

Survey Indicator Methodology
Commission for Health Improvement (CHI)

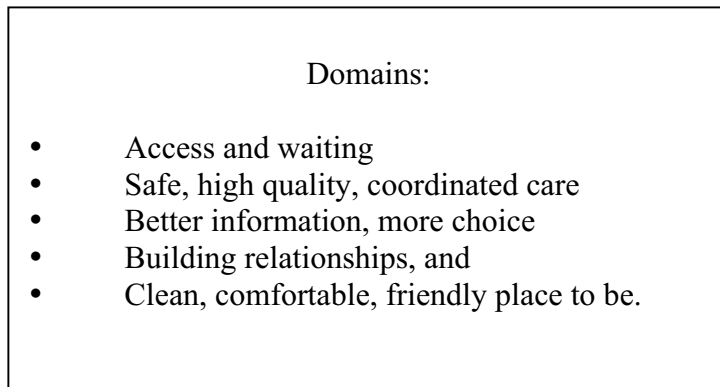
Outpatients Survey 2003
&
Emergency Survey 2003

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1. Introduction

This document outlines the method used by the Commission for Health Improvement (CHI) to score the performance indicator questions included within the Outpatients Survey, carried out by specialist and acute NHS trusts in Spring 2003, and the Emergency Survey conducted in the same period by acute trusts. It also details the methodology used to calculate the overall scores for each individual trust, in terms the five domains of patient experience used by the Department of Health (see Figure 1.1).

Figure 1.1: Domains of patient experience



2. Domains: Selected indicator questions

The Outpatient core survey consists of 50 pre-coded questions, and one open ended question regarding any further comments. Of these, 37 questions were classified as being potential evaluative questions, and were allocated to one of the five Department of Health patient experience domains. The Emergency core survey consists of 47 pre-coded questions, and one open ended question. Of these, 35 questions were classed as potential evaluative questions, and were allocated to one of the five domains.

The criteria listed in Figure 2.1 were used to assess the suitability of each individual question, in terms of its viability as an indicator of performance. Using these criteria, a number of questions were then selected from each domain to be used as performance indicators, for each survey. See Appendix 1 and 2 for the questions included within each domain.

Figure 2.1 Criteria for selecting performance indicator questions:

- Patient priorities:
Questions should cover issues that are known to be important to patients.
- Wide range of issues within domains:
The questions should cover a broad range of topics and services within each domain.
- Overlap:
Items should be selected so there is minimal overlap with other questions included in the PIs.
- Numbers of questions in each domain:
There should be between 3 and 8 questions in each domain for each survey.
- Ease of evaluating responses:
Questions should have clear/uncontroversial positive and negative response categories, and it should be clear that the topic covered is under the responsibility and range of influence of the Trust.
- Non-response:
Questions should have low numbers of missing responses

3. Scoring: Individual indicator questions

The indicator questions are scored using a scale of 0 to 100. A listing of scores assigned to the responses to each individual question is provided in Appendix 2.

The scores represent the extent to which the patient's experience could have been improved. A score of 0 is assigned to all responses that reflect considerable scope for improvement, whereas an answer option that has been assigned a score of 100 refers to a positive patient experience. Where options have been provided that do not have any bearing on the trusts performance in terms of patient experience, the responses are classified as "missing". For example, where the patient has stated they cannot remember or do not know the answer to the question, a score will not be given. Effectively it will be treated as a non-responder.

For example, question J2 (see Figure 3.1) in the Outpatients survey asks whether the respondent felt they were treated with respect and dignity. The option of “No” has been allocated a score of 0, as this suggests that improvements to the patient experience are required. A score of 100 has been assigned to the option “Yes, all of the time” as it reflects a positive patient experience. The remaining option, “Yes, some of the time”, has been assigned a score of 50 as the patient felt that some degree of respect and dignity was received, although not consistently. Hence it has been placed on the midpoint of the scale.

Figure 3.1 Scoring example: Question J2 (Outpatients)

J2. Overall, did you feel you were treated with respect and dignity while you were at the Outpatient Department?

Yes, all of the time	100
Yes, some of the time	50
No	0

Where a number of options lie between the negative and positive responses, they are placed in appropriate positions along the scale. For example, question A1 in the Outpatients survey asks how long the patient waited for an appointment (see Figure 3.2). The options include:

- Up to 1 month
- More than 1 month but no more than 3 months
- More than 3 months but no more than 5 months
- More than 5 months but no more than 12 months
- More than 12 months but no more than 18 months, or
- More than 18 months
- Went to Outpatients without an appointment
- Don't know/Can't remember

A score of 100 will be assigned to a response that it took “up to one month”, as this is best practice in terms of patient experience. A response that it took “more than 18 months” would be given a score of 0, and so the remaining four answers would be assigned a score that reflects their position in terms of best practice, spread evenly across the scale. Hence the option “More than 1 month...” has been assigned a score of 80, “More than 3 months” will achieve a score of 60, “More than 5 months” would be 40, and the response that it took “More than 12 months...” would score 20 for the trust.

If the patient had gone to Outpatients without an appointment, or did not know/could not remember how long it had taken, this would be classified as a “missing” response, as these options are not a direct measure of how long a person had to wait to get an appointment.

Figure 3.2 Scoring example: Question A1 (Outpatients)

A1. Overall, from the time you were first told you needed an appointment to the time you went to the Outpatients Department, how long did you wait for an appointment?

Up to 1 month	100
More than 1 month but no more than 3 months	80
More than 3 months but no more than 5 months	60
More than 5 months but no more than 12 months	40
More than 12 months but no more than 18 months	20
More than 18 months	0
I went to Outpatients without an appointment	Missing
Don't know/ Can't remember	Missing

4. Methodology: Overall domain scores

The scores for each domain per trust are calculated using the following method, described according to each stage. This was done separately for each survey, then the results were combined for the relevant trusts.

To summarise, age-by-sex weightings are calculated to adjust for any variation between trusts that results from differences in the age and sex of patients. A weight is calculated for each respondent by dividing the national proportion of respondents in their age-by-sex group by the corresponding trust proportion. As shown in section 4.4, the final domain score is calculated by dividing the sum of weighted scores for all eligible responses by the weighted number of eligible respondents.

The reason for weighting is that younger people and women tend to be more critical in their responses than older people and men. If a trust has a large population of young people or women, their performance might be judged more harshly than if there was a more consistent age/sex distribution.

The exact stages are described as follows:

4.1 Weighted analysis

The first stage of the analysis involves calculating national age-by-sex proportions. It must be noted that the term “national proportion” is used loosely here as it is obtained from pooling the survey data from all trusts, and is therefore based on the respondent population rather than the entire UK population.

The questionnaire asked respondents to state which age category they belong to. These age groups were used to calculate the number of people within each age group (see Figure 4.1.1 for the categories). The two oldest age groups (66-80 years and 81+ years) were combined in the analysis, as a considerably small number of respondents were within the oldest category of 81+ years. This would have led to a very high weighting for respondents of this age, and so merging the categories allowed for the weightings to be levelled out.

If a patient didn't fill in their age group or sex within the questionnaire, this information was inputted from the sample file. If information on a respondent's age and/or sex was missing from both the questionnaire and the sample file, the patient was excluded from the analysis.

The national age-by-sex proportions relate to the proportion of males and females within each age group. With the Outpatients survey, as shown in Figure 4.1.1, the proportion of males aged 51-65 years is 0.125385474, the proportion of females aged 51-65 years is 0.166458501, etc. See Appendix 5 for Emergency Department national proportions.

Figure 4.1.1 National Proportions (Outpatients)

Sex	Age Group	National Proportion
Male	16-35	0.035214926
	36-50	0.062095873
	51-65	0.125385474
	66+	0.194267903
Female	16-35	0.077713793
	36-50	0.115592497
	51-65	0.166458501
	66+	0.223271031

The trust age-by-sex proportions were also calculated individually for each set of trust data, using the same procedure.

The next step was to calculate the weighting for each individual's responses. Age-by-sex weightings are calculated for each respondent by dividing the national proportion of respondents in their age-by-sex group by the corresponding trust proportion.

If, for example, a low proportion of males aged between 51 and 65 years within Trust A responded to the survey, in comparison to the national proportion, then this group would be under-represented in terms of the final scores. Dividing the national proportion by the trust's proportion would result in a greater weighting for members of this group (see Figure 4.1.2). This would increase the influence of responses made by patients within that group over the final score, thus counteracting the low representation.

Figure 4.1.2 Proportion and Weighting for Trust A

Sex	Age Group	National Proportion	Trust A Proportion	Trust A Weight (National/Trust A)
Male	16-35	0.035	0.036	0.974
	36-50	0.062	0.070	0.892
	51-65	0.125	0.094	1.334
	66+	0.194	0.190	1.023
Female	16-35	0.078	0.090	0.868
	36-50	0.116	0.115	1.006
	51-65	0.166	0.171	0.974
	66+	0.223	0.235	0.950

Note: All proportions are given to three decimal places for this example. The analysis included these figures to nine decimal places (see Appendix 5)

Likewise, if a considerably higher proportion of females aged between 36 and 50 from Trust B responded to the survey (see Figure 4.1.3), then this group would be over-represented within the sample, compared to national representation of this group. Subsequently this age group would have a greater influence over the final score. To counteract this, dividing the national proportion by the proportion for Trust B would

result in a lower weighting for members of this group, and would in effect reduce the disproportionate influence held by this group.

Figure 4.1.3 Proportion and Weighting for Trust B

Sex	Age Group	National Proportion	Trust B Proportion	Trust B Weight (National/Trust B)
Male	16-35	0.035	0.033	1.072
	36-50	0.062	0.059	1.044
	51-65	0.125	0.125	1.007
	66+	0.194	0.183	1.059
Female	16-35	0.078	0.068	1.140
	36-50	0.116	0.151	0.763
	51-65	0.166	0.160	1.042
	66+	0.223	0.220	1.013

Note: All proportions are given to three decimals places for this example. The analysis included these figures to nine decimal places (see Appendix 5)

4.2 Obtaining the numerators for each domain score

The responses given by each respondent were entered into a dataset in terms of the 0-100 scale described in section 3. Each row corresponds to an individual patient, and each column relates to a performance indicator question. For those questions that the patient did not answer (or received a missing score for), the relevant cell remains empty. Alongside these are the weightings allocated to each patient (see Figure 4.2.1).

Figure 4.2.1 Scoring for “Clean, comfortable, friendly place to be” domain, Trust A (Outpatients)

Respondent	Question:					Weight
	B2	B3	C1	C2	J2	
1	100	50	67	100	100	0.974
2	50	100	100	.	100	0.868
3	.	.	67	100	100	1.006

Patients’ scores for each question were then multiplied individually by the relevant weighting, in order to obtain the numerators for the domain scores (see Figure 4.2.2).

Figure 4.2.2 Numerators for “Clean, comfortable, friendly place to be” domain, Trust A (Outpatients)

Patient	Numerators:					Weight
	B2	B3	C1	C2	J2	
1	97.4	48.7	65.258	97.4	97.4	0.974
2	43.4	86.8	86.8	.	86.8	0.868
3	.	.	67.402	100.6	100.6	1.006

4.3 Obtaining the denominators for each domain score

A second dataset was then created. This contained a column for each question, grouped into domains, and again with each row corresponding to an individual respondent. A value of one was entered for the questions whereby a response had

been given by the patient, and all questions that had been left unanswered or allocated a scoring of “missing” (see section 3) were set to missing (see Figure 4.3.1).

Figure 4.3.1 Values for non-missing responses, “Clean, comfortable, friendly place to be” domain, Trust A (Outpatients)

Respondent	Question:					Weight
	B2	B3	C1	C2	J2	
1	1	1	1	1	1	0.974
2	1	1	1	.	1	0.868
3	.	.	1	1	1	1.006

The denominators were calculated by multiplying each of the cells within the second dataset by the weighting allocated to each respondent. This resulted in a figure for each question that the patient had answered (see Figure 4.3.2). Again, the cells relating to the questions that the patient did not answer (or received a “missing” score for) remained set to missing.

Figure 4.3.2 Denominators for “Clean, comfortable, friendly place to be” domain, Trust A (Outpatients)

Patient	Denominators:				
	B2	B3	C1	C2	J2
1	0.974	0.974	0.974	0.974	0.974
2	0.868	0.868	0.868	.	0.868
3	.	.	1.006	1.006	1.006

4.4 Final calculation

The final score for each domain was calculated by dividing the sum of the weighted scores for all eligible responses within the domain (i.e. numerators) by the weighted sum of all eligible respondents to the questions within each domain (i.e. denominators).

Using the example of Trust A, the domain score based on the data from the three respondents would be calculated as follows:

$$\frac{97.4 + 48.7 + 65.258 + 97.4 + 97.4 + 43.4 + 86.8 + 86.8 + 86.8 + 67.402 + 100.6 + 100.6}{0.974 + 0.974 + 0.974 + 0.974 + 0.974 + 0.868 + 0.868 + 0.868 + 0.868 + 1.006 + 1.006 + 1.006} = 86.141$$

Therefore, a set of five scores would be derived from the results of each trust, relating to each of the five domains.

4.5 Combining Outpatients and Emergency scores

The Outpatients survey was carried out by 171 trusts, including 16 specialist trusts. Of these, 155 acute trusts also carried out the Emergency survey. However, one trust was excluded from the analysis due to data quality issues.

Those that only submitted data from the Outpatients survey will be assigned a final score based on that result. However, those trusts that completed both surveys will be given an aggregate score combining the two survey results.

Analysis of the survey data showed that trusts tended to score lower for Emergency Department surveys than for Outpatients. Therefore, the implication of taking the mean for both surveys is that the Emergency Department scores usually pull the overall score down. This would put the trusts that only carried the Outpatients survey at an unfair advantage, as their scores would not be “dragged down” in the same way as for trusts that carried out both surveys.

This was resolved by using Z scores to calculate the mean score for both surveys. This is unique to the Outpatients and Emergency surveys, due to the need to combine scores. The scores for the PCT survey do not need to be transformed into Z scores.

4.5.1 Using Z scores to arrive at the mean score

The scores for each trust were transformed into z-scores. This transforms a trusts score for one domain to a value on a scale with a mean of 0. This enables the scores within each survey to be combined.

The z-score is calculated by subtracting the mean score of all trusts from the trust’s individual score. This figure is then divided by the standard deviation of the scores. This results in a set of values for each survey in which the mean value is always zero and the standard deviation is 1.

For example, in the Outpatient survey the trusts’ average scores for access had a mean of 77 and standard deviation of 2.6, while in the A&E survey the mean score was 68 with a standard deviation of 6. An Outpatient score of 82 would then become $(82-77)/2.6 = 1.92$, and an A&E score of 66 would become $(66-68)/6 = -0.33$. These scores are then averaged to produce a final domain score of 0.79. A score above 0 is better than average. See Appendix 5 for details on the means and standard deviations used to calculate the z-scores.

Appendix 1: Performance indicator questions, grouped within each domain
Outpatients

Access and Waiting

- A1. Overall, from the time you were first told you needed an appointment to the time you went to the Outpatients Department, how long did you wait for an appointment?
- A4. Was your appointment changed by the hospital?
- B1. How long after the stated appointment time did the appointment start?

Safe, high quality, coordinated care

- A3. Before your appointment, did you know who to contact if your symptoms or condition got worse?
- D8. Did you have confidence and trust in the doctor examining and treating you?
- D9. Did the doctor seem aware of your medical history?
- E4. Did you have confidence and trust in (the other person you saw)?
- J1. How well organised was the Outpatients Department you visited?

Better information, more choice

- A2. Before your appointment, did you know the reason for the appointment?
- D4. Did the doctor explain the reasons for any treatment or action in a way that you could understand?
- F4. While you were in the Outpatients Department, how much information about your condition or treatment was given to you?
- F6. Were you involved as much as you wanted to be in decisions about your care and treatment?
- G4. Did a member of staff explain the results of the tests in a way you could understand?

Building relationships

- D2. Did you have enough time to discuss your health or medical problem with the doctor?
- D5. Did the doctor listen to what you had to say?
- D7. If you had important questions to ask the doctor, did you get answers that you could understand?
- E3. If you had important questions to ask the [other person you saw], did you get answers that you could understand?
- F3. Did doctors and/or other staff talk in front of you as if you weren't there?

Clean, comfortable, friendly place to be

- B2. Were you told how long you would have to wait? [and was that information accurate?]
- B3. Were you told why you had to wait? [in OP waiting area]
- C1. In your opinion, how clean was the Outpatients Department?
- C2. How clean were the toilets at the Outpatients Department?
- J2. Overall, did you feel you were treated with respect and dignity while you were at the Outpatient Department?

Appendix 2: Performance indicator questions, grouped within each domain
Emergency

Access and Waiting

- B1. Following your arrival in the Emergency Department, how long did you wait for a nurse to assess your priority (i.e. how long did you wait to see a triage nurse)?
- B3. Overall, did you think the patient priority system was fair?
- B4. Following your arrival in the Emergency Department, how long did you wait before being examined by a doctor or nurse practitioner?
- B6. Overall, how long did your visit to the Emergency Department last?

Safe, high quality, coordinated care

- C6. Did you have confidence and trust in the doctors and nurses examining and treating you?
- C7. In your opinion, did the doctors and nurses in the Emergency Department know enough about your condition or treatment?
- D6. Sometimes in a hospital, a member of staff will say one thing and another will say something quite different. Did this happen to you in the Emergency Department?
- H6. Did a member of staff tell you about what danger signals regarding your illness or treatment to watch for after you went home?

Better information, more choice

- C2. While you were in the Emergency Department, did a doctor or nurse explain your condition and treatment in a way you could understand?
- D3. While you were in the Emergency Department, how much information about your condition or treatment was given to you?
- D7. Were you involved as much as you wanted to be in decisions about your care and treatment?
- E3. Did a member of staff explain the results of the tests in a way you could understand?

Building relationships

- C1. Did you have enough time to discuss your health or medical problem with the doctor or nurse?
- C3. Did the doctors and nurses listen to what you had to say?
- C5. If you had any anxieties or fears about your condition or treatment, did a doctor or nurse discuss them with you?
- C8. Did doctors or nurses talk in front of you as if you weren't there?

Clean, comfortable, friendly place to be

- D4. Were you given enough privacy when discussing your condition or treatment?
- D5. Were you given enough privacy when being examined or treated?
- F5. Do you think the hospital staff did everything they could to help control your pain?
- G1. In your opinion, how clean was the Emergency Department?
- J1. Overall, did you feel you were treated with respect and dignity while you were in the Emergency Department?

Appendix 3: Scoring of individual indicator questions
Outpatients

A1. Overall, from the time you were first told you needed an appointment to the time you went to the Outpatients Department, how long did you wait for an appointment?

Up to 1 month	100
More than 1 month but no more than 3 months	80
More than 3 months but no more than 5 months	60
More than 5 months but no more than 12 months	40
More than 12 months but no more than 18 months	20
More than 18 months	0
I went to Outpatients without an appointment	Missing
Don't know/ Can't remember	Missing

A2. Before your appointment, did you know the reason for the appointment?

Yes, definitely	100
Yes, to some extent	50
No	0

A3. Before your appointment, did you know who to contact if your symptoms or condition got worse?

Yes	100
No	0

A4. Was your appointment changed by the hospital?

No	100
Yes, once	67
Yes, 2 or 3 times	33
Yes, 4 times or more	0

B1. How long after the stated appointment time did the appointment start?

Seen on time, or early	100
Waited up to 5 minutes	83
Waited 6 - 15 minutes	67
Waited 16 - 30 minutes	50
Waited 31 - 60 minutes	33
Waited more than 1 hour but no more than 2 hours	17
Waited more than 2 hours	0
Don't know/Can't remember	Missing

B2. Were you told how long you would have to wait?

Yes, but the wait was shorter	100
Yes, and I had to wait about as long as was told	100
Yes, but the wait was longer	50
No, I was not told	0
Don't know/ Can't remember	Missing

B3. Were you told why you had to wait?	
Yes	100
No, but I would have liked an explanation	0
No, but I didn't mind	50
Don't know/ Can't remember	Missing

C1. In your opinion, how clean was the Outpatients Department?	
Very clean	100
Fairly clean	67
Not very clean	33
Not at all clean	0
Can't say	Missing

C2. How clean were the toilets at the Outpatients Department?	
Very clean	100
Fairly clean	67
Not very clean	33
Not at all clean	0
I did not use a toilet	Missing

D2. Did you have enough time to discuss your health or medical problem with the doctor?	
Yes, definitely	100
Yes, to some extent	50
No	0

D4. Did the doctor explain the reasons for any treatment or action in a way that you could understand?	
Yes, completely	100
Yes, to some extent	50
No	0
I did not need an explanation	Missing
No treatment or action was needed	Missing

D5. Did the doctor listen to what you had to say?	
Yes, definitely	100
Yes, to some extent	50
No	0

D7. If you had important questions to ask the doctor, did you get answers that you could understand?	
Yes, definitely	100
Yes, to some extent	50
No	0
I did not need to ask	Missing
I did not have an opportunity to ask	0

D8. Did you have confidence and trust in the doctor examining and treating you?	
Yes, definitely	100
Yes, to some extent	50
No	0
D9. Did the doctor seem aware of your medical history?	
He/she knew enough	100
He/she knew something but not enough	50
He/she knew little or nothing	0
Don't know/ Can't say	Missing
E3. If you had important questions to ask him/her, did you get answers that you could understand?	
Yes, definitely	100
Yes, to some extent	50
No	0
I did not need to ask	Missing
I did not have an opportunity to ask	0
E1. Did you have confidence and trust in him/her?	
Yes, definitely	100
Yes, to some extent	50
No	0
F3. Did doctors and/or other staff talk in front of you as if you weren't there?	
Yes, definitely	0
Yes, to some extent	50
No	100
F4. While you were in the Outpatients Department, how much information about your condition or treatment was given to you?	
Not enough	50
Right amount	100
Too much	50
I was not given any information about my treatment or condition	0
F6. Were you involved as much as you wanted to be in decisions about your care and treatment?	
Yes, definitely	100
Yes, to some extent	50
No	0

G4. Did a member of staff explain the results of the tests in a way you could understand?

Yes, definitely	100
Yes, to some extent	50
No	0
Not sure/ Can't remember	Missing
I was told that the results of the tests would be given to me at a later date	Missing
I was never told the results of the tests	0

J1. How well organised was the Outpatients Department you visited?

Not at all organised	0
Fairly organised	50
Very well organised	100

J2. Overall, did you feel you were treated with respect and dignity while you were at the Outpatient Department?

Yes, all of the time	100
Yes, some of the time	50
No	0

Appendix 4: Scoring of individual indicator questions
Emergency

B1. Following your arrival in the Emergency Department, how long did you wait for a nurse to assess your priority (i.e. how long did you wait to see a triage nurse)?

I did not have to wait to be assessed	100
1 - 15 minutes	75
16 - 30 minutes	50
31 – 60 minutes	25
More than 60 minutes	0
Don't know/ Can't remember	Missing
I left before I was assessed	0

B3. Overall, did you think the patient priority system was fair?

Yes	100
No	0
Can't say/ Don't know	Missing

B4. Following your arrival in the Emergency Department, how long did you wait before being examined by a doctor or nurse practitioner?

I did not have to wait	100
1 - 30 minutes	80
31 - 60 minutes	60
More than 1 hour but no more than 2 hours	40
More than 2 hours but no more than 4 hours	20
More than 4 hours	0
Can't remember	Missing
I did not see a doctor or a nurse practitioner	Missing

B6. Overall, how long did your visit to the Emergency Department last?

Up to 1 hour	100
More than 1 hour but no more than 2 hours	83
More than 2 hours but no more than 4 hours	67
More than 4 hours but no more than 8 hours	50
More than 8 hours but no more than 12 hours	33
More than 12 hours but no more than 24 hours	17
More than 24 hours	0
Can't remember	Missing

C1. Did you have enough time to discuss your health or medical problem with the doctor or nurse?

Yes, definitely	100
Yes, to some extent	50
No	0
I did not see a doctor or a nurse	Missing

C2. While you were in the Emergency Department, did a doctor or nurse explain your condition and treatment in a way you could understand?	
Yes, completely	100
Yes, to some extent	50
No	0
I did not need an explanation	Missing
C3. Did the doctors and nurses listen to what you had to say?	
Yes, definitely	100
Yes, to some extent	50
No	0
C5. If you had any anxieties or fears about your condition or treatment, did a doctor or nurse discuss them with you?	
Yes, completely	100
Yes, to some extent	50
No	0
I didn't have anxieties or fears	Missing
C6. Did you have confidence and trust in the doctors and nurses examining and treating you?	
Yes, definitely	100
Yes, to some extent	50
No	0
C7. In your opinion, did the doctors and nurses in the Emergency Department know enough about your condition or treatment?	
All of them knew enough	100
Most of them knew enough	67
Only some of them knew enough	33
None of them knew enough	0
Don't know/ Can't say	Missing
C8. Did doctors or nurses talk in front of you as if you weren't there?	
Yes, definitely	0
Yes, to some extent	50
No	100
D3. While you were in the Emergency Department, how much information about your condition or treatment was given to you?	
Not enough	50
Right amount	100
Too much	50
I was not given any information about my treatment or condition	0
D4. Were you given enough privacy when discussing your condition or treatment?	
Yes, definitely	100
Yes, to some extent	50
No	0

D5. Were you given enough privacy when being examined or treated?	
Yes, definitely	100
Yes, to some extent	50
No	0

D6. Sometimes in a hospital, a member of staff will say one thing and another will say something quite different. Did this happen to you in the Emergency Department?	
Yes, definitely	0
Yes, to some extent	50
No	100

D7. Were you involved as much as you wanted to be in decisions about your care and treatment?	
Yes, definitely	100
Yes, to some extent	50
No	0
I was not well enough to be involved in decisions about my care	Missing

E3. Did a member of staff explain the results of the tests in a way you could understand?	
Yes, definitely	100
Yes, to some extent	50
No	0
Not sure/ Can't remember	Missing
I was told that the results of the tests would be given to me at a later date	Missing
I was never told the results of the tests	0

F5. Do you think the hospital staff did everything they could to help control your pain?	
Yes, definitely	100
Yes, to some extent	50
No	0
Can't say/ Don't know	Missing

G1. In your opinion, how clean was the Emergency Department?	
Very clean	100
Fairly clean	67
Not very clean	33
Not at all clean	0
Can't say	Missing

H6. Did a member of staff tell you about what danger signals regarding your illness or treatment to watch for after you went home?	
Yes, completely	100
Yes, to some extent	50
No	0
I did not need this type of information	Missing

J1. Overall, did you feel you were treated with respect and dignity while you were in the Emergency Department?

Yes, all of the time	100
Yes, some of the time	50
No	0

Appendix 5: Mean and standard deviation, all domains, both surveys

Outpatients

National Proportions

Males 16-35	0.035214926
Males 36-50	0.062095873
Males 51-65	0.125385474
Males 66+	0.194267903
Females 16-35	0.077713793
Females 36-50	0.115592497
Females 51-65	0.166458501
Females 66+	0.223271031

Means (Standard Deviations) for z-scores:

Access & waiting	76.9624 (2.57384)
Safe, high quality, coordinated care	84.1197 (3.09856)
Better information, more choice	84.9645 (2.16115)
Building relationships	87.1753 (2.05855)
Clean, comfortable, friendly place to be	75.2845 (5.07942)

Emergency

National proportions:

Males 16-35	0.129529736
Males 36-50	0.116390753
Males 51-65	0.11234929
Males 66+	0.119383803
Females 16-35	0.148959196
Females 36-50	0.115680538
Females 51-65	0.108290917
Females 66+	0.149415763

Means (Standard Deviations) for z-scores:

Access & waiting	67.7829 (5.98950)
Safe, high quality, coordinated care	79.3692 (3.76288)
Better information, more choice	78.8013 (3.65932)
Building relationships	80.5498 (3.09852)
Clean, comfortable, friendly place to be	81.7451 (4.39188)