# INCREASING RESPONSE RATES TO THE NHS PATIENT SURVEY PROGRAMME: INPATIENT ONLINE PILOT 2008

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# 1 Executive summary

This document details the results of our pilot study offering an online completion option in 11 languages alongside the 2008 inpatient survey. The study was carried out by the Picker Institute Europe as part of the National Patient Survey Programme overseen by the Healthcare Commission[1].

## 1.1 Aims

The aims of the pilot were:

- To investigate whether an online completion option, in English or a number of other commonly spoken languages, can increase survey response rates
- To investigate, in particular, whether response rates amongst black and minority ethnic (BME) and other hard-to-reach groups (e.g. younger men) are increased by the availability of the online options for completion.

## 1.2 Methods

The pilot survey was run alongside the 2008 inpatient survey. Five London hospital trusts each generated an additional sample of 500 recent inpatients subsequent to their sample of 850 inpatients for the 2008 survey. Identical questionnaires were mailed to all patients but the 'additional' sample were given the opportunity to complete the questionnaire online, in English or one of the ten most commonly spoken non-English languages in London. These participants were also able to call a free telephone number, or visit the website, to request a paper copy of the translated questionnaire (in one of the ten non-English languages).

## 1.3 Summary of key findings

A more detailed discussion of the findings can be found in sections 3 and 4 of this report. However, to summarise, the pilot did not show any significant increase in response rates (either in general or amongst target BME groups) as a result of offering an online completion option in English and in other languages. In four of the five participating trusts there was no difference between response rates to the mixed mode Online Pilot survey and the postal only 2008 inpatient survey. Uptake of the online option was low in all languages (1% of sample), especially so for non-English completion (0.2% of the sample). Cost per response was unacceptably high for this research. Telephone completion of the questionnaire in up to 170 languages has traditionally been offered in the Inpatient surveys and was also offered in the Online Pilot. (Included with every questionnaire is a sheet with information in 20 non-English languages informing recipients of the telephone number on which they can reach this translation service). No difference in uptake of this option was found between the Online Pilot and 2008 inpatient survey samples. This indicates that there are issues other than the mode in which questionnaires are provided that result in decreased response rates for those from BME groups.

[1] The patient survey programme has since been taken over by the Care Quality Commission on it's formation on 1 April 2009. This replaced the Healthcare Commission and carried over many of it's functions, along with those from the Commission for Social Care Inspection and the Mental Health Act Commission.

# 2 Introduction and Method

This section outlines background to the pilot as well as the survey sampling, mailing procedure and online survey set up.

## 2.1 Background

High response rates to patient surveys are important for ensuring that results are representative of the views of the population being surveyed. In the NHS patient survey programme, areas with high ethnic diversity and younger populations consistently have lower response rates, with London-based trusts having the lowest response rates in England. One reason commonly cited for this reduced response rate is the higher proportion of patients in these areas for whom English is not their first language.

The strategy currently in place to facilitate survey response among people with a limited understanding of English is a telephone help line service providing translation. As well as instructions in English, included with every questionnaire is a sheet with information in 20 non-English languages, which informs participants of the telephone number they can call for help in completing the questionnaire. Those calling the telephone helpline can be offered the option to complete the questionnaire by telephone interview in up to 170 languages, but uptake of this is very low and is generally a lengthy and costly process involving a three-way conversation between patient, interpreter and interviewer. Mailing out translated questionnaires has not traditionally been an option since it is not usually possible to identify non-English speaking patients and their chosen language from trust records. However an online survey, as piloted here, allows respondents to select their preferred language as soon as they access the website and so complete the survey, in their own language, in their own time. Directions to the website hosting the survey can be provided in multiple languages in information posted to patients. An online survey could also appeal more to another hard-to-reach group, younger patients[1].

Trusts with the lowest response rates to the 2007 inpatient survey and in particular, trusts with populations of high ethnic diversity were initially considered for inclusion in the pilot, but it was decided to focus on London trusts to minimise any geographical effects or biases. Trusts with ethnically diverse populations were sought because they were most likely to benefit from offering translated questionnaires and samples from these trusts would also allow breakdown of results by ethnic group in analysis. The five participating trusts had previously expressed interest in taking part in pilot work to help improve response rates. In total, 2500 patients were sampled for the pilot study – 500 from each trust.

R&D approval was granted by each trust's local R&D office.

## 2.2 Sample

The pilot sample was composed of consecutively discharged inpatients subsequent to the last date of sampling for the 2008 inpatient survey, i.e. sampling the next most recent patients after those included in the 2008 inpatient survey sample. Guidance was issued to all pilot trusts instructing them on how to achieve a sample of 500 patients in addition to their 850 patient sample for the

[1] Younger people are more likely to be regular internet users (Source: ONS 2008) and studies such as Friedman (2004) have found that online survey respondents are more likely to be younger.

2008 inpatient survey. All patients in both samples were checked by the NHS Strategic Tracing Service (NSTS) to ensure that no deceased patients were included in the final samples.

As for the 2008 inpatient survey, included in the pilot sample were all eligible adult patients (16 years or older) who had at least one overnight stay within the trust. Eligibility criteria specified the exclusion of all maternity patients, private patients, psychiatric patients and any current inpatients. Any patients included in the 2008 inpatient survey sample were also excluded from the pilot sample (readmission to hospital could have resulted in patients being sampled more than once).

In conjunction with the detailed guidance provided on drawing a sample, telephone and email support was available to the five trusts taking part. Service contracts were exchanged that allowed staff at the Picker Institute to check the sample, and mail out to participants. All analysis was carried out by the Picker Institute.

## 2.3 Mailings

The mailing protocol for the 2008 inpatient survey was replicated and where possible the timings of these mailings were kept identical to mailing dates for the national inpatient survey. Fieldwork length was also kept identical to the 2008 inpatient survey fieldwork length for each participating trust.[1] Fieldwork took place from October 2008 to February 2009.

In line with the standard protocol, two reminders were posted at approximately two and four weeks after the original questionnaire was mailed. For the Online Pilot sample, in all three mailings, the letter to respondents also gave the option to complete the survey online, providing directions to the online survey website.

Multilanguage sheets were included in all three mailings directing respondents to a freephone number where translation services were available. This sheet contained information in 20 of the most common languages used in England, as well a telephone service run by Mencap for those with poorer comprehension or understanding of English (specifically those with a learning disability). Ten of these languages, identified by the five participating trusts as the most commonly spoken in the trust population, also directed respondents to the online survey and gave the option to request a translated questionnaire by calling the freephone number[2].

## 2.4 Translation and the online survey

The questionnaire was translated into 10 of the most commonly used languages identified by the pilot trusts. These languages were: Bengali, Chinese, Gujarati, Polish, Portuguese, Punjabi, Russian, Somali, Turkish, and Urdu. The 10 translated questionnaires, plus an English version of the questionnaire, were programmed into an online survey programme. All translated questionnaires were back translated and checked by researchers and, once online, they were again checked by translators.

[1] Due to delays in obtaining sample from one trust, the first mailing for this trust was delayed by approximately 2 weeks after the trust conducted its first mailing for the national inpatient survey. The fieldwork for this trust was extended by the same amount of time to match fieldwork length between pilot and national surveys.

[2] The national inpatients survey does offer, via a “language leaflet” in 21 languages, help with queries or the option to complete the questionnaire over the telephone (via Language Line or other telephone interpretation services) but uptake is extremely low.

The online survey was launched in October 2008, coinciding with the first survey mailing. Directions to the website hosting the survey were provided in 21 languages (including English) in information included with the paper questionnaire sent to patients. When accessing the online survey respondents were first required to select their preferred language, and then log in (using the username provided in the questionnaire mailing pack). At this point, respondents could then complete the survey online or they could request a paper copy of the questionnaire to be mailed to them in their selected language.

The free telephone helpline was operated in the same way as for the main Inpatient survey. Callers reached an English-speaking operator in the first instance but, once the required language (out of up to 170 languages) had been identified, language assistance could be provided through a three way conversation between respondent, interpreter and call operator, with the whole questionnaire completed in this way if required. In addition, for the pilot survey, paper copies of the translated questionnaire (in the 10 languages above) could be requested.

# 3 Overall Results

This section outlines the results for the Online Pilot and provides comparisons to the 'control group', the 2008 inpatient survey, which followed the same methods but did not offer an online completion option. Any significant differences referred to in this section are statistically significant to the 0.05 level. Throughout this section where 'Inpatient 2008' results are provided these are only for the five trusts participating in the Online Pilot (not the national results for the 2008 inpatient survey).

*Note: When the base size is low, containing fewer than 50 respondents, this is flagged with an '!' in the tables. Because of the low base size, confidence intervals for the figures presented will be very wide and therefore any conclusions should be drawn with caution.*

## 3.1 Sample characteristics

The demographic characteristics of the Online Pilot sample and the 2008 inpatient survey sample across all five pilot trusts were very similar. The Online Pilot sample comprised 55% female patients, compared to 54% female patients in the 2008 inpatient survey sample. In the Online Pilot 47% were identified as coming from a 'White British or Irish' ethnic group, 9% were from 'Any other white background', 21% were of 'Asian or Asian British' origin (i.e. Indian, Pakistani, Bangladeshi or any other Asian background) and 15% were of 'Black or Black British origin (i.e. Caribbean, African or any other Black background)'. This compared to 46% patients identified of 'White British or Irish' ethnic group, 8% of 'Any other white background', 22% 'Asian or Asian British' and 16% 'Black or Black British' in the Inpatient 2008 sample. The Online Pilot had a mean age of 55 years as did the Inpatient 2008 sample. Table 1 shows the demographic characteristics for the Online Pilot and 2008 inpatient survey samples.

**Table 1. Sample characteristics**

| | | Online Pilot | | Inpatient 2008 | |
|---|---|---|---|---|---|
| | | n | % | n | % |
| **Gender** | Male | 1129 | 45% | 1963 | 46% |
| | Female | 1371 | 55% | 2287 | 54% |
| | *Missing data* | | *n = 0* | | *n = 0* |
| **Ethnicity** | White British or Irish | 1090 | 47% | 1843 | 46% |
| | Other White background | 208 | 9% | 337 | 8% |
| | Mixed | 16 | 1% | 30 | 1% |
| | Asian or Asian British - Indian | 279 | 12% | 494 | 12% |
| | Asian or Asian British - Pakistani | 78 | 3% | 142 | 4% |
| | Asian or Asian British - Bangladeshi | 55 | 2% | 71 | 2% |
| | Other Asian or Asian British background | 97 | 4% | 173 | 4% |
| | Black or Black British - Caribbean | 135 | 6% | 261 | 7% |
| | Black or Black British - African | 149 | 6% | 233 | 6% |
| | Other Black or Black British background | 70 | 3% | 139 | 4% |
| | Chinese | 9 | 0% | 20 | 1% |
| | Other Ethnic Group | 158 | 7% | 258 | 6% |
| | *Missing data* | | *n = 156* | | *n = 249* |
| **Age** | 16-35 | 558 | 22% | 1017 | 24% |
| | 36-50 | 533 | 21% | 865 | 20% |
| | 51-65 | 482 | 19% | 840 | 20% |
| | Over 65 | 927 | 37% | 1528 | 36% |
| | *Missing data* | | *n = 0* | | *n = 0* |
| Total base | | | n = 2500 | | n = 4250 |

* Demographic information in this table is taken from sample data only

Due to the sampling procedure for the 2008 inpatient survey[1] it was necessary for the pilot to sample patients discharged from hospital before those in the 2008 inpatient survey. Therefore, the sample for the pilot was taken from a different period to the 'control' Inpatient 2008 sample. As a result of this sampling procedure, there was a longer interval between pilot respondents being discharged from hospital and receiving their questionnaire, up to 2 months later than the 2008 inpatient survey in some cases. Table 2 below shows the average time lag between hospital

[1] The sample for the 2008 Inpatient survey consists of the most recent consecutive discharges up to the last day of the trusts chosen sampling month; either June, July or August 2008.

discharge and mailing of questionnaire in weeks for both the Online Pilot and 2008 inpatient survey.

**Table 2. Time lag by trust**

| | Online Pilot | Inpatient 2008 |
|---|---|---|
| | Average time lag | Average time lag |
| Trust A | 17.5 weeks | 10 weeks |
| Trust B | 11 weeks | 6.5 weeks |
| Trust C | 17.5 weeks | 8 weeks |
| Trust D | 13 weeks | 8 weeks |
| Trust E | 15 weeks | 10 weeks |
| **Overall** | **14.8 weeks** | **10.7 weeks** |

There is no reason to suspect that significant changes had occurred at the trusts between the two sampling periods for the pilot and 2008 inpatient surveys. A lower response rate might be expected for the pilot; as the time between hospital stay and receipt of the questionnaire increases, patients may become less concerned about their experience of care and so be less motivated to respond[1]. However, comparison of response rate with the 2008 inpatient survey does not show any significant difference in response rates between trusts mailing out after a 6½ to 10 week time lag (mean response rate = 52%, range= 34% to 70%, n= 58) and those mailing out after an 11 to 17½ week time lag (mean response rate= 54%, range= 39% to 75%, n= 75).

## 3.2 Respondent characteristics

Overall demographic characteristics of **respondents** to the Online Pilot and the 2008 inpatient survey did not differ significantly. Characteristics of respondents are shown in Table 3 below.

[1] This effect has been seen in various studies, although most compare immediate (i.e. at discharge) versus delayed surveying. Bredart (2002) found the response rate to mailing a questionnaire 2 weeks after discharge was 21% higher than after 3 months.

**Table 3. Characteristics of responders**

| | | Online Pilot | | Inpatient 2008 | |
|---|---|---|---|---|---|
| | | n | % | n | % |
| **Gender** | Male | 416 | 45% | 686 | 44% |
| | Female | 517 | 55% | 878 | 56% |
| | *Missing data* | | *n = 0* | | *n = 0* |
| **Ethnicity** | White British or Irish | 458 | 57% | 757 | 51% |
| | Other White background | 73 | 8% | 131 | 9% |
| | Mixed | 5 | 4% | 7 | 1% |
| | Asian or Asian British - Indian | 90 | 9% | 181 | 12% |
| | Asian or Asian British - Pakistani | 28 | 4% | 48 | 3% |
| | Asian or Asian British - Bangladeshi | 17 | 2% | 18 | 1% |
| | Other Asian or Asian British background | 35 | 3% | 52 | 4% |
| | Black or Black British - Caribbean | 45 | 4% | 81 | 6% |
| | Black or Black British - African | 49 | 6% | 75 | 5% |
| | Other Black or Black British background | 18 | 1% | 37 | 3% |
| | Chinese | 3 | 0% | 6 | 0% |
| | Other Ethnic Group | 49 | 2% | 87 | 6% |
| | *Missing data* | | *n = 63* | | *n = 84* |
| **Age** | 16-35 | 135 | 15% | 237 | 15% |
| | 36-50 | 175 | 19% | 318 | 20% |
| | 51-65 | 224 | 24% | 368 | 24% |
| | Over 65 | 399 | 43% | 641 | 41% |
| | *Missing data* | | *n = 0* | | *n = 0* |
| **Long-standing physical or mental health problem or disability** | One or more | 460 | 58% | 772 | 57% |
| | None | 334 | 42% | 581 | 43% |
| | *Missing data* | | *n = 139* | | *n = 211* |
| **Self rating of health in past 4 weeks** | Excellent | 92 | 11% | 125 | 9% |
| | Very good | 149 | 17% | 238 | 16% |
| | Good | 251 | 29% | 405 | 28% |
| | Fair | 256 | 29% | 456 | 31% |
| | Poor | 104 | 12% | 187 | 13% |
| | Very poor | 28 | 3% | 52 | 4% |
| | *Missing data* | | *n = 53* | | *n = 101* |
| Total respondents | | | n = 933 | | n = 1564 |

* Demographic information in this table is taken from sample data only

## Online respondent characteristics

Since only 25 respondents replied to the pilot using the online survey it is not possible to make comparisons between the online respondents and postal respondents because the base is too small for the results to be reliable. However respondents seemed to follow the trend common to

many other online surveys, with younger patients more likely to reply online and older patients less likely.

## 3.3 Response rates

In total 25 respondents completed the survey online, representing 3% of all respondents and 1% of the total eligible pilot sample[1]. Online completion was particularly low in non-English languages (0.2%). Non-English completions included: Polish (n=2), Portuguese (n=1) and Russian (n=1). Only one respondent requested a paper copy of a translated questionnaire (in Polish) and this respondent had already completed the online questionnaire.

The overall adjusted response rate did not significantly differ between the Online Pilot and the 2008 inpatient survey. Table 4 compares the response rates for the Online Pilot and 2008 inpatient survey.

**Table 4. Response rates for Online Pilot and 2008 Inpatient survey**

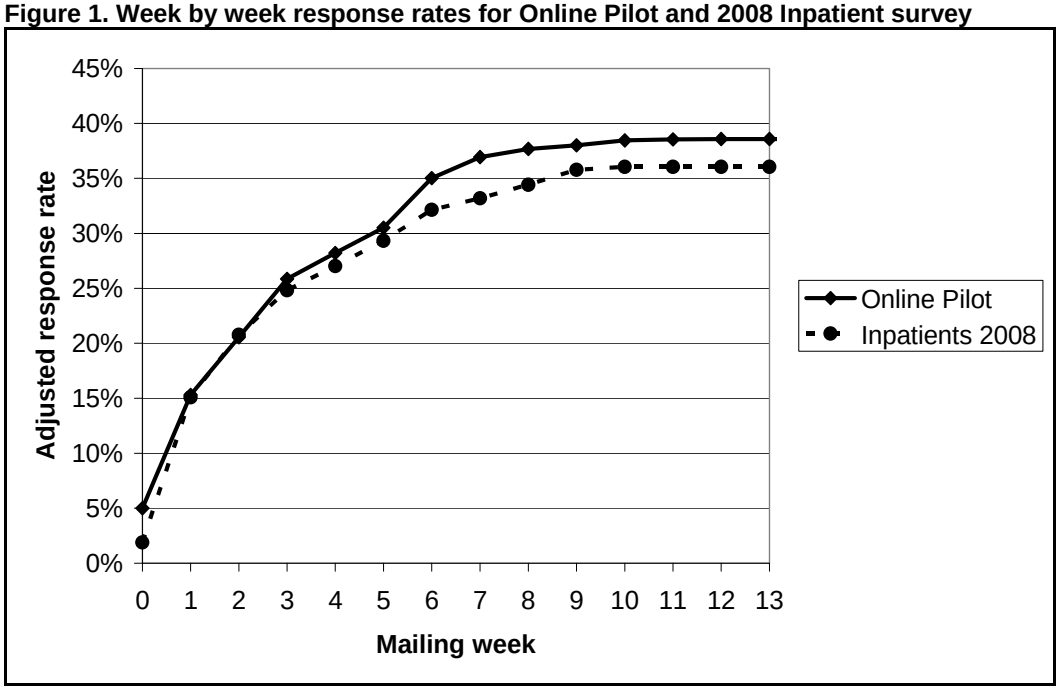
| | Online Pilot | Inpatient 2008 |
|---|---|---|
| Returned useable questionnaire | 933 | 1564 |
| Returned undelivered or patient moved house | 73 | 112 |
| Patient died | 8 | 37 |
| Too ill, opted out or returned blank questionnaire | 93 | 190 |
| Patient not eligible to fill in questionnaire | 1 | 4 |
| Questionnaire not returned - reason not known | 1392 | 2343 |
| Total sample | 2500 | 4250 |
| **Raw response rate** | **37%** | **37%** |
| Adjusted base[2] | 2418 | 4097 |
| **Adjusted response rate** | **39%** | **38%** |

The week by week response rates for the pilot and 2008 Inpatient survey are shown in Figure 1 below.

[1] The total not including records for questionnaires returned as undeliverable, ineligible patients or patients known to have died.

[2] The adjusted response rate is the percentage of respondents returning a useable questionnaire based upon the adjusted base. The adjusted base is calculated by subtracting the number of questionnaires returned as undeliverable, ineligible, or if the patient had died, from the total number of questionnaires sent out. The adjusted response rate is then calculated by dividing the number of returned useable questionnaires by the adjusted base.

**Figure 1. Week by week response rates for Online Pilot and 2008 Inpatient survey**




Note: 87 records in the 2008 Inpatient survey did not have complete log information on the date questionnaire was returned and therefore had to be excluded from this graph. The 2008 Inpatient survey final adjusted response rate was 38%, rather than 36% as shown here.

The response rates by demographic group are shown in Table 5. As with the overall response rate, there was no significant difference between the Online Pilot and the 2008 inpatient survey in response rates for any demographic group.

**Table 5. Response rates by demographic groups**

| | | Online Pilot | | | Inpatient 2008 | | |
|---|---|---|---|---|---|---|---|
| | | Base | Respondents | Adjusted response rate | Base | Respondents | Adjusted response rate |
| **Gender** | Male | 1129 | 416 | 38% | 1963 | 686 | 37% |
| | Female | 1371 | 517 | 39% | 2287 | 878 | 40% |
| | *Missing data* | *0* | *0* | | *0* | *0* | |
| **Ethnicity** | White British or Irish | 1090 | 458 | 44% | 1843 | 757 | 43% |
| | Other White background | 208 | 73 | 36% | 337 | 131 | 41% |
| | Mixed | 16 | 5 | 31%! | 30 | 7 | 23%! |
| | Asian or Asian British - Indian | 279 | 90 | 33% | 494 | 181 | 38% |
| | Asian or Asian British - Pakistani | 78 | 28 | 38% | 142 | 48 | 35% |
| | Asian or Asian British - Bangladeshi | 55 | 17 | 31% | 71 | 18 | 26% |
| | Other Asian or Asian British background | 97 | 35 | 37% | 173 | 52 | 31% |
| | Black or Black British - Caribbean | 135 | 45 | 34% | 261 | 81 | 33% |
| | Black or Black British - African | 149 | 49 | 35% | 233 | 75 | 34% |
| | Other Black or Black British background | 70 | 18 | 27% | 139 | 37 | 27% |
| | Chinese | 9 | 3 | 33%! | 20 | 6 | 32%! |
| | Other Ethnic Group | 158 | 49 | 33% | 258 | 87 | 35% |
| | *Missing data* | *156* | *84* | | *249* | *63* | |
| **Age** | 16-35 | 558 | 135 | 25% | 1017 | 237 | 24% |
| | 36-50 | 533 | 175 | 34% | 865 | 318 | 38% |
| | 51-65 | 482 | 224 | 48% | 840 | 368 | 45% |
| | Over 65 | 927 | 399 | 45% | 1528 | 641 | 44% |
| | *Missing data* | *0* | *0* | | *0* | *0* | |
| Total | | 2500 | 933 | | 4250 | 1564 | |

* Demographic information in this table is taken from sample data only
! Caution low base size

## 3.4 Non-response bias

The non-response biases traditionally seen in the inpatient survey (also found in the 2008 inpatient survey) were not generally reduced by the additional online completion option and the translated questionnaires offered by the pilot. As in the 2008 inpatient survey, the Online Pilot showed the same non-response bias for certain demographic groups, with younger and non-white patients being less likely to respond. The exception to this was the response bias found for 'Asian or Asian British' of Bangladeshi and other Asian backgrounds in the 2008 inpatients survey but not in the Online Pilot.

- In both the Online Pilot and 2008 inpatient survey, those identified as of 'White British or Irish' ethnic group were significantly more likely to respond (44% in the Online Pilot and 43% in Inpatient 2008)
- Although 'Asian or Asian British' of Bangladeshi origin or other Asian backgrounds (i.e. not Indian or Pakistani) were significantly less likely to respond to the 2008 inpatient survey (26% and 31% respectively), the response rates for these groups were not significantly different from the overall response rate in the Online Pilot. However a bias against Asians of Indian origin was found (33%) in the Online Pilot which was not present in the 2008 inpatients survey.
- 'Black or Black British' of other black backgrounds (i.e. not African or Caribbean in origin) were significantly less likely to respond in both surveys (27% in both the Online Pilot and Inpatient 2008)
- In both the Online Pilot and 2008 inpatient survey, the highest response rate was among those aged over 50 years. 51 to 65 year olds were significantly more likely to respond (48% in the Online Pilot and 45% in Inpatient 2008) as were over 65s (45% in the Online Pilot and 44% in Inpatient 2008)
- The lowest response rate was for those aged 16 to 35 years (25% in the Online Pilot and 24% in Inpatient 2008).

## 3.5 Freephone calls

There was no difference in uptake of telephone translation and completion of the questionnaire between the Online Pilot and the 2008 inpatient survey. No-one requested a paper copy of a translated questionnaire from the freephone number.

There were 26 calls to the freephone concerning the Online Pilot study, which is 1% of the patients surveyed. The calls can be categorised as follows:

- 12 called to opt out of the survey
- 7 called to say the recipient was deceased
- 3 called to say they had received a reminder but not the original questionnaire in mailing one and that they would like to receive a questionnaire
- 1 called to say that they were not eligible to complete the survey
- 1 called to say that they had received a reminder but had already returned a completed questionnaire
- 1 called with questions about the survey
- 1 required an interpreter provided by Language Line

## 3.6 In summary

There was low up take of the online response option and even lower uptake of translated questionnaires, and so no significant increase was found in the response rate of the online pilot compared to the 2008 inpatient survey.

The pilot also failed to significantly increase response rates amongst the target BME and hard-to-reach groups and although analysis of response bias by demographic group indicates that certain 'Asian or Asian British' groups are more represented in the Online Pilot, comparison of response rates between Inpatient 2008 and the pilot do not show any significant increases. Both the Online Pilot and the 2008 inpatient survey under-represent BME groups such as some 'Black or Black British' backgrounds and younger people (those aged under 35 years).

# 4 Trust Level Results

This section outlines the Online Pilot results for each of the pilot trusts separately and again provides comparisons to the 'control group'; the 2008 inpatient survey. Any significant differences referred to in this section are statistically significant to the 0.05 level.

## 4.1 Sample characteristics

Within each individual pilot trust, the sample characteristics were similar between the Online Pilot and Inpatient 2008 samples. The exceptions to this were in Trust B, where a significantly larger proportion of the Online Pilot sample belonged to any 'Other ethnic group' compared to the Inpatient 2008 sample (11% compared to 5%), Trust C where a larger proportion of the Online Pilot sample were 'Asian or Asian British' of other origin (i.e. not Indian, Pakistani or Bangladeshi) (2% compared to 0% in the Inpatient 2008 sample) and Trust E, where the mean age of the Online Pilot sample was significantly higher than the 2008 inpatient survey (51 years compared to 49 years). Tables A1 to A5 in Appendix 1 compare the Online Pilot and Inpatient 2008 samples by demographic characteristics for each pilot trust.

## 4.2 Respondent characteristics

There was little difference in respondent characteristics between the Online Pilot and 2008 inpatient survey with the exceptions to this being:

- In Trust A, a significantly larger proportion of respondents rated their health in the last 4 weeks as 'excellent' in the Online Pilot (13% compared to 6% in Inpatient 2008); self-reported health is significantly correlated with ratings of overall care in the national patient survey programme ($r=0.255$, $p<0.01$).
- In Trust B, a significantly larger proportion of respondents to the Online Pilot belonged to any 'Other ethnic group' (9% compared to 4% in Inpatient 2008), however this can be explained by the fact that the sample for the Online Pilot included a larger proportion of this group.
- In Trust D a significantly larger proportion of respondents were from 'White British or White Irish' backgrounds (47% compared to 36% in Inpatient 2008)
- In Trust E, a significantly larger proportion of over 65s responded to the pilot than to the 2008 inpatient survey (41% compared to 31%), however this can be explained by the fact that the sample for the Online Pilot contained a larger proportion of older patients than the 2008 inpatient survey.

Respondent characteristics for each trust are shown in Tables A6 to A10 in Appendix 2 and a detailed breakdown of response rates by trust can be found in Appendix 3.

## 4.3 Response Rates

The number of online completions remained constant between trusts at 1% of the total eligible sample[1]. Table 6 below shows the online response rate for each trust.

[1] The total eligible is the total number of questionnaires sent out, not including undeliverable, ineligible patient, or patients known to have died.

**Table 6. Online completions by trust**

| | Online completions | | |
|---|---|---|---|
| | n | % of total eligible sample | % of total responses |
| Trust A | 3 | 1% | 2% |
| Trust B | 5 | 1% | 2% |
| Trust C | 7 | 1% | 4% |
| Trust D | 7 | 1% | 5% |
| Trust E | 3 | 1% | 2% |
| **Total** | **25** | **1%** | **3%** |

As shown in Table 7 below in four of the five trusts, adjusted response rates did not significantly differ between the Online Pilot and the 2008 inpatient survey. However in one trust, Trust B, the adjusted response rate for the Online Pilot was significantly higher (50% compared to 44% for the 2008 inpatient survey).

**Table 7. Adjusted response rate by trust**

| | Online Pilot | | Inpatient 2008 | |
|---|---|---|---|---|
| | n | Adjusted response rate | n | Adjusted response rate |
| Trust A | 181 | 38% | 327 | 40% |
| Trust B | 246 | 50% | 362 | 44% |
| Trust C | 187 | 39% | 307 | 38% |
| Trust D | 152 | 32% | 275 | 34% |
| Trust E | 167 | 34% | 293 | 36% |
| **Total** | **933** | **39%** | **1564** | **38%** |

## 4.4 In summary

The response rate to the Online Pilot did not significantly differ from the 2008 inpatient survey in four of the five pilot trusts.

Trust B's sample did achieve an increased response rate for the pilot, driven by an increase in responses from males (traditionally an underrepresented group in the inpatient survey). However, this increase was not linked to an increase in online responses and was not replicated in any of the other pilot trusts. Looking specifically at the hard-to-reach group of younger people, the bias of lower response rates for younger patients remained present in all five pilot trusts.

None of the pilot trusts showed any significant increase in response rates for the target BME groups. In two trusts, there appeared to be a reduction in non-response bias amongst some of the target BME groups since biases found in the 2008 Inpatient survey were not replicated in the Online Pilot. However, these did not correspond to any increased uptake of translated questionnaires online, on paper or by telephone.

So, although there was some mixed evidence to suggest that offering an online completion option in non-English languages helped to reduce non-response bias amongst certain BME groups, there is no evidence that uptake of the online completion option and translated questionnaires are responsible for this, or that these options can be used to help increase response rates either overall or for particular demographic groups.

# 5 Conclusions

Offering an online completion option and providing translated questionnaires did not increase response rates to the survey overall, nor did it specifically improve response rates amongst hard-to-reach groups. Only a 1% online response rate was achieved and there was no statistically significant improvement in the overall response rate of the Online Pilot compared to the 2008 Inpatient survey (39% and 38% respectively). The Department of Health GPPS survey, a mail survey which also offers respondents an online completion option, achieved an online response rate of 6% in 2009; although this is higher than this pilot achieved, the GPPS 2009 sample was younger and therefore more likely to be regular internet users and so respond online. Other simultaneous mail and online mixed mode surveys have shown similarly low online response rates of 1-2%, e.g. Tedesco (1999) and Griffin (2001).

At the scale on which the pilot was conducted the cost per response online was unreasonably high. The cost per response would be considerably lower if factored up to a national level due to economies of scale, e.g. for the national inpatient survey which typically samples around 140,000 patients. If adopted by great enough numbers an online option could even become cost effective, introducing savings by reducing mailing and data entry costs. Assuming a similar 1% online response rate at a national level, this suggests around 1,400 online responses could be obtained, too few to make an online option cost effective. In English language only, the cost per response would be around £2, plus the initial mailing costs to invite respondents to take part online[1]. Factoring in the cost of translations and labour costs in producing the multiple language versions of the online survey raises the cost further. Looking specifically at non-English language questionnaires (a 0.2% response rate in the pilot) the cost is higher still, with the cost per response to non-English online questionnaires potentially around £75 per response.

Looking more closely at the pilot results, the 1% increase in response rate compared to the 2008 Inpatient survey cannot be directly attributed to the 1% of online completions. Instead, the increase appears to be due to a marked improvement in the response rate of one particular trust, Trust B. In this trust, the response rate for the Online Pilot was 50%, compared to 44% for the 2008 Inpatient survey. This difference was not due to any increase in online responses or uptake of translated questionnaires; the online response rate for this trust is the same as for all other trusts in the pilot (1%). It is the male demographic group that seems to have largely driven the increased response rate to the Online Pilot in Trust B. A 51% response rate was achieved for male patients in the Online Pilot sample, compared to only a 41% response rate in the 2008 Inpatient survey.

The increase in Trust B's pilot response rate could be due to differences in the pilot and 2008 Inpatient survey sampling periods. It is also possible that undetected differences in the pilot and 'control group' samples exist, however, due to the standardised procedures followed when selecting the survey samples, this seems unlikely. Whatever the reasons, it is clear that even in this trust, the set up costs of the online survey and online translated questionnaires could not be justified on an ongoing basis, since by and large it was not responses among the target hard-to-reach groups that were responsible for the improvement.

For some individual trusts, non-response amongst certain BME groups does appear to be reduced in the pilot. However the picture is mixed and is not borne out in the aggregated pilot results. Nor does it correspond to any increased uptake of questionnaire translation options: online, on paper or

[1] The majority of respondents choosing the online option in the pilot still required at least one reminder mailing, and many received two postal reminders, however the numbers choosing the online option are too small (n=25) to make any inferences about the number of mailings required.

through the telephone interpreter service. The low number of queries to the telephone helpline requesting the translation services (<1%), and the low number of online completions in different languages in this pilot (0.2%) suggest that there are issues in addition to just the language in which the questionnaire is provided which result in lower response rates for BME groups in the Inpatient survey (although language almost certainly plays a part). However since ethnicity is not necessarily indicative of language spoken, and it was not possible to identify the language spoken by patients contacted in the pilot, we cannot determine whether, or how many patients in the Online Pilot spoke any of the 11 languages in which the questionnaire was provided online. Therefore we cannot draw any firm conclusions about the value of the translated questionnaires.

Although few respondents chose the online completion option (3% of all respondents overall) it is possible that more may have considered doing so but were put off by the practical steps involved. In order for patients to respond over the internet, they needed to keep the website address and username provided in the mailing pack and to take the additional step of logging on to a computer to fill out the questionnaire. A possible way to increase the online completion rate could be to send invitations by email with a direct link to the online survey. Holmberg (2008) states that more web focused contact strategies can considerably improve online response rates to mail and online mixed mode surveys. However, most hospital patient records do not contain an email address so unless these records were to improve, email contact could not be part of the standard survey invitation procedure.

Internet access and computer literacy may have been a barrier to people completing the survey online. Poor literacy in general may also have been a barrier to online completion; anecdotal evidence suggests that there can be low levels of literacy and/or comprehension of non-Latin-based script among groups speaking some South Asian languages[1]. However, the low number of 'hits' to the website (~35, 25 of which resulted in completions) indicate that comprehension of the online translated questionnaires was not the main problem. The low numbers accessing the website or requesting translations in the various ways these were offered, indicate that motivation and/or accessibility are the initial barriers that need to be overcome if response rates are to be improved for BME and other hard-to-reach groups. These may need to be addressed before other measures to aid response rates for those with poor literacy levels or a limited understanding of English can be used to their full potential.

Future work to increase response rates to the national patient survey programme should therefore focus on motivation and access as well as language and literacy. Two possible suggestions for this are the use of telephone interviewing, where translations can again be offered but where respondents could be contacted more proactively, and the use of incentives to encourage respondents to reply, in conjunction with any language requirements continuing to be addressed through the existing, but under-used, telephone interpreter service.

[1] Source: Review of BME coverage in the Healthcare Commission's patient survey programme (Smith 2006)

# 6 References

Bredart A., Razavi D., Robertson C., Brignone S., Fonzo D., Petit J-Y., Haes de JCJM. (2002) Timing of patient satisfaction assessment: effect on questionnaire acceptability, completeness of data, reliability and variability of scores*. Patient Education and Counselling 2002; 46: 131–6*.

Friedman E., Clusen N., Hartzell M. (2004) The net effect: A comparison of internet and mail survey respondents. *Proceedings of the American Statistical Association Survey Research Methods Section, Alexandria, VA.*

Griffin D.H., Fischer D.P., Morgan M.T. (2001) Testing an Internet Response Option for the American Community Survey. *Paper presented at the annual conference of the American Association for Public Opinion Research, May 17-20*.

Holmberg A., Lorenc B., Werner P. (2008) Optimal Contact Strategy in a Mail and Web Mixed Mode Survey. *Paper presented at the annual conference for New Techniques and Technologies for Statistics, February 2008.*

Tedesco H., Zuckerberg R.L., Nichols E. (1999) Designing Surveys for the Next Millenium: Web-Based Questionnaire Design Issues. *Proceedings of the 3rd Association for Survey Computing International Conference, Edinburgh, Scotland.*

# 7 Appendices

*Note: To protect confidentiality, where analysis by subgroup has been carried out the figures for any group consisting of fewer than 5 respondents has been suppressed (replaced by a dash). When the question base size is low, containing fewer than 50 respondents, this is flagged with an '!' in the tables. Because of the low base size, confidence intervals for the figures presented will be very wide and therefore any conclusions should be drawn with caution.*

## Appendix 1: Sample characteristics by trust

**Table A1. Sample characteristics for Trust A**

| | | Online Pilot | | Inpatient 2008 | |
|---|---|---|---|---|---|
| | | n | % | n | % |
| **Gender** | Male | 232 | 46% | 408 | 48% |
| | Female | 268 | 54% | 442 | 52% |
| | *Missing data* | | *n = 0* | | *n = 0* |
| **Ethnicity** | White British or Irish | 202 | 42% | 328 | 40% |
| | Other White background | 28 | 6% | 62 | 8% |
| | Mixed | 2 | 0% | 6 | 1% |
| | Asian or Asian British - Indian | 138 | 29% | 237 | 29% |
| | Asian or Asian British - Pakistani | 25 | 5% | 40 | 5% |
| | Asian or Asian British - Bangladeshi | 1 | 0% | 1 | 0% |
| | Other Asian or Asian British background | 26 | 5% | 38 | 5% |
| | Black or Black British - Caribbean | 19 | 4% | 37 | 5% |
| | Black or Black British - African | 21 | 4% | 30 | 4% |
| | Other Black or Black British background | 1 | 0% | 6 | 1% |
| | Chinese | 2 | 0% | 2 | 0% |
| | Other Ethnic Group | 16 | 3% | 39 | 5% |
| | *Missing data* | | *n = 19* | | *n = 24* |
| **Age** | 16-35 | 107 | 21% | 180 | 21% |
| | 36-50 | 101 | 20% | 145 | 17% |
| | 51-65 | 102 | 20% | 182 | 21% |
| | Over 65 | 190 | 38% | 343 | 40% |
| | *Missing data* | | *n = 0* | | *n = 0* |
| Total base | | | n = 500 | | n = 850 |

* Demographic information in this table is taken from sample data only

**Table A2. Sample characteristics for Trust B**

| | | Online Pilot | | Inpatient 2008 | |
|---|---|---|---|---|---|
| | | n | % | n | % |
| **Gender** | Male | 242 | 48% | 416 | 49% |
| | Female | 258 | 52% | 434 | 51% |
| | *Missing data* | | *n = 0* | | *n = 0* |
| **Ethnicity** | White British or Irish | 263 | 56% | 473 | 59% |
| | Other White background | 24 | 5% | 33 | 4% |
| | Mixed | 4 | 1% | 7 | 1% |
| | Asian or Asian British - Indian | 71 | 15% | 134 | 17% |
| | Asian or Asian British - Pakistani | 13 | 3% | 22 | 3% |
| | Asian or Asian British - Bangladeshi | 2 | 0% | 2 | 0% |
| | Other Asian or Asian British background | 21 | 5% | 40 | 5% |
| | Black or Black British - Caribbean | 3 | 1% | 11 | 1% |
| | Black or Black British - African | 9 | 2% | 17 | 2% |
| | Other Black or Black British background | 6 | 1% | 14 | 2% |
| | Chinese | 2 | 0% | 7 | 1% |
| | Other Ethnic Group | 50 | 11% | 40 | 5% |
| | *Missing data* | | *n = 32* | | *n = 50* |
| **Age** | 16-35 | 84 | 17% | 168 | 20% |
| | 36-50 | 84 | 17% | 135 | 16% |
| | 51-65 | 102 | 20% | 186 | 22% |
| | Over 65 | 230 | 46% | 361 | 43% |
| | *Missing data* | | *n = 0* | | *n = 0* |
| Total base | | | n = 500 | | n = 850 |

* Demographic information in this table is taken from sample data only

**Table A3. Sample characteristics for Trust C**

| | | Online Pilot | | Inpatient 2008 | |
|---|---|---|---|---|---|
| | | n | % | n | % |
| **Gender** | Male | 214 | 43% | 368 | 43% |
| | Female | 286 | 57% | 482 | 57% |
| | *Missing data* | | *n = 0* | | *n = 0* |
| **Ethnicity** | White British or Irish | 254 | 57% | 446 | 57% |
| | Other White background | 43 | 10% | 73 | 9% |
| | Mixed | 4 | 1% | 7 | 1% |
| | Asian or Asian British - Indian | 4 | 1% | 18 | 2% |
| | Asian or Asian British - Pakistani | 4 | 1% | 3 | 0% |
| | Asian or Asian British - Bangladeshi | 7 | 2% | 10 | 1% |
| | Other Asian or Asian British background | 7 | 2% | 3 | 0% |
| | Black or Black British - Caribbean | 42 | 9% | 71 | 9% |
| | Black or Black British - African | 21 | 5% | 39 | 5% |
| | Other Black or Black British background | 14 | 3% | 14 | 2% |
| | Chinese | 2 | 0% | 1 | 0% |
| | Other Ethnic Group | 44 | 10% | 93 | 12% |
| | *Missing data* | | *n = 54* | | *n = 72* |
| **Age** | 16-35 | 95 | 19% | 142 | 17% |
| | 36-50 | 121 | 24% | 191 | 23% |
| | 51-65 | 92 | 18% | 170 | 20% |
| | Over 65 | 192 | 38% | 347 | 41% |
| | *Missing data* | | *n = 0* | | *n = 0* |
| Total base | | | n = 500 | | n = 850 |

* Demographic information in this table is taken from sample data only

**Table A4. Sample characteristics for Trust D**

| | | Online Pilot | | Inpatient 2008 | |
|---|---|---|---|---|---|
| | | n | % | n | % |
| **Gender** | Male | 225 | 45% | 380 | 45% |
| | Female | 275 | 55% | 470 | 55% |
| | *Missing data* | | *n = 0* | | *n = 0* |
| **Ethnicity** | White British or Irish | 179 | 37% | 296 | 36% |
| | Other White background | 40 | 8% | 47 | 6% |
| | Mixed | 3 | 1% | 8 | 1% |
| | Asian or Asian British - Indian | 49 | 10% | 78 | 10% |
| | Asian or Asian British - Pakistani | 33 | 7% | 65 | 8% |
| | Asian or Asian British - Bangladeshi | 38 | 8% | 43 | 5% |
| | Other Asian or Asian British background | 36 | 8% | 82 | 10% |
| | Black or Black British - Caribbean | 22 | 5% | 51 | 6% |
| | Black or Black British - African | 44 | 9% | 73 | 9% |
| | Other Black or Black British background | 12 | 3% | 33 | 4% |
| | Chinese | 2 | 0% | 2 | 0% |
| | Other Ethnic Group | 22 | 5% | 43 | 5% |
| | *Missing data* | | *n = 20* | | *n = 29* |
| **Age** | 16-35 | 143 | 29% | 265 | 31% |
| | 36-50 | 103 | 21% | 178 | 21% |
| | 51-65 | 86 | 17% | 144 | 17% |
| | Over 65 | 168 | 34% | 263 | 31% |
| | *Missing data* | | *n = 0* | | *n = 0* |
| Total base | | | n = 500 | | n = 850 |

* Demographic information in this table is taken from sample data only

**Table A5. Sample characteristics for Trust E**

| | | Online Pilot | | Inpatient 2008 | |
|---|---|---|---|---|---|
| | | n | % | n | % |
| **Gender** | Male | 216 | 43% | 391 | 46% |
| | Female | 284 | 57% | 459 | 54% |
| | *Missing data* | | *n = 0* | | *n = 0* |
| **Ethnicity** | White British or Irish | 192 | 41% | 300 | 39% |
| | Other White background | 73 | 16% | 122 | 16% |
| | Mixed | 3 | 1% | 2 | 0% |
| | Asian or Asian British - Indian | 17 | 4% | 27 | 4% |
| | Asian or Asian British - Pakistani | 3 | 1% | 12 | 2% |
| | Asian or Asian British - Bangladeshi | 7 | 2% | 15 | 2% |
| | Other Asian or Asian British background | 7 | 2% | 10 | 1% |
| | Black or Black British - Caribbean | 49 | 10% | 91 | 12% |
| | Black or Black British - African | 54 | 12% | 74 | 10% |
| | Other Black or Black British background | 37 | 8% | 72 | 9% |
| | Chinese | 1 | 0% | 8 | 1% |
| | Other Ethnic Group | 26 | 6% | 43 | 6% |
| | *Missing data* | | *n = 31* | | *n = 74* |
| **Age** | 16-35 | 129 | 26% | 262 | 31% |
| | 36-50 | 124 | 25% | 216 | 25% |
| | 51-65 | 100 | 20% | 158 | 19% |
| | Over 65 | 147 | 29% | 214 | 25% |
| | *Missing data* | | *n = 0* | | *n = 0* |
| Total base | | | n = 500 | | n = 850 |

* Demographic information in this table is taken from sample data only

# Appendix 2: Respondent characteristics by trust

**Table A6. Characteristics of responders for Trust A**

| | | Online Pilot | | Inpatient 2008 | |
|---|---|---|---|---|---|
| | | n | % | n | % |
| **Gender** | Male | 82 | 45% | 146 | 45 % |
| | Female | 99 | 55% | 181 | 55% |
| | *Missing data* | | *n = 0* | | *n = 0* |
| **Ethnicity** | White British or Irish | 77 | 45% | 139 | 44% |
| | Other White background | 8 | 5% | 24 | 8% |
| | Mixed | - | - | - | - |
| | Asian or Asian British - Indian | 40 | 23% | 89 | 28% |
| | Asian or Asian British - Pakistani | 10 | 6% | 9 | 3% |
| | Asian or Asian British - Bangladeshi | - | - | - | - |
| | Other Asian or Asian British background | 11 | 6% | 12 | 3% |
| | Black or Black British - Caribbean | 8 | 5% | 18 | 6% |
| | Black or Black British - African | 6 | 4% | 10 | 3% |
| | Other Black or Black British background | - | - | - | - |
| | Chinese | - | - | - | - |
| | Other Ethnic Group | 7 | 4% | 15 | 5% |
| | *Missing data* | | *n = 10* | | *n = 7* |
| **Age** | 16-35 | 31 | 17% | 51 | 16% |
| | 36-50 | 34 | 19% | 48 | 15% |
| | 51-65 | 41 | 23% | 75 | 23% |
| | Over 65 | 75 | 41% | 153 | 47% |
| | *Missing data* | | *n = 0* | | *n = 0* |
| **Long-standing physical or mental health problem or disability** | One or more | 88 | 58% | 153 | 56% |
| | None | 65 | 43% | 122 | 44% |
| | *Missing data* | | *n = 28* | | *n = 52* |
| **Self rating of health in past 4 weeks** | Excellent | 22 | 13% | 18 | 6% |
| | Very good | 26 | 15% | 41 | 14% |
| | Good | 49 | 29% | 92 | 31% |
| | Fair | 46 | 27% | 100 | 34% |
| | Poor | 20 | 12% | 37 | 13% |
| | Very poor | 7 | 4% | 8 | 3% |
| | *Missing data* | | *n = 11* | | *n = 31* |
| Total respondents | | | n = 181 | | n = 327 |

* Demographic information in this table is taken from sample data only

**Table A7. Characteristics of responders for Trust B**

| | | Online Pilot | | Inpatient 2008 | |
|---|---|---|---|---|---|
| | | n | % | N | % |
| **Gender** | Male | 120 | 49% | 167 | 46% |
| | Female | 126 | 51% | 195 | 54% |
| | *Missing data* | | *n = 0* | | *n = 0* |
| **Ethnicity** | White British or Irish | 139 | 61% | 222 | 66% |
| | Other White background | 12 | 5% | 13 | 4% |
| | Mixed | - | - | - | - |
| | Asian or Asian British - Indian | 31 | 14% | 52 | 15% |
| | Asian or Asian British - Pakistani | 6 | 3% | 8 | 2% |
| | Asian or Asian British - Bangladeshi | - | - | - | - |
| | Other Asian or Asian British background | 8 | 4% | 13 | 4% |
| | Black or Black British - Caribbean | - | - | - | - |
| | Black or Black British - African | - | - | 7 | 2% |
| | Other Black or Black British background | - | - | - | - |
| | Chinese | - | - | - | - |
| | Other Ethnic Group | 20 | 9% | 15 | 4% |
| | *Missing data* | | *n = 18* | | *n = 24* |
| **Age** | 16-35 | 28 | 12% | 38 | 11% |
| | 36-50 | 36 | 15% | 57 | 16% |
| | 51-65 | 62 | 25% | 98 | 27% |
| | Over 65 | 120 | 49% | 169 | 47% |
| | *Missing data* | | *n = 0* | | *n = 0* |
| **Long-standing physical or mental health problem or disability** | One or more | 116 | 59% | 182 | 58% |
| | None | 80 | 41% | 133 | 42% |
| | *Missing data* | | *n = 50* | | *n = 47* |
| **Self rating of health in past 4 weeks** | Excellent | 17 | 8% | 28 | 8% |
| | Very good | 42 | 19% | 55 | 16% |
| | Good | 68 | 30% | 90 | 26% |
| | Fair | 62 | 28% | 114 | 33% |
| | Poor | 25 | 11% | 41 | 12% |
| | Very poor | 10 | 5% | 14 | 4% |
| | *Missing data* | | *n = 22* | | *n = 20* |
| Total respondents | | | n = 246 | | n = 362 |

* Demographic information in this table is taken from sample data only

**Table A8. Characteristics of responders for Trust C**

| | | Online Pilot | | Inpatient 2008 | |
|---|---|---|---|---|---|
| | | n | % | n | % |
| **Gender** | Male | 75 | 40% | 115 | 37% |
| | Female | 112 | 60% | 192 | 63% |
| | *Missing data* | | *n = 0* | | *n = 0* |
| **Ethnicity** | White British or Irish | 102 | 61% | 176 | 63% |
| | Other White background | 12 | 7% | 26 | 9% |
| | Mixed | - | - | - | - |
| | Asian or Asian British - Indian | - | - | - | - |
| | Asian or Asian British - Pakistani | - | - | - | - |
| | Asian or Asian British - Bangladeshi | - | - | 5 | 2% |
| | Other Asian or Asian British background | - | - | - | - |
| | Black or Black British - Caribbean | 14 | 8% | 19 | 7% |
| | Black or Black British - African | 7 | 4% | 11 | 4% |
| | Other Black or Black British background | 6 | 4% | - | - |
| | Chinese | - | - | - | - |
| | Other Ethnic Group | 14 | 8% | 33 | 12% |
| | *Missing data* | | *n = 21* | | *n = 27* |
| **Age** | 16-35 | 25 | 13% | 37 | 12% |
| | 36-50 | 37 | 20% | 78 | 25% |
| | 51-65 | 46 | 25% | 72 | 24% |
| | Over 65 | 79 | 42% | 120 | 39% |
| | *Missing data* | | *n = 0* | | *n = 0* |
| **Long-standing physical or mental health problem or disability** | One or more | 98 | 58% | 171 | 62% |
| | None | 70 | 42% | 107 | 39% |
| | *Missing data* | | *n = 19* | | *n = 29* |
| **Self rating of health in past 4 weeks** | Excellent | 22 | 12% | 25 | 9% |
| | Very good | 26 | 14% | 47 | 16% |
| | Good | 57 | 31% | 69 | 24% |
| | Fair | 51 | 28% | 102 | 35% |
| | Poor | 22 | 12% | 40 | 14% |
| | Very poor | 5 | 3% | 11 | 4% |
| | *Missing data* | | *n = 4* | | *n = 13* |
| Total respondents | | | n = 187 | | n = 307 |

* Demographic information in this table is taken from sample data only

**Table A9. Characteristics of responders for Trust D**

| | | Online Pilot | | Inpatient 2008 | |
|---|---|---|---|---|---|
| | | n | % | N | % |
| **Gender** | Male | 74 | 51% | 133 | 48% |
| | Female | 78 | 49% | 142 | 52% |
| | *Missing data* | | *n = 0* | | *n = 0* |
| **Ethnicity** | White British or Irish | 68 | 47% | 96 | 36% |
| | Other White background | 15 | 10% | 24 | 9% |
| | Mixed | - | - | - | - |
| | Asian or Asian British - Indian | 13 | 9% | 30 | 11% |
| | Asian or Asian British - Pakistani | 9 | 6% | 27 | 10% |
| | Asian or Asian British - Bangladeshi | 10 | 7% | 10 | 4% |
| | Other Asian or Asian British background | 9 | 6% | 23 | 9% |
| | Black or Black British - Caribbean | 5 | 3% | 16 | 6% |
| | Black or Black British - African | 10 | 7% | 19 | 7% |
| | Other Black or Black British background | - | - | 10 | 4% |
| | Chinese | - | - | - | - |
| | Other Ethnic Group | - | - | 13 | 5% |
| | *Missing data* | | *n = 6* | | *n = 6* |
| **Age** | 16-35 | 24 | 16% | 53 | 19% |
| | 36-50 | 34 | 22% | 59 | 22% |
| | 51-65 | 37 | 24% | 54 | 20% |
| | Over 65 | 57 | 38% | 109 | 40% |
| | *Missing data* | | *n = 0* | | *n = 0* |
| **Long-standing physical or mental health problem or disability** | One or more | 71 | 56% | 128 | 58% |
| | None | 57 | 45% | 94 | 42% |
| | *Missing data* | | *n = 24* | | *n = 53* |
| **Self rating of health in past 4 weeks** | Excellent | 9 | 7% | 24 | 10% |
| | Very good | 25 | 18% | 33 | 13% |
| | Good | 42 | 30% | 69 | 28% |
| | Fair | 44 | 32% | 76 | 31% |
| | Poor | 17 | 12% | 38 | 15% |
| | Very poor | 2 | 1% | 7 | 3% |
| | *Missing data* | | *n = 13* | | *n = 28* |
| Total respondents | | | n = 152 | | n = 275 |

* Demographic information in this table is taken from sample data only

**Table A10. Characteristics of responders for Trust E**

| | | Online Pilot | | Inpatient 2008 | |
|---|---|---|---|---|---|
| | | n | % | n | % |
| **Gender** | Male | 65 | 39% | 125 | 43% |
| | Female | 102 | 61% | 168 | 57% |
| | *Missing data* | | *n = 0* | | *n = 0* |
| **Ethnicity** | White British or Irish | 72 | 45% | 124 | 45% |
| | Other White background | 26 | 16% | 44 | 16% |
| | Mixed | - | - | - | - |
| | Asian or Asian British - Indian | 5 | 3% | 6 | 2% |
| | Asian or Asian British - Pakistani | - | - | - | - |
| | Asian or Asian British - Bangladeshi | - | - | - | - |
| | Other Asian or Asian British background | - | - | - | - |
| | Black or Black British - Caribbean | 16 | 10% | 27 | 10% |
| | Black or Black British - African | 22 | 14% | 28 | 10% |
| | Other Black or Black British background | 8 | 5% | 19 | 7% |
| | Chinese | - | - | - | - |
| | Other Ethnic Group | - | - | 11 | 4% |
| | *Missing data* | | *n = 8* | | *n = 19* |
| **Age** | 16-35 | 27 | 16% | 58 | 20% |
| | 36-50 | 34 | 20% | 76 | 26% |
| | 51-65 | 38 | 23% | 69 | 24% |
| | Over 65 | 68 | 41% | 90 | 31% |
| | *Missing data* | | *n = 0* | | *n = 0* |
| **Long-standing physical or mental health problem or disability** | One or more | 87 | 58% | 138 | 53% |
| | None | 62 | 42% | 125 | 48% |
| | *Missing data* | | *n = 18* | | *n = 30* |
| **Self rating of health in past 4 weeks** | Excellent | 22 | 13% | 30 | 11% |
| | Very good | 30 | 18% | 62 | 22% |
| | Good | 35 | 21% | 85 | 30% |
| | Fair | 53 | 32% | 64 | 23% |
| | Poor | 20 | 12% | 31 | 11% |
| | Very poor | 4 | 2% | 12 | 4% |
| | *Missing data* | | *n = 3* | | *n = 9* |
| Total respondents | | | n = 167 | | n = 293 |

* Demographic information in this table is taken from sample data only

# Appendix 3: Response rates by trust

### 7.1.1 Trust A

As could be expected from the lack of effect of the online completion option on the overall response rate in Trust A, there was no significant difference in response rates between the Online Pilot and the 2008 inpatient survey for any demographic group. As shown in Table A11 below, in the 2008 inpatient survey response biases towards those of 'White British or Irish' ethnic origin and over 65s were found in Trust A. Response biases against 'Asian or Asian British' of Indian or Pakistani origin and younger people, aged 16 to 35 years were also found. In the Online Pilot a response bias against 'Asian or Asian British' of Indian origin was found, however no significant response biases were found for any other groups although response patterns followed a similar direction to Inpatients 2008.

**Table A11. Response rates by demographic groups for Trust A**

| | | Online Pilot | | | Inpatient 2008 | | |
|---|---|---|---|---|---|---|---|
| | | Base | Respond-ents | Adjusted response rate | Base | Respond-ents | Adjusted response rate |
| **Gender** | Male | 232 | 82 | 37% | 408 | 146 | 37% |
| | Female | 268 | 99 | 39% | 442 | 181 | 42% |
| | *Missing data* | *0* | *0* | | *0* | *0* | |
| **Ethnicity** | White British or Irish | 202 | 77 | 40% | 328 | 139 | 44% |
| | Other White background | 28 | 8 | 31%! | 62 | 24 | 39% |
| | Mixed | 2 | - | - | 6 | - | - |
| | Asian or Asian British - Indian | 138 | 40 | 30% | 237 | 89 | 38% |
| | Asian or Asian British - Pakistani | 25 | 10 | 44%! | 40 | 9 | 24%! |
| | Asian or Asian British - Bangladeshi | 1 | - | - | 1 | - | - |
| | Other Asian or Asian British background | 26 | 11 | 42%! | 38 | 12 | 29%! |
| | Black or Black British - Caribbean | 19 | 8 | 44%! | 37 | 18 | 50%! |
| | Black or Black British - African | 21 | 6 | 32%! | 30 | 10 | 36%! |
| | Other Black or Black British background | 1 | - | - | 6 | - | - |
| | Chinese | 2 | - | - | 2 | - | - |
| | Other Ethnic Group | 16 | 7 | 47%! | 39 | 15 | 40%! |
| | *Missing data* | *19* | *10* | | *24* | *7* | |
| **Age** | 16-35 | 107 | 31 | 31% | 180 | 51 | 29% |
| | 36-50 | 101 | 34 | 35% | 145 | 48 | 35% |
| | 51-65 | 102 | 41 | 41% | 182 | 75 | 43% |
| | Over 65 | 190 | 75 | 41% | 343 | 153 | 45% |
| | *Missing data* | *0* | *0* | | *0* | *0* | |
| Total | | 500 | 181 | | 850 | 327 | |

* Demographic information in this table is taken from sample data only
! Caution low base size

### 7.1.2 Trust B

The Online Pilot response rate for Trust B was significantly higher than the response rate to the 2008 inpatient survey (50% compared to 44% for the 2008 inpatient survey). Breaking this down by demographic group, the increase seems to be driven in particular by a significantly increased response from males, however this does not correspond to any increase in uptake of the survey online amongst this group.

For Trust B, in both the pilot and Inpatients 2008 survey, the response bias in favour of those of 'White British or Irish' ethnic origin remained in both surveys (54% of those from a 'White British or Irish' ethnic origin responded to the pilot, compared to the 50% overall pilot response rate in this trust).

Patients in the older age group categories, those aged 51 to 65 years, were significantly more likely to respond to the Online Pilot and Inpatient 2008 survey in this trust (61% of those aged 51 to 65 years responded to the pilot, compared to the 50% overall pilot response rate in this trust). A bias in favour of over 65s was also found in Inpatient 2008 but not in the Online Pilot. The response bias against younger people, aged 16 to 35 years, found in the Inpatients 2008 survey was also present in the Online Pilot (the response rate for this group in the pilot was 34%, compared to the overall response rate of 50% for this trust).

**Table A12. Response rates by demographic groups for Trust B**

| | | Online Pilot | | | Inpatient 2008 | | |
|---|---|---|---|---|---|---|---|
| | | Base | Respond-ents | Adjusted response rate | Base | Respond-ents | Adjusted response rate |
| **Gender** | Male | 242 | 120 | 51% | 416 | 167 | 41% |
| | Female | 258 | 126 | 48% | 434 | 195 | 45% |
| | *Missing data* | 0 | *0* | | *0* | *0* | |
| **Ethnicity** | White British or Irish | 263 | 139 | 54% | 473 | 222 | 48% |
| | Other White background | 24 | 12 | 50%[!] | 33 | 13 | 41%[!] |
| | Mixed | 4 | - | - | 7 | - | - |
| | Asian or Asian British - Indian | 71 | 31 | 44% | 134 | 52 | 39% |
| | Asian or Asian British - Pakistani | 13 | 6 | 46%[!] | 22 | 8 | 36%[!] |
| | Asian or Asian British - Bangladeshi | 2 | - | - | 2 | - | - |
| | Other Asian or Asian British background | 21 | 8 | 38%[!] | 40 | 13 | 34%[!] |
| | Black or Black British - Caribbean | 3 | - | - | 11 | - | - |
| | Black or Black British - African | 9 | - | - | 17 | 7 | 44%[!] |
| | Other Black or Black British background | 6 | - | - | 14 | - | - |
| | Chinese | 2 | - | - | 7 | - | - |
| | Other Ethnic Group | 50 | 20 | 43% | 40 | 15 | 43%[!] |
| | *Missing data* | 32 | *18* | | *50* | *24* | |
| **Age** | 16-35 | 84 | 28 | 34% | 168 | 38 | 23% |
| | 36-50 | 84 | 36 | 44% | 135 | 57 | 43% |
| | 51-65 | 102 | 62 | 61% | 186 | 98 | 54% |
| | Over 65 | 230 | 120 | 53% | 361 | 169 | 48% |
| | *Missing data* | *0* | *0* | | *0* | *0* | |
| Total | | 500 | 246 | | 850 | 362 | |

* Demographic information in this table is taken from sample data only
[!] Caution low base size

### 7.1.3 Trust C

There was no significant difference in response rates between the Online Pilot and the 2008 inpatient survey for any demographic group, again as expected due to the lack of significant effect of the online completion option on the overall response rate in this trust.

In Trust C the response bias against 16 to 35 year olds was unaffected by the additional mode option offered in the pilot, remaining present in both the Inpatients 2008 survey and Online Pilot (28% of 16 to 35 year olds responded to the pilot, compared to the overall pilot response rate of 39% in this trust). The Inpatients 2008 survey for this trust also showed response biases towards females and those of 'White British or Irish' ethnic origin which were not replicated in the Online Pilot.

**Table A13. Response rates by demographic groups for Trust C**

| | | Online Pilot | | | Inpatient 2008 | | |
|---|---|---|---|---|---|---|---|
| | | Base | Respond-ents | Adjusted response rate | Base | Respond-ents | Adjusted response rate |
| **Gender** | Male | 214 | 75 | 37% | 368 | 115 | 34% |
| | Female | 286 | 112 | 40% | 482 | 192 | 41% |
| | *Missing data* | *0* | *0* | | *0* | *0* | |
| **Ethnicity** | White British or Irish | 254 | 102 | 42% | 446 | 176 | 42% |
| | Other White background | 43 | 12 | 29%! | 73 | 26 | 38% |
| | Mixed | 4 | - | - | 7 | - | - |
| | Asian or Asian British - Indian | 4 | - | - | 18 | - | - |
| | Asian or Asian British - Pakistani | 4 | - | - | 3 | - | - |
| | Asian or Asian British - Bangladeshi | 7 | - | - | 10 | 5 | 50%! |
| | Other Asian or Asian British background | 7 | - | - | 3 | - | - |
| | Black or Black British - Caribbean | 42 | 14 | 34%! | 71 | 19 | 29% |
| | Black or Black British - African | 21 | 7 | 35%! | 39 | 11 | 28%! |
| | Other Black or Black British background | 14 | 6 | 43%! | 14 | - | - |
| | Chinese | 2 | - | - | 1 | - | - |
| | Other Ethnic Group | 44 | 14 | 33%! | 93 | 33 | 37% |
| | *Missing data* | *54* | *21* | | *72* | *27* | |
| **Age** | 16-35 | 95 | 25 | 28% | 142 | 37 | 27% |
| | 36-50 | 121 | 37 | 31% | 191 | 78 | 42% |
| | 51-65 | 92 | 46 | 52% | 170 | 72 | 44% |
| | Over 65 | 192 | 79 | 43% | 347 | 120 | 37% |
| | *Missing data* | *0* | *0* | | *0* | *0* | |
| Total | | 500 | 187 | | 850 | 307 | |

* Demographic information in this table is taken from sample data only
! Caution low base size

### 7.1.4 Trust D

For Trust D no significant difference in response rates between the Online Pilot and the 2008 inpatient survey were found for any demographic group.

A response bias in favour of those from a 'White British or Irish' ethnic group was found in the pilot that was not present in the 2008 inpatient survey. Conversely a response bias in favour of those from 'Other' White background's was present in Trust D's Inpatients 2008 response but no corresponding bias was present for the Online Pilot.

Response bias against younger patients, aged 16 to 35 years, was found in both surveys, as was the corresponding bias in favour of older patients. Those aged 51 to 65 years were significantly

more likely to respond to the Online Pilot (46% compared to the 32% overall response rate) and over 65s were significantly more likely to respond to Inpatient 2008.

**Table A14. Response rates by demographic groups for Trust D**

| | | Online Pilot | | | Inpatient 2008 | | |
|---|---|---|---|---|---|---|---|
| | | Base | Respond-ents | Adjusted response rate | Base | Respond-ents | Adjusted response rate |
| **Gender** | Male | 225 | 74 | 35% | 380 | 133 | 36% |
| | Female | 275 | 78 | 30% | 470 | 142 | 32% |
| | *Missing data* | *0* | *0* | | *0* | *0* | |
| **Ethnicity** | White British or Irish | 179 | 68 | 41% | 296 | 96 | 33% |
| | Other White background | 40 | 15 | 40%[!] | 47 | 24 | 51%[!] |
| | Mixed | 3 | - | - | 8 | - | - |
| | Asian or Asian British - Indian | 49 | 13 | 27% | 78 | 30 | 40% |
| | Asian or Asian British - Pakistani | 33 | 9 | 29%[!] | 65 | 27 | 42% |
| | Asian or Asian British - Bangladeshi | 38 | 10 | 27%[!] | 43 | 10 | 24%[!] |
| | Other Asian or Asian British background | 36 | 9 | 26%[!] | 82 | 23 | 29% |
| | Black or Black British - Caribbean | 22 | 5 | 23%[!] | 51 | 16 | 33% |
| | Black or Black British - African | 44 | 10 | 24%[!] | 73 | 19 | 28% |
| | Other Black or Black British background | 12 | - | - | 33 | 10 | 30%[!] |
| | Chinese | 2 | - | - | 2 | - | - |
| | Other Ethnic Group | 22 | - | - | 43 | 13 | 31%[!] |
| | *Missing data* | *20* | *6* | | *29* | *6* | |
| **Age** | 16-35 | 143 | 24 | 18% | 265 | 53 | 21% |
| | 36-50 | 103 | 34 | 34% | 178 | 59 | 34% |
| | 51-65 | 86 | 37 | 46% | 144 | 54 | 39% |
| | Over 65 | 168 | 57 | 36% | 263 | 109 | 42% |
| | *Missing data* | *0* | *0* | | *0* | *0* | |
| Total | | 500 | 152 | | 850 | 275 | |

* Demographic information in this table is taken from sample data only
[!] Caution low base size

### 7.1.5 Trust E

As with Trusts A, C and D, no significant difference in response rates between the Online Pilot and the 2008 inpatient survey in Trust E were found for any demographic group.

For Trust E, no significant ethnic group response bias in favour of 'White British or Irish' was found in the Online Pilot, unlike in the Inpatients 2008 survey. However the bias against younger people, aged 16 to 35 years, was found in the Online Pilot as in Inpatients 2008 (only 22% of this age group responded to the Online Pilot, compared to the overall response rate of 34%). The corresponding age group response bias in favour of older patients was also found in both surveys (over 65s were significantly more likely to respond to the pilot (48% compared to 34% overall).

**Table A15. Response rates by demographic groups for Trust E**

| | | Online Pilot | | | Inpatient 2008 | | |
|---|---|---|---|---|---|---|---|
| | | Base | Respond-ents | Adjusted response rate | Base | Respond-ents | Adjusted response rate |
| **Gender** | Male | 216 | 65 | 31% | 391 | 125 | 33% |
| | Female | 284 | 102 | 37% | 459 | 168 | 38% |
| | *Missing data* | *0* | *0* | | *0* | *0* | |
| **Ethnicity** | White British or Irish | 192 | 72 | 39% | 300 | 124 | 43% |
| | Other White background | 73 | 26 | 36% | 122 | 44 | 39% |
| | Mixed | 3 | - | - | 2 | - | - |
| | Asian or Asian British - Indian | 17 | 5 | 29%! | 27 | 6 | 24%! |
| | Asian or Asian British - Pakistani | 3 | - | - | 12 | - | - |
| | Asian or Asian British - Bangladeshi | 7 | - | - | 15 | - | - |
| | Other Asian or Asian British background | 7 | - | - | 10 | - | - |
| | Black or Black British - Caribbean | 49 | 16 | 33%! | 91 | 27 | 31% |
| | Black or Black British - African | 54 | 22 | 43% | 74 | 28 | 39% |
| | Other Black or Black British background | 37 | 8 | 24%! | 72 | 19 | 27% |
| | Chinese | 1 | - | - | 8 | - | - |
| | Other Ethnic Group | 26 | - | - | 43 | 11 | 28%! |
| | *Missing data* | *31* | *8* | | *74* | *19* | |
| **Age** | 16-35 | 129 | 27 | 22% | 262 | 58 | 23% |
| | 36-50 | 124 | 34 | 28% | 216 | 76 | 36% |
| | 51-65 | 100 | 38 | 38% | 158 | 69 | 45% |
| | Over 65 | 147 | 68 | 48% | 214 | 90 | 44% |
| | *Missing data* | *0* | *0* | | *0* | *0* | |
| Total | | 500 | 167 | | 850 | 293 | |

* Demographic information in this table is taken from sample data only
! Caution low base size