

## How and why do South Asians attend GUM clinics? Evidence from contrasting GUM clinics across England

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# How and why do South Asians attend GUM clinics? Evidence from contrasting GUM clinics across England

Jyoti Dhar,<sup>1</sup> Catherine A Griffiths,<sup>2</sup> Jackie A Cassell,<sup>3</sup> Lorna Sutcliffe,<sup>4</sup> Gary M Brook,<sup>5</sup>  
Catherine H Mercer<sup>2</sup>

<sup>1</sup>Department of Genitourinary Medicine, Leicester Royal Infirmary, Leicester, UK

<sup>2</sup>Centre for Sexual Health and HIV Research, Research Department of Infection & Population Health, University College London, Mortimer Market Centre, London, UK

<sup>3</sup>Brighton and Sussex Medical School, Mayfield House, University of Brighton, Falmer, Brighton, UK

<sup>4</sup>Centre for Infectious Disease: Sexual Health and HIV, Barts and the London School of Medicine and Dentistry, Barts Sexual Health Centre, St Bartholomew's Hospital, London, UK

<sup>5</sup>Patrick Clements Clinic, North West London Hospitals NHS Trust, London, UK

## Correspondence to

Dr Jyoti Dhar, Department of Genitourinary Medicine, Jarvis Building, Leicester Royal Infirmary, Leicester LE1 5WW, UK; [jyoti.dhar@uhl-tr.nhs.uk](mailto:jyoti.dhar@uhl-tr.nhs.uk)

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## ABSTRACT

**Background** Improving access to sexual healthcare is a priority in the UK, especially for ethnic minorities.

Though South Asians in the UK report low levels of sexual ill health, few data exist regarding their use of genitourinary medicine (GUM) services.

**Objectives** To describe reasons for attendance at GUM clinics among individuals of South Asian origin relative to patients of other ethnicities.

**Methods** 4600 new attendees (5% South Asian; n=226) at seven sociodemographically and geographically contrasting GUM clinics across England completed a questionnaire between October 2004 and March 2005, which were linked to routine clinical data.

**Results** South Asians were more likely than other groups to be signposted to the GUM clinic by another health service—for example, in women 14% versus 8% respectively (p=0.005) reported doing so from a family planning clinic. These women also reported that they would be less likely to go to the clinic if their symptoms resolved spontaneously compared with other women (51% vs 31%, p=0.024). However, relative to other clinic attendees, no differences in the proportions of South Asians who had acute STI(s) diagnosed at clinic were noted. Furthermore, South Asian men were more likely to report as their reason for attendance that they wanted an HIV test (23.4% vs 14.8%, p=0.005).

**Conclusion** Despite having similar STI care needs to attendees from other ethnic groups, South Asians, especially women, may be reluctant to seek care from GUM clinics, especially if their symptoms resolve. Sexual health services need to develop locally-delivered and culturally-appropriate initiatives to improve care pathways.

## INTRODUCTION

The Health Protection Agency has reported that minority ethnic groups in the UK generally bear a disproportionate burden of poor sexual health and considers improvement of access to services as a key priority.<sup>1</sup> Though our ability to assess equity of services is limited by a lack of comprehensive ethnic monitoring, it is well recognised that access to preventive services by ethnic minorities is poor.<sup>2,3</sup>

South Asians (Indians, Bangladeshis, Pakistanis) account for nearly half of all ethnic minorities in the UK<sup>4</sup> and while it is recognised that nationally South Asians report lower levels of sexual ill health when compared with their White and African counterparts,<sup>5</sup> there is a paucity of research exploring their utilisation of sexual health services. Few data exist

for this population group, as limited respondent numbers prevent detailed analyses in many studies.<sup>6</sup> Although GUM clinics have witnessed marked increases in activity,<sup>7</sup> this does not seem to have translated to the South Asian population. A recent study from a single centre reported that despite South Asians comprising 29.9% of the total local population, their utilisation of the local GUM Service was well below that of other local minority populations,<sup>8</sup> yet during the same period nearly a quarter of the total contacts annually attending the contraceptive service were of South Asian ethnicity (Fox L, personal communication, 2008).

We therefore sought to describe the characteristics and reasons for attendance at GUM clinics among individuals of South Asian origin relative to patients from other ethnic groups.

## METHODS

### Population and sampling

Seven GUM clinics across England were purposively recruited, representing contrasting demographic, geographic and service configuration characteristics likely to affect sexual health needs and use of services. These included a London clinic, large provincial cities with single and multiple clinics, a city with a substantial Asian population and clinics serving rural populations. Full details of the survey have previously been published.<sup>10</sup> Briefly, all new patients were given written information about the study by the receptionist and invited to complete a short, 22-item self-completion pen-and-paper questionnaire in English. Regrettably, resources were not available to translate the questionnaire or to provide translation facilities. This questionnaire asked patients about the reasons for their current consultation and contact with other health services before attendance at the GUM clinic. In order to protect confidentiality, questionnaires were anonymous apart from the clinic number used to link the questionnaire to the clinic's routine database (and later removed) to obtain data on the patient's gender, age, ethnicity, STI diagnosis/es made at that clinic visit and whether any STI was likely to have been homosexually acquired. Data collection took place from October 2004 to March 2005. The denominator for each clinic was estimated as the number of new clinic numbers issued minus, if applicable, those issued in the week in November 2004 when the Department of Health conducted its Waiting Time Survey, as questionnaires were not distributed during this week.<sup>7</sup>

**Statistical analysis**

We compared South Asian patients relative with patients from other ethnic groups, by gender, and determined statistical significance using the  $\chi^2$  statistic for categorical variables and the Mann–Whitney statistic for continuous variables (because of the skewed distributions of the variables considered). Analyses were undertaken using the survey commands in STATA 9.0 to take account of clustering by clinic.<sup>11</sup> Statistical significance is considered as  $p < 0.05$  for all analyses.

**RESULTS****Sample characteristics**

In total, 5322 questionnaires were completed with response rates ranging across the seven clinics from 17.8% to 70.1%, thought to be due to reception staff not offering questionnaires to all new patients. As previously reported,<sup>10</sup> there was no evidence of any differences between patients who completed the questionnaire and those who did not, with respect to routinely collected data on gender, age, ethnicity and whether or not STI(s) were diagnosed. Four thousand six hundred questionnaires (86.4%) could be linked to routine clinic data, resulting in a sample of 2255 men and 2345 women.

Two hundred and twenty-six of the 4600 patients (4.9%) were of South Asian ethnicity. However, there was substantial variation in this proportion by clinic sample (range: <0.1% to 38.1%), reflecting the variability in the proportion in the populations of

the primary care trust in which each clinic is located that was South Asian (range: 0.2–29.9%).<sup>9</sup>

South Asian patients were no different from patients of other ethnic groups in terms of age, achieved qualifications, childcare responsibilities, employed or at college during clinic opening hours, GP registration or reported previous STI diagnosis/es (table 1). However, South Asian men were more likely to report living with a partner/spouse relative to men from other ethnic groups (40.2% vs 27.6%,  $p = 0.005$ ).

**How patients found out about the clinic**

The most commonly reported means of finding out about the clinic was from a GP or a nurse at the GP's surgery (table 2), with no overall differences by ethnicity or gender. However, South Asian women were more likely than women from other ethnic groups to report finding out about the GUM clinic from the Family Planning clinic (13.7% vs 7.6%  $p = 0.005$ ). Fewer South Asians reported that 'a friend told me about [the clinic]', with 16.8% of South Asians and 28.8% of all patients reporting this source of information ( $p = 0.0052$ , with no significant gender differences).

Interestingly, almost a quarter of South Asian women (23.3%) reported that the study GUM clinic was not their nearest clinic, in contrast to 12.3% of other women ( $p = 0.004$ ) and 11.7% of South Asian men ( $p = 0.025$ ). Despite this, no significant difference in travel time to clinic was noted (median: 30 min, interquartile range: 30 min), even after controlling for clinic.

**Table 1** Sociodemographic characteristics of South Asian clinic attendees in relation to clinic attendees of other ethnicities, by gender

Characteristic	Denominator	Males			Females		
		South Asian 131	Other ethnicities 2124	p Value	South Asian 95	Other ethnicities 2250	p Value
Age, grouped	<20	3.1%	5.4%	0.187	9.4%	16.8%	0.146
	20–24	28.9%	30.1%		28.2%	33.5%	
	25–29	21.1%	24.8%		27.1%	20.6%	
	30–34	21.1%	12.7%		17.7%	10.9%	
	35–39	11.7%	11.0%		11.8%	8.1%	
	40–44	7.8%	7.2%		3.5%	4.8%	
	45+	6.3%	8.7%	2.4%	5.2%		
Age, median (lower and upper quartiles)		27 (22, 35)	28 (23, 35)	0.105	25 (20, 32)	24 (20, 30)	0.079
Lives with partner/spouse		40.2%	27.6%	0.005	32.2%	24.5%	0.183
Childcare responsibilities		12.5%	10.1%	0.374	14.8%	17.2%	0.462
Works/at college when the clinic is open	Yes, every day	53.4%	62.6%	0.115	54.7%	53.2%	0.119
	Yes, some days	20.3%	21.8%		19.8%	28.3%	
	No	26.3%	15.6%		25.6%	18.5%	
Highest qualification*	Degree/higher degree	47.4%	36.7%	0.154	55.0%	40.8%	0.093
	A levels	9.5%	18.4%		6.7%	21.2%	
	GCEs/O levels	11.6%	18.8%		11.7%	17.8%	
	NVQs/other qualification	20.0%	19.1%		18.3%	15.3%	
	None	11.6%	6.9%		8.3%	4.9%	
Registered with a GP		86.4%	87.3%	0.798	93.9%	92.8%	0.766
Previous STI diagnosis/es	Yes	4.3%	15.9%	0.113	11.0%	18.8%	0.296
	Not sure	6.8%	4.8%		3.7%	3.7%	
	No	88.9%	79.3%		85.4%	77.5%	

\*Among patients aged at least 21.

**Table 2** How patients found out about the clinic, by gender and whether of South Asian ethnicity

Denominator	Males			Females		
	South Asian (%) 131	Other ethnicities (%) 2124	p Value —	South Asian (%) 95	Other ethnicities (%) 2250	p Value —
'How did you find out about this clinic?'						
'I found it in the phone book'	8.4	9.7	0.521	9.5	7.4	0.303
'I found it on the internet'	6.9	10.2	0.010	6.3	6.0	0.909
'My GP or the nurse at the GP surgery told me about it'	38.9	28.7	0.089	33.7	32.1	0.797
'I heard about it at the family planning Clinic'	0.8	1.4	0.457	13.7	7.6	0.005
'I saw an advert in a newspaper or magazine'	3.1	1.0	0.127	0.0	0.8	0.511
'I picked up a leaflet'	0.0	2.4	0.353	1.1	2.4	0.414
'My partner told me about it'	12.2	13.7	0.736	8.4	10.8	0.238
'A friend told me about it'	16.8	22.4	0.047	16.8	24.4	0.019
'Told about it by a family member'	2.2	1.5	0.195	0.0	3.9	0.525

\*Response options listed in the order they were presented in the patient questionnaire.

### Why patients went to clinic

Symptoms were the most frequently cited reason for going to clinic for all patients (table 3). This reason was reported by a higher proportion of South Asian women than other women (61.3% vs 51.6% respectively, although not statistically significant:  $p=0.160$ ) and South Asian men (46.3%,  $p=0.039$  for gender difference). The next most commonly cited reason for attendance was for a check-up, reported by 36.8% of all patients with no significant differences by gender or ethnicity. A third reason, 'I wanted to have an HIV test,' was reported by a higher proportion of South Asian men than men from other ethnic groups (23.4% vs 14.8%, respectively,  $p=0.005$ ), and a higher proportion than both Black African and Black Caribbean men (17.9% and 15.9%, respectively). Although few patients reported 'I was contacted by a clinic/health advisor,' a larger proportion of South Asian women gave this reason for attendance than women from other ethnic groups (6.5% vs 2.5%,  $p=0.003$ ).

### Time taken and time prepared to wait to get into clinic

There was no difference by ethnicity (or gender) in either the number of days patients with symptoms had taken to seek care (median 7 days); the proportion who reported seeking care from other healthcare professionals (including their GP) prior to going to the study GUM clinic (40.4%); or the number of days taken to be seen at the study clinic from first seeking care (median 5 days). In response to the question: 'how long would you be prepared to wait for an appointment at a clinic like this one?' the median response for all patients was 7 days, and this did not differ significantly by ethnicity for men, but South Asian women reported less willingness to wait, 3.5 days on average. South Asian women also were more likely to report that they would not go to see anyone if they had to wait longer than the time they were prepared to wait (17.8% vs 6.8% other women,  $p=0.017$ ), and also they would not attend if their symptoms had gone away on their own (68.8% vs 49.5%,  $p=0.024$ ).

**Table 3** Reasons for going to the GUM clinic by gender and whether of South Asian ethnicity

Denominator	Males			Females		
	South Asian (%) 131	Other ethnicities (%) 2124	p Value —	South Asian (%) 95	Other ethnicities (%) 2250	p Value —
'Why did you come to the clinic?'						
'I have (or had) symptoms (eg, itching, discharge)'	46.3	51.0	0.332	61.3	51.6	0.160
'My partner had (or had) symptoms'	44.1	46.9	0.643	9.1	11.9	0.348
'My partner has been diagnosed as having an infection and I needed to come to the clinic'	9.0	11.3	0.466	3.9	10.3	0.121
'I was contacted by a clinic/health advisor'	4.5	1.5	0.001	6.5	2.5	0.003
'I did not have symptoms but wanted a check-up'	31.5	35.2	0.318	31.2	38.8	0.164
'I wanted a HIV test'	23.4	14.8	0.005	15.6	12.3	0.412
'GP advised me or told me to go'	0.9	1.3	0.574	1.3	2.8	0.364
Hospital referral	0.9	0.3	0.372	1.3	0.3	0.281
(Emergency) contraception/pregnancy tests	NA	NA	NA	2.6	2.1	0.758

\*Percentages sum to more than 100% as patients could report multiple reasons.

†Response options listed in the order they were presented in the questionnaire.

## Health services research

**STI diagnosis/es made at clinic visit**

South Asian attenders were equally likely to be diagnosed with acute STI as patients of other ethnicities, with 38.2% of all men and 28.1% of all women diagnosed as having acute STI(s) (table 4). However, as observed in all ethnic groups, South Asian men were significantly more likely to have acute STI(s) diagnosed than South Asian women (35.9% vs 26.3%  $p=0.009$ ). In terms of specific STIs, only one significant difference was observed in that a larger proportion of South Asian women were diagnosed as having Trichomoniasis than women of other ethnicities (4.2% vs 1.7%,  $p=0.035$ ).

**DISCUSSION**

Our study of seven contrasting GUM clinics across England with varying ethnic populations provides evidence that South Asians, particularly women, tend to find out about and/or are referred to GUM services via their GP and/or family planning clinic. However, we also found that these women may cease to seek care if symptoms resolve spontaneously, and that they are less willing to wait for an appointment if they cannot get into the clinic quickly, suggesting that they may be vulnerable to incomplete care pathways. This is particularly important given that our clinic data suggest they are as likely to have an acute STI diagnosed as women from other ethnic groups and so are not simply 'worried well.'

Our results are consistent with other studies that have reported how GUM clinics are seldom the first port of call for South Asians seeking STI care, and that South Asian GUM attendees are less likely than other attendees to self-refer, instead being more likely to be referred from other medical services such as general practice or family planning.<sup>12 13</sup> While higher referral rates may reflect higher attendance rates by South Asians at non-GUM services, others suggest that this healthcare-seeking behaviour reflects a low perception of sexual health risk among South Asians,<sup>14</sup> their lack of awareness of GUM services<sup>15 16</sup> and their association of GUM services with stigma, such that the anxiety of being recognised attending a clinic acts as a barrier to access.<sup>15</sup> This in turn reflects how, for many South Asian communities, faith and cultural values prohibit premarital sex, and therefore dialogues around sexual health are deemed shameful, unnecessary and irrelevant.<sup>17</sup> Behaviours which deviate from faith or cultural norms are often masked or hidden and may mean that individuals in need of sexual healthcare may

fail to access appropriate care.<sup>15</sup> This may in part explain our finding that South Asians were less likely to find out about the GUM clinic via peers or social networks, as it is unlikely to be something that is disclosed to or discussed between friends or family. Furthermore, while general practice has been reported as the preferred service choice among some South Asians for sexual-health needs,<sup>15</sup> concerns about the confidentiality of family GPs, particularly those of the same ethnic background, perceived as potentially disclosing information to other family members are real.<sup>16 18</sup> Issues of trust, confidentiality and stigma may mean that some individuals prefer to seek care elsewhere (eg, family planning), or may fail to access any care at all.

In contrast to women, the reason for attendance at the GUM clinic was for HIV testing for a larger proportion of South Asian men compared with men of other ethnicities, which, to the best of our knowledge has not been observed in other studies. This may again reflect concerns about confidentiality or embarrassment about seeing their GP. The potential reasons (eg, perception of risk, increased HIV awareness) prompting this attendance among men warrants further investigation to ensure support of, and continuation of, this important healthcare-seeking behaviour.

It is important to acknowledge the limitations of our study. This paper follows the study's main paper,<sup>10</sup> such that there was no a priori sample size calculation for these analyses, and having only 226 South Asians in our sample of 4600 patients may have meant that we did not have sufficient power to detect differences as statistically significant, especially comparisons of subgroups (eg, the analysis of sexual behaviour of those diagnosed as having an acute STI).

It is possible that some South Asians who were unable to read English may have been excluded from participating in the study, as the questionnaire was only available in English. While this may introduce some bias into the results, it is important to recall that we did not find any evidence of differences between patients who completed the questionnaire and those who did not, at least as far as routinely collected data on gender, age, ethnicity and whether or not STI(s) were diagnosed are concerned.<sup>10</sup> A further consideration is our use of broad categories such as 'South Asian,' which may mask the heterogeneity of behaviours/attitudes and beliefs/faiths that exist between and within the different ethnic groups.

In conclusion, our study found that South Asians attend GUM clinics for different reasons to people of other ethnicities:

**Table 4** STI diagnoses made at the GUM clinic visit by gender and whether of South Asian ethnicity

Denominator	Males (%; 95% CI)			Females (%; 95% CI)		
	South Asian 131	Other ethnicities 2124	p Value —	South Asian 95	Other ethnicities 2250	p Value —
Any acute STI*	35.9 (23.6 to 50.4)	37.6 (32.5 to 44.5)	0.633	26.3 (18.3 to 36.3)	28.2 (24.2 to 32.6)	0.529
Syphilis	0	0	NA	0	0	NA
Gonorrhoea	4.6 (0.7 to 23.7)	3.7 (2.8 to 4.8)	0.757	0	1.8 (1.1 to 3.1)	0.611
Chancroid/LGV	0	0	NA	0	0	NA
Chlamydia	8.4 (3.9 to 17.1)	11.2 (8.1 to 15.2)	0.247	12.6 (9.6 to 16.4)	13.0 (9.8 to 17.1)	0.865
NG/NSU	15.3 (10.7 to 21.3)	16.5 (13.6 to 19.8)	0.596	NA	NA	NA
NG/NSI	1.5 (0.3 to 8.7)	1.0 (0.7 to 1.6)	0.621	3.2 (0.8 to 11.4)	4.2 (2.4 to 7.1)	0.549
Herpes simplex (first attack)	1.5 (0.2 to 11.7)	1.9 (1.0 to 3.6)	0.824	2.1 (0.8 to 5.2)	2.1 (1.6 to 2.7)	0.985
Genital warts (first attack)	8.4 (4.3 to 15.6)	9.5 (6.7 to 13.3)	0.699	3.2 (0.4 to 21.0)	8.8 (6.1 to 12.6)	0.241
Trichomoniasis	0	0	NA	4.2 (1.1 to 15.3)	1.7 (0.9 to 3.2)	0.035

\*Acute STIs are defined as infectious syphilis (KC60 codes: A1 and A2), uncomplicated gonorrhoea (KC60 codes: B1 and B2), complicated gonorrhoea (KC60 code: B5), chancroid/lymphogranuloma venereum (LGV)/donovanosis (KC60 codes: C1, C2 and C3); chlamydial infection (uncomplicated/complicated) (KC60 codes: C4a, C4b and C4c); uncomplicated non-gonococcal/non-specific urethritis in males (KC60 code: C4h); complicated non-gonococcal/non-specific infection (KC60 code: C5); herpes simplex (1st attack) (KC60 code: C10a); genital warts (1st attack) (KC60 code: C11a); trichomoniasis (KC60 code: C6a).

## Key messages

- ▶ South Asians attending GUM clinics, particularly women, are more likely to be signposted there from other service providers (especially family planning).
- ▶ South Asian men attending GUM clinics are more likely to do so for HIV testing than other groups.
- ▶ South Asian women attending GUM clinics report attitudes to waiting that make them vulnerable to experiencing incomplete care pathways but have STI rates as high as other female attendees.
- ▶ To ensure completion of care pathways, GUM clinics need to engage with other sexual health service providers to ensure effective care pathways are in place, especially for South Asian women.

South Asian men were more likely to attend for HIV testing, which is encouraging. South Asian women were more likely to be referred to GUM from other healthcare settings, but, as they were also more likely to report that they may not continue to seek care if their symptoms resolve and/or they had to wait longer than they were prepared to do so to be seen, these findings have implications for facilitating STI care pathways. In particular, GUM services need to engage with other sexual healthcare providers to develop locally delivered and culturally appropriate initiatives to minimise the potential for experiencing incomplete care pathways.

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**Competing interests** None.

**Ethics approval** Obtained.

**Contributors** JD had the original idea for this analysis. JC was the principal investigator of the study and obtained funding from the Medical Research Council. Plans for analysis were led by CM, who undertook all data management and statistical work. CM wrote the first draft of the paper, and all authors contributed to subsequent drafts.

**Patient consent** Obtained.

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## REFERENCES

1. **Health Protection Agency.** *Mapping the issues—HIV and other sexually transmitted infections in the United Kingdom 2005. The UK collaborative group for HIV and STI Surveillance.* London: Health Protection Agency, 2005.
2. **Raleigh VS,** Clifford GM. *Evidence of health inequalities.* London: Healthcare Commission, 2004.
3. **Fenton KA,** Mercer CH, McManus S, *et al.* Sexual behaviour in Britain: ethnic variations in high-risk behaviour and STI acquisition risk. *Lancet* 2005;**365**: 1246–55.
4. **Office for National Statistics.** *Social focus in brief: ethnicity 2002.* London: Office for National Statistics, 2002.
5. **Fenton KA,** Johnson AM, Nicoll A. Race, ethnicity and sexual health. *BMJ* 1997;**314**:1703.
6. **Johnson AM,** Wadsworth J, Welling K, *et al.* *Sexual attitudes and lifestyles.* Oxford: Blackwell Scientific Publications, 1994.
7. **HIV and Sexually Transmitted Infections Department HPA.** GUM Clinic Waiting Times: May 2005–August 2006. *National and Regional, Residence and Clinic based results from quarterly one-week sample surveys.* 2006.
8. **Dhar J,** Schembri G, Bhuller K, *et al.* Opt out testing: is it the way forward? (BMJ Rapid Response, 13 July 2007). [www.bmj.com/cgi/eletters/334/7608/1352](http://www.bmj.com/cgi/eletters/334/7608/1352) (accessed 16 Dec 2009).
9. **Neighbourhood Statistics.** *2001 Census: key statistics: ethnic group (KS06).* London: Office for National Statistics, 2002.
10. **Mercer CH,** Sutcliffe L, Cassell JA, *et al.* How much do delayed health care seeking, delayed care provision and diversion from primary care contribute to the transmission of STIs? *Sex Transm Infect* 2007;**83**:411–15.
11. **StataCorp.** *Stata statistical software: release 9.0.* College Station, TX: Stata Corporation, 2005.
12. **Skinner CJ,** Salisbury NKG, Goh BT. Sexually transmitted infections in Bangladeshi resident in the UK: a case-control study. *Sex Transm Infect* 2002;**78**:120–2.
13. **Tariq S,** Edwards SG, Nalabanda A, *et al.* Sexual health services for South Asians in London; a case control study. *Int J STD AIDS* 2007;**18**:563–4.
14. **Shukla R.** *Public health medicine.* Leicestershire Health Authority. *HIV and AIDS—an assessment of the Educational needs of Asian people,* March 1993.
15. **Griffiths C,** Gerressu M, French RS. Are one-stop shops acceptable? Community perspectives on one-stop shop models of sexual health service provision in the UK. *Sex Transm Infect* 2008;**84**:395–9.
16. **French RS,** Joyce L, Fenton K. Exploring the attitudes and behaviours of Bangladeshi, Indian and Jamaican young people in relation to reproductive and sexual health. *Final report to the teenage Pregnancy Unit* 2005.
17. **Beck A,** Majumdar A, Estcourt C, *et al.* 'We don't really have cause to discuss these things, they don't affect us.' A collaborative model for developing culturally appropriate sexual health services within the Bangladeshi community of Tower Hamlets. *Sex Transm Infect* 2005;**81**:158–62.
18. **Hennik M,** Cooper P, Diamond I. Asian women's use of Family Planning Services. *Br J Fam Plann* 1998;**24**:43–52.