Addressing sexual health needs: a comparison of a one-stop shop with separate genitourinary medicine and family planning services

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Abstract

Background and methodology Little evidence is available on the extent to which one-stop shops address users' sexual health needs and the extent to which they identify additional needs users may not have identified. As part of the One-Stop Shop Evaluation, a questionnaire was designed to compare the reasons for users' visits and the reported outcomes of visits at a one-stop shop with the experiences of users in separate genitourinary medicine (GUM) and contraceptive clinics.

Results The difference in the proportions of those attending the one-stop shop and those attending the control sites services for a sexually transmitted infection (STI)-related reason who were diagnosed with an STI was minimal, but those attending for an STI-related reason in the one-stop shop were more likely to receive an additional contraceptive outcome. Women attending for a contraceptive-related reason at the one-stop shop were more likely to have an STI screen than those attending the control sites for the same reason, but there was little difference in the proportions amongst this group receiving an STI diagnosis or receiving treatment. When focusing on women attending for a pregnancy-related reason, one-stop shop users were more likely to have received contraceptive advice or supplies.

Discussion and conclusions It was not possible in our evaluation to determine the relative effectiveness of the one-stop shop in comparison to the traditional GUM and contraceptive clinics in improving sexual health status, however the one-stop shop was more likely to address additional sexual health needs that service users may not have previously identified.

Keywords family planning service, genitourinary service, integrated service, one-stop shop

Introduction

In 2001, the English Government launched the National Sexual Health and HIV Strategy with an aim to develop sexual health services around patients' needs, including the provision of more comprehensive and integrated sexual health services.[1] Providing all sexual health services under one roof – a 'one-stop shop' – has been suggested as a model to ensure a more integrated approach to health care. However, definitions of integration and what constitutes an integrated service vary.[2–4] The 'one-stop shop' in its broadest sense refers to sexual health services on a single site.[5]

Although contraceptive and genitourinary medicine (GUM) services have developed along largely independent paths, the health issues are closely and commonly related.

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Key message points

- The public health rationale for having both contraceptive and genitourinary medicine services under one roof is that those at risk of unplanned pregnancy may also be at risk of sexually transmitted infections (STIs) and vice versa.

- The proportion of women attending both the one-stop and control clinics for contraceptive or pregnancy-related reasons who were diagnosed with or received treatment for an STI was small. Both men and women attending for STI-related reasons were more likely to receive additional contraceptive advice or supplies at the one-stop shop site. However, the impact one-stop shops have on the prevention of STIs and unplanned pregnancy remains unknown.

- While it may not be feasible, or even appropriate, to set up a one-stop shop sexual health service, practitioners should ensure they adopt an integrated approach when delivering sexual health care.

From a public health perspective, the rationale for having both contraceptive and GUM services under one roof is that those at risk of unplanned pregnancy may also be at risk of sexually transmitted infections (STIs) and vice versa.[6] Therefore, one-stop shops may provide the opportunity to identify and provide care for people who may be unaware of the need for another type of sexual health service. While research suggests that integrated care has positive effects, such as increased client satisfaction, there is little evidence of its impact on sexual health status at either individual or population levels.[7,8]

In the Autumn of 2002, in response to recommendations made in the National Sexual Health and HIV Strategy on the need to have a more integrated approach to sexual health service delivery, the Department of Health (DH) put out a call for one-stop shop sexual health services to apply to take part in a national evaluation. The DH identified three different models of sexual health one-stop shop for evaluation: a dedicated young people's service, a specialist mainstream service to

meet the needs of all age groups, and a specialist general practice service. A one-stop shop site for each model was selected by the DH to take part in the evaluation. A call for bids to independently evaluate these services was put out at the same time. A comparative study design was proposed by the evaluation team. Two 'control' sites were selected by the evaluation team for comparison with each one-stop shop site. The control sites were to be services located in areas with similar geographic and sociodemographic characteristics to the one-stop shop sites, with similar service characteristics but not formally recognised as integrated within the site. The aims of the evaluation were to assess the effectiveness, acceptability, accessibility and efficiency of one-stop shop models of sexual health provision in comparison with more traditional models of sexual health provision, and to assess the impact these models have on the local community. The overall findings from this evaluation are reported elsewhere.[9]

This paper focuses on the mainstream sexual health service model, using findings from the evaluation user questionnaire. The mainstream sexual health services were all located within greater London boroughs in areas with high residential occupancy. Three broad services were provided within the one-stop shop: GUM, contraceptive services, and a young people's service for those aged under 18 years. Separate clinics were run for each of these services, but they were housed within the same building and an integrated approach was adopted by staff. The two control sites each included a linked community contraceptive service and a GUM service. Although these services were in separate locations, they referred patients to one another. The first aim of this paper is to describe the reasons service users gave for their visits and the reported outcome of the visits to the mainstream sexual health one-stop shop relative to the mainstream traditional sexual health control sites (i.e. separate community contraceptive services and GUM services). The second aim is to examine the extent to which users' sexual health needs were met in the one-stop shop sites relative to the control sites, and whether or not the one-stop shop was more likely to address any additional sexual health needs not identified by the user as the reason for their visit.

Methods

A user questionnaire was distributed in each of the participating sites. One purpose of this questionnaire was to identify from the user the reason(s) for their visit and to obtain information on the outcome of their consultation. Demographic and sexual behavioural information was collected. Where appropriate, validated questions from other questionnaires were used, such as sexual behaviour questions from the National Survey of Sexual Attitudes and Lifestyles.[10] The questionnaire was piloted to check respondents' understanding of the questions and some minor changes to question wording were made following this process.

A minimum of 500 questionnaires from the specialist mainstream one-stop shop and 500 questionnaires across all the control sites were needed for a sample size with at least 80% power at a 5% significance level, to detect differences in proportions; for example, in the proportion of service users offered contraception of about 6%, based on 10% vs 16%, or 10%, based on 50% vs 60%.

Questionnaire distribution started in March 2005 and ended in November 2005. The questionnaire was distributed to all attendees when they booked in at reception. Those not wishing to complete the questionnaire were asked to fill in their age and gender on the front of the questionnaire. No identifying data were collected from participants. An ID number appeared at the back of questionnaires consisting of three letters identifying the service and a four digit randomly generated number. Completed questionnaires were placed in a sealed box in the reception area. Brief details of the study were provided in the following languages: French, Arabic, Punjabi, Russian, Urdu, Hindi, Turkish and Somali. These languages were identified as the ones most prevalent through discussions with the participating services. Provision for non-English speakers was made through Language Line. However, no users contacted the research team to use this service. The questionnaire was in two parts. The first section asked questions about the respondent and the reasons for their visit, and was to be completed in the waiting area before the consultation. The second section asked about the outcome of the visit and was to be completed after the respondents had finished their consultation. Stamped addressed envelopes were provided for those who had insufficient time to complete the questionnaire during their visit.

Ethical approval

Ethical approval was gained from Trent Multi-centre Research Ethics Committee and research governance from the appropriate local Research & Development departments.

Data analysis

In line with the case study approach, as in previous publications,[9,11] these analyses compare the one-stop shop sample with its corresponding GUM/contraceptive clinic control sites, considered in the analysis as one sample. We examine the outcomes of the consultation by the reason questionnaire respondents gave for attending the service. Reason(s) for the visit to the sexual health service and outcome(s) of the consultation were both grouped into three broad categories: (i) STI-related, (ii) contraception-related and (iii) pregnancy-related (see Table 1 for an explanation of the categories). We looked at both what people reported they were offered and what they reported to have received during the consultation and compared the one-stop shop with the control sites for males and females separately. However, data are only presented for males attending for STI-related reason(s) due to small numbers reporting attendance for contraception-related reason(s), and reporting for pregnancy-related reason(s) was only an option for female attendees. Since it cannot be assumed that the health professional was aware of an individual's sexual preference and/or that this was discussed in a consultation, it is assumed that contraception-related issues are relevant for all men and women.

In an attempt to try and measure the effectiveness of the one-stop shop sites in comparison to control sites, the reason for the visit was analysed against the outcome or what was reported as offered during the visit. For example, we could compare the proportion of those attending for a STI-related reason who had an STI, contraceptive or pregnancy-related outcome and the proportion that was referred either to another appointment within the same clinic or to another clinic. We used Chi-square tests to see whether there were statistically significant differences in these proportions by service used (one-stop shop vs control sites).

We then used Chi-square tests to examine variations in the proportions of users who reported that their needs had been met by their visit, by whether or not they used a one-stop shop, and also selected sociodemographic and behavioural characteristics. We also used Chi-square tests to examine variations in the proportions of users who

reported that, as well as their original need being met, an additional need(s) was met by their visit, again by whether or not they used a one-stop shop and selected sociodemographic and behavioural characteristics. Finally, in an attempt to summarise the overall 'effect' of using a one-stop shop, at least in terms of these two outcomes, we used logistic regression to calculate the odds ratio of experiencing these two outcomes for those who attended a one-stop shop relative to those attending control sites, adjusting for differences in the sociodemographic characteristics of the two samples. In addition to adjusting for these factors, as there were some differences in the outcomes between the two control sites in the logistic regression model, we also adjust for a factor coded 0 for those who attended the one-stop shop, +1 for those who attended one of the control sites and –1 for those who attended the other control site. Including this term allows the outcome to differ between the two control sites and means that the comparison of the one-stop shop site to the control sites we report reflects the difference between the one-stop shop and the average of the two control sites.

STATA™ was used for all analyses. Results with *p* values ≤0.05 were considered as statistically significant and are reported in bold in the tables. When the denominator is less than 25, results are presented in italic font in the tables to signify that they must be interpreted with caution due to the small sample.

Results

The overall response rate was 65.9% (1286/1951). No significant differences were observed between response rates when comparing between sites, 68.6% in control sites (767/1118) and 62.3% in the one-stop shop (519/833). 84.2% of respondents answered questions in the final section of the questionnaire on their consultation, which required completion post-consultation.

Of those people who reported attending for a STI-related reason, there were no significant differences between the one-stop shop and the control sites in the proportion of users who reported being offered and/or received this type of care or advice (i.e. STI testing, diagnosis, advice or treatment) (Table 2). However, women and men attending the one-stop shop were significantly more likely to report additionally receiving contraceptive advice and/or supplies than those who attended the control sites (33.5% vs 8.0%, respectively, for women, *p*<0.0001; 14.7% vs 6.2%, respectively, for men, *p* = 0.015). A larger proportion of women who attended the one-stop shop additionally received emergency contraception, a pregnancy test and/or abortion advice than women

attending the control sites (15.0% vs 9.0%), but this was not statistically significant.

The number of men reporting attendance for a contraception-related reason was small: 6/118 of those attending the one-stop shop and 12/260 attending the control sites. Women attending the one-stop shop for contraception-related reason(s) were more likely to report additionally being offered and/or receiving an STI-related outcome, a pregnancy-related outcome or condoms in comparison to women attending the control sites. Women attending the one-stop shop for pregnancy-related reason(s) were more likely than women attending the control sites to report being offered and/or receiving contraceptive advice/supplies.

Among women attending the one-stop shop, 67.8% reported that the reason for their visit was addressed, which was a significantly larger proportion than among women attending the control sites (57.8%, *p* = 0.002). However, no such difference was observed among men, nor among women after adjusting for the factors shown in Table 3.

Women and men attending the one-stop shop were significantly more likely to report that an additional need was addressed by their visit, even after adjusting for the sociodemographic and behavioural characteristics shown in Table 4. Thus, 30.9% of women in the one-stop shop reported that not only was their original need met but additional need(s) were also met by their visit in contrast to 11.4% of women attending the control sites. Similarly for men, 17.0% of those attending the one-stop shop had additional needs met in contrast to 5.8% of men attending the control sites.

Both men and women attending the control sites were significantly more likely to report that they required another appointment; amongst women in the control sites 32.7% required a further appointment and in the one-stop shop 23.2% and amongst men 38.9% vs 14.4%, respectively. For all the sites, the majority of future appointments were within the same service. Of those requiring another appointment, women attending the one-stop shop were more likely to be referred to their general practitioner or to an abortion service compared to female control site attendees. Referral from one of the paired control clinics to either a contraceptive or GUM clinic was low; one woman attending a contraceptive control clinic was referred to a GUM clinic and three female GUM attendees were referred to a contraceptive service. No significant differences between the one-stop shop and controls were observed in the proportions of men and women requiring an appointment outside of the site they had originally attended.

Table 1 Definitions of categories used in the analysis

	STI-related[a]	Contraceptive-related[b]	Pregnancy-related
Reason(s) for visit	• STI screen • Partner has an STI • Contacted by a clinic or health advisor • Received STI diagnosis elsewhere and needs treatment	• Advice on contraception • To start a new method of contraception • For a repeat prescription • For a contraception check up	• Emergency contraception • Pregnancy test • Advice about having an abortion
Outcome of visit	• STI test • STI diagnosis • STI treatment • STI advice/counselling (including partner notification)	• Contraceptive advice/counselling • Contraceptive supplies (new and repeat prescriptions)	• Emergency contraception • Pregnancy test • Discussion of pregnancy options, including abortion counselling

[a]Excludes HIV testing.
[b]Excludes condoms.
STI, sexually transmitted infection.

Table 2 Reason(s) for visit and outcome(s) of visit (what was offered as well as what received) by whether/not attended a one-stop shop service and gender: user survey

	Females					Males				
Site Denominator	**OSS** 401	**Control** 507	**p value**	**GUMb** 277	**FPb** 230	**OSS** 118	**Control** 260	**p value**	**GUMb** 256	**FPb** 4
STI-related reason(s) for visit										
Denominator	173	212		202	10	102	195		195	0
Offered/received:										
STI advice (including partner notification)/testing/diagnosis/treatment[a]	75.7%	82.1%	0.126	86.4%	0.0%	75.5%	82.6%	0.147	82.6%	N/A
STI testing/diagnosis/treatment[a]	74.0%	78.8%	0.270	82.7%	0.0%	73.5%	80.0%	0.203	80.0%	N/A
STI diagnosis/treatment[a]	16.8%	15.6%	0.751	16.3%	0.0%	19.6%	21.5%	0.697	21.5%	N/A
HIV test	38.2%	44.3%	0.220	46.5%	0.0%	50.0%	41.5%	0.163	41.5%	N/A
Condoms	22.5%	21.7%	0.847	22.8%	10.0%	29.4%	26.2%	0.549	26.2%	N/A
Contraceptive advice/supplies	**33.5%**	**8.0%**	**<0.0001**	7.3%	20.0%	**14.7%**	**6.2%**	**0.015**	6.2%	N/A
Emergency contraception/pregnancy test/abortion advice	15.0%	9.0%	0.065	9.4%	0.0%	N/A	N/A	N/A	N/A	N/A
Contraception-related reason(s) for visit										
Denominator	166	158		19	139	Not applicable for males				
Offered/received:										
STI advice (including partner notification)/testing/diagnosis/treatment[a]	**27.7%**	**9.5%**	**<0.0001**	47.4%	4.3%					
STI testing/diagnosis/treatment[a]	**24.1%**	**8.2%**	**<0.0001**	47.4%	2.9%					
STI diagnosis/treatment[a]	1.2%	0.6%	0.591	0.0%	0.7%					
HIV test	6.0%	3.2%	0.221	26.3%	0.0%					
Condoms	**36.8%**	**20.9%**	**0.002**	10.5%	22.3%					
Contraceptive advice/supplies	74.1%	65.8%	0.104	15.8%	72.7%					
Emergency contraception/pregnancy test/abortion advice	**16.3%**	**5.7%**	**0.002**	5.3%	5.8%					
Pregnancy-related reason(s) for visit										
Denominator	74	47		17	30	Not applicable for males				
Offered/received:										
STI advice (including partner notification)/testing/diagnosis/treatment[a]	35.1%	31.9%	0.715	88.2%	0.0%					
STI testing/diagnosis/treatment[a]	32.4%	27.7%	0.579	76.5%	0.0%					
STI diagnosis/treatment[a]	1.4%	6.4%	0.131	17.7%	0.0%					
HIV test	16.2%	10.6%	0.389	29.4%	0.0%					
Condoms	23.4%	23.4%	0.545	29.4%	20.0%					
Contraceptive advice/supplies	**31.1%**	**14.9%**	**0.044**	23.5%	10.0%					
Emergency contraception/pregnancy test/abortion advice	58.1%	44.9%	0.149	47.1%	30.0%					

[a]STI outcomes are presented as independent results, for example 75.7% of all women attending the one-stop shop for an STI-related reason reported that they were offered or received STI advice, testing, diagnosis or treatment and 16.8% of all women attending for an STI-related reason reported that they were offered or received an STI diagnosis/treatment.
[b]The data for the two control GUM services and the two control family planning services are shown separately in these columns.
Bold type signifies statistically significant results with p values ≤0.05.
Italic types signifies results that should be treated with caution as the denominator (i.e. sample size) is <25.
FP, family planning; GUM, genitourinary medicine; OSS, one-stop shop; STI, sexually transmitted infection.

Table 3 Variations in the proportion of users reporting that the reason for their visit was addresseda by whether/not attended a one-stop shop service and selected sociodemographic and behavioural characteristics

Site	Percentage (*n*) reporting reason for visit was addressed		OR (95% CI) for OSS[b]	*p* value	AOR (95% CI) for OSS[b]	*p* value
	OSS	Control				
Females (all)	(*n* = 401) **67.8% (272)**	(*n* = 507) **57.8% (293)**	**1.55 (1.18–2.03)**	**0.002**	1.14 (0.81–1.60)	0.440
Age (years)						
<25	70.7% (176)	67.4% (118)	1.38 (0.71–2.70)	0.636	–	–
25 and over	62.1% (90)	53.1% (172)	1.43 (0.96–2.14)	0.080	–	–
Partner numbers, past year						
0 or 1 partner	**65.0% (158)**	**54.2% (169)**	**1.59 (1.12–2.24)**	**0.009**	–	–
2+ partners	76.4% (107)	75.7% (109)	1.02 (0.59–1.77)	0.938	–	–
Gender of partners, past year						
Opposite sex only	70.1% (256)	63.8% (259)	1.33 (0.99–1.81)	0.063	–	–
Same sex partner(s)	57.1% (4)	43.8% (7)	1.44 (0.23–9.15)	0.699	–	–
Ethnicity						
White	69.5% (166)	69.1% (186)	1.03 (0.70–1.50)	0.886	–	–
Other ethnic group	**66.0% (103)**	**47.1% (107)**	**2.18 (1.43–3.33)**	**<0.001**	–	–
Marital status						
Single	**63.0% (68)**	**48.2% (94)**	**1.83 (1.13–2.96)**	**0.014**	–	–
Married/cohabiting	71.2% (195)	65.1% (185)	1.33 (0.93–1.90)	0.121	–	–
Males (all)	(*n* = 118) 65.3% (77)	(*n* = 260) 62.7% (163)	1.11 (0.70–1.75)	0.659	1.30 (0.73–2.29)	0.373
Age (years)						
<25	64.2% (43)	68.4% (54)	0.83 (0.42–1.65)	0.343	–	–
25 and over	68.0% (34)	60.6% (106)	1.39 (0.71–2.73)	0.595	–	–
Partner numbers, past year						
0 or 1 partner	**63.2% (24)**	**40.5% (36)**	**2.42 (1.10–5.33)**	**0.028**	–	–
2+ partners	70.0% (49)	75.8% (113)	0.75 (0.40–1.42)	0.378	–	–
Gender of partners, past year						
Opposite sex only	65.7% (65)	63.0% (133)	1.11 (0.67–1.85)	0.674	–	–
Same sex partner(s)	66.7% (4)	69.0% (20)	0.91 (0.14–5.95)	0.924	–	–
Ethnicity						
White	68.5% (50)	69.3% (115)	1.02 (0.56–1.85)	0.949	–	–
Other ethnic group	62.8% (27)	51.1% (47)	1.47 (0.69–3.12)	0.319	–	–
Marital status						
Single	63.6% (14)	54.1% (40)	1.41 (0.52–3.79)	0.499	–	–
Married/cohabiting	67.0% (61)	66.5% (121)	1.04 (0.61–1.79)	0.878	–	–

aNeed addressed defined as attended for contraceptive-related reason and reported contraceptive-related outcome, or: attended for STI-related reason and reported STI-related outcome, or: attended for pregnancy-related outcome and reported pregnancy-related outcome.
bReference category is control groups.
Bold type signifies statistically significant results with *p* values ≤0.05.
AOR, odds ratio adjusting for all other factors in Table 3; CI, confidence interval; OR, odds ratio; OSS, one-stop shop.

Discussion

The user questionnaire provided data on the outcomes of visits to the one-stop shop and control mainstream sexual health services. This allowed us to assess the extent to which sexual health needs were being met in the one-stop shop and control services, such as the proportion of those attending for an STI-related need who had an STI-related outcome in terms of the management of their care, and the extent to which attendees had outcomes that were in addition to the original reason they attended the service, such as the proportion of those attending for an STI-related reason who were offered or received contraception advice or supplies. There was little difference in the proportions testing positive for STIs between users of the one-stop shop and control sites, but those attending for an STI-related reason in the one-stop shop were more likely to receive an additional contraceptive outcome. Women attending for a contraceptive-related reason at the one-stop shop were more likely to also have an STI screen than those attending the control sites for the same reason. However, there was little difference in the proportions amongst this group receiving an STI diagnosis or receiving treatment. The proportion of those attending for a contraceptive-related reason who went on to receive an STI diagnosis or treatment was small in all the mainstream sites. When focusing on women attending for a pregnancy-related reason, one-stop shop users were more likely to have also received contraceptive advice or supplies.

A number of factors need to be considered when interpreting the data from the user questionnaire on the 'effectiveness' of management within the one-stop shop and control sites. In our analysis, we compared the one-

Table 4 Variations in the proportion of users who reported that additional need(s) were addressed[a] by whether/not attended a one-stop shop service and selected sociodemographic and behavioural characteristics

Site	Percentage (n) reporting reason for visit was addressed		OR (95% CI) for OSS[b]	p value	AOR (95% CI) for OSS[b]	p value
	OSS	**Control**				
Females (all)	(n = 401) **30.9% (124)**	(n = 502) **11.4% (58)**	**3.60 (2.53–5.13)**	**<0.001**	**3.33 (2.21–5.03)**	**<0.001**
Age (years)						
<25	**36.6% (91)**	**16.6% (29)**	**2.95 (1.80–4.81)**	**<0.001**	–	–
25 and over	**20.7% (30)**	**9.0% (29)**	**2.72 (1.55–4.77)**	**<0.001**	–	–
Partner numbers, past year						
0 or 1 partner	**24.7% (60)**	**8.3% (26)**	**3.79 (2.27–6.32)**	**<0.001**	–	–
2+ partners	**43.6% (61)**	**20.1% (29)**	**3.22 (1.88–5.52)**	**<0.001**	–	–
Gender of partners, past year						
Opposite sex only	**32.1% (117)**	**12.3% (50)**	**3.48 (2.39–5.08)**	**<0.001**	–	–
Same sex partner(s)	**42.9% (3)**	**18.8% (3)**	**>10**	**<0.001**	–	–
Ethnicity						
White	**29.3% (70)**	**13.4% (36)**	**3.21 (1.95–5.28)**	**<0.001**	–	–
Other ethnic group	**34.6% (54)**	**9.7% (22)**	**5.01 (2.88–8.73)**	**<0.001**	–	–
Marital status						
Single	**19.4% (21)**	**8.2% (16)**	**2.91 (1.41–6.02)**	**0.004**	–	–
Married/cohabiting	**36.5% (100)**	**13.7% (39)**	**3.71 (2.43–5.67)**	**<0.001**	–	–
Males (all)	(n = 118) **17.0% (20)**	(n = 260) **5.8% (15)**	**3.77 (1.77–8.04)**	**0.001**	**4.51 (1.91–10.6)**	**0.001**
Age (years)						
<25	**20.9% (14)**	**3.8% (3)**	**7.10 (1.83–27.5)**	**0.005**	–	–
25 and over	12.0% (6)	6.9% (12)	2.14 (0.72–6.33)	0.170	–	–
Partner numbers, past year						
0 or 1 partner	**13.2% (5)**	**2.3% (2)**	**>10**	**<0.001**	–	–
2+ partners	**21.4% (15)**	**8.1% (12)**	**3.57 (1.48–8.65)**	**0.005**	–	–
Gender of partners, past year						
Opposite sex only	**18.2% (18)**	**5.7% (12)**	**4.94 (1.96–12.5)**	**0.001**	–	–
Same sex partner(s)	16.7% (1)	6.9% (2)	2.68 (0.20–35.5)	0.454	–	–
Ethnicity						
White	**20.6% (15)**	**6.0% (10)**	**4.32 (1.76–10.6)**	**0.001**	–	–
Other ethnic group	11.6% (5)	5.4% (5)	2.74 (0.64–11.7)	0.174	–	–
Marital status						
Single	18.2% (4)	5.4% (4)	4.46 (0.91–21.8)	0.064	–	–
Married/cohabiting	**17.6% (16)**	**6.0% (11)**	**3.71 (1.56–8.84)**	**0.003**	–	–

[a]Additional need addressed defined as attended for contraceptive-related reason and reported STI or pregnancy-related outcome in addition to contraceptive-related outcome, or: attended for STI-related reason and reported contraceptive or pregnancy-related outcome in addition to STI-related outcome, or: attended for pregnancy-related outcome and reported contraceptive or STI-related outcome in addition to pregnancy-related outcome.
[b]Reference category is control groups.
Bold type signifies statistically significant results with p values ≤0.05.
AOR, odds ratio adjusting for all other factors in Table 4; CI, confidence interval; OR, odds ratio; OSS, one-stop shop.

shop to two pairs of separate contraceptive and GUM services, and these control sites were considered as one sample. The rationale for this case-study approach was that it was deemed more appropriate to compare service provision in the one-stop shop service (that had separate contraceptive and GUM services under the one roof) with the paired GUM and contraceptive clinics on separate sites as this would reflect the overall service provision in both settings. We were able to assess in both the one-stop shop and in the paired GUM/contraceptive services whether or not users had an outcome related to the original reason they attended, whether an additional need was addressed and whether or not they were referred to another service. Individuals may select a specific sexual health service depending on their needs. A study by Mahar and Sherrard found that the majority of those attending GUM for STI testing were using reliable contraception correctly (82%) and therefore did not have any additional contraceptive-related needs to be met.[12] However, another study found that nearly half (43%) of women attending GUM were either not using contraception appropriately or not using it at all.[13] In addition, documentation of contraceptive advice having been given was poor. The authors, Moses and Huengsberg, comment that young people and ethnic minorities attending GUM were particularly vulnerable and their contraceptive needs were not being adequately addressed.

The potential clustering, and therefore lack of complete independence, between the responses of one-stop shop users and between the responses of control service users is another limitation. In an ideal study, more one-stop shop sites and more control sites would be included so that methods accounting for clustering of responses within each

site could have been used, but this was beyond the scope of our evaluation.

The cross-sectional nature of our user study is likely to underestimate the outcomes in all the sites, as those who receive an STI diagnosis or a new contraceptive method at a subsequent follow-up visit would not be represented. Because we did not follow-up those attending the services we remain unaware of the long-term impact of a more integrated approach to sexual health provision and cannot determine whether those individuals who have additional needs addressed at their visit are less likely to have an unplanned pregnancy or STI in the future.

Within the control sites, we were unable to determine how many of those referred to another service went on to have an appropriate outcome. For example, how many of those who were screened for chlamydia and tested positive within the control contraceptive sites were subsequently referred to a GUM service, attended the service they were referred on to, screened for other STIs, received treatment and had partner notification. With regards to referral, there is some evidence that attendance at the referred service is high. Siddiqui *et al.* were able to verify that 85% of the women diagnosed with chlamydial infection in a community contraceptive clinic attended a GUM clinic they were referred on to.[14] Treatment could be verified for a further 5%. In contrast, another study found that only 52% of community contraceptive attendees diagnosed with an STI attended the GUM service they were referred to and the average time between testing and treatment was 19 days.[15] When treatment was managed in the community contraceptive clinics the treatment rate increased to 82%, with an average of 10 days between testing and treatment. In our study, not knowing the outcome amongst those referred on would underestimate the 'effective' management across the linked GUM and contraceptive control sites. However, the data from respondents of our study suggest that there was limited referral reported from contraceptive to GUM services and vice versa. This does not necessarily mean that additional sexual health needs were undetected by these services. It could be a reflection of the fact that the majority of users had selected the service most appropriate to their requirements and their care could be managed in house.

Users were asked about whether they received any contraceptive advice or supplies. Those who received supplies were not asked about which method(s) they were prescribed, which would have varied greatly between, and even within, sites. Therefore the potential effectiveness of different methods received could not be assessed in this study. For example, long-acting reversible contraceptive methods are more effective in preventing pregnancy in comparison to other contraceptives more reliant on the user, such as the pill and condoms, and methods such as intrauterine devices and implants were not available at all sites. Similarly users were asked whether they had a test for STIs. Information on the type or number of different tests was not sought. Again there would have been much variation between sites. For example, in the contraceptive control clinics STI testing was limited to chlamydial screening compared to a full STI screen offered by GUM services. Providers are more likely to offer a more integrated service if the necessary supplies and resources are available to do so. The introduction of payment by results (PbR), where all activity will attract a set payment, may affect the supply of sexual health services. GUM is now funded by PbR and contraceptive services will soon be included. Although the PbR tariff does not necessarily reflect the true cost of a service to the NHS, there may be an effect on service delivery in terms of incentives because providers cannot currently claim two PbR payments for

one visit. So a consultation where a patient's contraceptive and STI needs are resolved might involve more time and resources, but this would not be reflected through PbR payments. Thus there may be implications for integrated care, and tariffs need to be developed to reflect this.

Another consideration is the relative effectiveness of the one-stop shop in comparison to the control sites may be underestimated because of the quality of the control sites. All the control sites had to meet criteria for inclusion in the evaluation, and some of the criteria were likely to be measures of quality, for example evidence of clinical guidelines. In addition, if the one-stop shop sites had been compared to sites where there was no or limited collaborative working between the contraceptive and GUM services the effect observed may have been greater. All the clinics were London-based and this may affect the generalisability of the results to other settings in the UK.

Attempts were made to provide for people who did not read English through translations of information sheets and the use of Language Line. No one utilised the Language Line service, therefore those unable to read English are not represented in the study and according to staff at some sites this may represent a significant proportion of clients seen.

Demand and capacity was not looked at in our research. This is an important factor when considering service accessibility and its impact on sexual health outcomes. It is possible that by addressing more needs in one consultation throughput is reduced due to the longer consultations, and this may have an impact on, for example, infection control.

In order to monitor the effects of one-stop shops and integration at both local and national levels there is a need for common core data sets across specialist services and general practice. Local case note audits can also be used to examine levels of integrated and appropriate management. These can be assessed against guidance provided by the British Association for Sexual Health and HIV (BASHH) and the Faculty of Sexual and Reproductive Healthcare (FSRH), and through documents such as the *Competencies for Providing More Specialised Sexually Transmitted Infection Services Within Primary Care – Assessment Toolkit*.[16]

All services should provide a holistic approach, which addresses the prevention of both unplanned pregnancy and STIs, to sexual health care. It is assumed that one-stop shops will have public health benefits by identifying those who may be unaware of their STI and pregnancy risks. It was not possible in our evaluation to determine the relative effectiveness of one-stop shops in public health terms. However, our findings suggest that the one-stop shop was more likely to address additional sexual health needs that service users may not have previously identified.

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