

## **Competitive voucher scheme for increasing use of STI treatment by urban sex workers, Nicaragua**

### **Project Description**

The project was developed in 1995 to increase the uptake of services for sexually transmitted infections (STIs) by over 1000 sex workers (SWs) in Managua and their regular clients/partners, and to improve both consumer and technical quality of the services provided. Since 2001 men who have sex with men (MSM) have been included and voluntary counselling and testing for HIV is offered through a second voucher, distributed at the clinics.

Since 2002 the scheme covers also most of the Northern and Southern Departments of Nicaragua's Pacific Coast region. The project regularly distributes vouchers to individuals, which entitles them to free care from any of the 20 client-friendly public, private for profit and NGO clinics contracted in advance. It was one of the first trials of a competitive voucher scheme for health care in a developing country and was funded by DFID and the Elton John AIDS Foundation. Currently the scheme is financed by NOVIB (a Dutch NGO) and by the Dutch Embassy in Nicaragua.

A map of the SW population was constructed through 'snowball'-interviewing at the sites. Interviews with SWs and their clients, and baseline assessments of quality of services and costs were carried out. Field-workers identified 50-60 prostitution sites in Managua and about 60 sites in the Northern and Southern regional departments. Turnover of SWs is very high, with a median working time of 2 years and one third having worked for one year or less. In the project areas, at any one time, about 1500 women are active sex workers, of whom about 10% are glue-sniffing adolescents.

The voucher agency ICAS (Instituto Centroamericano de la Salud, or Central American Health Institute), is an NGO conducting health research and programmes. It manages the sex worker outreach activities and voucher distribution, defines and reviews the service package, carries out the competitive contracting of clinical and laboratory services, trains clinic staff and receptionists, and monitors technical quality and patient satisfaction.

SWs were greatly involved in the design of the programme, and its continuing development. Vouchers are distributed directly to SWs and their clients/partners at the prostitution sites and to NGOs who distribute them to the SWs with whom they work. The SW or client/partner or MSM takes the voucher to one of the 20 contracted clinics where she/he receives the specified service package. The clinics return the vouchers to the agency for reimbursement of the agreed fee. In Managua, each cycle, or round, is repeated every six months.

About 2,000 vouchers are distributed at the beginning of a round and are valid for 3 months. In the regional departments over 6,000 vouchers are distributed each year. Distribution here is on a continuous basis since SWs as well as their clients (amongst them truck drivers) are highly mobile along the Pan-American road. Patients testing positive for STIs are given an additional voucher for themselves and their partner/clients.

In 1997 SWs proposed involving their partners and regular clients, arguing that this would help the men to better understand STI and HIV risks and reduce re-infection rates. There are about 10,000 regular clients in Managua. Male vouchers were distributed to SWs during clinic visits, and directly distributed to clients at sites. SWs

were asked to offer a voucher to each client after each sexual encounter. Vouchers for MSM are distributed through NGOs working with these groups and directly by ICAS at cruising sites.

The voucher entitles the holder to seek treatment from one of a number of clinics. The free services include full check-up and follow-up consultation; diagnosis and tests for common STIs and cervical cancer; health education on prevention of STI/HIV; condoms; and treatment. To prevent counterfeiting, the vouchers are numbered, stamped and laminated. Secondary market development has not occurred, as predicted for a voucher with such limited use. Providers can only redeem vouchers when accompanied by a blood test and samples. No measures are taken to prevent transfer to another person, because voucher use is likely to be by someone else at risk.

Clinics are selected on the basis of price, quality and location. At first, a short-list of local providers was individually invited to tender a price for a consultation, diagnosis and referral (treatment is provided separately by ICAS). For new clinics, ICAS uses the range of prices paid under existing contracts as a benchmark, while giving weight to clinic location and perceived quality of care. Contracts stipulate redemption value per voucher and require staff to receive training and follow STI protocols. About 20 clinics are contracted and accredited, generally for one year. Poorly performing providers are dropped from the scheme and if necessary new providers are contracted.

From the outset, clinics offered services at prices well below their standard rates and even below the unit costs of providing equivalent services in government-run clinics. In fact, prices may be close to the marginal costs.

**Context.** The prevalence of HIV infection in female sex workers in Managua was about 2% in 1999. STIs increase the transmission of HIV by a factor of 3 to 5, or more. Nicaragua is still at an early stage of the epidemic, when strategies designed for groups at high risk of STIs such as SWs and their regular clients/partners can be very cost effective. These groups often do not use sexual health services due to fear of stigmatisation, low quality and/or costs. Awareness of prevention and the need for STI treatment can be very low. Sex workers tend to be hard to reach and mobile. Staff at public sexual health clinics are often discourteous and lacking in respect or confidentiality. STI prevention and treatment have positive externalities and are therefore likely to be under-consumed by those at risk.

## **Assessment**

The voucher programme has been unusually well monitored and evaluated, although evidence is weakened by lack of control for any confounding factors. Despite this, the evidence suggests that the scheme improved the quality and access of STI services in a non-stigmatising way, thereby efficiently targeting groups at high risk and traditionally hard to reach.

## Evidence of impact

From 1995 to 2003, over 40,000 vouchers have been distributed to over 4,000 different sex workers and to several thousand clients, and men who have sex with men. Of the SW vouchers, about 45% (from 40% in the first years to 50% latterly) were redeemed to provide 8,000 consultations. In total 14,000 STI consultations were provided, with 5,600 alone in 2003. In general the programme attracted almost half of the SW population. The prevalence of gonorrhoea in all SWs dropped by an average 8% per year, and of syphilis by 16% per year. HIV prevalence among SWs in Managua (anonymous testing, with sex worker consent) had a lower rate of increase than among similar groups in other major cities, rising from 0.8% in 1991 to 2% in 1999, and down to 0.9% in 2000.

The average redemption rate of male clients is 20%, with over half having one or more STIs. Some clients were used to visiting clinics for regular check-ups, but one third had never been tested for STIs. Many expressed a general lack of confidence in medical providers, including those in the private sector. But, when asked if they would use a voucher, only 9% said no. The redemption rate of men is lower than that of the women, but very efficient since the STI prevalence among redeemers is very high. The programme reaches them directly and is further targeted by the men themselves, who self-select if in medical need.

An observational study in 1997 showed that a condom is used on average in 60% of commercial sex encounters. This is much higher than found in a similar study in 1990, where condom use was 37%.

By 2003, 20 service providers had been contracted, a mix of public and private providers including NGOs. Now only private and NGO clinics are involved in Managua. Public clinics in Managua attracted few voucher holders, because of long waiting times and discourteous staff. However, as the geographical reach of the program became more rural, contracting public sector clinics became more important, as fewer private clinics were available.

Surprisingly, although public services in urban settings do not attract many voucher redeemers (due generally to human resource weaknesses), this was not the case for the public services in the rural areas. One of the reasons may be that public services at in the periphery are more user-friendly (as staff tend to be from the local communities and/or the incentive of payment for each consultation has a stronger effect at this level). It could also be because the private clinics are less readily accessible. Quality control through interviews with voucher redeemers showed high satisfaction with the treatment received within public provider.

**Equity and cost to consumer.** Socio-economic stratification of the sites based on the prices charged to clients proved to be useful for data analysis and targeting. There was a large difference in prevalence of STIs between the poorest sites (price 1-3 US\$ per sexual act) and the richer sites (>8 US\$). Women working in the poorest sites also made much more use of their vouchers. The group of adolescent glue-sniffers had the highest prevalence of syphilis, and the highest redemption rates of 80%. Any co-payment would have reduced voucher use by these women, who are especially vulnerable to STIs.

**Quality assurance.** Contracts are only renewed on the basis of good performance. In order to assess quality about 10% of female patients at each clinic are interviewed. Medical records are reviewed as well as the number of vouchers redeemed and

follow up visits at each clinic. A single laboratory is contracted for diagnostic tests, with a second for quality checks. The human quality of most clinics was much better than expected although the receptionists lacked sensitivity. They received training that greatly improved their attitude. All doctors had to pass an exam and technical quality was much lower than expected. They are provided with training and have to follow a best practice STI management protocol.

## **Wider Context**

**Health system and wider market.** The market impact appears to have been positive – the scheme has increased demand for client-friendly quality care, and the number of private providers offering these services. The defined package also probably limited over-treatment by providers (which may have occurred if provided on a fee for service basis). For context specific reasons, the agency opted for price negotiation with a selection of providers based on established benchmarks and costs analysis, rather than competitive tender according to project specifications. It has maintained pressure on prices.

As well as the initial competition for contracts, and project monitoring, competition for clients (and income from increased redemptions) has also helped to improve quality, technical efficiency and certainly client- friendliness. The scheme has been a vehicle for introducing a number of health reforms, including competition for public subsidies, provider contracting, accreditation and quality ratcheting-up, and targeted use of public subsidies.

Clinic prices have responded to downward pressure, although part of the decrease is due to monetary deflation. While the baseline study estimated the cost of an outpatient consultation in public facilities to be US\$7.65, the average price paid to contracted clinics fell from an initial US\$6.70 to US\$5.15 by the end of the 12<sup>th</sup> round (2001). Where there is over capacity, lower prices were negotiated. Contracted prices are thought to be close to the clinic's marginal costs. It is possible that competitive tendering among a provider shortlist (as opposed to negotiation) would further reduce costs.

However, given the need to reduce opportunity cost and lost income to sex workers it is important that clinics are located near prostitution sites. The direct cash benefits are not large, providing a maximum of US\$10,000 in six years, but the scheme provides reliable income. Contract awards also supports clinics in other bids for service provision with third party insurance purchasers

The voucher programme may also have enhanced the effectiveness of community based health promotion, by providing field workers and NGOs with a concrete and attractive deliverable for the target group. The project's impact on access to other SRH services for sex workers is unreported. The project has also experimented with voucher schemes for sexual and reproductive health services for adolescents, and cervical cancer screening for older poor women.

**Sustainability.** Programme benefits are likely to have some sustainability, in terms of provider quality and health seeking behaviour. The scheme is increasing overall patient numbers for the clinics, and lifting the overall standard of care for STIs. However, the administrative costs account for a large share of total spending, although these could be offset by expanded geographic coverage. The programme targets a public health issue that has substantial externalities, and is unlikely to be self-sustaining in the absence of external subsidy, especially among the poorest.

**Costs and nature of inputs.** The voucher scheme now costs about US\$200,000 per year. In an economic analysis, costs and impact were estimated from February 1999 to 2000, including start-up and user opportunity costs, and scaling up effects. The total annual provider cost was US\$62,495, with annualised start-up costs at about US\$13,000, administration costs at 7% and voucher distribution (which includes health promotion and condoms) at 21%.

Effectiveness was measured in terms of number of condoms distributed, number of vouchers distributed and redeemed, and number of effective STI treatments. Personnel accounted for almost 50% of the total, with 18% for voucher materials and condom/drug supplies. The direct cost to users was about US\$4.5 per visit. An estimated 71,300 condoms and 5,000 vouchers were distributed. About 1,500 patients redeemed vouchers and were tested for STIs, and 528 were treated effectively. The provider cost per patient treated was \$41, and \$118 per STI effectively cured. Opportunity and direct costs to users were about US\$7 per visit. The voucher value to providers is about \$5 per treated STI case.

### **Feasibility of Scaling Up**

**Context, and risks/returns.** The scheme meets the criteria for appropriateness of voucher programmes – it provides a specific and cost-effective service to an easily targeted (and largely self-selected) group with a predictable and defined health need. Its success is context specific, but some of the conditions could be achieved in other situations. It depends in part on willing local private providers, and on a highly competent local managing agency and available technical expertise. The cost effectiveness model was most sensitive to changes in personnel and laboratory costs, so that provider costs per STI treated drop to US\$85 per STI cured, when using costs for sub-Saharan Africa.

Given very limited evidence for scaling up, the risks of investment in similar schemes in other contexts could be high. However, the possible risk needs to be viewed in light of the high returns for public health – few approaches have demonstrated this level of measurable success in enabling behaviour change in very marginalized populations at high risk of HIV.

The scheme was accompanied by health promotion and outreach activities by the agency and local NGOs. It also required high involvement of the target group, to increase demand and take-up of services. Confidence and trust can take time to build up and are less likely in an environment where sex work is illegal or insensitively policed under local authorities.

Targeting is relatively easy, focusing around a large number of neighbourhoods well known to clients and sex workers. The approach would be less successful where individuals are widely dispersed, or do not self-identify (as in many African contexts). In such cases, a voucher programme targeted at poor women (who may also be exchanging sex for cash and commodities and therefore vulnerable to HIV and STIs) may be a better option. Such a programme has been piloted in a low income area in Kolkata, West Bengal, India, for reproductive and child health services (see box in Voucher section).

**Enabling environment and government ownership.** The Nicaraguan government has no direct involvement in this particular scheme, although views the programme favourably, recognising public sector limitations in providing sexual health services to

these target groups. Perceived limits to increased ownership are: reluctance to take on programmes already funded by donors; political sensitivities of allocating resources to sex workers and others for free services that are costly for the wider population; and administrative and legal barriers to contracting the private sector.

Where the policy environment is sympathetic, for example where local government is legalising or decriminalising prostitution, it might be possible to build closer linkages with the public sector, as well as the private sector. A participatory approach to culture change in local public facilities may be possible, as part of a shift to performance based contracting, which could be linked to voucher redemption targets. On the other hand, this scheme does enable total bypassing of the public sector, which might be the only option in some contexts.

Provider accreditation can be a useful way to bring providers into line with national programme policy on STI management protocols.

## **Conclusions**

The STI voucher scheme is pro-poor, and contributes to at least one MDG, with the potential of slowing down HIV and STI transmission. It is financed as an output based programme, through a contract with a national managing agent. It does place significant demands on management and supply side capacity, but does appear to have increased quality among participating private providers.

As with other private sector interventions for reproductive and sexual health in stigmatised groups, it enables a government to have an arms length relationship with external financing agent for a programme that might be politically unpalatable for targeted public financing. An alternative approach might involve performance based contracting with local public facilities

This type of output based financing has clear advantages in reaching such an excluded and vulnerable group, with its combination of health promotion and giving individuals increased purchasing power and confidence to use services that they can trust.

Such a scheme could be embedded within a wider social franchising scheme for reproductive health in low income urban areas, where several of the supply side institutional requirements (such as basic quality assurance systems and a provider network) are in place. Additional training and sensitisation of providers would certainly be required. Given the differing characteristics of the target groups (and therefore of the providers), the two approaches may not be compatible. The SW scheme makes use of member clinics in social franchise networks, managed by Marie Stopes and Profamilia.

## **References**

- Gorter A. et al. (2003) Competitive vouchers for health. World Bank background paper, Managua: ICAS.
- Sandiford P., Gorter A. and M. Salvetto (2002) Using voucher schemes for output based aid. Public Policy for the Private Sector Note no 243. Washington, DC: World Bank.
- Sandiford P., Gorter A. and M. Salvetto (2002) Use of voucher schemes for output based aid in the health sector in Nicaragua: three case studies. Presented at the World Bank workshop on Output-Based Aid (OBA), Frankfurt, Germany, January 24-26, 2002.

## The *greenstar* Franchise Network, Pakistan

### Project Description

The *greenstar* franchise is a network of more than 12,000 trained private health providers: male and female doctors in general practice, chemists and family health visitors. It was established by Social Marketing Pakistan, a local NGO founded by Population Services International (PSI) in 1991. Providers receive formal training, have access to subsidized products and services, and are promoted through the *greenstar* logo. In return, they agree to charge prices affordable to the poor and to observe quality of care standards. There is a long-term commitment to quality, which goes beyond training; it is monitored through training follow-up and mystery-client surveys. The network is positioned for 'family health', in addition to the franchise's core offering of a range of reproductive healthcare products and services.

*greenstar* is committed to play an active role in slowing the spread of HIV/AIDS, and is implementing targeted disease prevention programmes among those at greatest risk. More than 300 *greenstar* providers in areas of high-risk populations have been trained in STI syndromic management; these providers also offer a *greenstar* branded pre-packaged STI treatment kits. As of May 2003, sixteen *greenstar* branded products and services are available through the franchise network. By delivering a range of integrated Family planning and reproductive health products and services, *greenstar* franchises give clients options, and enable providers to capitalize on linkages among maternal, child and reproductive health.

Sustained health impact is central to the mission of *greenstar* in Pakistan. *greenstar* defines sustainability as the *ability to improve the health of low-income and vulnerable people through the social marketing of health products and services, for as long as necessary.*

**Context.** Less than 28% of married women use contraception in Pakistan; one third of these women use traditional methods. Access to family planning is restricted by geographic distances, financial costs, shortage of commodities and insufficient health worker skills. Although most Pakistani women are aware of family planning, misconceptions and concerns about side effects are rampant. In addition to limited knowledge at the individual level, there are significant social barriers to contraceptive use. The public sector is estimated to reach a only small fraction of the population, and the range and quality of family planning services at these facilities varies. It is estimated that the private sector provides 70% of all health services in Pakistan; relatively few private providers were offering family planning services due to limited training in this area. *greenstar* capitalised on this opportunity, recognising that customers of such healthcare products and services would appreciate a convenient location as well as customised counselling, made possible by increased training and supervision. This localised product/service offering is attached to a national brand that guarantees and signals the type of quality care that can be expected.

**Content and scale.** *greenstar* is both a social marketer and a social franchisor, although the distinction between the two is easily blurred, due to the fact that some products more appropriate for social marketing, such as condoms, are included in the product offering available to franchised service outlets. The network delivers a broad range of quality reproductive health products and services, expanding the choice available to consumers. The range includes two condom brands, line extensions (ribbed and dotted condoms) an oral contraceptive, and 3 types of injectable (one, two and three month duration) emergency contraception, a multi-vitamin, RTI/STD

services, post-abortion care, and 'Destruclip' for disposing used needles. Multiload IUD, VSC, antenatal, postnatal care, and a newly weds counselling service are also included.

The two business models together play a major role in family planning, reproductive and sexual health service delivery in Pakistan. In the calendar year 2002, *greenstar* generated approximately 2.0 million CYPs through its range of contraceptive products. This represents 25 per cent of estimated CYPs amongst all Pakistanis. Between 1997 and 2002 *greenstar's* net cost per CYP declined by 46% from \$ 6.97 to \$ 3.78. In a comparison of 60 international SM programs, *greenstar* has the lowest cost per CYP. (PSI Annual Sales and Unit Cost Analysis 2001).

## Assessment

**Evidence of impact on poverty alleviation.** The evidence base for *greenstar's* social franchising work is somewhat limited, due to the fact that the data is intertwined with *greenstar's* social marketing impact and the social franchising part of the business is relatively new.

**Evidence on impact in terms of access by the poor.** A 2001 *greenstar* Cluster Evaluation survey found that majority of the clients coming to *greenstar* outlets were likely to be from low income groups i.e. under Rs. 5000.

**Evidence on impact of quality of care accessed by the poor.** *greenstar* primarily approaches quality from the perspective of the Judith Bruce<sup>1</sup> framework and focuses on the following areas:

- Broad Choice of Methods (over 90% of clinics have IUD, injectable and oral contraceptive available)
- Quality client provider information exchange (Correctness and Completeness of Information Given to Clients)
- Technical Competence of Providers
- Interpersonal Relations, and
- Ensuring Continuity and Providing Other Health Services.

*greenstar* sees quality as a critical component in ensuring a satisfied client, preventing drop out rates and increasing client numbers. Consequently, the concept of quality is embedded within every element of the *greenstar* Network, i.e. its establishment, management and ongoing development, as follows:

**Establishment.** Providers who considering joining the franchise network are required to go through a training programme, which is customised to the level of care the provider is able to deliver. For example, less highly trained providers receive training in patient counseling, hormonal contraceptives, infection prevention and condoms, whereas more highly trained providers receive additional training in IUD insertion and infection prevention. A business format manual has been developed to specifically spell out to the providers and *greenstar* team members what is expected of all parties in order to maintain quality in the network. *greenstar* has also focused on ensuring a wide contraceptive method choice within the *greenstar* Network, via a range of *greenstar*-branded contraceptive products meeting international quality standards. Finally, *greenstar* has attempted to develop a referral network that includes its own

---

<sup>1</sup> Bruce, J., Fundamental elements of quality of care: a simple framework. *Studies in Family Planning*, 21:61-91.

clinics, NGO partners, and other facilities for referral of clients seeking services that are not offered by a particular *greenstar* clinic.

**Management.** Refresher training is offered to franchisees, the medical record card was redesigned to better assist the providers in recording information about their clients, and a reward plan, based on quality as well as quantity indicators, is also offered.

**Development.** *greenstar* trainers perform semi-annual supervisory visits to the *greenstar* outlets, monitoring specified quality indicators via the comprehensive 'Supervisory Activity Sheet' (SAS); more frequent 'Quick Investigation of Quality' visits are made as well. Performance on the SAS is scored and analysed, and strategies are developed to improve under-performing sites. Surveys are also regularly conducted to assess the effectiveness of community meetings, to learn provider views and to monitor client impact.

**Evidence of impact on household expenditure on health by the poor.** Data not available

## Wider Context

**Impact on the rest of the health market and other health systems.** According to an independent evaluation of four SM programs in three countries, *greenstar* clients and others in the community perceive the technical skills and quality of care provided by *greenstar* franchisees to be nearly twice as high as other private providers. ( Montague 2002).

**Impact on government expenditure frameworks and relevance to countries PRSPs.** Funding arrangements for *greenstar* remain outside the five-year plan, and to date this has deliberately been kept as such with the support of both the Government of Pakistan (GoP) and *greenstar*, in order to avoid operational complications.

However, *greenstar* places great importance on collaboration with the Government of Pakistan (GoP); equally the Ministry underlined its trust in *greenstar* in the ninth five year plan by assigning it enhanced programme targets. The Economic Affairs Division (EAD) of the Government, which plays an important role in identifying sources of foreign assistance for Federal Ministries and departments, as well as Provincial Governments, also provides valuable assistance to *greenstar*.

*greenstar* has collaborated with GoP at the provincial and district levels by conducting a number of training initiatives for public sector staff; and the Ministry has been equally helpful by providing *greenstar* with access to its clinical training facilities.

**Sustainability.** *greenstar's* three strategies for sustainability include:

- Maximising health impact: To date, *greenstar's* approach for ensuring this continued support for its operations and thereby maximising health impact has been to articulate clear and appropriate statements of mission and vision; to use high-quality, cost-effective projects to address local health priorities; and to monitor and evaluate results.

- Maximizing financial resources: *greenstar* continuously focuses on reducing the financial vulnerability of the programme via maximising efficiency and controlling costs; maximising sales revenue to the extent compatible with serving the poor; and developing a diversified portfolio of resources.
- Strengthening institutional capacity: *greenstar* is a mature, well-established organisation of a significant size and capacity that allows it to carry out its range of core activities. In keeping with PSI's philosophy that sustained impact is built on local organisational strength, PSI has developed a number of tools to assist partner organisations in developing their institutional capacity and ability to strategically implement programmes.

## Feasibility of Scaling Up

**Product/service and customer scope.** Social franchising programmes such as *greenstar* exist in many different countries; the preconditions and limitations highlighted in the franchising section (chapter 10) provide guidance as to the context in which such a model can be replicated, as well as the range of products/services and customers that can be approached using the model. Where questions of product/service scope are being considered with a particular implementing agency in mind, the capacity of the implementing organisation to go wider in product/customer scope/scale also needs to be assessed. Where there is some overlap in either products or customers, organisational scale and learning can be leveraged and organisational challenges minimised. For example, economies of scale benefits might be found for *greenstar* in marketing existing condoms to groups at risk for HIV/AIDS/AIDS. A second example: since TB seems to be generalised in the Pakistani population, then *greenstar* might be able to market TB DOTS kits to the existing clients of its franchised private medical providers. Expansion into rural areas is another possibility, but *greenstar's* cost per unit of health benefit gained would rise and more donor funding would consequently be needed.

**Risk return profile.** All of the risk/return points made in chapter 10 (Franchising) are valid for *greenstar*, from the franchisee and the franchisor perspective.

**Legal and administrative barriers.** The features of a market economy are important to support social franchising, as is an enabling environment regarding the marketing and advertising of contraceptives. In Pakistan, *greenstar* has suggested that barriers could be reduced if the government would revise the 1976 Drug Act; avoid duties on contraceptive imports; enhance the referral linkages between the public and private sector service outlets; monitor and prevent the leakage of public sector products in private sector outlets; and loosen the restrictions surrounding what can, or cannot, be shown on TV related to reproductive health products, especially condoms.

**Public sector capacity to implement.** Both the Ministry of Population and Welfare and the Ministry of Health in Pakistan provide significant support to *greenstar*. The Government of Pakistan strongly displays their wish that the bilateral donors fund *greenstar*, recognizing it to be a successful strategy towards meeting Pakistan's population and health goals.

## **Social marketing of insecticide treated nets for malaria prevention in rural Tanzania**

### **Project Description**

The Kilombero Net Project - KINET - was a large scale social marketing programme for malaria control to increase affordable coverage of insecticide treated nets (ITNs) and insecticide treatment kits in Tanzania. The project was carried out in two rural districts in southern Tanzania, from 1996 – 2000, reaching all 112 villages (comprising half a million people) by 1999.

The project collaborated with a wide range of stakeholders – including district health management teams and public health facilities, not for profit health providers, community development NGOs, village leaders and local private sector retail agents. A wholesaler network was also developed.

The project included a pilot voucher scheme to subsidise use by vulnerable groups (pregnant women and children under five). Project experience has informed Tanzania's malaria control programme strategy for scaling up national ITN coverage.

The intervention was implemented by the Swiss Tropical Institute and the Ifakara Health Research and Development Centre, and funded by the SDC and the Tanzanian government. Several major studies were undertaken to demonstrate the impact, effectiveness (as opposed to efficacy) and cost effectiveness of this large scale social marketing approach to ITN distribution. Baseline, cross sectional and case control studies were carried out using the project's operational monitoring and district demographic surveillance system, household surveys, interviews and focus groups to provide a robust evidence base for policy makers.

Nets were already popular in the two districts, with about 30% of families owning at least one untreated net. But awareness of the benefits of treated nets was low. Promotion, health education and communication campaigns were based on pre-project market research. Village leaders, health workers and others led community participation and local media efforts to improve understanding of malaria transmission and health impact, the increased risk of using untreated nets, and the safety of the insecticide.

During the project period, project prices for treated nets were set at around US\$5, and insecticide kits at US\$0.45. As the Tanzanian market expanded, the price of untreated commercially available nets dropped during the project period. By 2000, treated nets were sold without subsidy, although sales of the insecticide home treatment kits were subsidised to 40%. Pre-project research had assessed household income and spending, and ability and willingness to pay for nets.

Nets were first purchased from international and then from domestic suppliers, as domestic supply expanded. Ready treated nets and single dose insecticide treatment sachets were packaged, and branded with the project's KiSwahili name for quality assurance and consumer recognition. They were sold by the project to wholesalers and/or distribution agents, who received a commission per net sold from the project.

A mix of public and private channels was used for distribution. Net agents were selected through consultation, and included shopkeepers, village leaders and health workers, and institutions such as hospitals and employers. Shopkeepers were the

most important distribution agents in villages. Private retailers have a considerable customer base, are centrally known and open at convenient hours. Retailers received a one-day training on malaria, net treatment and book keeping. Five wholesale agents were active in each district, who purchased nets from the project for sale to agents, and also redeemed any vouchers. Retail agents and wholesalers received a commission on sales.

A pilot voucher scheme was developed for all pregnant women and children under 5 attending MCH clinics for ANC or vaccinations, and distributed by 80 (of 81) NGO and public health facilities. In addition to providing a subsidy, the vouchers were designed to reinforce public health system IEC messages. Public MCH facilities provided the vouchers, which could be used for part payment of a treated net (about 17% of the net retail price). Vouchers were used at any retailer in part payment for a treated net. The shopkeeper returned the voucher to the wholesaler in exchange for its full value plus a small margin, who in turn returned them to the project agent, in return for a further margin.

**Context.** People at most risk of malaria are often very poor. Each illness episode costs substantial resources at household level, and limits household productivity if adults or children are sick. Insecticide treated nets are a proven and effective means of malaria prevention in Africa, particularly for pregnant women, newborns and young children – and could reduce child morbidity by 50% and mortality by up to 20%. As private goods with public good characteristics, they are also highly suited to social marketing approaches. The public sector intervenes to expand the market in both rural and urban areas, and to subsidise the private sector and purchase by vulnerable groups where needed.

While net use in Tanzania is quite well established in urban settings, where coverage is up to 71%, average rural household use is only 28%. Overall less than 10% of nets are treated or retreated with insecticide. ITN utilisation is lower among poorer groups. There are now about 5 million nets in use, with a minimum of 14 million treated nets (and annual treatment kits) required to protect the 28 million people most at risk of malaria in Tanzania's 35 million population.

## **Assessment**

**Utilisation and health impact.** Over 65,000 nets, and nearly 25,000 insecticide treatment kits were sold during the project, and over three quarters of households owned at least one net. By 2000, the SM brand had a 95% market share.

By mid 1999, over 60% of children under 5 in Kilombero district were using a treated or untreated net. Almost 1 in 5 (18%) children and over 50% of pregnant women were using a *treated* net in areas surveyed. Although treated nets were more popular than untreated nets, retreatment rates continue to be a challenge. Less than 10% of children were sleeping under a net that had been retreated within the last 6 months. This is thought to be due to limited accessibility of treatment kits, lack of understanding about the benefits and risks of the insecticide, and the substantial time needed for community take-up. Coverage by treated nets was greater in villages where the social marketing programme had first started.

Net use was associated with a 27% increase in survival in children aged 1 month to 4 years. Beneficial effects were seen for child morbidity and the health of pregnant women. For example, in one study, prevalence of anaemia in children using nets

dropped from 49% to 26% over 2 years. Women who used nets had 12% lower levels of anaemia than non-users.

The voucher scheme also had some success. The redemption rate was very high: 97% of 8000 vouchers distributed were used to purchase nets. However, awareness was low. During the study period, only 23% of total nets sold were partly exchanged for vouchers. In a project household survey, only 43% mothers knew about the scheme, and only 12% said they had used a voucher.

**Cost to consumers and equity.** A substantial proportion of Tanzanians live in poverty (36% below the basic needs poverty line). An increase in ownership and use of bednets is likely to have an impact of poverty. However, even with subsidies for promotion, distribution and insecticide costs, affordability remains the significant barrier to take-up by the poorest households. In 1997, only 20% of the poorest households owned at least one net, and over 60% of the least poor. By 2000, half the poorest households had a net, compared with over 90% of the least poor. Ownership had increased, and the gradient between poorest and least poor had decreased.

Vouchers were also used more often by well off households (8%) than poorest ones (0%). More promotion of the voucher scheme should help to improve coverage among poorer women and children. However, costs of subsidising, and targeting vulnerable groups would be considerable.

**Quality.** The project distributed quality assured nets and insecticides, in line with WHO and Tanzanian standards and using a project product name and logo for promotion and marketing purposes. Retail agents were trained in net treatment requirements and process.

### **Wider Context**

The alternatives for ITN distribution are to use existing public health infrastructure or to rely on the commercial sector supported by public sector promotion. Neither the public sector nor the commercial sector alone could achieve the level of coverage required either through free or non-subsidised provision of ITNs. However, affordability, low demand and limited capacity of public and private sector distribution networks are major constraints. Manufacturers are risk-averse to developing new markets in under served rural areas. Inefficient distribution results in poor access and higher process, all affecting poorer households. Hence the importance of public sector and NGO efforts, and support to subsidised distribution by suppliers. For higher coverage, substantial demand creation is also required – through culturally sensitive education, local leadership, and brand recognition.

**Health system and wider market.** The project was developed and implemented in partnership with district level actors involved in malaria control, including health and local government officials, and at national level with the malaria control programme and PSI. A wide cross-section of private and public stakeholders have been involved in consultations through Tanzania's ITN taskforce. Overall, Tanzania's strategic approach to increasing coverage for ITNs has enabled substantial market expansion, with measurable health impact in the ITN projects. It has stimulated expansion of the domestic manufacturing industry from one supplier in the 1980s to an expected four by early 2004, capable of supplying both domestic and regional markets.

The public sector has been extensively involved, especially in voucher distribution and education. The issue of whether health facilities should also sell treated nets and treatments is debated – indeed there are currently no MOH guidelines on this. Treated nets could be included in Tanzania's cost sharing policies, but careful consideration is needed regarding the commission. In the KINET area, at one public clinic, the commission is shared among all staff. At a second, resentment has been generated, and less motivation for health promotion, where the staff member in charge sells the nets and keeps the commission. At the local level, the impact on private for profit (allopathic and traditional) health providers is not reported, as to whether there is local demand to be included as distributors.

**Sustainability.** Project benefits are likely to be sustainable. Demand is growing for ITNs, although substantial effort is required to shift users from untreated to treated nets, especially in poorer groups. Net manufacture and distribution is efficient, selling without a subsidy, and insecticide treatment is subsidised at US\$0.5. Given market development in the late 90s, the overall ITN programme is now likely to need external support mainly for marketing and promotion activities, especially for retreatment and insecticide purchase. Regional or district foci may be needed. The voucher system will require a managing agency and network, to co-ordinate distribution and redemption arrangements. In the medium term, the retreatment problem will be solved by the introduction of long life nets, permanently treated with insecticide. One Tanzanian company is already manufacturing these.

Making greater use of the commercial sector is proving more sustainable and better value for money. KINET and other project evidence suggest that treated nets are attractive commodities if opportunity costs are kept low (i.e. local availability) and financial costs are below US\$5. Retail prices for nets have dropped from over US\$5 in 1995 to less than US\$3.50.

**PRSP and health strategy.** Tanzania has been a leader in developing approaches and scale up strategies for ITN use. This is in line with the Abuja target agreed in 2000 by African leaders to achieve 60% coverage of ITNs by members of vulnerable groups by 2005. Since 2000, the emphasis has shifted from a project based approach to scaling up to achieve national coverage – Tanzania is one of the first African countries to have developed such a comprehensive strategy.

The Tanzania government has developed a national strategy (NATNET), based on both KINET and PSI's social marketing for ITNs project. National and international advocacy among the many stakeholders, together with effort to develop a strong evidence base for demonstrating effective approaches and impact have been used effectively to build consensus and ownership. The coherent and sustainable strategy was developed by a public-private sector ITN taskforce, and is set within the wider context of Tanzania's malaria control, health and poverty reduction strategy.

### **Feasibility of Scaling Up**

**Tanzania's strategy.** NATNET's three core concepts are: increased demand creation for ITNs, a national PPP for developing a sustainable and vibrant domestic commercial market to ensure increased supply and value for money; and targeted public subsidies (vouchers) aimed at high risk groups. NATNET requires a close collaboration of public, private for profit and not for profit sectors. It uses a 'total market approach' to increasing ITN coverage, allocating clear roles to public and private sectors, and segmenting the market according to ability to pay. The public sector focuses on its stewardship role - consumer protection and quality assurance,

policy and regulatory issues and consumer awareness and demand creation. Additionally, through the voucher scheme, the public sector ensures that net and insecticide purchase are subsidised for those at risk. The NGO role will focus on grass root education and community based distribution. The commercial sector will cover supply and distribution, further product development and brand specific marketing.

### Overall lessons for scaling up

- Technical research, lessons learned and evidence from large scale projects to inform scaling up strategy
- Endemic malaria and existing demand for untreated nets (but market weak prior to SM interventions)
- Clear government commitment and leadership (with Roll Back Malaria support) for malaria policy to include ITNs, plus donor consensus and flexibility to take pilot approaches such as vouchers to scale
- Early involvement of private sector and willingness to enter market and scale up manufacture, leading to fall in prices
- Withdrawal of SM brand once private sector supply established and marketing competitively
- Close collaboration between SMOs and manufacturers, with interventions to tackle short term constraints only
- Successful advocacy to reduce import duty on yarn and sales tax on nets
- Extensive village based commercially sustainable distribution network (local shop keepers)

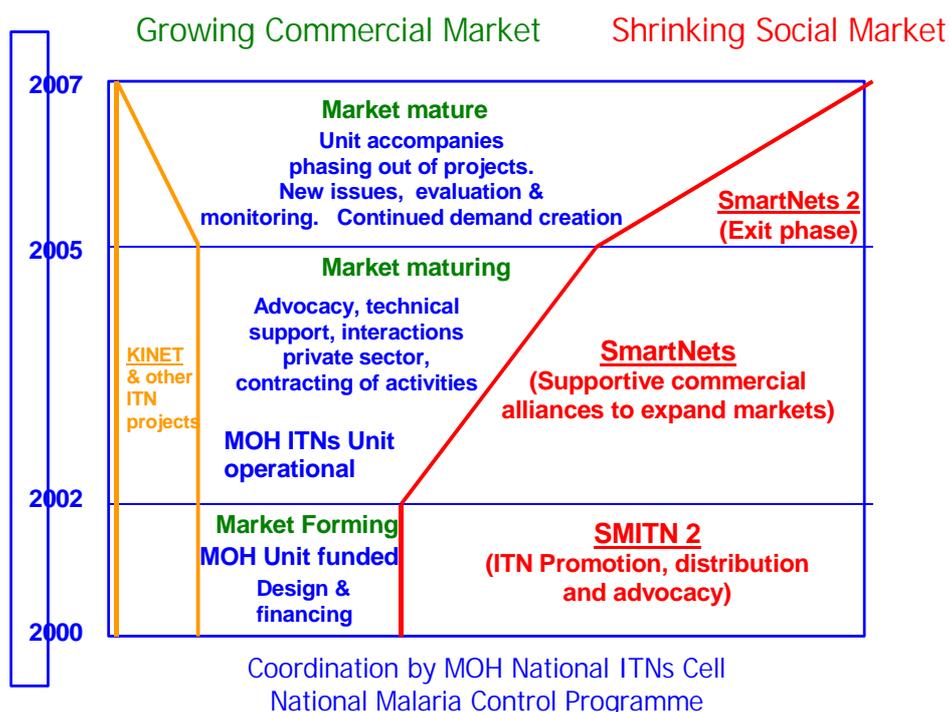
**Social marketing.** Since 2000, national net distribution takes place through a social marketing programme called SMARTNET, managed by PSI. SMARTNET moves ITN social marketing away from the NGO model (promoting and distributing own branded nets). Its focus is on nation wide multi and single brand advertisement, assisting the domestic suppliers to expand their wholesale and retail network, especially rural areas, and building the market for their own branded products. The majority of business partners are Tanzanian registered companies, typical of those setting up since liberalisation in the early 90s. TV, radio and other media require substantial capital investment, only possible since this time. PSI is one of the top ten purchasers of advertising, from local companies.

Three net producers have agreed to bundle kits with pretreated nets, to invest in establishing new agents in remote areas, to develop new products and provide information on sales on different product in all areas. In return, kits are supplied at US\$0.15 to manufacturers, and a targeted transport subsidy provided for limited periods. SMARTNET is also developing a national distribution network for insecticide treatment kits – a less attractive option for manufacturers as long term treated nets are likely to enter the market shortly.

**The Tanzanian national voucher scheme.** (TNVS) for subsidising nets for vulnerable groups, is based on the KINET project, and has been funded by the Global Fund. The scheme aims to provide every woman attending an antenatal clinic with a printed voucher valued at about US\$2.5. The voucher scheme enables the net distribution function to remain mainly in the private sector instead of taking on free distribution. It provides a targeted subsidy mechanism without undermining the development of a commercial market for nets, while offering a vehicle for the public health workers to promote and educate about ITN use. The criteria include all

women visiting ANC clinics, irrespective of their socio economic status. Given the high overall incidence of poverty in Tanzania, this universal targeting approach to voucher distribution maximises the public health benefits and reduces targeting costs. Women attending ANC and vaccination clinics will also be given a free treatment kit. The scheme will be implemented by tendered contractors, who will co-ordinate the distribution of vouchers within the public health system, and their redemption by agents and shopkeepers, and wholesalers.

### National Malaria Control Programme, Tanzania - Taking ITNs to scale



The voucher scheme will increase demand for ITNs, and stimulate the market. However, without effective SM and support to manufacturers for marketing and distribution, ITNs would not be available for purchase in poor rural areas.

**Enabling environment and public sector capacity.** The Tanzanian experience demonstrates the importance of upstream policy interventions for expanding demand and ability to pay, and for stimulating and regulating the supply side. Key enabling factors are as follows.

**Taxes and tariffs.** effective campaigning and lobbying by the MOH, with international and national partners, with the MOF and revenue and customs authorities has enabled reductions or removal of tariffs and import duty on imported nets and netting materials. These are now treated as essential drugs. Licensing fees and foreign exchange controls have also been dealt with. In 1994 the sales tax (125%) was removed, leading to a price drop, a rise in sales and the entry of a second manufacturer into the market. With vigorous lobbying, VAT is not levied on net sales, but is still levied on inputs used for manufacture and insecticides.

**Regulation of insecticides.** The registration process for new insecticide kits has been speeded up (responsibility with the Ministry of Agriculture). Insecticides can be marketed and distributed not just e registered pharmacies but as part of social marketing outlets. Now all nets are bundled with an insecticide kit by the supplier.

**Quality assurance and branding.** A national ITN logo is proposed, for 'kitemarking' nets reaching national quality standards based on WHO norms, and which are insecticide treated. The logo would justify higher price for an ITN, and protect the manufacturers making higher quality nets. Manufacturers will also develop and market their own brands.

**Role of the public sector.** While demand exists for nets, it is still low for treated nets. By 2002, all ITN projects hold less than 30% of the market share, and penetration into poorer market segments is still limited. Demand for nets is price sensitive, and untreated nets are cheaper and preferred by consumers. The public sector has a major role in education, along with introducing and ensuring the use of the quality kitemark. The bundling policy of all manufacturers will also help to build use of insecticides, plus long term treated nets. Low take-up points to the need to much greater promotion through health facilities, net agents, community events, and especially for women in poorer households. The national voucher scheme (at US\$2.5 per ITN) is now contributing about 50% of the cost, and should increase access by poor women.

## Conclusions

National scale up of ITNs through social marketing and voucher schemes can contribute to support pro-poor health strategy with partner governments, and contributes to the achievement of at least two MDGs.

Such an approach could work well in similar contexts, particularly where commercial village based distribution is a viable option. However, in countries where rural population density is very low, and where households are not located in villages (eg Rwanda), public sector schemes may be more viable.

Projects such as KINET are demonstrating that social marketing can deliver a combined approach, through commercial supply and distribution, community participation in developing communication campaigns, and public subsidy for promotion and access by the poor.

## References

- Schellenberg, J.R. et al. (2001) Effect of large scale social marketing of insecticide treated nets on child survival in rural Tanzania. *The Lancet* 357(9264):1241-7
- Hanson, K. et al. (2003) Cost-effectiveness of social marketing of insecticide-treated nets for malaria control in the United Republic of Tanzania. *WHO Bulletin* 81(4): 269-76
- Ifakara Health Research & Development Center (2001) The KINET Project. An overview: improving child survival in rural Tanzania: insecticide treated nets for malaria control in the Kilombero Valley.
- Lengeler, C. et al (2000) National strategic plan for insecticide treated nets in Tanzania: a report to the National ITN Task Force. PWC (unpublished)
- Mushi, A. et al (2003) Targeted subsidy for malaria control with treated nets using a discount voucher system in Tanzania. *Health Policy and Planning* 18(2):163-171
- Tanzania Ministry of Health (2002) Tanzania National Malaria Control Programme strategy document.

## Contracting with the private sector in Cambodia

### Project Description

One of the aims of the Basic Health Services Project (BHSP) was to test innovative mechanisms to increase the efficiency of health service delivery, with government contracting with private entities to deliver district health services – the Contracting for Health Services Pilot Project (CHSPP). The Ministry of Health entered into contractual relationships with not-for-profit NGOs to provide health care services in nine districts from 1998 to 2002.

The pilot was designed to assess the performance of three approaches:

- **Contracting services (contracting out):** private contractors have full management control of, and responsibility for, delivery of all district health services in accordance with the Health Coverage Plan and MOH technical protocols, with complete authority over human resources and procurement.
- **Management contracts (contracting in):** private contractors work within the MOH system providing day-to-day management of the District Health Management Team (DHMT) and district health staff. The initial design envisaged all other inputs (operating costs, salaries, drugs etc) being provided by the government through normal MOH channels. In practice, a project budget supplement of \$0.25 per capita was introduced (originally intended only for the control districts) to allow contractors to pay some form of staff incentive.
- **Control / comparison:** DHMTs run district health services as before under customary MOH mechanisms, but with eligibility for a \$0.25 per capita budget supplement dependent on production of acceptable activity plans.

Some of the key characteristics of the different delivery models are shown below.

### Key characteristics of the different models in the CHSPP

	<b>Contracting out (CO) 2 districts</b>	<b>Contracting in (CI) 3 districts</b>	<b>Control/comparison (CC) 4 districts</b>
<b>Management responsibilities</b>	Contractors had full management control (replacing DHMT and civil service), and full accountability for service delivery.	Contractors working within MOH system to provide day-to-day management of DHMT and district health staff.	District Management Team running district health services as before.
<b>Outputs</b>	Contract specifies required outputs for service coverage and quality, with goals and minimum levels of achievement (identical to CI outputs). CO and CI to comply with Health Coverage Plan, MOH technical protocols	Contract specifies required outputs for service coverage and quality, with goals and minimum levels of achievement (identical to CO outputs). CO and CI to comply with Health Coverage Plan, MOH technical protocols	

	and reporting requirements	and reporting requirements.	
<b>Human resources</b>	Contractors directly employ health care staff and have complete freedom over structure, hiring, firing, wage rates.	Staff remain MOH civil servants. Contractors could not hire or fire but could request staff transfer.	
<b>Finance</b>	All recurrent costs covered by contract funds paid by government through Project Coordination Unit (PCU).	Contract payments cover only specific contractor costs such as training. Operating costs (salaries/supplies etc) are paid through Provincial Health Departments and according to government rules. A budget supplement of \$0.25 per capita pa (\$37,000 per district typically) was paid out of project funds direct from PCU, and was at the disposal of the contractor. *	Operating costs paid through normal government channels and according to government rules. CCs eligible for budget supplement of \$0.25 per capita pa (typically \$37,000 per district) paid out of project funds, based on acceptable action plans.
<b>Supplies</b>	Contractor procured drugs and consumables.	Drugs and supplies provided through normal MOH channels.	Drugs and supplies provided through normal MOH channels.

\* Note: the budget supplement was originally planned only for control districts (CC) but was extended to contracting-in districts (CI) after baseline surveys showed the actual receipt of operating funds at district level was negligible: only \$0.13 per capita per year.

**Selection and survey of participating districts.** After excluding districts with a number of biasing factors, the design envisaged each of the CO, CI and Control approaches being tested in four districts, whose populations ranged from 100,000 to 180,000. Household and health facility surveys were undertaken in the twelve selected districts to establish baselines against which subsequent changes could be measured, and were repeated using the same methodology by an evaluation team. The use of an asset consumption index as part of the baseline survey enabled relative poverty to be identified in all districts. The twelve districts were randomly assigned between the three models.

Eight of the 16 bids received from NGOs were technically non-compliant, leaving no bids for two districts, and two further bids for one district were eliminated as overpriced. As a consequence, the pilot went ahead with only two CO districts and three CI districts rather than four each as originally intended. The number of participating Control districts was left at four, giving a total of nine districts in all.

**Planned and actual costs** . About \$2.0 per capita per annum was budgeted for the pilot, but the average bid price for CO contractors was \$5.04 per capita pa, and for CI contractors \$1.54 per capita pa (excluding MOH-assumed costs, suggesting an estimated total cost of c.\$2.50 per capita pa.

**Focus on the poor.** The CHSPP incorporated no mechanisms for targeting the subsidy directly at the poor, but the evaluation indicators and the household and health facility surveys were designed to identify changes in health and service utilization of the poor, relative to the rest of the populations of the selected districts. Socio-economic status (SES) indices were based on ownership of certain household assets, education of mothers and certain ethnic differences. Households falling within the lowest quartile were regarded as 'very poor', and the percentage of households falling within the lowest SES quartile varied from 18.9% to 41.9% across the nine districts covered.

**Monitoring and evaluation.** Eleven evaluation indicators were developed focussing on preventive maternal-child health care coverage. These included immunisation coverage, antenatal checks, birth spacing knowledge and practice etc. In addition, some simple quality of care indicators were used covering, mostly, the availability of relevant equipment and supplies at health centres and regional hospitals.

A baseline household survey and facility surveys were conducted before the start of the project and comparisons were made of the norms in the contracting districts with the national rural norms established by the National Health Surveys. Mostly, the contracting districts were lower performing than the national rural norm. Health facility surveys were conducted in all nine participating districts. No hospital exceeded 34% of the maximum possible score.

Subsequent household and facility surveys were undertaken using the same methodology as had been used in the baseline surveys to measure changes in the key indicators within and between CO, CI and Control districts. Surveys also measured changes in private health care expenditures.

## **Assessment**

**Services.** The pilot achieved mean increases in 11 services indicators of 320.4%, 179.7%, and 99.6% for the CO, CI and Control districts respectively, over a two and a half-year period. The two CO districts and the one CI district which adopted a 'user fee/no private practice' policy achieved substantial reductions in out-of-pocket health care expenditure by the poor. This reduction was greater among the poor than among the overall population. All CO and CI districts showed large increases in the utilisation of district public health facilities for curative care, as did two of the Control districts.

**Costs.** The average annual recurrent health expenditures per capita were \$22.67 for the CO districts, \$26.38 for the CI districts, and \$26.85 for the Control districts (for the combined total of government, donor and out-of-pocket expenditures). The composition of this spending differed (as shown below), with substantially higher spend by donor and government in the contracted out districts, offset by lower out-of-pocket spending. Six of the nine districts showed reductions in out-of-pocket expenditures by the poorest 50% of households and, in the two CO districts, reductions were 77% and 61%. One CI district showed a reduction, and this was in the district which introduced user fees and used them to pay incentives to staff whilst banning them from private practice. In the other two CI districts where it proved

difficult to pay staff a living wage (despite the availability of budget supplements), continued extensive private practice and unofficial charging led to increases in out-of-pocket expenditures of 36%. In three of the four control districts, there were significant reductions of 33%, 12% and 11%, but a large increase of 132% in the remaining district led to a small overall average increase.

**Cost-effectiveness.** Measured as the average percentage change in all services indicators divided by the average total cost per capita over the two and a half year duration of the project, higher cost-effectiveness ratios were achieved by the CO and CI districts (in that order) than by the Control districts. In the CO districts this represented a 30% increase in health coverage for every dollar spent per capita throughout the project.

These and some other findings of an independent 2001 evaluation are summarised below.

### Selected key evaluation findings, 2001

	<b>Contracting out (CO) 2 districts</b>	<b>Contracting in (CI) 3 districts</b>	<b>Control/comparison (CC) 4 districts</b>
<b>Services</b>	Mean increase in 11 service indicators over 2.5 years:  320%	Mean increase in 11 service indicators over 2.5 years:  180%	Mean increase in 11 service indicators over 2.5 years:  100%
<b>Costs</b>	Average govt/donor/ NGO recurrent expenditure:  \$4.50 per capita, pa plus \$18.17 private out of pocket, totalling \$22.67 (15% less than the Control districts).	Average govt/donor/ NGO recurrent expenditure:  \$2.82 per capita, pa plus \$23.56 private out of pocket, totalling \$26.38.	Average govt/donor/ NGO recurrent expenditure:  \$1.86 per capita, pa plus \$24.99 private out of pocket, totalling \$26.85.
<b>Cost effectiveness</b>	The most cost-effective of the 3 models, delivering a 30% increase in health service coverage for every dollar per capita spent over 2.5 years.	Less cost-effective than CO but more cost-effective than controls, delivering a 26% increase in health service coverage for every dollar per capita spent over 2.5 years.  2 of 3 CI districts received disproportionately less of their approved budget from Provincial Health Depts than Control districts.	The least cost-effective of the 3 models, delivering a 21% increase in health service coverage for every dollar per capita spent over 2.5 years.  Considerable TA required to develop plans for budget supplement, and actual expenditure overall 36.1% lower than funds available. Main use of budget supplement was for outreach immunization. Accountability generally poor.
<b>User fees</b>	Both CO contractors had official 'no user	Contractor-managed user fee scheme in 1 CI	2 districts had official MOH user fee schemes, 2

	<b>Contracting out (CO) 2 districts</b>	<b>Contracting in (CI) 3 districts</b>	<b>Control/comparison (CC) 4 districts</b>
	fees' policies.	(Pearaing). No official user fees in 2 CIs, (though payments reported by patients in Cheung Prey and by a minority at the referral hospital in Kirivong).	districts had unofficial pilot schemes.
<b>Human resources</b>	Contractors proved able to ensure the necessary number and type of staff.  Most MOH district staff took leave of absence from civil service and were hired by contractor. Those unwilling or unacceptable to contractor were transferred. More highly trained staff were brought in from elsewhere.	Contractors proved unable to exert direct management authority. To motivate staff or enforce staff regulations, all 3 CI contractors had to pay staff (though civil servants) incentives out of a project budget supplement originally intended for operating costs.	Baseline staff shortages not resolved. Civil service staff salaries minimal and no relocation costs available.

## Wider Context

**Institutional context.** Contracting was a new concept and it was difficult for the hierarchical administrative structure to incorporate it – in particular, the MOH had difficulty in performing an effective, knowledgeable purchaser role, and significant international technical assistance was needed. Also, there was tension between contractors and the provincial and district management levels of the MOH.

At the same time, the contracting NGOs, which normally operate through grants, had some difficulty in adjusting to the disciplines of a contractual relationship with their clients. Weak national NGO capacity at the time resulted in contracts being awarded to (arguably more expensive) international NGOs albeit with some cost incentives to recruit local staff.

**Contracting context.** The simple per capita payment kept transaction costs low but provided no incentive to fill prolonged staff vacancies. The subsequent ADB evaluation recommended that future contracts should be 'cost-plus-fee' based for personnel and fixed for other inputs. Contracting resulted in better financial control than that in Control districts where audit irregularities continued. Payments were (to some extent) contingent on performance and in some cases progress payments were withheld.

The service evaluation indicators provided a good basis for output evaluation and a clear target for providers in delivering their services including the impact on the poor.

Contract design provided little detail on MOH or contractor roles, but the contracting arrangements benefited from extensive consultation with stakeholders prior to implementation.

The procurement of equipment, supplies and drugs was hampered by the ADB procurement rules (which are more appropriate perhaps to costly items) and this had an adverse effect on achieving targets.

## **Conclusions**

The pilot showed that contracting for basic services in rural districts was feasible, and led to increased utilisation and lower health spending by the poorest 50% of households. The poor were not targeted specifically, but they benefited from improved services and from reductions in their expenditure. The experimental design of this pilot scheme indicated better results in the 'contracted out' districts than in the control districts (which remained under public sector management), or 'contracted in' districts (which brought in management while staff stayed within the public service). However funding for the control districts was significantly lower, making it hard to assess efficiency.

A key factor in the relative success of the pilot appears to be the flexibilities in staff pay and conditions achievable under the contracting arrangements. The CO contractors paid the staff they had recruited from the civil service up to ten times more than their government salaries on condition that they either refrain from private practice completely, or that they were available for the full working day. The CI contractors were allowed to supplement civil service salaries from a budget supplement (without which it would have been impossible to motivate staff to work) but even then, the salaries paid still fell short of a living wage and staff continued to pursue private practice in two districts. In the third CI district, however, a 'no private practice' agreement was enforced and user fees were introduced to provide staff with a living wage.

Because they employed them directly, the CO contractors had full management authority over staff and this allowed them to manage and innovate, for example, to post higher-trained consultation staff (Medical Assistants) to each HC in a district to increase the quantity and the quality of primary curative care. CI contractors had no independent authority to hire, fire, transfer or sanction staff without higher approval. Control districts were bound by normal civil service rules.

The ADB Evaluation Report recommends an expansion of contracting-out, which it finds to be high-performing, cost-effective, and capable of replication. It specifically recommends its continued use because of its potential to increase wider access to services by the poor and to reduce their out-of-pocket expenditure on health care. It does not address directly the critical question of affordability and sustainability.

## **References**

- England, R. (2004) Experiences of contracting with the private sector: a selective review, Roger England. London: DFID Health Systems Resource Centre.
- Bhushan, I. Keller, S. and B Schwartz (2002) Achieving the twin objectives of efficiency and equity: contracting health services in Cambodia. Medium-term study on the effects of contracting NGOs and private suppliers to provide primary health care services in Cambodia. Asian Development Bank (ADB)