability is not an issue. In other cases reviewed, particularly the service delivery contracts in Cambodia, contracting was more expensive for the government, although it reduced out-of-pocket expenditures by the community, particularly the poor, by a larger amount than the contract cost. In this case, sustainability is an issue of whether there is sufficient political will to improve services and efficiently subsidize the poor. The contracts reviewed delivered a basic package of primary health care services for between US\$3 and US\$6 per capita per year in low-income countries. At these low costs, financial sustainability is a question of the global determination to meet the health MDGs and provide all people with access to basic health services.

CAPACITY DEVELOPMENT

In countries with many indigenous NGOs such as Bangladesh, competitive bids were almost always won by local NGOs. Bidding procedures that are at least partly based on price will, in the long run, select for local NGOs, because expatriates are much more expensive than local professionals. (Even “international” NGOs are staffed almost entirely by local health workers.) The extent to which contracting efforts encouraged the growth of local NGOs is not yet clear, although access to predictable funding flows is a key determinant of NGO sustainability in virtually all settings (Green 1987).

LONG-TERM ROLE OF GOVERNMENT

Under contracting, the government’s role becomes more strategic and less directly involved in service delivery. Governments will still need to finance health services and carry out essential public health functions such as setting policy and technical standards, collecting information, monitoring and evaluating performance, responding in emergencies, and coordinating all its partners. Because actual service delivery takes up so much time and attention, contracting may well make governments better able to carry out their other, unique roles. If governments want to be stewards of the health sector, they will have to find creative ways of working with the private sector.

Governments already play only a minor role in delivering curative services in many developing countries. Although some people argue that the long-term involvement of governments in

delivery of primary care is essential, it would, in fact, be unusual. In most of continental Europe, for example, social health insurance funds contract with independent providers. In Canada, the United Kingdom, and New Zealand, tax-based funding bodies similarly contract with independent providers (or groups) for virtually all primary health care services. Even in Scandinavia, where the government role in service provision is the greatest among the industrial countries, private providers deliver substantial amounts of primary care. In Norway in 2001, 66 percent of primary care services were delivered by private, contracted physicians and only 19 percent by salaried physicians (Sorenson and Grytten 2002).

None of this discussion is meant to diminish the challenges associated with contracting in low-income countries. The intent is merely to underscore that contracting for primary health care services is a widely practiced and accepted means of ensuring delivery of primary care. In other sectors, too, governments have become accustomed to working through contractors. Few countries still have public works departments, but roads continue to be built and maintained.

EFFECT ON NGOS

Concern has been expressed that contracting will result in the “capture” of NGOs by governments so that they will not be able to criticize governments or play an effective advocacy role. The extent to which this problem has actually occurred is not clear. Conversations with NGOs involved in contracts with governments indicate that they themselves do not feel constrained from criticizing government policies or actions. In one instance, an NGO went public with accusations of corruption by local officials. Hence, it seems that much depends on the NGO and individuals involved. Contracting also gives NGOs some advantages, through their provision of services on a large scale: increased legitimacy, overall size, and presence in communities. Nonetheless, protecting the independence of civil society is important, so there should be space for NGOs to decline to participate in contracts, if they believe it would compromise their other roles. (A contract, by its nature, involves the voluntary participation of two parties for mutual gain.)

RECOMMENDATIONS

Based on the successes thus far, there should be a significant increase in the amount of contracting undertaken in developing countries as a means of rapidly improving service delivery and achieving MDGs. This process will require close monitoring, constant evaluation and reevaluation, and improvements in contract administration.

INCREASE THE AMOUNT OF CONTRACTING

The challenge will be twofold: contracting for services not currently provided by government (“green site” contracting); and—the more challenging task—contracting for services already provided by government but where effectiveness and efficiency could be improved. In both types of contracting, the challenge is to ensure that governments get value for money spent, so that services are improved for the community.

CONTINUE EVALUATION

Future contracting efforts should continue to include rigorous monitoring and evaluation to better determine its effectiveness, obtain robust estimates of the effect size, test it under various conditions, and address remaining issues such as its effects on equity, the utility of performance-based bonuses, and different approaches to bidding. Ultimately, any debate about the effectiveness of contracting should be settled by evidence collected systematically, not by theoretical arguments or ideology.

IMPROVE MONITORING

One of the big advantages of contracting is that it allows governments to focus on outputs and outcomes, rather than inputs. To do this effectively, monitoring of contracts will need to improve. This will require greater use of health facility and household surveys rather than just data from routine reporting systems; collection of baseline data against which to measure progress; and use of third parties to work with purchasers in establishing monitoring tools and to help with data collection. Third parties have the advantage of being neutral and providing specialized expertise in monitoring and evaluation.

ENSURE AUTONOMY

According to experience thus far, allowing contractors autonomy yields greater effectiveness and efficiency. Contracts should specify outputs and outcomes but allow the contractor's managers to decide the best way of achieving them. For example, it makes sense to specify that immunization coverage should increase to 80 percent, but it is counterproductive to specify that this must be done by immunizing children on street corners. Process issues must be addressed when it comes to quality (for example, that immunizations are given according to the national technical guidelines), but the bias should be toward "letting managers manage." Obstacles to managerial autonomy include line item budgets; imposition of strategies or approaches that do not have a strong scientific basis; requisite government preapproval of innovations suggested by contractors; and the introduction of new programs or activities into the contract without extensive discussion with contractors.

SCALE

The cases examined in this review suggest that each contract should be fairly large, on the order of 500,000 beneficiaries, to obtain economies of scale and allow proper monitoring and evaluation.

PAY ATTENTION TO CONTRACT MANAGEMENT

Although inadequate contract management did not prevent contracting from being successful, improvements in this area could increase its effectiveness. Approaches that may improve contract management include use of management support (consultants or third parties) to help the government with contract management, including monitoring; limiting the number of contracts and the number of payments per contract; and involving civil society and international or multilateral agencies during the contractor-selection process to ensure transparency.

ANNEX: DESCRIPTION OF CONTRACTING EXPERIENCES

CAMBODIA, RURAL PRIMARY HEALTH CARE (PHC) SERVICES^{1,2}

Background: Many years of war and political upheaval left Cambodia with a limited health infrastructure, particularly in rural areas. Health worker morale was poor, management capacity at the district level was very weak, and access to service was inadequate. A 1998 demographic and health survey found that, nation-wide, only 39% of children were fully immunized and 21% of mothers had received any prenatal care during their last pregnancy. To address these serious issues, the Ministry of Health (MOH) devised a “coverage plan” which focused on delivery of a minimum package of activities comprising basic preventive and curative services such as immunization, family planning, antenatal care, and provision of micronutrients.

Description of the Interventions: With financing provided by the Asian Development Bank, the government contracted with NGOs in two different ways: (i) a service delivery contract (SDC, called “Contracting Out” in the original study) in which the contractors had complete line responsibility for service delivery, including hiring, firing and setting wages, procuring and distributing essential drugs and supplies, organizing and staffing health facilities; and (ii) a management contract (MC, referred to as “Contracting In” in the original) in which the contractors worked within the MOH system and had to strengthen the existing district structure. The MC contractors could not hire or fire staff, although they could request their transfer. Drugs and supplies were provided to the district through the normal MOH channels. The MC contractor received a budget supplement of US\$0.25 per capita per year to spend on incentives for staff, operating expenses, etc. In a control/comparison (CC) area the management of services remained in the hands of the District Health Management Team (DHMT) and drugs and supplies continued to be provided through normal MOH channels. As with the MC, the DHMT received a budget supplement of US\$0.25 per capita per year to spend on incentives for staff, operating expenses, etc. Technical assistance and training on management were provided to the DHMT.

Contracting Arrangements: The MOH used a formal competitive process for selecting the NGOs based on both the quality of the technical proposals and cost. Contracts were for 4 years. All the winning bidders were international NGOs with previous experience working in Cambodia. At the time the contracts were bid there were almost no Cambodian NGOs active in the health sector. Contract management was carried out by a special unit of the MOH using local consultants. The unit appears to have functioned well in ensuring that NGOs were paid on time, however a lot of time and effort was needed to solve problems between provincial and district authorities and the NGOs.

¹ Bhushan I, Keller S, and Schwartz B. Achieving the twin objectives of efficiency and equity: contracting health services in Cambodia. ERD Policy Brief Series Number 6. Economic and Research Department, Asian Development Bank.

² Schwartz JB, Bhushan I. Reducing inequity in the provision of primary health care services: Contracting in Cambodia.

<http://wbln0018.worldbank.org/HDNet/hddocs.nsf/vtlw/BE2F3B5B9E4D164385256E00006863DC?OpenDocument>

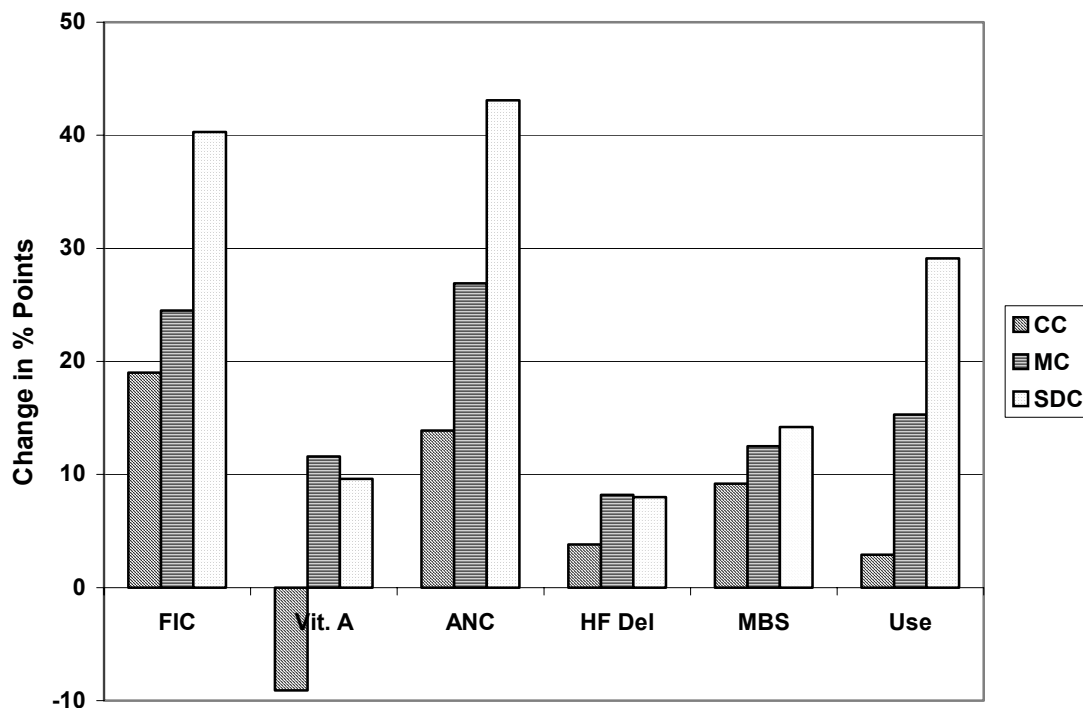
Evaluation Methodology: Twelve districts with a combined population of 1.5 million were randomly assigned to the three different approaches and baseline household and health facility surveys were carried out in late 1997. Contracts were signed with the NGOs in December 1998 and follow-on surveys were carried out in August 2001, about 2.5 years after implementation began and four years after the baseline survey. The surveys were carried out by a third party and data were collected on the parameters stipulated in the contract. The wealth of each household was assessed using an asset index.

Results: There were much larger improvements in immunization coverage, the use of antenatal care and other indicators in the SDC and MC districts than in the control districts (see Figure 1) although they were quite similar at baseline. For example, full immunization coverage increased 40 percentage points in the SDC group, compared to 25 percentage points in MC, and 19 percentage points in the control group. At baseline full immunization coverage was 25.5%, 29.9%, and 34.0% respectively. The median double difference between SDC and the CC districts for the 7 indicators explicitly mentioned in the contract was 21.3% points (range 4.2 to 29.2), while for the MC districts the comparable figure was 9.3% points (range 3.3 to 20.7). This includes parameters that are generally believed to change slowly, such as use of family planning and institutional deliveries. The poor appear to have benefited disproportionately from contracting, as can be seen in Table 2, which describes the change in the concentration index from baseline to follow-up evaluation, i.e., the extent to which health services became more or less pro-poor (negative values mean that services became more pro-poor while positive values indicate that the services became less pro-poor). With the exception of use of modern birth spacing and Vitamin A, services in SDC districts became more pro-poor followed by the MC districts. The control districts became less pro-poor.

Table 2: Change in the Concentration Index of Health Services, Follow-up – Baseline (Negative Values Indicate a More Pro-Poor Distribution of Services)

	Control	Management Contract	Service Delivery Ccontract
Immunization Coverage (FIC)	-0.0295	-0.1267	-0.1575
Vitamin A coverage	-0.00225	-0.02	0.0045
Ante-natal care	0.2135	0.0483	-0.167
Health Facility delivery	0.19725	0.096	-0.0585
Use of modern birth spacing	-0.137	0.0143	-0.0835
Use of health facilities	0.19225	0.0017	-0.2375
Average	0.072375	0.002278	-0.11658

Figure 1: Change in Key Indicators, Follow-on Minus Baseline in Percentage Points



(FIC = percent of children 12-23 months of age who are fully immunized; Vit. A = proportion of children 6 to 59 months of age who received vitamin A supplements in the last 6 months; ANC = coverage of antenatal care, 1 or more visit; HF Del. = proportions of infants delivered in a health facility; MBS = proportion of couples who have children 12-23 months of age who are using a modern form of birth spacing/contraception; Use = proportion of people sick in the last month who used a government health facility; CC = Control/Comparison; MC = Management Contract; SDC = Service Delivery Contract.)

The cost of SDC was considerably higher than the MC or the control groups but led to a considerable saving in out-of-pocket expenditures by people in the community (Table 3). The difference between the MC and the control districts (US\$0.96 per capita per year) reflected almost entirely the cost of the contract with the NGO so that these two groups had the same amount of resources to spend on actual service delivery.

Table 3: Average Annual Per Capita Expenditures on Health Care in Experimental Districts in Cambodia (US\$)

Experimental Group	Control (CC)	Management Contract (MC)	Service Delivery Contract (SDC)
Expenditure of government/donor/NGO	1.86	2.82	4.50
Average Out-of-Pocket Expenditure	24.99	23.56	18.17
Total Expenditure	26.85	26.38	22.67

Comments: The results of this randomized controlled study showed that contracting with NGOs can significantly improve service delivery within a short period of time. It appears that the greater autonomy provided to NGOs under SDC enabled a greater improvement in performance than MC. Overall, contracting with NGOs was considerably more successful than government delivery of the same services, benefited the poor much more, and was achieved at a reasonable cost. One possible argument is that if the control districts had been given the same amount of resources they could have done just as well. However, the MC districts had almost the same amount of expendable resources yet achieved better results. Three districts originally included in the study were not successfully contracted which could have affected the results. An ongoing study is attempting to assess whether this was the case. The success achieved with contracting has been expanded during a subsequent project, financed by the Department of International Development (DFID), the Asian Development Bank, and the World Bank, and now covers about 20% of the population of Cambodia.

BANGLADESH, RURAL NUTRITION SERVICES³

Background: Bangladesh suffers from one of the highest malnutrition levels in the world, and until the 1990s the Government of Bangladesh (GOB) had not mounted a coordinated effort to address the problem. Based on experience gained from the Tamil Nadu Integrated Nutrition Project in India, the GOB was interested in introducing community nutrition services on a large scale. The initial thought was that these services would be delivered by the Ministry of Health and Family Welfare (MOHFW). However, there were two major concerns expressed with this approach. The Ministry of Finance was reluctant to greatly expand the number of MOHFW staff and there was general skepticism that the MOHFW could rapidly and effectively deliver community-based services, something they had little experience with. A consensus emerged that it would be sensible to work systematically with NGOs to deliver community nutrition services. Out of this consensus grew the Bangladesh Integrated Nutrition Project (BINP), undertaken by the MOHFW with funding from the GOB, the World Bank and the United Nations Children's Fund (UNICEF).

Description of Intervention: BINP employed a large number of female community nutrition promoters (CNPs), women from the community who have at least grade 8 education, to undertake growth monitoring and promotion among young children, nutritional support for pregnant and lactating women, behavior change communication about nutrition and related issues for the whole community, and supplementary feeding for severely malnourished or growth faltering children under two years of age as well as pregnant and lactating women. Training, supervision, payment, and support of the CNPs were carried out by NGOs who signed a memorandum of understanding with the MOHFW. NGOs were provided a fixed budget, the amount of which had been decided in advance by the MOHFW, to run the program in selected upazillas (administrative entities comprising more than 300,000 people). By the end of BINP, 7 NGOs covered 59 upazillas, comprising more than 15 million people. The cost of the community

³ Karim R, Lamstein SA, Akhtaruzzaman M, Rahman KM, Alam N. The Bangladesh Integrated Nutrition Project Community-Based Nutrition Component Endline Evaluation. September, 2003. University of Dhaka, Bangladesh and Tufts University.

nutrition intervention was US\$0.96 per capita per year, or US\$20.00 per child under two per year.

Contracting Arrangements: In the initial phase of BINP, NGOs were selected on a sole-source basis based on their track record. During subsequent phases, NGOs were selected competitively based on the quality of technical proposals they submitted. Winning bidders were provided a fixed price contract and assigned to specified upazillas by the MOHFW. Contract management was done by a special project unit of the MOHFW and turned out to be problematic. There were significant delays in payments to NGOs and limited field supervision. There were also obstacles to managerial autonomy under BINP including: (i) line item budgets wherein contractors could not use savings in one line item to offset expenditures in another; (ii) the need for prior approval for innovations suggested by the contractors even when these involved no additional cost; and (iii) MOHFW ordering contractors to undertake new activities without any discussion or consideration of cost.

Evaluation Methodology: A controlled, before and after design was used to evaluate BINP. Baseline, mid-term, and end line household surveys in 1995, 1998 and 2003 respectively were conducted in six upazillas which were included in BINP and two control upazillas that were not subject to the BINP nutrition activities. The surveys were conducted by a third party under contract to the MOHFW. The stated objective of the evaluation was to discern whether and to what extent there had been a change in nutritional status, particularly in the proportion of young children who were moderately and severely underweight.

Results: Reductions in rates of moderate and severe malnutrition were slightly greater in project upazillas compared to control upazillas although both sets of upazillas made considerable progress (see Table 4). While they were not specifically mentioned as indicators of success during the design of the project, levels of vitamin A coverage and prenatal care coverage improved more in the project upazillas than in the control upazillas. The cost effectiveness analysis indicated a cost per malnutrition-related death averted of US\$1,745, and a cost per case of severe malnutrition averted (i.e., changing a severely malnourished child to at least a moderately malnourished child) of US\$366.

Table 4: Changes in Key Indicators from Baseline to Endline in Project and Control Upazillas

Parameter	Baseline (Oct 1995)		Endline (Feb 2003)		Change (% points)		Double Difference (% points)
	Project (%)	Control (%)	Project (%)	Control (%)	Project	Control	
Moderately and severely underweight (Weight for age Z score < -2 SD)	52.6	50.7	34.9	37.3	17.7	-13.4	4.3
Women attended antenatal checkup	11.8	13.7	81.0	55.1	+69.2	+41.4	27.8
Children received vitamin A capsule	17.1	16.8	83.2	56.1	+66.1	+39.3	26.8
Children initiated breast feeding immediately after birth	14.5	11.9	84.0	56.2	+69.5	+44.3	25.2

Comments: In a controlled, before and after evaluation, NGO delivery of community nutrition services appeared to have had a modest impact on nutritional status, and there were improvements in other health services too. The intervention was likely better than the control, however, the benefits were achieved at relatively high cost. While the effectiveness and cost-effectiveness of the BINP nutrition interventions remain controversial, the issue in terms of contracting is whether the NGOs successfully implemented the program as designed. This they appeared to do despite difficulties with MOHFW management of the contracts and the very large scale on which the NGOs had to work. Based on the perceived success of BINP, the National Nutrition Program (NNP) was undertaken to further expand community nutrition services. NNP currently covers 105 upazillas, or about a third of rural Bangladesh encompassing more than 30 million people, with continued reliance on NGOs to deliver services.

BANGLADESH, URBAN PHC SERVICES⁴

Background: As in other developing countries, the provision of urban PHC services in Bangladesh is chaotic and often ineffective at reaching the poor. In the large cities of Bangladesh, primary care is provided by a bewildering number of providers including: (i) a large for-profit private sector with many individual providers of varying level of skill; (ii) a large number of for-profit hospitals and clinics; (iii) a few federal government clinics; (iv) a few city corporation clinics; and (v) a relatively large number of NGO facilities. The result of these uncoordinated efforts is that the coverage of PHC services among the poor is worse than in remote rural areas.

Description of Intervention: The Government, with funding from the Asian Development Bank, divided four large cities into partnership agreement areas (PAAs) and contracted with competitively selected NGOs to deliver a package of PHC services within each PAA. Each PAA covered a population of about 250,000-400,000 and included five to eight purpose-built health centers that were the property of the Government. The NGOs were expected to provide outreach services as well as operate health centers and their contracts specified coverage targets for the package of PHC services. The NGOs otherwise had considerable autonomy to organize services the way they thought best and so this was a form of service delivery contract. The cost of the contracts averaged US\$0.65 per capita per year, although that cost partly reflected the fact that many urban residents obtain their PHC services from other sources. There were initially eight contracts signed with NGOs and then another eight contracts in a second batch. In total, the PAAs covered about 4 million population. In the center of Chittagong, the Chittagong City Corporation (CCC) was given the opportunity to operate a large PAA (with 21 health centers) with about the same level of resources per capita as was provided to the NGOs.

Contracting Arrangement: Competitive bidding was carried out for each of the PAAs with NGOs competing both on the technical quality of their proposals and price. All the winning bidders were Bangladeshi NGOs who were provided with four-year contracts. Contract management was done by a project unit working in the Dhaka City Corporation. Project managers admitted problems with paying NGOs on time and carrying out adequate monitoring of performance.

⁴ Mahmud H, et al. Mid-Term Health Facility Survey – Urban Primary Health Care Project. November 2002 Mitra and Associates, Bangladesh.

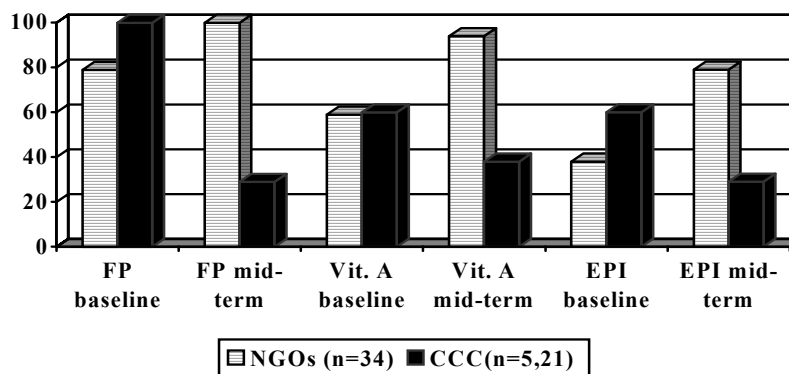
Evaluation Methodology: This project used a prospective, controlled before and after design to evaluate the difference between NGO and CCC provision of services. Baseline health facility and household surveys were carried out by an independent third party in all the PAAs, including the one operated by CCC. Two and a half years later a mid-term health facility survey was carried out in the same facilities and a household survey was undertaken, although the latter results are not yet available.

Results: As can be seen in Table 5, the NGOs did considerably better in actually providing health center services and in the quality of those services compared to the CCC (there were few health centers at baseline). Similarly, NGOs were better at providing a broad range of outreach services even though at baseline they were behind the CCC (see Figure 2).

Table 5: Health Center Performance at Mid-term in NGO PAAs and the PAA of CCC

Parameter	NGO PAAs (%)	CCC PAA (%)
% of health centers providing immunization	98	36
% of health centers providing > 1 family planning method	100	19
% of health centers providing laboratory (hemoglobin) tests	63	18
% of prescriptions provided with a specific diagnosis	93	63
% of clients saying that waiting times were acceptable	75	63

Figure 2: Availability of Outreach Services at Baseline and Mid-term in NGO PAAs and the CCC PAA



Note: FP = family planning services, Vit. A = distribution of Vitamin A capsules, EPI = routine immunization services, CCC = Chittagong City Corporation, PAA = partnership agreement area.

Comments: Using a before and after controlled evaluation it appears that the NGOs were able to provide better quality of care even though they had the same amount of resources as the Chittagong municipal government. The CCC was unable to provide the broad package of services envisaged. The results of household surveys will be helpful in assessing effectiveness, when they become available. Based on the perceived success of this experiment, the Government

is working with the Asian Development Bank on the expansion of contracts with NGOs to cover more urban areas.

BOLIVIA, URBAN PHC⁵

Background: Bolivia's maternal and infant mortality rates, at 370/100,000 and 67/1000, are among the worst in the Americas. In response to these high rates, the government began, in 1996, a concerted effort to provide a basic package of services to the whole population. The package aimed at addressing the most common causes of maternal and child death and at controlling communicable diseases. Part of this effort also included working with non-governmental providers to expand service delivery and improve the quality of care.

Description of Intervention: The intervention took place in one district of El Alto, Bolivia's fourth largest city with a population of 570,000. The city suffered from limited human resources and physical health infrastructure, considerably less than the national average. In the late 1990's assistance from the Dutch government and the World Bank led to the building of eight health centers and strengthening of the district hospital. Despite these investments, service delivery was of poor quality and utilization was low during this period (the six months prior to July 1999, called Phase 1). In order to improve management of the hospital, an NGO was given a management contract starting in August 1999 (called Phase 2). The contract did not include specific indicators of success or objectives and did not provide the NGO with authority over the staff of the hospital. Out of concern that the original contract was not having much demonstrable impact, the nature of the contract with the NGO was changed starting in February 2000 (called Phase 3) to include clear objectives, responsibility for managing the health centers, and more control of human, physical, and financial resources.

Contracting Arrangements: The contract was managed by a "management contract committee" comprising representatives from the municipality, the ministry of health, and two community representatives. The NGO was responsible for all aspects of management of the hospital and eight health centers.

Evaluation Methodology: The effectiveness of the contract with the NGO was evaluated using a before and after comparison with a similarly sized control district, also in El Alto, in which management had remained in the public sector. Data were obtained from the routine recording and reporting system and were available for only a few indicators. The data for each phase were for a six-month period.

Results: As can be appreciated from Table 6, the NGO was able to increase the number of deliveries by 41% compared to 20% in the control district (a double difference of 21 percentage points). Both achieved similar improvements in bed occupancy rates for their gynecological and obstetric services. The number of outpatient visits increased 55% in the NGO district. It appears that in the NGO-managed district, the introduction of a new contract providing the NGO with more autonomy and authority resulted in a real improvement. There was a 14% increase in

⁵ Lavadenz F. et al. Redes publicas, descentralizadas y comunitarias de salud en Bolivia. Pan-American Journal of Public Health, 2001, 9(3):182-189.

deliveries (compared to 5% in the control area) and a 24% increase in outpatient visits between Phases 2 and 3.

Table 6: Changes Over Time in NGO and Publicly Managed Districts in El Alto

Parameter	NGO District			Public Sector District			% change Phase3 - Phase1	
	Phase 1	Phase 2	Phase 3	Phase 1	Phase 2	Phase 3	NGO	Public Sector
Deliveries	1,252	1,552	1,766	944	1,081	1,135	41	20
Bed Occupancy Rate (%)	74	70	87	65	76	77	13 ^a	12 ^a
Outpatient visits	25,086	31,378	38,885	NA	NA	NA	55	NA

^a change in percentage points

NA = not available

Comments: There was a large and rapid change in service delivery in the NGO managed district and the new contract, which provided clear objectives and greater autonomy, further increased performance. No cost data are available. While this study involved a controlled before and after design, confidence in the conclusions is weakened by: (i) reliance on reporting system data of unknown accuracy; (ii) availability of data on only a few indicators; (iii) short periods of observation; and (iv) comparison of only 2 districts.

GUATEMALA, RURAL PHC SERVICES⁶

Background: As part of peace accords ending many years of civil war, the Government of Guatemala (GOG) was obliged to rapidly improve the delivery of health services to the indigenous people who make up about half of the population. The indigenous communities, many in mountainous areas, suffered from infant mortality rates that were much higher than the national average and had limited access to PHC services. The GOG concluded that it would be difficult to rapidly expand the government health care system to meet their obligations. This, combined with the indigenous community’s lack of trust in the government and the presence of a large number of NGOs working in the rural areas led to a large scale effort of the GOG to work with NGOs to improve PHC.

Description of Intervention: The GOG, using funds from the Inter-American Development Bank, contracted with NGOs to deliver a defined package of primary health care services focused on maternal and child health as well as communicable disease control. The services were to be provided to the mostly indigenous populations living in mountainous areas in the north of the country and used three models: (i) a service delivery type of contract (called the “direct” model) in which NGOs provided services themselves although they sometimes worked with other NGOs who provided administrative support; (ii) a management contract (or “mixed” model) in which an NGO administered the health services within the existing MOH system; and (iii) a control group (the “traditional” model) which was essentially the traditional mode of

⁶ La Forgia, G., Mintz, P, and Cerezo, C. Contracting for Basic Health Services: A Case Study of the Guatemalan Experience. 2004, World Bank, Washington DC

delivery via publicly-operated clinics. The contracting effort began in 1997 and was considerably scaled up beginning in 1998 and continued to expand to where it now covers about 27% of the entire population, more than 3.5 million people. The contracts with the NGOs each covered an area with a population of about 10,000 people and were fixed price at US\$6.25 per capita per year.

Contracting Arrangements: The initial groups of NGOs were selected based on their previous experience, and presence in target areas, and without much competition. However, over time the process became more competitive and based on the quality of the technical proposals submitted by NGOs. By 2002 there were 160 contracts with 88 NGOs with contract monitoring done mostly at the district level. Payment of contractors was done centrally and, despite efforts to improve it, has remained an issue. A few NGOs decided not to participate in subsequent rounds of contracting because of delayed payment.

Evaluation Methodology: There were no baseline data available for this intervention, however three years after the contracting process began (i.e. in 2000), household surveys were carried out in randomly selected areas implementing the three different approaches. Unfortunately, the areas implementing the service delivery contracts appear to have been more isolated and had less physical access to services than the other experimental groups (see Table 7). The management contract and control areas sampled appeared to be quite similar.

Table 7: Characteristics of the Areas Implementing the Different Approaches used in Guatemala

Household Characteristics	Control	Management Contract	Service Delivery Contract
% Mayan Speaking	96	95	98
% Illiterate	60	65	62
% of households with MOH facility less than 10 km. Away	70	80	44
% of households with MOH facility more than 21 km away	11	8	24
% of households in areas with “difficult access”	9	11	23

Results: Preliminary results from the household survey found that the management contracts achieved the best results in terms of prenatal care, immunization, and receipt of oral re-hydration salts (ORS) by young children with diarrhea (Table 8). The management contracts resulted in a median 11% point (range from 5 to 16% points) difference in the coverage of services when compared to the control group (i.e., traditional government provision of services). The success of the service delivery contracts is difficult to evaluate because they were implemented in more remote and difficult areas compared to the two other groups and there are no baseline data by which to judge changes over time.

Table 8: Results of the Different Approaches to Service Delivery in Guatemala

Parameter	Control	Management Contract (MC)	Difference MC-control	Service Delivery Contract
% Coverage of prenatal care	75	87	12	78
% Tetanus toxoid coverage among pregnant women	63	68	5	57
% Coverage among children of DPT3 Immunization	69	80	11	63
% Coverage among children of Measles Immunization	54	61	7	51
% of children with diarrhea receiving ORT	39	55	16	36
Median difference from control (% points)	-	11		-3

Comments: Contracting with NGOs using management contracts appears to have been somewhat more successful than government provision of services; however, the lack of baseline data makes it difficult to be sure of the actual effect size. The effectiveness of the service delivery contracts is difficult to assess because it was implemented in more remote areas and no baseline is available. The rapid expansion of the contracting effort and its continuation despite a change of government suggest that the contracting approach is sustainable in this context. Contracting was also successful despite difficulties with contract management.

HAITI, PERFORMANCE BONUSES FOR NGOS PROVIDING PHC⁷

Background: After conflict and neglect had seriously diminished the Government of Haiti's ability to deliver health services, USAID began, in 1995, support to NGOs providing PHC in rural areas. However, household surveys conducted in 1997 found that there was a very large variation in the coverage of basic services provided by NGOs. For example, vaccination coverage varied from 7% to 70% of children 12-23 months of age and expenditure per visit, which ranged from US\$1.35 to US\$51.93, was not correlated with performance. The unevenness in success on the ground led to a consideration of different approaches to paying NGOs that had previously been paid on the basis of inputs. NGOs had been reimbursed for actual expenditures up to a negotiated amount regardless of what they actually accomplished.

Description of the Intervention: Selected NGOs were offered the opportunity to receive 95% of their original contract amount in exchange for the opportunity to receive performance bonuses

⁷ Eichler R, Auxila P, Pollock J. Promoting preventive health care: Paying for performance in Haiti, in: Brooke PJ, and Smith SM: Contracting for public services: Output based aid and its application. <http://rru.worldbank.org/obabook.asp>

worth 10% of the contract amount if they achieved agreed targets for service delivery. The performance-based contracts were based on lump-sum payments rather than reimbursements of actual expenditures. Seven specific indicators of service delivery were chosen, including vaccination coverage, coverage of prenatal care (at least 3 visits), use of oral rehydration therapy (ORT), etc. A proportion of the bonus was provided to the NGO if they met the agreed upon target for each indicator (e.g. 20% of the bonus if they achieved the target for immunization) and the targets were negotiated based on results of a baseline survey. Two indicators, one related to waiting time in clinics and another related to community participation and coordination with the MOH, were subsequently dropped because they were either not a valid indicator of performance, or were difficult to measure. Three NGOs were offered and accepted the performance-based contracts and they covered a population of about 534,000.

Contracting Arrangements: The three NGOs were selected on the basis of prior performance and good management. The change to performance-based contracts resulted in less administrative burden for the NGOs. It is not clear whether contract management was easier but it certainly meant a shift from tracking inputs to tracking outputs through improved monitoring.

Evaluation Methodology: A before and after evaluation design was employed to measure the effectiveness of the performance bonuses. Baseline household, health facility, and exit surveys were carried out by an independent third party in the catchment areas of the three NGOs. Follow-on surveys were conducted seven months later using the same methodology.

Results. As can be appreciated from Table 9, all three NGOs made truly remarkable progress in improving child immunization coverage, given the short period of observation. There was also good progress on ensuring a broad choice of contraceptive methods. However, for other services the picture is mixed. On prenatal care no progress was made and for family planning discontinuation rates (the lower the better), two of the three NGOs made significant progress while the other actually lost ground.

Comments: The effects of performance bonuses on NGO performance in this before and after study appear to have been positive for things that are easy to change, such as immunization but less positive for things that involve more complicated changes in behavior. The absence of a control group complicates the interpretation, as does the short period of follow-up (seven months). It is also possible that the process of self-selection identified NGOs that were already attuned to evaluation and could have done just as well without the explicit performance bonuses. Nonetheless, the study provides some indication that performance bonuses can quickly lead to improvements in some key indicators. Performance-based contracts have now been expanded to the point where they cover about 13 million people, or about 33% of the Haitian population.

Table 9: Baseline, Target, and Follow-up Results for Three NGOs in Haiti

Parameter	NGO #1			NGO #2			NGO #3			Follow-up minus baseline % points, average
	baseline	target	follow-up	baseline	target	follow-up	baseline	target	follow-up	
Women using ORT (%)	43	50	47	56	64	50	56	64	86	+9
Of women using ORT, % using it correctly	71	80	81	53	59	26	61	67	74	-1
Immunization Coverage (%)	40	44	79	49	54	69	35	38	73	+32
Prenatal Care Coverage (%)	32	38	36	49	59	44	18	21	16	-3
Contraception Discontinuation Rate (%)	32	24	43	43	32	30	26	20	12	-5 ^a
Number of Clinics with 4+ family planning methods	6	9	9	2	5	5	0	5	5	NA

^a Negative numbers imply progress on this particular indicator

INDIA, TUBERCULOSIS DETECTION AND TREATMENT IN HYDERABAD^{8,9}

Background: There are 2 million new cases of tuberculosis (TB) every year in India, about one quarter of all new cases globally. Most TB patients in India first approach private practitioners, both allopathic and non-allopathic, when they experience symptoms. There are widely held concerns that these practitioners provide very poor quality care and do not use DOTS (directly observed therapy – short-course chemotherapy). With the advent of the revised national tuberculosis control program (RNTCP), India has been quite successful in expanding DOTS in the public sector. However, to successfully control TB the Government will also have to find an effective mechanism for working with private practitioners.

Description of the Intervention: Starting in 1995, a non-profit hospital run by the Mahavir Trust began an outreach program working with private practitioners in a poor area of Hyderabad, the capital of Andhra Pradesh. Mahavir Hospital staff visited all the private practitioners in an area covering a population of about 100,000 and encouraged them to refer all the patients they suspected of having TB to the hospital. When diagnosed with TB, patients were provided with

⁸ Murthy KJR, et al; Public private partnership in tuberculosis control: experience in Hyderabad, India. International Journal of Tuberculosis and Lung Diseases 2001: 5(4) 354-359

⁹ Akbar Y, et al. Cost and cost-effectiveness of PPM-DOTS: evidence from 2 pilot projects in India. Presentation at a meeting of the Stop TB sub-group on public-private mix in TB control February 3-5, 2004. New Delhi.

free anti-TB drugs either at the hospital or at 30 small hospitals (nursing homes) in the area, run by private practitioners or by NGOs. None of the private practitioners or NGOs received any financial incentives but were expected to use the DOTS approach, including standard record keeping. In October 1998 the Mahavir Project was expanded to cover a population of 500,000 in an area without public sector TB services. In Osmania, another area of Hyderabad with a similar population size and socio-economic profile, TB-DOTS services were provided only by the public sector and there was no concerted outreach effort to private practitioners.

Contracting Arrangements: Initially, there was no formal contract between the Government and the Mahavir Hospital, although the project was formally sanctioned by the government in 1998 and a memorandum of understanding was signed between the two parties in 2000 – in what can be characterized a “sole-source” tender for a service contract (SC). From the inception of the project, Mahavir was provided drugs, laboratory supplies, training by the Government in return for following the RNTCP DOTS policies, including using the standard recording and reporting forms. The value of the inputs provided by the RNTCP was US\$25 per patient treated while Mahavir Trust paid overhead and all staff costs.

Evaluation Methodology: The success of the Mahavir Project was evaluated using a controlled, after only, methodology with the Osmania area as the control. Determination of treatment success rates and case detection was based on records kept by service providers that were inspected by RNTCP evaluators and third parties. The cost of services was calculated by an independent third party.

Results: As can be appreciated in Table 10, the Mahavir Trust was able to achieve a treatment success rate that was 14 percentage points better than the public sector in a nearby area and was able to diagnose 21% more TB cases per year. These better results were achieved at lower cost, US\$20 less per successfully treated patient.

Table 10: Comparison of Mahavir (NGO) Provision of DOTS to Osmania (Public Sector) in Hyderabad, India

Parameter	Mahavir (NGO)	Osmania (Public sector)
Number of TB cases detected per year	563	466
Treatment success rate (%)	94	80
Total cost per <i>successfully</i> treated patient	US\$118	US\$138
Public sector cost per patient treated	US\$25	US\$63
Private provider cost per patient treated	US\$28	0
Patient cost	US\$35	US\$35

Note: Cost per patient treated does not take into account whether treatment was successful or not.

Comments: In this controlled, after only study, an NGO was able to achieve better results in detecting and treating TB at lower cost than the public sector. Part of its success came from being able to work effectively with private practitioners. The absence of baseline information makes it difficult to be sure of what the effect size was. The fact that public services were not available in the area covered by Mahavir may have made coordination with the Government easier, however, the approach used by Mahavir has been replicated on a large scale in other parts of India and evaluations are on-going.

MADAGASCAR & SENEGAL, COMMUNITY NUTRITION SERVICES¹⁰

Background: Due to worsening economic conditions, the rates of severe and moderate malnutrition were increasing in Senegal and Madagascar, as in much of the rest of sub-Saharan Africa in the 1990s. In both countries there had been very little involvement of the government in addressing nutrition issues and what limited experience there was, had not been successful. In order to address worsening nutritional status both governments wanted to work with NGOs to implement community-based nutrition interventions.

Description of Intervention: In Madagascar and Senegal, the governments used World Bank and World Food Program resources to contract with NGOs to deliver community-based nutrition interventions. The projects were launched in poor peri-urban areas of Senegal and rural areas in Madagascar. They reached 457,000 and 490,000 women and children respectively. The projects both provided monthly growth monitoring, weekly nutrition education to mothers, food supplementation for malnourished children, and referral to health services for unvaccinated children, pregnant women, and for severely malnourished children. The cost per direct beneficiary was US\$48 in the Senegal project and US\$15 in Madagascar. In Senegal the community nutrition activities were undertaken by more than 300 small groups of unemployed youth who received training and supervision from an NGO. In Madagascar, 50 NGOs were directly responsible for service delivery and they hired local community nutrition workers to help in the villages.

Contracting Arrangements: In Senegal, overall management of the project was carried out by AGETIP, a parastatal organization (although legally an NGO) with considerable experience in contract management in a number of sectors. AGETIP contracted with local NGOs who trained the youth groups that provided the community services. Supervisors were hired mainly from among unemployed medical doctors. In Madagascar, the NGOs contracts were managed by a body in the office of the President. Both projects had to comply with MOH standards and policies. It appears that contract management was done well in both countries and that NGOs were paid on time.

Evaluation Methodology: In Madagascar, only project records on participants were available. In Senegal, the project was evaluated using a before and after design based on household surveys. There were also non-project (control) communities in Senegal, however, these neighborhoods were “contaminated” by a large proportion of children who participated in the program. An independent study examined the coverage of monthly growth monitoring in one Senegalese city.

Results: Before and after surveys in one project community in Senegal found that severe malnutrition among children 6-11 months declined from 6% to 0% in 17 months and moderate malnutrition among children 6-35 months declined from 28 to 24%. The independent study showed that monthly growth monitoring attendance was 72% in project neighborhoods

¹⁰ Marek T. et al. Successful contracting of prevention services : fighting malnutrition in Senegal and Madagascar. Health Policy and Planning: 1999 14(4) 382-389

compared to 35% in non-project neighborhoods. The project records in both Senegal and Madagascar found that there was a 20 to 30% point reduction in malnutrition rates among cohorts of project participants.

Comments: The results of the before and after evaluation in Senegal suggest that the project may have had a modest impact on malnutrition rates as a result of effective implementation of community nutrition interventions. However, the absence of a control group makes it difficult to be certain about the actual effect size. From a contracting point of view, the NGOs appeared to have done a good job in implementing the program as designed, however, it is unknown how well the government would have done. Both governments continued the NGO nutrition efforts, albeit in different formats. One important aspect of the Senegal experience was the use of a large number of small groups of unemployed youth to deliver community services in their own communities.

PAKISTAN, RURAL PHC SERVICES¹¹

Background: There is a widespread feeling in Pakistan that first level facilities known as basic health units (BHUs) are providing only a limited amount of services to the rural population despite the investment of large amounts of resources in their construction, staff, equipment, and supplies. Based on ideas from a well-placed “champion” in the Government of Punjab, the District government in Rahim Yar Khan decided to have its BHUs managed by a local NGO.

Description of Intervention: In a poorly performing district of Punjab an NGO, the Punjab Rural Support Program, was given a management contract to run all the BHUs and considerable autonomy to implement changes in organization and management. The NGO was given the same amount of budget as had previously been allocated for the BHUs. The NGO quickly introduced a number of innovations. To address the shortage of doctors and high rates of absenteeism, the salaries of selected doctors were increased 150% and they had to cover three different BHUs instead of one. The NGO also improved the supply of drugs available in the BHUs without increasing the budget. The district comprised 104 BHUs and about 3.3 million people.

Contracting Arrangement: The NGO was well known in the Punjab and signed a memorandum of understanding with the district government. It received a monthly tranche of funds that was based on the same annual allocation as had previously been provided to the local health authorities. The NGO had to provide the government with the same standard reports as any other district.

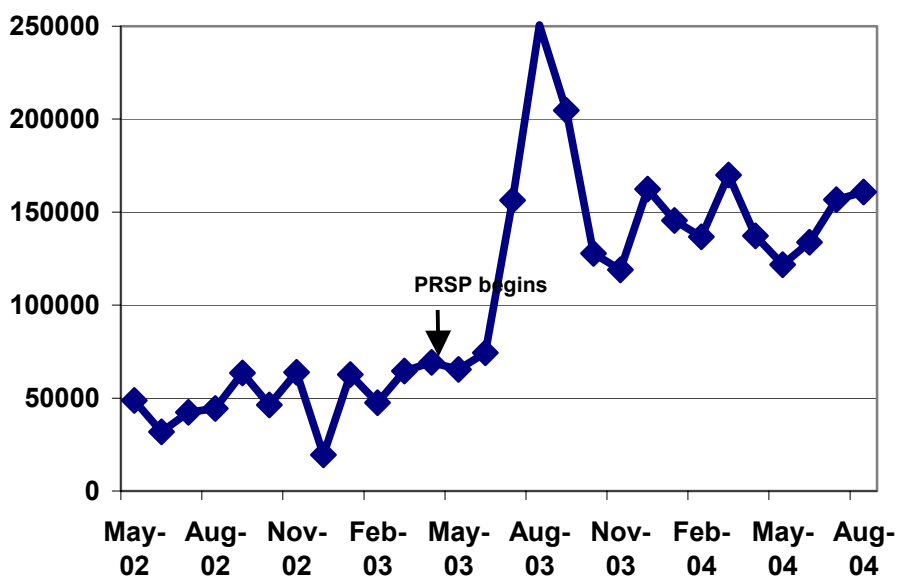
Evaluation Methodology: An “interrupted time series” approach was used to assess the impact of the intervention. Information from the routine reporting system on the number of outpatient visits in the district was tracked over time. No data from other nearby districts are yet available and data on other aspects of primary health care delivery are also not available.

¹¹ Authors’ own research

Results: There was a dramatic increase (nearly four-fold) in the number of out-patient visits to the BHUs after the government gave the NGO the authority and budget to run the system (see Figure 3).

Comments: The intervention took place in one district and no household survey data are available. Nor are data available on other aspects of health service delivery, such as immunization or antenatal care. However, the very dramatic and sudden increase in out-patient visits achieved at the same level of investment, suggests that the NGO was considerably more successful than the government in operating the BHUs when provided managerial autonomy. The intervention has been in place for only a short period, making it even more difficult to reach definitive conclusions.

Figure 3: Reported Number of Outpatient Visits in 104 BHUs in R.Y. Khan District in Punjab Before and After an NGO took over Running the BHUs in May 2003



INDIA, IMPROVING QUALITY OF CARE FROM PRIVATE PROVIDERS IN BIHAR (29)¹²

Background: Bihar suffers from the third highest level of under-five mortality among the states in India and much of it is due to common childhood diseases such as acute respiratory tract infections (ARI) and diarrhea. It is believed that 85% of cases of such childhood diseases are treated by private practitioners, many of them without formal training, and there is widespread concern that the quality of care provided by these practitioners is very poor. The Government of India, with assistance from the World Health Organization (WHO), developed guidelines for

¹² Chakraborty S. et al Improving private practitioner care of sick children: testing new approaches in rural Bihar. Health Policy and Planning 2000. (15(4) 400-407

management of common childhood illnesses. A major challenge is how to get private practitioners to employ these guidelines and therefore improve the quality of care they provide.

Description of Intervention: With funding from USAID, three local NGOs were recruited to identify local private practitioners who were treating childhood illnesses and provide them with training and follow-up aimed at improving case management based on WHO guidelines. The intervention took place in 110 villages with a combined population of 54,000, located in two districts of Bihar. The female literacy rate was less than 20%. Using CHWs to interview parents, 67 private practitioners were identified and provided support using a model called INFECTIONOM which comprised **I**Nformation on case management, **F**Eedback on their current practices, agreeing to an informal **C**on**T**ract by which they would comply with the WHO case-management guidelines, and **O**ngoing **M**onitoring of their practices by the CHWs. The private providers received no remuneration or expenses for participating in the intervention. The cost of the intervention is estimated to be US\$15 per capita per year.

Contracting Arrangements: There were two types of contracts, one with the NGOs who provided training, outreach and monitoring, and another series of “sub-contracts” between NGOs and providers for changing their practice behaviors. The NGOs submitted applications for financing to USAID and were reimbursed on the basis of expenses. The “contracts” with the private practitioners were managed by the CHWs and the NGOs.

Evaluation Methodology: This study used a before and after design in which household surveys, called verbal case reviews (VCRs) were undertaken with parents of children under-five who had ARI, diarrhea, or fever, in the previous 2 weeks. At baseline 600 VCRs were carried out by CHWs and 7 months after implementation of the INFECTIONOM intervention a follow-up survey of 300 parents using the VCR was carried out.

Results: There was a large improvement in the management of childhood illnesses by private practitioners in the area covered by the intervention, ranging from 25 to 57 % points on selected indicators. As can be seen in Table 11, improvements were achieved in those behaviors private practitioners did well and those in which they did not before the training.

Table 11: Change in Private Provider Behaviors

Practitioner Behavior	Before Intervention (%)	After Intervention (%)	Change (% points)
Used watch or timer to measure respiratory rate	14	71	57
Recommended ORS for diarrhea cases	16	48	32
Asked about history of illness	60	93	33
Touched child as part of examination	71	96	25

Comments: This relatively small scale before and after study tested an interesting approach in using NGOs to change the behaviors of private practitioners. While the changes were large and likely of practical importance, the short time frame, seven months, makes it difficult to know whether these behavior changes were maintained for a significant period.

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