

## **A voucher scheme to give female sex workers access to high quality health services provided by private micro-enterprises**

**P Sandiford, M Salvetto, Z Segura, A Gorter**

### **Background**

In most developing countries governments have attempted to address the health needs of their poorest citizens by providing basic health services through publically owned and operated networks of clinics and hospitals. Though this strategy has had some success in improving child survival and reducing maternal mortality, it is now clear that it is failing to meet the expectations of a large proportion of the population in these countries. Typical problems include poor technical and human quality of care, inadequate coverage in rural areas, over-crowded outpatient and emergency departments of public hospitals, under-utilised facilities providing basic ambulatory care, and often, high overall costs for the volume of services provided. To make matters worse, in many countries it is the middle classes and not the poor who, through fair means or foul, benefit most from publicly financed and operated health services.

Governments, donors and development banks have in recent years began to look for ways around these problems to ensure that the poor in particular, have physical and financial access to at least basic health services of adequate quality, and thus a global movement for health sector reform has gained momentum in the 1990s. For many health policy specialists, the solution lies in finding a way to increase private sector participation in the provision if not the financing of health services. If given appropriate incentives, private health service providers may be able to give the poor access to services that governments are currently failing to, not only of higher quality, but at a lower cost.

Outside the health sector, vouchers have been successfully used by governments and other public bodies to purchase services from the private sector whilst targeting the poor, creating a competitive environment to drive down costs, and employing the contractual mechanisms needed to guarantee quality and accountability. A voucher is essentially a token of exchange, similar to money but exchangeable for a more restricted range of goods and/or services. Vouchers have been quite widely used in housing and education programmes but hardly at all in the health sector.<sup>1</sup> However, they are a sufficiently flexible instrument to offer at least four important potential benefits, either individually or in combination:

1. Increased equity in access to health services (because vouchers remove cost and quality barriers to service uptake and because it is possible to target their distribution to the poor);
2. Improved quality of services (because quality specifications can be incorporated in contracts with accredited providers, because the providers contracted offer higher quality services than those to which recipients currently have access, and because of competition between providers on quality to attract voucher redeemers);

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<sup>1</sup>Sandiford P., Coldham C., Gorter A. Should publicly-funded health services be distributed by vouchers?: A review of experience in other sectors. Under revision *Health Policy and Planning*.

3. Greater choice (because they allow for multiple service providers and remove cost barriers); and
4. Higher efficiency (because there is competition on price to participate in the scheme, because public resources are shifted away from inefficient providers and because only highly cost-effective services need be included in the service package).

Here we report one of the first ever trials of a voucher system for health services in a developing country (Nicaragua). The scheme was initially designed as a small scale innovative project and funded by the British government's Department for International Development (formerly the Overseas Development Administration).<sup>2</sup> The project was established by the Central American Institute of Health (ICAS), an NGO conducting health research and development projects in Central America, with technical support from the Liverpool School of Tropical Medicine. Technical assistance was also provided by consultants from the Institute for Health Sector Development (London).

Its intended beneficiaries are female sex-workers (FSWs) or prostitutes. Females sex workers provide a graphic illustration of how publicly operated health systems have failed to serve the poorest and most needy. They suffer high rates of sexually transmitted disease, unwanted pregnancy, induced abortion, and are at a high risk of developing AIDS, yet rarely receive the necessary health services. Sometimes they are unaware of the potential benefits from regular health checks, but more often they are discouraged from using government run services because they are stigmatised and mistreated by staff in sexually transmitted disease clinics, and know that the clinics for the general population are incapable of properly diagnosing or treating their problems. They have greater faith in private clinics but generally cannot afford the consultation fee.

The net effect is that FSWs either choose not to obtain sexual health services, or receive ineffective care if they do. As a core group they create a reservoir of infection which sustains disease in the population. The failure to diagnose and cure bacterial sexually transmitted infections (STIs) such as gonorrhoea, chlamydia and syphilis, make the women more susceptible to acquiring HIV infection and therefore AIDS, and passing these on to their clients who in turn pass them on to their wives.

In Managua, Nicaragua, there are about 1200 women actively engaged as FSWs. Although these women are no longer repressed and harassed by police to the same extent as in other countries, they are suspicious of government interventions to treat STIs which mainly take the form of a dedicated STI clinic in each main health centre given the name 'Clinica 13'. Attending these clinics is highly stigmatizing and the patients who do are treated poorly.

Private service providers (mainly NGOs and some private, for-profit clinics in Managua) have in the past offered targeted services to FSWs but the price and their failure to adequately diagnose and treat the women's problems (perhaps because the medical staff are mostly unaware of their occupation) have deterred them from making consistent use of such services. Thus, use of sexual health services among this "core" group was, before the project was implemented, quite low and

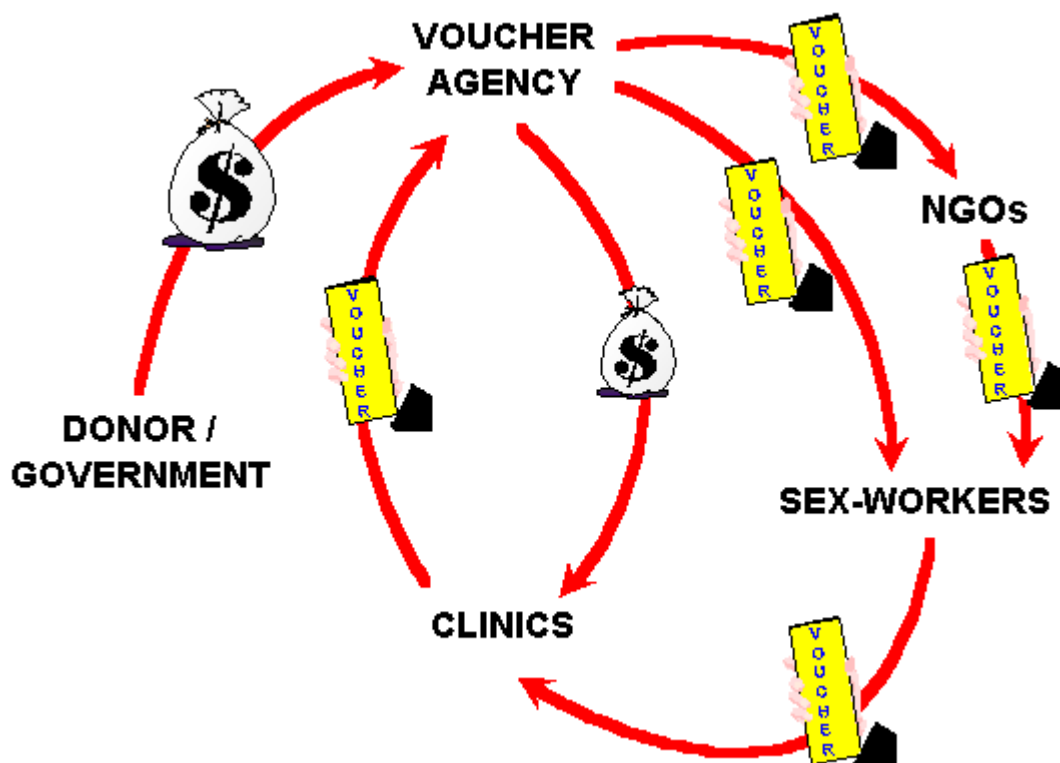
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<sup>2</sup>Department for International Development Health and Population Grant AG 663

generally ineffective.

### An Overview of the Voucher Scheme

The essential idea of the project was to increase the uptake of sexual health services by FSWs by regularly giving them vouchers which would entitle them to free care from any one of a variety of private, NGO and public clinics, contracted in advance by the voucher agency (ICAS). In addition to improving health service utilisation by FSWs it was hoped that the voucher scheme would drive technical and human quality improvements in the contracted clinics whilst keeping unit costs for consultations below those of existing Ministry of Health clinics.



**Figure 1.** How the voucher scheme works.

Figure 1 shows how the voucher scheme works. With funding from the donor, the voucher agency (ICAS) produces the vouchers, some of which it distributes directly to FSWs and some of which it gives to NGO intermediaries who distribute them to the FSWs with whom they maintain close contact. The FSW takes the voucher to the contracted clinic of her choice where she receives the specified services. The clinics return the vouchers to the agency which is reimbursed the agreed fee per voucher. The cycle, or voucher round as it will be referred to here, is repeated every four to five months.

## **The Voucher Agency**

The voucher agency functions are assumed by ICAS with no direct involvement of the government. In addition to producing and distributing the vouchers, ICAS invites clinics to participate in the scheme; reviews their credentials and capacity to provide the service package; negotiates contracts; trains medical staff in the appropriate management of STIs and trains nurses and receptionists in how to handle FSW clients in a non-discriminatory manner; analyses the data collected; monitors quality of service provision; and determines which services are to be delivered.

Some of the roles are rather onerous. To distribute vouchers directly to FSWs it was initially necessary to construct a city-wide map of the distribution of sites where sexual services are sold. Since these sites change over time it is therefore necessary for the voucher agency to keep the map up-to-date. A stratification of commercial sex locations based on the prices charged is useful for data analysis and for targeting the women in greatest need so ICAS also keeps a record of this information. In addition, ICAS regularly conducts semi-structured interviews with FSWs to gauge acceptability of the services being provided generally and also on a clinic by clinic basis, as well as for exploring ideas for improving voucher redemption rates. To carry out these functions it employs a small multi-disciplinary team of professionals comprised of a medically trained programme coordinator, a sociologist employed half-time, a consultant gynaecologist also employed part-time, a full-time data processor and a number of field-workers employed as required for voucher distribution and interviewing. As pointed out above, during the initial phase of the designing and setting up the voucher scheme the team was assisted by UK based experts.

## **Tendering and Contracting the Service Providers**

Clinics were initially invited to tender their services by an advertisement in the main national newspaper but this produced only one candidate and so it was concluded that the clinics had to be individually invited to participate. A list of the criteria that each clinic would be expected to have in order to be able to participate in the scheme was drawn up (including elements such as trained medical staff, telephone and receptionist, the necessary equipment for conducting a gynaecological examination etc), and from this, a list of possible public and private clinics was made. Each of these were then asked to tender a price for: a gynaecological consultation and follow-up consultation; providing 'information, education and communication' on the prevention of STIs through use of condoms etc.; taking vaginal and blood samples and preparing these for transport to the laboratory; informing the patient of the results of these tests; and dispensing treatment where indicated (provided separately by ICAS). A separate price for these services is negotiated with each clinic, recognising that the participation of some is more important than others because of their location, but also because some receive more external subsidies than others.

The contracts signed between the voucher agency (ICAS) and the providers, stipulate not only the redemption value of each voucher but also require the staff to follow a set protocol determined by ICAS's medical experts. The protocol specifies how the gynaecological examination is to be performed, what samples are to be collected, how and when they are to be transported to the laboratory, the specific health education messages to be imparted, and of

course, the treatment regimens. Participation in the training conducted by ICAS is compulsory for all clinic staff. Feedback is regularly given to clinics' personnel on their performance in terms of the number of vouchers redeemed.

Irrespective of any legal obligations implicit in the contract, the actual process of contract negotiation has the tremendous advantage of clarifying the expectations, standards and roles of each party. The contract is reviewed after each distribution round and a decision is taken whether or not to renew it based on the number of vouchers redeemed at that particular clinic, the number of infections detected and treated, and on an assessment of the quality of care provided. The latter is made from information given by FSWs who had attended the clinic, medical record review, and by calculating the proportion of women who return for their follow-up consultation as a simple quantitative indication of the human quality of care that they have received.

Though there are several providers of clinical services, a single laboratory is contracted to conduct all diagnostic tests including: provision of swabs and transport media; daily collection of samples from each clinic; reporting results (within a maximum of 7 days); and distribution of treatment for FSWs found to have a STI. A second laboratory is contracted for quality control purposes, repeating the tests on about 10% of all samples. Having just one laboratory greatly simplifies logistics and allows some economies of scale, at the expense, perhaps, of competitive pressures on prices.

## **The Clinics**

The micro-enterprises contracted have been a mixture of public and private (including non-profit NGOs) providers of reproductive health services, although now only private and NGO clinics are participating in the scheme. Some of the NGOs are clinics for women only where legal advice and psychological counselling is also offered. Financially, the private for-profit clinics survive on a fee-for-service basis but most of the non-profit NGOs also receive subsidies (mainly from foreign donors) and are therefore able to offer lower prices for their services. Some claim to offer differential rates according to the ability to pay of their clients, but in practice they usually charge everyone the set fee. The public clinics are funded from the Ministry of Health budget and charge nominal user fees. In addition, one of the Medical Insurance Enterprises (*Empresas Médicas Previsionales*—EMP<sub>s</sub>) has been contracted on one or two occasions. These are clinical service providers (or purchasers of services) which have been contracted by the Nicaraguan Social Security Institute to provide care for the beneficiaries of the national social insurance programme — mainly salaried workers in the formal sector and their dependents. Most of these EMP<sub>s</sub> are private organisations but there are two which are wholly owned by the Ministry of Health and it was one of these which participated in the voucher scheme in some of the earlier distribution rounds. Its funding is derived principally from its contract with the Social Security Institute. Two of the private clinics contracted are also EMP<sub>s</sub>.

## **Voucher Production and Distribution**

Approximately 1000 vouchers are distributed to FSWs each round (see Table I). These are produced in-house by ICAS. In order to prevent counterfeiting the vouchers are individually numbered, stamped with the ICAS seal and laminated. The expiry date is printed on them. The vouchers were initially distributed by ICAS's trained field workers at the previously mapped areas of soliciting sites in Managua, but more recently NGOs engaged in charitable work with specific groups of FSWs have been given vouchers to distribute, which they do at no charge. No measures are taken to make the vouchers non-transferable or to impede the formation of a black market although an effort was made to monitor the extent of this practice. There were two reasons for this policy. One is that it is practically impossible to prevent the vouchers being used by someone other than the original recipient. The other is that it is quite likely that the secondary recipient of the voucher may be at higher risk of having a STI than the primary recipient and therefore transfer might actually serve the programme's objectives.

To give voucher recipients information on the location and opening hours of the various clinics a booklet is distributed with each voucher with a page for each clinic to describe the services they offer. The idea originally was for clinics to use this space as an advertisement and thereby foment greater competition between clinics. To date this has not transpired and the information contained within the booklet is almost entirely of a factual nature.

## **Services Delivered through the Voucher Scheme and Health Impact**

A total of 6 rounds of voucher distribution have been made in the period from June 1996 to February 1999. In that time over six thousand vouchers have been distributed of which 39% were redeemed (Table I). Redemption rates in the last two rounds of voucher distribution were both 44%, the highest so far. It is also notable that the number of vouchers received and used in the last round was the highest to date, suggesting that the scheme has become increasingly accepted and used by the sex-workers.

On the other hand, the proportion of women attending their follow-up consultation has dropped, in part perhaps because of a change in policy to give all FSWs single-dose treatment for chlamydia and gonorrhoea on their first visit rather than making treatment conditional upon laboratory diagnosis as it was previously. The prevalence of STIs is lower than it was at the beginning of the project but not by a great deal. However the incidence rate in women using vouchers more than once has dropped by 65% since the beginning of the programme.

In qualitative terms there is no doubt that the scheme has given FSWs greater choice in health services and access to a much less stigmatising experience than before. Sandra, working in the oriental market where the price of sexual services is very low volunteered the following information:

*"These vouchers help us. When somebody goes to a health centre (public) you have to wait or they give you an appointment, but with the vouchers they see you immediately. It is not necessary to make a big effort in order to get examined. The doctors know what kind of tests you need ... they don't bother you with a lot of questions".*

The impact of the project on other health problems such as HIV transmission, ectopic pregnancies and septic abortions is, unfortunately, impossible to measure.

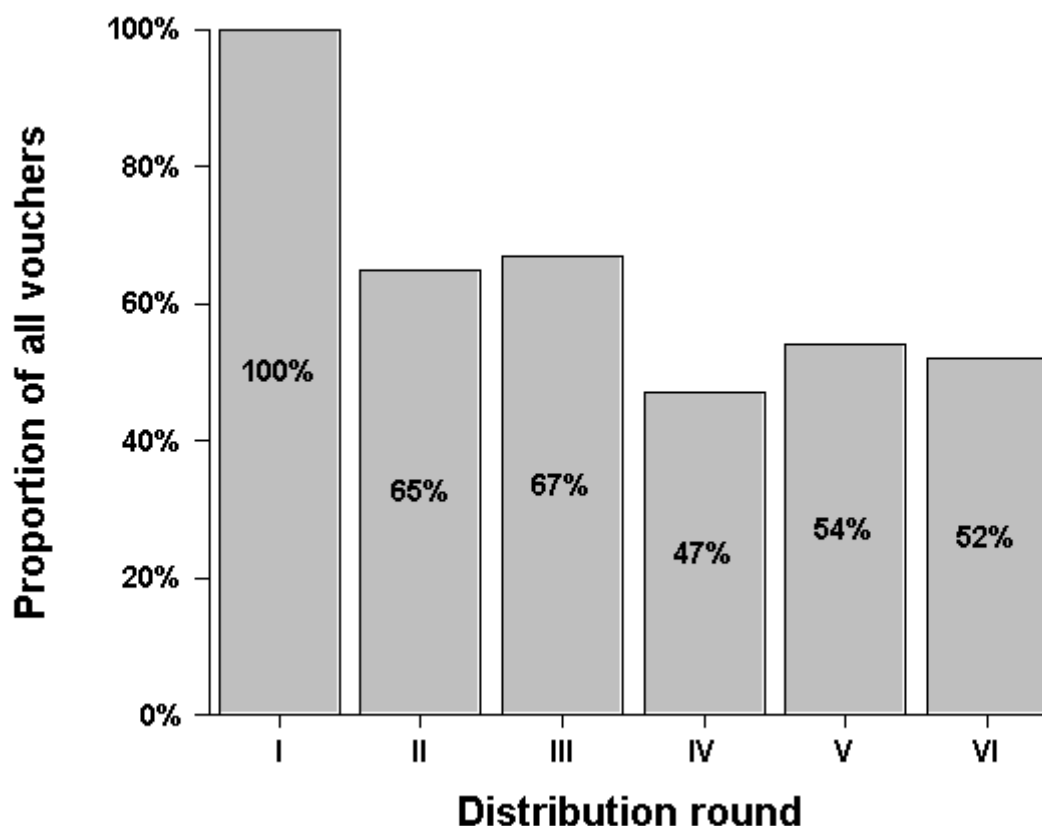
One of the difficulties faced by the project in increasing health service utilisation by FSWs is the high turnover of women. Figure 2 shows that the proportion of all vouchers that are redeemed by women using one for the first time has fallen to about 50% but this is still very high. This fits with estimates made from baseline data that the average duration of employment as a FSW is only about 2 years.

**Table 1.** Vouchers distributed and redeemed, follow-up consultation rates, and gonorrhoea prevalence and incidence by distribution round.

| Distribution Round | Vouchers received by FSWs | Vouchers redeemed by FSWs | Proportion of FSWs attending their follow-up consultation | Prevalence of gonorrhoea | Gonorrhoea incidence (per 1000 person-years) |
|--------------------|---------------------------|---------------------------|---|--------------------------|--|
| I                  | 1073                      | 431 (40%)                 | 89%   | 10.0%                    | na   |
| II                 | 989                       | 307(31%)                  | 83%   | 7.5%                     | 279  |
| III                | 1014                      | 428(42%)                  | 90%   | 10.4%                    | 189  |
| IV                 | 883                       | 249(28%)                  | na*   | 8.6%                     | 85   |
| V                  | 1009                      | 448 (44%)                 | 81%   | 9.4%                     | 143  |
| VI                 | 1169                      | 516 (44%)                 | 75%   | 9.2%                     | 99   |
| TOTAL              | 6137                      | 2371 (39%)                | 83%   | 9.3%                     | 138  |

\*In this round no follow-up consultation was arranged because all FSWs were treated

**Figure 2.** First time redeemers as a proportion of all voucher users by distribution round.



### **Impact of the Voucher Scheme on Clinical Service Providers**

The number and type of clinics contracted in each round is summarised in Table 2. By 1999 there have been a total of 17 different service providers contracted. Interviews with the clinics' directors revealed that for most of them the economic benefits of the project were not huge. The largest single provider has received a total of \$5,000 from the voucher scheme in just over two and a half years. Nevertheless, some of those interviewed did state that the presence of voucher-bearing clients in the clinics has, even if temporarily, helped to fill the clinic and attract other paying clients by giving the impression of being a highly popular provider.

Although the economic benefits may not have been particularly significant, the service providers did feel that they had received a number of other benefits from participating in the scheme. The main advantage perceived by the clinics was the improvement in the technical quality of their services brought about by the contracts with quality specifications imposed by ICAS, and by the competition created among providers for voucher income. Clinics saw improving quality as the one way of competing in the scheme and it was consistently reported by the clinics that the lessons learnt through the technical training offered by ICAS were systematically adopted in their service provision to all other clients. As the director of a reproductive health clinic puts it:

*"The workshops have been very important, we have received good*



*literature. Although our work was of good standards, ICAS treatment protocols are more updated. Now we use those for our patients as well. We also think that the quality control ICAS is performing is a very good thing both for the project and for our clinic. Now we have also started to perform quality controls on our work”.*

**Table 2.** The number\* and type of clinical service providers contracted each round.

| Round | Public sector providers | NGO providers | Private (for profit) providers | Total | Contracts not renewed | New contracts signed |
|-------|-------------------------|---------------|--------------------------------|-------|-----------------------|----------------------|
| I     | 2                       | 4             | 2                              | 8     |                       |                      |
| II    | 4                       | 5             | 3                              | 12    | 0                     | 4                    |
| III   | 2                       | 4             | 3                              | 9     | 4                     | 1                    |
| IV    | 1                       | 4             | 2                              | 7     | 3                     | 1                    |
| V     | 0                       | 5             | 2                              | 7     | 1                     | 1                    |
| VI    | 0                       | 5             | 3                              | 8     | 1                     | 2                    |

\*Providers with more than one clinic are counted just once.

Doctors found that over the course of the project they have become more perceptive to the problems of FSWs (for them a new type of client) and, in some cases, young glue-sniffing girls (mainly street children). They also found that serving these women has been challenging and professionally enriching. After the first round, the interest from providers to participate in the scheme increased greatly as they realised, not only that the scheme was a legitimate and reliable source of income, but also that the FSWs would not dress in a manner that put off their other clients. In this respect the medical director of another NGO reports:

*“I don't believe the presence of the FSWs in the waiting room has diminished the attendance of other patients. Although in the beginning some patients were curious, we explained that it was the clinic's policy to attend all people without excluding special groups”.*

An additional benefit mentioned by the service providers was that being contracted by an agency with the prestige of ICAS confers a certain kudos on the clinic, especially for the smaller ones which are glad to be ‘in the same league’ as the larger clinics. It may be true too, though it was not possible to demonstrate this, that losing a contract with ICAS has caused clinics to try to assess their failings and improve the quality of their services.

It should also be noted that the work done by ICAS in identifying, targeting and reaching FSWs has helped the NGOs which were recruited for voucher distribution to expand their own outreach programmes and in doing so they have learnt how to better approach this difficult-to-reach group of women.



## **Impact on the Voucher Agency**

ICAS, for its part, has also greatly benefited by this experience. Although it had previously contracted clinical services from private sector providers, this project has enabled it to further develop skills in negotiation, quality assurance, contracting and training. Importantly, it has demonstrated to the institution the potential efficiency gains of purchasing services from providers with existing infrastructure and human resources rather than attempting to develop these capacities 'in-house'. However ICAS itself has developed considerable institutional capacity and understanding of the structure and dynamics of commercial sex work in Nicaragua and of the potential applications of voucher schemes in a delicate area of health care provision (FSWs and STIs).

## **Efficiency and Cost Containment**

It is frequently argued that although services in the public sector may be of a rather poor quality, they are at least affordable to poor people and that it would be too expensive to contract these out to private providers. This project has challenged that assumption by demonstrating that the unit cost of consultations purchased through the voucher scheme is lower than in the public sector. A baseline study conducted by one of the project consultants estimated the unit cost of outpatient consultations in the Ministry of Health health centres to be \$US7.65. Table 3 shows that the average price paid to clinics for a consultation *and* follow-up visit were initially only \$6.70 and, despite increasing slightly initially, was only \$6.27 in the sixth round. Most of this cost reduction has been achieved through the government's monetary policy of a gradual devaluation against the US dollar but even so, it is impressive that competitive pressures and effective negotiations by the ICAS team have retained these gains. From the outset, providers were prepared to offer services at prices well below their standard rates. In fact, contracted prices may be quite close to the clinics' marginal costs.

Table 3 gives some indicators of the degree of competition amongst the clinical service providers. Although one clinic has managed to retain a significant proportion of the total market share, both this and the concentration index have remained more or less stable. Moreover, there is no suggestion that average prices have been affected by the small fluctuations in the degree of competition. This is possibly at least partly because the prices are negotiated directly with ICAS and providers therefore do not necessarily know what the others are being paid per voucher. Also, once it became evident that the dress or behaviour of FSWs would not dismay other clients interest arose from other service providers in participating in the scheme. This made it possible to be much more selective as to which clinics were contracted and discontinue the contracts of several of the original providers which were failing to meet the expected quality standards as Table 2 demonstrates.

**Table 3.** Indicators of the level of competition between clinics.

| Distribution Round | No. of clinics contracted | Average price paid to clinics per voucher | Market share of clinics |     |        | Market share of leading clinic | Concentration Index* |
|--------------------|---------------------------|---|-------------------------|-----|--------|--------------------------------|----------------------|
|                    |                           |   | Private                 | NGO | Public |                                |                      |
| I                  | 8                         | \$6.70                                    | 27%                     | 65% | 8%     | 44%                            | 2761                 |
| II                 | 12                        | \$7.12                                    | 33%                     | 51% | 16%    | 33%                            | 1650                 |
| III                | 9                         | \$7.07                                    | 30%                     | 49% | 21%    | 22%                            | 1514                 |
| IV                 | 7                         | \$6.46                                    | 21%                     | 71% | 8%     | 37%                            | 2203                 |
| V                  | 7                         | \$6.36                                    | 22%                     | 78% | 0%     | 35%                            | 2028                 |
| VI                 | 8                         | \$6.27                                    | 24%                     | 76% | 0%     | 39%                            | 2216                 |

\*The concentration index is the sum of the squares of the market share for each clinic.

## Sustainability

All up, the voucher scheme costs only about 3.5 cents per capita per year in a country which is already spending on health over 1000 times that amount per person per year.<sup>3</sup> Though one might think that this would make it a simple matter to finance, politically it is difficult for governments to dedicate resources that give FSWs access to private health services which most of the general population cannot afford. There are also administrative complexities making it difficult for the Nicaraguan government to contract services out to private providers. At present the scheme is being sustained (and extended) by the Elton John Foundation.

## Lessons and Conclusions

This project has important lessons for the public sector and Ministries of Health in particular. It has successfully addressed a serious and difficult health problem which was being almost totally neglected by the Nicaraguan Ministry of Health. FSWs have not been the only beneficiaries as any reductions in the prevalence and incidence of STIs among FSWs will lead to similar or greater reductions in the general population.

The project has shown that a voucher system can offer an effective means to target health resources to the marginalized, impoverished and needy. The scheme has gained acceptability from the FSWs and if successful in this group, presumably there are other potential health sector applications of voucher schemes to improve equity and target the poor.

One of the most striking findings from this trial was the improvement in the technical quality of

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<sup>3</sup>World Bank (1998). World Development Indicators 1998. World Bank: Washington D.C. (CD ROM version, ISBN 0-8213-4125).

health services in the contracted private clinics. Assuming that the subjective quality of care in these clinics is already higher than in the public sector, this represents an important gain given that it is possible to purchase these services at the same or at a lower cost than the government can provide them for.

It remains to be seen whether the equity, efficiency and quality benefits of this voucher scheme can be attained for other health services. If so, then there would seem to be little justification for retaining public ownership of and management of them. As governments gradually shift away from publicly managed services towards greater use of private 'micro-enterprises' the potential benefits of voucher schemes for structuring the public-private relationship will no doubt become of increasing interest to policy-makers.