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Older people's experiences of dignity and nutrition during hospital stays:

Secondary data analysis using the Adult Inpatient Survey

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Abstract

The report uses the Adult Inpatient Survey 2012 to build up an in-depth quantitative evidence base on older people's experiences of dignity and nutrition during hospital stays in England. We find that just under one-quarter (23%) of inpatients reported that they were not treated with dignity and respect, or were only sometimes treated with dignity and respect during their hospital stay. We estimate that this is equivalent to around 2.8 million people on an annual basis - of whom about 1 million are aged 65 or over. Inconsistent and poor standards of help with eating during hospital stays were also a key concern. In 2012, about a quarter of all survey respondents indicated that they needed support with eating during their hospital stay. This is a substantial proportion and points towards the issue of support with eating being a major issue for significant numbers of inpatients – just under three and a half million each year - rather than being a marginal or specialist issue. Of those who needed help with eating, more than 1 in 3 (38%) reported that they only sometimes received enough help with eating from staff, or did not receive enough help from staff. We estimate that this is equivalent to around 1.3 million people on an annual basis, of whom about 640,000 are aged 65 or over. Logistic regression analysis suggests that, after other factors are controlled for, the risk of not being helped with eating is significantly higher for women rather than men and for individuals who experience a longstanding limiting illness or disability such as deafness or blindness, a physical condition, a mental health condition or a learning difficulty, or a longstanding illness such as heart disease, stroke or cancer. Perceptions of inadequate nursing quantity and quality, and lack of choice of food, stand out as having consistent, large associations with lack of support with eating during hospital stays. Amongst the population aged over 65, risks of inconsistent and poor standards of care were higher for women than for men, and for people aged over 80. We conclude that there was a widespread and systematic pattern of inconsistent or poor standards of dignity and respect, and help with eating, in hospitals in England in 2012. Evidence of poor and inconsistent standards was not limited to isolated “outlier” healthcare providers. Rather, patient experiences of inconsistent or poor standards of dignity and respect, and help with eating, were a significant general problem affecting inpatients in the vast majority of NHS acute hospital trusts. Dignity and nutrition are key markers of quality of care which have been not given sufficient public policy attention in the past. Whilst there has been increasing public policy focus in this area following the Mid-Staffordshire Public Inquiry, ongoing public policy efforts will be required to ensure quality improvement and that the new fundamental standards of care, which cover dignity and respect and help with eating, are implemented and enforced.

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Contents

Abstract.....	2
Summary.....	13
Introduction.....	20
Overview.....	23
1. Background, rationale and focus of the current study.....	26
<i>The public policy agenda</i>	26
<i>The need for enhanced monitoring, inspection and regulation</i>	27
<i>The Government's response to the Francis Inquiry</i>	28
<i>Outcome-orientated performance monitoring</i>	31
<i>The CQC's new inspection model</i>	32
<i>The focus of this study</i>	33
<i>Limitations of the current study</i>	36
2. Review of existing findings.....	39
<i>The use of patient experience data in national health monitoring exercises</i>	39
<i>CQC national summaries</i>	45
<i>CQC "trust benchmarking reports"</i>	46
<i>CQC annual performance ratings</i>	47
<i>CQC targeted dignity and nutrition inspection rounds</i>	48
<i>Findings based on the new CQC inspection model</i>	52
<i>Other research findings</i>	54
3. The prevalence of inconsistent and poor standards of dignity and help with eating: national findings.....	57
<i>Dignity and respect</i>	57
Overall prevalence.....	57
Disaggregation by equality characteristics.....	58
Relative risks within the older population.....	62
Trends 2004-2012.....	63
<i>Help with eating</i>	64
Overall prevalence.....	64
Disaggregation by equality characteristics.....	66
Relative risks within the older population.....	71

Trends 2005-2012.....	73
<i>Re-estimating main survey prevalence rates, and estimating headcounts, based on a new set of patient-level weights</i>	76
The need for a new set of patient level weights to use with the Adult Inpatient Survey	76
Adjusting for differential nonresponse	79
Grossing factor	81
Limitations of the new weight and suggestions for further research.....	87
Inconsistent and poor standards: final estimates of prevalence rates and headcounts using the new set of patient-level weights	88
4. Poor standards of help with eating: independent effects and drivers	93
<i>Modelling strategy</i>	93
Dependent variables	94
Independent variables	95
Variables not included in the modelling analysis at the current state	97
Final models	99
Adjusting for the effects of clustering	100
<i>Findings based on standard logistic regression analysis</i>	105
The effect of individual characteristics	105
The effect of an individual’s pathway through a hospital trust	106
The effect of individual perceptions of the quantity and quality of nursing staff	107
The effects of choice of food.....	108
The effect of hospital trust.....	108
<i>Variations of the basic model</i>	109
Incorporating an interaction effect between age and disability	109
Findings based on multilevel logistic regression analysis.....	109
Findings when the sample is restricted to those who need help.....	112
Sensitivity testing based on a more “objective” question about nursing quality and quantity	113
5. Poor standards of help with eating: trust level findings	114
<i>Patient experiences of dignity and nutrition by hospital trust</i>	115
<i>Identifying poor performance: “deviation from average” approach</i>	116
Funnel plot analysis	117
Model based analysis.....	120
<i>“Deviation from average” versus “minimum threshold approach”</i>	127

<i>Triangulation with CQC and other inspection and regulatory findings</i>	130
Comparison with 2011 and 2012 CQC targeted inspection findings (as reported in section 2).....	130
Comparison with 2013 ‘Intelligent Monitoring’ findings	131
Comparison with standardised hospital mortality ratio findings.....	132
<i>Lessons for monitoring, regulation and inspection</i>	135
6. Poor standards of help with eating: cumulative risks and hypothetical scenarios.....	137
<i>Model based estimates of predicted probabilities</i>	137
With independent variables evaluated at their observed values	137
With independent variables evaluated at their means	141
With independent variables evaluated at ‘representative values’	144
Cumulative risks amongst the “oldest of the old”: illustrative hypothetical scenarios	146
7. Conclusions	149
Appendix A: Further details of non-compliance in CQC Inspection Rounds	153
Appendix B: Further details of logistic regression findings	156
Appendix C: Further details of trust level findings	166
Appendix D: Further details of variables and methods used in the analysis	195
<i>Details of disability variable used in the analysis</i>	195
<i>Impact of grouping specialist trusts</i>	196
<i>CQC analysis of change 2011-12, 2012-13 and 2013-2014</i>	197
References.....	199

Tables

Table 1: Outcome of sending questionnaire 2012	34
Table 2: Patient experience scores, England, 2002/03 to 2013/14	42
Table 3: Percentage reporting not being treated with dignity and respect during hospital stays by subgroup (2012).....	59
Table 4: Percentage reporting not being treated with dignity and respect during hospital stays by ethnic group, religion / belief and sexual identity (2012).....	60
Table 5: Relative risks in the older population	62
Table 6: Trends in the percentage of respondents who report not being treated with dignity and respect 2004-2012	63
Table 7: Trends in the percentage of respondents who report poor treatment 2005-2012	64
Table 8: Percentage of respondents who reported that they need support with eating, 2012	65

Table 9: Percentage of respondents who received enough help with eating from staff (full sample, 2012).....	65
Table 10: Percentage of respondents who need support with eating, who reported that they did not receive the help they needed from staff, 2012.....	67
Table 11: Percentage of respondents who need help with eating and who experience a condition who reported that they did not receive enough help from staff (restricted sample, 2012).....	69
Table 12: Percentage of respondents who need support with eating, who reported that they did not receive enough help from staff, 2012).....	70
Table 13: Relative risks in the older population.....	72
Table 14: Percentage of respondents who filled in the survey themselves, by age group, 2012.....	72
Table 15: Proxy responses and help with eating amongst respondents aged 80+ (restricted sample, 2012).....	73
Table 16: Trends in the percentage of respondents who report poor treatment 2005-2012 ..	74
Table 17: Trends in the percentage of respondents who need help with eating, who report not receiving help (2005-2012).....	75
Table 18: Percentage of Adult Inpatients Who Need Help with Eating, Who Do Not Receive Enough Help from Staff with Eating Meals 2012 -	77
Table 19: National response rates (%) by age, gender and route of admission, 2012.....	79
Table 20: Percentage of Adult Inpatients Who Need Help with Eating, Who Do Not Receive Enough Help from Staff with Eating Meals 2012	80
Table 21: Percentage of Adult Inpatients Who Need Help with Eating, Who Do Not Receive Enough Help from Staff with Eating Meals (1) (2) (3) (4), 2012.....	83
Table 22: Percentage of Adult Inpatients Who Need Help with Eating, Who Do Not Receive Enough Help from Staff with Eating Meals 2012	84
Table 23: Percentage reporting not being treated with dignity and respect during hospital stays, 2012: comparing weighted and un-weighted estimates	86
Table 24: Percentage of Adult Inpatients Who Need Help with Eating, Who Do Not Receive Enough Help from Staff with Eating Meals (2012: comparing weighted and unweighted results).....	87
Table 25: Final prevalence and headcount estimates (by age, sex and disability) using new patient-level weights, England, 2012.....	89
Table 26: Final prevalence and headcount estimates using new patient level weights (relative risks within the older population)	91
Table 27: Models 1-7: odds ratios and p-values	102
Table 28: Trusts where the percentage reporting not being helped with eating by staff is significantly different from the average (models with trust included as dummy variable, unrestricted sample), 2012.....	123
Table 29: Trusts where the percentage reporting not being helped with eating by staff is significantly different from the average (models with trust included as dummy variable, restricted sample).....	126
Table 30: Model 4, dropping quantity and quality of nurses, and including timely response to call button (full sample, 2012).....	156

Table 31:Model 4, dropping quantity and quality of nurses, and including timely response to call button (restricted sample, 2012).....	157
Table 32:Not receiving help when needed during hospital stays: Predicted probabilities and difference in predicted probabilities (marginal effects) (full sample, evaluated at observed values and at means, 2012)	158
Table 33: Predicted probabilities by age group (full sample; selected independent variables evaluated at specific reference values with other independent variables held at means; 2012)	160
Table 34: Predicted probabilities by age group (restricted sample; selected independent variables evaluated at specific reference values with other independent variables held at means; 2012).....	161
Table 35:Not receiving help when needed during hospital stays: Predicted probabilities and difference in predicted probabilities (marginal effects) (restricted sample, evaluated at observed values and at means, 2012).....	163
Table 36: Percentage of respondents who report only sometimes being treated with dignity and respect, or not being treated with dignity and respect, by individual hospital trust, 2012 (U: Unweighted, W: Weighted).....	166
Table 37: Percentage of respondents who report only sometimes receiving enough help with eating from staff, or not receiving enough help with eating from staff, by individual hospital trust, 2012 (unrestricted / full sample, U: Unweighted, W: Weighted).....	175
Table 38: Percentage of respondents who report only sometimes receiving enough help with eating from staff, or not receiving enough help with eating from staff, by individual hospital trust, 2012 (restricted sample, U: Unweighted, W: Weighted).....	185
Table 39: Derived disability variable.....	195
Table 40: Derived binary disability variable (Disab_1)	196
Table 41: Sensitivity testing of prevalence of not receiving help (restricted sample, 2012).....	196
Table 42: CQC analysis of changes in proportions reporting being treated with dignity and respect between 2011 and 2012	197
Table 43: CQC analysis of changes in proportions reporting having being helped with eating between 2011 and 2012	197
Table 44: CQC analysis of changes in proportions reporting being treated with dignity and respect between 2012 and 2013	197
Table 45: CQC analysis of changes in proportions reporting being helped with eating between 2012 and 2013.....	198
Table 46: CQC analysis of changes in proportions reporting being helped with dignity and respect between 2013 and 2014	198
Table 47: CQC analysis of changes in proportions reporting being helped with eating between 2013 and 2014.....	198

Figures

Figure 1: New fundamental standards of care	30
Figure 2: The focus of this study	36
Figure 3: NHS Outcomes Framework – domain 4	40
Figure 4: CQC scoring system.....	46
Figure 5: Care Quality Commission ratings 2008/09: compliance with core standards (England only)	48
Figure 6: Care Quality Commission dignity and nutrition inspection round 2011.....	49
Figure 7: Care Quality Commission dignity and nutrition inspection round 2012.....	51
Figure 8: Details of non-compliance in 2012 (Dignity and Nutrition)	52
Figure 9: Risk evaluation in 2013 (CQC Intelligent Monitoring)	53
Figure 10: Risk evaluation in 2013 (CQC Intelligent Monitoring)	54
Figure 11: Percentage of respondents who need support with eating, who reported that they did not receive enough help from staff, with narrow age disaggregation for ages 65+, 2011.....	68
Figure 12: Dependent variables examined as part of the logistic regression research exercise	95
Figure 13: Independent variables tested as part of the logistic regression exercise	98
Figure 14: Model specifications for the final logistic regression models.....	99
Figure 15: The effect of hospital trust on lack of support with eating.....	111
Figure 16: Funnel plots with average as target	118
Figure 17: Funnel plots with 1% as target	129
Figure 18: Funnel plots with 2% as target	130
Figure 19: Trusts with higher than expected SHMI over the data window 1 January 2012 to 31 December 2012	132
Figure 20: Trusts with higher than expected mortality ratios: Keogh / Dr Foster findings.....	134
Figure 21: Risk factors associated with not receiving enough help with eating from staff during hospital stays (full sample, 2012).....	139
Figure 22: Risk factors associated with not receiving enough help from staff during hospital stays (restricted sample, 2012).....	140
Figure 23: Risk factors associated with not receiving enough help with eating from staff during hospital stays (full sample, 2012).....	142
Figure 24: Risk factors associated with not receiving enough help with eating from staff during hospital stays (restricted sample, 2012).....	143
Figure 25: Predicted probabilities (calculated at representative values for risk factors, other independent variables held at mean, full sample, based on section 5 Model 4).....	145
Figure 26: Older people over 80: estimated probabilities of not receiving enough help with eating from staff during a hospital stay for high risk subgroups (hypothetical scenarios, full sample, 2012).....	147
Figure 27: Older people over 80: estimated probabilities of not receiving enough help with eating from staff during a hospital stay for high risk subgroups (hypothetical scenarios, sample	

restricted to those who need help, 2012) (dependent variable “nohelp_r”, restricted sample)..... 148
Figure 28: 2011 Detailed Non-compliance List for Outcomes 01 and 05..... 153

SUMMARY

The report uses the Adult Inpatient Survey 2012 to build up an in-depth quantitative evidence base on older people's experiences of dignity and nutrition during hospital stays in England. The survey covers adults aged 16 or above who stay in hospital for at least one night. The research has been funded by the Economic and Social Research Council, Research Grant ES/K004018/1.

Main findings

- There was a widespread and systematic pattern of inconsistent or poor standards of care during hospital stays in England in 2012. Patient experiences of inconsistent or poor standards of dignity and help with eating do not appear to be limited to isolated “outlier” providers. Rather, this appears to be a significant general problem affecting the vast majority of NHS acute hospital trusts.
- In 2012, about a quarter of all survey respondents indicated that they needed help with eating during their hospital stay. This is a substantial proportion and points towards support with eating being relevant for significant numbers of inpatients – just under three and a half million each year - rather than being a marginal or specialist issue.
- Of those who needed help with eating, more than 1 in 3 (38%) report that they only sometimes received enough help with eating from staff, or did not receive enough help from staff. This is equivalent to around 1.3 million people on an annual basis, of whom about 640,000 are aged 65 or over.
- Amongst the population aged over 65, the risks of experiencing inconsistent or poor standards of care were higher for women than for men, for individuals aged over 80 and amongst those who experience a limiting long-standing illness or disability such as deafness or blindness, a physical condition, a mental health condition or a learning difficulty, or an illness such as heart disease, stroke or cancer.
- Levels of inconsistent or poor standards of dignity and help with eating are too high in the vast majority of trusts. There has been remarkably little change in the percentage of individuals reporting inconsistent and poor standards of care over time.
- The quantity and quality of nursing care, and whether or not there is a choice of food, have a large, statistically significant, association with the probability of experiencing poor standards of help with eating. These variables stand out as key potential policy levers for improving standards of care relating to meeting individual nutritional needs.
- Whilst there has been increasing public policy attention in this area following the Mid-Staffordshire Public Inquiry, ongoing public policy efforts will be required to ensure quality improvement and that the new fundamental standards of care, which cover dignity and respect and help with eating, are implemented and enforced.
- Equality and human rights standards should be fully embedded into the arrangements for monitoring, inspecting and regulating healthcare. There is a need to move away from a “population average” approach, to systematic disaggregation and identification of “at risk” groups (for example, individuals aged 80 or above who experience a disability).

- Indicators of dignity and help with eating have an important role to play within the portfolio of indicators used to monitor the quality of healthcare. Judgements about the compliance of acute hospital trusts with fundamental standards of care should be based on the evaluation of absolute levels of inconsistent and poor care (a “minimum threshold approach”). A “deviation from average” approach risks under-identification of inconsistent and poor standards of care.

Prevalence of inconsistent and poor standards

Dignity and respect

- Poor or inconsistent standards of dignity and respect affected 23% of inpatients in England in 2012. This is equivalent to around 2.8 million people on an annual basis, of whom about 1 million are aged 65 or over.
- Of the 23% of inpatients affected by poor and inconsistent standards of dignity and respect, 4% experienced poor standards of dignity and respect (reporting that they were not treated with dignity and respect) and 19% experienced inconsistent standards (reporting that they were treated with dignity and respect “sometimes”).

Help with eating

- Poor or inconsistent standards of help with eating affected 38% of inpatients who needed help during their hospital stay in England in 2012. This is equivalent to around 1.3 million people on an annual basis, of whom about 640,000 are aged 65 or over.
- Of the 38% affected by poor and inconsistent standards of help with eating, 18% experienced poor standards of help with eating (reporting not receiving help from staff) and 20% experienced inconsistent standards (reporting that they received help from staff “sometimes”).
- Amongst those who reported not receiving enough help from staff, or receiving enough help only sometimes, 28% were between 66 and 80 years old and a further 28% were aged over 80. Around 63% experienced a limiting longstanding illness or disability such as being deaf and / or blind and / or experiencing a physical or mental health condition, a learning difficulty, or a long-term illness such as HIV, stroke/heart disease or cancer.
- The prevalence of poor standards of help with eating was 21% amongst individuals who experience deafness or severe hearing conditions; 24% amongst those who experience blindness or are partially sighted; 20% amongst those who experience a longstanding physical condition; 28% amongst those who experience a learning difficulty; 26% amongst those who experience a mental health condition; and 17% amongst those who experience a long-standing illness.

Relative risks amongst the older population

- Amongst the population aged over 65, reported experiences of poor or inconsistent standards of care were higher for women, for individuals aged over 80, and for those who experience a long-standing limiting illness or disability.

Dignity and respect

- Poor or inconsistent standards of dignity and respect affected approximately 31% of all women over 80 who experience a long-standing limiting illness or disability (with approximately 5% experiencing poor standards).

Help with eating

- Amongst those who needed help with eating, poor or inconsistent standards of help affected approximately 62% of women over 80 who experienced a long-standing limiting illness or disability (with approximately 29% experiencing poor standards).

Trends over time

Dignity and respect

- **Trends 2004-2012**
 - Looking back over the medium term, there has been remarkably little change in the percentage affected by poor standards of dignity and respect over the period for which data is available.
 - The (unweighted) percentage of the full sample reporting poor standards of dignity and respect was 2.8% in 2012. This figure increased a little between 2004 and 2007 before falling back to 2.9% in 2012.
- **Trends after 2012**
 - CQC analysis suggests that there not a statistically significant change in the percentage reporting “not” being treated with dignity and respect between 2012 and 2013. The percentage reporting “sometimes” being treated with dignity and respect fell by 1 percentage point (from 17% to 16%).
 - CQC analysis suggests that the percentage reporting “not” being treated with dignity and respect remained unchanged between 2013 and 2014. The percentage reporting “sometimes” being treated with dignity and respect remained at 16% based on rounded numbers.

Help with eating

Trends 2005-2012.

- Looking back over the medium term, there has been remarkably little change in the percentage affected by poor standards of help with eating for the period for which data is available. However, year on year fluctuations are observed.
- The (unweighted) percentage of those who needed help reporting poor standards of help with eating was 17.3% in 2005. After 2005, this percentage

increased significantly and then fluctuated before falling back to 16.8% in 2012.

- **Trends after 2012**

- CQC analysis suggests that the percentage of those who needed help reporting “not” being helped with eating remained unchanged between 2012 and 2013. There was also no change in this figure between 2013 and 2014.

Drivers and cumulative risks

Focussing on poor standards of help with eating:

Drivers

- Logistic regression analysis suggests that after other factors are controlled for, the risk of not being helped with eating is significantly higher for women rather than men, for people who experience a disability (experiencing a long-standing condition which causes difficulties, compared to not experiencing such a condition) and for responses filled in by proxy (where the form is filled in by, or with the assistance of, a friend, family or professional, rather than solely by the inpatient themselves).
- The effect of age was found to be complex. The odds ratios observed for older age groups are less than one, suggesting that older people are less likely than younger people to report not receiving help. However, the trend by age should be interpreted in the context of evidence of “adaptive expectations”, whereby older people’s expectations are systematically lower than those of other groups. The odds ratio was found to be higher for over those aged 80 or above compared to intermediate age groups. The effect of disability on the probability of not being helped was also found to be strongest amongst those aged 80 or above.
- Perceptions of inadequate nursing quantity and quality, and lack of choice of food, stand out as having consistent, large associations with lack of support with eating during hospital stays.

Cumulative risks amongst individuals aged over 80

- Model-based analysis suggests that the predicted probability of experiencing poor standards of help with eating for an individual over 80 who needs help but is “average” in other respects is 11%.
- The cumulative risks were found to be considerably higher for individuals who also experience a high risk individual “journey” through hospital (for example, staying in three or more wards or having a long stay); and amongst those who experience other aspects of poor care (for example, inadequate quantity / quality of nursing and no choice of food).
- For individuals who face all of these risk factors, the predicted probability of not receiving enough help with eating from staff during a hospital stay is estimated to be more than 90%.

Trust level findings

- There was considerable variation in the scale of experiences poor standards of help with eating across hospital trusts. The percentage of those who needed help reporting not receiving help with eating from staff ranged from 5% to 34% in different acute hospitals.
- Based on a “deviation from average” approach, the percentage reporting poor standards of help with eating was found to be higher (statistically significant) than in the average trust in fifteen acute hospitals based on the full sample, or twelve acute hospitals, if the analysis is restricted to patients who needed help.
- Controlling for patient characteristics, individual journey through hospital, and patient-reported quantity/quality of nursing substantially reduces the variation between hospital trusts – but some of these are factors over which the trusts have influence and arguably should not therefore be controlled for when making comparisons.
 - Based on a limited set of controls (for age, sex and route of admission only), three trusts had a higher percentage of poor standards of help with eating than the average trust (full sample) or two trusts if the analysis is restricted to patients who needed help.
 - Including controls for other factors mainly outside of a trust’s influence such as disability and length of stay further reduces the number of trusts which are identified as significantly different from the average trust.
 - With a full set of controls, including choice of food and quantity and quality of nursing, no trusts are identified as having a higher percentage of poor standards of help with eating than the average trust.
- Compared to an external target set at either 1% or 2%, rather than a target based on the performance of the average trust, levels of reported poor standards of help with eating were too high in the vast majority of trusts. The percentage of those who needed help reporting not receiving help with eating was higher than 1% (and statistically so) in all trusts and higher than 2% in the vast majority of trusts.

Conclusions

There was a widespread and systematic pattern of inconsistent or poor standards of care during hospital stays in England in 2012. Patient experiences of inconsistent or poor standards of dignity and help with eating do not appear to be limited to isolated “outlier” providers. Rather, this appears to be a significant general problem affecting the vast majority of NHS acute hospital trusts.

Policy implications

- Dignity and respect, and help with eating, are key markers of quality of care which have previously been under-recognized in public policy. Increasing policy attention

in this area in the wake of the Mid Staffordshire NHS Foundation Trust Public Inquiry is a positive development.

- The Government has introduced new fundamental standards of care as part of its response to the Mid Staffordshire NHS Foundation Trust Public Inquiry. The findings in this paper reveal the magnitude and scale of the challenge ahead. Concerted and ongoing public policy efforts will be required to ensure that the new fundamental standards of care, which cover dignity and respect and help with eating, are implemented and enforced.
- The quantity and quality of nursing staff, and the availability of choice of food, stand out as key potential policy levers for improving standards of help with eating. Whilst these variables can be negatively affected by resource constraints, all three are within the control of hospital trusts to a certain extent.

Lessons for using patient experience data as a guide to public policy

- Patient experience data provide an important evidence base on standards of care. Better and more extensive use should be made of these data in the future.
- Interpreting older people's self-reported experiences in healthcare is complex. The population over 65 is heterogeneous and large. Evaluation of older people's experiences of healthcare should be based on narrow age band disaggregation, with separate identification and reporting of the risks facing the "oldest of the old".
- Older people's expectations of standards of care may be lower than those of other age groups. The phenomenon of 'adaptive expectations' should be explicitly recognized when using patient experience data as a guide to public policy.
- Feedback from family, friends and professionals, including proxy survey responses, can be particularly valuable in the context of evaluating older people's experiences of care alongside responses from older people themselves.
- Efforts should be made to maximise older people's participation in patient feedback exercises. Support for older people filling in patient experience surveys and feedback forms should be increased.

Lessons for monitoring, regulating and inspecting

- Equality and human rights standards should be further embedded into arrangements for monitoring, regulation and inspection. Risk assessment should move away from a "population average" approach, to systematic disaggregation and identification of "high risk" subgroups. Cumulative risks for specific population subgroups (for example, being over 80, experiencing a disability and being female) should be quantified.
- Indicators of dignity and nutrition have an important role to play within the portfolio of indicators used to monitor the quality of healthcare.
- Judgements about the implementation of fundamental standards of care, including the new minimum standards of dignity and nutrition, should take account of absolute levels of inconsistent and poor care prevalent within a hospital trust (a "minimum threshold" approach). A "deviation from average" approach (which focuses

exclusively on a trust's performance relative to the average trust) risks under-identifying inconsistent and poor performance.

Lessons for using patient experience data as a guide to public policy

- Patient experience data provide an importance evidence base on standards of care. Better and more extensive use should be made of these data in the future.
- Interpreting older people's self-reported experiences in healthcare is complex. The population over 65 is heterogeneous and large. Evaluation of older people's experiences of healthcare should be based on narrow age band disaggregation, with separate identification and reporting of the risks facing the "oldest of the old".
- Older people's expectations of standards of care may be lower than those of other age groups. The phenomenon of 'adaptive expectations' should be explicitly recognized when using patient experience data as a guide to public policy.
- Feedback from family, friends and professionals, including proxy survey responses, can be particularly valuable in the context of evaluating older people's experiences of care alongside responses from older people themselves.
- Efforts should be made to maximise older people's participation in patient feedback exercises. Support for older people filling in patient experience surveys and feedback forms should be increased.

Notes

- The report uses the Adult Inpatient Survey 2012 to build up an in-depth quantitative evidence base on older people's experiences of dignity and nutrition during hospital stays in England. The survey covers adults aged 16 or above who stay in hospital for at least one night.
- In 2012 the survey had a total of 64,505 respondents from 156 trusts (a response rate of 49 per cent, rising to 51 per cent when adjusted for deaths).
- The dignity and respect question asks respondents: "Overall, did you feel you were treated with respect and dignity while you were in the hospital?". Response options are 1 "yes, always"; 2 "yes, sometimes"; 3 "no". The help with eating question asks respondents: "Did you get enough help from staff to eat your meals?". Response options are: 1 "yes, always"; 2 "yes, sometimes"; 3 "no"; 4 "I do not need help to eat meals". In this report, response 3 ('no') is interpreted as patient experience of a *poor* standard of care. An intermediate response (response 2, 'yes sometimes') is interpreted as patient experience of an *inconsistent* standard of care.
- Prevalence rates of patient experiences of poor and inconsistent standards of care are estimated using a new set of patient level weights. These provide estimates that are more clearly related to the national inpatient population than the unweighted data. Further details are set out in the main report. Trust level findings and findings over time are reported based on unweighted data.
- Trends over time are based on unweighted data. The cross-sectional estimates differed slightly from the weighted estimates. Further details are set out in the main report.
- Logistic regression modelling techniques are used to examine the drivers of poor standards of help with eating and to estimate cumulative risks for the over 80s. As is usual in the context of multivariate analysis, the statistical findings are limited in certain respects. These are set out in the main report.
- The report applies a new methodology for evaluating risk. This moves away from a "population average" approach and highlights the importance of systematic disaggregation and the identification of specific "at risk" group.

INTRODUCTION

This report provides an in-depth analysis of older people's experiences of dignity and nutrition during hospital stays using the Adult Inpatient Survey 2012. The central objective is to deepen knowledge and understanding of older people's experiences of dignity and respect, and help with eating, during hospital stays by building up a new set of quantitative findings in this area. We also aim to inform public policy, equality and human rights monitoring, and broader processes of healthcare monitoring, regulation and inspection; and to contribute to broader ongoing efforts to ensure that the available quantitative data on patient experience is fully evaluated and used. The report addresses five central research questions:

- What proportion of older people report not being treated with dignity and respect, or not receiving the support they need with eating, during hospital stays?
- Are older people more or less likely to experience not being treated with dignity and respect, or not receiving the support they need with eating, during hospital stays, compared with other population sub-groups?
- Do other individual characteristics such as disability, sex, and ethnicity make a difference to older people's experiences of disadvantage and poor treatment?
- What other factors are important in explaining poor patient experiences of dignity and nutrition? For example, does a person's pathway through a hospital (for example, the number of wards they stay in), the adequacy of nursing care, or the specific hospital trust make a difference?
- Has the national proportion of patients reporting not receiving the support they need with eating during hospital stays increased or decreased in recent years?

In undertaking this study, we are particularly concerned with highlighting the potential role that equality and human rights standards can play in healthcare monitoring, inspection and regulation. The role of equality and human rights standards in processes of healthcare monitoring, regulation and inspection is increasingly recognized and represents an important element of the emerging healthcare agenda. The Equality and Human Rights Commission (EHRC) has a Memorandum of Understanding with the Care Quality Commission on joint working on equality and human rights in the context of healthcare (EHRC and CQC 2011). The role of equality and human rights standard in healthcare is also recognized within the new Patient Experience Framework, the NHS Outcomes Framework, the updated NHS Constitution, new fundamental standards of quality of care and the Department of Health 'equality objectives' for 2012-16 (DH 2012, DH 2013cj)¹. NICE guidelines on

¹ The statutory basis for this approach is rooted in equality and human rights legislation. For example, the Equality Act (2010) prohibits discrimination by nine "protected" characteristics (including by age, disability,

patient experience recognise the Equality Act as an important legal framework which should improve the experience of all patients using NHS services (NICE 2012).

The current report builds on the approach to equality and human rights monitoring developed by the Equality and Human Rights Commission (EHRC) in the context of its indicator-based system for monitoring progress towards equality and human rights in Britain (the ‘EHRC Measurement Framework’). The EHRC Measurement Framework monitors inequalities and deprivation in substantive freedoms and opportunities (or “capabilities”) across ten critical domains of life including health (Burchardt and Vizard 2011; Vizard 2013). Indicators of dignity and respect, and support with eating during hospital stays, are both included within the system, drawing on the Adult Inpatient Survey. A key aim of the current report is to build up a more detailed and in-depth evidence base under each of these indicators in advance of the EHRC’s next report to Parliament, in order to enhance knowledge and understanding on a key national equality and human rights concern.

The analysis in this report also builds methodologically on the EHRC Measurement Framework by moving away from a “population average” approach and putting central emphasis on the principle of systematic disaggregation by “equality characteristics” and the separate identification and reporting of “at risk” groups. Findings are disaggregated by a range of the characteristics protected in equality law (age, disability, gender etc.) and combinations of these characteristics (for example, being older, disabled and female) where data is available and sample size permits². In addition, we emphasise the importance, from the human rights perspective, of ensuring that the position of “at risk” groups are separately identified and assessed. A key recommendation arising from the paper is that both the principle of systematic disaggregation, and the practice of identifying and reporting separately on the position of specific “at risk groups”, are embedded into broader processes of healthcare monitoring, regulation and inspection.

The report focuses on an in-depth analysis of the 2012 Adult Inpatient data. Patterns and trends in older people’s experiences of dignity and respect, and help with eating, are explored and we evaluate how quantitative findings based on the 2012 Adult Inpatient Survey add to previous evidence (including inspection evidence). We

gender, ethnicity, religion or belief, and sexual identity) as well as creating a duty for public authorities (including healthcare providers) to give “due regard” to the promotion of equality of opportunity. The Human Rights Act (1998) incorporates the European Convention on Human Rights into UK domestic law, and establishes a specific duty on public authorities (including public authorities concerned with the commissioning, providing, regulating and inspecting healthcare services) to be compliant with human rights standards (section 6). Subsequent legislation has established that independent and private bodies fulfilling public functions (for example, private social care homes and hospitals funded by public expenditure) are bound by this duty.

² Data on some relevant characteristics are collected in the Adult Inpatient Survey but are not made available through the national data archive. For example, in 2012, the data set deposited at the archive was top coded at age 65 and above; and data on disability (even at the broadest level of detail), ethnic group and sexual orientation was not included in the deposited dataset. We are grateful for the support of the Picker Institute and the Care Quality Commission in accessing additional data that made the analysis in this report possible. Information on minimum unweighted base is given in the main tables of descriptive statistics. We have not reported descriptive statistics where the relevant subgroup answering a particular question falls below thirty.

also report on trends over time going back to 2004 (dignity and respect) and 2005 (help with eating)³ and compare overall patterns in 2012 with those in 2013.

The version of the Adult Inpatient Survey 2012 available via the UK data archive top codes age at 65 (making it not possible to separately identify the position of those aged greater than 80) and does not include a disability variable or an ethnic group variable. For this reason, the current study makes extensive use of tailored datasets provided to us by the Picker Institute with the permission of the CQC. The first of these data sets includes (1) a more detailed age breakdown with a separate category of over 80s; (2) a broad disability variable (corresponding to the concept of limiting longstanding illness or disability). A condition of the release of this dataset was that specialist trusts are grouped and for this reason most of the findings in this report are based on grouped data. The second dataset includes a more detailed age and disability variable but with trust names removed (supporting national analysis only). Unfortunately, it was not possible for us to access an ethnic group variable to include in our own micro-analysis. However, Picker Institute have provided some breakdowns of descriptive statistics by ethnic group which are included in the report.

The national average results we publish here differ marginally from those in CQC national findings summaries. This is due in part to the grouping of specialist trusts (see above); to the methodological choices in the calculation of national averages; and to the application of a new set of patient level weights in the current study. Further details of the new patient weights, including their limitations, are provided in chapter 3. The logistic regression research has a number of limitations that we fully acknowledge. In particular, we have been unable to include ethnic group or area deprivation in the logistic regression exercise at the current stage of the research.

At the time of writing, we plan to repeat the analysis set out in this report on a more recent survey and to make examine the effect of deprivation using hospital episode statistics. We also plan to further develop and refine the patient level weights which are applied in section 3 in a future research exercise; and to compare our updated findings with more recent CQC inspection outcomes, based on the new CQC inspection model (on which, see Section 2). In addition, we have received a number of helpful comments and suggestions about taking the research forward. Suggestions include comparing the results with those from staff surveys and patient environment assessment team (PEAT) data and patient led assessment of the care environment (PLACE) data (which includes data on food and dignity). Suggestions for taking forward the modelling include developing a latent modelling approach using an overall quality of care / management variable (rather than focussing on perceptions of nursing care) and bringing in more objective data on staffing (including at the ward level) and expenditure per head. Further research is planned to address these suggestions.

³ Whilst the Adult Inpatient Survey dates back to 2002, the 2002 dataset is not deposited at the UK dataarchive. The help with eating was not included in the survey in 2004. Therefore, 2004 (dignity and respect) and 2005 (help with eating) were the earliest dates for which relevant data could be accessed.

OVERVIEW

Following on from this introduction, the report has seven further main sections. Section 1 discusses the background to the study and clarifies the focus of the current report. We begin by examining how the issue of the treatment of older people in healthcare has moved up the media, political and public policy agendas in recent years. Specific concerns around dignity and lack of support with eating and drinking have been highlighted in a series of national investigations, reports and reviews including the Independent Inquiry into Care Provided by Mid Staffordshire NHS Foundation Trust 2010 and the full public inquiry into the role of commissioning, supervisory and regulatory bodies which followed (Mid Staffordshire NHS Foundation Trust Public Inquiry 2013b). Second, we discuss how the recommendations set out in the Francis Inquiry, as well as responses by the Government and the Care Quality Commission, highlight the need both for enhanced systems of monitoring, inspection and regulation, including new standards of quality of care and the better use of quantitative data (including patient experience data). Third, we set out the scope of the current study and highlight its particular emphasis on systematic disaggregation and the position of specific ‘at risk’ groups. The limitations of the current study are also addressed.

In Section 2 begin by examining the use of patient experience data in national monitoring exercises based on Department of Health indicators and indicators used in the NHS Outcomes Framework. Next, we report findings that relate specifically to patient experiences of dignity and nutrition based on the Care Quality Commission’s (CQC’s) old inspection model (pre 2013); CQC national summaries and benchmark reports; and the CQC’s targeted dignity and nutrition inspection rounds undertaken in 2011 and 2012. The CQC’s new inspection model introduced in the wake of the Francis Inquiry and the Keogh Review includes a system of risk evaluation prior to inspection (“Intelligent Monitoring”) and findings from this exercise are considered. Finally, multivariate analyses of patient experience in the broader research literature are reviewed.

In section 3, we describe patterns and trends in inpatient experiences of inconsistent and poor standards of dignity and nutrition based on our own analysis of the Adult Inpatient Survey. For each indicator, we begin by estimating the overall prevalence of experiences of inconsistent and poor standards amongst respondents in 2012. The prevalence estimates are then disaggregated by age, gender, disability and other characteristics. Statistically significant differences between the reported experiences of different subgroups are reported where data availability permits⁴. Relative risks *amongst* the older population are next examined (for example, the relative risks faced by an individual who is over 80, experiences a limiting longstanding illness or disability, and who is female). Finally, trends in the percentage reporting experiences of inconsistent and poor standards of care are evaluated over the period 2004-2012.

⁴ Significance testing and breakdowns based on combinations of characteristics (for example, age and ethnicity), or more detailed categories (for example, type of disability) are not always possible due to confidentiality restrictions on data release and/or small sample sizes. but where these restrictions allow, intersectional or fine-grained breakdowns are provided.

Having presented initial descriptive statistics on dignity and nutrition, we re-estimate the main prevalence rates and provide estimates of overall headcounts of number of individuals affected by poor and substandard standards of treatment using a new set of patient level weights. Our initial survey estimates are interpreted simply as the self-reported experiences of respondents to the Adult Inpatient Survey. However, an alternative approach is to view the survey responses as being representative of the inpatient population generally. This raises the question of how representative the Adult Inpatient Survey is of the underlying population of adult inpatients. In order to take forward the analysis here, we recalculate the main prevalence estimates using a new set of patient level weights which are designed to enhance the representativeness of the data and to support inferential statements about the general experiences of adult inpatient population as a whole. This is new and experimental work which we recommend should be further developed in the future.

In Section 4, the risk factors and drivers associated with poor standards of treatment during hospital stays are examined in more depth. The focus of this section is on nutrition, rather than dignity and respect, because less previous work has been done on this indicator, and support with eating is a crucially important issue. Multivariate logistic regression techniques are applied in order to evaluate the “independent effects” of different variables on the probability of not receiving enough help with eating hospital stays after controls are introduced. The “independent effects” of a range of different variables is examined, including their personal characteristics (age, gender and disability); individual pathway through a hospital trust (route of admission, whether the inpatient had an operation, whether he or she stayed in a critical care area, the number of wards they stayed in, and their length of stay); hospital characteristics (for example, quantity and quality of nursing staff and whether there was a choice of food); and the hospital trust to which a person was admitted. Sensitivity testing of the main results are undertaken incorporating an interaction effect between age and disability; using a restricted sample (covering only individuals who indicate that they need help with eating); and using multilevel logistic regression techniques.

In section 5, we evaluate variations in patient experiences of dignity and nutrition at the level of hospital trusts. This section is included in the report as a response to potential users of this research, who highlighted the need for the availability of trust level findings and triangulation with the outcomes of CQC inspection and other evidence identifying poor performance.

The section begins with an examination of the raw percentages of inpatients indicating that they were not treated with dignity and respect, or who did not receive help with eating when needed, for each trust. Next, we highlight the need for a methodology for identifying poor performance at the trust level. A common method adopted in the literature and by the CQC in its evaluation of trust performance is the “deviation from average” approach which compares the performance of trusts with that of the “average” trust. In order to illustrate the application of this approach, funnel plot analysis is used to identify hospital trusts where the raw percentage of those reporting poor standards of care is significantly higher / lower than the percentage in the “average” trust. The application of a “deviation from average” approach is then further extended using model based analysis. We find that controlling for patient characteristics, their individual journey through hospital, and patient-reported

quantity/quality of nursing substantially reduces the variation between hospital trusts - but some of these are factors over which the trusts have influence and arguably should *not* be controlled for when making comparisons. For this reason, we present model-based “deviation from average” findings based on different sets of controls.

In the second part of section 5, we consider the case for adopting a “minimum threshold approach” rather than a “deviation from average” approach when identifying poor performance at the trust level. We suggest that evaluating poor performance at the trust level using a “deviation from average” approach may under-identify the scale of poorly-performing trusts. Whilst this methodology may have a rationale in some contexts (for example, when identifying hospital trusts with standardised mortality ratios that are “different” from average), this method has important limitations in the context of evaluating compliance with fundamental (minimum) standards of quality of care. Instead, we highlight the need for a “minimum threshold approach”.

In the third part of section 5, our findings based on the 2012 Adult Inpatient Survey data are compared with other recent inspection and regulatory evidence including findings from the Care Quality Commission targeted dignity and inspection rounds; risk analysis from the CQC ‘Intelligent Monitoring’ data packs; and comparative exercises based on data on trust level mortality ratios. We find that some but not all of the trusts identified above have been identified in other findings on poor performers; conversely, other exercises have identified additional poor performers. The analysis supports the view that standardised hospital mortality ratios and quality of care are conceptually distinct; and that focussing on standardised hospital mortality ratios might give a *misleading* picture of quality of care provided in a hospital.

In section 6, we extend the model based analysis developed in section 5 to estimate the cumulative risks of poor treatment facing older people over 80. We begin by translating the main section 5 model based findings into the metric of predicted probabilities. Second, cumulative risks are examined by estimating the probability for each age group of not receiving help with eating for individuals who face risks such as being female, experiencing a disability, being a long-stay patient and or facing poor standards of nursing care or having no choice of food. The cumulative risks for the over 80s are then further examined based on a series of hypothetical individuals. The additional risks facing individuals aged over 80 when they are admitted into hospital trusts where overall experiences of poor standards of nutrition are poor are then estimated.

Section 7 summarises the main findings and draws overall conclusions from the analysis. We conclude that there was a widespread and systematic pattern of inconsistent or poor standards of dignity and respect, and help with eating, in hospitals in England in 2012. Evidence of poor and inconsistent standards was not limited to isolated “outlier” healthcare providers. Rather, patient experiences of inconsistent or poor standards of dignity and respect, and help with eating, were a significant general problem affecting inpatients in the vast majority of NHS acute hospital trusts. Whilst there has been increasing public policy attention in this area following the Mid-Staffordshire Public Inquiry, ongoing public policy efforts will be required to ensure an ongoing process of quality improvement and that new fundamental standards of care, which cover dignity and respect and help with eating, are implemented and enforced.

1. BACKGROUND, RATIONALE AND FOCUS OF THE CURRENT STUDY

This section examines the background to the study and clarifies the focus of the current report. We begin by examining how the issue of the treatment of older people in healthcare has moved up the media, political and public policy agendas in recent years. Specific concerns around dignity and lack of support with eating and drinking have been highlighted in a series of national investigations, reports and reviews including the Independent Inquiry into Care Provided by Mid Staffordshire NHS Foundation Trust 2010 and the full public inquiry into the role of commissioning, supervisory and regulatory bodies which followed (Mid Staffordshire NHS Foundation Trust Public Inquiry 2013b, subsequently referred to as ‘the Francis Inquiry’). Second, we discuss how the recommendations set out in the Francis Inquiry, as well as responses by the Government and the Care Quality Commission, highlight the need for enhanced systems of monitoring, inspection and regulation, including fundamental standards of quality of care and for better use of quantitative data including patient experience data. Third, we set out the scope of the current study and highlight its particular emphasis on systematic disaggregation and the position of specific ‘at risk’ groups. The limitations of the current study are also addressed.

The public policy agenda

Concerns about the treatment of older people in healthcare, including older people's experiences of dignity and nutrition during hospital stays, have moved up the public, political, healthcare and policy agendas in recent years. In 2007, the Joint Committee on Human Rights agenda-setting report *The Human Rights of Older People in Healthcare* (JCHR 2007) raised concerns about poor treatment, neglect, abuse, discrimination, lack of support for eating and drinking, and malnutrition and dehydration. Age UK highlighted lack of detection and treatment of malnutrition in hospital as a ‘national disgrace’ and called on the Government to introduce compulsory monitoring of malnutrition (Age UK 2010). Patients Association (2011) examined sixteen accounts of poor hospital care focusing on care-communication, lack of access to pain relief, lack of assistance with toileting, and lack of help with eating and drinking. Lack of assistance with eating and drinking was also raised as a key concern in investigations by the Health Service Ombudsman into NHS care of older people (HSO 2011).

With the issue of older people's treatment in healthcare moving up the public policy agenda, the Care Quality Commission (CQC) undertook a targeted inspection programme on standards of dignity and nutrition for older people in NHS hospitals between March and June 2011 and again in 2012. Whilst many bodies were found to be compliant with national standards, evidence was gathered of older people not being given assistance to eat, not having their nutritional needs monitored and not being given enough to drink; staff not treating patients in a respectful way; and older people not being sufficiently involved in their care. The CQC concluded that national minimum standards of dignity and nutrition were not being complied with in some

instances. In some cases treatment was so poor that it amounted to a violation of legal rights (CQC 2011a).

The issue of the treatment of older people in healthcare has also moved up the public, political, healthcare and policy agendas in recent years as a result of events at Mid Staffordshire NHS Foundation Trust. The Report of the Independent Inquiry into Care Provided by Mid Staffordshire NHS Foundation Trust (2010) catalogued evidence of poor treatment including:

- Patients left in excrement in soiled bed clothes for lengthy periods;
- Assistance not provided with feeding for patients who could not eat without help;
- Water was left out of reach;
- In spite of persistent requests for help, patients not being assisted in their toileting;
- Wards and toilet facilities left in a filthy condition;
- Privacy and dignity, even in death, being denied;
- Triage in A&E was undertaken by untrained staff;
- Staff treating patients and those close to them with what appeared to be callous indifference

The subsequent Mid Staffordshire NHS Foundation Trust Public Inquiry (2013) (the Francis Inquiry) addressed the underlying systemic issues including the effectiveness of management, inspection and regulation. The press release published with the Final Report of the Public Inquiry in February 2013 noted that:

“The most basic standards of care were not observed, and fundamental rights to dignity were not respected. Elderly and vulnerable patients were left unwashed, unfed and without fluids. They were deprived of dignity and respect. Some patients had to relieve themselves in their beds when they (were) offered no help to get to the bathroom. Some were left in excrement stained sheets and beds. They had to endure filthy conditions in their wards. There were incidents of callous treatment by ward staff. Patients who could not eat or drink without help did not receive it. Medicines were prescribed but not given. The accident and emergency department as well as some wards had insufficient staff to deliver safe and effective care. Patients were discharged without proper regard for their welfare” (Mid Staffordshire NHS Foundation Trust Public Inquiry 2013a).

The Public Inquiry Final Report highlighted the spectre of regulatory as well as management failure and concluded that there had been a widespread failure of the system. Substandard care remained undetected and higher than expected standardised hospital mortality rates failed to trigger an appropriate response (Mid Staffordshire NHS Foundation Trust Public Inquiry 2013b).

The need for enhanced monitoring, inspection and regulation

Against this background, the need for enhanced systems of monitoring, inspection and regulation has emerged as a key issue on the national healthcare agenda. Francis put forward two hundred and ninety recommendations with the aim of

improving systems of monitoring, inspection and regulation in the future and ensuring the effective enforcement of fundamental standards of care. Key recommendations highlighted the need for both new minimum standards (legally binding) and enhanced standards (recommendation 13). Other recommendations related to the need for more effective systems for enforcing compliance; and to the need for the provision and publication of accurate information about compliance with both fundamental and enhanced standards (recommendation 14).

The Inquiry also made a series of recommendations on the effective use of information for monitoring, inspection and regulation. Francis concluded that disengagement from managerial and leadership responsibilities was in part the consequence of allowing “a focus on reaching national access targets; achieving financial balance and seeking foundation trust status to be at the cost of delivering acceptable standards of care” with “[s]tatistics and reports ... preferred to patient experience data, with a focus on systems, not outcomes” (Mid Staffordshire NHS Foundation Trust Public Inquiry 2013b). Key recommendations highlighted the need to make effective use of data on outcomes, complaints, incidents and investigations in inspection and regulatory processes. The Inquiry recommended that routine and risk-related monitoring - as opposed to acceptance of self-declarations of compliance used in the past - is essential. It also found that patient voice was not heard or listened to; and recommended that better use should be made of available patient experience data (Mid Staffordshire NHS Foundation Trust Public Inquiry (2013b).

The Government’s response to the Francis Inquiry

In March 2013, the Government’s response to Public Inquiry into the Mid-Staffordshire NHS Foundation Trust (2013) announced that “quality of patient care will be put at the heart of the NHS in an overhaul of health and care in response to the Francis Inquiry” and that the Government accepted most of Francis’s recommendations either “in principle or in their entirety” (DH 2013e).

A more detailed response to the Public Inquiry Recommendations was published by Department of Health in December 2013 (DH 2013gh). As part of its response to the Public Inquiry, the Department of Health commissioned a number of independent reviews. This included the Keogh Review (2013) which examined variations in standardised mortality ratios and resulted in 11 trusts being put into special measures by Monitor and the NHS Trust Development Authority. Other reviews commissioned included the Cavendish Review (2013), which investigated what could be done to ensure that healthcare assistants treat patients with care and compassion; the Berwick Review into Patient Survey (DH 2013b); and the Clwyd and Hart Review (2013) on complaints handling. Francis was commissioned to undertake a further review on avoidable deaths, which reported in early 2015. A new indicator on avoidable deaths is being taken forward as a result of this process.

The Government’s response to the Francis Inquiry suggested that it had accepted the vast majority two hundred and ninety recommendations put forward in the Public Inquiry with only nine recommendations flagged up as “not accepted” (DH 2013h). However, some recommendations apparently accepted were not accepted in full. A number of recommendations for strengthening inspection, regulation and

monitoring were partially accepted. Particular emphasis was put on the introduction of a new regulatory model under an independent Chief Inspector of Hospitals and a new ratings system for hospitals (recommendations 2-28). A proposed merger of the regulatory functions of Monitor and the CQC through the development of a single regulator was not accepted with the Government stating that co-operation rather than a transfer of functions would better achieve the desired outcomes (recommendations 60 and 61). The Government accepted in principle the need for both fundamental standards of safety and quality (which would be enforceable) and enhanced quality standards (recommendations 13 and 14). A new duty of candour was also announced (recommendations 2 and 173-184). However, the focus has been on a legal duty of candour on organisations (providers) and a professional duty (rather than a legal duty backed by criminal sanctions) on individuals, together with a new offence of “wilful neglect” (recommendation 28). Proposals to regulate healthcare assistants were not accepted in full, with the Government putting emphasis on training and a healthcare certificate (recommendations 207-212). Transparent monthly reporting of ward-by-ward staffing levels and other safety measures were announced (DH 2013h, Calkin 2013, BBC 2013 NAO 2014a).

Fundamental Standards of Care

Draft revised Fundamental Standards of Care were published in early 2014. The Government’s consultation document confirmed that the new minimum standards would be legal standards; and that the CQC will be able to take enforcement action where breaches are identified. These aim in developing the revised standards was to “construct registration requirements as clear outcomes that providers must meet both at the point of registration with CQC, and on an on-going basis once they are registered” (DH 2014). According to DH: “[t]he idea of having some basic universal outcomes for care and treatment is not in itself novel, and many attempts have been made previously to outline the kinds of things that might be considered fundamental to care” (DH 2014).

Following a period of consultation and further revisions, fundamental standards of quality and safety were included in revised regulations published in November 2014. These were set out as conditions of registration with the CQC covering areas such as consent, dignity and respect, meeting individual nutrition needs, protection from abuse, the fit and proper persons test, and the duty of candour⁵. These include the requirement that service users must be treated with dignity and respect) (including by service providers having due regard to any protected characteristics under the Equality Act 2010) (10.1)) and that the nutritional needs of service users must be met (including the provision of support where appropriate) (14.1) (**Figure 1**)⁶. The fit and proper test and duty of candour for NHS bodies came into force in November 2015; other elements of the regulations will come into force in April 2015.

⁵ Health and Social Care Act 2008 (Regulated Activities) Regulations 2014, Section 2 Fundamental standards, available at

<http://www.legislation.gov.uk/ukxi/2014/2936/contents/made>, accessed December 2014.

⁶An earlier consultation had considered the following formulation of this requirement: “I will be given enough food and drink and helped to eat and drink if I need it” (DH 2014).

Figure 1: New fundamental standards of care

<p style="text-align: center;">Health and Social Care Act 2008 (Regulated Activities) Regulations 2014</p> <p style="text-align: center;">Statutory Instruments 2014 No 2936</p> <p style="text-align: center;">National Health Service, England, Social Care, England, Public Health, England</p> <p style="text-align: center;">Section 2 Fundamental standards,</p> <p>Dignity and respect</p> <p>10.—(1) Service users must be treated with dignity and respect.</p> <p>(2) Without limiting paragraph (1), the things which a registered person is required to do to comply with paragraph (1) include in particular— (a) ensuring the privacy of the service user; (b) supporting the autonomy, independence and involvement in the community of the service user; (c) having due regard to any relevant protected characteristics (as defined in section 149(7) of the Equality Act 2010) of the service user.</p> <p>Meeting nutritional and hydration needs</p> <p>14.—(1) The nutritional and hydration needs of service users must be met.</p> <p>(2) Paragraph (1) applies where— (a) care or treatment involves— (i) the provision of accommodation by the service provider, or (ii) an overnight stay for the service user on premises used by the service for the purposes of carrying on a regulated activity, or (b) the meeting of the nutritional or hydration needs of service users is part of the arrangements made for the provision of care or treatment by the service provider.</p> <p>(3) But paragraph (1) does not apply to the extent that the meeting of such nutritional or hydration needs would— (a) result in a breach of regulation 11, or (b) not be in the service user’s best interests.</p> <p>(4) For the purposes of paragraph (1), “nutritional and hydration needs” means— (a) receipt by a service user of suitable and nutritious food and hydration which is adequate to sustain life and good health, (b) receipt by a service user of parenteral nutrition and dietary supplements when prescribed by a health care professional, (c) the meeting of any reasonable requirements of a service user for food and hydration arising from the service user’s preferences or their religious or cultural background, and (d) if necessary, support for a service user to eat or drink.</p> <p>(5) Section 4 of the 2005 Act (best interests) applies for the purposes of determining the best interests of a service user who is 16 or over under this regulation as it applies for the purposes of that Act.</p> <p>Source: http://www.legislation.gov.uk/uksi/2014/2936/contents/made, accessed December 2014</p>
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Malnutrition Task Force

On “providing food and drink to elderly patients”, the Government’s response to the Francis Inquiry repeated its commitment to fundamental standards of care. It noted that best practice for providing food and drink to elderly patients requires constant review, monitoring and implementation. It further flagged up that Age UK would be funded to run a pilot programme to test a framework to reduce malnutrition among older people in a range of health and care settings (DH 2013b). This subsequently resulted in the creation of the Malnutrition Task Force and the

development of a set of good practice guidelines which aim to end malnutrition in hospitals. These include malnutrition assessments, protected mealtimes, the introduction of “red tray” systems and additional help and support (Age UK 2011).

Outcome-orientated performance monitoring

The emphasis in the Francis Inquiry final report on the importance of outcome-orientated performance monitoring - with a greater role for patient experience data – reflected a medium term trend in health policy in England. The Darzi Review (DH 2008) also recommended the development of an outcome-orientated information base covering both clinical results and patient experience as an alternative to a top-down, target-driven approach to performance management and improving quality.

Healthcare policy developments under the Coalition Government 2010-2015 reflected the objective of outcome-orientated performance monitoring in important respects. The White Paper, *Equity and Excellence: Liberating the NHS* (DH 2010a) set out how improvement of healthcare outcomes for all would be the primary purpose of the NHS. The Health and Social Care Act 2012⁷ focuses accountability on “outcomes not processes” and establishes chains of accountability and responsibility between the Secretary of State and the NHS Commissioning Board that focuses on outcomes. The Secretary of State commissions outcomes from NHS England and holds commissioning board to account for the delivery of these outcomes. New outcome-orientated based frameworks have been introduced including the NHS Outcomes Framework, the Public Health Outcomes Framework and the Social Care Outcomes Framework. These include a broad range of outcome-orientated statistical indicators for evaluating progress and are viewed as pivotal arrangements for ensuring accountability between the Secretary of State for Health and relevant commissioners and providers. The “NHS outcomes” and “adult social care outcomes” frameworks include a range of outcome-orientated statistical indicators of patient experience.

The NHS Constitution was updated in order to put more emphasis on issues such as patient involvement; feedback; the duty of candour; and dignity, respect and compassion (NHS 2013a). A handbook that aims, *inter alia*, to set out individual rights was also published. This defines a right as “a legal entitlement protected by law”. It states that the NHS Constitution sets out “a number of rights, which include rights conferred explicitly by law and rights derived from legal obligations imposed on NHS bodies and other healthcare providers” (NHS 2013b). However, these revisions did not reflect all nine of the Francis recommendations relating to the NHS Constitution (DH 2013i).

Other guidelines, policies and strategies

New quality guidelines have been developed by NICE in the wake of the Francis Inquiry. In 2012, a new guideline was published on patient experience, covering, *inter alia*, treatment with dignity and assessment of individual physical needs,

⁷ Health and Social Care Act 2012 <http://www.legislation.gov.uk/ukpga/2012/7/contents/enacted>

including nutrition and hydration (NICE 2012). In May 2014, NICE issued draft recommendations on safe staffing for nursing in adult inpatient wards in acute hospitals. These draft recommendations addressed concerns raised about the adequacy of numbers of nursing staff within the NHS and highlighted the increased risk of harm when the ratio of nurses to patients falls below one to eight (NICE 2012). NICE guidance establishing falling below this ratio as a “red flag” event was subsequently published (NICE 2014ab). NICE produced further draft guidance setting out safe staffing guidance for A&E in January 2015 (NICE 2015). Whilst the Government has not introduced a new national minimum staffing standard, new requirements for hospitals in England to publish monthly details of whether they have enough nurses on wards were announced in November 2013 (BBC 2013).

Other related initiatives include further measures to protect users from avoidable harm and to promote patient safety. A new working definition of patient experience published by the NHS National Quality Board (DH 2012b) and a White Paper ‘Caring for our future: reforming care and support’ was published in 2012 (HM Government 2012). This set out the objective of ensuring that all health and social care services treat people with respect, dignity and compassion. New policies aiming to ensure that patients and service users are treated with respect, dignity and compassion were introduced in 2013. The three year strategy ‘Compassion in Practice’ aims to ensure that staff have appropriate skills and to make it easier for staff to report concerns (HM Government 2013). A new patient feedback survey, the Friends and Family Test, asks patients if they would recommend their ward or A&E department to friends and family.

The CQC’s new inspection model

Following on from the Government’s response to the Francis Inquiry and the Keogh Review (2013), the CQC introduced a new inspection model and a new system of ratings building on the Public Inquiry recommendations. Sir Mike Richards was appointed as first Chief Inspector of Hospitals in 2013 and the CQC announced in summer 2013 that a new system of surveillance, inspection and regulation would be established. The new inspection model moves away from a reliance on self-declarations of compliance by hospital trusts and addresses the need to make more effective use of a wide range of information - including quantitative information - in order to evaluate patterns and risks *prior* to inspection. It also makes use of a new indicator set drawing on 150 different measures based on a diverse range of data sources. The analysis of the indicators is intended to “raise questions” rather than to “make judgements” about the quality of care. “Judgements” themselves follow from inspections, which also take into account broader evidence (CQC 2013b).

The CQC new inspection model reflects a key recommendation in the Francis Inquiry - namely, that better use should be made in systems of monitoring, inspection and regulation of the available patient experience data, including in healthcare quality and risk profiling. The inclusion of hospital standardised mortality ratios within the new CQC indicator set reflects the identification of failures at both the trust level, and the regulatory level, to respond to available outcomes data in the context of events at

Mid-Staffordshire NHS Trust⁸. However, hospital standardised mortality ratios are only one indicator within the overall indicator set, which is intended to provide information on five key healthcare outcomes (specifically, whether the services are safe, effective, caring, responsive and well led). A number of patient experience indicators are also incorporated into the indicator set, including measures of dignity and respect, and of support with eating, based on the Adult Inpatient Survey data (CQC 2013 bcefgp).

More broadly, the CQC have indicated that better use will be made of the Adult Inpatient Survey data in the future in various aspects of monitoring, regulation and inspection. For example, whilst noting that the primary use of findings from the 2012 Adult Inpatient Survey is for use by NHS trusts themselves to help them improve their performance, the Commission notes that it now uses data from the Adult Inpatient Survey in its new inspection model including new data packs (CQC 2013p). NHS England is also using the results “to check progress and improvement against the objectives set out in the NHS mandate, and the Department of Health will hold them to account for the outcomes they achieve. The Trust Development Authority will use the results to inform the quality and governance assessment as part of their Oversight Model for NHS Trusts” (CQC 2013p).

The focus of this study

The current report aims to contribute to these broader efforts and to ensure that the available quantitative data on older people’s experiences of dignity and nutrition during hospital stays is fully exploited for public policy and healthcare monitoring and regulation purposes, as well as for other relevant initiatives such as equality and human rights monitoring. The paper examines what can be learnt from the available quantitative data on older people’s experiences of dignity and nutrition during hospital stays using the Adult Inpatient Survey; and what this information adds to the growing body of qualitative evidence (including inspection evidence) in this area.

The report builds up evidence base focussing on the two survey questions discussed below. These are included in the Adult Inpatient Survey, which has been running since 2002 as part of the broader patient experience survey programme. The survey was established by DH, is overseen by the CQC and coordinated by Picker Institute. It covers inpatients aged 16 years or older, who have at least one overnight stay in hospital, were discharged within a certain window (usually between June-August) in a given year with certain exclusions (for example, the following are not covered: maternity, terminations, psychiatric, day case, private patients). Each trust

⁸The failure to take sufficient account of outcome measures such as standardised mortality ratios was highlighted in the Public Inquiry and in an earlier investigation undertaken by the Healthcare Commission (the predecessor body to the Care Quality Commission). The latter found that the trust did not have a system to monitor outcomes for patients and therefore failed to identify high mortality rates among patients admitted as emergencies. Dr Foster’s Hospital Guide 2007 had shown that the trust had a hospital standardised mortality ratio (HSMR) of 127 for 2005-06 (i.e. a higher than expected rate). Whilst the trust had established a group to look into mortality, the focus had been on whether the high rate was a consequence of poor recording of clinical information. Commenting on the national picture and lessons for other organisations, the investigation recommended that in the future trusts should be able to get access to information on comparative mortality and other outcomes and for trusts to conduct objective and robust reviews of mortality rates and individual cases data (Healthcare Commission 2009, Candler et al 2011)

samples a flow of 850 consecutively discharged patients, excluding those who have died.

The report focusses on responses to the 2012 Adult Inpatient Survey, which had a total of 64,505 respondents from 156 different trusts (a response rate of 51 per cent). This figure (cited in CQC 2013q) adjusts for ineligible respondents such as where the patient has died. Based on the information on the archived data set, of 131978 questionnaires sent, 64,505 were returned and useable, an overall response rate of 48.9%. Of the remaining questionnaires, the majority were not returned with the reason unknown.

Table 1: Outcome of sending questionnaire 2012

Outcome of sending questionnaire	Freq.	Percent (%)
Returned useable questionnaire	64,505	48.9
Returned undelivered or patient moved house	1,739	1.3
Patient died	2,657	2.0
Too ill, opted out or returned blank question	5,486	4.2
Patient not eligible to fill in question	196	0.2
Questionnaire not returned - reason not	57,395	43.5
Total	131,978	100.0

Source: Adult Inpatient Survey 2012 (version deposited in the UK data archive)

The analysis in the current study focuses on responses to two questions that are included in the Adult Inpatient Survey (*Figure 2*). The first is a specific question on patient experiences of dignity and respect. This poses the question “[o]verall, did you feel you were treated with respect and dignity while you were in the hospital?” Response options include “yes, always”, “yes, sometimes” and “no”. The second question asks respondents whether they received the help they need with eating from staff during the hospital stay. This poses the question: “[d]id you get enough help from staff to eat your meals? Response options include “yes, always”, “yes, sometimes”, “no” and “I do not need help to eat meals”. The questions on dignity and respect, and help with eating, have been included in the survey since 2002 with only very minor modifications and revisions. The Adult Inpatient survey also collects information on a range of personal characteristics such as age, gender, disability, ethnic group, sexual orientation, route of admission (emergency or not); the number and types of ward stayed and length of stay; and other aspects of patient experience including perceptions of the adequacy of the number of nurses, the quality of nursing care and choice of food.

The report uses responses to these questions to build up a new quantitative evidence base on older people's experiences of dignity and nutrition during hospital stays. We begin by estimating the overall prevalence of experiences of inconsistent or poor standards of dignity and nutrition. The percentage of older people who report that they were not treated with dignity and respect, or that they did not receive the help that

they needed with eating, during hospital stays, is then examined. Risks within the older population are identified, with separate reporting of the experiences of the “oldest of the old”, and consideration of the impact of additional characteristics such as gender and disability is assessed. Trends in the proportion who report that they did not receive help with eating during a hospital stay (if it was needed) are evaluated over the period 2004-2012. The effects of individual characteristics (such as age, gender and disability), a person’s “journey through the hospital” (e.g. emergency versus planned admission, length of stay and the number of wards a person stays in) and of other factors such as the adequacy of nursing care, area deprivation and hospital trust are described. Finally, conclusions are drawn about the ways in which the new quantitative findings add to other evidence in this area, such as pre-existing qualitative evidence and inspection and monitoring evidence gathered by the Care Quality Commission.

Figure 2: The focus of this study

<p>Survey question:</p> <p>“Did you get enough help from staff to eat your meals?”</p> <p>Response options:</p> <p>1 “yes, always”</p> <p>2 “yes, sometimes”</p> <p>3 “no”</p> <p>4 “I do not need help to eat meals”.</p> <p>“Overall, did you feel you were treated with respect and dignity while you were in the hospital?”</p> <p>Response options</p> <p>1 “yes, always”</p> <p>2 “yes, sometimes”</p> <p>3 “no”</p> <p>Source: Adult Inpatient Survey 2012: questions 23 and 67</p>

Limitations of the current study

There are a number of limitations of the current study that require acknowledgement. First, evaluating older people’s self-reported experiences of healthcare is particularly complex. The phenomenon of adaptive expectations, whereby older people’s expectations of standards of care may be systematically lower than for other age groups, complicates the interpretation of patient experience data and makes comparisons across different age bands particularly complex. In this study, we address this issue by evaluating older people’s experiences of healthcare should be based on narrow band disaggregation with separate identification and reporting of the risks facing the “oldest of the old”. Relative risks *within* the older population are evaluated by examining the impact of older age of older age in combination with other characteristics such as gender, disability, individual journey through hospital and hospital trust. We also show that feedback from family, friends and professions, such as proxy survey responses, can be particularly valuable in the context of evaluating older people’s experiences of care.

Second, important questions relating to the coverage and representativeness of

the Adult Inpatient Survey need to be addressed. *Coverage* is limited in a number of respects. Individuals who die during a hospital stay are not covered by the survey; whilst individuals who are targeted in the survey design may die shortly after a hospital stay and therefore not respond. Low response rates might also be anticipated amongst older people who need help but who are unsupported following a hospital stay, who experience a condition such as dementia are also likely to be underrepresented in survey responses (Age UK 2013). The question of the *representativeness* of the Adult Inpatient Survey data raises further issues of interpretation and methodology. A key issue when using the data is whether to interpret the survey responses as simply representing the self-reported experiences of participants in the survey; or whether to interpret the data as being representative of the experiences of the inpatient population as a whole. In this report, the first of these interpretations underlies the findings reported in the first two subsections in section 3, which are unweighted. The second approach underlies the re-estimates of the main survey prevalence rates reported in the final subsection in section 3, which are calculated using a new set of patient level weights.

Third, we emphasise in the report that the analysis of patient experience data on dignity and nutrition requires a combination of univariate, bivariate and multivariate methods of secondary data analysis techniques, depending on the precise research question at hand. Evaluation of the overall proportion (and of how many) individuals experience inconsistent and poor standard of care requires *univariate* analysis of the relevant variables. The question of *who* these individuals are (in terms of characteristics such as gender, age, disability) and where they are located (by trust) requires *bivariate* analysis. The question of how variation in the risk of experiencing inconsistent and poor standards of care can be *explained* - and the identification of underlying “drivers” such as individual characteristics, patient mix, length of stay and quality and quantity of nurses) - requires the evaluation of “independent effects” once relevant controls are introduced. This third question requires *multivariate* analysis. As we discuss in sections 5 and 6, different sets of controls may also be required when undertaking multivariate analysis. For example, when explaining variation in experiences in inconsistent and poor standards of care, it can be relevant to distinguish between the impact of patient mix, area deprivation and other factors that are broadly outside of the control of individual hospital trusts; and other factors, which might reasonably be characterised as falling within the control of a hospital trust, such as the quality and quantity of nursing or whether there is a choice of food.

Fourth, as noted in the Introduction, we have been unable to include ethnic group or area deprivation in the logistic regression exercise at the current stage of the research. Further research to address this limitation and extend the analysis in the current report is planned.

Finally, it is important to acknowledge that the subject matter of the report engages with important ongoing discussions about the identification of poor performance at the level of hospital trust. The analysis in this report (especially in section 5) suggests that, in the context of monitoring fundamental standards of care, a “deviation from average” approach may under-identify poorly performing trusts. For this reason, we highlight the importance of developing a “minimum threshold approach” in monitoring, regulatory and inspection exercises that focus on the quality

of care. A “minimum threshold approach” could be particularly important, for example, in monitoring the implementation of the new fundamental standards of care relating to dignity and nutrition.

2. REVIEW OF EXISTING FINDINGS

In this section we begin by examining the use of patient experience data in national monitoring exercises based on Department of Health indicators and indicators used in the NHS Outcomes Framework. Next, we report findings that relate specifically to patient experiences of dignity and nutrition based on the Care Quality Commission's (CQC's) old inspection model (pre 2013); CQC national summaries and benchmark reports; and the CQC's targeted dignity and nutrition inspection rounds undertaken in 2011 and 2012. The CQC's new inspection model introduced in the wake of the Francis Inquiry and the Keogh Review includes a system of risk evaluation prior to inspection ("Intelligent Monitoring") and findings from this exercise are considered. Finally, multivariate analyses of patient experience in the broader research literature are reviewed.

The use of patient experience data in national health monitoring exercises

The establishment of the patient experience survey programme in 2002 has resulted in the development of a range of indicators of patient experience that are used nationally for health monitoring purposes.

National reporting and monitoring of inpatient experience under the Labour Government (1997-2010) focussed on a national target for improving patient experience, included in the Public Service Agreements. The 2004 Comprehensive Spending Review specified a goal of securing "sustained annual national improvements in NHS patient experience". Trusts and PCTs were required to analyse their survey data to identify the low scoring components and plan and implement appropriate local improvement activities. Progress against the patient experience target was evaluated using a composite indicator of patient experience covering five domains (access / waiting; safe / high quality / co-ordinated care; building closer relationships; a clean / comfortable / friendly place to be; and better information / more choice) (2004 Spending Plan, 2004:4). The Patient Experience PSA scores were classified as a 'National Statistic' in 2008⁹.

Whilst the PSA indicators were discontinued under the Coalition Government (2010-2015), new outcome-orientated indicator frameworks such as the NHS Outcomes Framework and the for monitoring health include a number of indicators based on patient experience data. The main aim of NHS England is to "improve the health outcomes for people in England" and improving patient experience is viewed as central to this¹⁰. The NHS Outcomes Framework "sets out the outcomes and corresponding indicators that is being used to hold the NHS England to account for improvements in health outcomes, as part of the government's mandate to the NHS Commissioning Board"¹¹. Within the NHS Outcomes Framework, domain four

⁹ The methodology for calculating the overall composite indicator has involved either factor analysis or predefined domains (e.g. DH 2011b) and the calculation of z-scores.

¹⁰ <http://www.england.nhs.uk/ourwork/pe/safe-care/>

¹¹ <https://www.gov.uk/government/publications/nhs-outcomes-framework-2013-to-2014>

(‘Ensuring People Have a Positive Experience of Care’) comprises three overarching indicators and nine improvement areas based on patients’ responses to surveys covering their experience of care in different settings (inpatient stays, A&E, accessing GPs, mental health providers etc) (Figure 3).

Figure 3: NHS Outcomes Framework – domain 4

<p>Overarching indicator</p> <p>4a Patient experience of primary care i GP services ii GP out-of-hours services iii NHS Dental Services</p> <p>4b Patient experience of hospital care</p> <p>4c Friends and Family test</p> <p>Improvement areas</p> <p>Improving people’s experience of outpatient care 4.1 Patient experience of outpatient services</p> <p>Improving hospitals’ responsiveness to personal needs 4.2 Responsiveness to in-patients’ personal needs</p> <p>Improving people’s experience of accident and emergency services 4.3 Patient experience of A&E services</p> <p>Improving access to primary care services 4.4.i Access to GP services 4.4.ii NHS Dental services</p> <p>Improving women and their families’ experience of maternity services 4.5 Women’s experience of maternity services</p> <p>Improving the experience of care for people at the end of their lives 4.6 Bereaved carers’ views on the quality of care in the last 3 months of life</p> <p>Improving the experience of healthcare for people with mental illness 4.7 Patient experience of community mental health services</p> <p>Improving children and young people’s experience of healthcare 4.8 An indicator is under development</p> <p>Improving people’s experience of integrated care 4.9 An indicator is under development</p>
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Source: NHS and Department of Health (2012)

NHS Outcomes Framework Indicator 4.b and Indicator 4.2: coverage of dignity and nutrition

The most relevant of these indicators for the current report are **Indicator 4.b** ‘patient experience of hospital care’ and **Indicator 4.2** ‘responsiveness to inpatient’s personal needs’ are particularly relevant to monitoring the acute sector. Both of these indicators make use of Adult Inpatient Survey data and apply the system of scoring and standardisation discussed below (CQC trust benchmarking reports). Whilst at the time of writing the availability of disaggregated patient experience data is limited, the intention is that disaggregated data will be available for evaluating progress in the future. These indicators are also reflected in the Clinical Commissioning Group Indicator Set, which provides “clear, comparative information for CCGs, Health and Wellbeing Boards, local authorities, patients and the public about the quality of health services commissioned by CCGs and the associated health outcomes. The indicators are useful for CCGs and Health and Wellbeing Boards in identifying local priorities

for quality improvement and to demonstrate progress that local health systems are making on outcomes”¹².

Neither Indicator 4b nor Indicator 4.2 make use of the help with eating survey question that we examine in this report. However, Indicator 4b is a composite indicator covering the concepts covered by the former PSA target (‘access & waiting’; ‘safe, high quality co-ordinated care’; ‘better information more choice’; ‘building closer relationships’; and ‘clean, comfortable and friendly place to be’). Seven survey questions including the dignity and respect question input into the evaluation of whether the inpatient has experienced healthcare that can be characterised as a “clean, comfortable, friendly place to be”¹³. Responses to each of the survey questions are given a score out of a 100 in order to construct the overall composite indicator value. For the question “[o]verall, did you feel you were treated with respect and dignity while you were in the hospital?”, scores of 100 are given to the response “Yes, always”; scores of 50 are given to the response “Yes, sometimes”; and scores of 0 are given to the response “No.”

Indicator 4.2 draws on the following Adult Inpatient Survey questions: Were you involved as much as you wanted to be in decisions about your care and treatment? Did you find someone on the hospital staff to talk to about your worries and fears? Were you given enough privacy when discussing your condition or treatment? Did a member of staff tell you about medication side effects to watch for when you went home? Did hospital staff tell you who to contact if you were worried about your condition or treatment after you left hospital?

Trends

In addition to the data published via the NHS Outcomes indicator portal, trend data for overall adult inpatient experience and for experiences within five inpatient domains are published by NHS England in regular updates. Figures up to 2012/13 are provided in Table 2 alongside figures for patient experience in other service areas (outpatients, emergency services, primary care and mental health). Data by ethnic group is also provided for 2014/2015. In its interpretative guidance, NHS England (2014) notes: “The question that these scores seek to answer is “has patient experience changed over time?” These scores do not translate directly into descriptive words or ratings, but present results out of 100 for specific aspects of experience for NHS patients, after they have used the NHS. If patients reported all aspects of their care as ‘good’, we would expect a score of about 60. If they reported all aspects as ‘very good’, we would expect a score of about 80. Scores for different aspects of care, or for different service settings, cannot be compared directly. For example, we cannot say that the NHS is ‘better’ at ‘access & waiting’ than it is at ‘information and choice’, or that mental health services are ‘better’ than outpatient services, but the results can be used to look at change over time where methods have not changed” (NHS England 2014b: 6).

¹² <http://www.england.nhs.uk/ccg-ois/>

¹³ HSCIC Indicator Portal <https://indicators.ic.nhs.uk/webview/>, accessed June 2014; Indicator Specification Document (https://indicators.ic.nhs.uk/download/Outcomes%20Framework/Specification/NHSOF_Domain_4_S_V2.pdf) and Indicator Quality Statement (https://indicators.ic.nhs.uk/download/Outcomes%20Framework/Specification/NHSOF_4b_I00683_Q_V3.pdf).

Table 2: Patient experience scores, England, 2002/03 to 2013/14

	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2009/10 adjusted	2010/11	2011/12	2012/13		2012/13 adjusted	2013/14		2014-15	
Adult Inpatient survey																		
Access & waiting		83.5		84.9	84.8	83.8	84.9	85		84.2	83.8	84.3	S		84.6	S	83.8	S
Safe, high quality, coordinated care		65.5		65.1	65.1	64.9	65.3	64.4		64.6	64.8	65.4	S		66.4	S	65.5	S
Better information, more choice		67.9		69.1	67.3	66.7	67.7	66.8		67.2	67.2	68.2	S		68.8		68.9	
Building closer relationships		83.3		83.1	83.1	83	83.2	82.9		83.0	83.0	84.6	S		84.7	S	84.6	
Clean, friendly, comfortable place to be		78.4		78.6	78.4	78.1	79.2	79.1		79.3	79.4	79.8	S		80.1	S	80.1	
Overall		75.7		76.2	75.7	75.3	76	75.6		75.7	75.6	76.5	S		76.9	S	76.6	S
Outpatient survey																		
Access & waiting ^a		68.2		69				72.5	73.3		74.9		S					
Safe, high quality, coordinated care		83		82.2				83.2	83.2		83.6		S					
Better information, more choice		77.2		77.3				79.1	79.1		78.6		S					
Building closer relationships		86.4		86.5				87.3	87.3		87.7		S					
Clean, friendly, comfortable place to be		69.7		68.5				70.9	70.9		71.3		S					
Overall		76.9		76.7				78.6	78.8		79.2		S					
Emergency Services survey																		
Access & waiting	68.6		69.4				66.6					64.3	S					
Safe, high quality, coordinated care	74.7		74.7				75.1					74.5	S					
Better information, more choice	72.7		73.5				74.4					74.8						
Building closer relationships	78.9		80.4				81.3					80.8	S					
Clean, friendly, comfortable place to be	80.3		81				81.4					82.2	S					
Overall	75		75.8				75.7					75.4	S					
Primary Care Survey^d																		

Access & waiting	67.6	68.5	69.8	69.3		69.4												
Safe, high quality, coordinated care	79.3	80.1	81.5	80.4		80.9												
Better information, more choice	81.6	80.7	80.7	79.7		80.5												
Building closer relationships	87.5	86.2	86.2	86		86.4												
Clean, friendly, comfortable place to be	69.5	69	69	69.5		70.1												
Overall	77.1	76.9	77.4	77		77.5												
Mental Health Services survey																		
Access & waiting		80.5	80.3	79.7	80.1					71.1	72.4	S	72.4	72.4				
Safe, high quality, coordinated care		69.9	70.2	70.8	71.7					72.1	71.3	S	68.0	67.4				
Better information, more choice		60.7	61.8	60.8	62					68.3	69.1	S	65.8	65.4				
Building closer relationships		85.9	86.2	86.6	86.9					84.7	84.7		82.4	81.1	S			
Overall		74.2	74.7	74.5	75.2					74.0	74.4		72.2	71.6	S			
Primary Care																		
Involvement in choice of provider ^{i,j,k}				27.3		42.7												
Involved in decisions about treatment ^{l,m,n}		-	77.1	-	-	-	76	-										
Emergency services survey		-	81.7	-	-	-	-	82.3										
Outpatients survey		70.9	-	71.9	70.9	70.3	71.3	71										
Adult Inpatients survey		63.3	62.7	63.5	63.7	64.2	-	-										
Mental health services survey		82.1	82.5	81.9	-	82.9	-	-										
Primary care survey ^o		-	77.1	-	-	-	76	-										

Sources: Figures up to and including 2009/10: National Patient Survey Programme (Department of Health 2010) [Adult Inpatient and Outpatient surveys, Emergency Services survey, Primary Care survey and Mental Health Survey; involvement and choice about treatment]. Figures from 2009/10 adjusted: National Patient Programme (NHS England 2013c, Summary Tables) and for 2013/14 adult inpatient survey figures: NHS England (2014c), overall results tables; NHS England (2015).

Notes:

- Outpatients: The scoring regime used for the question about length of wait for an appointment (question A1 in 2002-03 and question 1 in 2004-05) has been adjusted from that published by the contractor appointed to run the NHS Survey Advice Centre, to allow comparison across years. The 2009-10 scores for outpatient survey are adjusted to allow for direct comparison with 2011-12.
- There were substantial changes in the wording of a question related to arrival in the accident and emergency department (question B1 in 2002-03 and question 3 in 2004-05). Results are not directly comparable for these two years. The scoring regime for this question has also been adjusted from that published by the contractor appointed to run the NHS Survey Advice Centre.
- Due to the substantial changes within the access & waiting domain (see note b), overall aggregated domain scores for these two years are not directly comparable

- d. Care should be taken when comparing results from 2002-03 with later years. The 2002-03 survey asked a series of questions regardless of the healthcare professional seen by the patient, whilst later surveys ask specifically about seeing a doctor. The 2002-03 figures have been adjusted by removing those respondents who indicate that they did not see a doctor. Results therefore may not be directly comparable.
- e. For 2002-03, the scoring regime used for questions about length of wait for an appointment (Question A3), the length of wait to be seen (Question B4) and whether someone told the respondent how long they would wait (Question B5) differs from that published by the contractor appointed to run the NHS Survey Advice Centre.
- f. Figures for access and waiting should not be compared for 2002-03 and later years. A change in the ordering of options in one question (Question A3 in 2002-03 and A2 in 2003-04) is likely to have had a large impact on the results.
- g. Due to the substantial changes within the access & waiting domain (see note f), overall aggregated domain scores for these two years are not directly comparable
- h. Figures for better information, more choice should not be compared for 2003-04 and 2004-05. Changes in the wording of one of the questions means that results are not comparable. Overall aggregated domain scores for these two years are not directly comparable.
- i. Involvement in choice of provider: age-gender standardised score
- j. In 2005/06 patients were asked the question "The last time you were referred to a specialist, were you given a choice about where you were referred (i.e. which hospital)?" A response of "Yes" was scored 100, a response of "No, but I would have liked a choice" was scored 0 and a response of "No, but I did not mind" scored 0.
- k. In 2007/08 patients were asked the question "When you were referred to see a specialist were you offered a choice of hospital for your first hospital appointment?". A response of "Yes" was scored 100 and a response of "No" was scored 0.
- l. Patients were asked the question "Were you involved as much as you wanted to be in decisions about your care and treatment?", A response of "Yes, definitely" was scored 100, a response of "Yes, to some extent" was scored 50 and a response of "No" was scored 0.
- m. Cells containing a hyphen (-) indicate that the survey was not conducted in that particular year
- n. Surveys in different settings are conducted on different patient groups and sometimes with differently worded questions. Results from different settings should not be compared
- o. The score for the Primary Care Survey 2005/06 was based on a small national survey, carried out in exactly the same way as the National Patient Survey Programme but with a smaller sample size. Differences from earlier years may not be statistically significant.
- p. Mental health services Survey: Due to changes in the scoring methodology for some questions in 2013/14, the 2013/14 score is not directly comparable to previous years. The 2012/13 scores for outpatient survey are adjusted to allow for direct comparison with 2011-12. Furthermore, a series of changes to the survey mean that results for years prior to 2011/12 are not comparable with later years either.
- q. Results marked with an S show a statistically significant change from previous year

CQC national summaries

The Adult Inpatient Survey provides the basis for a series of annual publications by the CQC, available on their website, including national summaries against individual survey questions and historical trends reporting on national statistically significant changes over the last year. This present overall patient experience data on dignity and nutrition similar to the overall (non-disaggregated) findings discussed in sections 3 and 4.

Dignity and respect

The CQC national summary data for 2012 identifies 80% of respondents reporting that they were “always” treated with respect and dignity while they were in hospital, up from 79% in 2011. There was a corresponding decrease in the proportion who said this was “sometimes” the case from 18% in 2011 to 17% in 2012. 3% reported that they were “not” treated with respect and dignity. This figure was unchanged compared to 2011.

CQC analysis of national findings since 2012 suggests that there no statistically significant changes in the percentage reporting “not” being treated with dignity and respect between 2012- 2013 or 2012-2014 (with the figure remaining unchanged at 3%). However, the percentage reporting “sometimes” being treated with dignity and respect fell significantly by 1 percentage point in 2012-13 (from 17% to 16%), with the percentage reporting “always” being treated with dignity and respect also increasing significantly (a change from 80% to 81%). CQC analysis of change between 2013-2014 shows that, based on rounded up figures, the overall percentage reporting ‘always’ being treated with dignity and respect remained at 81% in 2014; and that the intermediate category “yes sometimes” also remained unchanged at 16% in rounded up terms). Nevertheless, a significant increase in the figure reporting “always” being treated with dignity and respect, and decline in the percentage reporting “sometimes” being treated with dignity and respect, is also indicated in CQC reporting between 2013 and 2014 (CQC 2014, 2015 and Appendix D Table 42-Table 47).

Help with eating

The CQC national summary data for 2012 identifies 64% of those who needed help with eating saying that they “always” got enough help, a statistically significant increase from 62% in 2011. 19% reported only “sometimes” getting enough help (unchanged from 2011), whilst 17% reported that they did “not” get enough help (down from 19% in 2011) (CQC 2013ef)¹⁴.

¹⁴The national findings presented later in this report differ marginally from these estimates. This is due to the application of a new set of patient level weights and methodological choices in the calculation of national averages. In section 3 we discuss the need to develop a set of new inpatient level weights that can be used in the calculation of national prevalence and headcount estimates using the Adult Inpatient Survey. Recent national summaries published by the CQC have been based on non-standardised data but each trust is given equal weight in the final results, with proportions calculated for each trust and then an overall national figures being calculated (Sizmur 2014).

CQC analysis of national findings since 2012 suggests that there no changes in any response categories in 2012-13. In 2013-14, no changes in the intermediate or no category are indicated (based on rounded up figures). A decline in the “yes, always” category from 64% to 63% is indicated (although this is not highlighted as a statistically significant decline) (CQC 2014, 2015 and Appendix D (Table 42-Table 47).

CQC “trust benchmarking reports”

Alongside annual national summaries, the Care Quality Commission uses the Adult Inpatient Survey as a basis for annual trust benchmarking reports. Benchmark reports for each trust are available on the CQC website (CQC nd) and include graphs that report scores for each trust compared with the full range of results from all other trusts that took part in the survey. A traffic light system is adopted, with trusts evaluated as ‘about the same’ as most other trusts in the survey, ‘worse’ than expected when compared with most other trusts in the survey and ‘better’ than expected when compared with most other trusts in the survey. The CQC acknowledge that data only show performance relative to other trusts: there are no absolute thresholds for “good” or “bad” performance (CQC 2013g: 4).

The methodology applied in this comparative evaluation involves a number of adjustments to the raw data including scoring, standardisation and a correction for “over-dispersion”. The scoring system applied is described in CQC (2012). Responses to survey questions are scored on a scale of 0 to 10. The scoring systems for the survey questions on treatment with dignity and respect, and on support with eating, are given in Figure 4. The first response option for each of these questions (“Yes, always”) receives a score of 10, the second (“Yes, sometimes”) receives a score of 5 and the third (“No”) receives a score of zero.

Figure 4: CQC scoring system

	Overall, did you feel you were treated with respect and dignity while you were in the hospital?	Did you get enough help from staff to eat your meals?
Yes, always	10	10
Yes , sometimes	5	5
No	0	0

Second, a standardisation procedure is secondly applied to the data. The underlying aim is to eliminate (or at least reduce) the effects of variations in patient case mix on hospital trust scores, with comparisons made on the basis of a “standardised” case mix by age, gender and route of admission (CQC 2013efg). The rationale for the application of the age / gender / route of admission standardisation weight is elaborated in CQC (2012a): “[w]eights are calculated to adjust for any variation between trusts that resulted from differences in the age, sex and method of admission (planned or elective) of respondents. Each weight is calculated for each respondent by dividing them by the national proportion of respondents in their age/sex admission type group by the corresponding trust proportion. One reason for weighting

the data is that younger people and women tend to be more negative in their responses than older people and men. If a trust had a large population of young people or women, their performance might be evaluated more critically than if there were a consistent distribution of age and sex of respondents”.

Third, in order to evaluate comparative trust performance, further adjustments by an “overdispersion” factor are made in order to take account of variation associated with other additional factors which are outside of the control of a hospital trust which may result in variation in trust score (for example, area deprivation)¹⁵.

Once these adjustments have been made, each trust is then given equal weight in the final national estimates regardless of its underlying inpatient population. Judgements about whether a particular trust is performing better / about the same / worse than other trusts are then made based on an 'expected' range which is calculated for each question for each trust. The CQC then evaluates which trusts are significantly different from the expected value relative to other trusts).

CQC annual performance ratings

Under the previous system of regulation, the CQC published annual performance ratings of all trusts in England. For example, in 2008/09 performance ratings were published for all trusts covering core standards which included a core standard on dignity and respect (C31a) and a core standard on meeting individual food needs (core standard 15b). The methodology for evaluating compliance with core standards was based on public declarations made by each trust against of the 24 core standards. The descriptions of both core standards focussed on the evaluation of systems in place (rather than on self-reported patient experiences of dignity and respect and support with eating). As Figure 5 shows, in 2008-09, the CQC performance ratings evaluated of 96.4% of acute and specialist trusts in England to be complaint with the core standards on dignity and respect (core standard 13a) and 97% to be compliant core standard on individual food needs (core standard 15b).

¹⁵This involves calculating a z-score (that is, standardised scores derived from normally distributed data where the value of the z score translates into a p value). The unadjusted z score for a trust *i* for a given indicator item is calculated as $z_i = (y_i - t) / S_o$ where S_o is the standard error of the trust score, y_i is the trust score and t is the target value (taken to be the national mean score for all trusts). A modified z score is also calculated. This compares trust scores to a national distribution of scores (rather than simply to one national target – the national average). In order to adjust for over-dispersion, the z scores are modified using an additive random effects model. The modified z-score for each section is calculated as the trust score minus the national mean score, divided by the standard error of the trust score plus the variance of the scores between trusts. This method recognizes that there is likely to be natural variation between trusts which should be accounted for when evaluating performance Z-scores are also “winsorised” – that is, the extreme z scores are shrunk to a preselected range (CQC 2013g). The rationale for correcting for over-dispersion is examined in Spiegelhalter (2005b). This notes that over-dispersion arises when a performance indicator shows substantially more variability than would be expected by chance and a few divergent institutions alone - particularly when there is insufficient risk adjustment - and ignoring could lead to a large number of institutions being inappropriately classified as “abnormal”. Proposed solutions include additional risk adjustment; analysis by clustering; estimating an over-dispersion factor (with data “Windorised” or otherwise adjusted to reduce the impact of extreme observations); or using a random effects model which recognizes the inevitability of some between institution variability.

As discussed in section 1, questions were raised, including by the Francis Inquiry, about the adequacy of inspection based on the hospital trusts' own declarations of compliance. This is the background to the development of a new CQC inspection model (discussed below).

Figure 5: Care Quality Commission ratings 2008/09: compliance with core standards (England only)

Trust type	Core standard	C31a	C15b
	Short name	Dignity and respect	Food – individual needs
	Standard description	Healthcare organisations have systems in place to ensure that staff treat patients, their relatives and carers with dignity and respect	Where food is provided, healthcare organisations have systems in place to ensure that patients' individual nutritional, personal and clinical dietary requirements are met, including any necessary help with feeding and access to food 24 hours a day
Acute and specialist trusts		96.4%	97.0%
PCTs as commissioners of services		99.3%	100%
PCTs as providers of services		99.3%	100%
England		97.8%	98.7%

Source: Care Quality Commission (2009), Appendices A and H.

CQC targeted dignity and nutrition inspection rounds

The Care Quality Commission (CQC) undertook targeted inspection programmes on standards of dignity and nutrition in 2011 and 2012. The inspection methodology adopted focussed on evaluating outcomes observed in the inspection rounds against the essential standards of quality and safety introduced in the Health and Social Care Act (2008) and further elaborated in Health and Social Care Act 2008 (Regulated Activities) Regulations 2010, and the Care Quality Commission (Registration) Regulations 2009 (CQC 2011a, 2013a: Appendix C).

In the first round of inspections, a total of 100 unannounced inspections of acute NHS hospitals in England were undertaken between March and June 2011, examining standards of dignity and nutrition on wards caring for elderly people. Hospitals were evaluated as compliant with essential standards (that is, as meeting the standards and no action was required to improve); compliant with minor concerns (where the hospital is meeting the essential standards but actions are required to ensure that this continues to be the case); non-compliant with moderate concerns (where the hospital is not meeting essential standards and actions are required to ensure compliance); and non-compliant with major concerns (where actions, which can include suspending or closing services, are required).

Overall in the 2011 inspection round, twenty hospitals (a fifth of those inspected) were identified as non-compliant with standards of dignity and / or nutrition

and therefore delivering care that did not meet legal standards. A total of 12 trusts were reported as non-compliant with standards relating to dignity and respect with moderate concerns. In addition, 15 trusts were judged as non-compliant in relation to nutritional standards with moderate concerns, and a further two as non-compliant in relation to nutritional standards with major concerns (Figure 6 and CQC 2011a). Figure 6 provides a summary of evaluations and observations set out in the national report. Appendix A provides details of non-compliance by specific hospital trusts. Specific concerns were raised in individual hospital inspection reports relating to the regularity and serving of meals, the choice of food available including the meeting of specific dietary requirements, issues relating to systems identifying high-risk patients, poor record-keeping, hygiene, delays or absence in supporting patients to eat and drink, poor check-backs on whether patients had consumed sufficient or satisfactory amounts, and poor staff management and training.

Three factors - leadership, staff skills and attitude (and related issues of training and management) staff and resources - were identified as contributing to non-compliance with essential standards and poor care (CQC 2011a). Within the two hospitals raising major concerns, observations at Sandwell General Hospital (Sandwell and West Birmingham Hospital NHS Trusts) included systems in place to support patients who are at risk from malnutrition and dehydration not being used in all wards; adherence with protected mealtimes not being practiced; poor recording practices, undermining the use of records as a tool for monitoring dehydration. Whilst staff supporting patients to eat were observed to be caring and attentive, there were not enough staff available for the number of people who needed this support (CQC 2011p). At Alexandra Hospital (Worcestershire Acute Hospitals NHS Trust) it was observed that nutritional risks were identified on admission but the poor standards of review and ongoing monitoring mean that care planned may not always accurately reflect the current care needs of the people who use the service. For example, one person was assessed as being ‘malnourished’ on admission but not reassessed until 16 days later (CQC 2011c).

Figure 6: Care Quality Commission dignity and nutrition inspection round 2011

	Overall evaluation	Qualitative Comments
Standard 01: Respecting and involving people who use services	<ul style="list-style-type: none"> • 28 trusts were identified as compliant but were required to make improvements • 12 trusts were evaluated as non-complaint and actions to ensure compliance were required • No trusts were evaluated as a cause of major concern 	<ul style="list-style-type: none"> • Patients’ privacy and dignity were not respected: e.g. curtains were not properly closed when personal care was given to people in bed; • Call bells were put out of patients’ reach, or they were not responded to in a reasonable time; • Staff spoke to patients in a condescending or dismissive way; • There was not always enough staff with the right training on duty to spend enough time giving care
Standard 05: Meeting nutritional needs	<ul style="list-style-type: none"> • 32 trusts were evaluated as compliant with minor concerns, with actions required to make improvements. 	<ul style="list-style-type: none"> • Patients were not given the help they needed to eat, meaning they struggled to eat or were physically unable to eat meals.

	<ul style="list-style-type: none"> • 15 trusts were evaluated as not compliant with moderate concerns, with actions to ensure compliance were required • Two trusts were evaluated as non-compliant with major concerns with urgent action required 	<ul style="list-style-type: none"> • Patients were interrupted during meals and had to leave their food unfinished. • The needs of patients were not always assessed properly, which meant they didn't always get the care they needed – for example, specialist diets. • Records of food and drink were not kept accurately, so progress was not monitored. • Many patients were not able to clean their hands before meals.
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Sources: Overall evaluations based on assessments in CQC (2011a). Qualitative comments based on issues raised in CQC (2011a) and a review of 17 individual trust reports, where non-compliance was judged to have a moderate or major impact (CQC 2011c-2011s).

Notes: Impacts were assessed according to a three point scale: 'minor', 'moderate', or 'major'. Figures are based on an analysis of 100 targeted inspection reports for which reports are available online at <http://www.cqc.org.uk/public/publications/themed-inspections/dignity-and-nutrition-older-people/dignity-and-nutrition-olde>. See Appendix A for overview table of non-complaint trusts, including trust names.

The 2011 dignity and nutrition inspection round was followed up with a further round of targeted inspections on older people's dignity and nutrition in social care; and a further round of inspections of the care provided to older patients in fifty NHS hospitals between July and August 2012 (CQC nd). In this inspection round, compliance was identified where service uses experience the outcomes relating to the essential standard. Non-compliant hospitals were evaluated as non-compliant with minor concerns (where the matter was not significant and could be managed or resolved quickly); non-compliant with moderate concerns (where there was a significant effect on welfare or risk of such effect); and non-compliant with major concerns (where there was a serious current or long term impact on health, safety and welfare, or a risk of this) (CQC, 2013a). In total, 9 trusts were evaluated as being non-compliant with standard 01: respecting and involving people who use the services, six with minor concerns and three with moderate concerns. A total of 6 hospitals were evaluated as being non-compliant with standard 05: meeting nutritional needs, four with minor concerns and two with moderate concerns (see Figures 5 and 6).

CQC observations from the 2012 round of targeted inspections provide qualitative evidence on both poor and good practice in relation to dignity and nutrition during hospital stays. Of the six hospitals evaluated by the CQC as not meeting the overall standard on meeting nutritional needs, two were failing to give patients a choice of suitable food and drink and five were failing to provide adequate support for patients to eat and drink sufficient amounts for their needs. Where trusts were meeting standards of nutrition, good practice in relation to support with eating and drinking was observed to be related to protected mealtimes; systems for identifying patients with particular nutritional needs (for example, using red trays to identify patients who need additional help to eat and drink); nutritional risk assessments completed on admission and reviewed on an ongoing basis; referrals to dieticians and speech and language therapists; where appropriate, the completion of accurate food intake and fluid balance records; and enough staff being on duty to ensure that all patients received the support they needed to eat and drink (CQC, 2013a).

Figure 7: Care Quality Commission dignity and nutrition inspection round 2012

	Non-compliance	Impact Assessment	Qualitative Comments
Standard 01: Respecting and involving people who use services	<ul style="list-style-type: none"> 9 trusts judged as non-compliant with this standard 	<ul style="list-style-type: none"> 6 trusts where non-compliance was judged to have a minor impact on those using the service 3 trusts where non-compliance was judged to have a moderate impact on those that use the service No trusts where non-compliance was judged to have a major impact on those that use the service 	<ul style="list-style-type: none"> Staff making thoughtless comments that showed a lack of respect for the people in their care; Staff discussing confidential patient information in a public area; Patients not having anywhere to lock away their personal belongings; Staff talking over patients as though they were not there; Patients not always being able to reach call bells, or staff not responding to them in a reasonable time <p>(CQC, 2013a: 14-15)</p>
Standard 05: Meeting nutritional needs	<ul style="list-style-type: none"> 6 trusts judged as non-compliant with this standard 	<ul style="list-style-type: none"> 4 trusts where non-compliance was judged to have a minor impact on those that use the service 2 trusts where non-compliance was judged to have a moderate impact on those that use the services No trusts where non-compliance was judged to have a major impact on those that use the service 	<p>“All but one hospital was using a nutritional risk assessment tool to identify those patients at risk of malnutrition. However, the fact that 10% of hospitals were failing to meet this aspect of the standard is chiefly explained by staff not properly using these tools, or generally not being aware of the basic support needs of patients.”</p> <p>(CQC, 2013a:18)</p>

Sources: Overall evaluation based on (2013a) and individual inspection reports CQC (2012b-2012g). Qualitative comments from CQC (2013a).

Notes: Impacts were assessed according to a three point scale: ‘minor’, ‘moderate’, or ‘major’ see CQC(2013a). Figures are based on an analysis of 100 targeted inspection reports for which reports are available online at <http://www.cqc.org.uk/public/publications/themed-inspections/dignity-and-nutrition-older-people/dignity-and-nutrition-olde>.

Figure 8: Details of non-compliance in 2012 (Dignity and Nutrition)

Trust Name	2012 Compliance Outcome		Level of concern if applicable	
	Outcome 01: Respecting and involving people who use services	Outcome 05: Meeting nutritional needs	Outcome 01: Respecting and involving people who use services	Outcome 05: Meeting nutritional needs
Alderney Hospital, Dorset Healthcare University NHS	Non-compliant	Non-compliant	Minor	Minor
Auckland Park Hospital, Tees, Esk and Wear Valleys NHS Foundation Trust	Non-compliant	Compliant	Moderate	
Blackpool Victoria Hospital, Blackpool Teaching Hospitals NHS Foundation Trust	Compliant	Non-compliant		Minor
Castleberg Hospital, Airedale NHS Foundation Trust	Non-compliant	Compliant	Minor	
Chesterfield Royal Hospital, Chesterfield Royal Hospital NHS Foundation Trust	Non-compliant	Non-compliant	Minor	Moderate
Milton Keynes Hospital, Milton Keynes Hospital NHS Foundation Trust	Non-compliant	Non-compliant	Moderate	Moderate
Newham General Hospital, Barts Health NHS Trust	Non-compliant	Non-compliant	Minor	Minor
Pendle Community Hospital, East Lancashire Hospitals NHS Trust	Non-compliant	Compliant	Moderate	
The Queen Elizabeth Hospital, King's Lynn NHS Foundation Trust	Non-compliant	Non-compliant	Minor	Minor
Weston General Hospital, Weston Area Health NHS Trust	Non-compliant	Compliant	Minor	

Sources: Individual reports of trusts which were non-compliant with Standards 01 or 05 or both are referenced from CQC (2012b) through to CQC(2012g).

Notes: Impacts were assessed according to a three point scale: 'minor', 'moderate', or 'major' see CQC(2013a).

Findings based on the new CQC inspection model

As noted in section 1 ('the CQC's new inspection model'), there have been important changes in the inspection model adopted by the Care Quality Commission in the wake of the Independent and Public Inquiries into Mid Staffordshire NHS Foundation Trust 2010; the Government's response to the Public Inquiry (DH 2013b); and the Keogh Review (2013). The new inspection model moves away from a reliance on self-declarations of compliance by hospital trusts and addresses the need to make more effective use of a wide range of information - including quantitative information

-in order to evaluate patterns and risks *prior* to inspection. It also makes use of a new indicator set drawing on 150 different measures based on a diverse range of data sources. The analysis of the indicators is intended to “raise questions” rather than to “make judgements” about the quality of care. “Judgements” themselves follow from inspections, which also take into account broader evidence (CQC 2013b). At the time of writing, following further revisions to inspection methodology in September 2013, two rounds of inspection based on the CQC new inspection model are now underway (CQC 2013e).

As part of this process, “Intelligent Monitoring” reports have been used to group 161 acute NHS trusts into six bands based on the risk that people may not be receiving safe, effective, high quality care. A system of overall banding is applied with band 6 being the lowest risk and band 1 the highest (see CQC, 2013g). Trusts are categorised into one of these six summary bands based on the proportion of indicators that fall within certain thresholds. In arriving at these evaluations, each of the indicators within the intelligent monitoring system is evaluated to identify three levels: “no evidence of risk”, “risk” and “elevated risk” (CQC, 2013b).

The “Intelligent Monitoring” indicator set includes a specific indicator relating to dignity and respect, and a specific indicator relating to help with eating, both drawing on the Adult Inpatient Survey. Initial evaluations have been made for each trust against each of these indicators using the 2012 Adult Inpatient Survey, with trusts categorised into three levels (“no evidence of risk”, “risk” and “elevated risk”) (CQC 2012a, 2013bcd). The methodology for making these categorisations involves the calculation of a modified z-score based on procedure applied by the CQC in its trust benchmarking exercises discussed above (c.f. ‘CQC Performance Ratings’). Therefore, the trust level scores for dignity and respect, and for help with eating, reported in the 2013 “Intelligent Monitoring” reports and the 2012 Benchmarking Reports are identical. The Intelligent Monitoring framework applies a system of risk assessment with trust scores that are statistically worse than the national average (at 95% significance) classified as ‘at risk’; and trust scores that are statistically worse than the national average with 99% significance classified as ‘at elevated risk’ (CQC, 2013b). Figure 9 and Figure 10 summarise details of CQC findings in relation to dignity and nutrition standards.

Figure 9: Risk evaluation in 2013 (CQC Intelligent Monitoring)

	No evidence of risk	Elevated risk	Risk	Missing
Respecting and involving people who use services (Q67)	149 trusts judged as ‘no evidence of risk’	1 trust identified as ‘elevated risk’	4 trusts identified as ‘risk’	5 trusts with no score given
Meeting nutritional needs (Q23)	150 trusts judged as ‘no evidence of risk’	2 trusts identified as ‘elevated risk’	2 trusts identified as ‘risk’	5 trusts with no score given

Notes: Based on a review of 159 compliance reports published online and available at <http://www.cqc.org.uk/public/hospital-intelligent-monitoring>. See also notes to table 5 on references for specific trusts.

Figure 10: Risk evaluation in 2013 (CQC Intelligent Monitoring)

Trust Name	2013 Risk Report		2013 Compliance Observed Score		Trust Summary Band (1-highest risk, 6-lowest risk)
	Question 67: Respecting and involving people who use services	Question 23: Meeting nutritional needs	Question 67: Respecting and involving people who use services	Question 23: Meeting nutritional needs	
Barking, Havering and Redbridge University Hospitals NHS Trust	Risk	Risk	8.31	6.21	1
Croydon Health Services NHS Trust	Elevated Risk	No evidence of risk	8.20	6.80	1
Dartford and Gravesham NHS Trust	No evidence of risk	Elevated Risk	8.82	5.61	5
Lewisham and Greenwich NHS Trust	No evidence of risk	Risk	8.54	6.02	2
Medway NHS Foundation Trust	Risk	No evidence of risk	8.37	6.67	1
Milton Keynes Hospital NHS	No evidence of risk	Elevated Risk	8.64	5.97	3
South London Healthcare NHS Trust	Risk	No evidence of risk	8.43	6.55	1
Tameside Hospital NHS Foundation Trust	Risk	No evidence of risk	8.34	7.07	1

Sources: Based on 8 individual Intelligent Monitoring reports where trusts were identified as being non-compliant with either or both of the standards relating to nutrition and dignity and respect. Individual reports are referenced from CQC (2013h) through to CQC (2013o). Notes: For further information on observed scores and their interpretation see CQC (2013c; 2013d; 2012a).

Other research findings

A number of publications use multivariate regression methods to provide more in-depth knowledge and understanding of statistically significant variations in inpatient experience. Commission for Health Improvement (2004) uses the 2002 Adult Inpatient Survey and identifies statistically significant variations in inpatient experiences of a composite “dignity and respect” indicator by sex, ethnicity, education levels, self-reported health and trust type. Healthcare Commission (2005) applies forward stepwise logistic regression methods using the 2003-4 Adult Inpatient Survey and reports significant variations of experiences of the “environment” domain (covering, inter alia, dignity and respect) by age, sex, ethnicity, self-reported health status, education level, trust type, emergency admission and region. Ipsos-MORI (2008) also uses the 2003-4 Adult Inpatient Survey and finds that patient experiences of dignity and respect are closely associated with overall patient satisfaction.

A number of the studies cited above suggest that reported experiences of poor treatment declines with age. For example, Healthcare Commission (2005), Ipsos-MORI (2008) and Sizmur (2011) suggest that patient experience improves with age. Older inpatients tend to report more positive experiences of health services than their younger counterparts, including in the context of survey questions on dignity, although this trend slightly falls off for the “oldest” of the old (i.e. those over 80).

Healthcare Commission (2006: 18) highlight the apparent tension between qualitative and quantitative evidence in this area, including its own investigations under the (former) National Framework for Older People, and hypothesise that one possible explanation might be the lower expectations of older people and possible “gratitude bias” (where individuals understate the shortcomings of health services because they are grateful or relieved to be free of a particular illness, or believe that medical professionals are beyond criticism) may be playing a role in driving the quantitative findings (Healthcare Commission 2006: 17). Sizmur (2011) similarly suggests that the lower expectations of older people may well underpin some of the variations in self-reported patient experience and notes that in the broader literature, (e.g. Bleich et al 2009) age is regarded as a key indicator of expectations.

DH (2009) identifies significant differences in patient experiences by ethnic group using the 2008-09 Adult Inpatient Survey. Sizmur (2011) applies a multilevel regression model and reports significant variations in inpatient experiences of dignity and respect by age, sex, ethnicity, admissions type (emergency / elective), treatment type (general survey, urology, geriatric etc.), length of stay and provider type. Raleigh et al (2012) combine data on inpatient data with data on patient experiences of outpatient and accident emergency services. Cluster analysis is first used to characterise trust performance across these services based on standardised mean scores for six domains of experience (including a “dignity and respect” domain). Multivariate regression analysis then is used to identify factors associated with variations in trust performance (with higher mean deprivation scores and lower proportions of White patients found to be associated with poor trust performance). Other key publications identified include NHS Information Centre for Health and Social Care (2009) and Cornwell et al (2012).

Sizmur and Korner (2013) used the 2011 Adult Inpatient Survey to develop a multilevel regression model incorporating ‘hospital trust’ as a random effect. Patient characteristics were entered as fixed main effects, and then as two-way interactions. The effect of allowing slope coefficients to vary for these characteristics was investigated. More negative reported experience of being treated with dignity and respect was found to be associated with several demographic categories, including young people, women, those affiliated with no or ‘other’ religion, gay/lesbian or bisexual individuals, and those who did not disclose their religion or sexual orientation, specified ethnicities and certain chronic conditions. There were significant interactions between gender, and other variables, including age, sexual orientation, ethnicity, religion affiliation and certain chronic conditions. Random slope models suggested large hospital-trust-level variation in the experience of certain groups.

Salisbury (2010) compares the application of (1) patient experience measures and (2) general measures of satisfaction in performance evaluation. A key finding is that measures related to patients’ experience discriminate more effectively between

GP practice performances than measures of general satisfaction. This is because most of the variation in doctors' reported performance is due to differences between patients and random error rather than differences between doctors. Although patient's reports of satisfaction and experience are *both* related to characteristics such as age and sex, the more general questions on overall satisfaction are less useful in discriminating between GP practice performance than the more specific patient experience questions. This is because less of the variability is driven by patient characteristic (i.e. differences in the way in which different patients answer questions) rather than real differences in performance.

3. THE PREVALENCE OF INCONSISTENT AND POOR STANDARDS OF DIGNITY AND HELP WITH EATING: NATIONAL FINDINGS

In this section, we describe patterns and trends in inpatient experiences of inconsistent and poor standards of dignity and nutrition based on our own analysis of the Adult Inpatient Survey. For each indicator, we begin by estimating the overall prevalence of experiences of inconsistent and poor standards amongst respondents in 2012. The prevalence estimates are then disaggregated by age, gender, disability and other characteristics. Statistically significant differences between the reported experiences of different subgroups are reported where data availability permits¹⁶. Relative risks *amongst* the older population are next examined (for example, the relative risks faced by an individual who is over 80, experiences a limiting longstanding illness or disability, and who is female). Finally, trends in the percentage reporting experiences of inconsistent and poor standards of care are then evaluated over the period 2004-2012.

Having presented initial descriptive statistics on dignity and nutrition, we re-estimate the main prevalence rates and provide estimates of overall headcounts of number of individuals affected by poor and substandard standards of treatment using a new set of patient level weights. Our initial survey estimates are interpreted simply as the self-reported experiences of respondents to the Adult Inpatient Survey. However, an alternative approach is to view the survey responses as being representative of the inpatient population generally. This raises the question of how representative the Adult Inpatient Survey is of the underlying population of adult inpatients. In order to take forward the analysis here, we recalculate the main prevalence estimates using a new set of patient level weights which are designed to enhance the representativeness of the data and to support inferential statements about the general experiences of adult inpatient population as a whole. This is new and experimental work which we recommend should be further developed in the future.

Dignity and respect

Overall prevalence

Overall, around 80% of survey respondents reported being ‘always’ treated with dignity and respect during their hospital stay in 2012, with 17% of respondents reporting that they were ‘sometimes’ treated with dignity and respect and 3% of respondents indicating that they were ‘not. treated with dignity and respect. The intermediate response category “yes, sometimes” is somewhat complex to interpret. It seems reasonable to interpret the response “yes, sometimes” rather than “yes, always” as implying a mixed picture of patient experience within the overall hospital stay.

¹⁶ Significance testing and breakdowns based on combinations of characteristics (for example, age and ethnicity), or more detailed categories (for example, type of disability) are not always possible due to confidentiality restrictions on data release and/or small sample sizes. but where these restrictions allow, intersectional or fine-grained breakdowns are provided.

Based on this understanding, we interpret the selection of the intermediate response option as evidence of experiencing “inconsistent” standards of care. Responses indicating that the inpatient was ‘not’ treated with dignity and respect are interpreted as a clear and unambiguous indication of poor treatment.

Although the intermediate response category is somewhat complex to interpret, we suggest that the most reasonable interpretation is that selecting the response category “yes, sometimes” rather than “yes, always” implies that, on occasions, individuals did experience poor treatment. The additional 3% of respondents indicating that they were *not* treated with dignity and respect provides a clear and unambiguous indication of poor treatment. Overall, therefore, we estimate that 20% of respondents were affected by inconsistent or poor standards of treatment with dignity and respect during their hospital stay.

Disaggregation by equality characteristics

In the section below, statistically significant differences in the percentage of those reporting inconsistent or poor treatment were identified by age, disability and gender. This percentage was lower for older people than for younger people, and higher for individuals who experience a disability than for those who do not, and for women than for men. The percentage was also higher amongst those who belong to the Gypsy or Traveller, Mixed, Asian / Asian British and Black / Black British ethnic groups compared with those who belong to the White ethnic group; and amongst those who self-identify as Gay / Lesbian, compared with those who self-identify as heterosexual / straight.

Age, gender and disability

Table 3 disaggregates the findings on patient experiences of dignity and respect by age, sex and disability. Significant differences in subgroup experiences differences by these characteristics is flagged in the table by “*”. Significant variations in the percentage reporting being treated with dignity and respect are observed by age, sex and disability.

Focussing first on disaggregation by age, and perhaps contrary to expectations given the qualitative evidence examined in Section 2, the percentage of inpatients who report that they were *always* treated with dignity and respect is observed to *increase* with age. Conversely, the percentage reporting *not* being treated with dignity and respect is observed to decline with age. The observation of a negative association between reported experiences of poor treatment and age is in line with previous quantitative studies of variations in patient experience discussed in section 2.

Around 65% of 16-35 year olds report ‘always’ being treated with dignity and respect during their hospital stay. This figure increases to 73% and 80% for the 36-50 and 51-65 year old age bands respectively and to 85% for the 66-80 age group. The percentage then falls back slightly, to around 81% for those who are aged above 80.

The percentage of inpatients who report that they were ‘sometimes’ treated with dignity and respect is observed to fall with age, but picks up for the oldest group. Around 29% of 16-35 year olds report being ‘sometimes’ treated with dignity and respect during their hospital stay. This figure falls to 22%, 17% and 13% for the 36-50, 51-65 and 66-80 year old age bands respectively. The percentage then increases again, to around 17% for those who are aged above 80.

The percentage of inpatients who report that they experienced ‘not’ being treated with dignity and respect is observed to *decline* with age. Around 6% of 16-35 year olds report not being treated with dignity and respect during their hospital stay. This figure falls to 5% and 3% for the 36-50 and 51-65 year old age bands respectively and to 2% for the 66-80 age group and for those who are 80+ (although a small upturn for the oldest age group is evident).

Experiences of poor treatment are significantly worse for women compared to men, and for individuals who experience a limiting longstanding illness or disability, compared with those who do not. For example, a significantly lower percentage of women report ‘always’ being treated with dignity and respect, and a significantly higher percentage reported not being treated with dignity and respect, compared with men. Similarly, a significantly lower percentage of individuals who experience a limiting longstanding illness or disability report ‘always’ being treated with dignity and respect - and a significantly higher percentage reported ‘not’ being treated with dignity and respect - compared with those who do not experience a LLID.

Table 3: Percentage reporting not being treated with dignity and respect during hospital stays by subgroup (2012)

		Always treated with dignity and respect	Sometimes treated with dignity and respect	Not treated with dignity and respect
ALL		80.2	16.9	2.9
Age	16-35	65.0	28.6	6.4
	36-50	72.9*	22.1*	5.0*
	51-65	80.2*	16.9*	2.9*
	66-80	85.4*	12.9*	1.8*
	>80	81.1*	16.5*	2.4*
Sex	Male	83.9	14.0	2.2
	Female	77.1*	19.5*	3.5*
Disability	No LLID	84.0	14.0	2.1
	LLID	74.1*	21.7*	4.2*

Source: author’s calculations using the Adult Inpatient Survey, 2012, England only.

Notes: Respondents were asked Overall, did you feel you were treated with respect and dignity while you were in the hospital? Response options were (1) yes, always (2) yes, sometimes (3) no. The disability variable has been derived from responses to question 74 (on longstanding conditions) and question 75 (on difficulties). For further details see Appendix D. Missings have been dropped from the calculations in this

table. Rows may not sum exactly to 100%. The data in this table are unweighted. Significance testing of subgroup differences has been undertaken in the top panel only. This has been undertaken at the 95% level using an (unweighted) one variable logistic regression test. Reference groups are highlighted in bold and significance differences between the percentage reported by a subgroup and the reference group are highlighted by “*”. The minimum cell size for the figures reported in this table is 272. The Adult Inpatient Survey is made available by the UK Data Archive and deposited by the Care Quality Commission (CQC). The data set used in these calculations was provided by the Picker Institute with the permission of the CQC.

Other characteristics

Table 4 reveals further important variations in patient experiences of dignity and respect by ethnic group, religion and sexual identity. Whilst significance testing of subgroup differences has not been undertaken for these characteristics, some notable patterns nevertheless emerge. Self-reported experiences of dignity and respect are lower for ethnic minority groups compared with those from the White ethnic group. More fine-grained analysis by ethnicity reveals that self-reported experiences of poor treatment are particularly high amongst the Gypsy or Traveller ethnic minority group; the White and Black Caribbean; the White and Black African ethnicity minority groups; and the Any other Black/African/Caribbean ethnic minority group; and the Pakistani and Bangladeshi ethnic minority groups (Table 4). Self-reported experiences of dignity and respect are also more negative for those who self-identify as Gay / Lesbian, compared with those who self-identify as heterosexual / straight. Those who prefer not to respond to the sexual identity question (“I prefer not to say”) are also less likely to report “always” being treated with dignity and respect, and more likely to report “only sometimes” or “not” being treated with dignity and respect, than those who self-identify as heterosexual / straight¹⁷.

Table 4: Percentage reporting not being treated with dignity and respect during hospital stays by ethnic group, religion / belief and sexual identity (2012)

		Always treated with dignity and respect	Sometimes treated with dignity and respect	Not treated with dignity and respect
Derived ethnic group	White	80.7	16.5	2.8
	Mixed	70.8	23.8	5.4
	Asian or Asian British	72.0	23.4	4.7
	Black or Black British	73.6	22.4	4.0
	Arab or other ethnic group	78.8	19.2	2.0
	Not known	80.2	16.5	3.3
What is your ethnic group?	English/Welsh/Scottish/Northern Irish/British	80.7	16.5	2.8

¹⁷ Subgroup differences have not been tested for statistical significance in this section.

	Irish	81.9	13.6	4.6
	Gypsy or Irish Traveller	81.4	9.3	9.3
	Any other White background	77.9	19.3	2.9
	White and Black Caribbean	65.4	28.8	5.9
	White and Black African	81.8	12.7	5.5
	White and Asian	73.5	22.1	4.4
	Any other Mixed/multiple ethnic background	68.3	25.4	6.4
	Indian	73.3	22.4	4.4
	Pakistani	67.8	26.6	5.7
	Bangladeshi	68.8	23.9	7.3
	Chinese	72.8	24.8	2.4
	Any other Asian background	75.8	20.0	4.2
	African	71.5	24.8	3.7
	Caribbean	75.9	20.3	3.9
	Any other Black/African/Caribbean background	69.1	21.4	9.5
	Arab	79.3	17.2	3.5
	Any other ethnic group	78.1	21.9	0.0
Religion	No religion	75.2	20.8	4.0
	Buddhist	77.4	21.1	1.6
	Christian	82.0	15.5	2.5
	Hindu	75.2	20.4	4.4
	Jewish	79.4	18.6	2.0
	Muslim	72.3	22.5	5.2
	Sikh	69.0	27.3	3.8
	Other	70.1	24.5	5.4
	I would prefer not to say	68.4	24.9	6.7
Sexual identity	Heterosexual/straight	80.5	16.6	2.8
	Gay/lesbian	72.8	22.4	4.9
	Bisexual	72.0	25.1	2.9
	Other	81.4	16.8	1.8
	I would prefer not to say	74.8	21.5	3.7

Source: Picker Institute calculations using the Adult Inpatient Survey, 2012, England only.

Notes: This table is based on self-reported ethnic group based on survey responses (rather than trust records). Respondents were asked Overall, did you feel you were treated with respect and dignity while you were in the hospital? Response options were (1) yes, always (2) yes, sometimes (3) no. Ethnic group information is from response information only including not known category. Information on religion is based on responses to the question “what is your religion”. The Christian category includes Church of England, Catholic, Protestant and other Christian denominations). Information on sexual identity is based on responses to the question: “which of the following best describes how you think of yourself”. Missings have been dropped from the calculations in this table. Rows may not sum exactly to 100%. Reporting in this table is based on a

minimum sample size for the relevant subgroup who responded to the question of 30. The symbol “-” indicates where the (unweighted) sample size for each subgroup falls below 30. Yellow highlights indicate where individual cell sizes fall below 30. The Adult Inpatient Survey is made available by the UK Data Archive and deposited by the Care Quality Commission (CQC). The data set used in these calculations was provided by the Picker Institute with the permission of the CQC.

Relative risks within the older population

Table 5 examines relative risks of experiencing poor standards of dignity and respect within the older population. Amongst the older population aged over 65, the risk of inconsistent or poor standards of dignity and respect were higher for older people over 80, and older people over 80 who experience a longstanding limiting illness or disability. Amongst this subgroup, risks were higher for women than for men.

Amongst older people aged 66-80, the percentage of inpatients who reported that they were ‘always’ treated with dignity and respect was 85%. Inconsistent or poor standards of treatment affecting 15% of this age group, with 13% reporting that they were ‘sometimes’ treated with dignity and respect, and 2% reported that they were ‘not’ treated with dignity and respect.

Amongst older people aged 80 or above, 81% reported being ‘always’ treated with dignity and respect during their hospital stay. Inconsistent or poor standards of treatment affected 19% of this age group, with 17% reporting that they were ‘sometimes’ treated with dignity and respect, and 2% reported that they were ‘not’ treated with dignity and respect.

Around 74% of those over 80 who experience a disability reported always being treated with dignity and respect, with 27% affected by inconsistent or poor standards of care. Of these, 23% reported sometimes being treated with dignity and respect, and 4% reported not being treated with dignity and respect.

The proportion of females aged 80 or above who are disabled reporting that they were ‘always’ treated with dignity and respect falls to 70%. The proportion that report that they were ‘sometimes’ treated with dignity and respect increases to 26 %, whilst the proportion reporting that they were ‘not’ treated with dignity and respect increases to 5%.

Table 5: Relative risks in the older population

	Always treated with dignity and respect	Sometimes treated with dignity and respect	Not treated with dignity and respect
Aged 66-80	85.4	12.9	1.8
Aged >80	81.1	16.5	2.4
Aged > 80 with disability (4),	73.5	22.5	4.0

Female, age > 80, with disability	69.7	25.7	4.6
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Source: author's calculations using the Adult Inpatient Survey, 2012, England only.

Notes: Respondents were asked Overall, did you feel you were treated with respect and dignity while you were in the hospital? Response options were (1) yes, always (2) yes, sometimes (3) no. The disability variable has been derived from responses to question 74 (on longstanding conditions) and question 75 (on difficulties). For further details see Appendix D. Missings have been dropped from the calculations in this table. Rows may not sum exactly to 100%. The data in this table are unweighted. The minimum cell size for the figures reported in this table is 138. The Adult Inpatient Survey is made available by the UK Data Archive and deposited by the Care Quality Commission (CQC). The data set used in these calculations was provided by the Picker Institute with the permission of the CQC.

Trends 2004-2012

Looking back over the medium term, there has been remarkably little change in the percentage affected by poor standards of dignity and respect over the period for which data is available. The (unweighted) percentage of the full sample reporting 'not' being treated with dignity and respect was 2.8% in 2004. After 2004 this percentage rose somewhat with a statistically significant increase in the (unweighted) percentage of the full sample reporting 'not' being treated with dignity and respect between 2004 and 2007. In 2007, the (unweighted) percentage of the full sample reporting not being treated with dignity and respect was 3.1%. By 2012, the figure had fallen back to 2.9%.

Comparing the figures for 2004 and 2012, the percentage reporting 'not' being treated with dignity and respect did not change significantly. Indeed, this percentage was not significantly different in 2012 compared with every other year going back to 2004 (overlapping confidence intervals) (Table 6).

Table 6: Trends in the percentage of respondents who report not being treated with dignity and respect 2004-2012

		95% Conf. Interval	
2004	2.8	2.7	2.9
2005	2.9	2.8	3.0
2006	3.1	2.9	3.2
2007	3.1	3.0	3.2
2008	2.7	2.6	2.8
2009	2.9	2.8	3.1
2010	2.9	2.8	3.0
2011	3.0	2.9	3.1
2012	2.9	2.8	3.0

Source: author's calculations using the Adult Inpatient Survey, 2012, England only.

Note: Based on trend dataset constructed by author using data set provided by the Picker Institute and CQC for 2009-2012 and datasets deposited at the National Archive for 2004-2008. Sample includes all participating trusts (which can differ from year to year) and groups specialist trusts as one observation. Some of the data used in these calculations were provided by the Picker Institute with the permission of the CQC.

These patterns of significant differences are confirmed by sensitivity testing based on a “consistent” trend dataset including 150 trusts which are present in the dataset every year 2004-2012. Based on the consistent dataset, the percentage reporting not being treated with dignity and respect was not significantly different in 2012 compared with other years going back to 2004 (overlapping confidence intervals) (Table 7)¹⁸.

Table 7: Trends in the percentage of respondents who report poor treatment 2005-2012

		95% Conf. Interval	
2004	2.8	2.6	2.6
2005	2.9	2.8	2.8
2006	3.0	2.9	2.9
2007	3.1	3.0	3.0
2008	2.7	2.6	2.6
2009	2.9	2.8	2.8
2010	2.9	2.7	2.7
2011	3.0	2.8	2.8
2012	2.9	2.8	2.8

Source: author’s calculations using the Adult Inpatient Survey, 2012, England only.

Note: Based on trend dataset constructed by author using data set provided by the Picker Institute and CQC for 2009-2012 and datasets deposited at the National Archive for 2004-2008. Sample excludes trusts which did not participate in the survey process every year and groups specialist trusts. The data set used in these calculations was provided by the Picker Institute with the permission of the CQC.

Help with eating

Overall prevalence

In 2012, 26% of respondents to the Adult Inpatient Survey indicated that they needed help with eating during a hospital stay, with 71% of respondents reporting that they did not need such help and around 3% with missing responses. This is a substantial proportion of survey respondents and points towards the issue of support with eating being a major issue for significant numbers of inpatients, rather than being a marginal or specialist issue (Table 8).

¹⁸ For a discussion of CQC analysis of trends since 2012, see section 2 (CQC national summaries) and Appendix D (Table 42-Table 47).

Table 8: Percentage of respondents who reported that they need support with eating, 2012

	Number	Percent
Did not need help with eating during hospital stay	46,018	71.3
Needed help with eating during hospital stay	16,454	25.5
Missing	2,033	3.2
Total	64,505	100.0

Overall, based on the full (unrestricted) sample which includes *all* respondents (whether or not they indicated that they needed support with eating during their hospital stay), 16% of respondents indicated that they ‘always’ received enough help with eating from staff, 5% that they ‘sometimes’ received enough help and 4% that they did ‘not’ receive enough help from staff. A further 71% indicated that they did not need help with eating during their hospital stay.

As noted in relation to the Adult Inpatient Survey question on dignity and respect, the intermediate response category “yes, sometimes” is somewhat complex to interpret. It seems reasonable to interpret the response “yes, sometimes” rather than “yes, always” as implying that there were instances that enough help was *not* received, and other instances when such support was received. Here, we interpret the intermediate response category as evidence of “inconsistent” patterns of support with eating. Responses indicating ‘not’ receive enough help with eating from staff are understood as clear and unambiguous indication of poor treatment.

Based on this interpretation of the survey question and the full (unrestricted) sample, we estimate that 9% of respondents were affected by inconsistent or poor standards of support with individual nutritional needs during their hospital stay (Table 9). Amongst those who reported only ‘sometimes’, or ‘not’, receiving enough help from staff, 28% were between 66 and 80 years old and a further 28% were aged over 80. Around 63% experienced a LLID such as being deaf and / or blind and / or experiencing a physical or mental health condition, a learning difficulty, or a long-term illness such as HIV, stroke/heart disease or cancer.

Table 9: Percentage of respondents who received enough help with eating from staff (full sample, 2012)

Did you get enough help from staff to eat your meals?	Number	Percentage	Cumulative percentage
Yes, always	10,566	16.4	16.4
Yes, sometimes	3,119	4.8	21.2
No	2,769	4.3	25.5
I did not need help to eat meals	46,018	71.3	96.9
Missing	2,033	3.2	
Total	64,505	100.0	100.0

Source: author’s calculations using the Adult Inpatient Survey, 2012, England only.

Notes: Respondents were asked “Did you get enough help from staff to eat your meals?” and could choose from the following responses, (1) “Yes, always”; (2) “Yes, sometimes”; (3) No; (4) “I did not need help to eat meals”. Rows may not sum exactly to 100%. The data set used in these calculations was provided by the Picker Institute with the permission of the CQC.

When the analysis is based on the restricted sample, excluding individuals who indicate that they do not need help with eating from the analysis, the percentages indicating lack of support with eating increase considerably, as one would expect. Overall, based on the restricted sample, the percentage of respondents who need support with eating, who reported that they ‘always’ received enough help from staff, was 64% in 2012. The percentage reporting that they ‘sometimes’ received enough help was 19%, and the percentage reporting that they did ‘not’ receive enough help was 17%. Based on the restricted sample, a total of 36% of respondents who needed help with eating were affected by inconsistent or poor standards of support with eating during their hospital stay (Table 10).

Disaggregation by equality characteristics

In the section below, statistically significant differences in the percentage of those who needed help with eating reporting that they always received enough help from staff are identified by age, disability and gender. The percentage of those reporting inconsistent or poor standards of treatment is observed to be higher for older people than for younger people, for individuals who experience a disability compared with those who do not, and for women compared to men. The percentage is also observed to be higher amongst those belonging to the Mixed, Asian / Asian British or Black / Black British ethnic groups compared to those who belong to the White ethnic group.

Age, gender and disability

Table 10 disaggregates the findings on patient experiences of help with eating during hospital stays by age, sex and disability. Significant differences in subgroup experiences compared to a reference group (in bold) is flagged in the table by “*”. Significant variations in the percentage reporting being treated with dignity and respect are observed by age, sex and disability.

As in the context of dignity and respect, the percentage of those who need help with eating during hospital stays, who reported ‘always’ receiving enough help from staff, is observed to *increase* with age, but with a downturn in the oldest age groups. Based on the restricted sample, around 58% of 16-35 year olds who needed help with eating reported ‘always’ receiving enough support during their hospital stay. This figure increases to 65% for the 36-50 and to 69% for the 51-65 and 65-80 age bands respectively. However, there is a downturn in the oldest age groups, with a figure of 69% of those aged 66-80 and a decline to 55% for those aged greater than 80.

Table 10: Percentage of respondents who need support with eating, who reported that they did not receive the help they needed from staff, 2012

		Always received enough help	Sometimes received enough help	Did not receive enough help
ALL		64.2	19.0	16.8
Age	16-35	58.2	21.2	20.7
	36-50	65.0*	18.0*	17.0*
	51-65	69.0*	15.6*	15.4*
	66-80	68.5*	16.4*	15.1*
	>80	55.0*	25.8*	19.3
Sex	Male	68.6	17.0	14.4
	Female	60.1*	20.8*	19.1*
Disability	No LLID	72.0	14.9	13.1
	LLID	56.3*	23.2*	20.5*

Source: author's calculations using the Adult Inpatient Survey, 2012, England only.

Notes: Respondents were asked "Did you get enough help from staff to eat your meals?" and could choose from the following responses, (1) "Yes, always"; (2) "Yes, sometimes"; (3) No; (4) "I did not need help to eat meals". Percentages in this table are based on the subsample of respondents who need help with eating (identified through response (4) to the question on help with eating meals above. The disability variable has been derived from responses to question 74 (on longstanding conditions) and question 75 (on difficulties). For further details see Appendix D. The minimum unweighted cell size for the figures reported in this table is 288. Missings are excluded from the analysis. Rows may not sum exactly to 100%. The data set used in these calculations was provided by the Picker Institute with the permission of the CQC.

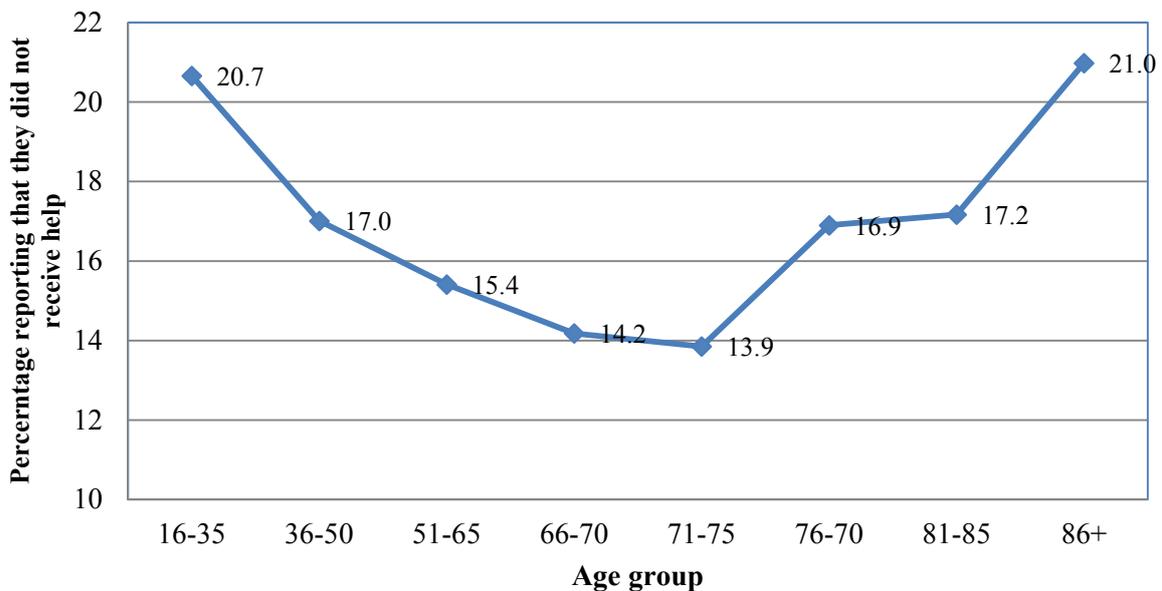
The pattern in the percentage of those who need help with eating during hospital stays, who reported 'sometimes' receiving enough help from staff, is mixed. Based on the restricted sample, around 21% of 16-35 year olds report 'sometimes' receiving enough help with eating during their hospital stay. This figure falls to 18% for the 36-50 and to 16% for the 51-65 and 65-80 age bands respectively. However, there is a notable increase in the percentage of those who need help with eating during hospital stays, who reported *sometimes* receiving enough help, amongst the oldest age group. The figure increases to 26% for those aged greater than 80.

The percentage of those who need help with eating reporting "not" receiving enough help is observed to have a negative association with age. Based on the restricted sample, around 21% of 16-35 year olds report not receiving enough help with eating from staff during their hospital stay. This figure falls to 17% for the 36-50 and to 15% for the 51-65 and 65-80 age bands respectively. There is an upturn amongst the oldest age groups, with a figure of 19% for those aged greater than 80.

More fine-tuned disaggregation amongst those aged 65 or over confirms a u-shaped association between lack of support with eating and age, with a clear upturn in those aged 75 and above (Figure 11). The percentage of respondents who need support

with eating, who reported that they did not receive enough help from staff, troughs for those aged 71-75 at 14%. However, the figure climbs from 17% for those aged 76-80, and those aged 81-85 respectively, to 21% for those aged 86 and above.

Figure 11: Percentage of respondents who need support with eating, who reported that they did not receive enough help from staff, with narrow age disaggregation for ages 65+, 201



Source: author’s calculations using the Adult Inpatient Survey, 2012, England only. The data set used in these calculations was provided by the Picker Institute with the permission of the CQC.

Experiences of poor treatment are significantly worse for women compared to men, and for individuals who experience a limiting longstanding illness or disability, compared with those who do not. For example, a significantly lower percentage of women report ‘always’ receiving help, and a significantly higher percentage reported not receiving help, compared with men. Similarly, a significantly lower percentage of individuals who experience a limiting longstanding illness or disability report ‘always’ receiving help, and a significantly higher percentage reported not receiving help, compared with those who do not experience a LLID.

More fine-grained analysis amongst those reporting a longstanding condition is revealing. Table 11 examines the prevalence rates of poor standards of help with eating amongst individuals who need help with eating and who experience different conditions (deafness or severe hearing condition blindness or partially sighted; a longstanding physical condition, a learning disability; a mental health condition; or a longstanding illness such as cancer, HIV, diabetes, chronic heart disease or epilepsy). Prevalence rates of poor standards include rates of 21% amongst individuals who experience deafness or severe hearing conditions; 24% amongst those who experience blindness or are partially sighted; 20% amongst those who experience a longstanding physical condition; 28% amongst those who experience a learning difficulty; 26% amongst those who experience a mental health condition; and 18% amongst those who

experience a longstanding illness. This compares to rates of 13% for those who need help with eating but who do not experience a condition.

Table 11: Percentage of respondents who need help with eating and who experience a condition who reported that they did not receive enough help from staff (restricted sample, 2012)

Condition	Did not receive enough help with eating from staff
Deafness or severe hearing Impairment	20.7 %
Blindness or partially sighted	24.2 %
A long-standing physical condition	20.3 %
A learning disability	28.3 %
A mental health condition	26.4 %
A long-standing illness cancer, HIV, diabetes, chronic heart disease, or epilepsy	17.7 %
No condition	12.9 %

Source: author's calculations using the Adult Inpatient Survey, 2012, England only. The data set used in these calculations was provided by the Picker Institute with the permission of the CQC. Condition categories are based on responses to q74. This table (1) identifies a sample of individuals who experience a given condition; (2) calculates the percentage who report not receiving help.

Other characteristics

Table 12 highlights other important variations in the percentage of respondents who need help with eating who received such help from staff. Belonging to the Mixed, Asian / Asian British or Black / Black British ethnic minority groups (compared to being White) are important risk factors. Further, more fine-grained analysis by ethnicity points towards adverse experiences amongst the Pakistani, Caribbean and African minority ethnic groups, and those the White and Asian, White and Black Caribbean and other White minority ethnic groups¹⁹.

¹⁹ Subgroup differences have not been tested for statistical significance in this section.

Table 12: Percentage of respondents who need support with eating, who reported that they did not receive enough help from staff, 2012)

		Always received enough help	Sometimes received enough help	Did not receive enough help
Derived ethnic group	White	65.5	18.1	16.4
	Mixed	56.4	23.7	19.9
	Asian or Asian British	53.3	28.0	18.7
	Black or Black British	51.5	23.1	25.4
	Arab or other ethnic group	54.4	33.3	12.3
	Not known	62.1	19.6	18.4
What is your ethnic group?	English/Welsh/Scottish/Northern Irish/British	65.5	18.2	16.3
	Irish	70.0	11.3	18.7
	Gypsy or Irish Traveller	-	-	-
	Any other White	61.5	19.4	19.1
	White and Black Caribbean	65.6	17.2	17.2
	White and Black African	-	-	-
	White and Asian	49.0	29.4	21.6
	Any other Mixed/multiple	-	-	-
	Indian	54.1	28.3	17.6
	Pakistani	50.0	26.6	23.4
	Bangladeshi	51.5	35.3	13.2
	Chinese	59.6	21.3	19.1
	Any other Asian	55.7	27.8	16.5
	African	52.6	22.6	24.7
	Caribbean	51.8	23.4	24.8
	Any other	27.3	27.3	45.5
	Arab	53.1	28.1	18.8
	Any other ethnic group	56.0	40.0	4.0
What is your religion?	No religion	65.4	17.8	16.8
	Buddhist	71.2	15.1	13.7
	Christian (including	65.6	18.3	16.1
	Hindu	61.3	22.9	15.9
	Jewish	64.6	10.1	25.3
	Muslim	51.0	27.0	21.9
	Sikh	46.5	33.7	19.8
	Other	54.8	21.0	24.2
I would prefer not to say	52.0	24.4	23.6	

Which of the following best describes how you think of yourself?	Heterosexual/straight	64.8	18.9	16.3
	Gay/lesbian	53.1	25.0	21.9
	Bisexual	68.1	12.5	19.4
	Other	63.5	17.5	19.0
	I would prefer not to say	59.2	20.6	20.1

Source: Picker Institute calculations using the Adult Inpatient Survey, 2012, England only.

Notes: This table is based on self-reported ethnic group based on survey responses (rather than trust records). Respondents were asked “Did you get enough help from staff to eat your meals?” and could choose from the following responses, (1) “Yes, always”; (2) “Yes, sometimes”; (3) No; (4) “I did not need help to eat meals”. Percentages in this table are based on the subsample of respondents who need help with eating (identified through response (4) to the question on help with eating meals above. Ethnic group information is from response information only including not known category. Missings are excluded from the analysis. Rows may not sum exactly to 100%. Reporting in this table is based on a minimum sample size for the relevant subgroup who responded to the question of 30. The symbol “-“ indicates where the (unweighted) sample size for each subgroup falls below 30. Yellow highlights indicate where individual cell sizes fall below 30. The data set used in these calculations was provided by the Picker Institute with the permission of the CQC.

Relative risks within the older population

Table 13 examines relative risks of experiencing poor standards of nutritional support *within* the older population. Amongst the older population aged over 65, the risk of inconsistent or poor standards were higher for older people over 80, and older people over 80 who experience a longstanding limiting illness or disability. Amongst this subgroup, risks were higher for women than for men.

Amongst older people aged 66-80, the percentage of inpatients who needed help with eating during a hospital stay reporting that they always received such help was 69%. Inconsistent or poor standards of support affected 31% of this age group, with 16% reporting ‘sometimes’ receiving enough help and 15% reporting not receiving enough help.

Amongst older people aged above 80, the percentage reporting that they ‘always’ received enough help fell to 55%. Inconsistent or poor standards of support affected 45% of this age group, with 26% reporting ‘sometimes’ receiving enough help and 19% reporting not receiving enough help.

Around 44% of older people over 80 who experience a LLID reported ‘always’ receiving enough help from staff with eating during their hospital stay, with 56% affected by inconsistent or poor standards of treatment. Of these, 31% reported ‘sometimes’ receiving enough help, and 25% reported ‘not’ receiving enough help.

Around 40% of women over 80 who experience a LLID reported always receiving enough help from staff with eating during their hospital stay, with 61% affected by inconsistent or poor standards of treatment. Of these, 33% reported sometimes receiving enough help, and 28% reported not receiving enough help.

Table 13: Relative risks in the older population

	Always received enough help from staff	Sometimes received enough help from staff	Did not receive enough help from staff
Age 66-80	68.5	16.4	15.1
Age >80	55.0	25.8	19.3
Aged >80, with disability (4)	44.0	31.0	25.1
Female, aged > 80, with disability	39.4	32.6	28.0

Source: author's calculations using the Adult Inpatient Survey, 2012, England only.

Notes: Respondents were asked "Did you get enough help from staff to eat your meals?" and could choose from the following responses, (1) "Yes, always"; (2) "Yes, sometimes"; (3) No; (4) "I did not need help to eat meals". Percentages in this table are based on the subsample of respondents who need help with eating (identified through response (4) to the question on help with eating meals above. The disability variable has been derived from responses to question 74 (on longstanding conditions) and question 75 (on difficulties). For further details see Appendix D. The data in this table are unweighted. The minimum cell size for disaggregation by individual characteristics is 288 and the minimum cell size for the female, disability and age greater than 80 cells is 347. Missings are excluded from the analysis. Rows may not sum exactly to 100%. The data set used in these calculations was provided by the Picker Institute with the permission of the CQC.

Table 14: Percentage of respondents who filled in the survey themselves, by age group, 2012

	Patient themselves	A friend	Patient and a friend together	Patient and professional together	Total
16-35	88.4	4.3	7.1	0.3	100.0
36-50	92.7	2.6	4.1	0.6	100.0
51-65	91.4	2.8	5.2	0.5	100.0
66-80	86.1	4.6	9.0	0.3	100.0
>80	66.0	13.9	19.5	0.6	100.0
Total	84.8	5.57	9.2	0.4	100.0

Source: author's calculations using the Adult Inpatient Survey, 2012, England only. The data set used in these calculations was provided by the Picker Institute with the permission of the CQC.

Further light is shed on older people's survey responses through the analysis of proxy answers. In 2012, an additional question was included in the Adult Inpatient Survey that asks whether the survey response form has either been completed by the inpatient him or herself with the *assistance* of family, friends and professionals; or where the returned form has been completed on behalf of the inpatient (without the inpatient themselves engaging with the survey process). Amongst those aged 80+, only 66% filled in their own forms compared with much higher percentages within younger age bands (Table 14). Conversely, proxy responses by a friend, and the patient and a friend filling the form in together, were more likely within higher age bands.

Proxy responses tended to be more negative, with proxy respondents more likely to indicate poor treatment. Focussing on over 80s and the restricted sample (i.e. those who indicate that they need help with eating), of respondents who completed the form themselves, 11% said that they did not receive the support they needed, whereas where a friend filled in the form, this figure rises to 28% (Table 15). Where inpatients completed the form with a friend or with a professional, the percentage of cases indicating that they did not receive support were 25% and 22% respectively, confirming the tendency towards more negative responses in the context of proxy survey responses.

This finding apparently provides further support for the adaptive expectations thesis, highlighting that evaluation of patient experience by a third party rather than an older person themselves results in more negative reported experience. However, other explanations for this pattern in the data are also possible. For example, a proxy response could be feasibly “triggered” by poor patient experience: those who feel their relatives were poorly treated might be more motivated to complete the survey with, or on behalf of, their relatives. It is also possible that those who had more negative experiences were also less able to fill in the questionnaire by themselves, needing support (Sizmur 2014).

Table 15: Proxy responses and help with eating amongst respondents aged 80+ (restricted sample, 2012)

Percentages

	Always or sometimes received help with eating from staff	Did not receive help with eating from staff	Total
Patient	89.2	10.8	100
A friend	72.0	28.0	100
Both patient and a friend	74.6	25.4	100
The patient and a professional	78.0	21.9	100
Total	80.8	19.2	100

Source: author’s and Picker Institute calculations using the Adult Inpatient Survey, 2012, England only. The data set used in these calculations was provided by the Picker Institute with the permission of the CQC.

Trends 2005-2012

Looking back over the medium term, there has been remarkably little change in the percentage affected by poor standards of help with eating for the period for which data is available. However, year on year fluctuations are observed. Based on the restricted sample, the (unweighted) percentage of those who needed help reporting poor standards of help with eating was 17.3% in 2005. After 2005, this percentage increased significantly to a peak of 20.2% in 2006. The figure fell back to 17.2% in 2010 before increasing in 2011 to 18.5% and falling back in 2012 to 16.8%. There was

not a statistically significant difference in the percentage of those of needed help who reported not receiving help between 2005 and 2012. However, this figure was significantly lower in 2012 than in 2011, 2009, 2007 and 2006 (Table 16).

Based on the full sample, the overall proportion reporting that they did not receive enough help with eating from staff was lower (statistically significant) in 2012 than in all years except 2005 (non-overlapping confidence intervals).

Table 16: Trends in the percentage of respondents who report poor treatment 2005-2012

	95% Conf. Interval		
Percentage reporting not receiving enough help with eating from staff (full sample)			
2005	4.4	4.3	4.6
2006	4.9	4.7	5.0
2007	5.5	5.3	5.6
2008	5.3	5.2	5.5
2009	5.4	5.2	5.6
2010	5.3	5.1	5.5
2011	5.3	5.2	5.5
2012	4.4	4.3	4.6
Percentage reporting not receiving enough help with eating from staff (restricted sample, excluding those who do not need help from the analysis)			
2005	17.3	16.8	17.9
2006	20.2	19.6	20.7
2007	19.5	19.0	20.1
2008	17.8	17.3	18.4
2009	17.8	17.3	18.4
2010	17.2	16.7	17.7
2011	18.5	18.0	19.0
2012	16.8	16.3	17.4

Source: author's calculations using the Adult Inpatient Survey, 2012, England only.

Note: Based on trend dataset constructed by author using data set provided by the Picker Institute and CQC for 2009-2012 and datasets deposited at the National Archive for 2004-2008. Sample includes all participating trusts (which can differ from year to year) and groups specialist trusts as one observation. Some of the data used in these calculations were provided by the Picker Institute with the permission of the CQC.

These patterns of significant differences are confirmed by sensitivity testing based on a “consistent” trend dataset including 150 trusts which are present in the dataset every year 2004-2012. Based on the full sample, the overall proportion reporting that they did not receive enough help with eating from staff was significantly lower in 2012 than in all years except 2005 (non overlapping confidence intervals). Based on the restricted sample (that is, those indicating that they needed help with eating), the proportion that reported not receiving enough help from staff was

significantly lower in 2012 than in 2011, 2009, 2007 and 2006 (non overlapping confidence intervals) (Table 17).

Table 17: Trends in the percentage of respondents who need help with eating, who report not receiving help (2005-2012)

		95% Conf. Interval	
Not receiving help, full sample			
2005	4.3	4.2	4.5
2006	4.8	4.6	4.9
2007	5.4	5.2	5.6
2008	5.3	5.1	5.5
2009	5.4	5.2	5.6
2010	5.3	5.1	5.5
2011	5.3	5.1	5.4
2012	4.4	4.2	4.6
Not receiving help, restricted sample (only those who report needing help)			
2005	17.1	16.6	17.7
2006	19.8	19.2	20.4
2007	19.2	18.7	19.8
2008	17.7	17.1	18.2
2009	17.8	17.3	18.4
2010	17.2	16.6	17.7
2011	18.3	17.8	18.9
2012	16.7	16.1	17.3

Source: author's calculations using the Adult Inpatient Survey, 2012, England only.

Note: Based on trend dataset constructed by author using data set provided by the Picker Institute and CQC for 2009-2012 and datasets deposited at the National Archive for 2004-2008. Sample excludes trusts which did not participate in the survey process every year and groups specialist trusts. The data set used in these calculations was provided by the Picker Institute with the permission of the CQC.

The fall in the percentage reporting not being helped with eating between 2011 and 2012 is encouraging. It is possible that recent political, policy and practitioner focus are having a positive impact on outcomes. However, as we have seen, averages can hide poor experience of specific sub-groups such as older disabled people, and this will be explored further in section 4²⁰.

²⁰ For a discussion of CQC analysis of trends since 2012, see section 2 (CQC national summaries) and Appendix D (Table 42-Table 47).

Re-estimating main survey prevalence rates, and estimating headcounts, based on a new set of patient-level weights

We now re-estimate the main prevalence rates set above, and provide estimates of overall headcounts of number of individuals affected by poor and substandard standards, using a new set of patient level weights. The application of the new patient level weight results in small differences between the unweighted percentages set out above and our final prevalence estimates (set out in Table 25 and Table 26) which are the basis of the main findings in this report. Readers who are not interested in the technical detail of the new patient level weights can skip straight to Table 25 and Table 26.

As noted above, there are two approaches to interpreting the results of the Adult Inpatient Survey. The first is simply to interpret the survey estimates as the self-reported experiences of respondents to the Adult Inpatient Survey. The second is to view the survey responses as being representative of the inpatient population generally. This raises the question of how representative the Adult Inpatient Survey really is of the underlying population of adult inpatients. The new patient-level weights and grossing up weights developed for this research are designed to enhance the representativeness of the data and to support inferential statements about the experiences of adult inpatient population as a whole.

This is new and experimental work which we recommend should be further developed in the future, in particular by making more extensive use of detailed Health Episode Statistics (HES) data. Further discussion of this issue can be found in patient experience indicator quality statements published by HSCIC (2013c, 2014).

The need for a new set of patient level weights to use with the Adult Inpatient Survey

The PSA weight which was made available with the version of the Adult Inpatient Survey 2012 that was deposited in the National Data Archive is not suitable for patient level analysis. This is a standardisation weight which aims to eliminate the effects of variation in patient mix at the trust level by adjusting for age, gender and route of admission (c.f. section 1 and section 6). As noted in Smith (2005), the application of a standardisation procedure can make sense in the context of analyses that primarily focus on the *comparative performance of healthcare providers*. For example, when comparing trusts, it can be relevant to take account of the effect of factors outside of the control of a hospital trust, such as patient mix, on the outcomes achieved. These factors may pose additional “challenges” and reflect differential pressures facing trusts, and it may be relevant to assess performance once these have been controlled for.

However, this standardisation procedure does not make sense in the context of *patient-focussed analysis*, for example, estimating the national proportions and numbers who report not being treated with dignity and respect, or not being helped with eating during hospital stays. The aim of the current report is principally to examine the wellbeing of individuals (and groups of individuals) through the lens of

the fulfilment of their rights and what they are enabled to achieve (their functionings or capabilities), and hence patient-level weights that approximate the national inpatient population are needed. Other analysis uses the Adult Inpatient Survey for monitoring, regulation and inspection exercises concentrating on the comparative performance of trusts, for which standardisation weights may be more appropriate.

The national findings that the CQC publishes annually are discussed in section 1. The figures are arrived at in two stages. First, the percentage reporting not receiving enough help from staff with eating is calculated for each trust. Second, the overall national percentage is calculated as the average of the trust level percentages (giving each trust equal weight in the final results). Applying this procedure to our data set generates the national percentages for those who need help with eating, who do not receive enough help from staff with eating meals presented in **Table 18**. Note that since the data set we are using groups specialist trusts, the overall (weighted) national figure presented here is a little bit higher than the overall figure based on the non-grouped data (16.66%)²¹.

Table 18: Percentage of Adult Inpatients Who Need Help with Eating, Who Do Not Receive Enough Help from Staff with Eating Meals 2012 -

	Did not receive enough help - unweighted	Did not receive enough help (unweighted, giving equal weight to all trusts)
ALL	16.8	17.7
Age		
16-35	20.7	20.1
36-50	17.0*	17.8
51-65	15.4*	16.8
66-80	15.1*	16.1
>80+	19.3	19.9
Sex		
Male	14.4	15.1
Female	19.1*	20.1
Disability		
No limiting longstanding illness or disability	13.1	13.7
Limiting longstanding illness or disability	20.5*	21.6

Source: author's calculations using the Adult Inpatient Survey, 2012, England only

²¹ Smith (2005) suggests that earlier national findings may have been based on standardised data. However, recent national findings are based on unstandardised data. This procedure reflects the fact that the standardisation weight is only ever applied for aggregating to the trust level. It is not normalised to a mean of 1 within trusts (in some trusts, weights are capped, making their average less than 1) (Sizmur 2014).

The data set used in these calculations was provided by the Picker Institute with specialist trusts grouped.

Notes: Respondents were asked “Did you get enough help from staff to eat your meals?” and could choose from the following responses, (1) “Yes, always”; (2) “Yes, sometimes”; (3) No; (4) “I did not need help to eat meals”. The disability variable has been derived from responses to question 74 (on longstanding conditions) and question 75 (on difficulties). For further details see Appendix D.

Missings have been dropped from the calculations in this table. Rows may not sum exactly to 100%. Significance testing has been undertaken at the 95% level using an (unweighted) one variable logistic regression test. Weights have been applied in this procedure where the data is weighted. Reference groups are highlighted in bold and significance differences between the percentage reported by a subgroup and the reference group are highlighted by “*”.

National results calculated as the average of the trust level proportions.

Since patient-level weights that can be used with the Adult Inpatient Survey are not generally available, an important aim of the current study has been to develop and apply a new sets of patient level weights and to undertake sensitivity analysis. The new sets of patient level weights aim to make the survey estimates more representative of the underlying inpatient population by adjusting, firstly, for the effects of differential non-response between subgroups (age, sex and emergency/elective route of admission) at the hospital trust level; and secondly, reflect differences in trust size, so as to approximate the size of the total national inpatient population. In the subsections that follow, we show how the new weights have been developed and recalculate the main survey estimates using the new weights.

Two further issues arise which are not resolved within the current research. The first concerns the exclusion from the Adult Inpatient Survey of inpatients who die in hospital or shortly after discharge. Data on these individuals is included in HES, so weights to account for the effects of their omission from the Adult Inpatient Survey could in principle be developed based on this data – although of course we know nothing about how these individuals would have responded to the survey, had they survived. We do know that malnutrition and dehydration can increase the risk of death and hence we can assume that the estimates of lack of help with eating when needed reported here, which exclude those who die in hospital or shortly afterwards, are lower bound estimates. Second, the outflow of inpatients from hospitals over a given period – which forms the sampling frame for the Adult Inpatient Survey - is not the same as the stock of inpatients at any one time. Information on length of stay from HES could be used to calculate weights that adjust for the over-representation of short stay patients in the flow relative to the stock. This would produce rough estimates of the proportion of inpatients at a point in time who are not being helped with eating, for example – although since the questions in the Adult Inpatient Survey refer to the whole period of the respondent’s stay in hospital, it is not possible to determine for which part of the respondent’s stay they experienced a lack of support. By contrast, the weights calculated for this research produce estimates of the number of inpatients over the course of a year who have experienced lack of help with eating.

Adjusting for differential nonresponse

The first step in developing the new patient level weight has been to develop a non-differential response weight to use with the Adult Inpatient Survey. The differential non-response weight has been developed for the project following the formula suggested in Smith (2005): *Patient Population Weight* = $PW_i = K * N_i/n_i$, where N_i is the number of eligible patients in trust i , n_i is the number of respondents to the survey in trust i and K is a constant. Our methodology for developing these weights has been shaped by discussions with the Picker Institute and ONS.

The differential non-response weight has been calculated based on information about the characteristics of the target sample and the achieved sample for the Adult Inpatient Survey in each trust, taking account of age, gender and admission route. Since sampling frame information on patient characteristics is not self-reported, this information is confidential. Therefore, the differential non-response weights have been provided by the Picker Institute and released to the research team with the permission of the Care Quality Commission.

The overall response rate to the Adult Inpatient Survey in 2012 was 48.9%. However, there were important variations in this response rate amongst individuals of different ages and by route of admission. Information on the national response rates associated with each of these characteristics is set out in Table 19 .

Table 19: National response rates (%) by age, gender and route of admission, 2012

Overall national response rate	48.9 %
By gender:	
Males	48.9 %
Females	48.9 %
By age:	
16-35	23.5 %
36-50	37.6 %
51-65	56.6 %
66-80	63.9 %
81+	47.7 %
By route of admission:	
Emergency	43.3 %
Elective	61.0 %

Source: Picker Institute calculations using the Adult Inpatient Survey, 2012, England only.

The non-response weights are intended to account for these differential patterns of non-response. A weight, r , is calculated for each respondent i by dividing the proportion of individuals in each age/gender/admission route class in the *target*

sample by the number in the age/gender/admission route class in the *achieved* sample for each trust. That is:

$$\text{Nonresponse weight } r_i = P(\text{TS})_{jkl} / P(\text{AS})_{jkl}$$

where P is the proportion of individuals

TS is the target sample

AS is the achieved sample

j is age group

k is gender

l is admission route

Zero observations in some classes at the trust level were observed based on grouping the sample into five age brackets (16-35, 36-50, 51-65, 66-80 and 81+). This problem was resolved by merging the bottom two age groups for all trusts. Where necessary (in two trusts), the gender groups were merged within the bottom age group at the trust level.

Table 20 provides a summary of sensitivity testing of the main “nohelp” variable used in our analysis with a differential non-response weight applied using the STATA pweight option.

Table 20: Percentage of Adult Inpatients Who Need Help with Eating, Who Do Not Receive Enough Help from Staff with Eating Meals 2012

	Did not receive enough help (unweighted)	Did not receive enough help (weighted using with differential non-response weight)
ALL	16.8	17.4
Age		
16-35	20.7	20.4
36-50	17.0*	17.1*
51-65	15.4*	15.4*
66-80	15.1*	15.2*
>80+	19.3	19.8
Sex		
Male	14.4	14.9
Female	19.1*	19.7*
Disability		
No limiting longstanding illness or disability	13.1	14.0

Limiting longstanding illness or disability	20.5*	21.0*
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Source: author's calculations using the Adult Inpatient Survey, 2012, England. The dataset used in the calculations was provided by the Picker Institute and CQC. The non-response weighted was provided by the Picker Institute with the permission of the CQC.

Notes: Respondents were asked "Did you get enough help from staff to eat your meals?" and could choose from the following responses, (1) "Yes, always"; (2) "Yes, sometimes"; (3) No; (4) "I did not need help to eat meals". The disability variable has been derived from responses to question 74 (on longstanding conditions) and question 75 (on difficulties). For further details see Appendix D. Missings have been dropped from the calculations in this table. Rows may not sum exactly to 100%. Significance testing has been undertaken at the 95% level using an (unweighted) one variable logistic regression test. Weights have been applied in this procedure where the data is weighted. Reference groups are highlighted in bold and significance differences between the percentage reported by a subgroup and the reference group are highlighted by "*".

Grossing factor

The second step in developing the new weight has been to apply a grossing-up factor. The Adult Inpatient Survey sample frame is 850 consecutive adult inpatient discharges (excluding deaths, and excluding some types of patient such as maternity and psychiatric²²) from the 156 acute and specialist NHS hospital Trusts in England in 2012. The target sample size of 850 per Trust is fixed regardless of the size of the Trust. Trusts included in the survey vary considerably in size – the largest has more than eight times the annual number of 'episodes' of care than the smallest – so that the 850 patients in the target sample might in one Trust represent an annual population of 27,000 patients while in another Trust they might represent 230,000 patients. In order to make results derived from the Inpatient Survey data more representative of the national inpatient population, one therefore needs to 'gross up' the results, giving more relative weight to respondents from larger Trusts and less relative weight to respondents from smaller Trusts. This grossing up is in addition to the correction for differential non-response to the survey within Trusts discussed in the previous section.

To calculate the grossing factors for each Trust, one would ideally have information for each Trust on the annual number of discharges, matching the criteria applied in the Inpatient Survey (adults, excluding deaths, etc). Unfortunately, published HES Admitted Patient Care data do not provide information on discharges. The best approximation in the published data is the annual number of inpatient 'Finished Consultant Episodes' (FCEs), by Trust, which are provided with an age breakdown (HSCIC, 2013a).²³ A consultant episode is the time a patient spends in the continuous care of one consultant within a given hospital provider. Many inpatients will have only one consultant episode during their stay in hospital, but others will have more than one as they are passed from one specialism to another. In addition, the published FCE statistics include all inpatients, whereas the Inpatient Survey excludes those who have died, and specific types of patient (maternity, psychiatric, etc).

²² Patients treated for maternity or psychiatric reasons, patients admitted for planned termination of pregnancy, day case patients, and private patients (non-NHS).

²³ Number of admissions is an alternative, but unlike for FCEs, the published data by Trust do not include an age breakdown. The Inpatient Survey is of adults only, so we need an indicator of size of Trust excluding children.

Nevertheless, FCEs give a good indication of the relative size of different Trusts and the number of patients treated over the course of a year in these hospitals, and enable us to calculate grossed up results from the Inpatient Survey which better approximate the national annual inpatient population in acute and specialist NHS Trusts in England than do the raw results. To take account of the fact that there are more FCEs (17.7 million in total in 2012/13) than live discharges (15.1 million) (HSCIC, 2013b, Table 2), we deflate the grossing factors derived from FCEs by a factor of 1.17 (= 17.7 million divided by 15.1 million).

The grossing factor g_i applied to each individual is:

$$g_i = \frac{(N_t / 1.17)}{n_t}$$

where N_t is the annual number of adult FCEs in Trust t
 n_t is the number of survey respondents in Trust t

Table 21 provides a summary of sensitivity testing of the main “nohelp” variable used in our analysis with the grossing factor applied, and shows the unweighted and grossed sample sizes.

Table 21: Percentage of Adult Inpatients Who Need Help with Eating, Who Do Not Receive Enough Help from Staff with Eating Meals (1) (2) (3) (4), 2012

	Did not receive enough help (unweighted)	Did not receive enough help (weighted using grossing factors)	Unweighted sample size	Grossed sample size
ALL	16.8	17.7	16,454	3,275,609
Age				
16-35	20.7	21.1	1,394	271,241
36-50	17.0*	18.0	2,322	459,980
51-65	15.4*	16.4*	3,894	774,719
66-80	15.1*	16.0*	5,155	1,015,595
>80+	19.3	19.9	3,688	754,074
Sex				
Male	14.4	15.0	7,956	1,612,594
Female	19.1*	20.3*	8,498	1,663,015
Disability				
No limiting longstanding illness or disability	13.1	13.7	6,769	1,326,729
Limiting longstanding illness or disability	20.5*	21.6*	7,477	1,497,397

Source: author's calculations using the Adult Inpatient Survey, 2012, England. The dataset used in the calculations was provided by the Picker Institute and CQC. The grossing weight is based on published HES data (HSCIC, 2013a).

Notes: Respondents were asked "Did you get enough help from staff to eat your meals?" and could choose from the following responses, (1) "Yes, always"; (2) "Yes, sometimes"; (3) No; (4) "I did not need help to eat meals". The disability variable has been derived from responses to question 74 (on longstanding conditions) and question 75 (on difficulties). For further details see Appendix D. Missings have been dropped from the calculations in this table. Rows may not sum exactly to 100%. Significance testing has been undertaken at the 95% level using an (unweighted) one variable logistic regression test. Weights have been applied in this procedure where the data is weighted. Reference groups are highlighted in bold and significance differences between the percentage reported by a subgroup and the reference group are highlighted by "*".

Final weight

The final weight combines the differential non-response weight (r_i) and the grossing factor (g_i):

$$w_i = \frac{r_i * g_i}{k}$$

where k is a constant defined as the sum of ($r_i * g_i$) across all respondents divided by the sum of g_i . (In general, dividing by the constant k is necessary to ensure that the final weighted sample size retains the scaling applied by the grossing factors, approximating the national annual inpatient population. However, in this instance, $k = 1$, since the mean of r_i within each trust is 1, while g_i is constant within each trust).

Table 22 provides a summary of sensitivity testing of the main “nohelp” variable used in our analysis with the final weight applied, and shows the unweighted and final weighted sample sizes.

Table 22: Percentage of Adult Inpatients Who Need Help with Eating, Who Do Not Receive Enough Help from Staff with Eating Meals 2012

	Did not receive enough help (unweighted)	Did not receive enough help (weighted using final weight)	Unweighted sample size	Final weighted sample size
ALL	16.8	18.2	16,454	3,411,179
Age				
16-35	20.7	20.5	1,394	433,303
36-50	17.0*	18.1	2,322	725,693
51-65	15.4*	16.5*	3,894	672,995
66-80	15.1*	16.3*	5,155	790,193
>80+	19.3	20.4	3,688	788,995
Sex				
Male	14.4	15.6	7,956	1,668,918
Female	19.1*	20.7*	8,498	1,742,261
Disability (4)				

No limiting longstanding illness or disability	13.1	14.5	6,769	1,418,550
Limiting longstanding illness or disability	20.5*	22.0*	7,477	1,541,373

Source: author’s calculations using the Adult Inpatient Survey, 2012, England. The dataset used in the calculations was provided by the Picker Institute with the permission of the CQC. The final weight is based on differential non-response weights provided by the Picker Institute with the permission of the CQC and on published HES data (HSCIC, 2013a).

Notes: Respondents were asked “Did you get enough help from staff to eat your meals?” and could choose from the following responses, (1) “Yes, always”; (2) “Yes, sometimes”; (3) No; (4) “I did not need help to eat meals”. The disability variable has been derived from responses to question 74 (on longstanding conditions) and question 75 (on difficulties). For further details see Appendix D. Missings have been dropped from the calculations in this table. Rows may not sum exactly to 100%. Significance testing has been undertaken at the 95% level using an (unweighted) one variable logistic regression test. Weights have been applied in this procedure where the data is weighted. Reference groups are highlighted in bold and significance differences between the percentage reported by a subgroup and the reference group are highlighted by “*”.

Comparison of weighted and un-weighted results – dignity and respect

The final weighted estimates of those not treated with dignity and respect are slightly higher overall than the unweighted or standardised estimates, as summarised in Table 22. Differences between men and women and between disabled and non-disabled people also appear larger once the weights and grossing factors are applied. Differences between age groups are also slightly increased when the weights and grossing factors are applied.

Table 23: Percentage reporting not being treated with dignity and respect during hospital stays, 2012: comparing weighted and un-weighted estimates

		Un-weighted	Unweighted, giving equal weight to all trusts	Non-differential response weight	Grossing factor	Final weighted	Un-weighted base	Final weighted sample size
ALL		2.9	3.2	3.4	3.1	3.6	63,336	12,479,645
Age	16-35	6.4	7.0	6.4	6.9	6.9	4,643	1,456,203
	36-50	5.0*	5.6	5.3*	5.4*	5.5*	7,995	2,454,591
	51-65	2.9*	3.2	2.9*	3.1*	3.2*	16,037	2,705,859
	66-80	1.8*	2.0	1.8*	1.9*	2.0*	23,118	3,483,098
	>80	2.4*	2.4	2.5*	2.5*	2.7*	11,542	2,379,894
Sex	Male	2.2	2.5	2.6	2.4	2.8	29,368	5,878,966
	Female	3.5*	3.8	4.1*	3.7*	4.3*	33,968	6,600,679
Disability (4)	No LLID	2.1	2.3	2.5	2.2	2.8	32,856	1,418,550
	LLID	4.2*	4.4	4.8*	4.5*	5.1*	23,138	1,541,373

Source: author's calculations using the Adult Inpatient Survey, 2012, England. The dataset used in the calculations was provided by the Picker Institute and CQC. The final weight is based on differential non-response weights provided by the Picker Institute with the permission of the CQC and on published HES data (HSCIC, 2013a).

Notes: Respondents were asked Overall, did you feel you were treated with respect and dignity while you were in the hospital? Response options were (1) yes, always (2) yes, sometimes (3) no.

The disability variable has been derived from responses to question 74 (on longstanding conditions) and question 75 (on difficulties). For further details see Appendix D. Missings have been dropped from the calculations in this table. Rows may not sum exactly to 100%. Significance testing has been undertaken at the 95% level using an (unweighted) one variable logistic regression test. Weights have been applied in this procedure where the data is weighted. Reference groups are highlighted in bold and significance differences between the percentage reported by a subgroup and the reference group are highlighted by “*”.

Comparison of weighted and unweighted results – help with eating

Compared to the unweighted or standardised estimates, the estimates of not receiving help with eating with non-differential weights or grossing factors applied (and hence also when the final weights are applied) tend to be higher overall but to indicate similar, or very slightly greater, differences by gender and disability (Table 24). With respect to age, differences between the youngest age group and the middle age groups are slightly

compressed once weights are applied, but the estimate for the oldest age group is increased slightly.

Table 24: Percentage of Adult Inpatients Who Need Help with Eating, Who Do Not Receive Enough Help from Staff with Eating Meals (2012: comparing weighted and unweighted results)

		Un-weighted	Unweighted, giving equal weight to all trusts	Non-differential response weight	Grossing factor	Final weighted	Un-weighted sample size	Final weighted sample size
ALL		16.8	17.7	17.4	17.7	18.2	16,454	3,411,179
Age	16-35	20.7	20.1	20.4	21.1	20.5	1,394	433,303
	36-50	17.0*	17.8	17.1*	18.0	18.1	2,322	725,693
	51-65	15.4*	16.8	15.4*	16.4*	16.5*	3,894	672,995
	66-80	15.1*	16.1	15.2*	16.0*	16.3*	5,155	790,193
	>80	19.3	19.9	19.8	19.9	20.4	3,688	788,995
Sex	Male	14.4	15.1	14.9	15.0	15.6	7,956	1,668,918
	Female	19.1*	20.1	19.7*	20.3*	20.7*	8,498	1,742,261
Disability (4)	No LLID	13.1	13.7	14.0	13.7	14.5	6,769	1,418,550
	LLID	20.5*	21.6	21.0*	21.6*	22.0*	7,477	1,541,373

Source: author's calculations using the Adult Inpatient Survey, 2012, England. The dataset used in the calculations was provided by the Picker Institute and CQC. The final weight is based on differential non-response weights provided by the Picker Institute with the permission of the CQC and on published HES data (HSCIC, 2013a).

Notes: Respondents were asked "Did you get enough help from staff to eat your meals?" and could choose from the following responses, (1) "Yes, always"; (2) "Yes, sometimes"; (3) No; (4) "I did not need help to eat meals". The disability variable has been derived from responses to question 74 (on longstanding conditions) and question 75 (on difficulties). For further details see Appendix D. Missings have been dropped from the calculations in this table. Rows may not sum exactly to 100%. Significance testing has been undertaken at the 95% level using an (unweighted) one variable logistic regression test. Weights have been applied in this procedure where the data is weighted. Reference groups are highlighted in bold and significance differences between the percentage reported by a subgroup and the reference group are highlighted by "*".

Limitations of the new weight and suggestions for further research

As noted above, there are a number of limitations to the weighting methodology as it stands. The differential non-response rates are based on a relatively limited range of characteristics (gender, age, and route of admissions), which could in principle be expanded if more reliable and detailed information was available for the target sample within each trust. The grossing weights are based on published HES data on Finished

Consultant Episodes, whereas data on discharges (requested from HES but not yet made available) would provide a closer match to the sample design of the Adult Inpatient Survey.

The absence of responses from patients who die in hospital or shortly afterwards from the survey is a less straightforward limitation to overcome, although the development of a short questionnaire to be completed by friends or relatives, sensitively administered, could be considered. Understanding more about the experience of those who die in hospital is potentially very important in helping to improve care.

Finally, there is the question of whether prevalence estimates should be based on the stock of inpatients in hospital at any one time, or on the flow of patients into or out of hospital over a period of time. The estimates presented here are based on the outflow – the number of inpatients affected in the course of a year. Compared to the stock, the outflow contains more short-stay patients and fewer long-stay patients. Data on length of stay (requested from HES but not yet made available) could be used to re-weight the Adult Inpatient Survey data to approximate the characteristics of the stock of inpatients but, as noted above, the questions in the survey on help with eating and dignity and respect relate to the whole period of the patients' stay in hospital, so it is not clear that the approximation would be very informative.

Inconsistent and poor standards: final estimates of prevalence rates and headcounts using the new set of patient-level weights

Despite these limitations, we think that the final weights allow us to make more accurate estimates of the numbers and percentages of inpatients affected over the course of a year by lack of dignity and respect, or by lack of help with eating when needed, than do either the unweighted or standardised estimates. Estimates with the final weights applied, which incorporate both a correction for differential non-response within trusts and a grossing factor to account for differences in trust size, are our preferred measures, and the key results are summarised in **Table 27**.

Table 25: Final prevalence and headcount estimates (by age, sex and disability) using new patient-level weights, England, 2012

		Experiences of poor or inconsistent standards of help with eating				Experiences of poor or inconsistent standards of dignity and respect			
		Poor standards		Poor or inconsistent		Poor standards		Poor or inconsistent	
		Prevalence (% of those who needed help)	Number affected per annum	Prevalence (% of those who needed help)	Number affected per annum	Prevalence (%)	Number affected per annum	Prevalence (%)	Number affected per annum
ALL		18.2	620,750	38.4	1,310,807	3.6	453,084	22.6	2,819,294
Age	16-35	20.5	88,816	42.8	185,381	6.9	99,915	36.6	532,549
	36-50	18.1	13,1432	37.1*	269,025	5.5*	135,580	28.3*	694,745
	51-65	16.5*	110,813	32.4*	217,912	3.2*	85,370	20.9*	564,759
	66-80	16.3*	128,570	33.4*	264,068	2.0*	68,473	15.7*	547,714
	>80	20.4	161,118	47.5*	374,421	2.7*	63,745	20.2*	479,528
Sex	Male	15.6	260,189	33.6	561,100	2.8	166,288	18.4	1,082,896
	Female	20.7*	360,561	43.0*	749,707	4.3*	286,796	26.3*	1,736,398
Disability	No LLID	14.5	206,130	31.2	442,764	2.8	179,644	19.0	1,236,660

	LLID	22.0*	339,526	46.0*	709,389	5.1*	231,661	28.7*	1,309,578
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Source: author's calculations using the Adult Inpatient Survey, 2012, England. The dataset used in the calculations was provided by the Picker Institute and CQC. The final weight is based on differential non-response weights provided by the Picker Institute with the permission of the CQC and on a grossing factor derived from published HES data (HSCIC, 2013a).

Notes:

Respondents were asked “Did you get enough help from staff to eat your meals?” and could choose from the following responses, (1) “Yes, always”; (2) “Yes, sometimes”; (3) No; (4) “I did not need help to eat meals”. “Poor standards” is defined as response 3, i.e. not receiving enough help with eating. “Poor or inconsistent standards” is defined as responses 2 or 3, i.e. not receiving enough help with eating, or receiving help only sometimes. Dignity and respect: Respondents were asked Overall, did you feel you were treated with respect and dignity while you were in the hospital? Response options were (1) yes, always (2) yes, sometimes (3) no. “Poor standards” is defined as response 3, i.e. not being treated with dignity and respect. “Poor or inconsistent standards” is defined as responses 2 or 3, i.e. not being treated with dignity and respect, or being treated with dignity and respect only sometimes. The disability variable has been derived from responses to question 74 (on longstanding conditions) and question 75 (on difficulties). For further details see Appendix D. Missings have been dropped from the calculations in this table. Rows may not sum exactly to 100%. Significance testing has been undertaken at the 95% level using a one variable logistic regression test. Weights have been applied in this procedure where the data is weighted. Reference groups are highlighted in bold and significance differences between the percentage reported by a subgroup and the reference group are highlighted by “*”. Prevalence rates for dignity and respect are based on the full sample; prevalence rates for help with eating are based on the restricted sample (i.e. those who need help with eating).

Table 26: Final prevalence and headcount estimates using new patient level weights (relative risks within the older population)

	Poor and inconsistent standards of help with eating				Poor and inconsistent standards of dignity and respect			
	Poor standards		Poor or inconsistent standards		Poor standards		Poor or inconsistent standards	
Characteristics	Prevalence (% of those who needed help)	Number affected per annum	Prevalence (% of those who needed help)	Number affected per annum	Prevalence (% of those who needed help)	Number affected per annum	Prevalence (% of those who needed help)	Number affected per annum
Aged 66-80	16.3	128,570	33.4	264,068	2.0	68,473	15.7	547,714
Aged > 80	20.4	161,118	47.5	374,421	2.7	63,745	20.2	479,528
Aged > 80 with disability	26.0	116,116	58.2	260,199	4.5	49,894	27.7	306,951
Aged > 80 with disability and female	28.9	83,861	61.9	179,456	5.3	35,881	31.4	213,882

Source: author's calculations using the Adult Inpatient Survey, 2012, England. The dataset used in the calculations was provided by the Picker Institute and CQC. The final weight is based on differential non-response weights provided by the Picker Institute with the permission of the CQC and on published HES data.

Notes:

Eating: respondents were asked "Did you get enough help from staff to eat your meals?" and could choose from the following responses, (1) "Yes, always"; (2) "Yes, sometimes"; (3) No; (4) "I did not need help to eat meals". Dignity and respect: Respondents were asked Overall, did you feel you were treated with respect and dignity while you were in the hospital? Response options were (1) yes, always (2) yes, sometimes (3) no. The disability variable has been derived from responses to question 74 (on longstanding conditions) and question 75 (on difficulties). For further details see Appendix D. Missings have been dropped from the calculations in this table. Rows may not

sum exactly to 100%. Significance testing has been undertaken at the 95% level using a one variable logistic regression test. Weights have been applied in this procedure where the data is weighted. Reference groups are highlighted in bold and significance differences between the percentage reported by a subgroup and the reference group are highlighted by “*”. The unweighted base for help and eating for those who needed help but did not get enough help for respondents of 66-80 years of age, 80 or older, 80 or older with disability and 80 or older with disability and female are 776, 710, 505 and 347; and for those who needed help but have received poor or inconsistent help for the aforementioned age categories are 1,622, 1,661, 1,128 and 751. The unweighted base for those who felt not treated with dignity and respect for aforementioned categories are 409, 272, 206, and 138; for those who felt only sometimes being treated or not treated with dignity and respect were 3,382, 2,176, 1,367 and 905.

4. POOR STANDARDS OF HELP WITH EATING: INDEPENDENT EFFECTS AND DRIVERS

In this section, the risk factors and drivers that are associated with poor standards of treatment during hospital stays are examined in more depth. The focus of this section is on nutrition, rather than dignity and respect, because less previous work has been done on this indicator, and support with eating is a crucially important issue. Multivariate logistic regression techniques are applied in order to evaluate the “independent effects” of different variables on the probability of not receiving enough help with eating hospital stays after controls are introduced. The “independent effects” of a range of different variables is examined, including their personal characteristics (age, gender and disability); individual pathway through a hospital trust (route of admission, whether they had an operation, whether they stayed in a critical care area, the number of wards they stayed in, and their length of stay); hospital characteristics (for example, quantity and quality of nursing staff and whether there was a choice of food); area deprivation; and the hospital trust to which a person was admitted. Sensitivity testing of the main results are undertaken incorporating an interaction effect between age and disability; using a restricted sample (covering only individuals who indicate that they need help with eating); and using multilevel logistic regression techniques.

Modelling strategy

The logistic regression research exercise examines the effects of different independent variables on the probability of a person reporting that they did not receive enough help with eating from staff during hospital stays. Various different versions of a multivariate logistic regression model for “no help” are reported. These are specified as including different independent variables; with and without interaction effects between age and disability; and using both standard logistic regression techniques and multilevel logistic regression techniques. None of the specifications are envisaged as providing a full causal model of the drivers of “no help”. Rather, the various specifications are intended to provide further evidence in relation to five key questions:

- Does the risk of not receiving help with eating during hospital stays when such help is required depend on personal characteristics such as age, gender and disability status?
- Does the risk of not receiving help with eating during hospital stays when such help is required depend on a person’s “journey” through the hospital (e.g. for example, their route of admission, whether they stayed in a critical care area, the number of wards that they stayed in and / or the length of their stay in the hospital trust)?
- Does the risk of not receiving help with eating during hospital stays when such help is needed depend on the quantity and quality of nursing staff?

- Does the risk of not receiving help with eating during hospital stays when such help is needed depend on the specific hospital trust where a person is an inpatient?
- Does the risk of not receiving help with eating during hospital stays when such help is needed depend on area deprivation?

Dependent variables

The dependent variables examined in the logistic regression research exercise (“nohelp” and “nohelp_r”) are both based on responses to the question “[d]id you get enough help from staff to eat your meals”. As noted in section 1, the response options include “yes, always”, “yes, sometimes”, “no” and “I do not need help to eat meals”.

The methodology for deriving each of the two dependent variables is summarised in Figure 12. Sensitivity testing has also been undertaken with alternative dependent variables that code the intermediate response as “1” rather than “0”. However, no major differences were identified and the findings based on these models are not reported. The *main* binary dependent variable “nohelp” used in the regressions distinguishes between (1) respondents who do not need help with eating or who need help with eating and receive help and (2) respondents who need help with eating and do not receive help. The *alternative* binary dependent variable (“nohelp_r”) conditions on needing help and thus distinguishes between (1) respondents who need help with eating and receive help and (2) respondents who need help with eating and do not receive help. Respondents who do *not* need help are excluded from analysis based on this alternative variable “nohelp_r” (i.e. the analysis is limited to the restricted sample).

The interpretation of results must bear this distinction in mind. Analysis of the restricted sample with “nohelp_r” as the dependent variable tells us only about the experience of those who need help. Analysis of the full sample with “nohelp” as the dependent variable compares the experience of those who are deprived of nutritional support (i.e. they need help but don’t get it), with those who are not deprived of nutritional support (they either receive the help they need, or they don’t need help). Both types of analysis are potentially informative. The latter can be understood, following Sen’s capability approach, as an indicator of whether individuals have or lack the capability, ‘being adequately nourished’.

Figure 12: Dependent variables examined as part of the logistic regression research exercise

Survey question:

“Did you get enough help from staff to eat your meals?”

Response options:

1 “yes, always”

2 “yes, sometimes”

3 “no”

4 “I do not need help to eat meals.”

Derived binary dependent variables:

“nohelp”

0 = Responses 1, 2 and 4, ie help needed and received (at least sometimes), or help not needed

1 = Response 3, ie help needed and not received

“nohelp_r”

0 = Responses 1 and 2, ie help needed and received (at least sometimes)

1 = Response 3, ie help needed and not received

Response 4 excluded from analysis, ie help not needed

Independent variables

The models have been developed by introducing independent variables that are of relevance to the substantive questions set out above, and testing their significance at the 95% level. The selection of variables is based on existing empirical studies, and relevance to policy and practice, but is of course limited by data availability.

Group 1 independent variables

The first group of independent variables includes variables that are available in the Adult Inpatient Survey and that provide information on individual characteristics. This includes age, gender and disability as well as information on whether the person who filled the survey was the inpatient him or herself (proxy)²⁴. For definitions, see Table 2. Controlling for this group of variables allows one to ask, for example, ‘Is there an independent association between being older and not receiving help with eating when needed, controlling for gender, disability, and proxy status?’ These variables reflect patient demographics and are outside the control of the hospital itself.

Group 2 independent variables

The second group of independent variables includes variables that are available in the Adult Inpatient Survey and that provide information about a person’s journey through the hospital. This includes route of admission (emergency versus planned), whether a person stayed in a critical care area, whether they had an operation, the number of wards that a person stayed in and their length of stay). This group of variables can be thought of as features of a person’s stay in hospital that are largely driven by the nature of their condition and are outside the control of the hospital itself – although length of stay is a partial exception, being somewhat driven by hospital practice.

Group 3 independent variables

The third group of independent variables includes variables that are available in the Adult Inpatient Survey and that provide information about the respondents perceptions of the adequacy of the quantity and quality of nursing care. These variables have been derived from a suite of questions in the Adult Inpatient Survey which ask about different qualitative dimensions of nursing care (specifically, whether there were enough nurses; whether respondents have confidence and trust in the nurses; whether nurses talked as if the inpatient was not there; and whether nurses failed to answer questions). This group of variables are clearly within the control of the hospital to some extent. It is also worth noting that an association between these variables and the dependent variable ‘whether received help with eating when needed’ could indicate causation in either direction: it might either be that as a result of being in a ward with insufficient or poor quality nursing, patients are more likely to experience, and report, lack of help with eating when needed, or it could be that patients who have experienced a lack of help with eating when needed are more likely to conclude that there were insufficient or poor quality nurses.

One critique of this approach is that perceptions of nursing quantity and quality are subjective measures. Suggestions for taking forward the modelling include

²⁴ Note that we did not receive permission to include ethnic group in the research exercise, so the effects of ethnicity have not been tested or controlled for

incorporating more objective data on staffing levels including at the ward level. Whilst this approach has not been feasible to date, the results have been sensitivity tested the results based on an alternative independent variable which could arguably be viewed as a more objective measure of aspects of nursing quantity and quality, namely, waiting time for the call button.

Other independent variables

In addition to evaluating the effects of group 1-3 independent variables, the effects of two further independent variables were examined as part of the logistic regression research exercise. The first of these additional variables (“food”) captures information about whether a person received a choice of food. Again, this is clearly within the hospital’s control, and an association between ‘no choice of food’ and ‘not receiving help with eating when needed’ can be interpreted either as evidence that poor practice in relation to one aspect of food in hospital tends to go along with poor practice in relation to another aspect, or as evidence that where choice of food is given, the need for assistance with eating is reduced (because those who need help can choose easier-to-manage options) and hence more nursing resources are available to help those who do need it.

The second additional independent variable is the identity of the hospital trust itself, enabling the effect of the hospital trust into which a respondent is admitted to be further examined.

Variables not included in the modelling analysis at the current state

A number of variables have not been included in the modelling analysis at the current stage. This includes ethnic group which has not been included because this variable is not included in either the archived version of the 2012 Adult Inpatient Survey and it also wasn’t possible to release this variable to us as part of the tailored datasets we have used in this analysis. Second, at the current stage it has not been possible to include deprivation. Ideally the individual or trust-level index of multiple deprivation would be included in the regression as a control and in order to assess whether the neediness of the population the hospital is serving has an independent association with the likelihood of patients not getting the help they need with eating. Further research is planned to examine hospital episode statistics in order to explore this issue. Suggestions for taking forward the modelling include developing a latent modelling approach using an overall quality of care / management variable (rather than focussing on perceptions of nursing care) and bringing in more objective data on staffing (including at the ward level) and expenditure per head. Further research if planned to take forward these suggestions.

Figure 13: Independent variables tested as part of the logistic regression exercise

Group 1: Individual characteristics

- Age
- Disability
- Gender
- Whether proxy respondent

Group 2: Individual journey through hospital

- Route of admission (emergency or planned)
- Whether stayed in a critical care area
- Whether had an operation
- Number of wards stayed in
- Length of stay (four bands)

Group 3: Quantity and quality of nursing care

- Perceptions of the adequacy of the number of nurses
- Perceptions of the quality of nurses

Choice of food

- Yes/no

Hospital trust

- Three-digit hospital trust code

Figure 14: Model specifications for the final logistic regression models

Model 1: Individual characteristics

- Age
- Disability
- Gender
- Whether proxy respondent

Model 2: Individual characteristics + individual journey through hospital

- Model 1 variables
- Route of admission (emergency or planned)
- Whether stayed in a critical care area
- Number of wards stayed in
- Length of stay (four bands)

NB The variable “operation” (whether the patient had an operation or not) was observed to be marginally non-significant in Model 2 and insignificant in subsequent models. It was therefore dropped from the model.

Model 3: Individual journey through hospital + individual characteristics + quantity and quality of nursing care + choice of food

- Model 2 variables
- Perception of the adequacy of the number of nurses
- Perception of the quality of nurses
- Choice of food

NB route of admission and critical care were found to be non-significant under this specification, but were retained in Model 4 to preclude confounding effects

Model 4: Individual journey through hospital + individual characteristics + quantity and quality of nursing care + choice of food + hospital trust

- Model 3 variables
- Three-digit hospital trust code

Variations on Model 4

Model 5

- Model 4 variables
- Interaction effect: age and disability

Model 6: Alternative dependent variable “nohelp_r” (restricted sample)

- Model 4 variables
- Sample restricted to those who need help

Model 7: Multilevel model

- Model 4 variables
- Level 2 specified as individual hospital trust

Final models

Applying the modelling strategy set out above, we report seven different versions of a logistic regression model for not receiving enough help with eating from staff

during hospital stays (Figure 14). Full details of the odds ratios for each independent variable tested under these different specifications together with the associated p-values are provided (Table 27).

Models 1-4 have been developed in stages building up from a simple version of the model focussing on group 1 variables relating to individual characteristics (**Model 1**) to consecutively more complex versions that also incorporate group 2 variables relating to an individual's route within the hospital (**Model 2**); group 3 variables relating to the respondents perception of the adequacy of nursing quantity / quality together with choice of food (**Model 3**); and information about the hospital trust (**Model 4**).

Models 5-7 provide three further variations on Model 4. **Model 5** includes an interaction effect between age and disability. The sample for **Model 5** is restricted to those who need help (with those who do not need help excluded from the analysis). **Model 6** is based on the alternative dependent variable "no-help_r". **Model 7** applies multilevel (rather than standard) logistic regression techniques.

In addition to the seven models reported in Table 27, sensitivity testing has also been undertaken using a supplementary and arguably "more objective" survey question on quality of nursing care (relating to response time to the call button). Results for this model are included in Appendix B (Table 30 and Table 31).

Adjusting for the effects of clustering

Hierarchical data (for example, where patients are clustered or "nested" in hospital trusts) pose a challenge for standard multivariate regression techniques because clustering of observations is likely. For example, cases within wards or hospital trusts may be more similar in nature (positive intergroup correlation) since they receive care from the same provider. Clustering of this type violates the assumptions of standard multivariate regression (constant variance and independence of errors) and can result in incorrect inferences. As Cameron and Miller (2013) note, the failure to control for within-cluster error correlation can lead to very misleadingly small standard errors, and consequent misleadingly narrow confidence intervals, large t-statistics and low p-values (Cameron and Miller 2013:4).

Various different strategies for addressing this methodological concern are proposed in the literature. One recommended approach is to develop a standard regression model and to apply robust standard errors which relax the assumption that observations are independent and assume instead that observations are independent across groups (clusters) but not necessarily within groups (that is, allowing for intragroup correlation) (STATA 13 Manual). Another possibility again operates within the framework of standard regression, and involves including the cluster variable in the model as a dummy variable (Clark et al: 2010, Kuha 2014)²⁵. A third, alternative methodological response to the problems posed by hierarchical data is to develop a multilevel regression model which captures the hierarchical nature of the data through

²⁵ Assuming that clustering is only present in the cluster variable that is specified, the effects of clustering are fully accounted for by the dummy variable (Kuha 2014, personal communication). However, if there is clustering by other variables in addition (for example, a hierarchical data set with three or more levels) then arguably robust standard error specifications are nevertheless required

the inclusion of a random intercept (Steele (2009), Leckie (2010), Clark et al: 2010, Cameron and Miller 2013:4).

Multilevel modelling techniques are increasingly applied in research on comparative healthcare performance that assumes there exist provider-specific ‘random effects’ (Jones and Spiegelhalter 2011) and have been applied in the context of patient experience data in HC (2005), Salisbury (2010), Sizmur (2011) and Sizmur and Korner (2013). The methodological issues raised by the choice between standard (fixed) and multilevel regression techniques is discussed in Steele (2009), Leckie (2010), Clark et al (2010) and Jenkins and Bryan (2013). Arguably, multilevel regression analysis has a number of technical merits²⁶. Multilevel modelling allows for the inclusion of group as well as individual level characteristics. In addition, it has the further advantage of treating intragroup correlation as an interesting phenomenon in its own right (rather than as noise) and as enabling interesting substantive research questions to be pursued (including the question of how variation at the level of the cluster variable might be accounted for) (Steele 2009; Leckie 2010; Clark et al (2010)). However, in order for multilevel modelling strategies to be reliably pursued, there need to be adequate numbers of clusters as well as adequate numbers of observations within a cluster (Bryan and Jenkins 2013). Further, care is required in interpretation (Steele 2009; Leckie 2010; Clark et al 2010).

These different methodological responses to the problem of clustering are reflected in the specification of the different models examined in this paper. Significance testing of the independent variables in Models 1-3 has been undertaken by applying robust standard errors (which adjust the standard errors to take account of the possible clustering of observations within trusts). Models 4-6 include individual hospital trust as a dummy variable (making a cluster correction unnecessary)²⁷. Model 7 is a multilevel logistic regression model which allows for clustering by incorporating a random intercept at the level of individual hospital trust (on which, see discussion below).

The subsections below examine the findings under each model in turn.

²⁶ The technical advantages of the multilevel approaches are discussed in Jones and Spiegelhalter (2011) and Clark et al (2010). Jones and Spiegelhalter (2011) (citing Burgess and colleagues 2000) note that “[s]hrinkage of estimates towards the overall average means that the predictions can be thought of as adjusting for regression to the mean”. A further advantage noted in Clark et al (2010) is that multilevel models enable level two covariate effects to be estimated.

²⁷ Arguably, individuals are clustered in wards as well as individual hospital trust, making a further cluster correction at the ward level necessary. However, the dataset does not include a ward identifier and this approach has not been pursued.

Table 27: Models 1-7: odds ratios and p-values

	Fixed effects models												Random effects models		
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6			Model 7	
	Group 1: individual characteristics		Model 1 + Group 2, individual pathway through hospital		Model 2 + perceptions of quantity and quality of nursing staff, choice food		Model 3 + hospital trust dummy variable		Model 4 + interaction effect (age and disability)		Model 4, sample restricted to those who need help		Null Model	Multilevel Model (Model 3 independent variables, hospital trust level 2)	
	Robust standard errors														
Observations	54,670		51743		50,993		50,993		50993		12,983			50, 993	
Pseudo-R2	0.071		0.081		0.194		0.206		0.207		0.222				
	Odds Ratio	p value	OR	p value	OR	p value	OR	p value	OR	p value	OR	p value		OR	p value
Gender (Male)															
Female	1.302	0.000	1.316	0.000	1.130	0.013	1.125	0.015	1.119	0.021	1.303	0.000		1.129	0.012
Age group (16-35)															
36-50	0.814	0.012	0.851	0.058	0.896	0.248	0.893	0.228	0.871	0.245	0.935	0.536		0.894	0.230
51-65	0.547	0.000	0.569	0.000	0.694	0.000	0.689	0.000	0.587	0.000	0.855	0.129		0.692	0.000
66-80	0.455	0.000	0.450	0.000	0.635	0.000	0.634	0.000	0.513	0.000	0.823	0.056		0.634	0.000
>80	0.573	0.000	0.521	0.000	0.733	0.000	0.740	0.001	0.537	0.000	0.790	0.031		0.734	0.001
Disability(No)															
Limiting condition/illness that causes difficulties	1.983	0.000	1.866	0.000	1.442	0.000	1.446	0.000	1.005	0.974	1.127	0.046		1.443	0.000
Interaction between Age and Disability															
36-50 with LLID									1.120	0.553					
51-65 with LLID									1.484	0.027					
66-80 with LLID									1.613	0.006					

	Fixed effects models											Random effects models			
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7		
> 80 with LLID									1.838	0.001					
Proxy (Patient)															
A friend or relative	4.772	0.000	4.264	0.000	3.721	0.000	3.637	0.000	3.598	0.000	1.637	0.000		3.694	0.000
Both patient & friend/relative	2.879	0.000	2.679	0.000	2.325	0.000	2.314	0.000	2.291	0.000	1.540	0.000		2.322	0.000
Patient with the help of another	3.645	0.000	3.642	0.000	2.775	0.000	2.862	0.000	2.918	0.000	1.273	0.348		2.804	0.000
Critical care area (Yes)															
No			1.107	0.053	0.972	0.588	0.983	0.777	0.972	0.646	1.238	0.002		0.975	0.676
Don't know / can't remember			1.279	0.040	1.080	0.539	1.089	0.444	1.076	0.512	1.180	0.191		1.082	0.475
Admission Route (emergency / urgent)															
Waiting list / planned in advance			0.798	0.000	0.986	0.819	0.999	0.993	1.009	0.886	0.948	0.430		0.994	0.912
Other			0.888	0.395	0.899	0.470	0.901	0.465	0.905	0.484	0.881	0.436		0.900	0.458
Length of stay (>1day,<1 week)															
One day			1.117	0.037	0.975	0.641	0.969	0.590	0.962	0.518	1.097	0.174		0.972	0.632
More than 1week, up to 2weeks			1.149	0.020	1.189	0.004	1.182	0.022	1.185	0.020	0.985	0.856		1.187	0.018
More than 2weeks, up to a month			1.447	0.000	1.478	0.000	1.468	0.000	1.467	0.000	1.093	0.362		1.475	0.000
More than a month			1.679	0.000	1.488	0.002	1.474	0.002	1.468	0.002	0.875	0.331		1.484	0.001
Number of Wards (1)															
2			1.302	0.000	1.159	0.003	1.150	0.012	1.153	0.011	1.071	0.283		0.156	0.009
3 or more			1.729	0.000	1.265	0.003	1.283	0.002	1.279	0.002	1.085	0.378		1.270	0.003

	Fixed effects models												Random effects models		
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7		
Don't know/ cannot remember			1.776	0.001	1.368	0.093	1.299	0.149	1.304	0.143	1.008	0.970		1.344	0.100
Nurses (always/nearly always enough)															
Sometimes enough					2.083	0.000	2.096	0.000	2.088	0.000	2.200	0.000		2.086	0.000
Rarely or never enough..					4.121	0.000	4.279	0.000	4.282	0.000	4.903	0.000		4.169	0.000
Nurses poor quality (No)															
Yes					3.375	0.000	3.319	0.000	3.313	0.000	3.412	0.000		3.356	0.000
Choice of food (Yes, always)															
Yes, sometimes					2.143	0.000	2.157	0.000	2.158	0.000	2.258	0.000		2.147	0.000
No					3.674	0.000	3.733	0.000	3.732	0.000	7.119	0.000		3.689	0.000
Trust															
	Trust indicators (dummy) included														
Constant	0.034	0.000	0.028	0.000	0.011	0.000	0.016	0.000	0.019	0.000	0.066	0.000	0.047	0.011	
ICC (intraclass correlation)													0.026	0.012	
Variance constant													0.086	0.040	

Source: author's calculations using the Adult Inpatient Survey, 2012.

Notes: The dataset used in these calculations was provided by the Picker Institute and CQC

Findings based on standard logistic regression analysis

In this section, we present findings based on standard logistic regression analysis. As noted above, Models 1-4 have been developed in stages building up from a simple version of the model focussing on group 1 variables relating to individual characteristics (Model 1) to consecutively more complex versions that also incorporate group 2 variables relating to an individual's route within the hospital (Model 2); group 3 variables relating to the respondents perception of the adequacy of nursing quantity / quality together with choice of food (Model 3), and information about individual hospital trust (Model 4). Robust standard errors have been applied in order to evaluate findings under these models 1-3, whereas the inclusion of hospital trust as an independent (dummy) variable in model 4 makes the calculation of robust standard errors unnecessary.

Model 5 is based on Model 4 but includes an interaction effect between age and disability. This specification provides a basis for examining whether disability has a moderating effect on age. That is, whether the effect of age on the probability of not receiving help with eating when such help is needed is different, depending on whether the individuals experience a longstanding limiting illness or disability.

In terms of the overall explanatory power of Models 1-4, a significant jump up in the value of the pseudo- R^2 is observed in the transition from Model 1 (individual characteristics only, pseudo- $R^2=7\%$) or Model 2 (incorporating in addition information about journey through hospital, pseudo- $R^2=8\%$) to Model 3 (also including data on individual perceptions of the adequacy of nursing quantity and quality and whether there is a choice of food, pseudo- $R^2=19\%$) and Model 4 (with the addition of trust, pseudo- $R^2=21\%$). There is a negligible further increase in the pseudo- R^2 under Model 5 with interaction effect (pseudo- $R^2=21\%$).

The effect of individual characteristics

The first research question focuses on the effect of personal characteristics on the probability of not receiving enough help with eating from staff during a hospital stay. After controlling for other factors, Models 1-4 all provide evidence of a significant positive associations between not being helped with eating and being female rather than male, disability (experiencing a limiting long-standing condition which causes difficulties, compared to not experiencing such a condition) and proxy responses (where the form is filled in by, or with the assistance of, a friend, family or professional, rather than solely by the inpatient themselves). The negative association between reporting not receiving help needed during hospital stays and age identified through descriptive analysis (this paper, Section 3) is also confirmed through multivariate analysis, holding other factors constant.

For example, based on Model 4 and holding the other variables in the model constant, an odds ratio of 1.13 is observed for females compared to their male

counterparts²⁸. That is, the odds of not receiving help with eating when it is needed during a hospital stay are 1.13 times higher for females than for males.

Similarly, the odds ratio for not receiving help with eating when it is needed during a hospital stay for those who experience a limiting long-standing illness or disability (LLID) compared with those who do not is 1.45. This implies that the odds of not receiving help with eating when it is needed during a hospital stay are observed to be 1.45 times higher for those who experience a LLID compared with those who do not²⁹.

The increases in the odds ratios associated with different values of the variable “proxy” are considerably more pronounced. An odds ratio of 3.64 is observed when the form is filled in by a friend or relative of the patient, of 2.31 when the form is filled in by the patient and relative together, and of 2.86 when the form is filled in by the patient with the help of a health professional, compared with when the form is filled in by the patient alone. As noted previously, there are at least two possible interpretations of this finding. One is that ‘gratitude bias’ is less prevalent among relatives, friends and professionals – they are more likely to state that help was not received when needed than the ‘uncomplaining’ patient themselves. But it is also possible that relatives, friends and professionals are more motivated to assist patients filling in their survey responses, or to fill them in on their behalf, where they feel the patient was poorly treated (a ‘selection effect’) (Table 27).

In contrast, the odds ratios observed for older age groups are less than one, suggesting an overall negative association between “no help” and age (that is, the probability of reporting not being helped decreases with age). Odds ratios of 0.89, 0.69, 0.63 and 0.74 are observed for those aged 36-50, 51-65, 66-80 and those who are greater than 80, compared with those who are aged 16-35. This confirms the finding (without controls) reported in Section 3, that older people are less likely to report not getting help with eating when needed than people aged 16-35. Note, however, that with controls the oldest age group (over 80s) are more likely to report a lack of help than the 66-80 age group (Table 27).

The effect of an individual’s pathway through a hospital trust

The second research question focuses on the effect of a person’s journey through the hospital on the probability of not receiving enough help with eating from staff during a hospital stay. The independent variables tested for potential inclusion in the model include route of admission (emergency versus planned), whether a person stayed in a critical care area, whether they had an operation, the number of wards that a person

²⁸ The coefficients in logistic regression provide information on the log of the odds. For example, a coefficient of 1.34 for gender implies that a change in gender from male to female is associated with a 1.34 increase in the log of the odds. The odds ratios provide information on the ratio of the probability that the dependent variable is 1 over the probability that it is not 1. The odds ratio is calculated by taking the exponential of the coefficient (e to the power of the coefficient). UCLA: Statistical Consulting Group How do I interpret odds ratios in logistic regression? <http://www.ats.ucla.edu/stat/stata/faq/oratio.htm> and Odds ratio interpretation http://www.ats.ucla.edu/stat/stata/output/stata_ologit_output.htm and Stata annotated output logistic regression analysis http://www.ats.ucla.edu/stat/stata/output/stata_logistic.htm, accessed 26th March 2014.

²⁹ See Appendix D for details of the derivation of disability variable.

stayed in and their length of stay. Conceptually, these variables might be thought of as determined by the health condition of the respondent and as *outside* of the control of the particular hospital trust in which the respondent has been an inpatient (with the partial exception of length of stay).

Model 2 includes both group 1 variables (personal characteristics) and group 2 variables (individual route through hospital) that have been found to be significant at the 95% significance level (p-value <0.05). One variable providing information on whether the patient had an operation or not was found to be not significant and was excluded from the final specification of Model 2. Another variable (whether the person stayed in a critical care area) was found to be non-significant under the final specification of Model 2 but was retained due to potential confounding effects.

Based on Model 2, route of admission (emergency or planned), the number of wards individuals stayed in and long-stay status are all observed to have a significant effect on the probability of not receiving help with eating during a hospital stay, when such help is needed. The odds of not receiving help with eating when it is needed during a hospital stay are lower (odds ratio of 0.80) when the admission is non-emergency, compared with an emergency admission – so patients with planned admissions appear to be better cared for in this respect. Odds ratios of 1.30 and 1.73 are observed when the patient reports staying in two wards or three or more wards respectively compared with one ward. The odds of not receiving help with eating when it is needed during a hospital stay are 1.15, 1.45 and 1.68 times higher for those whose length of stay is between one and two weeks, between two weeks and a month, and more than one month, compared with up to a week. In other words, staying longer appears to be associated with an increased risk of not receiving help when needed (Table 27).

However, incorporating group 3 independent variables (the quality and quantity of nursing care) changes the picture in relation to the effect of an individual's pathway through a hospital trust in notable ways. Under Model 3 and above, the patient's route of admission is no longer observed as having a significant effect on the dependent variable "no help", as we shall see in the next section. In addition, restricting the sample to those who need help (and excluding those who do not need help) also has a notable impact on the significance and effect size of group 2 independent variables. Findings based on the restricted sample are discussed below.

The effect of individual perceptions of the quantity and quality of nursing staff

The third research question focuses on the effect of perceptions of the quantity and quality of nursing staff on the probability of not receiving enough help with eating from staff during a hospital stay. Unlike group 2 independent variables, the numbers and quality of staff can be characterised as being influenced by the policies and organisation of the individual hospital trust.

The findings based on Model 3 suggest that perceptions of both the quantity and quality of nursing staff are observed to have a significant effect on the probability of not receiving help with eating when it is needed during a hospital stay. Based on Model 4, odds ratios of 2.10 and 4.28 are observed when the patient reports that there were "sometimes" enough nurses, or there were "rarely or never enough nurses", compared

with those who report there were “always” enough nurses. The odds of not receiving enough help are higher by a factor of three for inpatients who raised issues about the adequacy of other different dimensions of nursing quality (Table 27). As noted above, responses on the quantity and quality of nursing could be endogenous to perceptions of not being helped with eating, so the interpretation of these findings is not entirely straightforward.

The effects of choice of food

The availability of a choice of food is included as a variable in Model 3 and above. Again, unlike group 2 independent variables, but like the quality and quantity of nursing staff, this variable can be characterised as being influenced by the policies and organisation of the individual hospital trust. Based on Model 4, odds ratios of 2.16 and 3.73 are observed for patients reporting that there was “sometimes” a choice of food or that there was no choice of food respectively, compared with patient’s reporting that there was “always” a choice of food (Table 27). As noted above, whether or not there is a choice of food is a variable that is clearly within the hospital’s control. The positive association between having ‘no choice of food’ on the one hand, and ‘not receiving enough help with eating’ on the other, can be interpreted in two ways. The first interpretation is that poor practice in relation to one aspect of food in hospital (namely, choice) tends to go along with poor practice in relation to another aspect (namely, lack of support with eating). Alternatively, this might be interpreted as evidence that where choice of food is given, the need for assistance with eating is reduced (because those who need help can choose easier-to-manage options) and hence more nursing resources are available to help those who do need it.

The effect of hospital trust

The fourth research question focuses on the effect of the hospital trust on the probability of not receiving enough help with eating from staff during a hospital stay. Model 4 includes individual hospital trust as an independent variable. Table 27 provides full details of the odds ratio for each individual hospital trust compared with the reference group (set as the hospital trust with the “average” proportion reporting not being helped). Based on the full set of Model 4 controls, no trusts were identified as significantly worse than the average trust (higher odds “nohelp”) and 20 trusts were better than the average trust (lower odds “nohelp”). These results are explored in more detail in section 6 (cross reference this paper, Section 6 “Model based findings: extended analysis”).

Variations of the basic model

Incorporating an interaction effect between age and disability

In order to further examine the complex relationship between age and disability, the effects of the inclusion of an interaction effect between age and disability were examined³⁰. Regressing ‘nohelp’ against the interaction of age and disability with no further controls, a statistically significant interaction between age and disability is observed with disability increasing the probability of not being helped for all age groups. This effect becomes stronger with age. For those aged 80 or above, the interaction effect between age and disability is particularly strong. That is, whilst disability results in a higher probability of not being helped amongst *all* age groups, the effect of disability is stronger amongst the over 80s.

Model 5 in **Table 27** examines the interaction effect between age and disability in the context of the full set of Model 4 controls. With the reference group set at the youngest age group, the interaction effect between age and disability is observed to be statistically significant with disability increasing the probability of not being helped for those aged 50 and above. This effect is strongest amongst those aged 80 or above.

There is only an extremely small increase in the pseudo-R² for Model 5 compared with Model 4 (20.7% compared with 20.6%) suggesting only an extremely marginal improvement in overall explanatory power when the interaction effect is included.

Findings based on multilevel logistic regression analysis

Model 7 is based on Model 4 but applies multilevel rather than standard fixed effect logistic regression techniques. It includes the same independent variables as Model 4 apart from hospital trust (which is included in the model not as an independent variable, but as a “level two” cluster variable). The results generated under Model 7 confirm the statistical significance and direction of magnitude of the independent variable effects discussed in the sections above. The effect sizes are marginally different from those estimated under the standard model (Table 27).

The choice between a standard and multilevel logistic regression model was discussed above. The inclusion of a random intercept in Model 7 allows the value of the intercept to vary by hospital trust. The first step in developing a multilevel model is to examine whether the variation in the random intercept for a null model (that is, a model with no further controls) is sufficient to warrant the multilevel approach.

Figure 13 plots the estimated residuals for hospital trusts, that is, the difference between the random intercept for each trust and the mean random intercept for all trusts. The residuals are calculated as the difference between the observed score and the score predicted by the regression equation.

³⁰ The incorporation of an interaction variable into a regression model enables the significance of the interaction effect between the two variables to be examined. The interaction effect is analysed by examining the values of one of the variables (the focal variable) conditioned on the value of the other value (the moderator variable). Several other interactions were tested and not found to be consistently significant, nor to add substantially to the explanatory power of the models.

The caterpillar plot based on the null model (Figure 15, panel A) shows that for many hospital trusts there is no significant difference from the mean hospital trust (with the confidence intervals overlapping zero). However, there are a number of trusts that are significantly different from the mean (with confidence intervals that do not overlap zero) including cases of good practice (negative residual relative to the mean, implying lower probability of no help) and poor practice (positive residual relative to the mean, implying higher probability of nohelp).

The caterpillar plot based on the full model (Figure 15, panel B) shows that the number of hospital trusts that are significantly different from the mean reduces when controls are incorporated into the model. Only Mid Yorkshire Hospitals NHS Trust (RXF) is observed to be significantly different based on the full set of independent variables and the multilevel model.

As noted above, multilevel models provide a basis for addressing two key research questions that cannot necessarily be evaluated in a fixed effects model. First, the development of a multilevel model makes it possible to capture and quantify the extent of the random effects associated with the cluster variable (in this case, the variance in the effect of hospital trust on not receiving help with eating during hospital stays). The interclass correlation coefficient for Model 7 is 0.012 (compared with 0.026 for the related null model) and the variance of the constant is 0.040 (falling from 0.086 in the related null model).

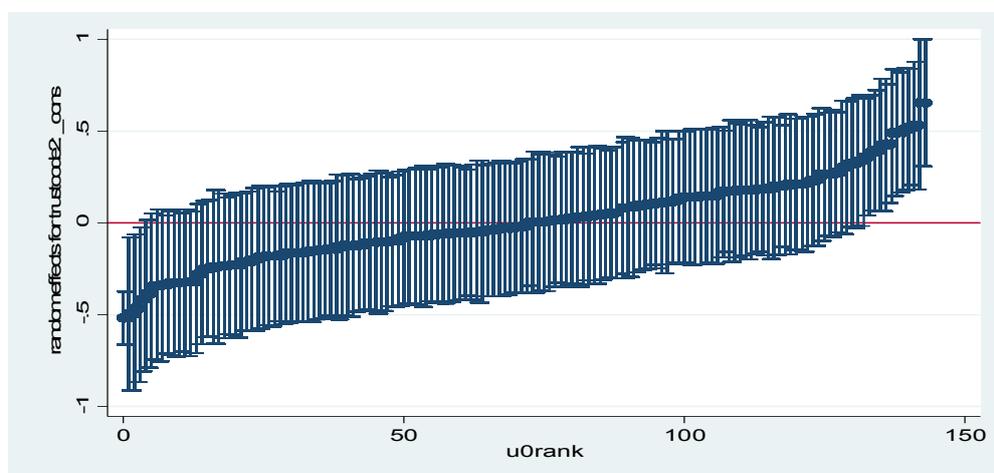
Second, multilevel analysis provides a basis for examining how the variation at the individual hospital trust level might be accounted for. Extended multilevel models which include random intercepts as well as random coefficients provide a framework for whether trust level variation can be accounted for in terms of the differential effects of independent variables within different trusts. For example, the effects of gender, disability and / or age could be different from one hospital trust to another.

In order to examine this issue, Model 7 was extended to include random coefficients for gender, disability and age (in addition to a random intercept). However, likelihood ratio tests on the extended models failed to provide a basis for rejecting the hypothesis that the differential effects of gender, disability and age are zero. That is, there was no evidence to suggest that gender, age and disability account for the observed variation in not being helped with eating within different trusts.

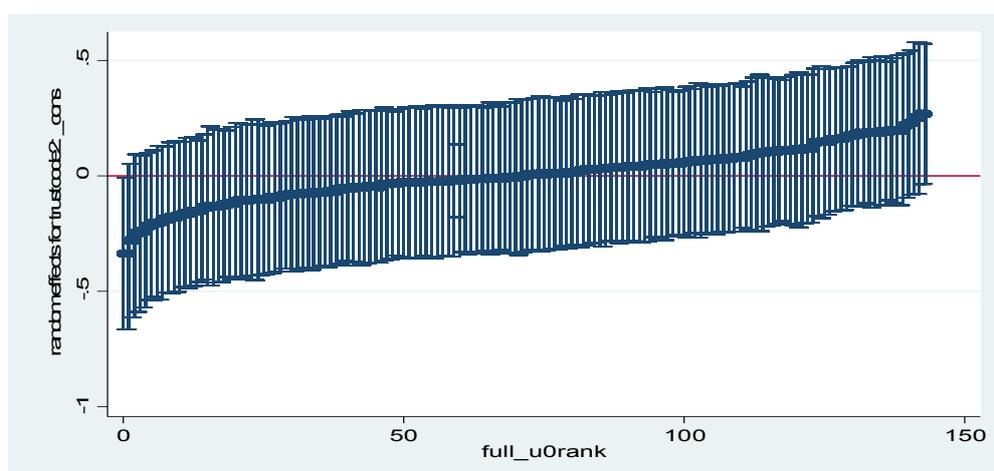
This is an important finding since it implies that the effects of gender, age and disability have similar effects in different hospital trusts. Therefore, it appears that it is *not* to be the case that some trusts manage the challenges that are associated with disability, age and gender better (or worse) than others.

Figure 15: The effect of hospital trust on lack of support with eating

Panel (A): trust level residuals - no controls (null model)



Panel (B): trust level residuals – full model (model 6)



Source: author's calculations using the Adult Inpatient Survey, 2012, England only

Note:

- (1) The caterpillar plot is a plot of the hospital trust level residuals (the difference between the random intercept for each trust and the mean random intercept for all trusts and confidence interval for each trust) (with confidence intervals) (y axis) and hospital trust rank versus (x axis). Where confidence intervals do not overlap zero the random intercept for the trust is significantly different from the mean random intercept.
- (2) The upper panel plots hospital trust level residuals for the null model. The lower panel plots hospital trust level residuals when the full set of controls are introduced.
- (3) The data set used in these calculations was provided by the Picker Institute with the permission of the CQC.

Findings when the sample is restricted to those who need help

Model 6 is based on Model 4 but applies the alternative dependent variable “no-help_r”. As noted above, this alternative dependent variable distinguishes between (1) those respondents who need help with eating but who indicate that they have *not* experienced lack of support with eating during their hospital stay and (2) those respondents who need help with eating and who indicate that they *did* experience lack of support with eating when needed. Analysis using “no-help_r” is based on a restricted sample which *excludes* those who indicate that they do not need help with eating.

As will be discussed below, the results under Model 6 differ to those under Model 4 (the unrestricted sample) in important ways, both in terms of the significance of the independent variables tested, and the estimates of the size of their effects. The difference in sample size between Model 6 and Model 4 is one factor in driving these differences (since a smaller sample size is in itself one reason for failing to establish significant differences between two levels of a categorical variable).

In addition, the differences in findings can be explained by the exclusion of those who do not help with eating from Model 6 and the different distribution of characteristics in the restricted and unrestricted samples resulting from this filtering. Specifically, individuals who do not need help with eating (and who are excluded from the restricted sample) are younger, less likely to be disabled, less likely to be long-stay, less likely to have stayed in more than three wards, and are less likely to perceive the number of nurses to be inadequate.

In relation to group 1 independent variables, the effects of individual characteristics are different when the sample is restricted to those who need help. For example, whilst a downward trend in the odds ratio by age is observed based on the restricted sample, only the difference in the odds ratio between the oldest (>80) and youngest age group is significant. The effects of gender are more somewhat marked in the restricted sample, with the odds ratio for females compared with males of 1.30 in the restricted sample compared with 1.13 in the un-restricted sample. The effects of proxy responses are similar to in the restricted sample. However, the effect sizes are smaller and the odds ratio amongst respondents where the patient filled in the form with the help of a health professional compared with respondents who filled in the form themselves is not significant.

The differences between the findings based on the restricted and un-restricted samples is even more marked in relation to the second group of independent variables, focussing on the effects of a person’s pathway through a particular hospital trust. Route of admission remains insignificant under the restricted model. However, the variable “critical care” has a significant effect under the restricted model, with those who have not stayed in a critical unit significantly less likely to experience no help with eating, compared with those who did stay in a critical care ward. This reverses the finding based on the unrestricted sample, whereby the variable “critical care” was *not* found to have a significant effect.

In addition, there are important differences in relation to the variables “number of wards” and “length of stay”. Staying in two wards and three or more wards, compared with staying in only one ward, were both found to have significant effects under the unrestricted model. However, both categories were found to have an *insignificant* effect based on the restricted model.

Similarly, for the variable “length of stay” band: Stays of between one and two weeks, two to four weeks and more than a month were found to have significant positive effects on the probability of nohelp, relative to stays of less than a week. However, based on the restricted model, the odds ratio for stays of one to two weeks, and more than a month, were both found to be lower than for the reference group. Although neither of these differences are observed to be significant, this is necessarily an important difference.

Basing the analysis on the restricted sample has less impact on group 3 independent variables. The effect of perceptions of the adequacy of the number of nurses remains strong and significant, with odds ratios of 2.20 and 4.90 for those who reported that there were only sometimes enough nurses, and there were rarely or never enough nurses, compared to the reference group (those who reported that there were always enough nurses). The effect of low perceptions of nursing quality remained virtually unchanged.

The effect of choice food is even more marked in the restricted sample. The odds ratio for respondents who reported no choice of food, compared with those who reported that there was always a choice of food, was 7.12. This compares with a figure of 3.73 in the unrestricted sample.

Finally, the effect of hospital trust is somewhat different compared with the unrestricted model. One trust (RAJ South end University Hospital NHS Foundation Tr..) is identified as significantly worse than average trust (higher odds nohelp) and three trusts better than average trust (lower odds no help) (RXF Mid Yorkshire Hospitals NHS Trust , RN3 Great Western Hospitals NHS Foundation Trust, RD3 Poole Hospital NHS Foundation Trust) (see Section 5: Model based findings).

Sensitivity testing based on a more “objective” question about nursing quality and quantity

One possible critique of the model developed here is that perceptions of nursing quantity and quality are subjective measures. For this reason, the results have been sensitivity tested the results based on an alternative independent variable which could arguably be viewed as a more objective measure of aspects of nursing quantity and quality, namely, waiting time for the call button. The results of this exercise are reported in Appendix B Table 30 for the full sample and Table 31 for the restricted sample.

5. POOR STANDARDS OF HELP WITH EATING: TRUST LEVEL FINDINGS

In this section, we evaluate variations in patient experience of dignity and nutrition at the level of hospital trusts. This section is included in the report as a response to potential users of this research, who highlighted the need for the availability of trust level findings and triangulation with the outcomes of CQC inspection and other evidence identifying poor performance.

The section begins with an examination of the raw percentages of inpatients indicating that they were not treated with dignity and respect, or who did not receive help with eating when needed, for each trust. Next, we highlight the need for a methodology for identifying poor performance at the trust level. A common method adopted in the literature and by the CQC in its evaluation of trust performance is the “deviation from average” approach which compares the performance of trusts with that of the “average” trust. In order to illustrate the application of this approach, funnel plot analysis is used to identify hospital trusts where the raw percentage of those reporting poor standards of care is significantly higher / lower than the percentage in the “average” trust. The application of a “deviation from average” approach is then further extended using model based analysis. We find that controlling for patient characteristics, their individual journey through hospital, and patient-reported quantity/quality of nursing substantially reduces the variation between hospital trusts - but some of these are factors over which the trusts have influence and arguably should *not* be controlled for when making comparisons. For this reason, we present model-based “deviation from average” findings based on different sets of controls.

In the second part of this section, we consider the case for adopting a “minimum threshold approach” rather than a “deviation from average” approach when identifying poor performance at the trust level. We suggest that evaluating poor performance at the trust level using a “deviation from average” approach may under-identify the scale of poorly-performing trusts. Whilst this methodology may have a rationale in some contexts (for example, when identifying hospital trusts with standardised mortality ratios that are “different” from average), this method has important limitations in the context of evaluating compliance with fundamental (minimum) standards of quality of care. Instead, we highlight the need for a “minimum threshold approach”.

In the third part of this section, our findings based on the 2012 Adult Inpatient Survey data are compared with other recent inspection and regulatory evidence including findings from the Care Quality Commission targeted dignity and inspection rounds; risk analysis from the CQC ‘Intelligent Monitoring’ data packs; and comparative exercises based on data on trust level mortality ratios. We find that some but not all of the trusts identified above have been identified in other findings on poor performers; conversely, other exercises have identified additional poor performers. The analysis supports the view that standardised hospital mortality ratios and quality of care are conceptually distinct; and that focussing on standardised hospital mortality ratios might give a *misleading* picture of quality of care provided in a hospital.

Patient experiences of dignity and nutrition by hospital trust

Appendix C (Tables 36-38) provides details of the percentage of inpatients reporting inconsistent and poor standards of dignity and nutrition by hospital trust. Table 36 provides details of the percentage who report that they were only sometimes treated with dignity and respect, or who were not treated with dignity and respect, during their hospital stay. The percentage reporting that they were not treated with dignity and respect ranges from 0.3% (RRV University College London Hospitals NHS Foundation Trust) to 7.4% (RMP Tameside Hospital NHS Foundation Trust). The percentage reporting that they were not treated with dignity and respect, or were (only) sometimes treated with dignity and respect, ranges from 10.5% (in the specialist hospitals as a group) to 31.3% (RJ6 Croydon Health Services NHS Trust).

Table 37 provides details of the percentage who report that they only sometimes received enough help with eating from staff during a hospital stay, or did not receive enough help, by hospital trust, for the full sample (all respondents). Based on the full sample and unweighted data, the percentage ranges from 1.3 (RD3 Poole Hospital NHS Foundation Trust) to 11.2 (RQX Homerton University Hospital NHS Foundation Trust), with an average of 4.7 % overall.

Table 38 provides similar information based on the restricted sample (excluding those who indicate that they do not need help). Based on the restricted sample and unweighted data, the percentage ranges from 5.3% (again, RD3 Poole Hospital NHS Foundation Trust) to 34.3 (RN7 Dartford and Gravesham NHS Trust).

A simple rank ordering method would point towards (RD3) Poole Hospital NHS Foundation Trust as appearing at the top of both of these lists and appearing to be good performers in relative terms. Based on the unrestricted sample and unweighted data, the ten individual trusts with the highest percentage of those reporting that they did not receive enough help from staff are: RD8 Milton Keynes Hospital NHS Foundation Trust; RLN City Hospitals Sunderland NHS Foundation Trust; RJ6 Croydon Health Services NHS Trust; RJ2 Lewisham Healthcare NHS Trust; RVW North Tees and Hartlepool NHS Foundation Trust; RN7 Dartford and Gravesham NHS Trust; RAP North Middlesex University Hospital NHS Trust; RV8 North West London Hospitals NHS Trust; RYJ Imperial College Healthcare NHS Trust; and RQX Homerton University Hospital NHS Foundation Trust.

Based on the restricted sample, those ranked within the ten trusts with the highest percentage of those reporting that they did not receive enough help from staff are: RE9 South Tyneside NHS Foundation Trust (26.5%); RGQ Ipswich Hospital NHS Trust (26.6%); RYJ Imperial College Healthcare NHS Trust (26.9%), City Hospitals Sunderland NHS Foundation Trust (27.0%); City Hospitals Sunderland NHS Foundation Trust (27.0%); Milton Keynes Hospital NHS Foundation Trust (27.0%); Western Sussex Hospitals NHS Trust (27.6%), North Tees and Hartlepool NHS Foundation Trust (28.8%); Homerton University Hospital NHS Foundation Trust (28.8%); Lewisham Healthcare NHS Trust (28.9%); and Dartford and Gravesham NHS Trust (34.3%). Subject to sample size, trust level prevalence rates broken down by age and gender will be provided on our mini-website:

http://sticerd.lse.ac.uk/case/new/research/equality/age_dignity_and_nutrition/default.asp).

Identifying poor performance: “deviation from average” approach

The question of how to identify poor performers in the context of healthcare has been extensively discussed in the literature. The tables above can be used to produce “lists” and rankings of performers, but a simple list does not distinguish where levels of performance against an indicator are statistically different, and does not account for the challenges and factors that different trusts face, including patient mix, which may be beyond their control. The complex conceptual and statistical challenges raised in this area underlying current ongoing public policy debates, including the role of mortality indicators in identifying poorly performing trusts.

Different methodologies for identifying poor performers in healthcare are examined and theorized in Spiegelhalter (2005), Jones and Spiegelhalter (2011) and Spiegelhalter (2012). One key question that arises in making institutional comparisons and evaluating the performance of individual hospital trusts is whether - and how - to summarise data based on a wide range of different indicators (hospital standardised mortality ratios, MRSA infection rates, data on quality of care, survey based data, other feedback data, information on complaints, information on incidents and well as other qualitative data). Even when the focus is on a single quantitative indicator, a series of further methodological issues arise in comparing institutional performance and identifying poor performers from lists such as those reported above. One simple approach is based on rank order with confidence intervals providing clarification of significant differences between trusts. Another is to evaluate the relative performance of hospital trusts compared to the mean, median or some other distributional statistic (for example, identifying unusual performers as those with a sample proportion that deviate 1.5 times from the mean or that fall within the top 10 percent of observations in the distribution).

Proposed refinements of the “deviation from average” method examined in Spiegelhalter (2005), Jones and Spiegelhalter (2011) and Spiegelhalter (2012) include the use standardised data (to account, for example, for patient mix); the application of techniques which recognize that there will always be a degree of random fluctuation between trust performance against an indicator (for example, the application of confidence limits in order to identify trusts where performance is statistically different from the mean; or the use of “control limits” which take account of both random fluctuation and precision). Other techniques are designed to take account of further “natural” variation around the mean which might be deemed “normal” rather than “unusual” when it comes to evaluating performance (for example, random effects models which account for so-called “over-dispersion”).

Many of these suggestions are reflected in the methods used by the CQC to analyse the Adult Inpatient Survey data (for example, see CQC 2012a, 2013efg and Smith 2005). The CQC evaluations of trust performance put particular emphasis on (1) a standardisation procedure which (a) adjusts for patient mix and (b) gives trusts equal weight in the final results regardless of their size; (2) a “deviation from average” methodology. In applying the deviation from average methodology, allowance is made for random fluctuation in the underlying distribution of achievement against patient experience indicators. In addition, further adjustments are made in order to adjust for other variation between hospital trusts that is conceptually viewed as “normal” rather

than “unusual” by applying an over dispersion adjustment based on a random effects model (on which, see section 1).

Funnel plot analysis

Approaches that fail to take into account random sampling variation are criticised in Spiegelhalter (2005), who recommends the use of ‘funnel plots’ in which the observed indicator is plotted against a measure of its precision with control limits forming a ‘funnel’ around the target outcome. The variability of those outside of the control limits is of substantive importance whereas there is no basis for ranking within control limits. Comparison can then be undertaken with the mean (or an alternative threshold) but with some random variation treated as “normal” when evaluation of the identification of “unusual performers” is undertaken.

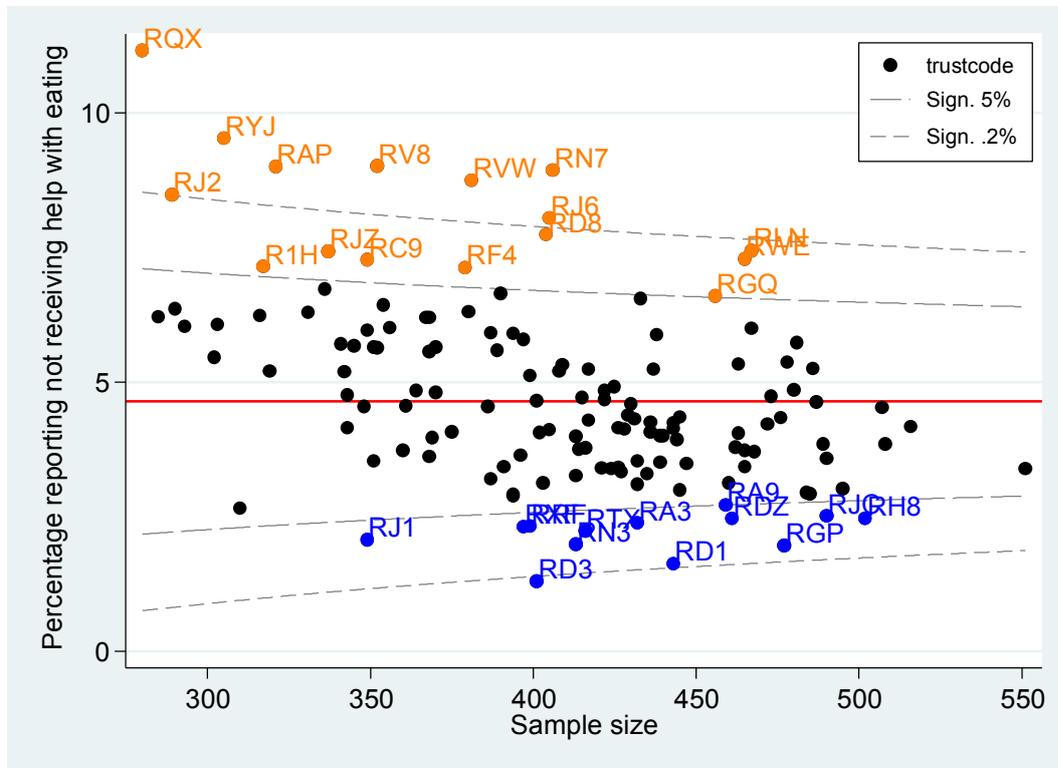
Adopting this approach, Figure 14 plots the proportion who report not receiving help with eating when it is needed (x axis) against full sample size (y axis) with 95% (approximately 2 standard deviations) and 99.8 per cent (approximately 3 standard deviations) prediction limits around this proportion. Panel A plots this relationship for the unrestricted (full) sample and Panel B for the restricted sample (with those who do not need help excluded from the analysis). Note that specialist trusts have been excluded from this analysis.

Based on the full sample, the majority of the institutions lie within the 95% limits with no basis for ranking the hospitals. At the “poor performer” end of the spectrum (with a higher proportion of ‘nohelp=1’ than for the average trust), fifteen trusts fall outside of the 99.8% and / or 95% limits. That is, based on the full sample, fifteen trusts can be said to be affected by higher percentages reporting poor help with eating than the “average” trust. At the “good performer” end of the spectrum (with a lower proportion of ‘nohelp=1’ than for the average trust), thirteen hospitals lie outside of the 99.8 % and / or 95% limits.

Based on the restricted sample, the funnel plot suggests that the majority of the institutions lie within the 95% limits with no basis for ranking the hospitals. At the “poor performer” end of the spectrum (with a higher proportion of ‘nohelp=1’ than for the average trust), twelve trusts fall outside of the 95% and / or 99.8% limits. That is, based on the restricted sample twelve trusts can be said to be affected by higher percentages reporting poor help with eating than the “average” trust. At the “good performer” end of the spectrum (with a lower proportion of ‘nohelp=1’ than for the average trust), seven hospitals lie outside of the 95% and / or 99.8 % limits.

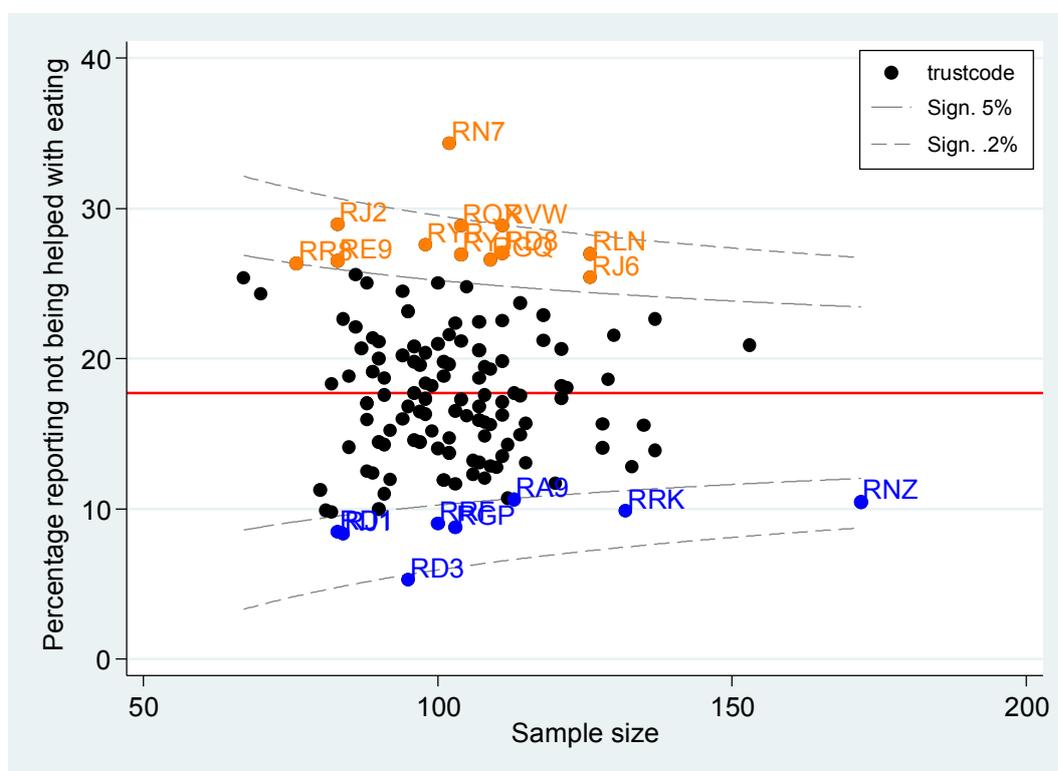
Figure 16: Funnel plots with average as target

(a) unrestricted (full) sample



Trustcode names: RQX Homerton University Hospital NHS Foundation Trust; RYJ Imperial College Healthcare NHS Trust; RAP North Middlesex University Hospital NHS Trust; RV8 North West London Hospitals NHS Trust; RN7 Dartford and Gravesham NHS Trust; RJ2 Lewisham Healthcare NHS Trust; R1H Barts Health NHS Trust; RJZ King's College Hospital NHS Foundation Trust; RC9 Luton and Dunstable Hospital NHS Foundation Trust; RF4 Barking, Havering and Redbridge University Hospitals NHS Trust; RWE University Hospitals of Leicester NHS Trust; RLN City Hospitals Sunderland NHS Foundation Trust; RVW North Tees and Hartlepool NHS Foundation Trust; RJ6 Croydon Health Services NHS Trust; RD8 Milton Keynes Hospital NHS Foundation Trust; RGQ Ipswich Hospital NHS Trust.

(b) restricted sample (excludes those who do not need help with eating)



Trustcode names: RN7 Dartford and Gravesham NHS Trust; RJ2 Lewisham Healthcare NHS Trust; RJ6 Croydon Health Services NHS Trust; RQX Homerton University Hospital NHS Foundation Trust; RVW North Tees and Hartlepool NHS Foundation Trust; RLN City Hospitals Sunderland NHS Foundation Trust; RR8 Leeds Teaching Hospitals NHS Trust; RE9 South Tyneside NHS Foundation Trust; RGQ Ipswich Hospital NHS; RYR Western Sussex Hospitals NHS Trust; RYJ Imperial College Healthcare NHS Trust; RD8 Milton Keynes Hospital NHS Foundation Trust; RYR Western Sussex Hospitals NHS Trust

Source: author’s calculations using Adult Inpatient Survey, 2012, England only. Specialist trusts are excluded from the calculations.

Notes: (1)Funnel plots are a plot of an estimate of an underlying quantity (e.g. a proportion) against a measure of its precision. ‘Control limits’ form a funnel around the target outcomes. recommended a graphical; aid for institutional comparisons (Spiegelhalter 2005). (2)The dataset used in these calculations was provided by the Picker Institute and CQC.(3) .

Further refinements of the basic funnel plot to take account of so-called “over-dispersion” are discussed in Spiegelhalter (2005b) and Jones and Spiegelhalter (2011). Arguably, before institutional comparisons are made and “unusual” performers are identified, the data should be adjusted to take account of natural variation in the distribution of an indicator over and above sampling variation. For example, as discussed above in the context of multilevel logistic regression analysis, hierarchical data (with patients nested in trusts) can result in clustering. One plausible approach is to undertake funnel plot analysis after adjusting for these effects using a random effects model. We do not pursue these further refinements here but rather provide extended

analysis of the model based findings on trust level effects (building on the analysis in Section 5)³¹.

Model based analysis

An alternative method for identifying trusts that are “significantly different” from the average builds on the model based approach examined in Section 4. With individual hospital trust included in a logistic regression equation as a dummy (independent) variable, and with the reference group set at the “average” trust, it is possible to identify individual hospital trusts where the odds of “no-help” are significantly higher than average trust (relatively poor performers) and trusts where the odds of no-help are significantly lower than average (relatively good performers).

In considering the validity of this approach, it is important to consider a further important issue which arises when developing a methodology for identifying poorly performing trusts – namely, whether poorly performing trusts should be identified *with* or *without* controls for a range of factors such as patient mix and / or hospital characteristics such as area deprivation and the quantity and quality of nursing staff.

In thinking through this issue, it is critical to distinguish between a series of separate research questions which can potentially be addressed when evaluating performance at hospital trust level. For example, one important research question focuses on the estimation of the percentage reporting experiences of inconsistent and poor standards of care with a hospital trust. This research question is perhaps best examined using the bivariate methods *without* controls for patient mix or other factors.

A second research question relates to whether, *after* accounting for patient mix (for example, by age, gender and route of admission), some hospital trusts are performing better or worse than other hospital trusts. This question relates to the assessment of how well trusts are performing given the different challenges that they face. This research question lends itself to a standardisation procedure such as that applied by the Care Quality Commission in its national summaries and trust benchmarking reports (discussed in section 1,2 and 4) together with relevant over-dispersion adjustments (to account for other “normal” variation, for example, that might potentially be associated with area deprivation. An alternative method, pursued here, is to undertake simple multivariate analysis (controlling for relevant focal independent variables, for example, age, gender, route of admission and area deprivation).

A third research question relates to whether independent “hospital trust” effects are evident in the data *after* accounting for all relevant variables (including hospital characteristics such as the quality and / or quantity of nursing). This research question lends itself to more extended multivariate analysis, incorporating as many relevant and statistically significant independent variables as possible.

The model based results reported in Section 4 focussed on the identification of independent trust effects *after* all other relevant effects had been accounted for. In the

³¹The application of over-dispersion techniques used by the CQC in trust benchmarking reports and the data packs developed as part of the new Intelligent Monitoring evaluation was discussed in section 2.

subsections that follow, we re-present these results alongside model based findings on variation between trusts (1) with no additional controls included in the model; (2) for a simple standardisation model (which controls for age, gender and route of admission).

Unrestricted sample

Table 28 reports trust level odds ratios based on the unrestricted sample (all respondents) for five logistic regression models with “nohelp” as the dependent variable. The first model includes trust as a dummy but no other controls (one variable logistic regression test). Based on this specification, eight trusts are evaluated as ‘worse’ performers than the average trust (with higher odds of ‘nohelp’). These are: RQX Homerton University Hospital Trust; RYJ Imperial College Healthcare NHS Trust; RN7 Dartford and Gravesham NHS Trust; RV8 North West London Hospitals NHS Trust; RAP North Middlesex University Hospital NHS Trust; RVW North Tees and Hartlepool NHS Foundation Trust; RJ2 Lewisham Healthcare NHS Trust; and RJ6 Croydon Health Services NHS Trust. Specialist trusts and four further trusts are evaluated as ‘better’ than average trust (lower odds of ‘no help’).

The second model (“standardisation model”) is similar to the CQC methodology in that it controls for age, gender, admission route as well as hospital trust. Three trusts (RN7 Dartford and Gravesham NHS Trust; RQX Homerton University Hospital Trust; and RYJ Imperial College Healthcare) are identified as ‘worse’ than the average trust (higher odds of ‘nohelp’). Eight trusts are identified as better than the average trust (lower odds of ‘no help’).

The third model incorporates disability as an additional control. One hospital trust (RN7 Dartford and Gravesham NHS Trust) is identified as ‘worse’ than the average trust (higher odds of ‘nohelp’). Five trusts are identified as ‘better’ than the average trust (lower odds of ‘no help’).

The third model is based on Model 2 reported in Section 5 (with the addition of individual hospital trust as a dummy variable). This specification controls for a fuller range of variables which can reasonably characterised as outside of the control of trusts. Based on this specification, no trusts are evaluated as significantly ‘worse’ than the average trust (with higher odds of ‘nohelp’). Specialist hospital trusts and six further trusts (RD3 Poole Hospital NHS Foundation Trust; RXF Mid Yorkshire Hospitals NHS Trust; RN3 Great Western Hospitals NHS Foundation Trust; RD1 Royal United Hospital Bath NHS Trust; RH8 Royal Devon and Exeter NHS Foundation Trust; RGP James Paget University Hospitals NHS Foundation Trust) were identified as significantly ‘better’ than the average trust (lower odds of ‘nohelp’).

Finally, applying the full set of controls included in Model 4 reported in Section 5, no trusts identified as significantly worse than average trust (higher odds nohelp) and 19 trusts better than average trust (lower odds no help).

Restricted sample

Similar analysis is now undertaken on the restricted model (with those who do not need help with eating excluded from the analysis (Table 29). Again, the first model

reported includes trust as a dummy but no other controls (one variable logistic regression test). Based on this specification, one trust (RN7 Dartford and Gravesham NHS Trust) is identified as ‘worse’ than average trust (higher odds of ‘nohelp’) whilst specialist trusts and one further trust (RD3 Poole Hospital NHS Foundation Trust) are identified as ‘better’ than average trust (lower odds of ‘no help’).

Based on the “standardization” model (controlling for age, sex and admission route) one trust ((RN7 Dartford and Gravesham NHS Trust) is evaluated as ‘worse’ than the average trust (higher odds of ‘nohelp’). Specialist trusts and three further trusts (RD3 Poole Hospital NHS Foundation Trust; RJ1 Guy’s and St Thomas’ NHS Foundation Trust; and RXF Mid Yorkshire Hospitals NHS Trust) are identified as ‘better’ than the average trust (lower odds of ‘no help’).

The third model incorporates disability as an additional control. One hospital trust (RN7 Dartford and Gravesham NHS Trust) is identified as ‘worse’ than the average trust (higher odds of ‘nohelp’). One trust (RD3 Poole Hospital NHS Foundation Trust) and specialist trusts are identified as ‘better’ than the average trust (lower odds of ‘no help’).

The fourth model is the “factors outside of trust control” model (Model 2 reported in Section 5 with an additional control for trust). On this specification, one trust (RN7 Dartford and Gravesham NHS Trust) is identified as ‘worse’ than average trust (higher odds of ‘nohelp’). Specialist hospitals and three further trusts (RXF Mid Yorkshire Hospitals NHS Trust, RN3 Great Western Hospitals NHS Foundation Trust, RD3 Poole Hospital NHS Foundation Trust) are identified as significantly ‘better’ than the average trust (lower odds of ‘nohelp’).

Finally, applying the full set of controls included in Model 4 reported in Section 5, no trusts are identified as significantly worse than average trust (higher odds of ‘nohelp’). Three trusts are identified as ‘better’ than the average (restricted sample) trust (lower odds of ‘nohelp’) (RXF Mid Yorkshire Hospitals NHS Trust; RN3 Great Western Hospitals NHS Foundation Trust; and RD3 Poole Hospital NHS Foundation Trust).

Table 28: Trusts where the percentage reporting not being helped with eating by staff is significantly different from the average (models with trust included as dummy variable, unrestricted sample), 2012

Model specification	Trust only			Trust + gender, age, admission route (“standardisation”)			Trust + gender, age, admission route and disability			Trust + “factors outside of control” (based on model 2 in section 5)			Full model (based on Model 4 in section 5)		
		odds ratio	p value		odds ratio	p value		odds ratio	p value		odds ratio	p value		odds ratio	p value
Odds of nohelp higher than average	RQX Homerton University Hospital ..	2.52	0.00	RN7 Dartford and Gravesham NHS Trust	1.91	0.025	RN7 Dartford and Gravesham NHS Trust..	1.99	0.026						
	RYJ Imperial College Healthcare N..	2.11	0.01	RYJ Imperial College Healthcare NHS Trust	1.92	0.034	..								
	RN7 Dartford and Gravesham NHS Trust	1.97	0.02	RQX Homerton University Hospital NHS Foundation Trust.	2.09	0.015									
	RV8 North West London Hospitals NHS Trust.	1.99	0.02												
	RAP North Middlesex University Hospital NHS Trust..	1.99	0.02												
	RVW North Tees and Hartlepool NHS..	1.92	0.02												
	RJ2 Lewisham Healthcare NHS Trust	1.86	0.04												
	RJ6 Croydon Health Services NHS Trust..	1.76	0.05												
Odds of nohelp lower than average	RGP James Paget University Hospital NHS Foundation Trust..	0.40	0.02	RD3 Poole Hospital NHS Foundation Trust	0.24	0.005	RD3 Poole Hospital NHS Foundation Trust.	0.22	0.007	RD3 Poole Hospital NHS Foundation Trust.	0.17	0.01	RXF Mid Yorkshire Hospitals NHS Trust.	0.13	0.00
	RN3 Great Western Hospitals NHS Foundation Trust.	0.41	0.03	RJ1 Guy's and St Thomas' NHS Foundation Trust	0.34	0.033	RXF Mid Yorkshire Hospitals NHS Trust.	0.30	0.019	RXF Mid Yorkshire Hospitals NHS Trust..	0.22	0.01	RN3 Great Western Hospitals NHS Foundation Trust..	0.17	0.00
	RD3 Poole Hospital NHS Foundation..	0.26	0.01	RXF Mid Yorkshire Hospitals NHS Trust	0.31	0.012	RD1 Royal United Hospital Bath NHS Trust..	0.31	0.015	RN3 Great Western Hospitals NHS Foundation Trust..	0.28	0.01	RD1 Royal United Hospital Bath NHS Trust	0.25	0.00
	SPE Special hospital group	0.55	0.01	RD1 Royal United Hospital Bath NHS Trust	0.27	0.005	RN3 Great Western Hospitals NHS Foundation Trust..	0.35	0.027	RD1 Royal United Hospital Bath NHS Trust	0.32	0.02	RD3 Poole Hospital NHS Foundation Trust	0.15	0.00
	RD1 Royal United Hospital Bath NHS Trust.	0.33	0.01	RGP James Paget University Hospitals	0.41	0.027	RDZ The Royal Bournemouth and	0.40	0.045	RH8 Royal Devon and Exeter NHS Foundation	0.38	0.03	RA3 Weston Area Health NHS Trust	0.32	0.01

Model specification	Trust only		Trust + gender, age, admission route (“standardisation”)			Trust + gender, age, admission route and disability			Trust + “factors outside of control” (based on model 2 in section 5)			Full model (based on Model 4 in section 5)			
		odds ratio	p value		odds ratio	p value		odds ratio	p value		odds ratio	p value		odds ratio	p value
				NHS Foundation Trust.			Christchurch Hospital.								
				RN3 Great Western Hospitals NHS Foundation Trust	0.40	0.031				SPE Special hospital group	0.57	0.03	RDZ The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust..	0.27	0.01
				RJC South Warwickshire NHS Foundation Trust	0.47	0.044				RGP James Paget University Hospital..	0.42	0.04	RTE Gloucestershire Hospitals NHS Foundation Trust	0.34	0.01
				RH8 Royal Devon and Exeter NHS Foundation Trust	0.47	0.048							RM1 Norfolk and Norwich University..	0.37	0.01
													RGP James Paget University Hospitals NHS Foundation Trust .	0.34	0.02
													RM2 University Hospital of South Manchester NHS Foundation Trust.	0.35	0.02
													RVJ North Bristol NHS Trust	0.40	0.02
													RJC South Warwickshire NHS Foundation Trust	0.37	0.02
													RA2 Royal Surrey County Hospital NHS Trust..	0.40	0.03
													RXW Shrewsbury and Telford Hospital NHS Trust	0.44	0.03
													RNZ Salisbury NHS Foundation Trust	0.45	0.04
													RM3 Salford Royal NHS Foundation Trust ..	0.34	0.04
													RRF Wrightington, Wigan and Leigh Foundation Trust..	0.41	0.04
													RH8 Royal Devon and Exeter NHS Foundation Trust..	0.41	0.04

Model specification	Trust only		Trust + gender, age, admission route (“standardisation”)		Trust + gender, age, admission route and disability		Trust + “factors outside of control” (based on model 2 in section 5)		Full model (based on Model 4 in section 5)				
		odds ratio	p value		odds ratio	p value		odds ratio	p value		odds ratio	p value	
											RBT Mid Cheshire Hospitals NHS Foundation Trust.	0.46	0.05

Source: author’s calculations using Adult Inpatient Survey, 2012, England only

Note: For this analysis, the trust reference group has been manually set to the “average” trust, identified as the trust with the average proportion reporting not receiving help from staff with eating when help is required during a hospital stay in the unrestricted sample (RCD Harrogate and District NHS Foundation Trust, 4.74%). Specialist trusts have been grouped together to avoid small numbers. This has a potential impact on the calculation of the mean. The dataset used in these calculations was provided by the Picker Institute with the permission of the CQC

Table 29: Trusts where the percentage reporting not being helped with eating by staff is significantly different from the average (models with trust included as dummy variable, restricted sample)

Model specification	Trust only			Trust + gender, age, admission route			Trust + gender, age, admission route, disability			Trust + model 2 (factors outside control)			Full model (Model 4)		
		Odds Ratio (OR)	p value		OR	p value		OR	p value		OR	p value		OR	p value
Odds of nohelp higher than average	RN7 Dartford and Gravesham NHS Trust	2.43	0.009	RN7 Dartford and Gravesham NHS Trust	2.40	0.012	RN7 Dartford and Gravesham NHS Trust	2.45	0.017	RN7 Dartford and Gravesham NHS Trust	2.30	0.028			
Odds of nohelp lower than average	RD3 Poole Hospital NHS Foundation Trust	0.26	0.011	RD3 Poole Hospital NHS Foundation Trust	0.27	0.015	RD3 Poole Hospital NHS Foundation Trust	0.23	0.013	RD3 Poole Hospital NHS Foundation Trust	0.17	0.007	RXF Mid Yorkshire Hospitals NHS Trust	0.21	0.017
	SPE Special hospital group	0.49	0.01	RJ1 Guy's and St Thomas' NHS Foundation Trust	0.34	0.046	SPE Special hospital group	0.54	0.048	RXF Mid Yorkshire Hospitals NHS Trust	0.28	0.035	RN3 Great Western Hospitals NHS Foundation Trust	0.26	0.034
				RXF Mid Yorkshire Hospitals NHS Trust	0.36	0.044				SPE Special hospital group	0.53	0.046	RD3 Poole Hospital NHS Foundation Trust	0.19	0.021
										RN3 Great Western Hospitals NHS Foundation Trust	0.34	0.05			
				SPE Special hospital group	0.54	0.034									

Source: author's calculations using Adult Inpatient Survey, 2012, England only

Note:

- (1) For this analysis, the trust reference group has been manually set to the "average" trust, identified as the trust with the average proportion reporting not receiving help from staff with eating when help is required during a hospital stay in the restricted sample (RHM University Hospital Southampton NHS Foundation Trust, 17.71%).
- (2) Specialist trusts have been grouped together to avoid small numbers. This has a potential impact on the calculation of the mean.
- (3) The dataset used in these calculations was provided by the Picker Institute and CQC

“Deviation from average” versus “minimum threshold approach”

We now consider the case for adopting a “minimum threshold approach” rather than a “deviation from average” approach in order to identify poor performance at the trust level. In both the funnel plot analysis and the model based analysis presented above, poor performance was identified by adopting a “deviation from average” approach, where the performance of a trust is evaluated from the mean trust performance against a given indicator. As noted above (and in sections 1 and 2), the CQC applies a “deviation from average methodology” in its trust benchmarking reports and in the data packs produced as part of the recent “Intelligent Monitoring” exercise.

The application of a “deviation from average” methodology - and examining the *relative* performance of trusts and identifying those hospital trusts that are performing significantly below (or above) the average - is an important element of performance evaluation. However, relying exclusively on a “deviation from average” approach in evaluation poor standards of quality of care has a number of important potential limitations from the point of view of equality and human rights monitoring. Evaluating the capabilities / welfare of individuals and subgroups within hospitals, and monitoring the fulfilment of capabilities and individual rights, requires evaluating *absolute* levels of patient experience, as well as *relative* patient experience given the distribution of patient experience nationally. Furthermore, the limitations of a “deviation from average” methodology are likely to be particularly important if the national average of inconsistent and poor standards of care turns out to be higher than is acceptable - as we have arguably demonstrated in this paper. In this scenario, adopting a “deviation from mean” methodology can result in the under-identification of poor performance.

As noted in Section 1, the Government has introduced new fundamental standards of care, including new standards of dignity and nutrition, as part of its response to the Mid Staffordshire NHS Foundation Trust Public Inquiry. Approaches that identify poor performance exclusively by making comparisons to the mean may fail to fully reflect the new Fundamental Standards of Care being introduced in 2014, which state that the nutritional needs of service users must be met (9.1) (DH 2014)³². Arguably, judgements about the compliance of acute hospital trusts with the new fundamental standards of dignity and nutrition should be based on the evaluation of absolute levels of inconsistent and poor care (“minimum threshold approach”) as well as relative trust performance (“deviation from average” approach), with poor performers evaluated as those who fall below a fixed target or threshold. A “deviation from average” approach, which focuses exclusively on a trust’s performance relative to the average trust, risks the under-identification of inconsistent and poor performance.

Adopting a “minimum threshold” approach raises the further question of how the appropriate threshold of “acceptability” (and conversely, the appropriate threshold for “poor performance”) should be set. Unlike some indicators (for example mortality ratios) where some deaths might assumed to be inevitable, and evaluating performance in terms of the deviation from the mean may be more intuitive, in the context of evaluating fundamental standards of care, the target for indicators such as not being

³²An earlier consultation had considered the following formulation of this requirement: “I will be given enough food and drink and helped to eat and drink if I need it” (DH 2014).

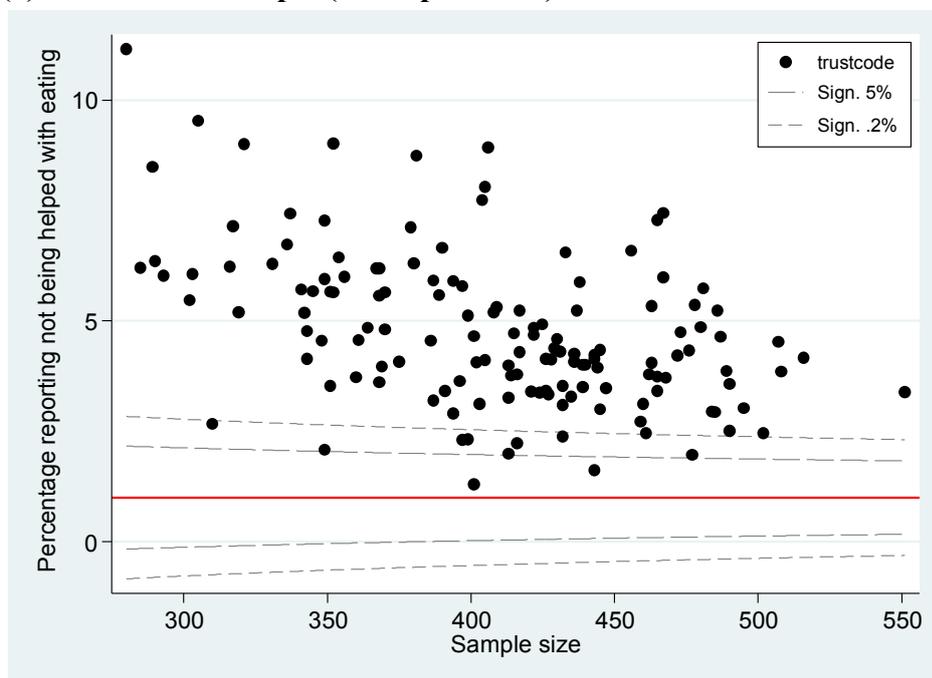
treated with dignity and respect, or not being helped with eating when help is needed, is arguably zero. Arguments for a higher threshold might include the self-reported and subjective nature of responses to the Adult Inpatient Survey. However, against this it should be noted that the question on help with eating in particular is characterised by a high degree of objectivity, making a zero target even more appropriate. Further, in the funnel plot analysis presented below, the focus is on those who definitely report that they did not receive enough help from staff with eating (with those who report that they *sometimes* received enough help excluded from the analysis).

Notably, for both the restricted and unrestricted sample, the percentages of inpatients who report that they did not receive the help they needed during hospital stays is above zero for *every* trust. The minimum percentage in the unrestricted sample is 1.3 (RD3 Poole Hospital NHS Foundation Trust) and for the restricted sample is 5.26% (again, RD3 Poole Hospital NHS Foundation Trust). The funnel plots below impose an external target of 1% (with some random fluctuation around one viewed as normal). For the full sample, virtually all observations are above the 95% control limits and all but two above the 99.8 % control limits. For the restricted sample, all observations are above the 99.8 % control limits (Figure 17).

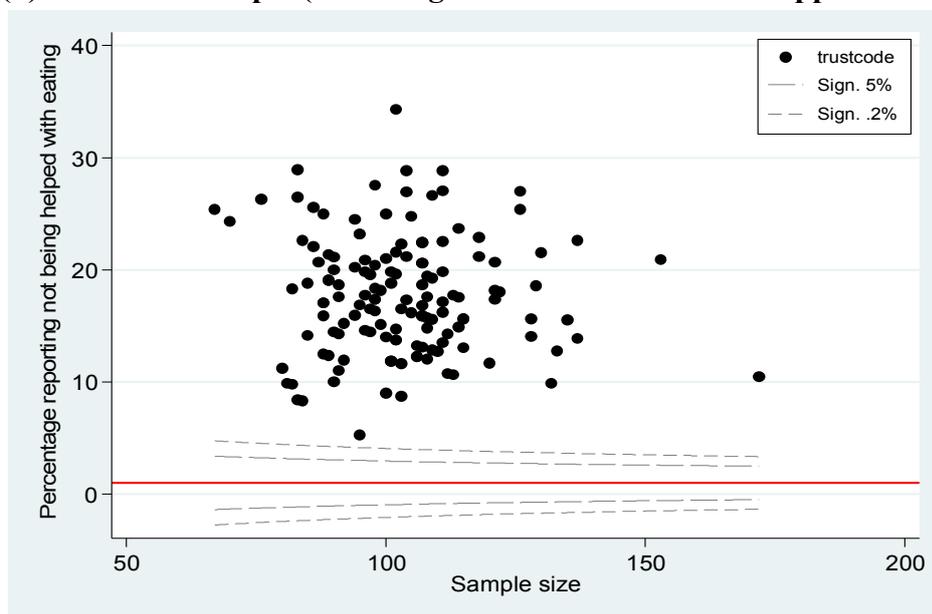
Increasing the target to 2% for the restricted sample, the vast majority of observations fall above the 95% control limit and all observations with the exception of one fall above the 99.8% control limits. Considering that this analysis is based on “strong” and not intermediate responses, as well as the composition of the sample, this is a finding which should be at the fore of monitoring, regulation and inspection efforts. According to this interpretation, virtually all trusts are failing to ensure that patients receive adequate help with eating when needed – which is not the impression one would have from the standard inspection and monitoring reports.

Figure 17: Funnel plots with 1% as target

(a) unrestricted sample (all respondents)



(b) Restricted sample (excluding those who do not need support with eating)



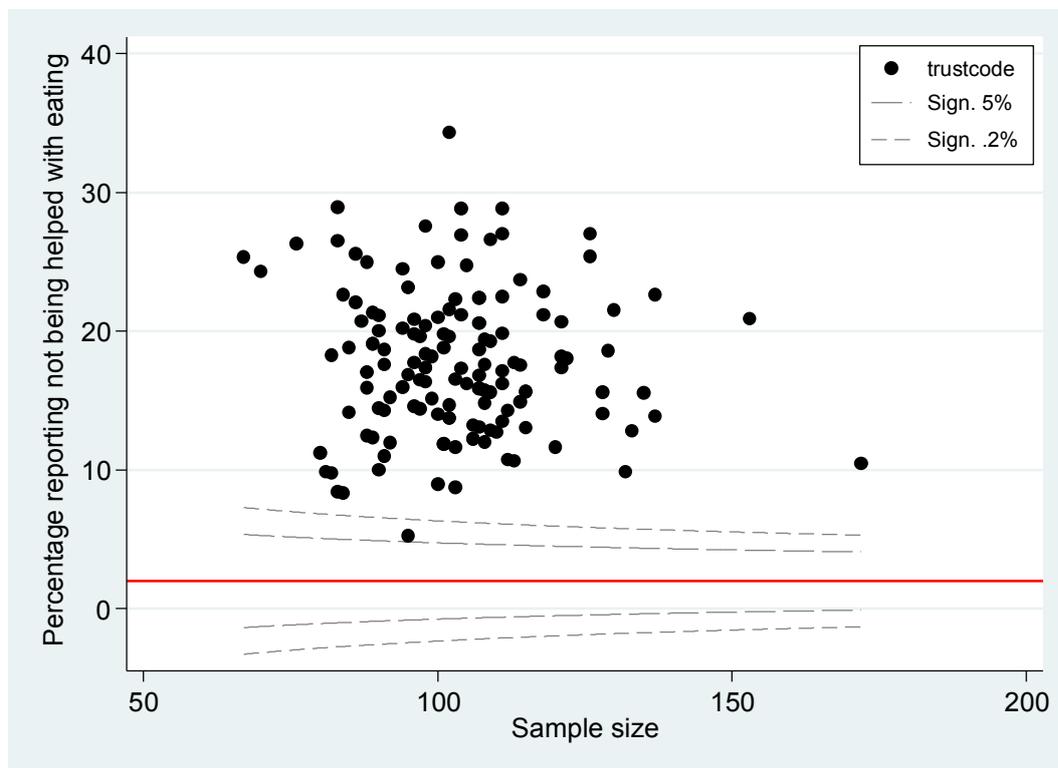
Source: author's calculations using Adult Inpatient Survey, 2012, England only

Notes:

- (1) Funnel plots are a plot of an estimate of an underlying quantity (e.g. a proportion) against a measure of its precision. 'Control limits' form a funnel around the target outcomes. Funnel plots are recommended as a graphical aid for institutional comparisons (Spiegelhalter 2005).
- (2) The dataset used in these calculations was provided by the Picker Institute and CQC.
- (3) Specialist trusts are excluded from the analysis.

Figure 18: Funnel plots with 2% as target

Restricted sample (excluding those who do not need support with eating)



Source: author's calculations using Adult Inpatient Survey, 2012, England only

Notes:

- (1) Funnel plots are a plot of an estimate of an underlying quantity (e.g. a proportion) against a measure of its precision. 'Control limits' form a funnel around the target outcomes. Funnel plots are recommended as a graphical aid for institutional comparisons (Spiegelhalter 2005).
- (2) The dataset used in these calculations was provided by the Picker Institute and CQC.
- (3) Specialist trusts are excluded from the analysis.

Triangulation with CQC and other inspection and regulatory findings

Finally in this chapter, we compare the lists of hospital trusts where standards of poor standards of help with eating from staff are significantly worse than average, with lists of other poor performers identified in other recent evaluations. The overall finding from this analysis is that some but not all of the trusts identified above have been identified in other findings on poor performers; conversely, other exercises have identified additional poor performers.

Comparison with 2011 and 2012 CQC targeted inspection findings (as reported in section 2)

The results of the targeted dignity and nutrition inspection rounds undertaken by CQC in 2011 and 2012 were examined in section 2. These inspection rounds provided qualitative inspection evaluations of standards of dignity and nutrition within a large number of hospital trusts (Figure 6 and Figure 7). Some of the poor performers identified in the analysis above were identified as providing concerns in relation to standards of the nutrition. On the other hand, some of the hospital trusts identified as *not* raising concerns within these inspection rounds appear from the analysis here to hospital trusts where experiences of inconsistent and poor standards of nutrition are relatively high.

- Darent Valley Hospital, Dartford and Gravesham NHS Trust, were identified in the 2011 CQC targeted inspection as non-compliant with core standards on nutrition
- Croydon Health Services NHS Trust, and Homerton University Hospital NHS Foundation Trust, were evaluated in the 2011 CQC targeted inspection as compliant with core standards on nutrition, but minor concerns were raised
- Imperial College Healthcare NHS Trust was evaluated in the 2011 CQC targeted inspection as compliant with core standards with no minor concerns on nutrition raised
- Milton Keynes was identified in the 2012 CQC targeted inspection as non-compliant with core standards on nutrition

Comparison with 2013 ‘Intelligent Monitoring’ findings

As noted in Section 2, the CQC adopted has adopted a new inspection model as part of its response to the Public Inquiry into the Mid-Staffordshire NHS Foundation Trust (2013). The new inspection model moves away from a reliance on self-declarations of compliance by hospital trusts and addresses the need to make more effective use of a wide range of information - including quantitative information -in order to evaluate patterns and risks *prior* to inspection. It also makes use of a new indicator set drawing on 150 different measures based on a diverse range of data sources. The analysis of the indicators is intended to “raise questions” rather than to “make judgements” about the quality of care. “Judgements” themselves follow from inspections, which also take into account broader evidence (CQC 2013b).

Since the 2013 Intelligent Monitoring findings draw, *inter alia*, on the 2012 Adult Inpatient Experience data, we would anticipate that hospital trusts that perform badly in relation to standards of nutrition in that exercise would also be captured in our analysis as relative poor performers. This is the case, with the bodies evaluated in the 2013 Intelligent Monitoring Findings as “risk” or “elevated risk” also highlighted in the analysis above. On the other hand, many hospital trusts which appear from our analysis as having relatively high levels of inconsistent and poor standards of nutrition do *not* appear on this list.

- Dartford and Gravesham NHS Trust, and Milton Keynes Hospital NHS Foundation Trust, were identified as “elevated risk” based on responses to the

2012 Adult Inpatient Survey question on support with eating during hospital stays (Figure 10).

- Barking, Havering and Redbridge University Hospital NHS Trust, and Lewisham and Greenwich NHS Trust, were identified as “at risk” based on responses to the 2012 Adult Inpatient Survey question on support with eating during (Figure 10).
- Croydon Health Services NHS Trust and Homerton University Hospital NHS Foundation Trust were evaluated as “no evidence of risk” and “complaint” against the 2012 Adult Inpatient Survey question on support with eating during hospital stays (Figure 10 and Figure 28).

Comparison with standardised hospital mortality ratio findings

The publication of information on mortality ratios at the trust level has accelerated in recent years. The Dr Foster publications have produced lists of standardised mortality ratios at the trust level that have been widely reported in the media. Following the Public Inquiry into the Mid-Staffordshire NHS Foundation Trust (2013), the Keogh Review (2013) examined trusts with above expected standardised mortality-ratios, resulting in a number of trusts being put into special measures. A Summary Hospital-level Mortality Indicator (SHMI) is now produced and published quarterly as an official statistic by the Health and Social Care Information Centre with the intention of capturing information about variations on deaths associated with hospitalization. It covers all deaths reported of patients who were admitted to non-specialist acute trusts in England and either died while in hospital or within 30 days of discharge. The expected number of deaths is calculated from statistical models which estimate expected risk of mortality based on characteristics such as conditions, age, gender and method of admission to hospital (Health and Social Care Information Centre 2014c)³³. Based on 2012 data, eleven trusts were identified as having a ‘higher than expected SHMI value’ (Health and Social Care Information Centre 2014c) (Figure 19).

Figure 19: Trusts with higher than expected SHMI over the data window 1 January 2012 to 31 December 2012

³³ The SHMI methodology does not adjust for deprivation but contextual information is produced, including breakdowns of trust level standardised mortality ratios by area deprivation. For the latest data (covering the period from 1 April 2013 to 31 March 2014) this suggested that the percentage of deaths reported in the SHMI in each deprivation quintile (based on index of multiple deprivation) is: 21.0 per cent for quintile 1 (most deprived); 20.3 per cent for quintile 2; 20.5 per cent for quintile 3; 19.6 per cent for quintile 4; 17.2 per cent for quintile 5 (least deprived). HSCIC analysis shows that higher than expected repeat outliers show a higher percentage of finished provider spells and deaths reported in the SHMI which fall under deprivation quintile 1 (the most deprived), and a lower percentage of finished provider spells and deaths which fall under deprivation quintile 5 (the least deprived), compared to trusts overall (HSCIC 2014c: 8 and 24).

PROVIDER	PROVIDER_NAME	OD_BANDING
RBT	MID CHESHIRE HOSPITALS NHS FOUNDATION TRUST	1
RDD	BASILDON AND THURROCK UNIVERSITY HOSPITALS NHS FOUNDATION TRUST	1
RDE	COLCHESTER HOSPITAL UNIVERSITY NHS FOUNDATION TRUST	1
REM	AINTREE UNIVERSITY HOSPITAL NHS FOUNDATION TRUST	1
RJL	NORTHERN LINCOLNSHIRE AND GOOLE HOSPITALS NHS FOUNDATION TRUST	1
RMP	TAMESIDE HOSPITAL NHS FOUNDATION TRUST	1
RNS	NORTHAMPTON GENERAL HOSPITAL NHS TRUST	1
RWH	EAST AND NORTH HERTFORDSHIRE NHS TRUST	1
RXL	BLACKPOOL TEACHING HOSPITALS NHS FOUNDATION TRUST	1
RXQ	BUCKINGHAMSHIRE HEALTHCARE NHS TRUST	1
RXR	EAST LANCASHIRE HOSPITALS NHS TRUST	1

Source: NHS Health and Information Centre indicator portal (<https://indicators.ic.nhs.uk/webview/> (datasheet: SHMI data at the trust level, Jan12-Dec12).xls)

The findings of the Keogh Review (2013) and the 2013 Dr Foster findings presented in Figure 20 relate to a somewhat later time framework than the analysis undertaken in this report. However, it is notable that there are few similarities between the ‘poor performers’ identified in the current exercises and trusts identified as having higher than expected standardised mortality.

- Only Tameside Hospital NHS Foundation Trust appears on the Keogh list of persistently poor performers based on persistently high mortality ratios, confirming the proposition that high mortality ratios do not necessarily identify poor quality care (see Figure 20).
- North Tees and Hartlepool Foundation Trust, and Medway Foundation Trust, are on the 2013 Dr Foster list of trusts with higher mortality ratios than expected. However, most of the poor performers identified in the current paper do *not* appear on this list (see Figure 20).

These *dis*-similarities seem to support the view that standardised hospital mortality ratios and quality of care are conceptually distinct. Indeed, Black has argued that

focussing on standardised hospital mortality ratios might give a *misleading* picture of quality of care provided in a hospital (Black 2014).

Figure 20: Trusts with higher than expected mortality ratios: Keogh and Dr Foster findings

Keogh Review

A total of 14 trusts were examined as part of the Keogh Review. These 14 trusts were identified as persistently poor performers based on widely-used indicators of mortality, the HSMR (Hospital Standardised Mortality Ratio) and SHMI figures (Summary Hospital-level Mortality indicator (SHMI)). These were:

Basildon and Thurrock University Hospitals NHS Foundation Trust
Blackpool Teaching Hospitals NHS Foundation Trust
Buckinghamshire Healthcare NHS Trust
Burton Hospitals NHS Foundation Trust
Colchester Hospital University NHS Foundation Trust
The Dudley Group NHS Foundation Trust
East Lancashire NHS Trust
George Eliot Hospital NHS Trust
Medway NHS Foundation Trust
North Lincolnshire and Goole NHS Foundation Trust
North Cumbria University Hospitals NHS Trust
Sherwood Forest Hospitals NHS Foundation Trust
Tameside Hospital NHS Foundation Trust
United Lincolnshire Hospitals NHS Trust
Source: Keogh B (2013)

Dr Foster findings (December 2013)

The Dr Foster Guide 2013 identified trusts that were higher than expected on four mortality measures: the hospital standardised mortality ratio, the summary hospital-level mortality indicator, deaths after surgery and deaths in low risk conditions. Sixteen trusts were identified as having higher than expected rates on the HSMR (Dr Foster 2013: 24). Trusts that were identified as high on two out of the four main mortality measures are listed in Clover (2013) as:

Aintree University Hospital Foundation Trust
Blackpool Teaching Hospitals Foundation Trust
East Sussex Healthcare Trust
Heart of England Foundation Trust
Medway Foundation Trust
Mid Cheshire Hospitals Foundation Trust
North Cumbria University Hospitals Trust
North Tees and Hartlepool Foundation Trust
Northern Lincolnshire and Goole Hospitals Foundation Trust*
Northumbria Healthcare Foundation Trust
United Lincolnshire Hospitals Trust
University Hospitals Birmingham Foundation Trust
West Hertfordshire Hospitals Trust

Lessons for monitoring, regulation and inspection

The analysis in this chapter suggests that there was considerable variation in the scale of experiences poor or inconsistent standards of help with eating across hospital trusts in 2012. The percentage of those who needed help reporting not receiving help with eating from staff ranged from 5% to 34% in different acute hospitals.

Based on a “deviation from average” approach, the percentage reporting poor standards of help with eating was found to be higher (statistically significant) than in the average trusts in fifteen acute hospitals (based on the full sample) and twelve acute hospitals (restricting the analysis to those who needed help). Model based analysis substantially reduces the variation associated with hospital trust. Based on a limited set of controls (for age, sex and route of admission only) three trusts had a higher percentage of poor standards of help with eating than the average trust (full sample) and two (restricted the analysis to those who needed help). Including controls for other factors outside of a trust’s control such as disability and length of stay further reduces the number of trusts which are identified as significantly different from the average trust. With a full set of controls, no trusts are identified as having a higher percentage of poor standards of help with eating than the average trust.

Yet intuitively, it seems likely that the percentages reporting experiences of inconsistent and poor standards of care highlighted in simple descriptive analysis might be widely regarded to be too high to be acceptable in the vast majority of hospital trusts (c.f. this section, “Patient experiences of dignity and nutrition by hospital trust”). Furthermore, a number of hospital trusts where the “raw percentages” reporting not receiving help with eating are particularly high are not identified in our model based analysis as outliers once a range of controls are introduced.

Take the example of RQX Homerton University Hospital NHS Foundation Trust. Based on the restricted sample, 28.8 percent of respondents report not receiving enough help with eating from staff. Homerton is as evaluated as having a higher proportion reporting not being helped with eating than average in our funnel plot analysis (both restricted and unrestricted samples). Homerton is also evaluated as having a higher proportion reporting not being helped with eating than average in our model based analysis based on the full unrestricted sample when a limited number of controls are introduced (standardisation model). However, once additional controls are introduced, Homerton is no longer identified as having a higher proportion reporting not being helped with eating than the average trust. Furthermore, model based evaluation using the unrestricted sample fails to establish Homerton as having an above average proportion reporting not being helped with eating even in the absence of controls.

Similarly, our triangulation exercise shows that in the CQC 2013 Intelligent Monitoring analysis only identifies four trusts as posing a cause for concern based on the responses to the question with help with eating in the 2012 Adult Inpatient Survey. Two hospital trusts evaluated as risk (Barking, Havering and Redbridge University Hospitals NHS Trust and Lewisham and Greenwich NHS Trust) and two as elevated risk (Dartford and Gravesham and Milton Keynes Hospital NHS Foundation Trust). Notably, Homerton University Hospital NHS Foundation Trust was evaluated as “no evidence of risk” against the 2012 Adult Inpatient Survey question on support with eating during hospital stays.

In contrast, adopting a “minimum threshold approach” rather than a “deviation from average” approach, levels of reported experiences of inconsistent and poor standards of help with eating from staff might be assessed as “too high” in the vast majority of trusts. The percentage of those who needed help reporting poor standards of help with eating was higher (statistically significant) than external targets of both 1% in all trusts and 2% in the vast majority of trusts. These findings again highlight the importance of developing a “minimum threshold approach” for monitoring, regulating and inspecting compliance with fundamental standards of quality of care.

Another lesson from our triangulation exercises is that ‘higher than expected’ mortality ratios and ‘poor standards of care’ are conceptually distinct. As Black (2014) has emphasised, mortality ratios do not provide a measure of quality of care, and separate quality of care indicators are necessary. This view is supported by the findings here, with very little overlap between the poor performers identified in the NHS Health and Social Care Centre on standardised mortality ratios for the year 2012.

6. POOR STANDARDS OF HELP WITH EATING: CUMULATIVE RISKS AND HYPOTHETICAL SCENARIOS

In this section, we extend the model based analysis developed in section 5 to estimate the cumulative risks of poor treatment facing older people over 80. The discussion in section 5 focussed on the identification of a series of risk factors for not receiving help with eating during a hospital stay, holding other factors constant. However, what are the cumulative risks for individuals who face more than one risk factor? Some individuals will face multiple risk factors – for example, they might be female, experience a disability, stay in more than four wards, be a long-stay patient and face inadequate nursing numbers or nursing quality or no choice of food. How might the cumulative risks facing individuals of this type be quantified?

In order to explore this issue, we begin by translating the main section 5 model based findings (based on the specifications in Model 4 and Model 6) into the metric of predicted probabilities. Second, cumulative risks are examined by estimating the probability for each age group of not receiving help with eating for individuals who face risks such as being female, experiencing a disability, being a longstay patient and or facing poor standards of nursing care or having no choice of food. The cumulative risks for the over 80s are then further examined based on a series of hypothetical individuals. Finally, the additional risks facing individuals aged over 80 when they are admitted into hospital trusts where overall experiences of poor standards of nutrition are poor are quantified.

Model based estimates of predicted probabilities

Estimates of predicted probabilities can be calculated using three alternative methods: with independent variables evaluated at their observed values; with independent variables evaluated at their mean values; and with independent variables evaluated at specified reference values³⁴.

With independent variables evaluated at their observed values

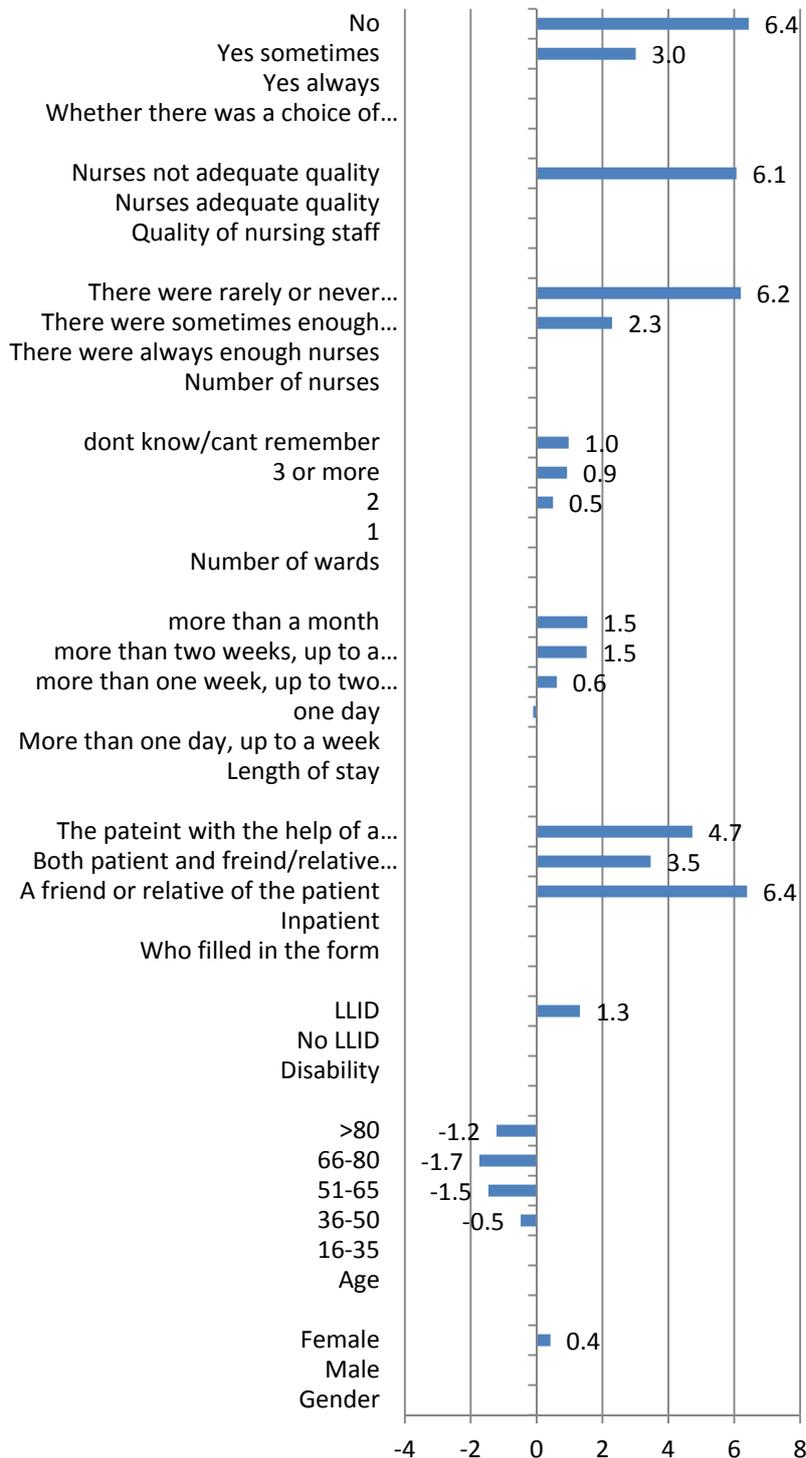
We begin by estimating predicted probabilities with independent variables evaluated at their observed values. **Figure 21** presents percentage point differences in the predicted probabilities of not being helped with eating when help is needed by different characteristics based on Model 4. For example, based on these assumptions, the predicted chance of not receiving help with eating when needed during a hospital stay is 4.1% for men and 4.5% for women. The difference in the predicted probability of not being helped between women and men is 0.4 percentage points, and this

³⁴ In the context of logistic regression, predicted probabilities are the probability that a dependent variable is 1 ($Y=1$) (in this case, that the respondent reports not being helped with eating when help is needed) evaluated at a fixed value of the covariates. Marginal effects are difference in the predicted probabilities of a dependent variable evaluated at specific values of covariates relative to a reference value. For categorical independent variables marginal effects can be interpreted as the change in the effect of a discrete change in the value of the variable from the reference value to the indicator level value (for example, a change in gender from male (0) to female (1)). Predicted probabilities and marginal effects are sometimes reported with independent variables held at the observed values, at their means and / or at reference values selected by the researcher. For further explanation, see Cameron and Trividi (2009: 333-345) and STATA 13 Manual and Williams (nd).

difference is statistically significant at the 95% level. Percentage point differences of 2 or less are observed in the predicted probabilities for those who experience a LLID compared with those who do not; those who stayed in three or more wards compared with those who only stayed in one ward; and those who were long-stay (one month or more) compared with those whose length of stay was between one day and a week. Percentage point differences of more than 6 percentage points are observed between those who filled in the form themselves, compared with those where the form was filled in by a friend or relative; those who reported no choice of food compared with those who reported always being offered a choice of food; those who perceived the quantity of nurses to be inadequate compared with those who felt there were adequate number of nurses; and those who perceived the quality of nurses to be inadequate, compared with those who did not.

Figure 22 presents similar findings based on Model 6 (the restricted sample, covering only those who report that they need help with eating). Again, the predicted probabilities shown in this figure are calculated with independent variables evaluated at their observed values. As noted above, restricting the sample has an important effect on both the magnitude and significance of the estimates. Based on Model 6, neither length of stay or number of wards are found to have a significant effect on the probability of not being helped; whilst not staying in a critical care ward *is* found to have a significant effect. The magnitude of the effects of perceptions of inadequate nursing numbers, poor nursing quality and not having a choice of food also increases significantly based on the restricted model. For example, the chance of reporting not being helped when help is needed for those report that there were rarely or never enough nurses is 10% whereas the chance for those who report that there were always enough nurses was 31%. That is, the difference in the predicted probability of not being helped for these subgroups is more than 20 percentage points.

Figure 21: Risk factors associated with not receiving enough help with eating from staff during hospital stays (full sample, 2012)

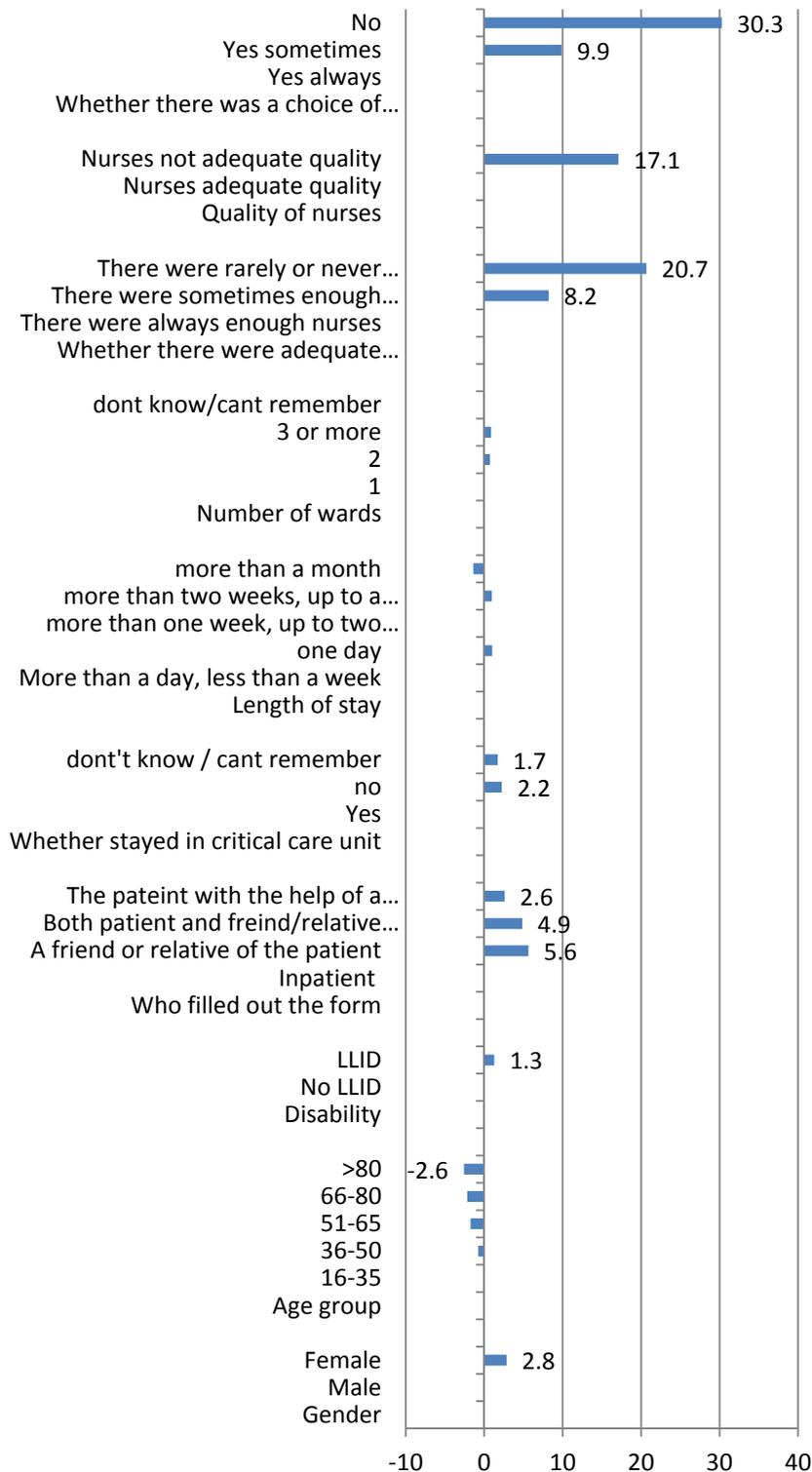


Difference in predicted probability (percentage points)

Source: author’s calculations using the Adult Inpatient Survey, 2012, England only

Note: Based on the dependent variable “nohelp”, the unrestricted sample and Model 4 with the effects of independent variables evaluated at their observed values. The dataset used in these calculations was provided by the Picker Institute with the permission of the CQC.

Figure 22: Risk factors associated with not receiving enough help from staff during hospital stays (restricted sample, 2012)



Difference in predicted probability (percentage points)

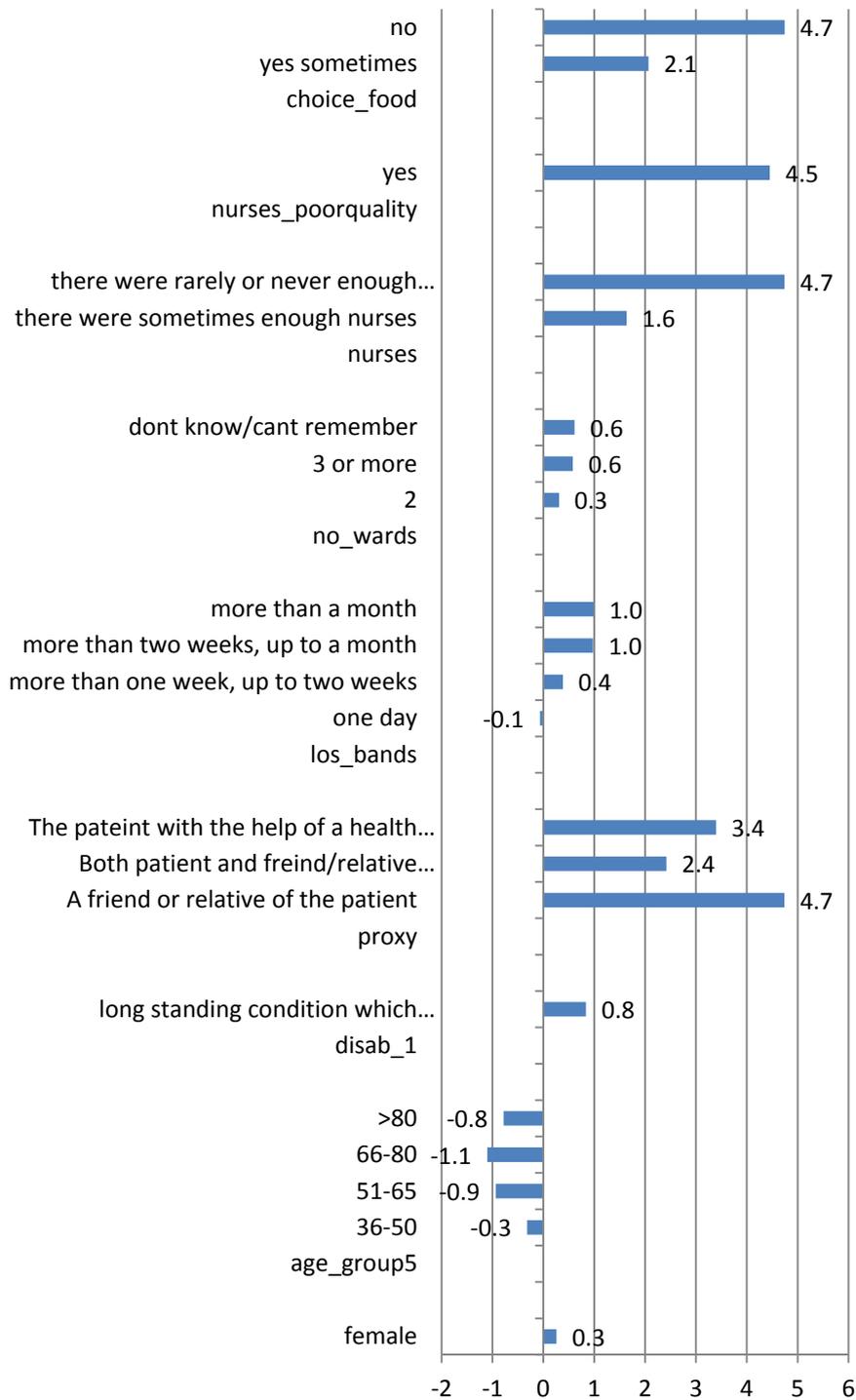
Source: author's calculations using the Adult Inpatient Survey, 2012, England only

Note: Based on the dependent variable "nohelp_r", the restricted sample and Model 6 with the effects of independent variables evaluated at their observed values. The dataset used in these calculations was provided by the Picker Institute with the permission of the CQC.

With independent variables evaluated at their means

Alternative methods for estimating predicted probabilities involve evaluating independent variables at their means and at specified values of interest. Evaluating predicted probabilities at their means results in a small difference in the relative effect sizes for different groups based on both Model 4 (full sample) and Model 6 (restricted sample) (see Figure 23 and Figure 24).

Figure 23: Risk factors associated with not receiving enough help with eating from staff during hospital stays (full sample, 2012)

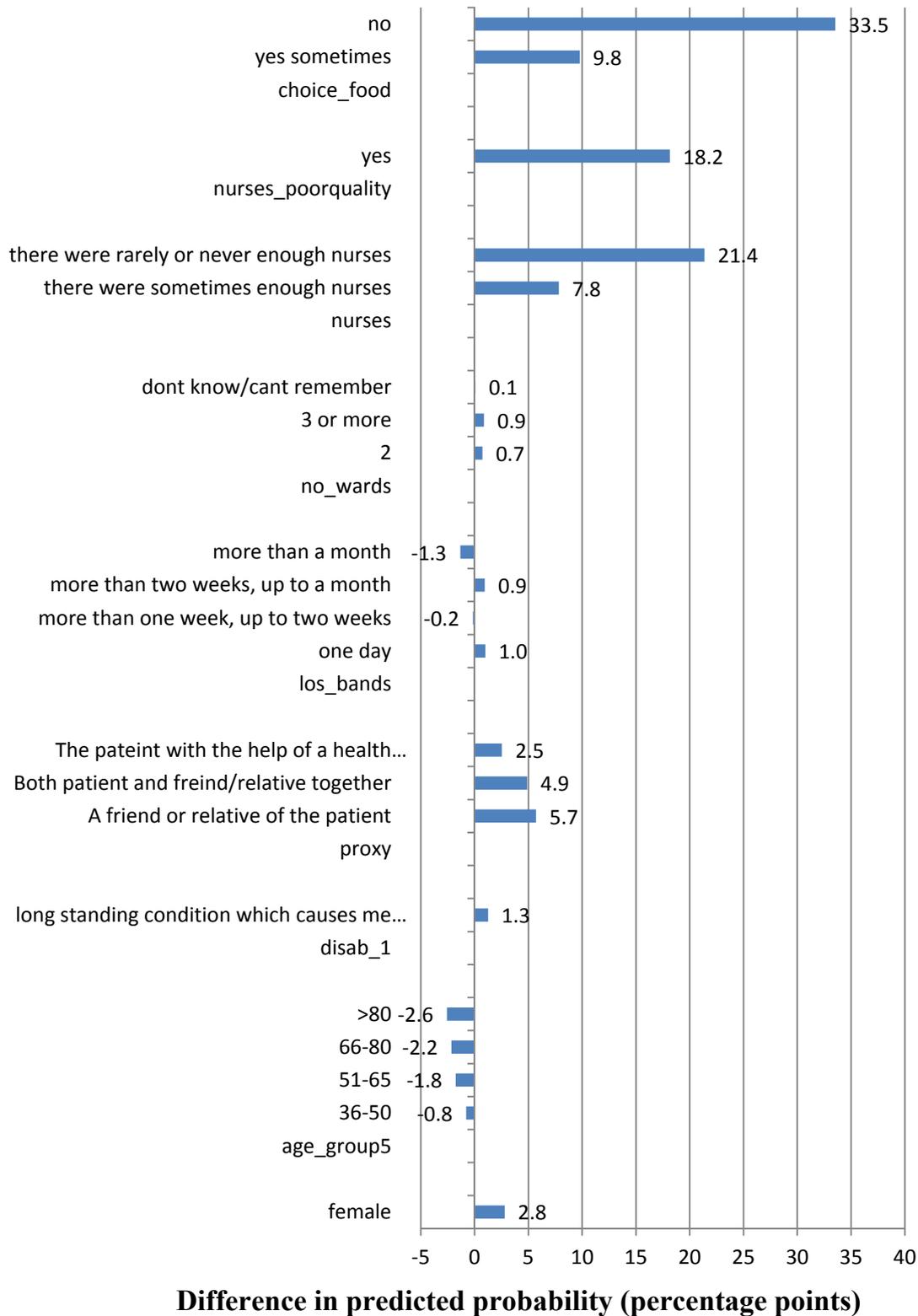


Difference in predicted probability (percentage points)

Source: author’s calculations using the Adult Inpatient Survey, 2012, England only

Note: Based on the dependent variable “nohelp”, the unrestricted sample and Model 4 with the effects of independent variables evaluated at their means. The dataset used in these calculations was provided by the Picker Institute with the permission of the CQC.

Figure 24: Risk factors associated with not receiving enough help with eating from staff during hospital stays (restricted sample, 2012)



Source: author's calculations using the Adult Inpatient Survey, 2012, England only
 Note: Based on the dependent variable "nohelp", the restricted sample and Model 6 with the effects of independent variables evaluated at their means. The dataset used in these calculations was provided by the Picker Institute with the permission of the CQC.

With independent variables evaluated at ‘representative values’

We now estimate predicted probabilities generated by Model 4 at representative values that are of substantive interest for focal independent variables, with other independent variables held at their means. The cumulative impact of increasing numbers of risk factors (being female, experiencing a disability, staying in three or more wards, being a long-stay patient of more than one month, perceiving the quantity and quality of nurses to be inadequate, reporting no choice of food and being admitted to a higher risk hospital trust) is evaluated. The findings are reported separately for each age band and show how the probability of not being helped is conditional on different combinations of risk factors (based on comparisons for hypothetical individuals whose characteristics are the same in all other respects)³⁵.

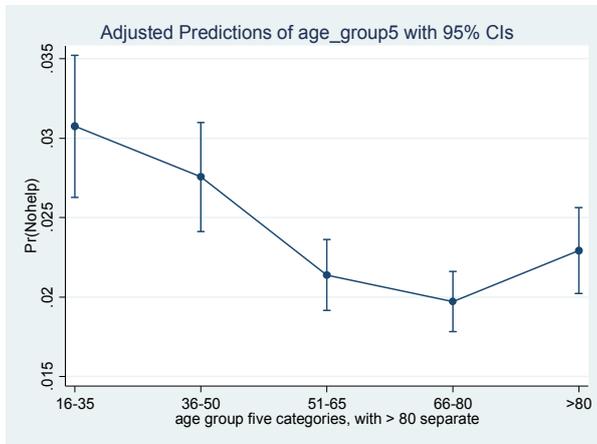
Figure 25 panel 1 shows that in the general population based on “average” characteristics, the predicted probability of not receiving help with eating is estimated at around 3% for the youngest age band, falling amongst middle aged groups and then increasing to around 2.3% for the oldest age band (those aged 80 or above). This u-shaped curve shifts upwards for females with otherwise average characteristics, with the predicted probability of not receiving help with eating estimated at around 3.3% for the youngest age band, falling amongst middle aged groups and then increasing to around 2.4% for the oldest age band (those aged 80 or above) (panel 2). For females with LLID and otherwise average characteristics, there is another upward shift, with the figure ranging from 4% to 3% (panel 3).

There is a substantial upward shift in the “nohelp-age” curve when additional independent variables such as the quantity and quality of nursing (panel 4), and whether or not there is a choice of food (panel 5), are set at their “at risk” values. For example, the panel 5 estimates the predicted probabilities for females who experience a LLID, stay in three or wards, are longstay (more than one month), who perceive the number and quality of nurses to be inadequate, and who report no choice in food, but who otherwise have “average” characteristics. The predicted probabilities of not receiving help are estimated at just above 65% for the youngest age band, falling amongst middle aged groups and then increasing to just under 65% for the oldest age band (those aged 80 or above).

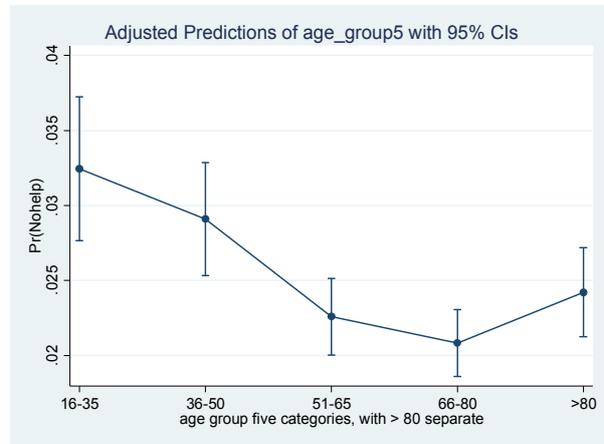
Panel 6 extends the analysis to cover those who face these risks together with one further risk factor – namely, that they are admitted into a hospital trust in which the overall prevalence rates of experiences of poor standards of help with eating is high. The estimated probability of not being helped for this subgroup ranges from just below 80% (for the youngest age group) to 75% (for the oldest age group)

³⁵ Predicted probabilities can be evaluated with other independent variables held (1) at their observed values, (2) at their means, or (3) at representative values. Adopting approach 2 supports comparisons of the predicted chances of not receiving help with eating when needed during hospital stays for hypothetical “average” cases. Adopting approach 3 supports analysis of different risk factors. See Appendix B Table 17 for further details.

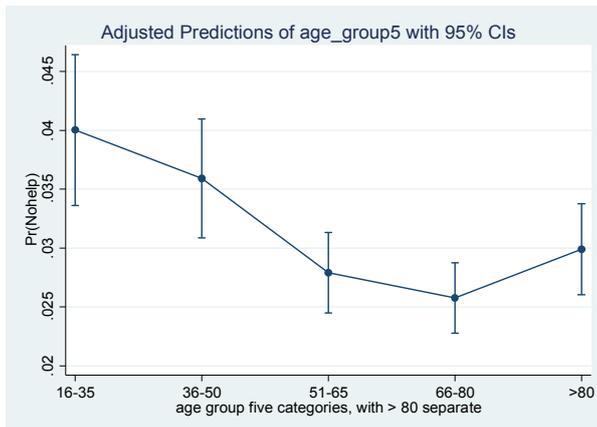
Figure 25: Predicted probabilities (calculated at representative values for risk factors, other independent variables held at mean, full sample, based on section 5 Model 4)



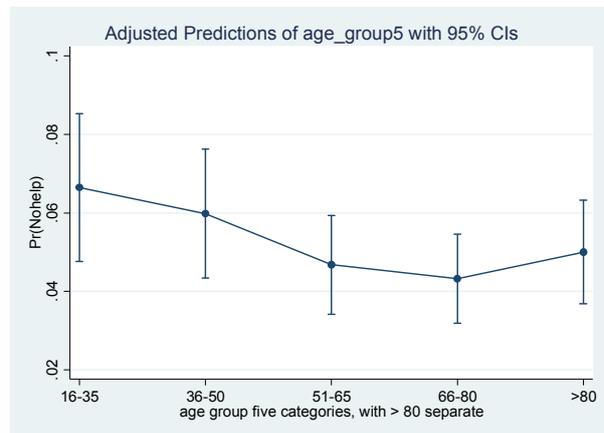
All



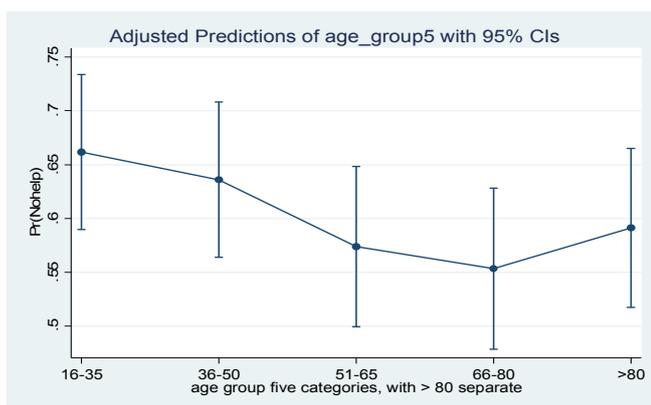
Females



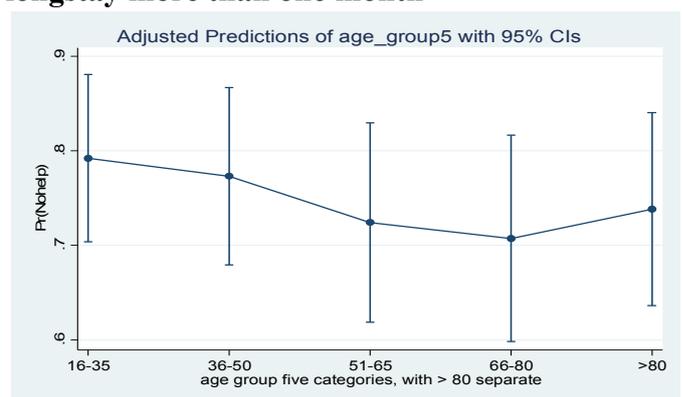
Females with LLID



Females with LLID, three or more wards, longstay more than one month



Females with LLID, three or more wards, long-stay more than one month, perception of inadequate nursing (numbers and quality), no choice food



Females with LLID, three or more wards, long-stay, perception of inadequate nursing, no choice food, hospital where overall percentage reporting not being helped is relatively high

Source: Uses the Adult Inpatient Survey, 2012. The dataset used in these calculations was provided by the Picker Institute with the permission of the CQC.

Cumulative risks amongst the “oldest of the old”: illustrative hypothetical scenarios

In order to illustrate the effects of cumulative risk factors amongst the “oldest of the old”, the predicted probabilities generated by Model 4 and Model 6 are used to highlight the probabilities of not receiving enough help with eating from staff during a hospital stay faced by six hypothetical individuals over 80. Predicted probabilities are calculated based on specified reference values of a number of independent variables (the focal ‘risk factors’) with other independent variables evaluated at their means. The full estimates underlying this figure together with confidence intervals around the estimates are provided in Appendix B Table 33.

Figure 26 highlights the predicted probabilities of “no help” for six individuals (“average” individual over 80, Molly, Ethel, Nan, Doreen and Sheila based on Model 4 (full sample). A hypothetical “average” individual over 80 is observed to have a 2% chance of not receiving enough help with eating from staff during a hospital stay. Molly, Ethel, Nan, Doreen and Sheila are similar to the hypothetical “average” individual over 80 except in relation to certain specified characteristics. The predicted probabilities of “no help” include a 2% chance for Molly (a female over 80, rounded up figure) and a 3% chance for Ethel (a female over 80 who experiences a longstanding condition that limits her activities). The chance of “no help” increases considerably further for Nan (who is similar to Ethel, but who also stayed in three or more wards and was long stay); Doreen (who is similar to Nan, but who also reports that the quantity and quality of nursing are inadequate); and Sheila (who is similar to Doreen, but also reports that was no choice of food during her hospital stay). The chance of “no help” increases to 5%, 32% and 59% for these hypothetical individuals respectively). These predictions illustrate the huge difference made by perceptions of the quantity and quality of nursing, and by choice of food, to the likelihood of reporting lack of help with eating when needed.

The final column extends the analysis to cover Pat, who is like Sheila, expect also is admitted into a hospital trust in which the overall prevalence rates of experiences of poor standards of help with eating is relatively high. Based on the unrestricted sample and model 4, the probability of “no help” for Pat increases to 74%.

Figure 26: Older people over 80: estimated probabilities of not receiving enough help with eating from staff during a hospital stay for high risk subgroups (hypothetical scenarios, full sample, 2012)

	Characteristics	Predicted change of not receiving help
"Average" individual	>80	2%
Molly	> 80 female	2%
Ethel	> 80 female, has longstanding condition that limits activities	3%
Nan	Like Ethel but also "high risk" pathway through hospital (emergency admission; did not stay in critical care; three or more wards; long-stay =2-4 weeks)	5%
Doreen	Like Nan, but also perceives quantity and quality of nursing to be inadequate	32%
Sheila	Like Doreen, but also reports no choice of food	59%
Pat	Like Sheila, but was inpatient in hospital trust where the overall percentage reporting not being helped was relatively high	74%

Source: uses the Adult Inpatient Survey, 2012, England only.

Notes:

- (1) Predicted probabilities calculated with the specified variables set to representative ("at risk") values.
- (2) Colour coding captures statistically significant differences in the estimates of predicted probabilities.
- (3) The dataset used in these calculations was provided by the Picker Institute and CQC.

Figure 27 repeats this exercise based on Model 6 (the restricted sample). The full estimates underlying this figure together with confidence intervals around the estimates are provided in the Appendix (Table 34).

Based on Model 6, the restricted sample, a hypothetical "average" individual over 80 is observed to have an 11% chance of not receiving enough help with eating from staff when needed during a hospital stay. Molly, Ethel, Nan, Doreen and Sheila are similar to the hypothetical "average" individual over 80 except in relation to certain specified characteristics. The predicted probabilities of "no help" increases to a 13% chance for Molly (a female over 80) and for Ethel (a female over 80 who experiences a longstanding condition that limits her activities). The predicted probability increases to 16% for Nan who is similar to Ethel but has a high risk pathway through the hospital (specifically, an emergency admission but not staying in a critical care ward, staying in three or more wards, and having a longstay status of 2-4 weeks. For Doreen, (who is similar to Nan, but who also reports that the quantity and quality of nursing are inadequate) there is a jump in the probability of not being helped to 62%; and to 90% for Sheila (who is similar to Doreen, but also reports that was no choice of food during her hospital stay). Again, this illustrates the huge difference made by perceptions of the quantity and quality of nursing, and by choice of food, to the likelihood of reporting lack of help with eating when needed.

The final column extends the analysis to cover Pat, who is like Sheila, expect also is admitted into a hospital trust in which the overall prevalence rates of experiences of poor standards of help with eating is relatively high. Based on Model 6, with the sample restricted to those who need help, the predicted probability of no-help increases again still further and is estimated to be as high as 95%.

Figure 27: Older people over 80: estimated probabilities of not receiving enough help with eating from staff during a hospital stay for high risk subgroups (hypothetical scenarios, sample restricted to those who need help, 2012) (dependent variable “nohelp_r”, restricted sample)

	Characteristics	Probability of not receiving enough help
“Average individual” (needs help with eating)	>80	11%
Molly	> 80 female	13%
Ethel	> 80 female, has longstanding condition that limits activities	13%
Nan	Like Ethel but also “high risk” pathway through hospital (emergency admission; did not stay in critical care; three or more wards; long-stay = two-four weeks)	16%
Doreen	Like Nan, but also perceives quantity and quality of nursing to be inadequate	62%
Sheila	Like Doreen, but also reports no choice of food	90%
Pat	Like Sheila, but was inpatient in hospital trust where the overall percentage reporting not being helped was relatively high	95%

Source: uses the Adult Inpatient Survey, 2012, England only.

Notes:

- (1) Predicted probabilities calculated with the specified variables set to representative (“at risk”) values.
- (2) Colour coding captures statistically significant differences in the estimates of predicted probabilities.
- (3) The dataset used in these calculations was provided by the Picker Institute and CQC.

7. CONCLUSIONS

In this report we have used the 2012 Adult Inpatient Survey to build up a new quantitative evidence base on older people's experiences of dignity and nutrition during hospital stays. The central conclusion is that, based on the Adult Inpatient Survey evidence, there is a widespread and systematic pattern of inconsistent or poor standards of care during hospital stays. Patient experiences of inconsistent or poor standards of care do not appear to be limited to isolated "outlier" healthcare providers but rather appears to be a significant general problem affecting inpatients in the vast majority of NHS acute hospital trusts.

Lack of support with eating during hospital stays emerges from the study as a key concern. In 2012, about a quarter of all survey respondents indicated that they needed support with eating during their hospital stay. This is a substantial proportion and points towards the issue of support with eating being a major issue for significant numbers of inpatients, rather than being a marginal or specialist issue.

Amongst the older population aged over 65, risks of inconsistent poor standards of care are higher for older people over 80, and older people over 80 who experience a longstanding limiting illness or disability, who experience a longstanding limiting illness or disability such as being deaf or blind, experiencing a physical condition, a mental health condition or a learning difficulty, or experiencing a longstanding illness such as heart disease, stroke or cancer. Amongst this subgroup, risks are higher for women than men.

Poor or inconsistent standards of dignity and respect affected 23% of inpatients in England in 2012. This is equivalent to around 2.8 million people on an annual basis, of whom about 1 million are aged 65 or over. Of the total affected by poor and inconsistent standards of dignity and respect, 4% experienced poor standards of dignity and respect (reporting that they were not treated with dignity and respect) with the remainder (19%) experiencing inconsistent standards (reporting that they were treated with dignity and respect "sometimes").

Reported experiences of inconsistent and poor standards of help with eating were even more pronounced. Poor or inconsistent standards of help with eating affected 38% of inpatients who needed help during their hospital stay in England in 2012. This is equivalent to around 1.3 million people on an annual basis, of whom about 640,000 are aged 65 or over. Of the total affected by poor and inconsistent standards of help with eating, 18% experienced poor standards of help with eating (reporting not receiving help from staff) with the remainder (20%) experiencing inconsistent standards (reporting that they received help from staff "sometimes").

Prevalence rates of poor standards of help with eating amongst individuals who need help with eating and who experience a longstanding condition include rates of 21% amongst individuals who experience deafness or severe hearing conditions; 24% amongst those who experience blindness or are partially sighted; 20% amongst those who experience a longstanding physical condition; 28% amongst those who experience a learning difficulty; 26% amongst those

who experience a mental health condition; and 17% amongst those who experience a longstanding illness.

A number of different factors that might be potentially associated with lack of support with eating have been examined as part of the study. These include age, disability, gender, route of admission, length of stay, number of wards stayed in, whether an individual stayed in a critical care ward, perceptions of the adequacy of nursing care, whether there was a choice of food, and hospital trust.

Of these variables, reported experiences of inadequate quantity and quality of nursing care, and whether or not there is a choice of food, stood out as having consistent, positive and large effects on lack of support with eating during hospital stays. The odds of not receiving enough help are higher by a factor of two for inpatients who report that there were “sometimes” enough nurses, and by a factor of four for those who report that there were “rarely or never enough nurses”, compared with those who report there were “always” enough nurses. The odds of not receiving enough help are higher by a factor of three for inpatients who raised issues about the adequacy of other different dimensions of nursing quality. The odds of not receiving enough help are higher by a factor of two for inpatients who report that there was “sometimes” a choice of food, and by a factor of three for those reporting that there was no choice of food, compared with patient’s reporting that there was “always” a choice of food.

The quantity and quality of nursing staff, and the availability of choice of food, stood out as key potential policy levers for improving standards of care relating to meeting individual nutritional needs. Whilst these variables can be negatively affected by resource constraints, all three are within the control of hospital trusts to a certain extent.

Trust level analysis suggested that levels of reported experiences of inconsistent and poor standards of help with eating from staff are too high in the vast majority of hospital trusts. Nevertheless, there is considerable variation in the magnitude of this problem in different hospital trusts. The percentage of those who need help reporting that they did not receive enough help with eating from staff during a hospital stay ranged from 5% to 34% within different hospital trusts. The percentage of those who needed help reporting poor standards of help with eating was higher (statistically significant) than external targets of both 1% in all trusts and 2% in the vast majority of trusts.

Model based analysis was found to substantially reduce the variation associated with hospital trust. The regression findings presented in the report controlled for patient characteristics, their individual journey through hospital, and patient-reported quantity/quality of nursing. However, some of these are factors over which the trusts have influence and arguably should *not* therefore be controlled for when making comparisons. For this reason, findings based on different sets of controls have been presented.

Based on a limited set of controls (for age, sex and route of admission only) three trusts had a higher percentage of poor standards of help with eating than the average trust (full sample) and two (restricted the analysis to those who needed help). Including controls for other factors outside of a trust’s control such as disability and length of stay further reduces the number of trusts which are

identified as significantly different from the average trust. With a full set of controls, no trusts are identified as having a higher percentage of poor standards of help with eating than the average trust.

In order to examine in more depth the differential risks facing different population subgroups, the cumulative risks facing specific individuals aged 80 or above have been estimated using a model based approach (estimated predicted probabilities). Amongst those who need help with eating, the probability of not receiving enough help from staff with eating during a hospital stay for an “average” individual aged 80 or above is estimated to be 11%. For an individual over 80 who experiences a limiting long-standing illness or disability, who is female, who reports that the quantity and quality of nursing care were inadequate, who was not offered a choice of food, and who was admitted into hospital where overall patient experiences of help with eating are poor, the probability of not receiving enough help with eating from staff during a hospital stay is estimated to be more than 90%.

A number of lessons for using patient experience data as a guide to public policy can be drawn from the study. Dignity and respect, and help with eating, are key markers of quality of care which have previously been under recognised in public policy. Increasing policy attention in this area in the wake of the Mid-Staffordshire NHS Foundation Trust Public Inquiry is a positive development. Patient experience data provides an importance evidence base on standards of care. Better and more extensive use should be made of patient experience data, including data on dignity and nutrition, in the future.

Yet a key lesson emerging from the current study is that interpreting older people’s self-reported experiences in healthcare is complex. The population over 65 is heterogeneous and large. Evaluation of older people’s experiences of healthcare should be based on narrow band disaggregation, with separate identification and reporting of the risks facing the “oldest of the old”.

The phenomenon of adaptive expectations means that older people’s expectations of standards of care may be lower than that for other age groups. The possibility of adaptive expectations raises a key potential limitation of the use of quantitative data on patient experience data in monitoring older people’s treatment in healthcare. With quantitative data, including patient experience data, now playing an increasing role in the evaluation of risk of poor care through the inspection and regulation process, it is imperative that the possibility of adaptive expectations is explicitly recognized in, and built into, future risk evaluation exercises. Given the possibility of adaptive expectations, one plausible approach is to evaluate relative risks *within* age bands by examining the association of poor treatment with older age in combination with other characteristics such as gender, disability and ethnic group.

Feedback from family, friends and professions, including proxy survey responses, can be particularly valuable in the context of evaluating older people’s experiences of care. Proxy responses are more common amongst older inpatients and it is notable that, in the context of the current study, this feedback has tended on average to be more negative than feedback from inpatient’s themselves. This feedback from friends, families and professional should be taken seriously in the

evaluation of patient experience data, rather than viewed as a source of “noise”. At the same time, efforts should be made to maximise older people’s participation in patient experience feedback exercises. Support for older people in filling in patient experience survey feedback forms should be increased.

A number of lessons for healthcare monitoring, regulation and inspection emerge from the study. Equality and human rights standards provide an overarching framework for improving patient experience and should be fully embedded into arrangements for monitoring, inspecting and regulating healthcare. Risk assessment should build on equality and human rights principles by moving away from a “population average” approach, with systematic disaggregation by characteristics such as age, gender and disability and the identification of specific “at risk” groups. Cumulative risks for specific population subgroups (for example, being over 80, experiencing a disability and being female) should be quantified.

New fundamental standards of care, including new standards of dignity and nutrition, have been introduced as part of the Government’s response to the Mid Staffordshire NHS Foundation Trust Public Inquiry. The findings in this paper reveal the magnitude and scale of the challenge ahead.

Looking to the future, our findings suggest that indicators of dignity and nutrition have an important role to play within the portfolio of indicators used to monitor the quality of healthcare. Our findings also have important implications for evaluating the compliance of hospital trusts with new fundamental standards of care. The average level of poor and inconsistent experiences of care has been found to be too high in the vast majority of trusts. A “deviation from average” approach to compliance evaluation, which focuses exclusively on the performance relative to the mean, risks the under-identification of inconsistent and poor performance. In order to avoid this risk, it is important that the evaluation of compliance evaluation takes account of the absolute levels of inconsistent and poor care prevalent within a hospital trust (a “minimum threshold” approach).

APPENDIX A: FURTHER DETAILS OF NON-COMPLIANCE IN CQC INSPECTION ROUNDS

Figure 28: 2011 Detailed Non-compliance List for Outcomes 01 and 05

Trust Name	2011 Compliance Outcome		Level of concern if applicable	
	<i>Outcome 01: Respecting and involving people who use services</i>	<i>Outcome 05: Meeting nutritional needs</i>	<i>Outcome 01: Respecting and involving people who use services</i>	<i>Outcome 05: Meeting nutritional needs</i>
Cambridge University Hospitals NHS Foundation Trust	Compliant	Compliant	Minor	Minor
Alexandra Hospital, Worcestershire Acute Hospitals NHS Trust	Non-compliant	Non-compliant	Moderate	Major
Barnsley Hospital, Barnsley Hospital NHS Foundation Trust	Compliant	Non-compliant		Moderate
Bedford Hospital, Bedford Hospital NHS Trust	Compliant	Non-compliant	Minor	Moderate
Leeds Teaching Hospitals NHS Trust	Compliant	Complaint	Minor	Minor
Colchester Hospital, Colchester Hospital University NHS Foundation Trust	Non-compliant	Non-compliant	Moderate	Moderate
Eastbourne General Hospital, East Sussex Healthcare NHS Trust	Non-compliant	Non-compliant	Moderate	Moderate
Croydon Health Services NHS Trust	Compliant	Compliant	Minor	Minor
Darent Valley Hospital, Dartford and Gravesham NHS Trust	Non-compliant	Non-compliant	Moderate	Moderate
Dorset County Hospital NHS Foundation Trust	Compliant	Compliant		Minor
Surrey and Sussex Healthcare	Non-compliant	Compliant	Minor	Minor
Conquest Hospital, East Sussex Healthcare NHS Trust	Non-compliant	Non-compliant	Moderate	Moderate
George Eliot Hospital NHS Trust	Compliant	Compliant	Minor	
Great Western Hospital, Great Western Hospitals NHS Foundation Trust	Non-compliant	Complaint	Moderate	Minor
Wye Valley NHS Trust	Compliant	Compliant	Minor	
Homerton University Hospital NHS Foundation Trust	Compliant	Compliant		Minor
Ipswich Hospital, Ipswich Hospital NHS trust	Non-compliant	Non-compliant	Moderate	Moderate
James Paget Hospital, James Paget University Hospitals NHS Foundation Trust	Non-compliant	Non-compliant	Moderate	Moderate
Oxford Radcliffe Hospitals NHS Trust	Compliant	Non-compliant	Minor	Moderate
Mid Cheshire Hospitals NHS Foundation Trust	Compliant	Compliant		Minor
Walsall Healthcare NHS Trust	Compliant	Compliant	Minor	Minor
The Royal Wolverhampton Hospitals NHS Trust	Compliant	Compliant		Minor
Sherwood Forest Hospitals NHS Foundation Trust	Compliant	Compliant		Minor

Trust Name	2011 Compliance Outcome		Level of concern if applicable	
	<i>Outcome 01: Respecting and involving people who use services</i>	<i>Outcome 05: Meeting nutritional needs</i>	<i>Outcome 01: Respecting and involving people who use services</i>	<i>Outcome 05: Meeting nutritional needs</i>
Norfolk and Norwich University Hospital, Norfolk and Norwich University Hospitals NHS Foundation Trust	Compliant	Non-compliant	Minor	Moderate
North West London Hospitals NHS Trust	Compliant	Compliant	Minor	Minor
Ormskirk and General Hospital, Southport and Ormskirk NHS Foundation Trust	Non-compliant	Compliant	Moderate	Minor
Peterborough and Stamford Hospitals NHS Foundation Trust	Compliant	Compliant	Minor	Minor
The Princess Alexandra Hospital NHS Trust	Compliant	Compliant	Minor	Minor
Portsmouth Hospitals NHS Trust	Compliant	Compliant	Minor	Minor
University Hospitals Birmingham Foundation Trust	Compliant	Compliant		Minor
East Lancashire Hospitals NHS Trust	Compliant	Compliant		Minor
Royal Bolton Hospital NHS Foundation Trust	Compliant	Compliant	Minor	Minor
Royal Devon and Exeter NHS Foundation Trust	Compliant	Compliant	Minor	Minor
Royal Free Hampstead Hospital, Royal Free Hampstead NHS Trust	Non-compliant	Non-compliant	Moderate	Moderate
Royal Preston Hospital, Lancashire Teaching Hospitals NHS Foundation Trust	Compliant	Non-compliant	Minor	Moderate
Shrewsbury and Telford Hospital NHS Trust	Compliant	Compliant	Minor	Minor
Salford Royal NHS Foundation Trust	Compliant	Compliant	Minor	
Sandwell General Hospital, Sandwell and West Birmingham Hospitals NHS Trust	Compliant	Non-compliant	Moderate	Major
South Tyneside District Hospital, South Tyneside NHS Foundation Trust	Non-compliant	Compliant	Moderate	Minor
North Bristol NHS Trust	Compliant	Compliant		Minor
St George's Healthcare NHS Trust	Compliant	Compliant		Minor
Imperial College Healthcare NHS Trust	Compliant	Compliant	Minor	
Guy's and St Thomas' NHS Foundation Trust	Compliant	Compliant	Minor	
Stockport NHS Foundation Trust	Compliant	Non-compliant	Minor	Moderate
Trafford Healthcare NHS Trust	Compliant	Compliant	Minor	Minor
University Hospitals Bristol Site, University Hospitals Bristol NHS Foundation Trust	Compliant	Non-compliant		Moderate
University Hospitals Coventry and Warwickshire NHS Trust	Compliant	Compliant		Minor
South Warwickshire NHS Foundation Trust	Compliant	Compliant		Minor

Trust Name	2011 Compliance Outcome		Level of concern if applicable	
	<i>Outcome 01: Respecting and involving people who use services</i>	<i>Outcome 05: Meeting nutritional needs</i>	<i>Outcome 01: Respecting and involving people who use services</i>	<i>Outcome 05: Meeting nutritional needs</i>
North Cumbria University Hospitals NHS Trusts	Compliant	Compliant	Minor	Minor
Whipps Cross University Hospital NHS Trust	Compliant	Compliant		Minor
Whiston Hospital, St Helens and Knowsley Teaching Hospitals NHS Trust	Compliant	Non-compliant	Minor	Moderate
The Whittington Hospital NHS Trust	Compliant	Compliant	Minor	Minor
University Hospital Of South Manchester NHS FT Trust	Compliant	Compliant	Minor	Minor

Sources: This table contains all trusts that were identified as being of compliant with minor concerns, or being non-compliant with moderate or major concerns, with either Standard 01, Standard 05, or both Standards 01 and 05 based on a review of inspection reports CQC (2011c) to CQC(2011s) and CQC (2011a: Appendix B).

APPENDIX B: FURTHER DETAILS OF LOGISTIC REGRESSION FINDINGS

Table 30: Model 4, dropping quantity and quality of nurses, and including timely response to call button (full sample, 2012)

	Odds ratio	Standard error	z	P value
Gender				
Female	1.252	0.059	4.730	0.000
Age group				
36-50	0.827	0.076	-2.080	0.037
51-65	0.600	0.051	-5.950	0.000
66-80	0.481	0.041	-8.660	0.000
>80	0.555	0.050	-6.560	0.000
Disability				
I have a long standing limiting condition/illness that causes me difficulties (LLID)	1.834	0.092	12.080	0.000
Proxy				
A friend or relative of the patient	3.769	0.267	18.750	0.000
Both patient and friend/relative together	2.520	0.163	14.320	0.000
The patient with the help of a health professional	3.265	0.708	5.450	0.000
Critical Care				
no	1.028	0.062	0.450	0.654
don't know / can't remember	1.154	0.126	1.300	0.192
Admission Route				
waiting list or planned in advance	0.890	0.051	-2.020	0.043
Other	0.917	0.126	-0.630	0.529
Hospital Stay bands				
one day	0.878	0.051	-2.220	0.026
more than one week, up to two weeks	1.248	0.090	3.070	0.002
more than two weeks, up to a month	1.627	0.137	5.780	0.000
more than a month	1.677	0.205	4.240	0.000
Number of wards				
2	1.296	0.071	4.740	0.000
3 or more	1.627	0.128	6.200	0.000
don't know / can't remember	1.609	0.280	2.740	0.006
Call button				
	1.346	0.065	6.180	0.000
Choice food				

	Odds ratio	Standard error	z	P value
yes sometimes	2.981	0.160	20.390	0.000
no	5.389	0.375	24.210	0.000

Table 31: Model 4, dropping quantity and quality of nurses, and including timely response to call button (restricted sample, 2012)

	Odds ratio	Standard error	z	P value
Gender				
Female	1.424	0.076	6.610	0.000
Age group				
36-50	0.871	0.091	-1.320	0.188
51-65	0.745	0.073	-2.990	0.003
66-80	0.689	0.067	-3.810	0.000
>80	0.640	0.067	-4.250	0.000
Disability				
I have a long standing limiting condition/illness that causes me difficulties (LLID)	1.441	0.082	6.400	0.000
Proxy				
A friend or relative of the patient	1.663	0.134	6.340	0.000
Both patient and friend/relative together	1.660	0.125	6.740	0.000
The patient with the help of a health professional	1.400	0.343	1.370	0.170
Critical Care				
no	1.232	0.083	3.110	0.002
don't know / can't remember	1.201	0.147	1.500	0.134
Admission Route				
waiting list or planned in advance	0.894	0.058	-1.710	0.086
Other	0.913	0.142	-0.590	0.558
Hospital Stay bands				
one day	1.033	0.068	0.500	0.615
more than one week, up to two weeks	1.044	0.084	0.540	0.592
more than two weeks, up to a month	1.195	0.112	1.900	0.058
more than a month	0.961	0.128	-0.300	0.763
Number of wards				
2	1.215	0.075	3.160	0.002
3 or more	1.350	0.119	3.390	0.001
don't know / can't remember	1.198	0.235	0.920	0.357
Call button				
	1.933	0.102	12.440	0.000

	Odds ratio	Standard error	z	P value
Choice food				
yes sometimes	2.999	0.180	18.330	0.000
No	9.223	0.835	24.530	0.000

Table 32: Not receiving help when needed during hospital stays: Predicted probabilities and difference in predicted probabilities (marginal effects) (full sample, evaluated at observed values and at means, 2012)

At observed value of independent variables					At mean value of independent variables			
Predicted probabilities	Margi n	p- value	dy/dx	p- value	Margi n	p- value	dy/dx	p- value
Gender								
Male	0.041	0.000			0.021	0.000		
Female	0.045	0.000	0.004	0.015	0.024	0.000	0.003	0.015
Age group								
16-35	0.056	0.000			0.031	0.000		
36-50	0.051	0.000	-0.005	0.232	0.028	0.000	-0.003	0.234
51-65	0.041	0.000	-0.015	0.000	0.021	0.000	-0.009	0.000
66-80	0.038	0.000	-0.017	0.000	0.020	0.000	-0.011	0.000
>80	0.044	0.000	-0.012	0.002	0.023	0.000	-0.008	0.002
Disability								
I do not have a longstanding condition which causes me difficulties	0.036	0.000			0.019	0.000		
I have a long standing condition which causes me difficulties	0.050	0.000	0.013	0.000	0.028	0.000	0.008	0.000
Proxy Responses (who filled in the form?)								
The patient (named on the front of the envelope)	0.034	0.000			0.019	0.000		
A friend or relative of the patient	0.097	0.000	0.064	0.000	0.067	0.000	0.047	0.000
Both patient and friend/relative together	0.068	0.000	0.035	0.000	0.043	0.000	0.024	0.000
The patient with the help of a health professional	0.081	0.000	0.047	0.001	0.053	0.000	0.034	0.003
Whether stayed in a critical care area								
Yes	0.044	0.000			0.023	0.000		
No	0.043	0.000	-0.001	0.778	0.022	0.000	0.000	0.778

don't know / can't remember	0.047	0.000	0.003	0.452	0.025	0.000	0.00196 4	0.455
Admission Route								
Emergency or urgent	0.044	0.000			0.022	0.000		
Waiting list or planned in advance	0.043	0.000	0.000	0.993	0.022	0.000	0.000	0.993
Other	0.040	0.000	-0.004	0.449	0.020	0.000	-0.002	0.444
Length of stay								
One day	0.040	0.000	-0.001	0.589	0.021	0.000	-0.001	0.588
More than one day, up to one week	0.041	0.000			0.022	0.000		
More than one week, up to two weeks	0.047	0.000	0.006	0.027	0.025	0.000	0.004	0.029
More than two weeks, up to a month	0.056	0.000	0.015	0.000	0.031	0.000	0.010	0.000
More than a month	0.057	0.000	0.015	0.006	0.031	0.000	0.010	0.008
Number of wards								
1	0.041	0.000			0.021	0.000		
2	0.046	0.000	0.005	0.013	0.024	0.000	0.003	0.014
3 or more	0.050	0.000	0.009	0.003	0.027	0.000	0.006	0.004
don't know / can't remember	0.050	0.000	0.010	0.186	0.027	0.000	0.006	0.199
Nurses								
There were always enough or nearly enough nurses	0.024	0.000			0.015	0.000		
There were sometimes enough nurses	0.047	0.000	0.023	0.000	0.032	0.000	0.016	0.000
There were rarely or never enough nurses	0.086	0.000	0.062	0.000	0.063	0.000	0.047	0.000
Nurses (whether poor quality)								
No	0.035	0.000			0.021	0.000		
Yes	0.095	0.000	0.061	0.000	0.065	0.000	0.045	0.000
Choice food								
Yes always	0.032	0.000			0.019	0.000		
yes sometimes	0.062	0.000	0.030	0.000	0.039	0.000	0.021	0.000
no	0.097	0.000	0.064	0.000	0.066	0.000	0.047	0.000

Source: author's calculations using the Adult Inpatient Survey, 2012.

Notes:

- (1) The dataset used in these calculations was provided by the Picker Institute and CQC.

Table 33: Predicted probabilities by age group (full sample; selected independent variables evaluated at specific reference values with other independent variables held at means; 2012)

	Margin	Std. Err.	z	P>z	[95% Conf.	Interval]
Margins at each age group; all other ivs evaluated at means						
16-35	0.031	0.002	13.500	0.000	0.026	0.035
36-50	0.028	0.002	15.740	0.000	0.024	0.031
51-65	0.021	0.001	18.820	0.000	0.019	0.024
66-80	0.020	0.001	20.360	0.000	0.018	0.022
>80	0.023	0.001	16.590	0.000	0.020	0.026
Margins at each age group; gender = female; all other ivs evaluated at means						
16-35	0.032	0.002	13.280	0.000	0.028	0.037
36-50	0.029	0.002	15.120	0.000	0.025	0.033
51-65	0.023	0.001	17.310	0.000	0.020	0.025
66-80	0.021	0.001	18.390	0.000	0.019	0.023
>80	0.024	0.002	15.970	0.000	0.021	0.027
Margins at each age group; gender = female, disab_1==1; all other ivs evaluated at means						
16-35	0.040	0.003	12.270	0.000	0.034	0.046
36-50	0.036	0.003	13.950	0.000	0.031	0.041
51-65	0.028	0.002	15.990	0.000	0.024	0.031
66-80	0.026	0.002	16.880	0.000	0.023	0.029
>80	0.030	0.002	15.180	0.000	0.026	0.034
Margins at each age group; gender = female, disab_1==1, los_bands=4 no_wards=3 admission_route=1 critical_care=2; all other ivs evaluated at means						
16-35	0.066	0.008	8.170	0.000	0.050	0.082
36-50	0.059	0.007	8.520	0.000	0.046	0.073
51-65	0.046	0.005	8.810	0.000	0.036	0.057
66-80	0.043	0.005	9.140	0.000	0.034	0.052
>80	0.050	0.005	9.240	0.000	0.039	0.060
Margins at each age group; gender = female, disab_1==1, los_bands=4 no_wards=3 admission_route=1 critical_care=2; nurses=3 nurses_poorquality=1; all other ivs evaluated at means						
16-35	0.386	0.031	12.380	0.000	0.325	0.447
36-50	0.359	0.029	12.360	0.000	0.302	0.416
51-65	0.302	0.026	11.800	0.000	0.252	0.352
66-80	0.285	0.024	11.740	0.000	0.237	0.332
>80	0.317	0.026	12.320	0.000	0.267	0.367
Margins at each age group; gender = female, disab_1==1, los_bands=4 no_wards=3 admission_route=1 critical_care=2; nurses=3 nurses_poorquality=1, choice_food=3; all other ivs evaluated at means						
16-35	0.660	0.032	20.540	0.000	0.597	0.723

36-50	0.634	0.032	19.730	0.000	0.571	0.697
51-65	0.572	0.033	17.330	0.000	0.507	0.636
66-80	0.551	0.033	16.730	0.000	0.487	0.616
>80	0.589	0.032	18.310	0.000	0.526	0.652
Margins age_group5, at(gender=1 disab_1=1 los_bands=4 no_wards=3 admission_route=1 critical_care=2 nurses=3 nurses_poorquality=1 choice_food=3 trustcode2=81) atmeans						
16-35	0.791	0.043	18.390	0.000	0.707	0.875
36-50	0.772	0.046	16.900	0.000	0.682	0.861
51-65	0.722	0.051	14.080	0.000	0.622	0.823
66-80	0.706	0.053	13.320	0.000	0.602	0.809
>80	0.737	0.049	14.890	0.000	0.640	0.833

Table 34: Predicted probabilities by age group (restricted sample; selected independent variables evaluated at specific reference values with other independent variables held at means; 2012)

	Margin	Std. Err.	z	P>z	[95% Conf.	Interval]
Margins at each age group; all other ivs evaluated at means						
16-35	0.138	0.010	13.180	0.000	0.117	0.158
36-50	0.130	0.008	15.760	0.000	0.114	0.146
51-65	0.120	0.006	19.450	0.000	0.108	0.132
66-80	0.116	0.006	21.080	0.000	0.105	0.127
>80	0.112	0.007	17.190	0.000	0.099	0.125
Margins at each age group; gender = female; all other ivs evaluated at means						
16-35	0.154	0.012	13.260	0.000	0.131	0.176
36-50	0.145	0.009	15.360	0.000	0.127	0.164
51-65	0.134	0.007	17.970	0.000	0.120	0.149
66-80	0.130	0.007	18.900	0.000	0.116	0.143
>80	0.125	0.008	16.600	0.000	0.111	0.140
Margins at each age group; gender = female, disab_1==1; all other ivs evaluated at means						
16-35	0.161	0.013	12.390	0.000	0.136	0.187
36-50	0.152	0.011	14.310	0.000	0.131	0.173
51-65	0.141	0.008	16.700	0.000	0.125	0.158
66-80	0.137	0.008	17.540	0.000	0.121	0.152
>80	0.132	0.008	15.750	0.000	0.115	0.148
Margins at each age group; gender = female, disab_1==1, los_bands=4 no_wards=3 admission_route=1 critical_care=2; all other ivs evaluated at means						
16-35	0.189	0.023	8.360	0.000	0.145	0.233
36-50	0.179	0.021	8.670	0.000	0.138	0.219
51-65	0.166	0.018	9.070	0.000	0.130	0.202
66-80	0.161	0.017	9.380	0.000	0.127	0.194
>80	0.155	0.017	9.390	0.000	0.123	0.188

Margins at each age group; gender = female, disab_1==1, los_bands=4 no_wards=3 admission_route=1 critical_care=2; nurses=3 nurses_poorquality=1; all other ivs evaluated at means						
16-35	0.674	0.034	19.960	0.000	0.608	0.740
36-50	0.659	0.033	19.760	0.000	0.594	0.724
51-65	0.639	0.033	19.570	0.000	0.575	0.703
66-80	0.630	0.032	19.650	0.000	0.567	0.693
>80	0.620	0.032	19.230	0.000	0.557	0.683
Margins at each age group; gender = female, disab_1==1, los_bands=4 no_wards=3 admission_route=1 critical_care=2; nurses=3 nurses_poorquality=1, choice_food=3; all other ivs evaluated at means						
16-35	0.920	0.013	70.910	0.000	0.895	0.946
36-50	0.915	0.013	68.180	0.000	0.889	0.941
51-65	0.908	0.014	64.890	0.000	0.880	0.935
66-80	0.905	0.014	64.030	0.000	0.877	0.932
>80	0.901	0.015	61.970	0.000	0.872	0.929
Margins age_group5, at(gender=1 disab_1=1 los_bands=4 no_wards=3 admission_route=1 critical_care=2 nurses=3 nurses_poorquality=1 choice_food=3 trustcode2=81) atmeans						
16-35	0.962	0.012	80.830	0.000	0.939	0.986
36-50	0.960	0.013	75.950	0.000	0.935	0.984
51-65	0.956	0.014	70.700	0.000	0.930	0.983
66-80	0.954	0.014	68.410	0.000	0.927	0.982
>80	0.953	0.014	65.900	0.000	0.924	0.981

Table 35: Not receiving help when needed during hospital stays: Predicted probabilities and difference in predicted probabilities (marginal effects) (restricted sample, evaluated at observed values and at means, 2012)

Predicted probabilities	At observed value of independent variables				At mean value of independent variables			
	margin	p-value	dy/dx	p-value	margin	p-value	dy/dx	p-value
Gender								
Male	0.155	0.000			0.106	0.000		
Female	0.184	0.000	0.028	0.000	0.134	0.000	0.028	0.000
Age Group								
16-35	0.188	0.000			0.138	0.000		
36-50	0.180	0.000	-0.008	0.537	0.130	0.000	-0.008	0.538
51-65	0.171	0.000	-0.017	0.135	0.120	0.000	-0.018	0.139
66-80	0.166	0.000	-0.022	0.062	0.116	0.000	-0.022	0.065
>80	0.162	0.000	-0.026	0.034	0.112	0.000	-0.026	0.037
Disability								
I do not have a longstanding condition which causes me difficulty	0.163	0.000			0.114	0.000		
I have a long standing condition which causes me difficulty	0.176	0.000	0.013	0.046	0.126	0.000	0.013	0.045
Proxy (who filled in the form)								
The patient (named on the front of the envelope)	0.154	0.000			0.107	0.000		
A friend or relative of the patient	0.210	0.000	0.056	0.000	0.165	0.000	0.057	0.000
Both patient and friend/relative together	0.203	0.000	0.049	0.000	0.156	0.000	0.049	0.000
The patient with the help of a health professional	0.180	0.000	0.026	0.375	0.133	0.000	0.025	0.389
Critical Care Area								
Yes	0.154	0.000			0.104	0.000		
No	0.176	0.000	0.022	0.002	0.126	0.000	0.022	0.001

don't know / can't remember	0.171	0.000	0.017	0.201	0.121	0.000	0.017	0.208
Admission route								
Emergency or urgent	0.173	0.000			0.122	0.000		
Waiting list or planned in advance	0.167	0.000	-0.006	0.428	0.117	0.000	-0.006	0.427
Other	0.159	0.000	-0.013	0.423	0.109	0.000	-0.013	0.415
Length of Stay								
One day	0.178	0.000	0.010	0.177	0.127	0.000	0.010	0.179
More than one day, up to one week	0.168	0.000			0.117	0.000		
More than one week, up to two weeks	0.166	0.000	-0.002	0.856	0.116	0.000	-0.002	0.856
More than two weeks, up to a month	0.177	0.000	0.010	0.368	0.127	0.000	0.009	0.372
More than a month	0.154	0.000	-0.014	0.317	0.104	0.000	-0.013	0.310
Number of wards								
1	0.167	0.000			0.117	0.000	0.007	0.286
2	0.174	0.000	0.007	0.285	0.124	0.000	0.009	0.386
3 or more	0.176	0.000	0.009	0.383	0.125	0.000	0.001	0.970
don't know / can't remember	0.168	0.000	0.001	0.970	0.118	0.000		
Were there enough nurses?								
There were always enough or nearly enough nurses	0.104	0.000			0.077	0.000		
There were sometimes enough nurses	0.186	0.000	0.082	0.000	0.155	0.000	0.078	0.000
There were rarely or never enough nurses	0.311	0.000	0.207	0.000	0.291	0.000	0.214	0.000
Poor quality nurses								
No	0.145	0.000			.105	0.000		
Yes	0.316	0.000	0.171	0.000	.287	0.000	0.182	0.000

Choice of food								
Yes always	0.132	0.000			0.096	0.000		0.000
Yes sometimes	0.230	0.000	0.099	0.000	0.194	0.000	0.098	0.000
No	0.434	0.000	0.303	0.000	0.432	0.000	0.335	0.000

Source: author's calculations using the Adult Inpatient Survey, 2012.

Notes:

(1) The dataset used in these calculations was provided by the Picker Institute and CQC.

APPENDIX C: FURTHER DETAILS OF TRUST LEVEL FINDINGS

Table 36: Percentage of respondents who report only sometimes being treated with dignity and respect, or not being treated with dignity and respect, by individual hospital trust, 2012 (U: Unweighted, W: Weighted)

Not treated with dignity and respect			Only sometimes treated with dignity and respect, or not treated with dignity and respect		
Hospital trust	U	W	Hospital trust	U	W
RRV University College London Hospitals NHS Foundation Trust	0.3	0.2	SPE Special hospital group	10.5	11.6
RQ6 Royal Liverpool and Broadgreen University Hospitals NHS Trust	0.6	1.0	RTD The Newcastle-upon-Tyne Hospitals NHS Foundation Trust	12.9	14.7
RA7 University Hospitals Bristol NHS Foundation Trust	0.8	0.7	RH8 Royal Devon and Exeter NHS Foundation Trust	13.4	14.7
SPE Special hospital group	1.0	1.1	RA7 University Hospitals Bristol NHS Foundation Trust	13.4	14.8
RTD The Newcastle-upon-Tyne Hospitals NHS Foundation Trust	1.1	1.5	RM2 University Hospital of South Manchester NHS Foundation Trust	13.7	16.4
RGT Cambridge University Hospitals NHS Foundation Trust	1.3	1.4	RAJ Southend University Hospital NHS Foundation Trust	13.8	16.5
RBA Taunton and Somerset NHS Foundation Trust	1.4	1.2	RGT Cambridge University Hospitals NHS Foundation Trust	14.3	15.4
RA4 Yeovil District Hospital NHS Foundation Trust	1.4	1.6	RBL Wirral University Teaching Hospital NHS Foundation Trust	15.1	16.4
RHM University Hospital Southampton NHS Foundation Trust	1.4	2.2	RJ1 Guy's and St Thomas' NHS Foundation Trust	15.5	16.2
RBL Wirral University Teaching Hospital NHS Foundation Trust	1.4	1.6	RQ6 Royal Liverpool and Broadgreen University Hospitals NHS Trust	15.6	17.9
RJ1 Guy's and St Thomas' NHS Foundation Trust	1.5	1.7	RJD Mid Staffordshire NHS Foundation Trust	15.7	18.6
RNZ Salisbury NHS Foundation Trust	1.5	1.8	RD3 Poole Hospital NHS Foundation Trust	15.9	16.9
RXH Brighton and Sussex University Hospitals NHS Trust	1.6	1.7	RTR South Tees Hospitals NHS Foundation Trust	15.9	19.5
RD1 Royal United Hospital Bath NHS Trust	1.6	1.5	RDU Frimley Park Hospital NHS Foundation Trust	16.0	17.4

Not treated with dignity and respect			Only sometimes treated with dignity and respect, or not treated with dignity and respect		
Hospital trust	U	W	Hospital trust	U	W
RN5 Hampshire Hospitals NHS Foundation Trust	1.6	2.0	RGR West Suffolk NHS Foundation Trust	16.1	17.4
RM3 Salford Royal NHS Foundation Trust	1.6	1.9	RGP James Paget University Hospitals NHS Foundation Trust	16.4	18.7
RTG Derby Hospitals NHS Foundation Trust	1.7	2.2	RBA Taunton and Somerset NHS Foundation Trust	16.6	18.7
RRF Wrightington, Wigan and Leigh NHS Foundation Trust	1.8	2.0	RJE University Hospital of North Staffordshire NHS Trust	16.7	19.6
RTR South Tees Hospitals NHS Foundation Trust	1.8	2.3	RVV East Kent Hospitals University NHS Foundation Trust	16.7	18.7
RGR West Suffolk NHS Foundation Trust	1.8	2.0	RRV University College London Hospitals NHS Foundation Trust	16.8	17.2
RHQ Sheffield Teaching Hospitals NHS Foundation Trust	1.9	2.3	RNQ Kettering General Hospital NHS Foundation Trust	16.9	20.3
RCB York Teaching Hospital NHS Foundation Trust	1.9	1.9	RNZ Salisbury NHS Foundation Trust	17.0	18.1
RGN Peterborough and Stamford Hospitals NHS Foundation Trust	2.0	1.7	RWA Hull and East Yorkshire Hospitals NHS Trust	17.2	18.1
RA9 South Devon Healthcare NHS Foundation Trust	2.0	2.2	RMC Bolton NHS Foundation Trust	17.4	19.4
RH8 Royal Devon and Exeter NHS Foundation Trust	2.0	2.1	RXH Brighton and Sussex University Hospitals NHS Trust	17.4	19.8
RJR Countess of Chester Hospital NHS Foundation Trust	2.0	2.0	RRF Wrightington, Wigan and Leigh NHS Foundation Trust	17.6	20.2
RM2 University Hospital of South Manchester NHS Foundation Trust	2.1	2.9	RXR East Lancashire Hospitals NHS Trust	17.6	20.3
RM1 Norfolk and Norwich University Hospitals NHS Foundation Trust	2.1	2.7	RBN St Helens and Knowsley Teaching Hospitals NHS Trust	17.7	19.6
RE9 South Tyneside NHS Foundation Trust	2.1	2.7	RDZ The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust	17.8	20.0
RDD Basildon and Thurrock University Hospitals NHS Foundation Trust	2.1	2.2	RHQ Sheffield Teaching Hospitals NHS Foundation Trust	17.8	20.2
RJZ King's College Hospital NHS Foundation Trust	2.2	2.5	RTG Derby Hospitals NHS Foundation Trust	17.8	17.9

Not treated with dignity and respect			Only sometimes treated with dignity and respect, or not treated with dignity and respect		
Hospital trust	U	W	Hospital trust	U	W
RBD Dorset County Hospital NHS Foundation Trust	2.2	3.0	RTF Northumbria Healthcare NHS Foundation Trust	17.8	18.6
RJE University Hospital of North Staffordshire NHS Trust	2.2	3.8	RBZ Northern Devon Healthcare NHS Trust	17.8	19.4
RN3 Great Western Hospitals NHS Foundation Trust	2.2	3.0	RR7 Gateshead Health NHS Foundation Trust	17.9	20.9
RJ7 St George's Healthcare NHS Trust	2.2	2.7	RHW Royal Berkshire NHS Foundation Trust	18.2	20.2
RJC South Warwickshire NHS Foundation Trust	2.3	2.6	RD1 Royal United Hospital Bath NHS Trust	18.3	19.1
RDU Frimley Park Hospital NHS Foundation Trust	2.3	2.6	RXP County Durham and Darlington NHS Foundation Trust	18.4	20.4
RN7 Dartford and Gravesham NHS Trust	2.3	2.7	RN5 Hampshire Hospitals NHS Foundation Trust	18.5	22.5
RJD Mid Staffordshire NHS Foundation Trust	2.3	3.3	RR1 Heart of England NHS Foundation Trust	18.7	21.0
RAX Kingston Hospital NHS Trust	2.4	2.6	RM3 Salford Royal NHS Foundation Trust	18.7	19.6
RBZ Northern Devon Healthcare NHS Trust	2.4	2.8	RW6 The Pennine Acute Hospitals NHS Trust	18.9	21.1
RK9 Plymouth Hospitals NHS Trust	2.4	2.8	RYR Western Sussex Hospitals NHS Trust	18.9	19.4
RJF Burton Hospitals NHS Foundation Trust	2.4	2.9	RDD Basildon and Thurrock University Hospitals NHS Foundation Trust	19.0	20.4
RAJ Southend University Hospital NHS Foundation Trust	2.4	3.4	RRK University Hospitals Birmingham NHS Foundation Trust	19.0	19.5
RFS Chesterfield Royal Hospital NHS Foundation Trust	2.4	2.9	RA4 Yeovil District Hospital NHS Foundation Trust	19.1	21.4
RRK University Hospitals Birmingham NHS Foundation Trust	2.5	2.9	RTX University Hospitals of Morecambe Bay NHS Foundation Trust	19.2	21.6
RFR The Rotherham NHS Foundation Trust	2.5	3.0	RKE The Whittington Hospital NHS Trust	19.2	19.7
RVJ North Bristol NHS Trust	2.5	3.0	RGN Peterborough and Stamford Hospitals NHS Foundation Trust	19.3	21.5

Not treated with dignity and respect			Only sometimes treated with dignity and respect, or not treated with dignity and respect		
Hospital trust	U	W	Hospital trust	U	W
RD3 Poole Hospital NHS Foundation Trust	2.5	2.7	RQ8 Mid Essex Hospital Services NHS Trust	19.3	20.7
RCF Airedale NHS Foundation Trust	2.5	3.9	RCB York Teaching Hospital NHS Foundation Trust	19.4	20.1
RA2 Royal Surrey County Hospital NHS Foundation Trust	2.7	3.7	RVJ North Bristol NHS Trust	19.4	20.9
RXC East Sussex Healthcare NHS Trust	2.7	3.5	RJC South Warwickshire NHS Foundation Trust	19.5	21.2
RWA Hull and East Yorkshire Hospitals NHS Trust	2.7	2.9	RNL North Cumbria University Hospitals NHS Trust	19.5	21.4
RMC Bolton NHS Foundation Trust	2.7	3.3	RAX Kingston Hospital NHS Trust	19.5	19.6
RR7 Gateshead Health NHS Foundation Trust	2.7	2.8	RA9 South Devon Healthcare NHS Foundation Trust	19.5	20.5
RTF Northumbria Healthcare NHS Foundation Trust	2.8	3.0	RJR Countess of Chester Hospital NHS Foundation Trust	19.7	20.4
RDE Colchester Hospital University NHS Foundation Trust	2.8	3.6	RP5 Doncaster and Bassetlaw Hospitals NHS Foundation Trust	19.9	21.7
RA3 Weston Area Health NHS Trust	2.8	2.4	REM Aintree University Hospitals NHS Foundation Trust	20.1	22.7
RHW Royal Berkshire NHS Foundation Trust	2.8	3.4	RXK Sandwell and West Birmingham Hospitals NHS Trust	20.1	22.3
RVL Barnet and Chase Farm Hospitals NHS Trust	2.9	3.5	RA2 Royal Surrey County Hospital NHS Foundation Trust	20.2	22.0
RBN St Helens and Knowsley Teaching Hospitals NHS Trust	2.9	3.5	RN3 Great Western Hospitals NHS Foundation Trust	20.4	21.6
RTX University Hospitals of Morecambe Bay NHS Foundation Trust	2.9	4.3	RXC East Sussex Healthcare NHS Trust	20.4	21.9
REM Aintree University Hospitals NHS Foundation Trust	2.9	3.0	RTH Oxford University Hospitals NHS Trust	20.4	21.5
RW6 The Pennine Acute Hospitals NHS Trust	2.9	3.1	RLN City Hospitals Sunderland NHS Foundation Trust	20.5	22.6
RWH East and North Hertfordshire NHS Trust	3.0	3.6	RJ7 St George's Healthcare NHS Trust	20.5	22.6

Not treated with dignity and respect			Only sometimes treated with dignity and respect, or not treated with dignity and respect		
Hospital trust	U	W	Hospital trust	U	W
RYR Western Sussex Hospitals NHS Trust	3.0	3.2	RM1 Norfolk and Norwich University Hospitals NHS Foundation Trust	20.6	21.9
RWF Maidstone and Tunbridge Wells NHS Trust	3.0	3.3	RFF Barnsley Hospital NHS Foundation Trust	20.6	23.1
RD8 Milton Keynes Hospital NHS Foundation Trust	3.0	4.0	RWF Maidstone and Tunbridge Wells NHS Trust	20.7	22.2
R1F Isle of Wight NHS Trust	3.0	3.6	RCF Airedale NHS Foundation Trust	20.7	24.2
RGP James Paget University Hospitals NHS Foundation Trust	3.0	3.9	RNA The Dudley Group NHS Foundation Trust	20.8	23.8
RTK Ashford and St Peter's Hospitals NHS Foundation Trust	3.1	3.2	RXL Blackpool Teaching Hospitals NHS Foundation Trust	20.9	23.7
RXL Blackpool Teaching Hospitals NHS Foundation Trust	3.1	3.1	RK5 Sherwood Forest Hospitals NHS Foundation Trust	20.9	24.2
RNA The Dudley Group NHS Foundation Trust	3.1	3.9	RBD Dorset County Hospital NHS Foundation Trust	20.9	23.2
RTE Gloucestershire Hospitals NHS Foundation Trust	3.1	4.0	RTP Surrey and Sussex Healthcare NHS Trust	21.0	22.7
RQQ Hinchingsbrooke Health Care NHS Trust	3.1	3.1	RWJ Stockport NHS Foundation Trust	21.0	25.0
RXQ Buckinghamshire Healthcare NHS Trust	3.1	3.5	RFR The Rotherham NHS Foundation Trust	21.1	24.4
RNQ Kettering General Hospital NHS Foundation Trust	3.1	4.0	RHM University Hospital Southampton NHS Foundation Trust	21.1	21.3
RLQ Wye Valley NHS Trust	3.1	3.5	RXW Shrewsbury and Telford Hospital NHS Trust	21.2	23.6
RWJ Stockport NHS Foundation Trust	3.1	4.4	RWY Calderdale and Huddersfield NHS Foundation Trust	21.2	23.0
RXW Shrewsbury and Telford Hospital NHS Trust	3.2	4.5	RWW Warrington and Halton Hospitals NHS Foundation Trust	21.2	24.3
RCD Harrogate and District NHS Foundation Trust	3.2	3.9	RVL Barnet and Chase Farm Hospitals NHS Trust	21.4	23.0
RTH Oxford University Hospitals NHS Trust	3.2	3.8	RX1 Nottingham University Hospitals NHS Trust	21.4	24.0

Not treated with dignity and respect			Only sometimes treated with dignity and respect, or not treated with dignity and respect		
Hospital trust	U	W	Hospital trust	U	W
RKE The Whittington Hospital NHS Trust	3.3	3.5	RTK Ashford and St Peter's Hospitals NHS Foundation Trust	21.5	23.0
RC9 Luton and Dunstable Hospital NHS Foundation Trust	3.3	4.2	RL4 The Royal Wolverhampton NHS Trust	21.6	23.7
RDZ The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust	3.3	3.8	RWH East and North Hertfordshire NHS Trust	21.7	24.3
RYJ Imperial College Healthcare NHS Trust	3.3	3.9	RV8 North West London Hospitals NHS Trust	21.7	22.5
RHU Portsmouth Hospitals NHS Trust	3.3	3.6	RYJ Imperial College Healthcare NHS Trust	21.8	23.4
RXR East Lancashire Hospitals NHS Trust	3.3	3.6	RXQ Buckinghamshire Healthcare NHS Trust	21.9	23.5
RBK Walsall Healthcare NHS Trust	3.3	3.9	RWG West Hertfordshire Hospitals NHS Trust	22.0	23.9
RK5 Sherwood Forest Hospitals NHS Foundation Trust	3.4	3.8	RVR Epsom and St Helier University Hospitals NHS Trust	22.1	25.9
RQM Chelsea and Westminster Hospital NHS Foundation Trust	3.4	3.1	RLQ Wye Valley NHS Trust	22.1	23.7
RWD United Lincolnshire Hospitals NHS Trust	3.4	4.8	RN7 Dartford and Gravesham NHS Trust	22.2	24.3
RC3 Ealing Hospital NHS Trust	3.5	3.8	RHU Portsmouth Hospitals NHS Trust	22.2	25.2
RWY Calderdale and Huddersfield NHS Foundation Trust	3.5	3.7	RTE Gloucestershire Hospitals NHS Foundation Trust	22.3	24.1
RVR Epsom and St Helier University Hospitals NHS Trust	3.6	4.0	RK9 Plymouth Hospitals NHS Trust	22.3	25.5
RGQ Ipswich Hospital NHS Trust	3.6	4.5	RQM Chelsea and Westminster Hospital NHS Foundation Trust	22.3	22.5
RWP Worcestershire Acute Hospitals NHS Trust	3.6	4.2	RE9 South Tyneside NHS Foundation Trust	22.6	25.7
RL4 The Royal Wolverhampton NHS Trust	3.7	4.2	RVW North Tees and Hartlepool NHS Foundation Trust	22.6	26.8
RJN East Cheshire NHS Trust	3.7	4.1	RJF Burton Hospitals NHS Foundation Trust	22.6	23.5

Not treated with dignity and respect			Only sometimes treated with dignity and respect, or not treated with dignity and respect		
Hospital trust	U	W	Hospital trust	U	W
RLN City Hospitals Sunderland NHS Foundation Trust	3.7	4.3	RQQ Hinchingsbrooke Health Care NHS Trust	22.7	24.2
RNL North Cumbria University Hospitals NHS Trust	3.7	4.2	RCD Harrogate and District NHS Foundation Trust	22.7	23.1
RXP County Durham and Darlington NHS Foundation Trust	3.7	4.0	RFS Chesterfield Royal Hospital NHS Foundation Trust	22.8	24.8
RW3 Central Manchester University Hospitals NHS Foundation Trust	3.8	4.2	RJN East Cheshire NHS Trust	22.9	23.1
RR1 Heart of England NHS Foundation Trust	3.8	4.0	RA3 Weston Area Health NHS Trust	22.9	24.7
RFF Barnsley Hospital NHS Foundation Trust	3.8	5.1	RBT Mid Cheshire Hospitals NHS Foundation Trust	23.0	26.8
RAP North Middlesex University Hospital NHS Trust	3.8	3.7	R1F Isle of Wight NHS Trust	23.1	26.5
RAL Royal Free London NHS Foundation Trust	3.8	4.1	RWP Worcestershire Acute Hospitals NHS Trust	23.2	24.9
RTP Surrey and Sussex Healthcare NHS Trust	3.9	4.4	RVY Southport and Ormskirk Hospital NHS Trust	23.2	27.0
RWW Warrington and Halton Hospitals NHS Foundation Trust	3.9	4.7	RJZ King's College Hospital NHS Foundation Trust	23.2	25.6
RBT Mid Cheshire Hospitals NHS Foundation Trust	3.9	5.4	RKB University Hospitals Coventry and Warwickshire NHS Trust	23.2	25.8
RWE University Hospitals of Leicester NHS Trust	4.0	4.3	RDE Colchester Hospital University NHS Foundation Trust	23.4	26.4
RKB University Hospitals Coventry and Warwickshire NHS Trust	4.0	5.3	RBK Walsall Healthcare NHS Trust	23.4	27.7
RXK Sandwell and West Birmingham Hospitals NHS Trust	4.0	5.2	RJL Northern Lincolnshire and Goole Hospitals NHS Foundation Trust	23.6	25.7
RNS Northampton General Hospital NHS Trust	4.1	5.4	RWE University Hospitals of Leicester NHS Trust	23.6	27.5
RJL Northern Lincolnshire and Goole Hospitals NHS Foundation Trust	4.1	4.2	REF Royal Cornwall Hospitals NHS Trust	23.6	26.4
RVV East Kent Hospitals University NHS Foundation Trust	4.1	5.2	RR8 Leeds Teaching Hospitals NHS Trust	23.8	26.1

Not treated with dignity and respect			Only sometimes treated with dignity and respect, or not treated with dignity and respect		
Hospital trust	U	W	Hospital trust	U	W
RP5 Doncaster and Bassetlaw Hospitals NHS Foundation Trust	4.2	4.9	RLT George Eliot Hospital NHS Trust	23.8	26.9
RX1 Nottingham University Hospitals NHS Trust	4.2	4.8	RCX The Queen Elizabeth Hospital King's Lynn NHS Foundation Trust	23.8	25.4
RC1 Bedford Hospital NHS Trust	4.2	4.6	RWD United Lincolnshire Hospitals NHS Trust	23.8	27.5
RVW North Tees and Hartlepool NHS Foundation Trust	4.3	5.2	RAL Royal Free London NHS Foundation Trust	24.0	25.1
RAS The Hillingdon Hospitals NHS Foundation Trust	4.3	5.2	RNS Northampton General Hospital NHS Trust	24.0	27.3
RYQ South London Healthcare NHS Trust	4.3	4.5	RW3 Central Manchester University Hospitals NHS Foundation Trust	24.0	26.0
RXN Lancashire Teaching Hospitals NHS Foundation Trust	4.4	4.8	RQW The Princess Alexandra Hospital NHS Trust	24.5	25.6
R1H Barts Health NHS Trust	4.5	4.9	RGQ Ipswich Hospital NHS Trust	25.2	28.1
RV8 North West London Hospitals NHS Trust	4.6	4.9	RAP North Middlesex University Hospital NHS Trust	25.3	28.8
RLT George Eliot Hospital NHS Trust	4.7	5.8	RC9 Luton and Dunstable Hospital NHS Foundation Trust	25.4	28.2
RPA Medway NHS Foundation Trust	4.7	5.3	RC1 Bedford Hospital NHS Trust	25.6	28.7
RQW The Princess Alexandra Hospital NHS Trust	4.7	5.3	RXN Lancashire Teaching Hospitals NHS Foundation Trust	25.6	27.4
RXF Mid Yorkshire Hospitals NHS Trust	4.8	5.5	RC3 Ealing Hospital NHS Trust	26.1	27.2
RQ8 Mid Essex Hospital Services NHS Trust	4.9	5.5	RD8 Milton Keynes Hospital NHS Foundation Trust	26.2	28.3
RWG West Hertfordshire Hospitals NHS Trust	4.9	4.8	RYQ South London Healthcare NHS Trust	26.5	28.5
REF Royal Cornwall Hospitals NHS Trust	5.0	5.8	RAS The Hillingdon Hospitals NHS Foundation Trust	26.9	30.6
RCX The Queen Elizabeth Hospital King's Lynn NHS Foundation Trust	5.0	5.6	R1H Barts Health NHS Trust	27.1	29.3

Not treated with dignity and respect			Only sometimes treated with dignity and respect, or not treated with dignity and respect		
Hospital trust	U	W	Hospital trust	U	W
RFW West Middlesex University Hospital NHS Trust	5.1	5.4	RMP Tameside Hospital NHS Foundation Trust	27.1	31.9
RF4 Barking, Havering and Redbridge University Hospitals NHS Trust	5.1	5.4	RAE Bradford Teaching Hospitals NHS Foundation Trust	27.4	29.8
RQX Homerton University Hospital NHS Foundation Trust	5.2	6.2	RQX Homerton University Hospital NHS Foundation Trust	27.8	29.3
RAE Bradford Teaching Hospitals NHS Foundation Trust	5.6	6.4	RXF Mid Yorkshire Hospitals NHS Trust	28.1	30.9
RR8 Leeds Teaching Hospitals NHS Trust	5.8	7.1	RD7 Heatherwood and Wexham Park Hospitals NHS Foundation Trust	28.2	29.9
RVY Southport and Ormskirk Hospital NHS Trust	5.9	7.5	RPA Medway NHS Foundation Trust	28.2	30.5
RJ6 Croydon Health Services NHS Trust	6.4	7.4	RFW West Middlesex University Hospital NHS Trust	28.3	31.6
RJ2 Lewisham Healthcare NHS Trust	6.4	6.5	RF4 Barking, Havering and Redbridge University Hospitals NHS Trust	30.4	31.7
RD7 Heatherwood and Wexham Park Hospitals NHS Foundation Trust	6.9	7.6	RJ2 Lewisham Healthcare NHS Trust	31.0	32.3
RMP Tameside Hospital NHS Foundation Trust	7.4	10.0	RJ6 Croydon Health Services NHS Trust	31.3	34.1
Mean	3.2	3.7	Mean	20.9	23.0
Median	3.1	3.6	Median	20.9	23.0
Minimum	0.3	0.2	Minimum	10.5	11.6
Maximum	7.4	10.0	Maximum	31.3	34.1
Variance	1.6	2.3	Variance	14.6	17.4

Source: author's calculations using the Adult Inpatient Survey, 2012.

Notes:

- (1) The dataset used in these calculations was provided by the Picker Institute and CQC.

(2) Specialist trusts have been grouped together for the purposes of this analysis which may impact on the mean

Table 37: Percentage of respondents who report only sometimes receiving enough help with eating from staff, or not receiving enough help with eating from staff, by individual hospital trust, 2012 (unrestricted / full sample, U: Unweighted, W: Weighted)

Did not receive enough help from staff			Sometimes did not receive enough help from staff, or did not receive enough help from staff		
Hospital trust	U	W	Hospital trust	U	W
RD3 Poole Hospital NHS Foundation Trust	1.3	1.3	RTD The Newcastle-upon-Tyne Hospitals NHS Foundation Trust	4.8	4.5
RD1 Royal United Hospital Bath NHS Trust	1.6	1.6	RD3 Poole Hospital NHS Foundation Trust	4.9	4.8
RGP James Paget University Hospitals NHS Foundation Trust	2.0	2.2	RTX University Hospitals of Morecambe Bay NHS Foundation Trust	5.0	6.9
RN3 Great Western Hospitals NHS Foundation Trust	2.0	1.9	RXF Mid Yorkshire Hospitals NHS Trust	5.7	6.0
RJ1 Guy's and St Thomas' NHS Foundation Trust	2.1	2.1	RLQ Wye Valley NHS Trust	6.0	5.8
RTX University Hospitals of Morecambe Bay NHS Foundation Trust	2.2	2.7	RD1 Royal United Hospital Bath NHS Trust	6.0	5.9
RXF Mid Yorkshire Hospitals NHS Trust	2.3	2.4	RA3 Weston Area Health NHS Trust	6.2	7.6
RRF Wrightington, Wigan and Leigh NHS Foundation Trust	2.3	3.1	RTE Gloucestershire Hospitals NHS Foundation Trust	6.3	6.9
RA3 Weston Area Health NHS Trust	2.4	2.9	SPE Special hospital group	6.3	6.7
RH8 Royal Devon and Exeter NHS Foundation Trust	2.5	2.4	RRF Wrightington, Wigan and Leigh NHS Foundation Trust	6.5	7.6
RDZ The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust	2.5	2.8	RA9 South Devon Healthcare NHS Foundation Trust	6.6	6.8
RJC South Warwickshire NHS Foundation Trust	2.5	2.4	RDZ The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust	6.7	7.7

Did not receive enough help from staff			Sometimes did not receive enough help from staff, or did not receive enough help from staff		
Hospital trust	U	W	Hospital trust	U	W
SPE Special hospital group	2.6	2.9	RDU Frimley Park Hospital NHS Foundation Trust	6.9	7.4
RM3 Salford Royal NHS Foundation Trust	2.7	2.3	RK5 Sherwood Forest Hospitals NHS Foundation Trust	7.0	8.3
RA9 South Devon Healthcare NHS Foundation Trust	2.7	2.7	RWP Worcestershire Acute Hospitals NHS Trust	7.1	7.8
RXH Brighton and Sussex University Hospitals NHS Trust	2.9	3.3	RX1 Nottingham University Hospitals NHS Trust	7.1	7.9
RJR Countess of Chester Hospital NHS Foundation Trust	2.9	2.7	RTR South Tees Hospitals NHS Foundation Trust	7.1	8.5
RVJ North Bristol NHS Trust	2.9	3.0	RJ1 Guy's and St Thomas' NHS Foundation Trust	7.1	8.7
RM1 Norfolk and Norwich University Hospitals NHS Foundation Trust	2.9	3.5	RJD Mid Staffordshire NHS Foundation Trust	7.2	7.9
RBA Taunton and Somerset NHS Foundation Trust	3.0	3.4	RH8 Royal Devon and Exeter NHS Foundation Trust	7.2	7.3
RTE Gloucestershire Hospitals NHS Foundation Trust	3.0	3.5	RBZ Northern Devon Healthcare NHS Trust	7.3	8.7
RJD Mid Staffordshire NHS Foundation Trust	3.1	3.5	RGP James Paget University Hospitals NHS Foundation Trust	7.4	8.2
RNQ Kettering General Hospital NHS Foundation Trust	3.1	3.5	RN3 Great Western Hospitals NHS Foundation Trust	7.5	7.9
RVR Epsom and St Helier University Hospitals NHS Trust	3.1	3.3	RTF Northumbria Healthcare NHS Foundation Trust	7.5	7.8
RRV University College London Hospitals NHS Foundation Trust	3.2	3.9	RM1 Norfolk and Norwich University Hospitals NHS Foundation Trust	7.6	8.7
RRK University Hospitals Birmingham NHS Foundation Trust	3.3	3.1	RM2 University Hospital of South Manchester NHS Foundation Trust	7.7	8.0
RDE Colchester Hospital University NHS Foundation Trust	3.3	3.7	RCF Airedale NHS Foundation Trust	7.8	8.3

Did not receive enough help from staff			Sometimes did not receive enough help from staff, or did not receive enough help from staff		
Hospital trust	U	W	Hospital trust	U	W
RDD Basildon and Thurrock University Hospitals NHS Foundation Trust	3.3	3.5	RWA Hull and East Yorkshire Hospitals NHS Trust	7.8	8.6
RK5 Sherwood Forest Hospitals NHS Foundation Trust	3.4	4.9	RBA Taunton and Somerset NHS Foundation Trust	7.8	8.3
RNZ Salisbury NHS Foundation Trust	3.4	3.5	RXH Brighton and Sussex University Hospitals NHS Trust	7.9	9.2
RCB York Teaching Hospital NHS Foundation Trust	3.4	3.8	RWG West Hertfordshire Hospitals NHS Trust	8.1	8.8
RHQ Sheffield Teaching Hospitals NHS Foundation Trust	3.4	3.5	RBD Dorset County Hospital NHS Foundation Trust	8.1	7.8
RA2 Royal Surrey County Hospital NHS Foundation Trust	3.4	3.5	RA2 Royal Surrey County Hospital NHS Foundation Trust	8.2	8.6
RC1 Bedford Hospital NHS Trust	3.4	3.6	RJR Countess of Chester Hospital NHS Foundation Trust	8.2	7.9
RM2 University Hospital of South Manchester NHS Foundation Trust	3.5	3.6	RDE Colchester Hospital University NHS Foundation Trust	8.2	9.0
RGR West Suffolk NHS Foundation Trust	3.5	3.7	RXC East Sussex Healthcare NHS Trust	8.2	8.0
RHW Royal Berkshire NHS Foundation Trust	3.5	3.7	RNQ Kettering General Hospital NHS Foundation Trust	8.3	9.2
RW6 The Pennine Acute Hospitals NHS Trust	3.5	4	RHQ Sheffield Teaching Hospitals NHS Foundation Trust	8.3	9.3
RXQ Buckinghamshire Healthcare NHS Trust	3.6	4.1	RA4 Yeovil District Hospital NHS Foundation Trust	8.3	8.3
RP5 Doncaster and Bassetlaw Hospitals NHS Foundation Trust	3.6	3.8	RVR Epsom and St Helier University Hospitals NHS Trust	8.3	8.6
RXR East Lancashire Hospitals NHS Trust	3.6	4.4	RNL North Cumbria University Hospitals NHS Trust	8.4	9.1
RBD Dorset County Hospital NHS Foundation Trust	3.7	3.8	RFF Barnsley Hospital NHS Foundation Trust	8.4	9.4

Did not receive enough help from staff			Sometimes did not receive enough help from staff, or did not receive enough help from staff		
Hospital trust	U	W	Hospital trust	U	W
RKB University Hospitals Coventry and Warwickshire NHS Trust	3.7	4.0	RN5 Hampshire Hospitals NHS Foundation Trust	8.5	9.9
RTD The Newcastle-upon-Tyne Hospitals NHS Foundation Trust	3.7	3.3	RNZ Salisbury NHS Foundation Trust	8.5	8.5
RMC Bolton NHS Foundation Trust	3.8	4.1	RWW Warrington and Halton Hospitals NHS Foundation Trust	8.5	9.4
RWG West Hertfordshire Hospitals NHS Trust	3.8	4.3	RQ6 Royal Liverpool and Broadgreen University Hospitals NHS Trust	8.6	8.6
RXC East Sussex Healthcare NHS Trust	3.8	3.3	RVV East Kent Hospitals University NHS Foundation Trust	8.6	9.9
RA4 Yeovil District Hospital NHS Foundation Trust	3.9	3.9	RHW Royal Berkshire NHS Foundation Trust	8.7	9.6
RLQ Wye Valley NHS Trust	3.9	3.8	RVJ North Bristol NHS Trust	8.8	9.5
RBT Mid Cheshire Hospitals NHS Foundation Trust	3.9	4.1	RTG Derby Hospitals NHS Foundation Trust	8.9	9.0
RJL Northern Lincolnshire and Goole Hospitals NHS Foundation Trust	4.0	4.7	RM3 Salford Royal NHS Foundation Trust	9.0	8.1
RJN East Cheshire NHS Trust	4.0	4.1	RJC South Warwickshire NHS Foundation Trust	9.0	8.9
RN5 Hampshire Hospitals NHS Foundation Trust	4.0	4.8	RMC Bolton NHS Foundation Trust	9.0	10.1
RTF Northumbria Healthcare NHS Foundation Trust	4.0	4.2	RXL Blackpool Teaching Hospitals NHS Foundation Trust	9.0	9.3
RJF Burton Hospitals NHS Foundation Trust	4.1	4.3	RBT Mid Cheshire Hospitals NHS Foundation Trust	9.0	9.7
RTR South Tees Hospitals NHS Foundation Trust	4.1	4.4	RR7 Gateshead Health NHS Foundation Trust	9.0	9.6
RFF Barnsley Hospital NHS Foundation Trust	4.1	4.9	RQ8 Mid Essex Hospital Services NHS Trust	9.0	9.9

Did not receive enough help from staff			Sometimes did not receive enough help from staff, or did not receive enough help from staff		
Hospital trust	U	W	Hospital trust	U	W
RTH Oxford University Hospitals NHS Trust	4.1	4.0	RCD Harrogate and District NHS Foundation Trust	9.1	9.1
RGT Cambridge University Hospitals NHS Foundation Trust	4.1	4.1	RRV University College London Hospitals NHS Foundation Trust	9.1	10.1
RHM University Hospital Southampton NHS Foundation Trust	4.1	3.6	RGR West Suffolk NHS Foundation Trust	9.1	9.7
RWA Hull and East Yorkshire Hospitals NHS Trust	4.1	4.0	RW6 The Pennine Acute Hospitals NHS Trust	9.1	10.0
RQ6 Royal Liverpool and Broadgreen University Hospitals NHS Trust	4.1	3.9	RP5 Doncaster and Bassetlaw Hospitals NHS Foundation Trust	9.2	9.1
RXL Blackpool Teaching Hospitals NHS Foundation Trust	4.1	4.8	RHM University Hospital Southampton NHS Foundation Trust	9.2	9.7
RXW Shrewsbury and Telford Hospital NHS Trust	4.2	4.6	R1F Isle of Wight NHS Trust	9.2	10.4
RBZ Northern Devon Healthcare NHS Trust	4.2	5	RR8 Leeds Teaching Hospitals NHS Trust	9.2	11.0
RCF Airedale NHS Foundation Trust	4.2	4.7	RW3 Central Manchester University Hospitals NHS Foundation Trust	9.2	11.0
REF Royal Cornwall Hospitals NHS Trust	4.3	4.5	RJN East Cheshire NHS Trust	9.2	9.5
RX1 Nottingham University Hospitals NHS Trust	4.3	4.6	RWJ Stockport NHS Foundation Trust	9.2	9.5
RCX The Queen Elizabeth Hospital King's Lynn NHS Foundation Trust	4.3	4.3	REM Aintree University Hospitals NHS Foundation Trust	9.3	10.4
RTG Derby Hospitals NHS Foundation Trust	4.3	4.4	RXW Shrewsbury and Telford Hospital NHS Trust	9.3	10.4
RDU Frimley Park Hospital NHS Foundation Trust	4.3	4.8	RBL Wirral University Teaching Hospital NHS Foundation Trust	9.4	10.1
RWP Worcestershire Acute Hospitals NHS Trust	4.4	5.2	RWH East and North Hertfordshire NHS Trust	9.5	10.0

Did not receive enough help from staff			Sometimes did not receive enough help from staff, or did not receive enough help from staff		
Hospital trust	U	W	Hospital trust	U	W
RNS Northampton General Hospital NHS Trust	4.5	4.9	REF Royal Cornwall Hospitals NHS Trust	9.5	10.3
RBL Wirral University Teaching Hospital NHS Foundation Trust	4.5	5.1	RDD Basildon and Thurrock University Hospitals NHS Foundation Trust	9.5	10.1
RVL Barnet and Chase Farm Hospitals NHS Trust	4.5	4.6	RVY Southport and Ormskirk Hospital NHS Trust	9.6	10.4
RWW Warrington and Halton Hospitals NHS Foundation Trust	4.6	5.3	RVL Barnet and Chase Farm Hospitals NHS Trust	9.6	10.0
RQQ Hinchingsbrooke Health Care NHS Trust	4.6	4.8	RJL Northern Lincolnshire and Goole Hospitals NHS Foundation Trust	9.6	11.1
RNL North Cumbria University Hospitals NHS Trust	4.6	5.2	RJF Burton Hospitals NHS Foundation Trust	9.7	10.0
RVY Southport and Ormskirk Hospital NHS Trust	4.7	5.3	RA7 University Hospitals Bristol NHS Foundation Trust	9.7	11.4
RVV East Kent Hospitals University NHS Foundation Trust	4.7	5.1	RYR Western Sussex Hospitals NHS Trust	9.8	9.8
RL4 The Royal Wolverhampton NHS Trust	4.7	5.2	RGT Cambridge University Hospitals NHS Foundation Trust	9.8	9.8
RCD Harrogate and District NHS Foundation Trust	4.7	4.5	RCX The Queen Elizabeth Hospital King's Lynn NHS Foundation Trust	9.8	9.8
RAX Kingston Hospital NHS Trust	4.8	4.6	RAJ Southend University Hospital NHS Foundation Trust	9.9	11.2
RBK Walsall Healthcare NHS Trust	4.8	4.4	RAL Royal Free London NHS Foundation Trust	9.9	9.9
RTP Surrey and Sussex Healthcare NHS Trust	4.8	5.2	RTK Ashford and St Peter's Hospitals NHS Foundation Trust	10.0	10.2
RA7 University Hospitals Bristol NHS Foundation Trust	4.8	5.6	RXQ Buckinghamshire Healthcare NHS Trust	10.1	10.8

Did not receive enough help from staff			Sometimes did not receive enough help from staff, or did not receive enough help from staff		
Hospital trust	U	W	Hospital trust	U	W
RWF Maidstone and Tunbridge Wells NHS Trust	4.9	5.0	RK9 Plymouth Hospitals NHS Trust	10.1	11.2
RGN Peterborough and Stamford Hospitals NHS Foundation Trust	4.9	5.3	RBN St Helens and Knowsley Teaching Hospitals NHS Trust	10.1	11.0
RTK Ashford and St Peter's Hospitals NHS Foundation Trust	5.1	5.1	RWY Calderdale and Huddersfield NHS Foundation Trust	10.1	10.8
RWH East and North Hertfordshire NHS Trust	5.2	5.2	RWF Maidstone and Tunbridge Wells NHS Trust	10.2	11.0
RJ7 St George's Healthcare NHS Trust	5.2	6.4	RCB York Teaching Hospital NHS Foundation Trust	10.2	10.5
RWY Calderdale and Huddersfield NHS Foundation Trust	5.2	5.9	RMP Tameside Hospital NHS Foundation Trust	10.3	11.1
RWJ Stockport NHS Foundation Trust	5.2	5.7	RRK University Hospitals Birmingham NHS Foundation Trust	10.3	11.5
RQ8 Mid Essex Hospital Services NHS Trust	5.2	5.4	RXP County Durham and Darlington NHS Foundation Trust	10.3	11.1
R1F Isle of Wight NHS Trust	5.2	5.8	RLT George Eliot Hospital NHS Trust	10.4	11.6
RJE University Hospital of North Staffordshire NHS Trust	5.3	5.7	RPA Medway NHS Foundation Trust	10.4	11.0
RFS Chesterfield Royal Hospital NHS Foundation Trust	5.3	5.9	RTH Oxford University Hospitals NHS Trust	10.6	11.5
RK9 Plymouth Hospitals NHS Trust	5.4	5.8	RQQ Hinchingsbrooke Health Care NHS Trust	10.6	10.9
RQM Chelsea and Westminster Hospital NHS Foundation Trust	5.5	5.2	RXR East Lancashire Hospitals NHS Trust	10.6	12.2
RXN Lancashire Teaching Hospitals NHS Foundation Trust	5.6	5.3	RFS Chesterfield Royal Hospital NHS Foundation Trust	10.7	11.2
RLT George Eliot Hospital NHS Trust	5.6	6.7	RC1 Bedford Hospital NHS Trust	10.8	11.5
RBN St Helens and Knowsley Teaching Hospitals NHS Trust	5.6	6.2	RXN Lancashire Teaching Hospitals NHS Foundation Trust	10.9	11.1

Did not receive enough help from staff			Sometimes did not receive enough help from staff, or did not receive enough help from staff		
Hospital trust	U	W	Hospital trust	U	W
RR7 Gateshead Health NHS Foundation Trust	5.6	6.0	RGQ Ipswich Hospital NHS Trust	10.9	12.2
RW3 Central Manchester University Hospitals NHS Foundation Trust	5.7	6.1	RD7 Heatherwood and Wexham Park Hospitals NHS Foundation Trust	11.0	10.7
REM Aintree University Hospitals NHS Foundation Trust	5.7	6.5	RAE Bradford Teaching Hospitals NHS Foundation Trust	11.0	11.3
RAL Royal Free London NHS Foundation Trust	5.7	5.8	RHU Portsmouth Hospitals NHS Trust	11.2	11.8
RYR Western Sussex Hospitals NHS Trust	5.7	5.7	RQM Chelsea and Westminster Hospital NHS Foundation Trust	11.3	12.3
RMP Tameside Hospital NHS Foundation Trust	5.8	6.5	RBK Walsall Healthcare NHS Trust	11.3	11.0
RXP County Durham and Darlington NHS Foundation Trust	5.9	6.8	RNS Northampton General Hospital NHS Trust	11.3	12.1
RNA The Dudley Group NHS Foundation Trust	5.9	6.5	RL4 The Royal Wolverhampton NHS Trust	11.4	11.9
RQW The Princess Alexandra Hospital NHS Trust	5.9	5.9	RE9 South Tyneside NHS Foundation Trust	11.6	11.9
RR8 Leeds Teaching Hospitals NHS Trust	6.0	7.0	RTP Surrey and Sussex Healthcare NHS Trust	11.6	12.5
RYQ South London Healthcare NHS Trust	6.0	5.9	RFR The Rotherham NHS Foundation Trust	11.6	13.4
RR1 Heart of England NHS Foundation Trust	6.0	6.0	RJE University Hospital of North Staffordshire NHS Trust	11.6	12.4
RAE Bradford Teaching Hospitals NHS Foundation Trust	6.0	6.4	RKB University Hospitals Coventry and Warwickshire NHS Trust	11.7	12.7
RXX Sandwell and West Birmingham Hospitals NHS Trust	6.1	7.4	RYQ South London Healthcare NHS Trust	11.8	12.3
RD7 Heatherwood and Wexham Park Hospitals NHS Foundation Trust	6.2	6.3	RNA The Dudley Group NHS Foundation Trust	11.8	12.6
RPA Medway NHS Foundation Trust	6.2	6.9	RLN City Hospitals Sunderland NHS Foundation Trust	11.8	12.4

Did not receive enough help from staff			Sometimes did not receive enough help from staff, or did not receive enough help from staff		
Hospital trust	U	W	Hospital trust	U	W
RKE The Whittington Hospital NHS Trust	6.2	6.3	RQW The Princess Alexandra Hospital NHS Trust	11.8	12.7
RFW West Middlesex University Hospital NHS Trust	6.2	6.4	RAX Kingston Hospital NHS Trust	11.9	12.7
RFR The Rotherham NHS Foundation Trust	6.3	7.8	RVW North Tees and Hartlepool NHS Foundation Trust	12.0	13.9
RAJ Southend University Hospital NHS Foundation Trust	6.3	7.5	RKE The Whittington Hospital NHS Trust	12.4	13.5
RC3 Ealing Hospital NHS Trust	6.4	7.1	RAS The Hillingdon Hospitals NHS Foundation Trust	12.6	14.2
RAS The Hillingdon Hospitals NHS Foundation Trust	6.4	6.9	RJ7 St George's Healthcare NHS Trust	13.0	15.0
RHU Portsmouth Hospitals NHS Trust	6.6	6.8	RGN Peterborough and Stamford Hospitals NHS Foundation Trust	13.3	14.6
RGQ Ipswich Hospital NHS Trust	6.6	7	RWD United Lincolnshire Hospitals NHS Trust	13.3	14.8
RWD United Lincolnshire Hospitals NHS Trust	6.6	7.7	RR1 Heart of England NHS Foundation Trust	13.4	14.6
RE9 South Tyneside NHS Foundation Trust	6.7	7.3	RN7 Dartford and Gravesham NHS Trust	13.8	15.1
RF4 Barking, Havering and Redbridge University Hospitals NHS Trust	7.1	7.3	RJ6 Croydon Health Services NHS Trust	13.8	15.4
R1H Barts Health NHS Trust	7.1	7.5	RWE University Hospitals of Leicester NHS Trust	13.9	14.9
RC9 Luton and Dunstable Hospital NHS Foundation Trust	7.3	8.3	RJZ King's College Hospital NHS Foundation Trust	14.2	15.7
RWE University Hospitals of Leicester NHS Trust	7.3	8	RJ2 Lewisham Healthcare NHS Trust	14.5	14.1
RJZ King's College Hospital NHS Foundation Trust	7.4	8.3	RFW West Middlesex University Hospital NHS Trust	15.1	15.3
RLN City Hospitals Sunderland NHS Foundation Trust	7.4	7.6	RC9 Luton and Dunstable Hospital NHS Foundation Trust	15.2	16.7

Did not receive enough help from staff			Sometimes did not receive enough help from staff, or did not receive enough help from staff		
Hospital trust	U	W	Hospital trust	U	W
RD8 Milton Keynes Hospital NHS Foundation Trust	7.7	7.5	R1H Barts Health NHS Trust	15.3	16.0
RJ6 Croydon Health Services NHS Trust	8.0	8.0	RYJ Imperial College Healthcare NHS Trust	15.3	16.6
RJ2 Lewisham Healthcare NHS Trust	8.5	8.1	RC3 Ealing Hospital NHS Trust	15.5	16.0
RVW North Tees and Hartlepool NHS Foundation Trust	8.7	10	RF4 Barking, Havering and Redbridge University Hospitals NHS Trust	15.6	17.1
RN7 Dartford and Gravesham NHS Trust	8.9	9.5	RD8 Milton Keynes Hospital NHS Foundation Trust	15.7	14.7
RAP North Middlesex University Hospital NHS Trust	9.0	9.7	RXX Sandwell and West Birmingham Hospitals NHS Trust	17.8	19.5
RV8 North West London Hospitals NHS Trust	9.0	9.2	RV8 North West London Hospitals NHS Trust	18.0	18.9
RYJ Imperial College Healthcare NHS Trust	9.5	10	RQX Homerton University Hospital NHS Foundation Trust	18.6	19.0
RQX Homerton University Hospital NHS Foundation Trust	11.2	11.3	RAP North Middlesex University Hospital NHS Trust	18.6	20.1
Mean	4.7	5.1	Mean	10.0	10.7
Median	4.4	4.8	Median	9.5	10.1
Minimum	1.3	1.3	Minimum	4.8	4.5
Maximum	11.2	11.3	Maximum	18.6	20.1
Variance	3.0	3.5	Variance	7.5	8.5

Source: author's calculations using the Adult Inpatient Survey, 2012.

Notes:

- (3) The dataset used in these calculations was provided by the Picker Institute and CQC.
- (4) Specialist trusts have been grouped together for the purposes of this analysis which may impact on the mean.

Table 38: Percentage of respondents who report only sometimes receiving enough help with eating from staff, or not receiving enough help with eating from staff, by individual hospital trust, 2012 (restricted sample, U: Unweighted, W: Weighted)

Did not receive enough help from staff			Only sometimes received enough help from staff , or did not receive enough help from staff		
Hospital trust	U	W	Hospital trust	U	W
RD3 Poole Hospital NHS Foundation Trust	5.3	5.6	RD3 Poole Hospital NHS Foundation Trust	20.0	20.1
RJ1 Guy's and St Thomas' NHS Foundation Trust	8.3	7.9	RTD The Newcastle-upon-Tyne Hospitals NHS Foundation Trust	21.4	19.9
RD1 Royal United Hospital Bath NHS Trust	8.4	8.7	SPE Special hospital group	22.6	23.1
RGP James Paget University Hospitals NHS Foundation Trust	8.7	9.6	RXF Mid Yorkshire Hospitals NHS Trust	24.4	25.7
RRF Wrightington, Wigan and Leigh NHS Foundation Trust	9.0	10.6	RRF Wrightington, Wigan and Leigh NHS Foundation Trust	25.0	26.5
SPE Special hospital group	9.5	9.9	RTR South Tees Hospitals NHS Foundation Trust	25.0	28.1
RN3 Great Western Hospitals NHS Foundation Trust	9.8	8.5	RTX University Hospitals of Morecambe Bay NHS Foundation Trust	25.0	31.6
RRK University Hospitals Birmingham NHS Foundation Trust	9.8	9.3	RLQ Wye Valley NHS Trust	25.2	25.0
RM3 Salford Royal NHS Foundation Trust	9.9	8.4	RA9 South Devon Healthcare NHS Foundation Trust	25.7	26.3
RXF Mid Yorkshire Hospitals NHS Trust	10.0	10.5	RNZ Salisbury NHS Foundation Trust	26.2	25.3
RNZ Salisbury NHS Foundation Trust	10.5	10.3	RX1 Nottingham University Hospitals NHS Trust	26.2	28.0
RA9 South Devon Healthcare NHS Foundation Trust	10.6	10.5	RTF Northumbria Healthcare NHS Foundation Trust	28.1	29.1
RH8 Royal Devon and Exeter NHS Foundation Trust	10.7	10.2	RJD Mid Staffordshire NHS Foundation Trust	28.3	30.0
RA3 Weston Area Health NHS Trust	11.0	12.5	RA3 Weston Area Health NHS Trust	28.6	32.8
RTX University Hospitals of Morecambe Bay NHS Foundation Trust	11.3	12.2	RJ1 Guy's and St Thomas' NHS Foundation Trust	28.6	32.0

Did not receive enough help from staff			Only sometimes received enough help from staff , or did not receive enough help from staff		
Hospital trust	U	W	Hospital trust	U	W
RJC South Warwickshire NHS Foundation Trust	11.7	10.4	RCF Airedale NHS Foundation Trust	28.7	29.7
RNQ Kettering General Hospital NHS Foundation Trust	11.7	12.8	RM2 University Hospital of South Manchester NHS Foundation Trust	28.7	30.2
RRV University College London Hospitals NHS Foundation Trust	11.9	14.5	RK5 Sherwood Forest Hospitals NHS Foundation Trust	29.0	31.9
RW6 The Pennine Acute Hospitals NHS Trust	11.9	13.5	RWP Worcestershire Acute Hospitals NHS Trust	29.3	32.5
RJR Countess of Chester Hospital NHS Foundation Trust	12.0	11.2	RW6 The Pennine Acute Hospitals NHS Trust	30.7	34.0
RBA Taunton and Somerset NHS Foundation Trust	12.0	13.6	RNQ Kettering General Hospital NHS Foundation Trust	30.8	33.0
RJD Mid Staffordshire NHS Foundation Trust	12.3	13.1	RHQ Sheffield Teaching Hospitals NHS Foundation Trust	30.9	33.9
RKB University Hospitals Coventry and Warwickshire NHS Trust	12.3	12.2	RRK University Hospitals Birmingham NHS Foundation Trust	31.1	34.3
RXH Brighton and Sussex University Hospitals NHS Trust	12.4	13.3	RH8 Royal Devon and Exeter NHS Foundation Trust	31.3	31.3
RDZ The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust	12.5	13.0	RD1 Royal United Hospital Bath NHS Trust	31.3	31.4
RHQ Sheffield Teaching Hospitals NHS Foundation Trust	12.7	12.8	RBA Taunton and Somerset NHS Foundation Trust	31.5	33.4
RXQ Buckinghamshire Healthcare NHS Trust	12.8	13.8	RQ6 Royal Liverpool and Broadgreen University Hospitals NHS Trust	31.5	30.8
RCB York Teaching Hospital NHS Foundation Trust	12.8	13.8	RR7 Gateshead Health NHS Foundation Trust	31.7	34.0
RM2 University Hospital of South Manchester NHS Foundation Trust	13.0	13.7	RDU Frimley Park Hospital NHS Foundation Trust	31.9	32.7
RDE Colchester Hospital University NHS Foundation Trust	13.1	13.9	RTG Derby Hospitals NHS Foundation Trust	32.0	30.3
RM1 Norfolk and Norwich University Hospitals NHS Foundation Trust	13.2	14.7	RW3 Central Manchester University Hospitals NHS Foundation Trust	32.3	35.3

Did not receive enough help from staff			Only sometimes received enough help from staff , or did not receive enough help from staff		
Hospital trust	U	W	Hospital trust	U	W
RMC Bolton NHS Foundation Trust	13.5	14.5	RMC Bolton NHS Foundation Trust	32.4	35.3
RVJ North Bristol NHS Trust	13.7	13.4	RBZ Northern Devon Healthcare NHS Trust	32.7	35.2
RXR East Lancashire Hospitals NHS Trust	13.7	15.0	RDE Colchester Hospital University NHS Foundation Trust	32.7	34.2
RL4 The Royal Wolverhampton NHS Trust	13.9	15.2	RNL North Cumbria University Hospitals NHS Trust	32.8	34.9
RK5 Sherwood Forest Hospitals NHS Foundation Trust	14.0	18.8	RTE Gloucestershire Hospitals NHS Foundation Trust	33.0	34.4
RJF Burton Hospitals NHS Foundation Trust	14.1	14.2	RGP James Paget University Hospitals NHS Foundation Trust	33.0	35.7
RVR Epsom and St Helier University Hospitals NHS Trust	14.1	14.9	RM3 Salford Royal NHS Foundation Trust	33.3	30.1
RP5 Doncaster and Bassetlaw Hospitals NHS Foundation Trust	14.3	14.4	RL4 The Royal Wolverhampton NHS Trust	33.6	34.5
RTR South Tees Hospitals NHS Foundation Trust	14.3	14.4	RJF Burton Hospitals NHS Foundation Trust	33.6	33.4
RJL Northern Lincolnshire and Goole Hospitals NHS Foundation Trust	14.4	16.7	RRV University College London Hospitals NHS Foundation Trust	33.7	37.6
RC1 Bedford Hospital NHS Trust	14.4	14.8	RJR Countess of Chester Hospital NHS Foundation Trust	33.7	32.8
RDD Basildon and Thurrock University Hospitals NHS Foundation Trust	14.6	14.1	RXH Brighton and Sussex University Hospitals NHS Trust	33.7	36.9
RA2 Royal Surrey County Hospital NHS Foundation Trust	14.7	15.0	RXC East Sussex Healthcare NHS Trust	33.9	32.2
RJ7 St George's Healthcare NHS Trust	14.8	17.1	RM1 Norfolk and Norwich University Hospitals NHS Foundation Trust	34.0	36.1
RTF Northumbria Healthcare NHS Foundation Trust	14.9	15.8	RDZ The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust	34.1	35.9
RGR West Suffolk NHS Foundation Trust	15.2	15.8	RXL Blackpool Teaching Hospitals NHS Foundation Trust	34.6	34.8

Did not receive enough help from staff			Only sometimes received enough help from staff , or did not receive enough help from staff		
Hospital trust	U	W	Hospital trust	U	W
RQ6 Royal Liverpool and Broadgreen University Hospitals NHS Trust	15.2	13.9	RA7 University Hospitals Bristol NHS Foundation Trust	34.7	39.6
RXW Shrewsbury and Telford Hospital NHS Trust	15.6	16.3	RWA Hull and East Yorkshire Hospitals NHS Trust	34.7	35.7
RXC East Sussex Healthcare NHS Trust	15.6	13.3	RXW Shrewsbury and Telford Hospital NHS Trust	34.8	36.9
RTG Derby Hospitals NHS Foundation Trust	15.6	14.8	RJL Northern Lincolnshire and Goole Hospitals NHS Foundation Trust	35.1	38.9
RCF Airedale NHS Foundation Trust	15.7	17.0	RBL Wirral University Teaching Hospital NHS Foundation Trust	35.2	35.1
RXK Sandwell and West Birmingham Hospitals NHS Trust	15.7	17.9	RFF Barnsley Hospital NHS Foundation Trust	35.2	38.8
RBK Walsall Healthcare NHS Trust	15.7	13.9	RA2 Royal Surrey County Hospital NHS Foundation Trust	35.3	36.9
RTH Oxford University Hospitals NHS Trust	15.9	15.0	RWW Warrington and Halton Hospitals NHS Foundation Trust	35.3	38.3
RX1 Nottingham University Hospitals NHS Trust	15.9	16.3	RLT George Eliot Hospital NHS Trust	35.8	38.6
RXL Blackpool Teaching Hospitals NHS Foundation Trust	15.9	17.9	RVV East Kent Hospitals University NHS Foundation Trust	36.1	37.5
RTE Gloucestershire Hospitals NHS Foundation Trust	15.9	17.3	RXQ Buckinghamshire Healthcare NHS Trust	36.1	36.9
RHW Royal Berkshire NHS Foundation Trust	16.0	16.1	RP5 Doncaster and Bassetlaw Hospitals NHS Foundation Trust	36.3	34.7
RBT Mid Cheshire Hospitals NHS Foundation Trust	16.2	16.5	RQM Chelsea and Westminster Hospital NHS Foundation Trust	36.3	38.4
RLQ Wye Valley NHS Trust	16.2	16.2	RXP County Durham and Darlington NHS Foundation Trust	36.4	38.8
RAX Kingston Hospital NHS Trust	16.3	14.8	RMP Tameside Hospital NHS Foundation Trust	36.4	40.4
RGT Cambridge University Hospitals NHS Foundation Trust	16.5	16.4	RTK Ashford and St Peter's Hospitals NHS Foundation Trust	36.4	37.4
RTD The Newcastle-upon-Tyne Hospitals NHS Foundation Trust	16.5	14.9	RN3 Great Western Hospitals NHS Foundation Trust	36.6	36.2

Did not receive enough help from staff			Only sometimes received enough help from staff , or did not receive enough help from staff		
Hospital trust	U	W	Hospital trust	U	W
REF Royal Cornwall Hospitals NHS Trust	16.8	16.6	RN5 Hampshire Hospitals NHS Foundation Trust	36.7	39.4
RJN East Cheshire NHS Trust	16.8	16.9	REM Aintree University Hospitals NHS Foundation Trust	36.9	38.4
RBL Wirral University Teaching Hospital NHS Foundation Trust	17.0	17.9	RA4 Yeovil District Hospital NHS Foundation Trust	36.9	36.4
RFF Barnsley Hospital NHS Foundation Trust	17.0	20.5	RWJ Stockport NHS Foundation Trust	37.0	35.6
RA4 Yeovil District Hospital NHS Foundation Trust	17.1	17.3	RBK Walsall Healthcare NHS Trust	37.0	35.0
RC3 Ealing Hospital NHS Trust	17.3	18.7	RJ7 St George's Healthcare NHS Trust	37.0	40.1
RA7 University Hospitals Bristol NHS Foundation Trust	17.3	19.4	RAL Royal Free London NHS Foundation Trust	37.1	36.6
RN5 Hampshire Hospitals NHS Foundation Trust	17.3	19.2	RBT Mid Cheshire Hospitals NHS Foundation Trust	37.1	38.8
RR1 Heart of England NHS Foundation Trust	17.4	16.1	RFS Chesterfield Royal Hospital NHS Foundation Trust	37.2	38.3
RTP Surrey and Sussex Healthcare NHS Trust	17.5	17.9	RQ8 Mid Essex Hospital Services NHS Trust	37.3	37.3
RQM Chelsea and Westminster Hospital NHS Foundation Trust	17.6	16.3	R1F Isle of Wight NHS Trust	37.3	39.5
RQQ Hinchingsbrooke Health Care NHS Trust	17.6	17.7	REF Royal Cornwall Hospitals NHS Trust	37.4	38.0
RGN Peterborough and Stamford Hospitals NHS Foundation Trust	17.7	18.2	RVR Epsom and St Helier University Hospitals NHS Trust	37.6	38.6
RHM University Hospital Southampton NHS Foundation Trust	17.7	15.0	RBN St Helens and Knowsley Teaching Hospitals NHS Trust	37.8	37.3
RNL North Cumbria University Hospitals NHS Trust	18.0	19.9	RKE The Whittington Hospital NHS Trust	38.2	39.8
RNS Northampton General Hospital NHS Trust	18.2	19.7	RWY Calderdale and Huddersfield NHS Foundation Trust	38.2	40.2
RWP Worcestershire Acute Hospitals NHS Trust	18.2	21.5	RAJ Southend University Hospital NHS Foundation Trust	38.3	39.0

Did not receive enough help from staff			Only sometimes received enough help from staff , or did not receive enough help from staff		
Hospital trust	U	W	Hospital trust	U	W
RWG West Hertfordshire Hospitals NHS Trust	18.3	20.1	RCB York Teaching Hospital NHS Foundation Trust	38.5	38.2
RWA Hull and East Yorkshire Hospitals NHS Trust	18.4	16.7	RFR The Rotherham NHS Foundation Trust	38.5	42.3
RFS Chesterfield Royal Hospital NHS Foundation Trust	18.6	20.3	RKB University Hospitals Coventry and Warwickshire NHS Trust	38.7	39.1
RBD Dorset County Hospital NHS Foundation Trust	18.7	19.4	RR1 Heart of England NHS Foundation Trust	38.8	39.1
RTK Ashford and St Peter's Hospitals NHS Foundation Trust	18.7	18.6	RJN East Cheshire NHS Trust	38.9	39.7
RBZ Northern Devon Healthcare NHS Trust	18.8	20.3	RHU Portsmouth Hospitals NHS Trust	39.0	39.8
RWW Warrington and Halton Hospitals NHS Foundation Trust	18.8	21.7	RWG West Hertfordshire Hospitals NHS Trust	39.0	41.1
RKE The Whittington Hospital NHS Trust	19.1	18.7	RGT Cambridge University Hospitals NHS Foundation Trust	39.2	39.6
RVL Barnet and Chase Farm Hospitals NHS Trust	19.1	19.0	RCD Harrogate and District NHS Foundation Trust	39.3	37.8
RLT George Eliot Hospital NHS Trust	19.3	22.3	RHW Royal Berkshire NHS Foundation Trust	39.4	42.1
RJE University Hospital of North Staffordshire NHS Trust	19.4	19.3	RGR West Suffolk NHS Foundation Trust	39.4	41.4
RVV East Kent Hospitals University NHS Foundation Trust	19.6	19.5	RHM University Hospital Southampton NHS Foundation Trust	39.6	40.2
RWY Calderdale and Huddersfield NHS Foundation Trust	19.6	22.0	RVW North Tees and Hartlepool NHS Foundation Trust	39.6	43.0
RW3 Central Manchester University Hospitals NHS Foundation Trust	19.8	19.5	RXN Lancashire Teaching Hospitals NHS Foundation Trust	39.8	39.9
RR7 Gateshead Health NHS Foundation Trust	19.8	21.2	RWE University Hospitals of Leicester NHS Trust	39.9	41.8
R1H Barts Health NHS Trust	19.8	20.3	RXR East Lancashire Hospitals NHS Trust	40.2	41.9
RCX The Queen Elizabeth Hospital King's Lynn NHS Foundation Trust	20.0	19.9	RVL Barnet and Chase Farm Hospitals NHS Trust	40.4	40.9

Did not receive enough help from staff			Only sometimes received enough help from staff , or did not receive enough help from staff		
Hospital trust	U	W	Hospital trust	U	W
RDU Frimley Park Hospital NHS Foundation Trust	20.2	21.1	RBD Dorset County Hospital NHS Foundation Trust	40.7	39.4
RXN Lancashire Teaching Hospitals NHS Foundation Trust	20.4	19.1	RQQ Hinchingsbrooke Health Care NHS Trust	40.7	40.2
RCD Harrogate and District NHS Foundation Trust	20.6	18.6	RR8 Leeds Teaching Hospitals NHS Trust	40.8	46.0
RMP Tameside Hospital NHS Foundation Trust	20.6	23.9	RAX Kingston Hospital NHS Trust	40.8	41.3
RXP County Durham and Darlington NHS Foundation Trust	20.7	23.9	RTH Oxford University Hospitals NHS Trust	41.1	43.3
RVY Southport and Ormskirk Hospital NHS Trust	20.7	22.7	RVJ North Bristol NHS Trust	41.2	42.6
RFR The Rotherham NHS Foundation Trust	20.8	24.6	RDD Basildon and Thurrock University Hospitals NHS Foundation Trust	41.7	40.9
RWE University Hospitals of Leicester NHS Trust	20.9	22.4	RJC South Warwickshire NHS Foundation Trust	41.7	39.2
RWJ Stockport NHS Foundation Trust	21.0	21.4	RPA Medway NHS Foundation Trust	42.0	42.1
RBN St Helens and Knowsley Teaching Hospitals NHS Trust	21.1	20.9	RTP Surrey and Sussex Healthcare NHS Trust	42.1	43.0
RWF Maidstone and Tunbridge Wells NHS Trust	21.2	20.8	RC3 Ealing Hospital NHS Trust	42.3	42.3
R1F Isle of Wight NHS Trust	21.2	22.3	R1H Barts Health NHS Trust	42.3	43.3
RAL Royal Free London NHS Foundation Trust	21.3	21.5	RK9 Plymouth Hospitals NHS Trust	42.3	43.6
RAP North Middlesex University Hospital NHS Trust	21.5	22.9	RVY Southport and Ormskirk Hospital NHS Trust	42.5	44.5
RQ8 Mid Essex Hospital Services NHS Trust	21.6	20.4	RJE University Hospital of North Staffordshire NHS Trust	42.6	42.2
RFW West Middlesex University Hospital NHS Trust	22.1	22.1	RLN City Hospitals Sunderland NHS Foundation Trust	42.9	41.4

Did not receive enough help from staff			Only sometimes received enough help from staff , or did not receive enough help from staff		
Hospital trust	U	W	Hospital trust	U	W
RNA The Dudley Group NHS Foundation Trust	22.3	24.7	RJZ King's College Hospital NHS Foundation Trust	43.0	45.0
RC9 Luton and Dunstable Hospital NHS Foundation Trust	22.4	24.3	RYJ Imperial College Healthcare NHS Trust	43.3	46.3
RJZ King's College Hospital NHS Foundation Trust	22.4	23.6	RJ6 Croydon Health Services NHS Trust	43.7	45.6
RK9 Plymouth Hospitals NHS Trust	22.5	22.6	RGQ Ipswich Hospital NHS Trust	44.0	46.8
REM Aintree University Hospitals NHS Foundation Trust	22.6	23.9	RWF Maidstone and Tunbridge Wells NHS Trust	44.2	46.0
RV8 North West London Hospitals NHS Trust	22.6	22.7	RWH East and North Hertfordshire NHS Trust	44.3	43.3
RHU Portsmouth Hospitals NHS Trust	22.9	23.0	RAP North Middlesex University Hospital NHS Trust	44.6	47.6
RAS The Hillingdon Hospitals NHS Foundation Trust	23.2	22.6	RNA The Dudley Group NHS Foundation Trust	44.7	47.7
RQW The Princess Alexandra Hospital NHS Trust	23.2	21.6	RV8 North West London Hospitals NHS Trust	45.3	46.7
RYQ South London Healthcare NHS Trust	23.7	22.6	RAS The Hillingdon Hospitals NHS Foundation Trust	45.3	46.2
RWH East and North Hertfordshire NHS Trust	24.3	22.6	RD7 Heatherwood and Wexham Park Hospitals NHS Foundation Trust	45.3	44.0
RAJ Southend University Hospital NHS Foundation Trust	24.5	25.8	RNS Northampton General Hospital NHS Trust	45.5	48.2
RF4 Barking, Havering and Redbridge University Hospitals NHS Trust	24.8	23.6	RC1 Bedford Hospital NHS Trust	45.6	47.7
RPA Medway NHS Foundation Trust	25.0	26.5	RCX The Queen Elizabeth Hospital King's Lynn NHS Foundation Trust	45.6	45.3
RWD United Lincolnshire Hospitals NHS Trust	25.0	27.0	RE9 South Tyneside NHS Foundation Trust	45.8	48.2
RAE Bradford Teaching Hospitals NHS Foundation Trust	25.4	25.0	RXK Sandwell and West Birmingham Hospitals NHS Trust	46.1	47.3

Did not receive enough help from staff			Only sometimes received enough help from staff , or did not receive enough help from staff		
Hospital trust	U	W	Hospital trust	U	W
RJ6 Croydon Health Services NHS Trust	25.4	23.7	RAE Bradford Teaching Hospitals NHS Foundation Trust	46.3	43.8
RD7 Heatherwood and Wexham Park Hospitals NHS Foundation Trust	25.6	25.9	RQW The Princess Alexandra Hospital NHS Trust	46.3	46.4
RR8 Leeds Teaching Hospitals NHS Trust	26.3	29.4	RYQ South London Healthcare NHS Trust	46.5	46.7
RE9 South Tyneside NHS Foundation Trust	26.5	29.7	RC9 Luton and Dunstable Hospital NHS Foundation Trust	46.7	49.1
RGQ Ipswich Hospital NHS Trust	26.6	26.6	RYR Western Sussex Hospitals NHS Trust	46.9	45.1
RYJ Imperial College Healthcare NHS Trust	26.9	27.8	RGN Peterborough and Stamford Hospitals NHS Foundation Trust	47.8	50.4
RLN City Hospitals Sunderland NHS Foundation Trust	27.0	25.6	RQX Homerton University Hospital NHS Foundation Trust	48.1	49.3
RD8 Milton Keynes Hospital NHS Foundation Trust	27.0	25.9	RJ2 Lewisham Healthcare NHS Trust	49.4	46.7
RYR Western Sussex Hospitals NHS Trust	27.6	26.5	RWD United Lincolnshire Hospitals NHS Trust	50.0	51.7
RVW North Tees and Hartlepool NHS Foundation Trust	28.8	30.8	RN7 Dartford and Gravesham NHS Trust	52.9	53.8
RQX Homerton University Hospital NHS Foundation Trust	28.8	29.4	RFW West Middlesex University Hospital NHS Trust	53.5	52.8
RJ2 Lewisham Healthcare NHS Trust	28.9	26.7	RF4 Barking, Havering and Redbridge University Hospitals NHS Trust	54.3	55.4
RN7 Dartford and Gravesham NHS Trust	34.3	33.9	RD8 Milton Keynes Hospital NHS Foundation Trust	55.0	51.0
Mean	17.7	18.2	Mean	37.4	38.5
Median	17.3	17.9	Median	37.1	38.8
Minimum	5.3	5.6	Minimum	20.0	19.9
Maximum	34.3	33.9	Maximum	55.0	55.4

Did not receive enough help from staff			Only sometimes received enough help from staff , or did not receive enough help from staff		
Hospital trust	U	W	Hospital trust	U	W
Variance	27.3	28.7	Variance	46.5	44.6

Source: author's calculations using the Adult Inpatient Survey, 2012.

Notes:

- (1) The dataset used in these calculations was provided by the Picker Institute and CQC.
- (2) Specialist trusts have been grouped together for the purposes of this analysis which may impact on the mean.

APPENDIX D: FURTHER DETAILS OF VARIABLES AND METHODS USED IN THE ANALYSIS

Details of disability variable used in the analysis

The 2012 Adult Inpatient survey questionnaire asks individuals:

Q.74. Do you have any of the following longstanding conditions? (Cross ALL boxes that apply): Options: 1.Deafness or severe hearing impairment ; 2.Blindness or partially sighted; 3.A long-standing physical condition; 4. A learning disability ; 5.A mental health condition; 6.A long-standing illness, such as cancer, HIV, diabetes, chronic heart disease, or epilepsy ; 7.No, I do not have a long-standing condition.

Q75. Does this condition(s) cause you difficulty with any of the following: 1. Everyday activities that people your age can usually do; 2. At work, in education, or training; 3. Access to buildings, streets, or vehicles; 4. Reading or writing; 5. People’s attitudes to you because of your condition; 6. Communicating, mixing with others, or socialising; 7 Any other activity; 8. No difficulty with any of these.

A disability variable was not included with the 2012 dataset deposited at the UK data archive. Picker Institute provided us a dataset including a derived disability variable (Tabq74_5_recode) based on responses to Q74 and Q75.

Table 39: Derived disability variable

	Freq.	Percent	Cum.
	6,196	9.6	9.6
0	23,751	36.8	46.4
1	23,493	36.4	82.9
2	9,441	14.6	97.5
999	1,624	2.5	100.0
Total	64,505	100.00	

Codes

0 = I do not have a long standing condition

1 = I have a long standing condition which causes me difficulty

2= I have a long standing condition which does not cause me difficulty

999 = I have a long standing condition but have not stated whether this causes me difficulty or not

*Blank = I did not answer Q74 (I did not say whether I had a long term condition or not)

This variable was subsequently collapsed into a binary variable which is intended to capture the concept of limiting longstanding illness or disability (LLID).

Table 40: Derived binary disability variable (Disab_1)

I do not have a long standing condition which causes me difficulties	33,192	51.46	51.46
I have a long standing condition which causes me difficulties	23,493	36.42	87.88
Missing	7,820	12.12	100.00
Total	64,505	100.00	

Impact of grouping specialist trusts

The grouping of specialist trusts has no impact on the mean when calculated as a raw national percentage. However, it has a small impact on the mean when this is calculated first at the level of the trust and then as the average trust rate.

Table 41: Sensitivity testing of prevalence of not receiving help (restricted sample, 2012)

Version of 2012 dataset provided by Picker Institute with specialist trusts grouped		Archived version of 2012 dataset (no grouping of specialist trusts)	
Raw percentage, specialist trusts grouped	Mean of means, specialist trusts grouped	Raw percentage, specialist trusts not grouped	Mean of means,, specialist trusts not grouped
16.6%	17.7%	16.8%	17.0%

The final column is the figure reported by CQC in its national findings.

CQC analysis of change 2011-12, 2012-13 and 2013-2014

Table 42: CQC analysis of changes in proportions reporting being treated with dignity and respect between 2011 and 2012

Q67 Overall, did you feel you were treated with respect and dignity while you were in hospital?

	2011	2012	Significant change between 2011 and 2012
Yes, always	79%	80%	↑
Yes, sometimes	18%	17%	↓
No	3%	3%	
Number of respondents	68824	63336	

Answered by all

Source: CQC (2013q)

Table 43: CQC analysis of changes in proportions reporting having being helped with eating between 2011 and 2012

Q23 Did you get enough help from staff to eat your meals?

	2011	2012	Significant change between 2011 and 2012
Yes, always	62%	64%	↑
Yes, sometimes	19%	19%	
No	19%	17%	↓
Number of respondents	19663	16454	

Answered by all

Note: respondents who stated that they did not need help to eat meals have been excluded

Source: CQC (2013q)

Table 44: CQC analysis of changes in proportions reporting being treated with dignity and respect between 2012 and 2013

Q67 Overall, did you feel you were treated with respect and dignity while you were in hospital?

	2012	2013	Significant change between 2012 and 2013
Yes, always	80%	81%	↑
Yes, sometimes	17%	16%	↓
No	3%	3%	
Number of respondents	63336	61043	

Answered by all

Source: CQC 2014

Table 45: CQC analysis of changes in proportions reporting being helped with eating between 2012 and 2013

Q23 Did you get enough help from staff to eat your meals?

	2012	2013	Significant change between 2012 and 2013
Yes, always	64%	64%	
Yes, sometimes	19%	19%	
No	17%	17%	
Number of respondents	16454	16556	

Answered by all

Note: respondents who stated that they did not need help to eat meals have been excluded

Source: CQC 2014

Table 46: CQC analysis of changes in proportions reporting being helped with dignity and respect between 2013 and 2014

Q66. Overall, did you feel you were treated with respect and dignity while you were in the hospital?

	2013	2014	Significant change between 2013 and 2014
Yes, always	81%	81%	↑
Yes, sometimes	16%	16%	↓
No	3%	3%	
Number of respondents	61,043	58,195	

Answered by all.

Note: Results presented in the tables have been rounded up or down to a whole number. If the results were presented to a number of decimal places, a small observable difference would be shown.

Source: CQC 2015

Table 47: CQC analysis of changes in proportions reporting being helped with eating between 2013 and 2014

Q23 Did you get enough help from staff to eat your meals?

	2013	2014	Significant change between 2013 and 2014
Yes, always	64%	63%	
Yes, sometimes	19%	19%	
No	17%	17%	
Number of respondents	16,556	16,595	

Answered by all

Note: respondents who stated that they did not need help to eat meals have been excluded

Source: CQC 2015

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