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# Exploring the variations in the characteristics of users of young people's services in Southampton

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# 1.0 Introduction

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One of the key objectives of the last British Government's *Health of the Nation* initiative was a reduction in the level of teenage pregnancy, particularly amongst women under the age of 16. Their aim was to reduce the national rate of conception amongst the under 16s by at least 50 percent by the year 2000 (from 9.5 conceptions per 1000 women aged 13-15 in 1989 to no more than 4.8 per 1000)<sup>1</sup>. The Centre for Sexual Health Research at the University of Southampton conducted a study modelling the spatial distribution of teenage conception rates in Wessex<sup>2</sup> in an attempt to identify the key correlates of teenage conception rates. One of the most significant findings of this work was the relationship between access to an appropriate youth health service and the ward level teenage conception rates.

Further studies have shown that uptake by teenagers of generic health services and those aimed specifically at young people can remain low<sup>3,4</sup>. Once accessible services exist there is still the need to deliver an acceptable and equitable service. Specific concerns of teenagers include the need for assured confidentiality, improvements in approachability of staff and in privacy, accessibility, advertising, and the quality of service offered.

Since the mid-1990s specialised clinics aimed at providing young people with sexual health help and advice have been running in Southampton and currently Southampton Community Health Services NHS Trust co-ordinate nine drop-in clinics located within the Southampton district. Furthermore in 1995, local General Practitioner, Dr Ruth Padday, launched the Hedge End Teenage Drop-In Centre in close collaboration with the local school and other agencies, uniquely inviting young people to sit on the steering committee. The main aim of all these clinics and centres is to provide readily accessible healthcare and sexual health advice to young people in a manner that is deemed both appropriate and acceptable to them.

In 1996, the South and West Regional Health Authority *under 20* conception rate was calculated to be 53.5 conceptions per 1000 women aged 15-19. Within the region this rate varied from a low of 44.0 in North and Mid Hampshire to a high of 63.3 in Portsmouth and South East Hampshire with Southampton and South West Hampshire experiencing a teenage conception rate of 58.7 per 1000.

More significantly the *underage* (those under the age of 16) conception rate for the South and West Regional Health Authority between 1991 and 1993 and similarly between 1994 and 1996 was 6.9 conceptions per 1000 women aged 13-15, see table 1. During both of these time periods around 55 percent of underage conceptions resulted in an abortion.

Within the region the underage conception rates once again varied. Southampton and South West Hampshire experienced an under 16 conception rate of 8.6 per 1000 between 1991 and 1993, coming second only to the Isle of Wight which experienced the highest underage conception rate of all the District Health Authorities in the South and West region at 9.6 per 1000. By 1994/96, however, Southampton had experienced one of the highest declines of all District Health Authorities nationally. The underage conception rate had fallen dramatically by about one third to 6.6 conceptions per 1000. The question remains however, was the sharp decline a direct result of the

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<sup>1</sup> Department of Health (1992). *The Health of the Nation; a strategy for health in England*. London: HMSO.

<sup>2</sup> Clements C. et al (1998) 'Modelling the spatial distribution of teenage conception rates within Wessex' BJFP 24: p61-71

<sup>3</sup> Peckham S. (1993) Preventing unintended teenage pregnancies. *Public Health*, 107: 125-133

<sup>4</sup> Pearson, S. et al (1996) *Promoting Young People's Sexual Health Services*. Report commissioned by the Health Education Authority and Brook Advisory Centres. London: Brook.

increased provision of youth orientated sexual health clinics in the Southampton district?

- Table 1: Underage conceptions: numbers and rates by area of usual residence and outcome 1991-1993 and 1994-96

Regional Office and Health Authorities	Conceptions at ages under 16		Rates per 1000 women aged 13-15					
	Number		Total		Maternities		Abortions	
	91/93	94/96	91/93	94/96	91/93	94/96	91/93	94/96
South and West	<b>2,208</b>	<b>2,384</b>	<b>6.9</b>	<b>6.9</b>	<b>3.0</b>	<b>3.0</b>	<b>3.8</b>	<b>3.8</b>
North & Mid Hampshire	153	144	5.4	4.7	2.1	1.9	3.3	2.8
Portsmouth & SE Hampshire	209	231	8.2	8.3	3.9	3.8	4.3	4.4
<b>Southampton &amp; SE Hampshire</b>	<b>219</b>	<b>184</b>	<b>8.6</b>	<b>6.6</b>	<b>4.1</b>	<b>3.2</b>	<b>4.6</b>	<b>3.4</b>
Isle of Wight	60	47	9.6	7.2	4.6	3.1	4.9	4.2
Somerset	170	189	6.9	7.0	2.7	2.9	4.2	4.1
South & West Devon	202	264	7.1	8.6	3.3	4.1	3.9	4.5
Wiltshire	199	233	6.6	7.2	3.5	3.4	3.2	3.8
Avon	327	357	6.9	7.2	3.1	3.4	3.8	3.8
Cornwall & Isles of Scilly	149	164	6.1	6.3	3.0	3.0	3.0	3.3
Dorset	176	202	5.6	5.9	1.9	2.0	3.8	3.9
NE Devon	130	158	5.9	6.5	2.0	2.7	3.8	3.9
Gloucestershire	214	211	7.6	7.0	3.7	2.8	3.9	4.1

Source: ONS Monitor Population and Health FM1 98/1

Research has shown that young people living in more deprived areas are at an increased risk of experiencing a teenage conception<sup>5</sup>. Currently it remains unclear as to whether uptake by young people in Southampton of the sexual health services directed specifically at them is consistent across all socio-economic groups. The findings of a recent study conducted by Lester Coleman, a PhD student at the University of Southampton, has shown there to be large variations in the demographic and socio-economic characteristics of the users at each of the young people's clinics and centres in Southampton<sup>6</sup>.

Furthermore evidence from a number of sources indicates that the majority of young people become sexually active *prior* to seeking contraceptive advice from a recognised service. For example, anecdotal reports from staff at Brook Advisory Centres in London revealed that the average time between first intercourse and first contact with a clinic was approximately six months.

Encouraging greater and earlier use of specialist sexual health services by those who need them should lead to a marked health gain particularly amongst young people living in more deprived areas. In order to inform policy development to increase service use amongst young people requires improved knowledge on who is currently accessing services, how they are accessing services and hence who services are failing to attract.

<sup>5</sup> Clements C. et al (1998) 'Modelling the spatial distribution of teenage conception rates within Wessex' BJFP 24: p61-71

<sup>6</sup> Coleman L. (1998) 'Attenders at young people's clinics in Southampton: variations in contraceptive use' BJFP, Vol 24: 101-104

The aims of this study are therefore,

- ❖ to explore further the variations in the characteristics of users of young peoples' health services.
- ❖ to identify whether there are any specific sectors of the potential population that are currently not being attracted into any service.
- ❖ to investigate how and at what stage during their sexual lives young people choose to access the services provided and the extent to which this varies by clinic.

## 2.0 Methodology

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In order to answer all the questions posed it was felt that distributing a short, 1 A4 page, self-completion questionnaire to all young people attending the young people's drop-in centres and clinics would be the most appropriate method of data collection.

As people entered and registered themselves the receptionist asked whether they would mind taking a couple of minutes to complete a questionnaire. It was stressed to each young person that the questionnaire was completely confidential and no one they knew would have access to the answers they gave or be able to identify them personally. If they agreed to take part they were supplied with a questionnaire, pen and an envelope in which to seal the completed questionnaire before posting it in the box provided. Individuals attending the centres to accompany friends and/or partners were also asked to complete a copy of the questionnaire. Brief details of those who refused to take part in the study were recorded by the receptionist.

The questionnaire was distributed within ten young people's sexual health centres in the Southampton district over an eight week period between May and July 1998. Eight of the centres were only open once a week, the remaining two three times weekly. Furthermore, only one of the centres in the study was open on a Saturday.

The questionnaire itself consisted of 16 short answer questions. Questions 1 to 6 collected information on the individual's age, sex, ethnicity and living arrangements. The following six questions concentrated on asking the respondents about their use of the service provided, for example, how many times had they been previously, the mode of transport they used and how long it took them. The final four questions asked about their use of other health services and whether they had first sought contraceptive advice prior to or subsequent to first sexual intercourse. Space was also left at the end of the questionnaire for respondents to make any comments or suggestions they wanted to about the current services provided.

## 3.0 Findings

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### 3.1 Demographics

The majority of results displayed in the following section relate solely to the findings of the sexual health questionnaire issued to young people between May and July 1998 (Stone study). It has however been possible to combine the responses obtained from the Stone study with those of the previous study conducted by Lester Coleman in June 1997 (Coleman study). This has enabled us to run particular analyses on some variables on a much larger sample of young people who attend young people's sexual health services thus providing stronger evidence of significant interactions. Throughout the report it is highlighted where samples have been combined. Furthermore, the footnote beneath every table and figure displays the sample size (N) that was used to produce each individual table and figure unless specified within the table/figure itself.

#### 3.1.1 Response count

In total, 460 completed or partially completed questionnaires were returned from the ten locations. Sixteen questionnaires were taken and not returned and a further 15 young people refused, all of whom were female over the age of 16. Overall, therefore, a response rate of around 94 percent was achieved.

It is believed that a proportion of those who attended certain services were understandably missed in a number of instances due to the nature of their visits and the workload of the receptionists. For example, young men seeking supplies of condoms were often out of the door before they could be asked to spare a couple of minutes to complete a questionnaire. Due to this, the response rate should be regarded with caution, although the resulting sample can be regarded as being fairly typical of users for the time of year.

When combining the samples from both studies the total count of completed questionnaires is 884. Large variation is however found between the number of questionnaires returned from each location. Three of the clinics have sample sizes of 30 or under, whilst on the other hand, three have very large sample sizes reaching over 150, due mainly to the variation in opening hours and times. It should be established at this point that *Clinic 10* was only opened two weeks prior to the distribution of the second study's' questionnaires, so its sample is based solely on the second study.

#### 3.1.2 Sex of respondents

Of the 460 returns from the Stone study ten percent (46 questionnaires) were completed by males and the remaining 90 percent (414 questionnaires) by females as shown in table 2. This proportion is comparable to that found in the Coleman study where males completed 12 percent of the questionnaires.

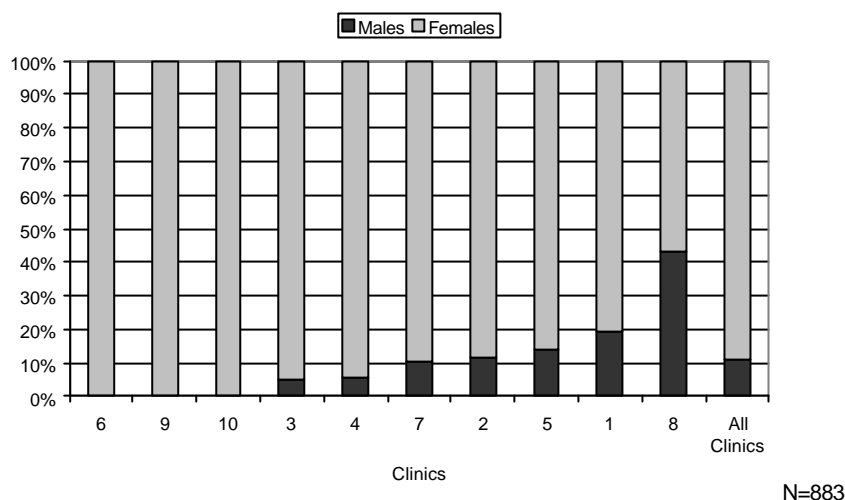
- Table 2: Proportion of returns by sex, Stone study

Sex	Frequency	Percent
Male	46	10.0
Female	414	90.0

## By location

The ratio of male to female respondents was found to vary significantly between the ten locations ( $\chi^2=23.24$ ,  $df=9$ ,  $p<0.01$ ). When combining the samples from both studies one obtains a clear picture of the significant variation in male attendance between the locations, figure 1. Almost half of *Clinic 8* users and one fifth of *Clinic 1* users are male compared to negligible attendance at *Clinic 6, 9, & 10*. As mentioned previously the sample sizes vary widely between the clinics hence table 3 displays the number of respondents at each location by sex. It is worth noting that *Clinic 8*'s results are based on a small sample of 30.

• Figure 1: Percentage clinic returns by sex, combined samples from both studies



• Table 3: Total count of each locations' respondents by sex, combined samples from both studies

Location	Male Count	% Males	Female Count	% Females	Total Count
Clinic 1	31	19.4	129	80.6	160
Clinic 2	22	11.3	172	88.7	194
Clinic 3	12	5.2	218	94.8	230
Clinic 4	4	5.4	70	94.6	74
Clinic 5	7	13.7	44	86.3	51
Clinic 6	-	0.0	9	100.0	9
Clinic 7	8	10.1	71	89.9	79
Clinic 8	13	43.3	17	56.7	30
Clinic 9	-	0.0	37	100.0	37
Clinic 10	-	0.0	19	100.0	19
<i>All Locations</i>	<i>97</i>	<i>11.0</i>	<i>786</i>	<i>89.0</i>	<i>883</i>

Note: 1 respondent did not report their sex

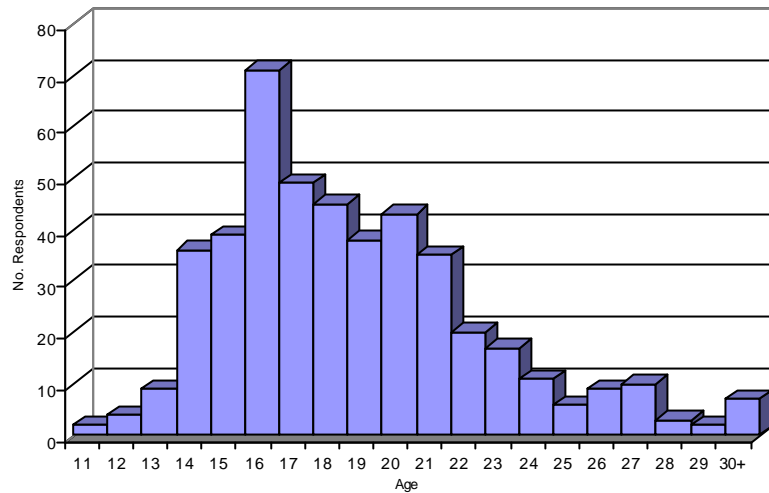
### 3.1.3 Age of respondents

Only four out of the 460 respondents in the Stone study did not provide information regarding their date of birth. The ages of the respondents who did so, spanned a range of 29 years from 11 to 40 years of age, with a mean of 18.6 years and a median of 18 years. Male respondents' ages ranged between 12 and 37 with a mean of 18 and a median of 17 years whilst females' ages ranged from 11 to 40 years with a slightly higher mean and median of 18.7 and 18 years respectively.



Figure 2 illustrates the distribution of ages of young people attending the drop-in centres. The number of users increases up to age 16 where it peaks before declining gradually to age 21 after which, as expected, one sees large declines in the number of users with increasing age.

• Figure 2: Age distribution of respondents



N=456

## By location

Table 4 below, which has grouped the respondents from both studies into broader age categories, shows clearly that the age distributions of those attending each of the clinics vary considerably ( $\chi^2=143.85$ ,  $df=9$ ,  $p<0.001^7$ ). For example, Clinics 1, 4, 7 & 9 attract very few individuals over the age of 22 in comparison to Clinics 2 & 3

• Table 4: Percentage of respondents by age group

Location	Under 16 (%)	16-17 (%)	18-19 (%)	20-21 (%)	22+ (%)	All ages (%)
All Locations	21.3	27.9	18.0	14.3	18.6	100.0
Clinic 1	41.6	42.9	12.4	2.5	0.6	100.0
Clinic 2	6.2	14.9	22.7	27.3	28.9	100.0
Clinic 3	8.7	17.0	18.7	19.6	36.1	100.0
Clinic 4	45.9	37.8	8.1	6.8	1.4	100.0
Clinic 5	25.5	25.5	21.6	5.9	21.6	100.0
Clinic 6	33.3	44.4	-	-	22.2	100.0
Clinic 7	15.2	50.6	25.3	6.3	2.5	100.0
Clinic 8	46.7	40.0	6.7	-	6.7	100.0
Clinic 9	13.5	27.0	32.4	21.6	5.4	100.0
Clinic 10	42.1	15.8	5.3	15.8	21.1	100.0

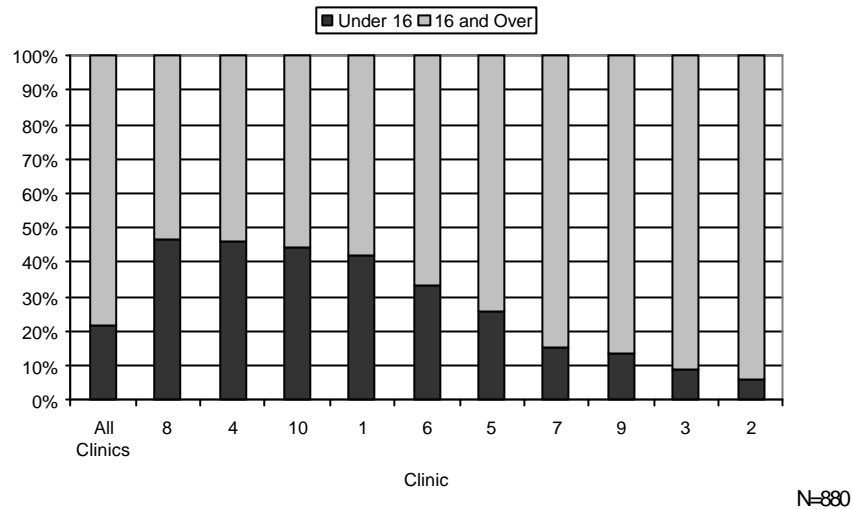
N=880

Furthermore one can examine the proportion of attendees at each location who claim to be under the age of 16. Overall around a fifth of respondents reported to be aged 15 or below at the time of completing the questionnaire<sup>8</sup>, ranging from a high of 47 percent in Clinic 8 (N=30) to a low of six percent at Clinic 2 (N=194). Again it is useful to refer back to table 3 for sample sizes.

<sup>7</sup> Kruskal-Wallis one-way analysis of variance

<sup>8</sup> 30 percent of males and 18 percent of females in the Stone study

• Figure 3: Percentage of respondents under the age of 16



### 3.1.4 Ethnic group

All but one of the respondents in the Stone study gave their ethnic group. Overall 93 percent (N=425) of the users reported being of White-British ethnic origin, a further five percent claimed to be White-non-British, seven individuals reported that they were of Asian origin and a further four were Black Afro-Caribbean. Users of *Clinic 2* were the most ethnically diverse, with 18 percent of the young people reporting to be of an ethnic origin other than White-British.

## Summary

- ❖ 460 respondents completed questionnaires in the Stone study, 424 in the Coleman study.
- ❖ The proportion of male respondents overall was 11 percent although this varied from 0 to 43 percent between the services.
- ❖ The age range of the respondents spanned 29 years, from 11 to 40 years of age.
- ❖ The mean age of the respondents was 18.6 years.
- ❖ Large variation was found in the age structures of users attending the different health services.
- ❖ Overall, seven percent of respondents reported being of ethnic origin other than White-British.

## 3.2 Utilisation of the service

The second section of the questionnaire explored respondents' use of the young people's health service they were visiting that day; for example, how many times they had previously visited the clinic, how old were they when they first visited, why they were visiting that day, how they accessed the clinic and for how long had they travelled. The aim of asking questions regarding their mode of transport and travel time will become clearer in the later sections where we use their responses in conjunction with postcoded information.

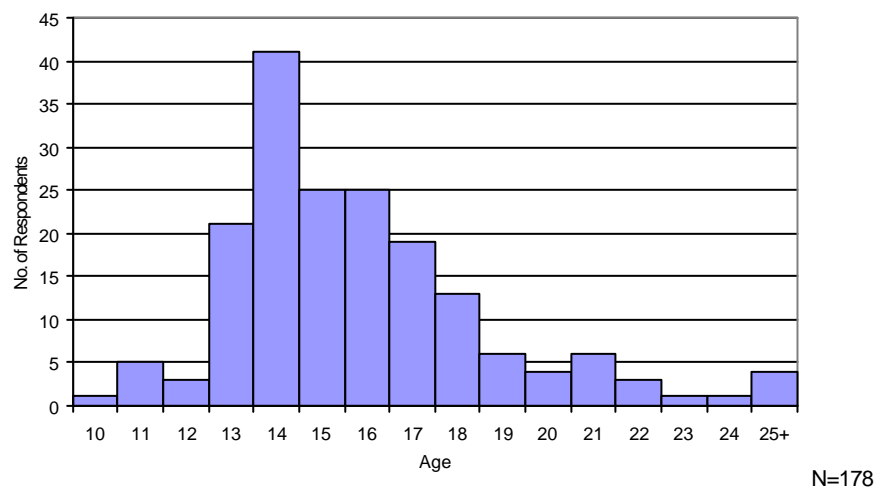
### 3.2.1 First visit

Each respondent was asked how many times they had actually visited the clinic they were in that day for advice or help concerning sex or contraception. Only one individual declined to answer. Almost 30 percent reported that their visit today was the first one they had ever made to that particular service. An additional 40 percent had been between one and five times before, 19 percent had been between six and ten times and the remainder had been more than ten times previously.

Respondents who had previously attended the service they were in that day were asked at what age they first attended. A handful of respondents reported first attending prior to the age of 13. There was then a substantial increase in the number who reported their age of first visit to lie between 13 and 15 years, and after age 16 there was a dramatic decline in numbers. Overall, the mean reported age of first visit was 17.1 years with a median of 16 years.

These reported ages, however, do not truly represent the ages at which young people first attend sexual health services for the sample also includes young people who have accessed services other than the one they were in the day they completed the questionnaire. To control for this it has been possible to select out just those individuals who claim that they have only ever attended one service. One hundred and seventy eight such individuals reported their age at first attendance (see figure 4). Amongst this group of young people the mean reported age at first visit was 15.6 years with a median of 15 years.

• Figure 4: Reported age at first visit



## By sex

Overall the mean age of first attendance reported by males who had only ever attended one service was 17.1 years with a median of 17 years, significantly higher ( $t=3.09$ ,  $df=176$ ,  $p<0.005$ ) than the mean of 15.4 years reported by females, (median 15 years)<sup>9</sup>.

### 3.2.2 First found out about the service

Having been asked at what age they made their first visit each respondent was asked to recall how they found about the service they were attending that day. The majority of young people reported only one source of information although some did recall two or more.

Overall, 415 users indicated at least one source of information from which they learned of the service. The overwhelming majority of young people reported discovering via a friend or through their group of friends ( $N=229$ ). Sixty-four mentioned finding out at school or through a visitor at school and a further 37 mentioned the phonebook/directory enquiries. The only striking difference between the sexes was that young men more frequently mentioned their partners as sources of information. Table 5 shows the complete list of reported sources.

• Table 5: Sources of information concerning the service

Source	No. Respondents
Friends	229
School/school visitor	64
Phonebook/directory enquiries	37
Other Health Service	35
Leaflets/Posters/Stickers (advertising)	12
Partner	11
Parents	11
College/University	10
Passing by	10
Youth Club	9
Brother/Sister	6

## Summary

- ❖ Thirty percent of young people reported that it was their first ever visit to that service that day.
- ❖ For eleven percent of young people it was their first ever visit to any service for sexual health advice.
- ❖ The median reported age at first visit to a young people's drop-in centre was 15 years.
- ❖ The majority of young people reported finding out about the service via friends.

<sup>9</sup> This result is possibly affected by a location bias but due to the small sample sizes within each location it is inappropriate to conduct separate analyses for each clinic by sex.

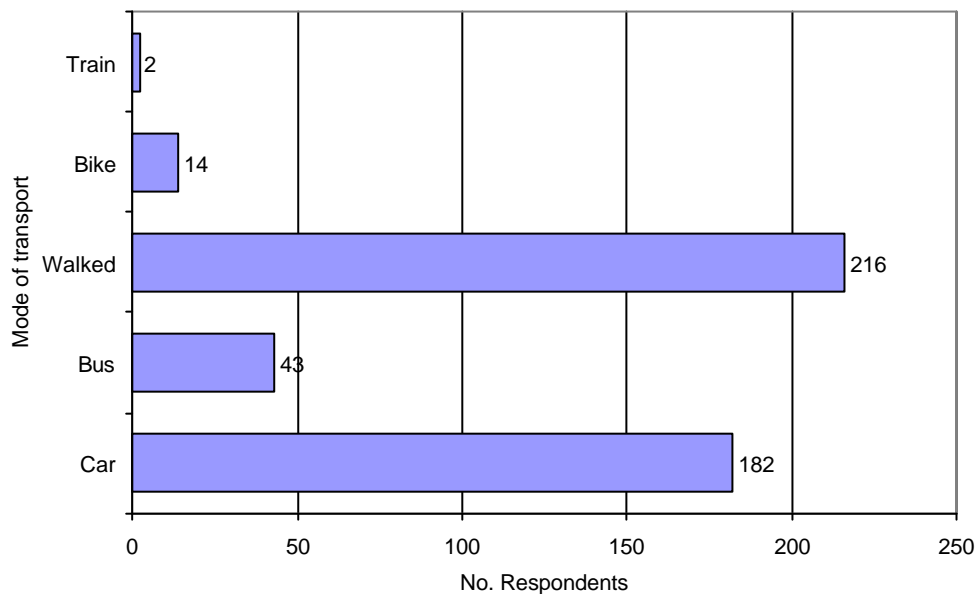
### 3.3 Travel

To investigate how long young people are prepared to travel for, and the mode of transportation they use, in order to access health services, a number of specific questions were included. They were asked what form of transportation had they used to get to the service, and secondly how long had it taken them.

#### 3.3.1 Mode of transportation

Of the 457 respondents who provided a response to the question apropos their mode of transportation, 47 percent reported that they had walked, 40 percent arrived by car and a further nine percent by bus (see figure 5).

• Figure 5: Mode of transportation used to access the service



N=457

#### By age

As one might expect, as the age of the individual increases so the mode of transportation they use alters. Younger people were more likely to travel by foot to their destination whereas older individuals were more likely to arrive by car. For example, 72 percent of young people under the age of 16 walked to the service and only nine percent came by car, compared to 27 percent of individuals aged over 21 walking and two thirds arriving by car. Those individuals within the younger age groups were also the most likely to travel by bus or by bike to reach a service (table 6).

• Table 6: Mode of transportation by age of individual

Age	Walked (%)	Car (%)	Bus (%)	Bike (%)	Train (%)	Total (%)
All Ages	47.3	39.8	9.4	3.1	0.4	100.0
Under 16	71.9	9.0	13.5	5.6	-	100.0
16-17	57.5	25.0	13.3	4.2	-	100.0
18-19	32.5	53.0	12.0	1.2	1.2	100.0
20-21	42.1	53.9	2.6	1.3	-	100.0
22+	27.0	66.3	3.4	2.2	1.1	100.0

(N=457)

## By location

Variation was also found between each location with respect to the modes of transport used by the young people. This is to be expected given the differences in the age structures of the users of each service and the modes of transportation available locally. Over 70 percent of young people walked to *Clinics 8, 6 & 1* compared to less than 20 percent of young people visiting *Clinic 3* at which over 70 percent drove. Additionally a reasonable proportion of young people attending *Clinics 2 & 4* reported to have caught the bus (table 7).

• Table 7: Mode of transportation by location

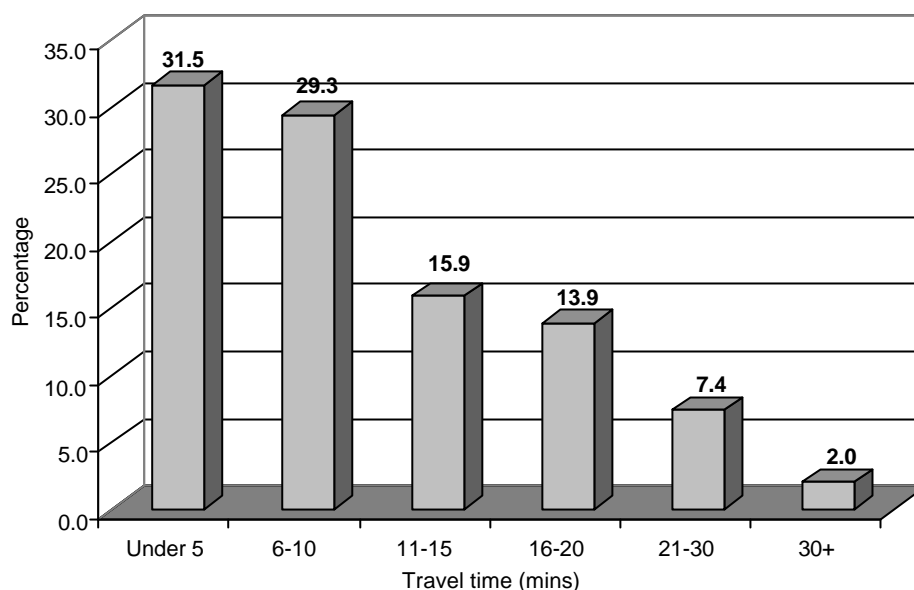
Location	Walked (%)	Car (%)	Bus (%)	Bike (%)	Train (%)
All Locations	47.3	39.8	9.4	3.1	0.4
Clinic 1	72.0	10.0	10.0	8.0	-
Clinic 2	47.5	35.0	15.0	0.8	1.7
Clinic 3	18.4	70.9	5.8	4.9	-
Clinic 4	43.2	35.1	18.9	2.7	-
Clinic 5	65.5	27.6	3.4	3.4	-
Clinic 6	88.9	11.1	-	-	-
Clinic 7	57.1	38.8	-	4.1	-
Clinic 8	100.0	-	-	-	-
Clinic 9	34.5	51.7	13.8	-	-
Clinic 10	55.6	33.3	11.1	-	-

### 3.3.2 Travel time

Highly associated with the mode of transportation used is the time young people are prepared to travel to access services. Four hundred and forty seven young people reported how long it took them to travel to the service that day. The mean time taken was twelve and a half minutes with a median of ten minutes and a range spanning one to ninety minutes. If one excludes the extreme travel times (five percent of cases at each end of the time range) the mean falls slightly to just under 12 minutes.

People usually round times to the nearest five minutes when stating travel times hence figure 6 displays reported travel times classified into five and ten minute groupings. Clearly shown is the rapid decline in the proportion of young people attending a service as travel time increases. Only two percent of those who attended a service were prepared to travel over 30 minutes and only just over nine percent travelled for more than twenty minutes.

• Figure 6: Travel time of respondents



N=447

### By age

No significant differences were found between age and the lengths of time users were prepared to travel to locations. Younger individuals, those under the age of 16, were on average prepared to travel for the same length of time as older individuals. Recalling that younger users were more likely to access services on foot and older users were more likely to drive we can make the assumption that older individuals travel further distances to access services than younger users although their travelling times remain the same. A more detailed analysis of distances travelled is reported in the following section.

### Mode of transport

Investigating the concept of travel time by mode of transport further, it appears that there are significant differences in the length of time people are prepared to travel dependent on the mode of transport they opt to travel by (sum of squares=3451.96, df=4,  $p < 0.001^{10}$ ). Table 8 displays a number of descriptive statistics that illustrate the variation in time taken by various modes of transport. For example, if travelling by bus or train young people are prepared to travel for longer periods of time on average than if they were coming by bike, car or on foot. Furthermore, the times that people are prepared to walk or to drive are extremely similar.

• Table 8: Time taken to access a service by mode of transport

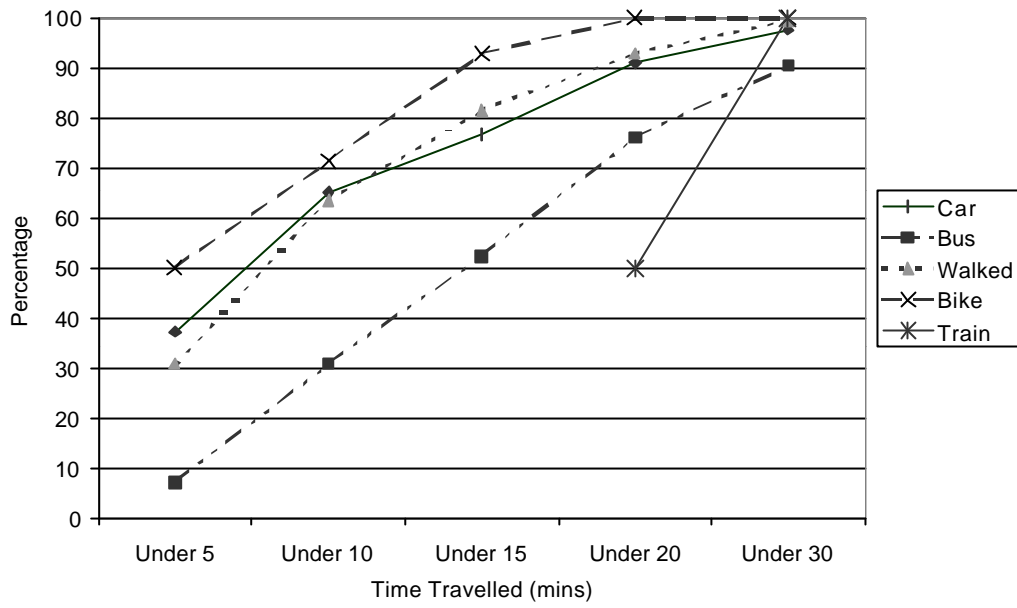
Mode of Transport	Mean (mins)	5% trimmed mean (mins)	Std Deviation (mins)	Median (mins)	Min time (mins)	Max time (mins)
Car	11.9	11.2	8.6	10.0	1	45
Walked	11.7	11.2	7.4	10.0	1	45
Bus	20.6	18.5	16.4	15.0	2	90
Bike	8.7	8.4	5.8	7.5	2	20
Train	25.0	-	7.1	25.0	20	30

N=446

Figure 7 below also reveals that over 60 percent of journeys made by individuals using a car, bike or coming by foot last less than ten minutes whilst over 45 percent of journeys involving the bus last for more than quarter of an hour.

<sup>10</sup> Analysis of variance

• Figure 7: Time taken to access a service by mode of transport (cumulative percentage)



N=446

## Summary

- ❖ Forty-seven percent of respondents had walked to the service that day, 40 percent travelled by car and nine percent by bus.
- ❖ The mean travel time taken was 12 minutes.
- ❖ Only two percent of young people were prepared to travel for over 30 minutes to access the service, nine percent more than twenty.



## 3.4 Postcoded information

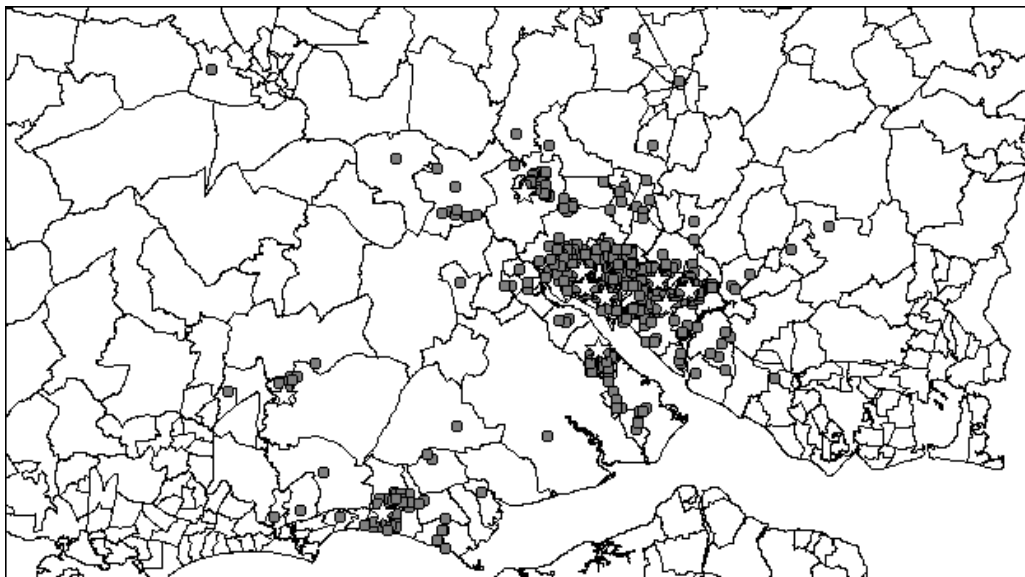
In both studies the respondents were asked to provide their full postcode. The collection of postcodes has two purposes. Firstly, we are able to link each postcode with a grid reference enabling us to build up a detailed catchment area profile for each location and thereby identifying the local populations who are currently not accessing the service. It also allows us to calculate crude crow-fly distances between users' home addresses and the location of services and link these to travel times.

Secondly, using the grid references we can allocate each user to an enumeration district (ED) which in turn provides us with the means of designating a deprivation score to each individual dependent on their home address. Past research has shown that deprivation is highly predictive of risk of experiencing a teenage conception<sup>11</sup>. The higher the social deprivation of the area in which one lives the greater the risk of conceiving. By identifying the deprivation scores of those attending we are able to explore the extent to which those at highest risk are indeed being attracted to services.

### User postcodes

Overall, 784 users' postcodes from both studies could be matched to a grid reference. Map 2 below displays the home addresses of the respondents who provided postcodes that could be matched to a grid reference within the Southampton region, overlaid with the location of all the services (white stars).

• Map 1: Location of respondents



N=780

### 3.4.1 Distance from home address to service

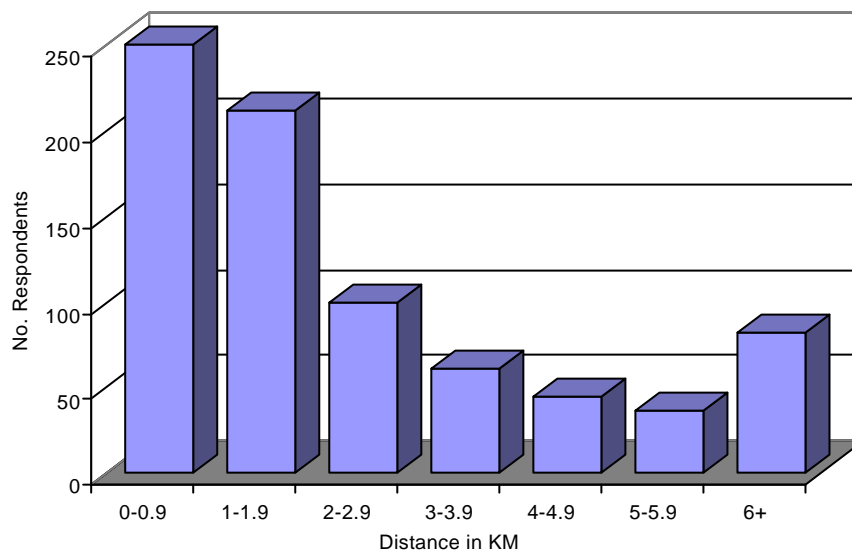
Of the 784 respondents who were matched to a grid reference, three respondents provided postcodes which were outside of the South and West Region and one provided a postcode in South Cornwall; they were excluded from the following travel distance analyses. From each clinic location postcodes were collected which could be matched to a grid reference in a similar fashion to those of the individual users. This

<sup>11</sup> Clements S et al (1998) 'Modelling the spatial distribution of teenage conception rates within Wessex' BJFP 24: p61-71

allowed the 'crowfly' (straight-line) distance between each user and the location they attend to be determined.

Overall, the mean and median crow-fly distances between each respondents' home address and the service they accessed were 2.7kms and 1.7kms respectively (1.7 and 1.1 miles) with a range spanning 0 to 34.9kms (21.8 miles). Twenty five percent of the respondents lived within a radius of 760 metres from the health service and 75 percent within a 3.4km radius. Figure 8 illustrates that the distances between users' home addresses and the locations they attended are highly skewed with a large proportion of users living within 1km of the service; thus it is more appropriate to refer to the median crow-fly distances.

• Figure 8: Crow-fly distance between home address and location attended, km.

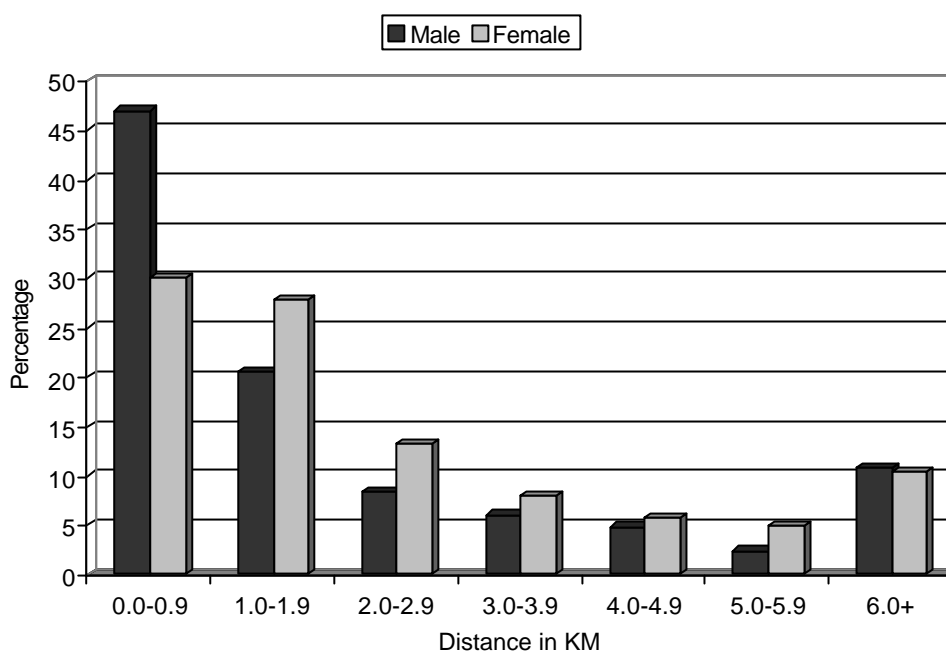


N=780

### By sex

Overall no significant difference was found to exist between the two sexes and the distances they live from the services they attend. The median distance for males was reported as 1.1kms whilst for females it was slightly higher 1.7kms. When distance groupings are used however one does discover that a higher proportion of males than females live within 1km of the service they attend, 47 percent as compared to 30 percent (figure 9).

• Figure 9: Crow-fly distance between home address and location attended by sex of respondent



N=780

### By age

Analysis of the distances between the health services and the home addresses of the users by age group reveals significant differences (sum of squares=3.54E+08, df=6 p<0.001). Table 9 below displays the median, 25<sup>th</sup> and 75<sup>th</sup> percentile distances by age group of user, illustrating that up until the age group 19-20, as the age of the individual increases so the median distance between where they live and the service they attend increases. After age 21 the model is less consistent. Furthermore, 25 percent of young people aged fourteen or under visiting a clinic live within approximately 400 metres of the venue, and this distance is seen to almost double at all other age groups. Similarly 75 percent of those under the age of 15 live within a radius of 1.9km from the health service they attend compared to almost a 3km radius for all other age groups.

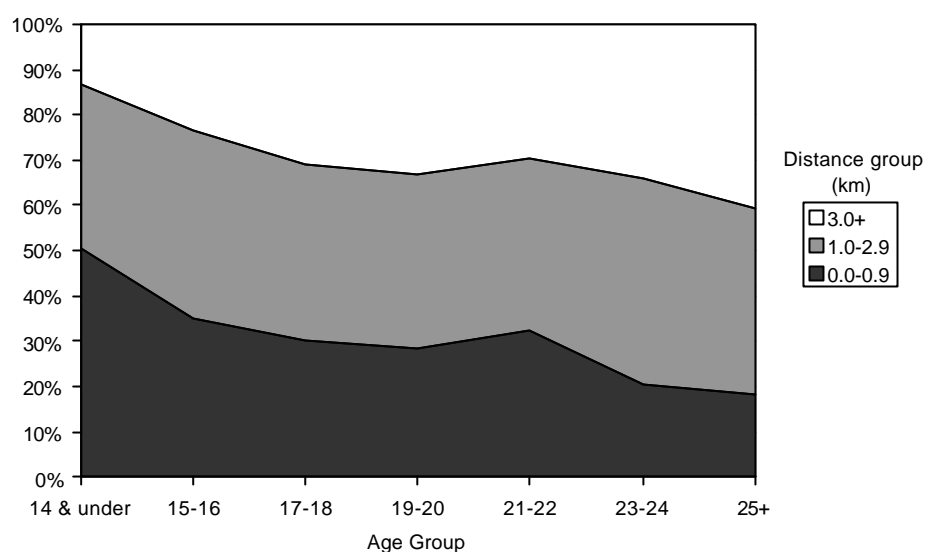
• Table 9: Crow-fly distance between home address and location attended by age of respondent

Age Group	Median distance (KM)	25 <sup>th</sup> Percentile (KM)	75 <sup>th</sup> Percentile (KM)
14 & under	0.86	0.41	1.94
15 – 16	1.42	0.76	2.99
17 – 18	1.78	0.82	3.59
19 – 20	2.06	0.84	4.15
21 – 22	1.43	0.72	3.28
23 – 24	1.86	1.21	3.77
25+	2.77	1.14	5.10

N=780

Significant differences are also evident when crow-fly distances are classified into distance groupings ( $\chi^2=34.45$ , df=6, p<0.001). Figure 10 clearly shows that the younger users tend to live closer to the services as illustrated by the black shaded area at the bottom of the graph declining in size as age increases.

• Figure 10: Crow-fly distance between home address and location attended by age group of respondent



N=780

## By location

On closer investigation of the users of the individual clinics it is found that the distance that users live from each service does vary significantly, correlating with the variation in age structures. Twenty five percent of individuals attending *Clinic 8* live within 150 meters as the crow-flies, similarly 25 percent live within 200 meters of *Clinic 5*. On the other hand 25 percent of young people attending *Clinic 9* live within 1.2km and 75 percent live within 4.6km, table 10.

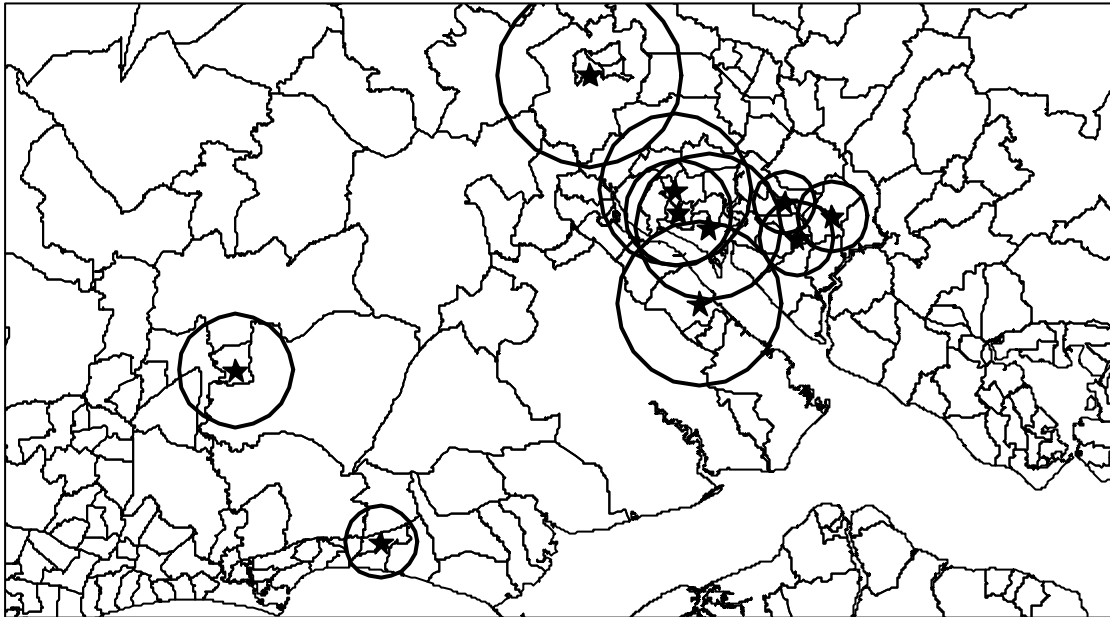
• Table 10: Crow-fly distances between users' home addresses and locations attended

Location	Median distance (KM)	25 <sup>th</sup> Percentile (KM)	75 <sup>th</sup> Percentile (KM)
Clinic 1	0.86	0.57	1.97
Clinic 2	2.48	1.08	4.10
Clinic 3	1.98	1.08	4.27
Clinic 4	2.11	1.08	5.20
Clinic 5	0.64	0.20	2.08
Clinic 6	1.53	1.04	3.20
Clinic 7	1.68	1.04	2.03
Clinic 8	0.45	0.14	1.73
Clinic 9	1.79	1.22	4.63
Clinic 10	1.51	0.54	2.98

Map 3 below illustrates more clearly the differences in the distances users live from the services they attend. On the map a zone has been drawn around each service in which 75 percent of their users live, clearly highlighting the differences in the distances travelled. We can assume that these boundaries provide a reasonable representation of the catchment population of each of the services based on crow-fly distances travelled. The 75 percent cut off has been used to exclude those individuals who live great distances away and possibly access services after work/school/college etc. The following section recalculates these boundaries controlling for such patterns of access. The map also shows that there is a significant amount of overlap in the service

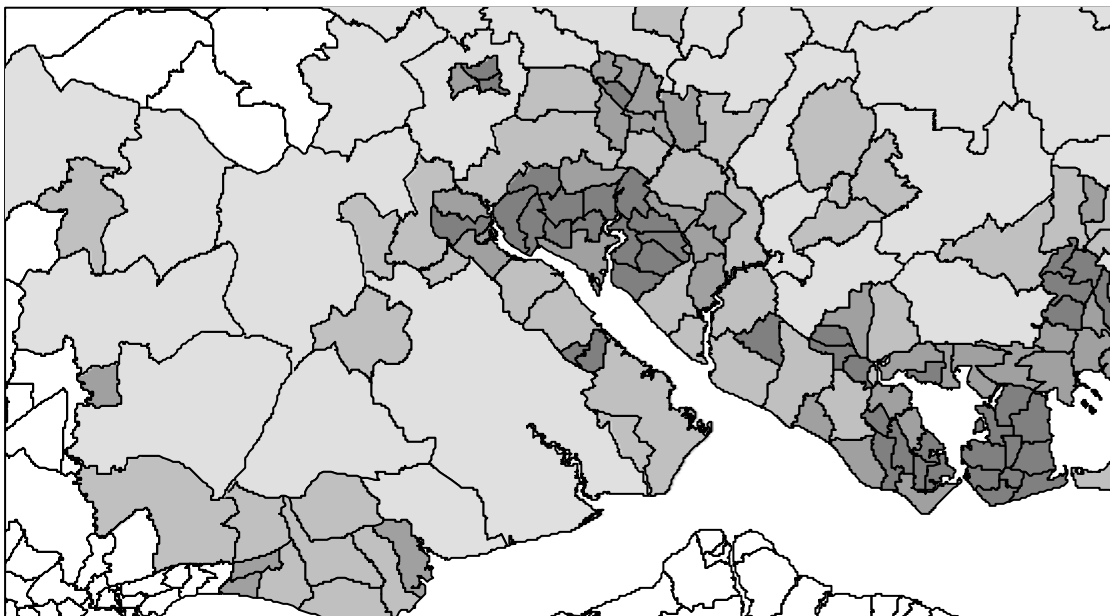
catchment areas in the centre of Southampton as compared to the services provided in the more sparsely populated areas of the region. Again these boundaries do correlate with the variation in age structures between the venues.

- Map 2: Boundaries within which 75 percent of service users live



Map 4 below displays the population density of the wards in Southampton, highlighting areas in which a concentration of young people live, the darker the shading the greater the population density. By combining map 3 with map 4 one is able to identify areas that currently lie outside the boundaries within which 75 percent of current users live.

- Map 3: Population density of wards in the Southampton region



## Summary

- ❖ Seven hundred and eighty individuals could be matched to an ED in the locality using their postcode.
- ❖ Crow-fly distances between users home address and the health service they attended were highly skewed, with a median distance of 1.7km.
- ❖ A higher proportion of males than females lived within a 1km radius of the health service they attended.
- ❖ Younger individuals live closer to the health service they attend than do older individuals.

### 3.4.2 Health service catchment areas

So far we have been able to develop a basic model for specific services' catchment areas based on the crow-fly distance between each service and users home addresses. We have also illustrated that the time and distance young people are prepared to travel to a health service is affected by numerous factors, including age, sex and the modes of transportation available. In order to take account of interacting factors we have attempted to develop a more comprehensive model of the potential catchment area of a "hypothetical service" using just those respondents that are known to have travelled from home. For these individuals, we know the crow-fly distance travelled, the mode of transport they used and the time it took them. Combining all these elements allows us to produce crow-fly distance boundaries for each mode of transport based on travel time.

In total, 243 respondents in the Stone study reported that they had travelled from home to access the service that day; twenty-eight of these, however, did not provide a valid postcode so had to be excluded and three did not provide information on their mode of transport and travel times. Using the remaining 212 respondents we have been able to calculate the mean travel times and distances for users travelling from home. As before the data is highly skewed, thus medians and interquartile ranges shall be used as measures of central tendencies and spreads.

Overall, the median crow-fly distance travelled by just those coming from home was 1.4km, slightly less than the distance for the Stone and Coleman combined sample (1.7km) which included individuals coming from work, school etc. Twenty-five percent lived within a 670m radius, 75 percent within 2.9kms. The median time it took young people to arrive at the service was ten minutes with 25 percent taking less than five minutes and 25 percent more than 15.

Table 11 below displays the forms of transportation the respondents reported using. Fifty percent walked to the service from home, 39 percent travelled by car and almost eight percent by bus.

- Table 11: Transportation between home address and location attended

	Frequency	Percentage (%)
Car	84	39.3
Bus	16	7.5
Walked	106	49.5
Bike	7	3.3
Train	1	0.5
<i>Total</i>	<i>214</i>	<i>100.0</i>

By dividing the sample up by the mode of transportation utilised it is possible to create the following crow-fly distance boundaries based on the distance users travelled and the time it reportedly took them. This analysis does not take account of the age of the individual however and unfortunately due to very small sample sizes we have not been able to conduct the analyses for those travelling by train or by bike. The analysis for those travelling by bus should also be interpreted with caution due to the small sample size.

Table 12 displays the percentage of users who live within a Xkm radius and who travelled up to X minutes by car to access a service. For example, 75 percent of users who travelled up to five minutes by car live within a 1.76km radius of the service they attended, whilst 75 percent of young people who travelled for up to 15 minutes live within 4km.

- Table 12: Crow-fly distance boundaries in km, by the time taken to access the service by car for X percent of respondents.

Travel time	Percentage of respondents (%)			
	25	50	75	90
Up to 5 mins	0.85	1.39	1.76	2.82
Up to 10 mins	0.89	1.61	2.91	4.30
Up to 15 mins	1.00	1.77	4.00	5.82
Up to 20 mins	1.21	1.94	4.27	6.32
Up to 30 mins	1.33	2.15	4.66	6.93
<i>All times</i>	1.33	2.31	5.11	7.46

Table 13 displays the same analyses this time conducted on just those respondents who walked to the health service. Seventy-five percent of users who travelled up to five minutes by foot live within a 580 metre radius of the service they attended, whilst 75 percent of young people who walked for up to 15 minutes live within 930 metres.

- Table 13: Crow-fly distance boundaries in km, by the time taken to access the service by foot for X percent of respondents.

Travel time	Percentage of respondents			
	25	50	75	90
Up to 5 mins	0.14	0.36	0.58	0.86
Up to 10 mins	0.22	0.58	0.74	1.44
Up to 15 mins	0.36	0.67	0.93	1.42
Up to 20 mins	0.40	0.71	1.04	1.58
Up to 30 mins	0.41	0.72	1.21	1.99
<i>All times</i>	0.40	0.71	1.20	1.99

Finally table 14 displays the analysis for respondents arriving by bus. Caution must again be stressed due to the very small sample size being used. Seventy-five percent of users who travelled up to ten minutes by bus live within a 3.39km radius of the service, whilst 75 percent of young people who travelled for up to 30 minutes live within 3.09kms.

- Table 14: Crow-fly distance boundaries in km, by the time taken to access the service by bus for X percent of respondents.

Travel time	Percentage of respondents			
	25	50	75	90
Up to 10 mins	1.84	2.42	3.39	-
Up to 15 mins	1.92	2.67	3.43	-
Up to 20 mins	1.92	2.67	3.09	3.55
Up to 30 mins	1.92	2.42	3.09	3.76
<i>All times</i>	1.92	2.67	3.43	4.33

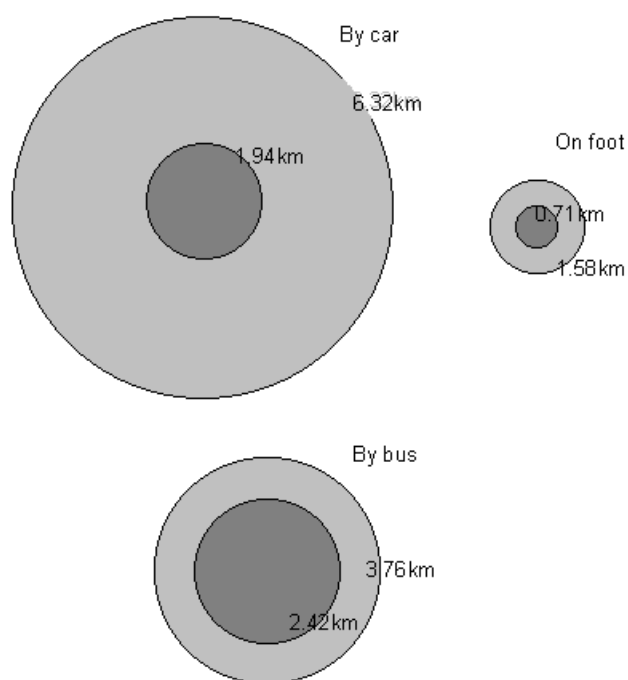
In a previous section of the report it has been shown that around 90 percent of young people arriving by either car or on foot travel for less than 20 minutes, for those coming by bus, 90 percent travel for less than half an hour. Combining this information with that displayed above we can conclude that if a young person is walking it is unlikely they live/work/go to school or college more than 1.6km away (crow-fly) from the service, if they are travelling by car more than 6.3km away and if they are travelling by bus more than 3.8km.

These boundaries are based on the distance travelled by the 90<sup>th</sup> percentile respondent travelling up to 20 minutes by either foot or by car and within 30 minutes by bus, hence they are maximum predicted distances and one expects the majority of young people to travel much shorter distances. Nevertheless these maximum radii do provide an indication of the population that could potentially be attracted to a service given adequate provision of transportation i.e. regular and accessible bus routes. These findings can therefore be used in conjunction with the population located within the three radii boundaries to identify the potential target population.

Figure 11 below displays the 50<sup>th</sup> and 90<sup>th</sup> percentile distance boundaries by form of transportation, illustrating clearly the differences between the three forms. The 90<sup>th</sup> percentile is being used again instead of the 100<sup>th</sup> due to the highly skewed nature of the data, furthermore, the 50<sup>th</sup> percentile has been included to take account of the concentration of respondents travelling short distances by car and longer distances by bus. Overall, one can expect around 50 percent of young people travelling by car to travel up to 1.9kms and roughly 50 percent between 1.9 and 6.3kms. Similarly around a half of users travelling by bus will travel up to 2.4kms and roughly half between 2.4 and 3.8kms and finally for those walking about 50 percent will come from within 0.7kms and roughly 50 percent from between 0.7 and 1.6kms.



• Figure 11: Maximum crow-fly distance boundaries by mode of transportation, 50<sup>th</sup> and 90<sup>th</sup> percentiles.



## By age

When identifying the potential population it is also possible to take account of the types of transport utilised by young people of different ages. For example, table 15 shows that those under the age of 16 are more likely to walk to a service and hence the potential catchment area for this age group is much smaller than for those older individuals who have access to cars.

• Table 15: Forms of transportation utilised by users of different ages

Mode of transport	Under 16s (%)	16s & over (%)
Car	9.0	47.3
Bus	13.5	8.4
Foot	71.9	41.3
Other	5.6	3.0
<i>Total</i>	<i>100.0</i>	<i>100.0</i>

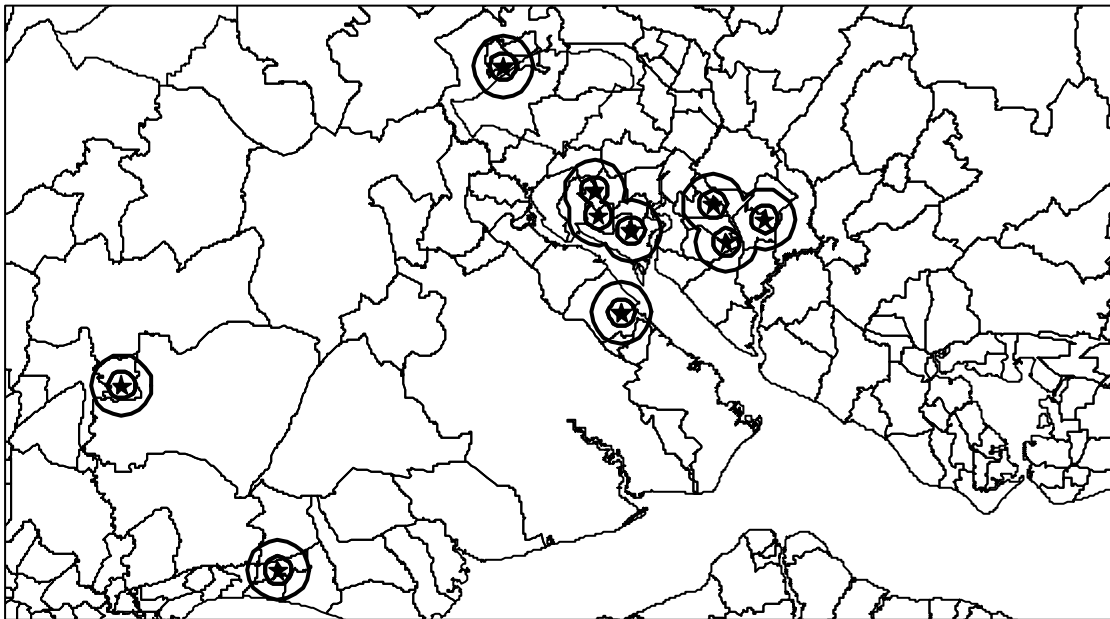
In general, 72 percent of the under 16 potential population is likely to walk to our hypothetical service and is therefore expected to be located within a 1.6km radius. Fourteen percent will travel by bus so shall be located within a 3.8km radius and nine percent are expected to travel by car so shall travel from within 6.3km. On the other hand, only 41 percent of the 16 and over potential population is expected to be located within 1.6km, eight percent within 3.8km and 47 percent within 6.3kms.

The following three maps, maps 5,6,7, illustrate the potential catchment areas for each of the health services in Southampton dependent on the form of transportation used and assuming adequate provision and reasonable travel times (20 mins by foot/car, 30 mins by bus). The inner circle represents the areas in which one expects approximately 50 percent of the potential target population to live, the outer circle the remaining population. Map 6 is particularly interesting for it highlights the catchment areas that are within reasonable walking distance of a service i.e. accessible to those under 16.

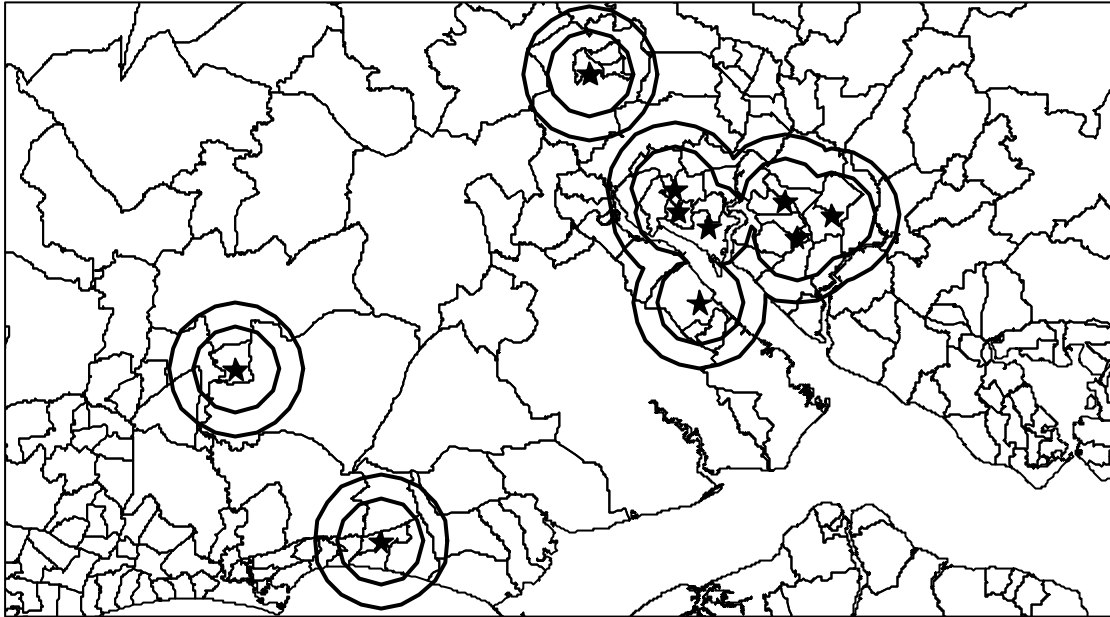
• Map 4: Car travel catchment area



• Map 5: Walking catchment area



• Map 6: Bus travel catchment area



## Summary

- ❖ The maximum distance that young people are prepared to walk to a service is 1.58km (crow-fly).
- ❖ The maximum distance that young people are prepared to drive to a service is 6.32km (crow-fly).
- ❖ The maximum distance that young people are prepared to travel by bus to a service is 3.76km (crow-fly).

### 3.5 Social Deprivation

Of the 784 respondents' postcodes that were matched to a grid reference 781 could be further matched to an enumeration district (ED) within the boundaries of the South and West Regional Health Authority and thus to a deprivation score. In the absence of data relating to each young person's individual circumstances ED deprivation scores have been used to identify areas of disadvantage.<sup>12</sup>

Currently there are four standard indices of deprivation that can be easily calculated using 1991 census data, 1) the Townsend index, 2) the Jarman UPA index, 3) the Carstairs index, and 4) the Department of the Environment (DoE) index. All of them show that deprivation is associated with increased teenage pregnancy<sup>13</sup>; however, it is important to realise that these standard indices are generic and are not the most accurate way of measuring specific outcomes such as teenage pregnancy. Saying that, all four of the indicators have been used in the health field and have been selected as alternative but overlapping definitions of social deprivation. The Townsend and Carstairs indices were specially designed to measure material deprivation and its link with health. The DoE index was devised for use in urban policy, while the Jarman index strictly represents a measure of factors identified by general practitioners as affecting their workloads. Due to the nature of the study the DoE index has been excluded from the analyses.

Initially one can compare the ED deprivation scores for where the service users live<sup>14</sup> to those of all EDs in the South and West region and all EDs in Southampton Health Authority alone. The aim is to identify if our sample of service users live in EDs that are significantly different with respect to their levels of deprivation. The South and West and Southampton are used as comparison groups due to the wide variability of deprivation found nationally.

The national mean score for all the deprivation indices is zero. Hence a positive score equates to higher than average national deprivation and a negative score to lower than average. Table 16 shows that the South and West (SW) region has lower deprivation than the national average according to all the indices. Southampton on the other hand has mean deprivation scores greater than the SW indicating that its deprivation is slightly higher, although all the scores remain below the national average. Table 16 also shows that the mean deprivation scores for users of the services are greater than both the SW and Southampton scores, hence we can initially deduce that users on average tend to live in more deprived areas.

• Table 16: Mean Enumeration District deprivation scores

Index	National	South and West	Southampton	Service Users
Carstairs	0.00	-1.02	-0.47	-0.36
Jarman	0.00	-3.15	-0.60	0.04
Townsend	0.00	-1.06	-0.55	-0.38

#### By location

All four deprivation indices are highly correlated with one another and all have been found to be significant indicators in determining teenage pregnancy; thus, in the following analyses only the Carstairs deprivation index is to be used.

<sup>12</sup> 'places where disadvantaged people congregate are places where disadvantaged lives are lived out' Sloggett, A., & Joshi, H. (1998). Deprivation indicators as predictors of life events 1981-1992 based on the UK ONS longitudinal study. *Journal of Epidemiology & community Health*, 52, (4): 228-233

<sup>13</sup> Clements S. et al (1998) 'Modelling the spatial distribution of teenage conception rates with Wessex'. BJFP 24: p61-71

<sup>14</sup> The scores relate to the ED in which the individuals live and not to the individual young people themselves.

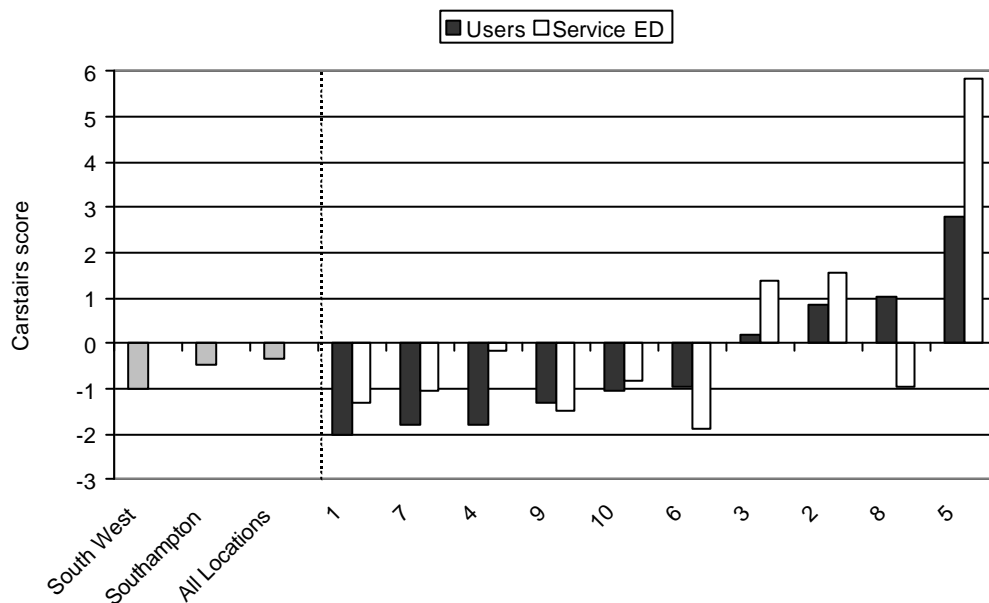
The services included in the study are sited in EDs with very different levels of social deprivation, ranging from a low of  $-1.47$  to a high of  $5.85$  (table 17). Furthermore, four out of the ten clinics are located in EDs that are more deprived than average for Southampton, i.e. have deprivation scores above  $-0.47$ .

• Table 17: Service locality deprivation scores

Location	ED deprivation score
Clinic 5	5.85
Clinic 2	1.56
Clinic 3	1.38
Clinic 4	-0.16
Clinic 10	-0.83
Clinic 8	-0.95
Clinic 7	-1.04
Clinic 1	-1.30
Clinic 9	-1.47
Clinic 6	-1.90

Figure 12 displays the mean deprivation scores of the users of each health service represented by the black shaded bars and the score for the ED in which the service is located (white bars). Also included in the figure are three grey shaded bars which represent the mean deprivation scores for the SW, Southampton and all locations jointly.

• Figure 12: Mean Enumeration District deprivation scores for users and each location



N=781

Figure 12 shows that the users of six of the locations have below, both national and Southampton, average deprivation and the users of the remaining four have higher. Furthermore, the users of five of the services have below South and West average deprivation. Comparing the scores of the users to the ED score in which the service they attend is located we find that in only three cases do the users on average live in more deprived areas, at Clinics 9, 6 & 8.

Examining the mean deprivation scores of the users attending each of the services we are able to determine that deprivation does vary significantly between the locations (sum of squares=1535.66, df=9, p<0.001). Young people who attend *Clinic 1* live in the least deprived EDs of all users whilst the young people who attend *Clinic 5* live in the most deprived EDs.

### 3.5.1 Deprivation groupings

In order to investigate whether each service is attracting young people at increased risk of experiencing a teenage conception we have grouped each respondents' ED level of deprivation into one of five deprivation categories; *very low*, *low*, *average*, *high* and *very high*. The cut-off points used for these categories are based on the 20<sup>th</sup>, 40<sup>th</sup>, 60<sup>th</sup> and 80<sup>th</sup> percentile deprivation scores for all EDs in Southampton Health Authority.

Table 18 displays the number and proportion of users that fall into each of the five Southampton deprivation categories. If our sample is representative of the total population living in the Southampton area one would expect approximately 20.4 percent of respondents to fall into the *very low* category, 20.5 percent in the *low* category, 19.8 percent in *average*, 19.6 percent in *high* and 19.7 percent in the *very high* categories<sup>15</sup>. Table 18 shows that lower proportions than expected fall into the *very low*, *low* and *average* categories and higher proportions of respondents than expected fall into the *high* and *very high* deprivation categories.

• Table 18: Proportion of residents and users in each deprivation category

Deprivation Category	Count of respondents	Percentage of respondents	Percentage of Southampton residents
Very Low	157	20.1	20.4
Low	159	20.4	20.5
Average	136	17.4	19.8
High	164	21.0	19.6
Very High	165	21.1	19.7

N=781

#### By location

Once again we are able to illustrate the significant differences in the deprivation of users at each location by calculating the proportion of users which fall into each of the five deprivation categories, table 19 ( $t^2=210.88$ , df=9, p<0.001). Over 55 percent of young people attending both *Clinics 8 & 5* live in EDs ranked in the top twenty percent of deprived EDs in Southampton (*very high* category). In comparison less than five percent of young people visiting *Clinics 1 & 7* live in EDs ranked in the same top 20 percent.

• Table 19: Proportion of users in each deprivation category by location

Deprivation Category	Clinic 1 (%)	Clinic 2 (%)	Clinic 3 (%)	Clinic 4 (%)	Clinic 5 (%)	Clinic 6 (%)	Clinic 7 (%)	Clinic 8 (%)	Clinic 9 (%)	Clinic 10 (%)
Very Low	30.8	10.8	12.6	34.8	8.7	12.5	34.7	4.0	33.3	22.2
Low	44.1	7.8	12.1	33.3	-	12.5	31.9	8.0	18.2	22.2
Average	16.1	17.4	21.1	8.7	8.7	50.0	16.7	16.1	24.2	16.7

<sup>15</sup> Based on the total resident population count within EDs falling into each deprivation grouping

High	7.0	29.3	29.1	17.4	23.9	25.0	13.9	16.0	6.1	33.3
Very High	2.1	34.7	25.1	5.8	58.7	-	2.8	56.0	18.2	5.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean Score	-2.02	0.85	0.19	-1.81	2.78	-0.97	-1.81	1.02	-1.30	-1.06

### Catchment areas

It is possible to compare the mean deprivation scores of each service's users to the deprivation of its catchment area as defined by two of the formerly calculated boundaries; the maximum crow-fly distance by foot, based on travel times, and the area in which 75 percent of current users live. The catchment areas' deprivation scores are calculated using the mean deprivation scores for all EDs whose centroids are located within the crow-fly distance boundaries. Table 20 displays the number of EDs located within each catchment boundary.

- Table 20: Number of EDs located within each defined catchment area<sup>16</sup>

Location	Catchment definition	
	Walking distance	75% of current users
Clinic 1	27	38
Clinic 2	69	332
Clinic 3	77	303
Clinic 4	17	65
Clinic 5	48	78
Clinic 6	16	35
Clinic 7	38	48
Clinic 8	60	83
Clinic 9	24	126
Clinic 10	72	198

Table 21 below displays each location's mean user deprivation score along with the mean deprivation score for all EDs located within each specific catchment area. Stars have been used to indicate where the actual user deprivation score is higher than that of the catchment populations (i.e. users are living in areas of higher deprivation).

- Table 21: Mean clinic user deprivation scores compared to mean ED deprivation scores as defined by catchment boundaries

Location	Actual	Catchment Definition	
	Clinic Users	Walking distance	75% of current users
Clinic 1	-2.02	*-2.43	-1.81
Clinic 2	0.85	3.25	*0.84
Clinic 3	0.19	0.82	1.07
Clinic 4	-1.81	-0.99	*-1.91
Clinic 5	2.78	*0.97	*0.33
Clinic 6	-0.97	*-1.39	*-1.71
Clinic 7	-1.81	-1.62	-1.76
Clinic 8	1.02	*-0.09	*-0.07
Clinic 9	-1.30	-1.14	0.44
Clinic 10	-1.06	0.38	1.61

<sup>16</sup> Clinic 2,3,9, and 10 all have large numbers of wards due to their close, crow -fly, proximity to the Centre of Southampton were EDs are smaller.

The following bullet points highlight the most interesting findings from this analysis:

- Very low levels of deprivation are found within 20 minutes walking distance of *Clinic 1*.
- The average deprivation score of the EDs located within 20 minutes walk of *Clinic 2* is very high.
- The users of the services at *Clinics 5 & 8* live on average in the most deprived EDs found locally.
- Low levels of deprivation are found within both of *Clinic 7's* potential catchment areas.

## Summary

- ❖ Users of the young people's drop-in centres live on average in more deprived EDs than the general population living in Southampton Health District.
- ❖ Over 55 percent of young people attending *Clinics 8 & 5* live in EDs ranked in the top 20 percent of deprived EDs in Southampton, compared to only five percent of young people attending *Clinics 1 & 7*.
- ❖ *Clinics 5 & 8* are doing particularly well at attracting young people at increased risk of experiencing a teenage conception.



### 3.6 Utilisation of all sexual health services

The final set of questions included in the questionnaire asked each respondent whether or not they had ever been to any other health services facilities for help and advice regarding sex and contraception. If they had, they were asked to indicate all those that they had ever attended. The motivation for this question was to identify those individuals who had only ever visited a young persons centre and additionally, if it was their first ever visit that day, what were they attending for. Furthermore, each individual was asked whether they first visited a sexual health service before or after they became sexually active and what was the time delay between the two events.

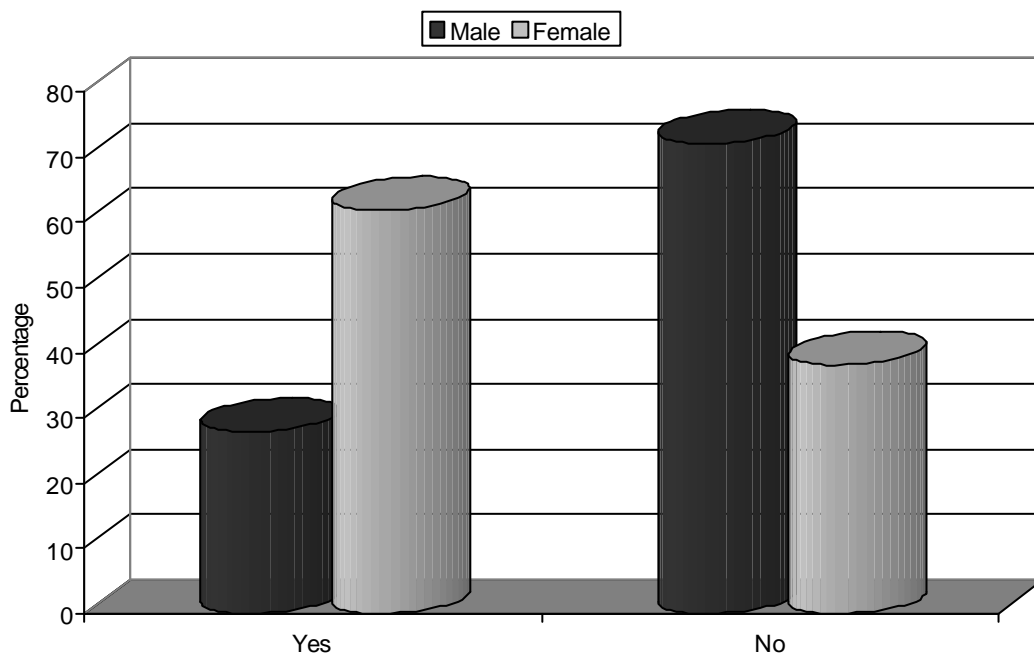
#### 3.6.1 Attendance at other sexual health service facilities

Four hundred and thirty six individuals responded to the question concerning whether or not they had ever attended another sexual health service. Forty-one percent of the respondents, (n=181), reported that they had only ever visited the service they were at that day and 59 percent (n=255) said they had also been elsewhere.

##### By sex

Significant differences were found between the responses of the male and female attendees ( $\chi^2=18.37$ ,  $df=1$ ,  $p<0.001$ ). Figure 13 shows that 28 percent of males compared to 62 percent of females reported that they had been to another sexual health service and 72 percent and 38 percent of males and females respectively had never been elsewhere.

• Figure 13: Users responses to the question asking if they had ever attended another sexual health service, by sex

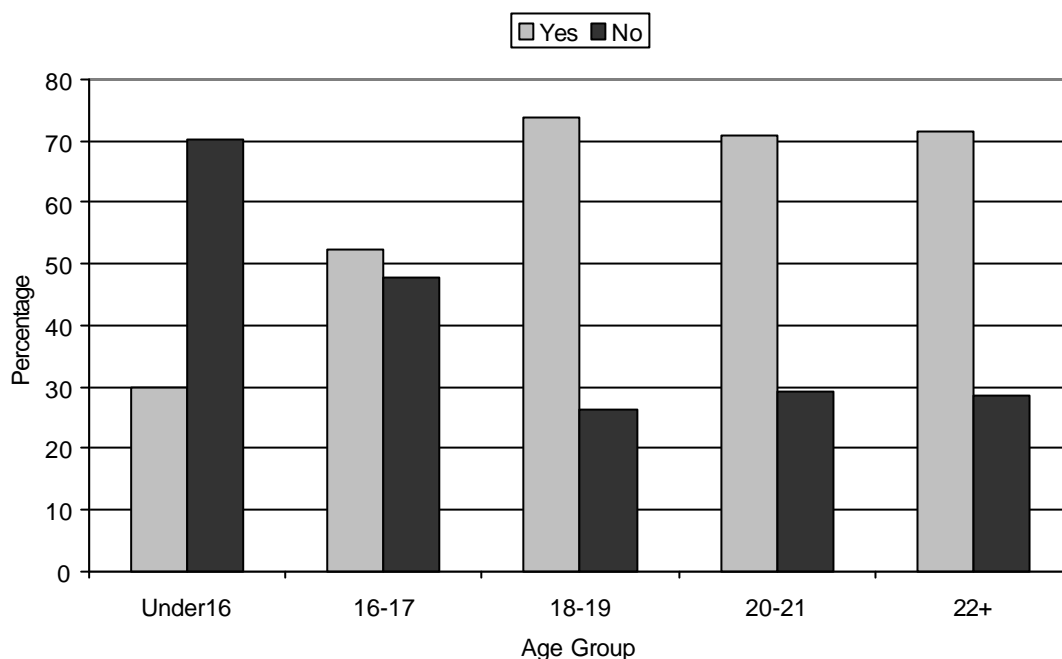


N=436

## By age

As expected the age of an individual was found to be significantly related to whether or not they had been to more than one venue for sexual health advice. As the age of an individual increased so the likelihood that they had ever visited another location for sexual health advice increased ( $\chi^2=49.14$ ,  $df=4$ ,  $p<0.001$ ).

- Figure 14: Responses to the question asking if they had ever attended another sexual health service, by age



N=436

The pattern of increasing likelihood of attendance at other locations with increasing age held when disaggregating by sex for the female population, it did not hold so strongly however with the male respondents, but this could be affected by the small sample size.

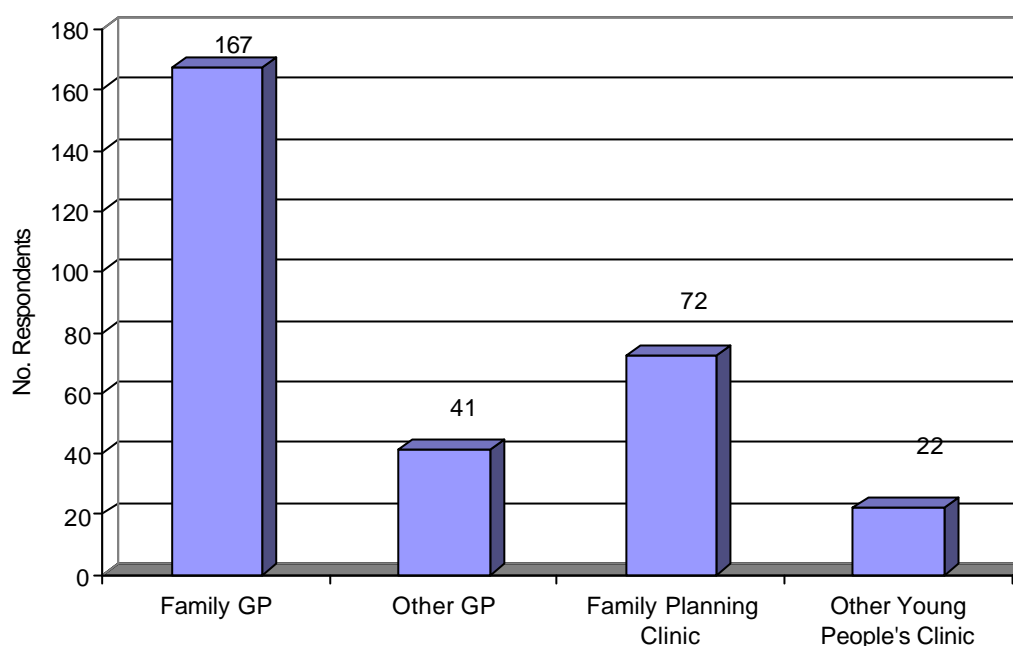
### 3.6.2 Young people who reported utilising more than one service

Due to the design of the questionnaire it is possible to identify which other types of services the young people had ever visited for sexual health advice. Two hundred and fifty-five young people stated that they had been to at least one other venue; 84 percent were found to have only visited one other venue, 13 percent two venues, four percent three other venues and only one individual had been to four different places for sexual health advice.

Figure 15 illustrates where else the young people had been to for advice concerning sexual health and contraception. It shows that one hundred and sixty-seven young people had visited their own family doctor for sexual health advice and 41 to another doctor, seventy two individuals had visited a family planning clinic and 22 another young people's clinic.<sup>17</sup>

<sup>17</sup> We are unable to tell whether or not "Other GP" was in the same practice as their "Family GP".

• Figure 15: Number of respondents visiting other sexual health services



As stated previously a number of individuals reported visiting more than one other type of service and are therefore represented more than once in figure 15. Table 23, on the other hand, shows the breakdown of respondents by the combination of types of service they report having attended. The percentages displayed in table 23 are calculated using only the 255 individuals who reported visiting other services.

• Table 22: Combination of other services attended

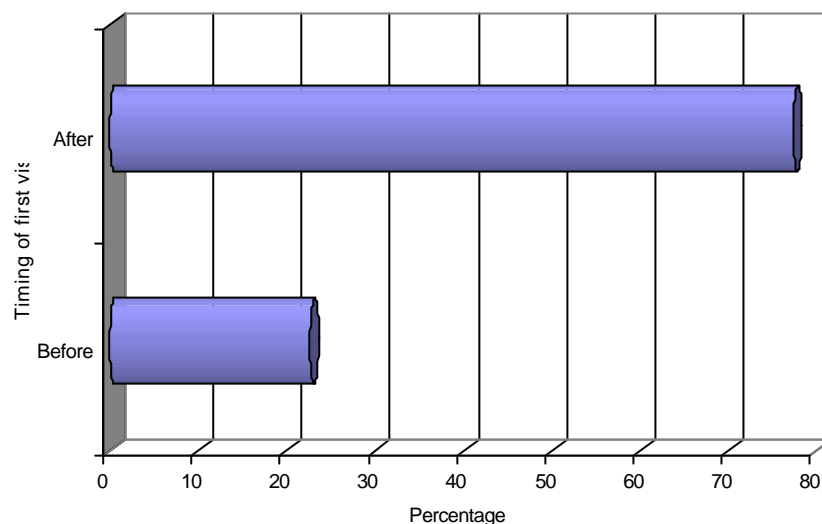
Locations visited	No. of respondents	Percentage (%)
Family GP only	132	52
Other GP only	23	9
Family planning clinic only	42	16
Another Young people's clinic only	10	4
Family GP & Other GP	10	4
Family GP & Family planning clinic	16	6
Family GP & another Young people's clinic	-	-
Other GP & Family planning clinic	1	0
Other GP & another Young people's clinic	4	2
Family planning clinic & another Young people's clinic	1	0
Family GP, Family planning clinic & another Young people's clinic	4	2
Other GP, Family planning clinic & another Young people's clinic	1	0
Family GP, Other GP & Family planning clinic	3	1
Family GP, Other GP & another Young people's clinic	1	0
All Four Locations	1	0

Table 23 shows that of those young people who had visited another service over half had only additionally been to their family GP for advice, a further 16 percent had been to a family planning clinic and nine percent to another GP.

### 3.6.3 Timing of first visit

In order to investigate further the issue of sexual activity and attendance at sexual health services each respondent was asked if their first visit to any sexual health service was *prior to* or *subsequent to* their first sexual experience. Eighty one percent (n=375) of respondents gave a response and figure 16 displays the findings; 77 percent of respondents' first visit to a sexual health service was after they became sexually active.

• Figure 16: Timing of first visit to a service with respect to first intercourse



N=375

### 3.6.4 Time delay

Having reported whether their first visit to a sexual health service was prior to or subsequent to their first sexual experience, each young person was asked to recall the length of time that elapsed between the two events.

#### Prior to first intercourse

Eighty-five young people reported that they attended a service *prior to* first intercourse. Of those, 54 (64 percent) reported the length of time between visiting the service and having intercourse (one male and 53 female respondents). The young peoples' responses were highly skewed ranging from less than one week to 208 weeks or a four year time lag, hence the median time of eight weeks (two months) is a more representative measure of the average time between first visit and first intercourse. Furthermore the interquartile range is a more representative measure of spread. Twenty-five percent of respondents waited only four weeks between first visiting a service and first intercourse and 25 percent waited more than 13 weeks.

#### Subsequent to first intercourse

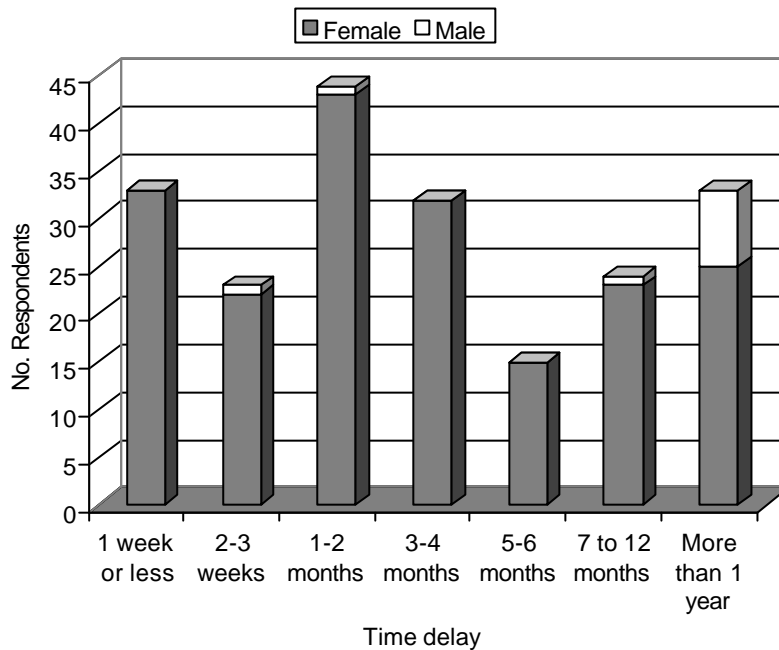
Of the 290 young people who reported that they first had intercourse before they first attended a service, 204 (70 percent) reported the time lag between first sex and first attendance (11 males and 193 females). The young peoples' responses were once again highly skewed ranging from less than one week to over ten years with a median

time lag of ten weeks (2/3 months). A quarter of young people reported that they visited a service within three weeks of first intercourse whilst, on the other hand, 25 percent waited for more than a year before making their first visit.

### By sex

Although the sample of young men in this analysis is very small there is evidence to suggest that the time lag between first intercourse and first visit is on average much greater for males than for females ( $u=528.5$   $p<0.001^{18}$ ). The median reported time lag for males was two years and for females, eight weeks. Figure 17 clearly shows the large proportion of male respondents who report the time delay between first sex and first visit to a sexual health service to be more than one year.

• Figure 17: Time delay between first intercourse and first visit, by sex of respondent

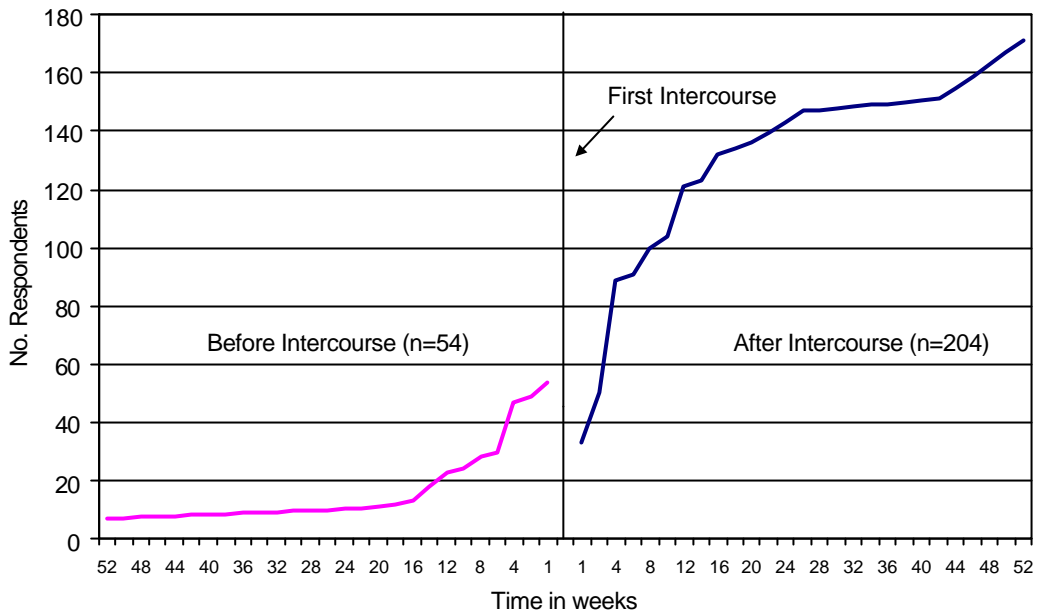


N=204

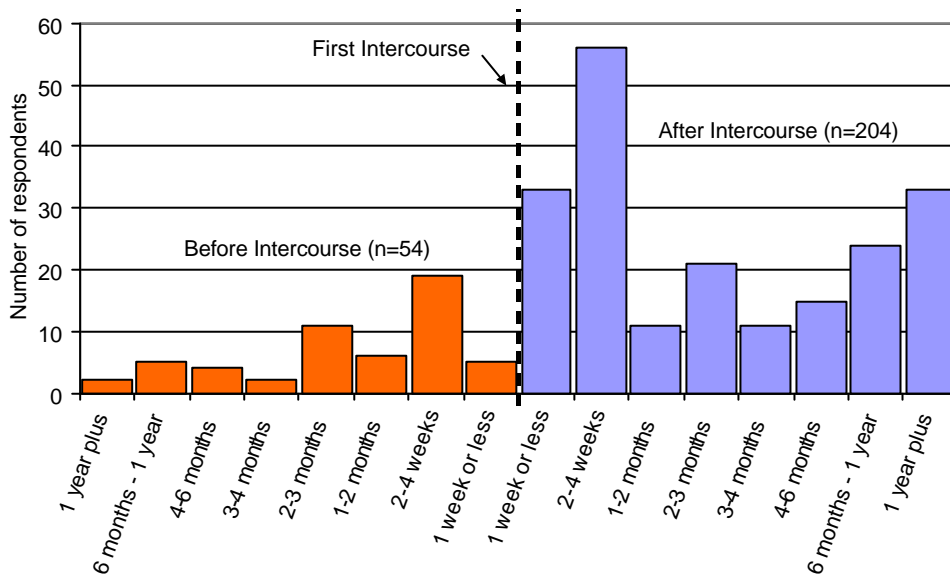
Figure 18 below displays, on one graph, the cumulative number of respondents visiting a service prior to sexual intercourse and the number visiting subsequent to becoming sexually active by the time lag between the two events. Up until 12 weeks before first intercourse only about 20 individuals out of a total of 258 had visited a service, by four weeks before that number had doubled. After first intercourse, about 30 young people went along within the first week, not including those who had been prior to having sex, with the number increasing rapidly until a month after. Figure 19 displays the same information this time without using cumulative counts of respondents.

<sup>18</sup> Mann-Whitney

• Figure 18: Cumulative counts of respondents visiting either before or after first intercourse



• Figure 19: Counts of respondents by time between first intercourse and first visiting a service



### 3.6.5 Reasons for visit

Using all the information the respondents provided it is possible to select out just those individuals who were visiting for the first time when they completed the questionnaire. Furthermore, we can identify solely those individuals who have never been anywhere else for sexual health advice and identify the reason for their first visit.

Overall, 135 young people were visiting a young people's health service for the very first time. Of these, 51 had never been to any services for sexual health advice previously (11 percent of the total sample). Investigating just these 51 individuals one finds that 31 percent were male (n=16) and 69 percent female, 45 percent were aged

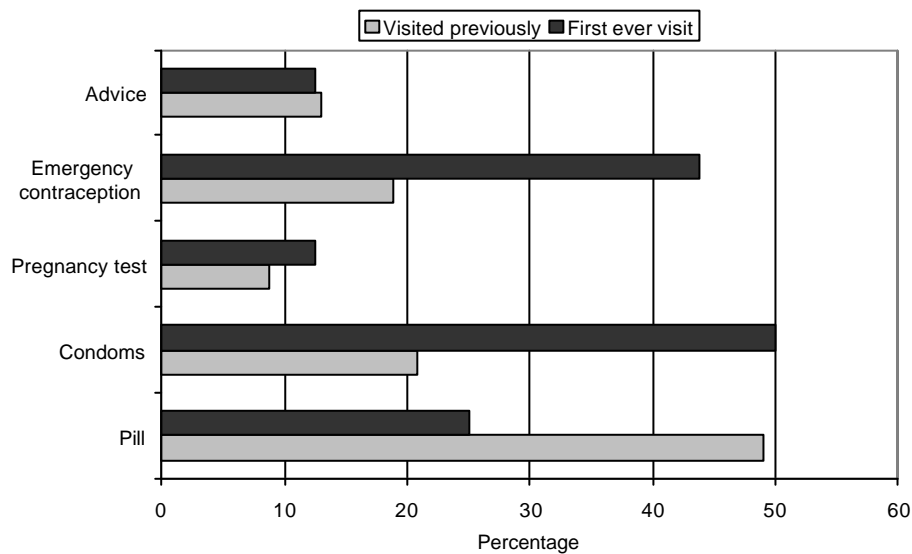
under 16 (n=23) and 80 percent aged under 19 years. Furthermore, there is evidence to suggest that a larger proportion of the 51 individuals were not yet sexually active than those who had visited a service on a previous occasion.

The total sample of respondents included both young people who were attending for an appointment and young people who were accompanying friends or partners. To control for this, those solely accompanying their friends/partners have been excluded from the following analyses. It should be noted, however, that a proportion of young people visiting for the very first time do so to provide moral support to a friend or partner and not to see a doctor/nurse themselves. The following analyses therefore compare the 37 young people who report visiting a sexual health service for the very first time to see a doctor/nurse to the 342 respondents who had visited a service provider on at least one previous occasion. The aim is to identify if there are any significant differences between the two groups. For a more detailed analysis the young people are sub-divided into two broad age categories.

## 16 and over

Figure 20 illustrates, for those currently aged 16 or over, the reason for the visit on the day they completed the questionnaire, disaggregated by whether or not it was their first ever visit to a sexual health service. The figure shows that a higher proportion of those aged 16 or over and making their first visit were attending to obtain condoms and for emergency contraception and lower proportions were obtaining the pill. Most importantly the result that was found to be statistically different between the groups at the five-percent level was that of the proportion obtaining emergency contraception ( $\chi^2=5.89$ ,  $df=1$ ,  $p<0.05$ ).

• Figure 20: Reason for visiting that day given by respondents aged 16 or over

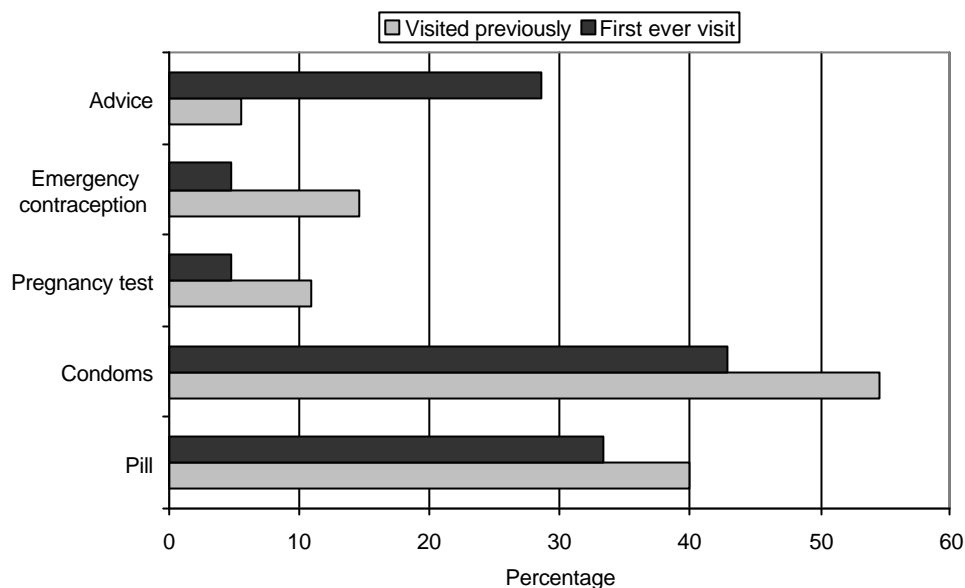


Note: Percentages do not add to 100% because respondents may have been visiting for more than one reason

## Under 16

Similarly, figure 21 illustrates reasons for visits amongst those currently aged under 16 disaggregated by number of previous visits. A higher proportion of those aged under 16 and making their first visit were attending for advice and lower proportions were visiting for all other reasons. Again the only result that was found to be statistically different between the groups at the five-percent level was that of the proportion obtaining advice ( $\chi^2=7.78$ ,  $df=1$ ,  $p<0.05$ ).

• Figure 21: Reason for visiting that day given by respondents aged under 16



Note: Percentages do not add to 100% because respondents may have been visiting for more than one reason

## Summary

- ❖ Just over 40 percent of respondents had only ever visited the health service they were at that day for help and advice regarding contraception and other sexual health matters.
- ❖ Seventy-seven percent of young people made their first visit to a sexual health provider after they became sexually active.
- ❖ The average time lag between first visit to a service and first intercourse was eight weeks for those who visited before becoming sexually active and ten weeks for those who waited until afterwards.
- ❖ The time lag between first intercourse and first visit to a service is on average much greater for males than females.
- ❖ Higher proportions of over 16s who were visiting a service for the very first time were attending for emergency contraception than those who had visited on a previous occasion.
- ❖ Higher proportions of under 16s who were visiting a service for the very first time were attending for advice than those who had visited on a previous occasion.



## 4.0 Concluding comments

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Throughout this report large variations in the demographic and socio-economic characteristics of users at each of the young people's clinics and centres have been highlighted. Each of the health services provided in the region is attracting its own specific type of user be it sexually experienced young men and women in their late teens or very young people still attending school and just starting out on their sexual careers.

As expected the findings have shown that generally young men still remain under represented as users of young people's sexual health services although variation between the locations is wide. Furthermore, bearing in mind that Southampton is an ethnically diverse city the users of young people's services still remain predominately of White-British ethnic origin. Due to the exclusion of generic family planning clinics and general practice from the study, however, we are unable to determine to what extent young people from other ethnic backgrounds are actually receiving support.

More encouraging is the proportion of both young men and women under the age of 16 accessing services in Southampton, a group particularly targeted as being at risk. There is evidence to suggest that young people within this age group are visiting particular services in substantial numbers for help and advice either for themselves or friends, some even before they actually become sexually active.

With regards to services attracting socially deprived young people at increased risk of experiencing a teenage conception the study found that in general the users of Southampton sexual health services live in areas more socially deprived than average for the whole region. A greater proportion of respondents to the questionnaire lived in areas of *very high* deprivation than was expected statistically, although the level of deprivation was found to vary considerably between each of the clinic locations.

Ease of access to a health service is considered by young people as being highly important. The results have demonstrated that sexual health services aiming to attract young people and especially those in the younger age groups must ensure that its venue is located within walking distance of a residential area or educational establishment. Older individuals are more prepared to travel by bus and car to access services but still only within a limited time period. Irrespective of the mode of transportation utilised and the age of an individual, young people rarely travel for more than twenty minutes to access a service and the overwhelming majority will travel for only up to ten minutes. The catchment populations of each health service are therefore concentrated within a reasonably small distance radius.

Examining the boundaries within which the Southampton health services currently attract young people from we can conclude that the supply of services is reasonably sufficient for the needs of young people over the age of 16. Access for people under the age of 16, on the other hand, is more restricted due to the distance it is possible to walk within a specified time.

The findings of the study have also shown that young people, particularly young women, generally access more than one venue for sexual health advice within the first few years of becoming sexually active. The family GP plays a significant role in providing sexual health services to young people with two thirds of individuals who reported being elsewhere having visited their own GP. This use of multiple venues is obviously affected by migration and changes in educational and occupational status and thus which service is the most convenient. It does however, remain unclear to what extent unfavourable experiences and dissatisfaction plays a part.

In this study, a third of respondents were visiting the service for the first occasion the day they completed the questionnaire. Of these individuals, a third had never been anywhere else previously for help and advice (11 percent of all respondents). In other words, one in three young people walking through a clinics' or centres' doors had never been before and for one in ten young people this was a new experience. This does have significant implications when we also find that the median age of first attendance is less than 16 years. First impressions count and bad experiences get reported far more often than good ones between friends, the main source of information regarding services.

Furthermore, the results of this study have been found to support the findings of Brook Advisory Centres; that generally young people first access services only after they become sexually active. Under a quarter of young people were found to have obtained sexual health advice *prior* to becoming sexually active and no significant difference was found between males and females. The Brook did find however that the average time delay for those not accessing services until after becoming sexually active was six months. In our sample, the median time delay was much shorter at ten weeks (2/3 months), although enormous variation was found between the sexes. The median time delay for males was found to be two years and for females only eight weeks.

When investigating the triggers giving rise to a young persons first service visit we explored the reasons given for visiting. The results indicated that significantly more young people over the age of 16, visiting for the very first time, were attending for emergency contraception than similar individuals who had been previously. For young people under the age of 16 a greater proportion of first time visitors were there solely for advice and help i.e. in a preventative capacity. These findings indicate that further research is required to investigate in more detail the decisions young people make to use or not use available services and the processes involved during the period between first intercourse and first service contact.<sup>19</sup> Such knowledge will inform policy development to increase service use and thus should lead to a marked health gain.

Hopefully the results of this study have answered many questions about the types of young people accessing sexual health services within the region of Southampton. It has highlighted a number of individual services' deficiencies in providing services to its potential catchment population including males, young people under the age of 16 and young people living in more socially deprived areas. Furthermore, the report has illustrated the need to attract greater proportions of young people into services prior to them becoming sexually active. This could be achieved through links with schools and youth organisations and the development of clinic visits to break down barriers and increase awareness amongst young people. A recent study conducted with parents of young people found that the majority were greatly in favour of schools taking their children to local family planning clinics as part of the sex education programme.<sup>20</sup>

## Acknowledgements

We would like to thank the appropriate staff in all of the young people's sexual health services for all their continued support and co-operation. We are also grateful to the (former) Wessex Regional Health Authority Research and Development (HIV and Sexual Health) Taskforce for providing funding for this project.

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<sup>19</sup> Such a study has recently commenced at the Centre for Sexual Health Research funded by the Department of Health through Brook Advisory Centres.

<sup>20</sup> Carrera C. et al. 1998 'Exploration of the factors that affect the delivery of sex and sexuality education and support in schools.' Centre for Sexual Health Research, University of Southampton.