Sexually transmitted diseases (STDs) are epidemic in developing countries, including South Africa, and the challenge of STD control in these settings is immense. The World Health Organisation (WHO) estimates that more than 300 million curable STDs occur each year - and this does not account for the millions of viral infections that also occur. Not only are STDs unpleasant acute illnesses, they may also lead to chronic sequelae, including infertility and ectopic pregnancy, and to death. Furthermore, STDs are associated with increased risk of HIV transmission. Improved STD treatment services have been associated with reduced HIV incidence in at least one setting, and STD control is a core HIV control strategy. The issue is: how can STD treatment services be expanded and improved to achieve a wide-scale public health impact?

To date, much of the literature on STD control in developing countries has focused on the public health sector and its important role. The public sector comprises government-funded health services, and STD treatment services are a traditional part of the core public sector package. Either as dedicated 'STD clinics', or more recently, integrated into more comprehensive reproductive health or primary care services. As health sector reform takes hold of health services in developing countries, STD treatment services are becoming more integrated into the comprehensive district health system. There are, however, other health service providers, such as the private medical sector, occupational health services, and the traditional health care sector, that need to be considered. But little is known about their roles in STD control in developing countries.

The private sector, primarily fee-for-service doctors but also pharmacies, is extensive throughout much of the developing world. Indeed, in many settings where public sector services are struggling to recruit and retain staff, the private sector may be thriving. Many patients prefer a private doctor or a pharmacy to a public clinic for some complaints, but how many, why, when, and at what cost, is not fully understood, especially with regard to STDs. Furthermore, what is the quality of these services? Through a series of visits to pharmacies by standardised simulated patients in Peru it was learnt that treatments offered rarely conformed with national guidelines.

Of course, some 'health services' are more effectively delivered outside the public health system. Family planning services may be delivered more effectively through non-governmental organisations, local clubs and social marketing. Many patients with a variety of illnesses choose to self-medicate, frequently with therapies bought 'over the counter' either in a pharmacy or the market.

Thus, the public sector does not have a monopoly on providing STD treatment services. It seems unlikely that the goal of STD control with measurable public health impact will be achieved by the public sector alone. What are the obstacles to, and opportunities for, effective public-private sector interaction for STD control in developing countries? We report the lessons learnt from a project in rural South Africa, consider the generic issues that we faced, and make some recommendations. Here, we focus on the interaction between the public service and the private medical sector, while recognising the importance of other sectors.

**Hlabisa private sector study — obstacles to STD control**

Hlabisa health district serves approximately 210 000 largely Zulu-speaking people in the province of KwaZulu-Natal. In many ways it is a typical district: partly urbanised but largely rural; largely under-resourced, especially with regard to health services; and the social structure is dominated by large-scale migration of men to major cities in search of work. STDs are highly prevalent — we estimate that 25% of women of reproductive age have at least one STD on any given day. The HIV epidemic in the area is explosive, with the prevalence among pregnant women having increased from 4.2% in 1992 to 41.2% at the end of 1998. The district is served by a district hospital and 12 public sector primary care clinics, and 11 doctors in private practice. An STD syndrome surveillance system that we established in the public and private health sectors of the district indicated that approximately half of all STDs are treated by private doctors. Pharmacists do not treat STDs in South Africa, and antibiotics are not available over the counter or in the markets.
Inadequate treatment in the private sector

Having established the surveillance system, we studied the prescribing habits of the 11 doctors for three major STD syndromes (male discharge, genital ulcer disease, and pelvic inflammatory disease). None of the 33 prescriptions written matched those recommended by the provincial Health Department, and only 9% were judged likely to be adequate therapy. Although most doctors reported supplying condoms, and several reported counselling patients, none provided partner treatment cards or written health education, indicating that comprehensive syndrome management was not being practised.

Inadequate treatment in the public sector

We also documented poor quality STD services in the public sector clinics in Hlabisa; only 9% of simulated patients received comprehensive syndromic management (drugs, condoms, partner cards and health education), and 41% received correct drugs. In response, we designed and piloted STD syndrome packets, which together with a simple health worker training intervention were successfully introduced into the clinics. A substantial increase in the quality of treatment provided was observed. None of this was possible with the private doctors; instead we faced numerous obstacles (Table I).

Table I. Obstacles to improving STD treatment services in the private sector

<table>
<thead>
<tr>
<th>Obstacle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Little interest in using STD syndrome packets and packing own drugs</td>
</tr>
<tr>
<td>Resistance to change - strong ethos of individual practitioner as decision-maker</td>
</tr>
<tr>
<td>Economics as the main force determining practice patterns</td>
</tr>
<tr>
<td>No approval from authorities to dispense drugs bought through public sector mechanisms through the private sector</td>
</tr>
<tr>
<td>Little history of public-private sector interactions other than passive referral of cases from private practitioners to public hospitals</td>
</tr>
<tr>
<td>Little history of public-private sector interactions other than passive referral of cases from private practitioners to public hospitals</td>
</tr>
<tr>
<td>No approval from authorities to dispense drugs bought through public sector mechanisms through the private sector</td>
</tr>
<tr>
<td>No approval from authorities to dispense drugs bought through public sector mechanisms through the private sector</td>
</tr>
<tr>
<td>No approval from authorities to dispense drugs bought through public sector mechanisms through the private sector</td>
</tr>
<tr>
<td>No approval from authorities to dispense drugs bought through public sector mechanisms through the private sector</td>
</tr>
<tr>
<td>No approval from authorities to dispense drugs bought through public sector mechanisms through the private sector</td>
</tr>
<tr>
<td>No approval from authorities to dispense drugs bought through public sector mechanisms through the private sector</td>
</tr>
</tbody>
</table>

Obstacles in the private sector

Firstly, the 11 doctors we worked with are all in competition with each other. For example, there is no co-operation over matters of shared concern such as after hours emergency service provision. This meant that project staff had to make repeated individual calls to each doctor to gain support for the study, to encourage participation in the surveillance system, and to develop and pilot an intervention. When we arranged project workshops or meetings, few doctors could find the time to attend.

In contrast with the public sector nurses we worked with, private doctors displayed substantial resistance to change. This was frequently expressed as 'professional and therapeutic independence', with the doctors believing that they are best placed to make an informed decision about the best therapy for an individual patient. It became clear that these therapeutic decisions were influenced by the desire to prioritise inexpensive therapy over effective therapy. For example, penicillin was often given for male discharge. Most treatment given was inadequate because it was of low dose, given for too short duration, or was the wrong (cheap) drug. Most doctors did not agree, in principle, with the strategy of syndromic management of STDs (although they actually practised it by frequently giving several different drugs for one syndrome) or of standardised treatment protocols provided by national or provincial health authorities.

A recurring theme in our interaction with the private doctors was the economics of care. By definition, private practitioners make their living directly from their clients, and it would only be reasonable for the economic aspects of providing a service to be high on their agenda. Indeed, many would argue for a more cost-conscious approach in the public sector where waste and inefficiency can frequently be much higher than any private practitioner would tolerate. However, our experience was that the cost, and hence the profit margin of providing a service, took precedence over other considerations in any discussion about restructuring therapeutic decisions. Although we estimated that average profit would have fallen by approximately 25% if provincially recommended treatment regimens had been adopted, it might well have been possible to pass the increase in drug costs on to the client. Indeed, if drugs could be made available to the private sector at state tender prices, profits would actually have increased 10 - 25%.

Thus, there is at least the potential to provide effective STD treatment in the private sector without removing financial incentives.

Finally, having achieved only limited success with the STD syndrome packets given to the doctor, the project was abandoned for two main reasons. First, it was clear that changing their therapeutic decisions about STD treatment was going to be very difficult, and secondly we experienced difficulty in getting the authorities to allow drugs bought through the state system to be dispensed by private practitioners, even on a pilot basis. What was also disappointing was that despite initial enthusiasm for the syndrome packets, few doctors were interested in our offer to provide them with the packets, including condoms, partner notification cards and a patient information leaflet, into which they could pack their own drugs.

What are the generic issues that arise from this experience, and that may be applicable in other settings?
Community STD control is ultimately a government responsibility. It seems clear that while the public health system is a critical component in achieving this, private sector co-operation is also needed for there to be any chance of success. Put simply, in the Hlabisa district, even if all patients attending the public sector were correctly treated, but a similar number attending the private sector are incorrectly treated, the net public health benefit is likely to be small, and of limited service, then the private sector standards may also be poor?

satisfied clients are likely to be attracted to the public services. An example, and provide an accessible, quality and effective operation is also needed for there to be any chance of success. A partnership with an effective private sector must be forged (Table I).

Table II. Opportunities for STD control, through and with the private sector

<table>
<thead>
<tr>
<th>Opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Private medical sector treats a large proportion of patients with STDs, and must be involved in STD control strategies</td>
</tr>
<tr>
<td>• Private sector must be organised</td>
</tr>
<tr>
<td>• Representatives should be involved in policy setting process</td>
</tr>
<tr>
<td>• Representatives should be involved in developing standard treatment guidelines</td>
</tr>
<tr>
<td>• Structured, continuing medical education needed</td>
</tr>
<tr>
<td>• System of re-accreditation should be considered</td>
</tr>
<tr>
<td>• Formally involve private sector in the district health system</td>
</tr>
<tr>
<td>• Use public sector purchasing power (e.g. vaccines and essential drugs) to strengthen components of private practice that have a key public health function or impact, e.g. STD, TB, vaccine-preventable diseases</td>
</tr>
</tbody>
</table>

Setting policy and standards is a government function, and as such it is often easier to apply changes to policy in the public sector — we certainly found it much easier to introduce changes in the public sector. Unless private practitioners are involved in policy setting and in developing treatment guidelines, it seems unlikely that they will embrace them, especially if a change in current practice is required. However, unless the private sector can organise itself and speak with a coherent voice, how can it be effectively involved in policy setting? In countries that do not require formal postgraduate training to enter general practice independently, academic institutes and professional organisations are unlikely to speak for most of the profession. In South Africa, a formal system of continuing medical education and of regular re-accreditation is being developed in the hope that this will further improve standards.

What right or responsibility do public sector authorities have to measure standards in the private sector, when public sector standards may also be poor? If the public sector can lead by example, and provide an accessible, quality and effective service, then the private sector will have to follow suit, as satisfied clients are likely to be attracted to the public services. As comprehensive district health services evolve in South Africa and elsewhere, there may be an expanded opportunity to involve the private medical sector in delivering public health programmes. For example, although immunisation services are typically a public sector activity, missed opportunities could be reduced if private doctors were supplied with vaccines by the public sector. This already happens informally in many parts of South Africa. If the necessary controls are put in place, this could also be extended to certain drugs. Perhaps drugs listed in a national formulary could be made available to private doctors at state tender prices, for treatment of specific conditions. This could offer the opportunity for expanded access to essential services, and if linked to medical education, quality of care might also improve.

The public sector seems to be good at producing evidence-based policies for public health benefit, but it frequently struggles to implement policy effectively. The private sector, however, can be very good at packaging, promoting and delivering many services. If key restrictive barriers can be broken down, there may be an opportunity to form a partnership between public and private sectors and hence improve STD control.

RECOMMENDATIONS

More research is needed to define further the role of the different health sectors in STD treatment and control activities in South Africa. Standard tools and methods for assessing service quality are available. Private practitioners should ideally be willing partners in this research.

If the quality of services in the private or the public sector is found to be wanting, effective mechanisms for change need to be developed. Our experience suggests that while useful research can be done locally, change is unlikely to occur without attention to significant structural issues that typically exist at provincial and national level. Potential mechanisms for change are listed below.

Legislation

In South Africa, the restructuring of the health sector has been accompanied by major legislative change. Although frequently not popular, this approach has had the effect of forcing the pace of change. While legislation on periodic re-accreditation of doctors is unpopular, it offers an opportunity to improve and assess standards of therapy formally. The structured continuing education required of a re-accreditation process offers an important opportunity to ensure that practitioners stay up to date.

Incentives

Financial incentives may offer an important opportunity for change. It may be possible to pay some, or all, private practitioners in an area to provide certain services on behalf of
Cortical lens opacities in the young patient — an indication for a lipogram?

D Meyer, F J Maritz, P H Liebenberg, D P Parkin, L J Burgess

Aim. To determine the characteristics and prevalence of lenticular opacification in patients with underlying dyslipidaemia.

Methods. Eighty patients of both genders and all ages (18-90 years) were enrolled in the trial if they met the inclusion criteria for dyslipidaemia.

Patients were included if their fasting serum cholesterol and triglyceride concentrations were > 5.2 mmol/l and > 2.3 mmol/l, respectively, when measured on three separate occasions over a 1-month period.

Patients were excluded if they suffered from any condition known to cause or predispose them to elevated lipid levels or lenticular opacification. Lenticular changes were assessed by means of a slit-lamp through the fully dilated pupil and other physical signs were documented subsequently to thorough physical evaluation.

Results. In addition to the classic clinic signs of dyslipidaemia, 31% of patients had cortical lens opacities. Cortical opacities were twice as prevalent as Achilles tendon thickening (16.3%) in our study, the second most prevalent sign of elevated lipid levels. In the subgroup of patients aged under 50 years, 55% had lenticular opacities, predominantly cortical (80%).

Conclusions. Cortical lens opacification was the most prevalent sign of dyslipidaemia and it occurred at a relatively young age in our trial population in those patients who were affected. Cortical lenticular opacification should be regarded as an indication for blood lipid profile evaluation.

Department of Ophthalmology, University of Stellenbosch and Tygerberg Hospital, W Cape

D Meyer, MB ChB, BSc (Pharm), MFMP (SA), MMed (Ophth), FCOphth (SA)

P H Liebenberg, 5th year medical student

Lipid Clinic, Cardiology Unit, Department of Internal Medicine, University of Stellenbosch and Tygerberg Hospital, W Cape

F J Maritz, MB ChB, MMed (Int), FCP (SA)

Lipid Clinic, Cardiology Unit, Department of Internal Medicine, and Department of Chemical Pathology, University of Stellenbosch and Tygerberg Hospital, W Cape

L J Burgess, MB BCh, MMed (Chem Path), PhD

Department of Pharmacology, University of Stellenbosch and Tygerberg Hospital, W Cape

D P Parkin, MB ChB, BSc (Pharm), PhD

References


