



National Patient Experience Survey 2017

University Hospital Waterford

We're committed to excellence in healthcare



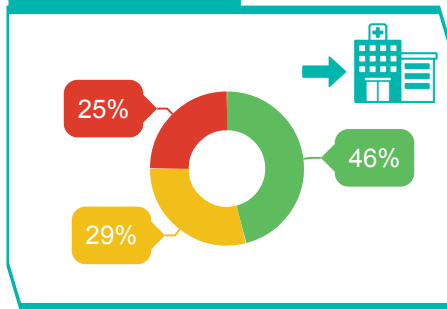
Thank you to the people who participated in the National Patient Experience Survey 2017, and to their families and carers. Without your overwhelming support and participation the survey would not have been possible. The survey ensures that your voice will be heard by the people who can change and improve healthcare in Ireland. By putting the voice of the patient at the centre of acute healthcare, we can make sure that the needs and wishes of the people who matter most are met. The survey will be repeated annually in the future, which will allow us to explore how the patient voice has helped shape changes in acute healthcare.

Thank you to the staff of all participating hospitals for contributing to the success of the survey, and in particular for engaging with and informing patients while the survey was ongoing.

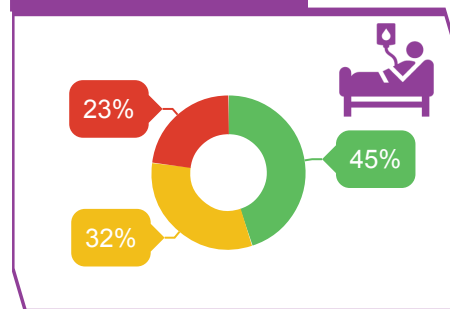
The survey was overseen by a national steering group, a delivery group and an advisory group. We acknowledge the direction and guidance provided by the members of these groups.

Stages of care

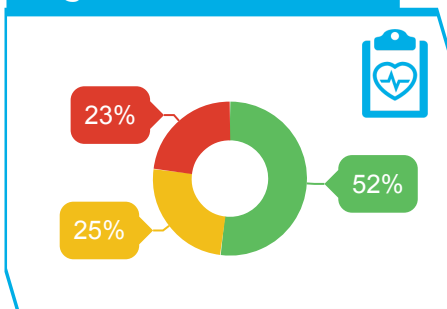
Admission



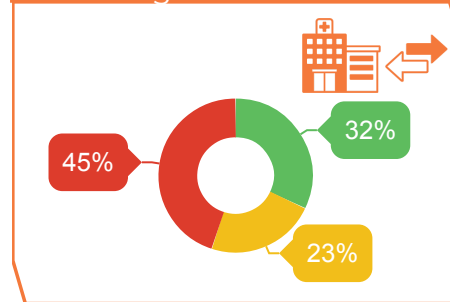
Care on the ward



Examinations, diagnosis & treatment



Discharge or transfer



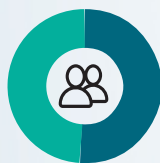
* Please note that values in figures do not always add up to 100% exactly. This is due to rounding.



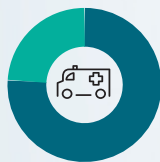
University Hospital Waterford



50% of 960 eligible patients took part



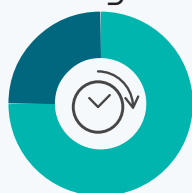
51% female
49% male



76% entered hospital on an emergency basis

Average age:
62 years

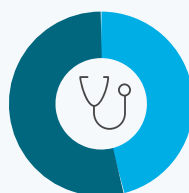
Waiting time



75%

waited more than six hours before being admitted to a ward.

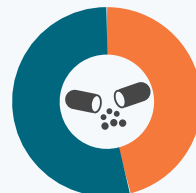
Treatment



46%

did not have sufficient time to discuss their care and treatment with a doctor.

Medication

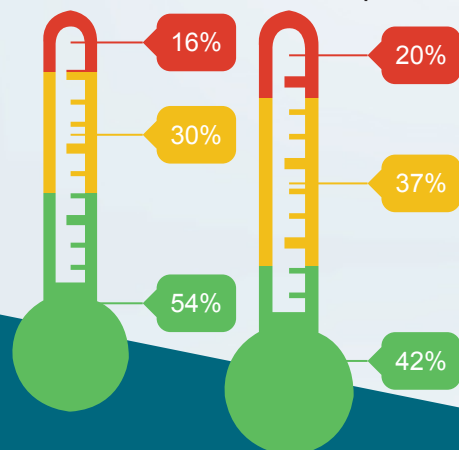


46%

were not fully informed about medication side effects to watch for.

Overall experience

Nationally This hospital



Areas needing improvement

55% of people said

that they could not always find someone on the hospital staff to talk to about their worries and fears.

50% of people said

that they did not always receive enough information from the hospital on how to manage their condition after discharge.

Structure and content of this report

Chapter 1: Patients' experiences of acute hospital care in University Hospital Waterford

4

This chapter presents the areas of good experience and the areas needing improvement in University Hospital Waterford.

| | |
|--|---|
| About the National Patient Experience Survey 2017 | 4 |
| University Hospital Waterford profile | 5 |
| Purpose of the Report | 5 |
| Who took part in the survey? | 6 |
| What were the main findings? | 7 |
| Areas of good experience and areas needing improvement | 8 |

Chapter 2: The patient journey through hospital

10

This chapter presents the findings of the 2017 survey.

| | |
|---|----|
| The stages of care along the patient journey | 10 |
| How to interpret the results for the stages of care | 11 |
| Admissions | 14 |
| Care on the ward | 19 |
| Examinations, diagnosis and treatment | 24 |
| Discharge or transfer | 28 |
| Other aspects of care | 32 |

Chapter 3: Overall experience

36

This chapter analyses patients' overall experiences in University Hospital Waterford.

Chapter 4: Conclusion

37

This chapter summarises the findings of the 2017 survey.

Appendices

39

| |
|--|
| Appendix 1: National Patient Experience Survey 2017 questions |
| Appendix 2: Background to the National Patient Experience Survey Programme |
| Appendix 3: Identifying areas of good experience and areas needing improvement |
| Appendix 4: A technical note on analyses and interpretation |

Glossary

49

References

50



Chapter 1

Patients' experiences of acute hospital care in University Hospital Waterford

Areas of good experience and areas needing improvement

About the National Patient Experience Survey 2017

The National Patient Experience Survey is a new national survey, asking people for feedback on their recent stay in a public acute hospital. This survey will run on an annual basis and is a partnership between the Health Information and Quality Authority (HIQA), the Health Service Executive (HSE) and the Department of Health. The survey was developed with the involvement of Patient Focus, a patient advocacy organisation, in order to ensure that patients were central to the design and execution of the survey.

Nationally, 26,635 people were invited to participate in the first National Patient Experience Survey in 2017. In total, 13,706 people took part. The results outlined in this report reflect the experiences of patients who were discharged from University Hospital Waterford during the month of May 2017. In total, 482 participants from University Hospital Waterford took part in the survey.

The survey asked 61 questions, based on five stages of care along the patient journey in hospital: admissions; care on the ward; examinations, diagnosis and treatment; discharge or transfer; and other aspects of care. Three of the questions asked respondents for written comments about what was good about the care they received and what could be improved. The list of questions from the National Patient Experience Survey can be found in Appendix 1. It is important to note that patients did not always answer every question so there is variation in the number of responses to each question.

This survey is part of the National Patient Experience Survey Programme, which aims to help improve the quality and safety of healthcare services provided to people in Ireland. A more detailed background to the survey programme can be found in Appendix 2.

The National Patient Experience Survey values and seeks to represent the patient voice. The survey acknowledges both positive and negative experiences, as told by the 482 patients from University Hospital Waterford who completed the survey. While many people said that they had a very good experience of acute hospital care, it is important also to listen to those people who identified areas for improvement. These voices and experiences will play a key role in shaping the future of patient-centred care in Ireland.

Hospital profile

University Hospital Waterford is a public acute hospital, located in Co. Waterford. There were 437 inpatient beds available in the hospital in May 2017. 960 eligible discharges were recorded during the survey period of 1 – 31 May 2017 inclusive. University Hospital Waterford has an emergency department. Patients at this hospital were asked to answer questions across each stage of care.

Purpose of this report

The purpose of this report is to present the key findings of the National Patient Experience Survey, based on the experiences of patients who stayed in University Hospital Waterford in May 2017. The report highlights areas where patients had positive experiences and outlines where there is significant room for improvement.

The Health Service Executive (HSE) is committed to using the findings of the survey to make improvements to the quality of care provided to patients and to outline a direction for the future of patient-centred care in University Hospital Waterford. A quality improvement plan will be developed for University Hospital Waterford in response to the survey results and will be publicly available from www.patientexperience.ie in December 2017.

The Department of Health will use the information gathered to inform the development of policy in relation to acute healthcare. Finally, the findings of the survey will be used to develop HIQA's approach to monitoring of hospitals.



Who took part in the survey?

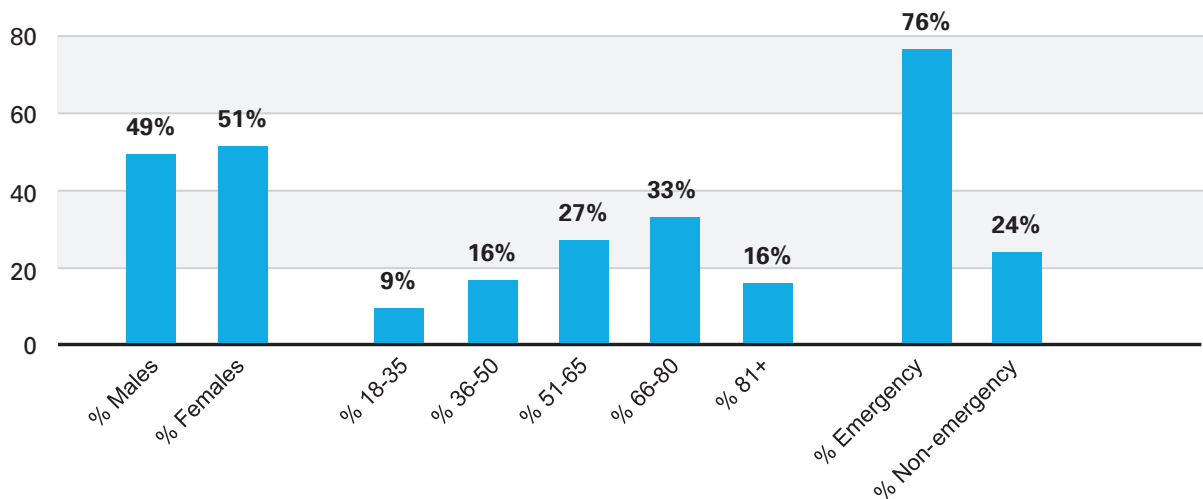
Description of the respondents who took part in the survey

960 people discharged from University Hospital Waterford during the month of May 2017 were invited to participate in the survey.

482 people completed the survey, achieving an overall response rate of 50%.

49% of people who responded to the survey in University Hospital Waterford were male and 51% were female. The majority of respondents (76%) entered the hospital through the emergency department. Figure 1. below shows information about the people who took part in the survey from University Hospital Waterford.

Figure 1. Survey participants from University Hospital Waterford by sex, age group and admission route



What were the main findings for University Hospital Waterford?



Overall, patients' ratings of their experiences at University Hospital Waterford were slightly below the national average. 79% of patients at University Hospital Waterford said they had a 'very good' or 'good' experience, compared with 84% nationally.

While University Hospital Waterford scored below the national average for each question, patients did report some positive experiences. The survey found that patients in University Hospital Waterford generally had good experiences of privacy once they reached a ward and the level of dignity and respect shown to them. People also reported positive experiences of pain management and the standard of cleanliness and hygiene on the wards. Most patients said that they had confidence and trust in the hospital staff treating them.

The survey found that 75% of people reported waiting more than six hours to be admitted to a ward, indicating that waiting times in the emergency department requires improvement in University Hospital Waterford. 13 of these people reported waiting in the emergency department for more than 48 hours in May 2017.

The findings also indicate a lack of privacy in the emergency department while patients were being examined or treated.

Questions around discharge and aftercare management received some of the lowest scores in the survey. In particular, people felt that they were not informed about the side effects of medication, or the danger signals to watch out for at home. People also reported a lack of printed information about what they should or should not do after leaving hospital. These results indicate that communication during the discharge process needs improvement in University Hospital Waterford.

During their time on the ward, people reported negative experiences with the type of food provided in the hospital, as well as difficulties in communicating with staff about their worries and fears. Patients were also dissatisfied with the amount of information they received about their condition or treatment.

These findings will serve to inform quality improvement initiatives in University Hospital Waterford, defining the future of patient-centred care in the hospital.

Areas needing improvement in University Hospital Waterford

This section details those areas where there is the most room for improvement.

Appendix 3 explains how these areas were identified.

The areas of good experience in University Hospital Waterford are:

In University Hospital Waterford, the scores for all questions across all five stages of care fell below the national average. This means that it was not possible to identify any areas of particularly good experience using the methodology outlined in Appendix 3.

The areas needing improvement in University Hospital Waterford are:

Patients highlighted areas needing improvement across each stage of care. Communication with patients appears to be problematic across the board, indicating a need for improvement in this particular area.

Admissions | Q3.

Clear answers from doctors in the emergency department

125 people (43%) said that they did not or only sometimes got answers that they could understand to important questions in the emergency department.

Admissions | Q4.

Clear explanation of a condition or treatment in the emergency department

Of the 322 people who answered this question, 153 (48%) said that a doctor or nurse did not explain, or only to some extent explained their condition in a way that they could understand.

Examinations, diagnosis and treatment| Q21.**Time to discuss care and treatment with a doctor**

211 people (46%) reported that they did not have, or only to some extent had sufficient time to discuss their care and treatment with a doctor.

Examinations, diagnosis and treatment| Q25.**Information about a condition or treatment**

122 people (26%) reported that they did not get the right amount of information about their condition or treatment.

Care on the ward| Q28.**Someone to talk to about worries and fears**

Out of 303 people, 168 (55%) said that they could not or could only to some extent find someone on the hospital staff to talk to about their worries and fears.

Discharge or transfer | Q51.**Sufficient notice of discharge**

209 people (50%) said that they did not receive or only to some extent received enough information from the hospital on how to manage their condition after discharge.



Chapter 2

The patient journey through hospital

Qualitative and quantitative findings of the 2017 survey

Findings of the 2017 survey

The stages of care along the patient journey

The National Patient Experience Survey 2017 follows the patient journey through hospital, from admission to discharge.

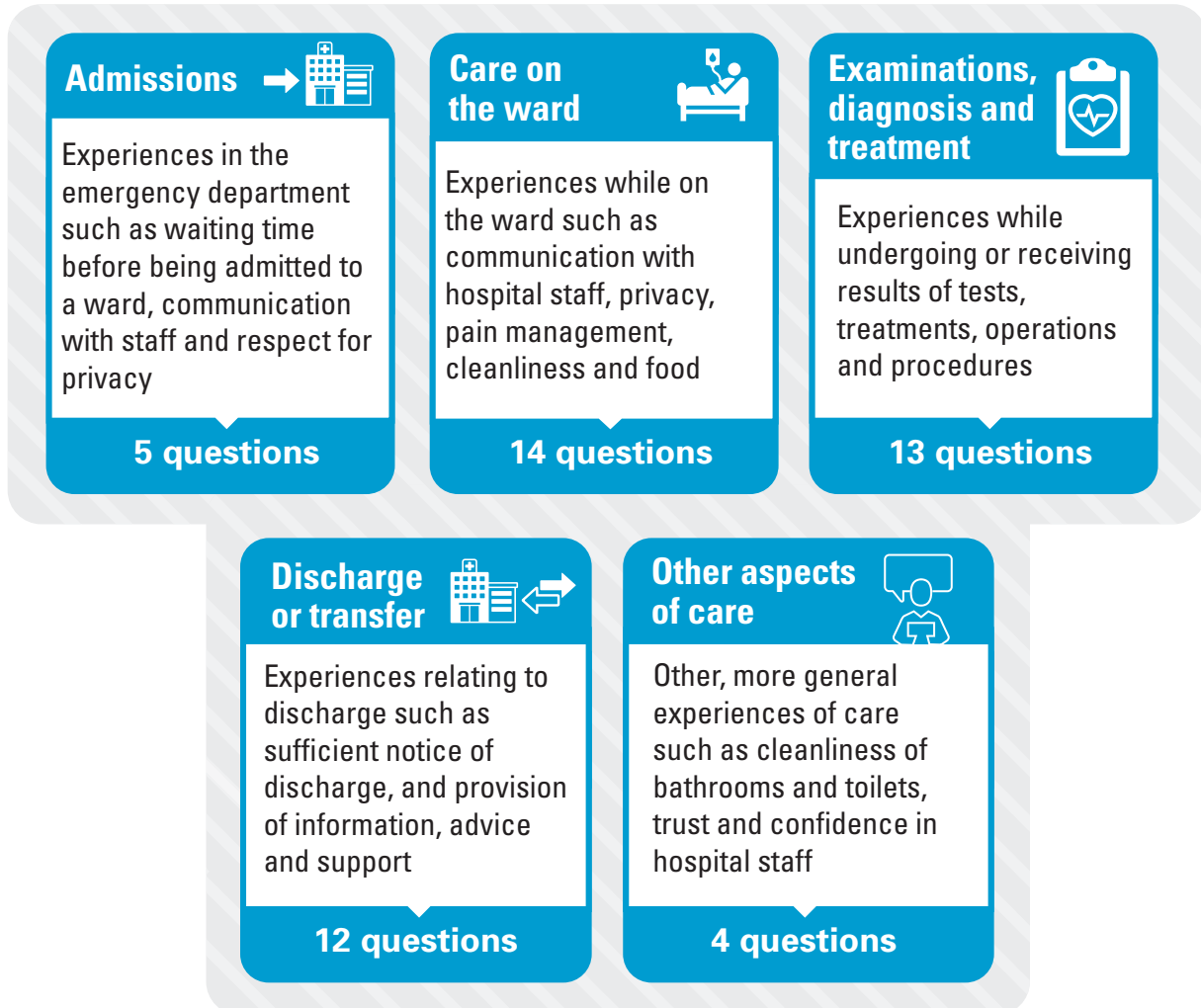
The survey questions were grouped into five stages along the patient journey:

- **admissions**
- **care on the ward**
- **examinations, diagnosis and treatment**
- **discharge or transfer**
- **other aspects of care.**

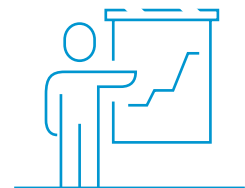
“Everything about my stay was very good. The staff were all brilliant, courteous and kind. Thanking you all very much.”

Figure 2. provides a brief description of the stages along the patient journey. It also indicates how many questions in the survey relate to each stage.

Figure 2. Description of stages of care along the patient journey



How to interpret the results for the stages of care



While the results show that many people had a positive experience in hospital, it is important to listen to those patients who had negative experiences. Listening to the voices of all patients allows hospitals to make improvements across the patient journey. For each stage of care, the results are presented in the following way, as shown in Figure 3.:

1. **Experience rating for a stage of care.**
2. **Scores out of 10.**
3. **Comparisons.**

Figure 3. Guide to interpreting the results

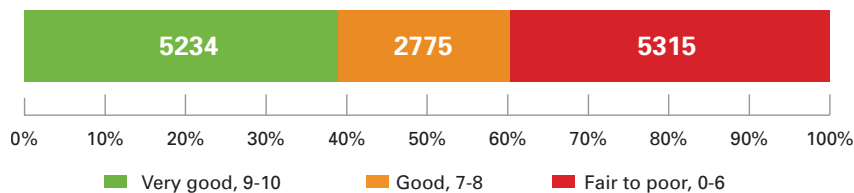
1 Experience rating for a stage of care

The experience rating summarises the average patient experience for each stage of care. The graphs show how many people rated a particular stage as 'very good', 'good' or 'fair to poor'.

Example:

The example below shows how many people rated the care they received on the ward as 'very good', 'good' and 'fair to poor'.

Figure 2.22 | Discharge or transfer ratings



2. Scores out of 10

Scores out of 10 are given for each question belonging to a stage of care or a stage as whole. A score of 0 indicates a very negative experience and a score of 10 indicates a very positive experience.

Sometimes questions are described as high or low ranking questions. These are questions with the highest or lowest score when compared to a set of questions.

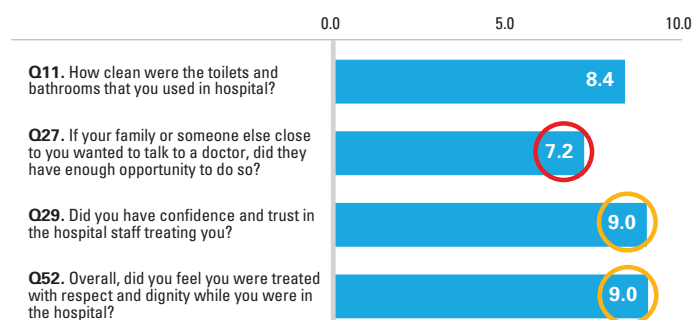
Example:

The example below shows the scores for four questions. Q52 and Q29 had the highest scores (9 out of 10). A score of 9 means that on average, people gave positive responses to these questions.

Q27 is the lowest ranking question (score of 7.2 out of 10). This result shows that Q27 received more mixed or negative responses than Q52 and Q29.

Appendix 4 includes additional notes on interpreting these survey results. It also explains the methodology for the scoring of individual questions and stages of care.

Figure 2.28 | National score for other aspects of care

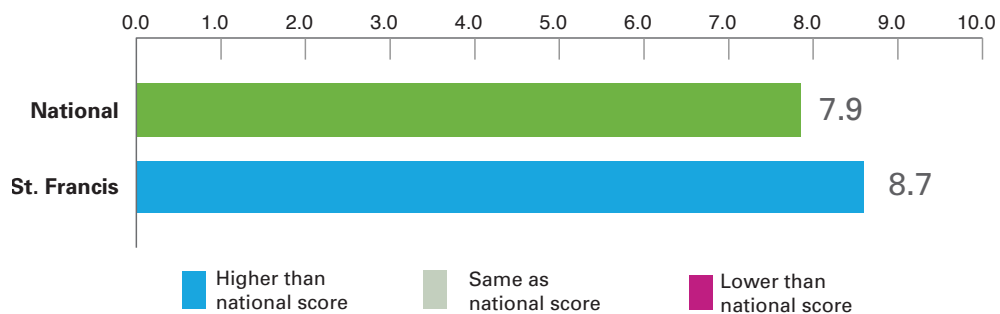


3 Comparisons

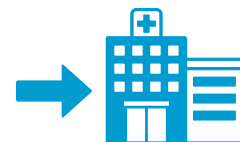
When hospital scores are compared with the national average, statistical tests were carried out to check if any differences were genuine or simply down to chance. The way hospital scores are calculated is explained in Appendix 4.

Example:

The example below compares the scores for the fictional St. Francis Hospital and the national score for the 'admissions' stage of care. The shading on the graph shows whether a difference exists between the two scores and whether this difference is statistically significant. The shading for the hospital score tells us that it is significantly higher than the national score.



Admissions



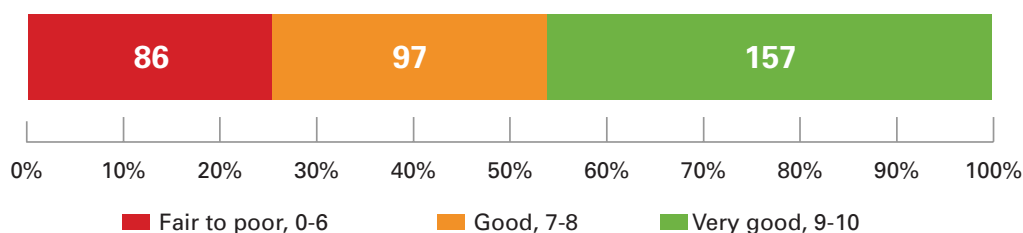
In summary: what were patients’ experiences of the admissions process?

‘Admissions’ refers to the period that patients spent in the emergency department up to the point of getting to a ward.

Of the 340 people who rated their experience of the admissions process in University Hospital Waterford, 86 people (25%) reported a ‘fair to poor’ experience. 157 people (46%), who attended during the same period rated their experience as ‘very good’.

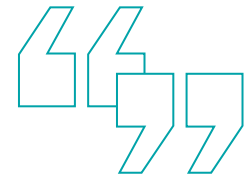
Figure 4. below summarises these experience ratings.

Figure 4. Experience ratings for admissions



What were the key findings for admissions?

- 231 people (75%) reported waiting more than six hours in the emergency department before being admitted to a ward. Of these, 13 people said that they waited more than 48 hours.
- 269 people (79%) said that they were always treated with respect and dignity during their time in the emergency department.
- People made 163 comments relating to the admissions stage of care. 94 comments (58%) offered suggestions for improvement.



The patient voice: what patients said about admissions

163 comments were made on the following themes: 'dignity, respect and privacy', 'communication with the patient', 'emergency department management and environment' and 'emergency department waiting times'. The majority of comments (58%) contained suggestions for improvement. Some examples of the comments received for this stage of care are provided below.

Dignity, respect and privacy

"I was admitted for a [Procedure Name]. From the moment I arrived I was treated in an extremely sensitive manner. I was extremely emotional throughout my examination and after the surgery, and the staff could not have been more helpful and understanding to me and my partner. I had 3 different doctors and a number of nurses come to talk about my situation."

"It would be good if after surgery I was placed in a women's ward. I felt humiliated by being placed in an old men's ward and the nurses were not very empathetic! My experience was traumatic enough!"

Communication with the patient

"The medical staff were excellent. They took time to explain the procedure and result. Overall the care was dignified, supportive, & confident."

"Information. The lack of information about my treatment and medication was ridiculously bad. One doctor gave me no information as to why meds were changed and her attitude was not good and I had no confidence in her ability to treat me correctly."

Emergency department management and environment

"A&E was excellent. I have [Condition Name] and had a [Procedure Name] within an hour of arrival."

"The ED area where emergency cubicles are was over-run with people and paramedics. The coming and going was extraordinary. All the surfaces on the walls show obvious sign of wear although the building is fairly new. All desks and seats were chipped and the Formica was peeling off simply from over use and too many people. More robust ED surfaces are necessary."

Emergency department waiting times

"When I went to A and E I was almost seen to when I entered the hospital. The nurses were very helpful."

"The waiting line in ED; I got a bed at 5am but I was sitting in the waiting room beside the ward from 10pm. I was not sure if they had forgot about me."

Quantitative results for questions on admissions

Five questions asked about admissions. Only people who were admitted through the emergency department were asked to answer these questions.

Q6, which asked about respect and dignity in the emergency department, was the highest scoring question for this stage of care. 269 people (79% of those who answered this question) said that they were always treated with respect and dignity in the emergency department in University Hospital Waterford.

“The hours spent on a trolley in the emergency department were not pleasant.”

231 people (75%) reported waiting more than six hours in the emergency department before being admitted to a ward. Of these, 13 people said that they waited more than 48 hours, making Q8 the lowest scoring question on this stage of care. Further detail on waiting times is provided later in this section.

Figure 5. presents the scores for University Hospital Waterford for questions related to admissions.

Figure 5. University Hospital Waterford scores for questions on admissions

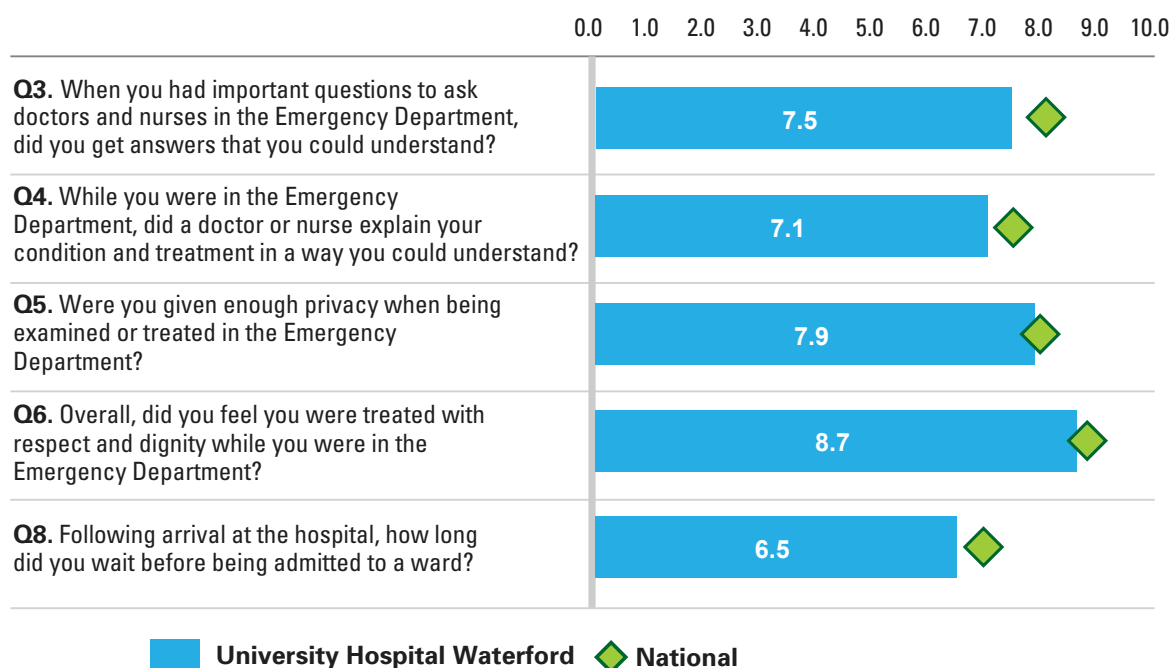
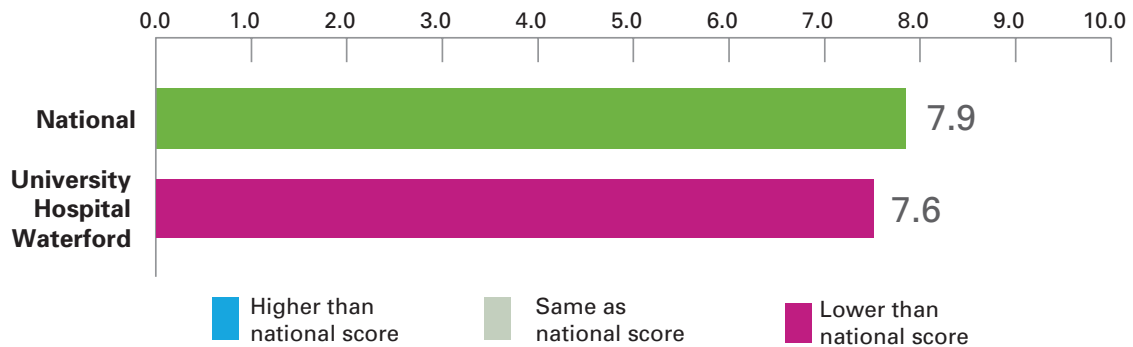


Figure 6. shows that, within the admissions stage, the average score for University Hospital Waterford (7.6 out of 10) is significantly lower than the national average score (7.9 out of 10). This means that patients who attended University Hospital Waterford had a less positive experience during the admissions process than the national average.

Figure 6. Comparison of University Hospital Waterford with the national average experience score for admissions (out of a maximum of 10).



Emergency department waiting times

The HSE sets targets for the performance of acute hospitals, including targets that are relevant to waiting times in emergency departments, such as:

'75% of people attending the emergency department are discharged or admitted to a ward within six hours of registration and none should wait for longer than nine hours.'

A separate target has been set for patients aged 75 years or older who are attending an emergency department:

'95% of people attending the emergency department aged 75 years or older are discharged or admitted to a ward within six hours of registration and none should wait for longer than nine hours.'

The HSE measures emergency department waiting times differently to the survey, namely from the time a patient registers at the emergency department until they leave it. It is likely that there are some differences between survey findings and the official HSE figures¹.

Waiting time before being admitted to a ward

Out of 309 patients from University Hospital Waterford who answered the question on waiting times, 78 (25%) said they were admitted to a ward within six hours of arriving at the emergency department. 182 people (59%) reported waiting between six and 24 hours. 49 people (16%) said that they waited 24 hours or more before being admitted to a ward, with a total of 13 respondents reporting that they waited

¹ The HSE 2017 targets can be viewed at: <https://www.hse.ie/eng/services/publications/KPIs/Acute-Hospitals-KPI-Metadata-2017.pdf>

more than 48 hours.

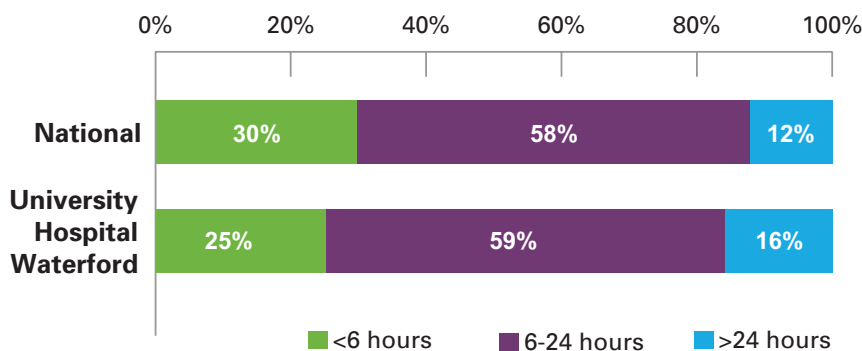
Figure 7. outlines the waiting times in University Hospital Waterford, compared with the national average.

What does this mean for University Hospital Waterford?

With just 25% of people reporting that they were admitted to a ward within six hours of arriving at the emergency department, the findings indicate that University Hospital Waterford performed below the national average, where 30% of people said that they were admitted within six hours of arriving.

Patient-reported waiting times in University Hospital Waterford also fell well short of the HSE target for waiting times. Studies have found that long waiting times in the emergency department after a decision has been made to admit a patient can have negative consequences for a patient's health ^(1,2).

Figure 7. Waiting times from emergency department to admission to a ward for University Hospital Waterford and nationally



Admissions: what do these results mean?

While most patients who attended University Hospital Waterford said that they were treated with respect and dignity in the emergency department, their experiences of waiting times were less favourable. University Hospital Waterford performed lower than the national average for emergency department waiting times and also fell well short of the target set by the HSE; just 25% of people reported being admitted to a ward within 6 hours of arriving in the emergency department, while 13 people reported waiting 48 hours or more.

Care on the ward

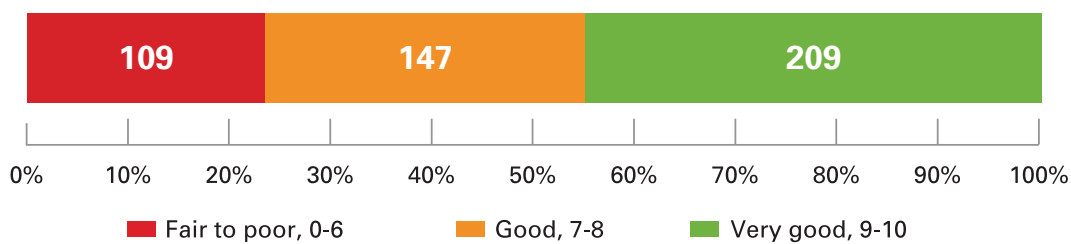


In summary: what were patients' experiences of care on the ward?

'Care on the ward' refers to peoples' experience while on the ward, such as communication with hospital staff, privacy, pain management, cleanliness and food.

Out of the 465 people who rated their experience of care on the ward, 109 people (23%) reported having a 'fair to poor' experiences during their stay on a ward in University Hospital Waterford in May 2017. On the other hand, 209 people (45%) reported having a very good experience during the same period. These experience ratings are summarised in Figure 8. below.

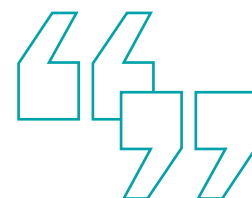
Figure 8. Experience ratings for care on the ward



What were the key findings for care on the ward?

- Out of 391 people, 295 (75%) said that hospital staff did everything they could to help control pain.
- In general, people reported negatively on the hospital food. 128 people (29%) rated the food as 'fair', and 60 people (14%) rated it as 'poor'.
- 41% of comments offered suggestions for improvement during care on the ward in University Hospital Waterford.

"The food was standard. No option was given unless asked for. The menu that is placed on the tray did not offer an option"



The patient voice: what patients said about care on the ward

A total of 222 comments were made by patients of University Hospital Waterford relating to: ‘staffing levels’, ‘staff availability and responsiveness’ ‘other healthcare staff’, ‘other staff’, ‘food and drink’ and ‘cleanliness and hygiene’. 41% of comments were received for Q60, which asked respondents for suggestions for improvement. Some examples are provided below.

Staffing levels

“The staff were brilliant. They are working under very difficult conditions.”

“A lot can be improved to ease the burden of care on the overworked staff — both doctors and nurses in A&E. The problem is too many patients and not enough staff to give everyone the care they need.”

Staff availability and responsiveness

“All round treated quickly. I was admitted for observation and to see if the treatment worked. No fobbing off. The staff were excellent and very attentive during my mum’s stay. All in all Waterford is a fantastic hospital... she was treated and looked after very well and they sorted out the issue.”

“1. More nurses aids to free up nurses’ time. 2. More help when feeding & washing older people. 3. No mixed wards for older men & women. 4. More input from doctors. 5 When old patients need to go to the bathroom they should not be told to wait or have to ask 2-3 time or more before someone helps them.”

Other healthcare staff

“I must say ambulance staff and care assistance and nurses and domestic staff are excellent.”

“The cleaning at weekends was non-existent. By the time it got to Monday morning the bathroom was filthy and the staff that operated Monday to Friday had to deal with the mess. I spent 3 weekends at the hospital in May and the cleaning team at weekends were very bad each time. Cleaning from Monday to Friday was always very good.”

Food and drink

“The food was very acceptable and staff (kitchen) really wanted you to enjoy your food. [Ward Type] very clean.”

“The food was appalling. It was barely warm and dried up. It was not suitable for [Condition Name] and the portions were too small. I was offered a white sandwich for tea not enough when taking [Medication].”

Cleanliness and hygiene

“I can’t fault the hospital — it was very clean and bright. The staff were excellent.”

“Cleaning. I saw a cleaner wipe down a bed with a cloth and they used the same cloth to clean the table without rinsing it — really bad. There were blood spatters on the wall. Cleaning needs to be addressed.”

Quantitative results for questions on care on the ward

Fourteen questions asked about care on the ward.



Q32, which asked about pain management, was the highest scoring question for the care on the ward stage. 391 people answered this question, with 295 (75%) reporting that hospital staff did everything they could to help control pain.

Q15 asked about hospital food, and was the lowest scoring question. 442 people reported their experience of food during their stay in University Hospital Waterford and, of these, 128 people (29%) rated the food as ‘fair’, while 60 people (14%) said it was ‘poor’.

Figure 9. below summarises the scores University Hospital Waterford for care on the ward.

Figure 9. University Hospital Waterford scores for questions on care on the ward

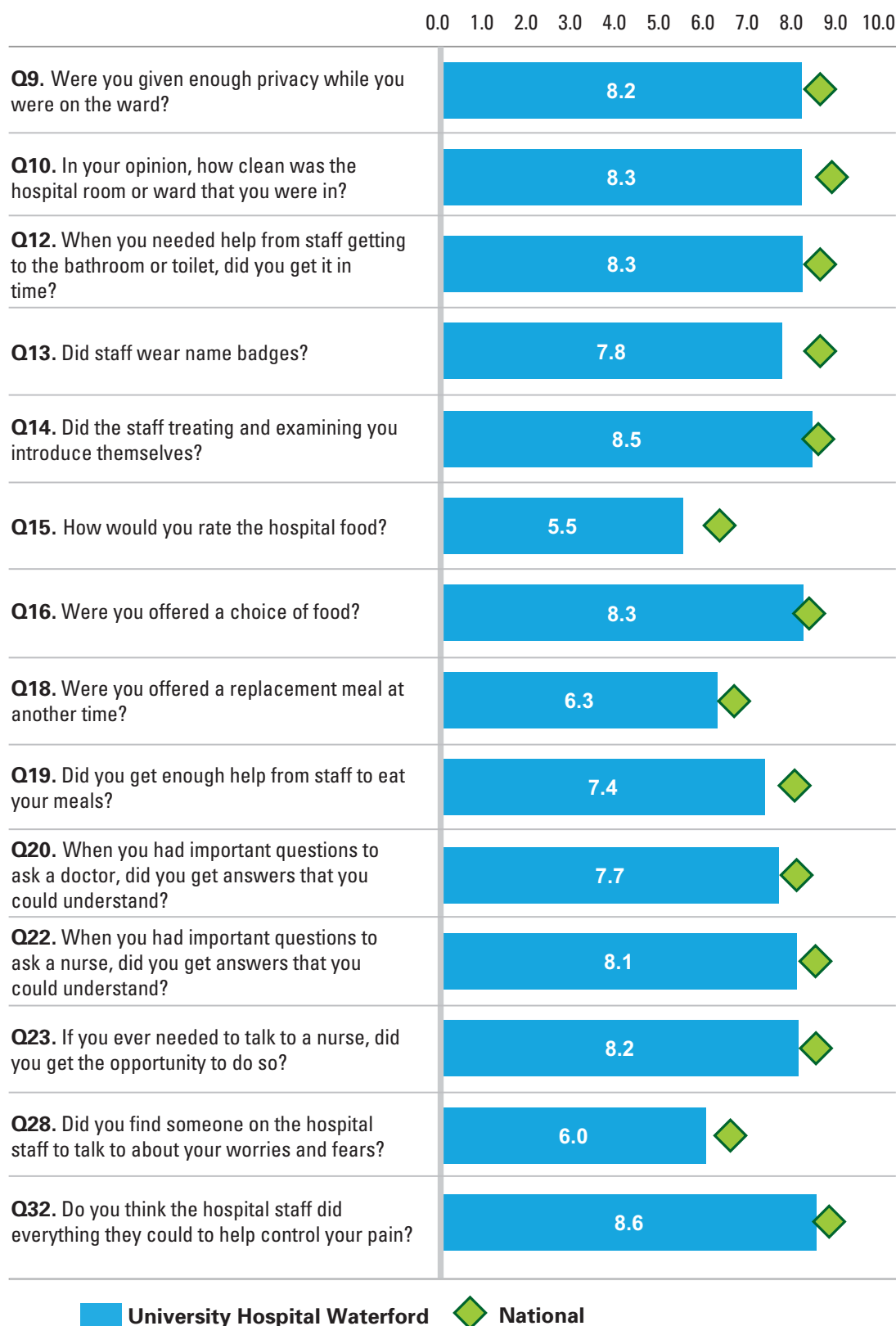
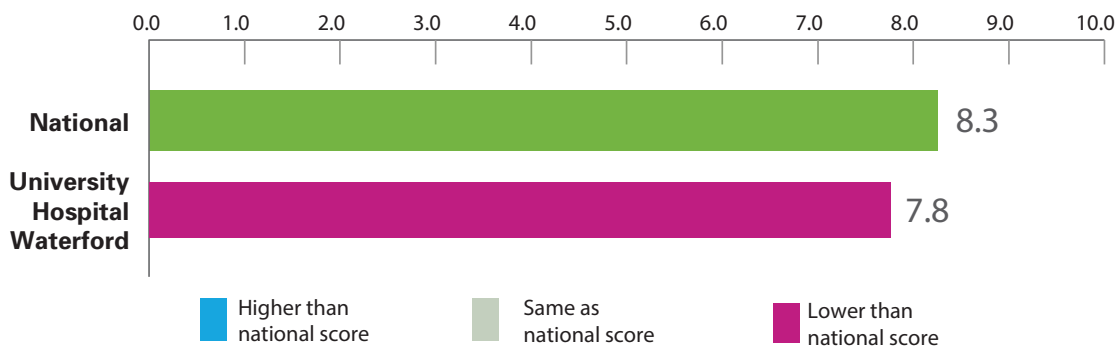


Figure 10. shows that, within the care on the ward stage, the average score for University Hospital Waterford (7.8 out of 10) is significantly lower the national average score (8.3 out of 10). This means that patients who attended University Hospital Waterford in May 2017 reported a less positive experience than patients in other hospitals for this stage of care.

Figure 10. Comparison of University Hospital Waterford with the national average score for care on the ward (out of a maximum of 10).



Care on the ward: what do these results mean?

Many patients reported positive experiences with their care on the ward. However, patients said that they found it difficult to find someone to talk to about their worries and fears and, in general, had negative feedback on food, falling well below the national average.

Examinations, diagnosis and treatment

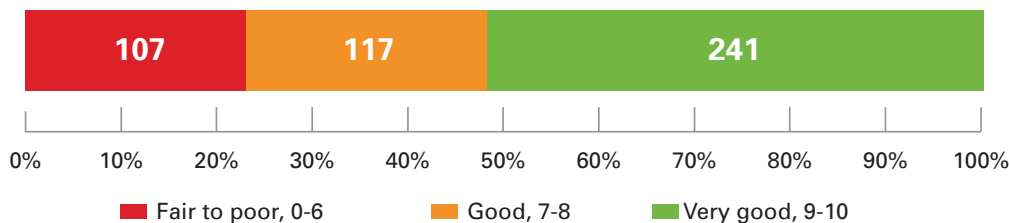


In summary: what were the experiences of patients during examinations, diagnosis and treatment?

'Examinations, diagnosis and treatment' refers to peoples' experiences in the hospital while undergoing or receiving the results of tests, treatments, operations and procedures.

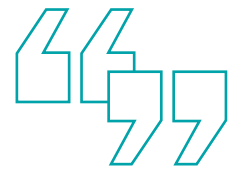
465 people rated their experience of examinations, diagnosis and treatment in University Hospital Waterford. While 107 people (23%) reported that they had a 'fair to poor' experience, 241 people (52%) rated their experience as 'very good'. These experience ratings are summarised in Figure 11. below.

Figure 11. Experience ratings for examinations, diagnosis and treatment



What were the key findings for examinations, diagnosis and treatment?

- 373 (81%) said that they were always given enough privacy when being examined or treated in University Hospital Waterford in May 2017.
- The majority of people said that they were given enough time to talk to a doctor about their care and treatment, but 211 people (46%) reported that they were not, or were only to some extent.
- 199 comments were made about this stage of care and 19% of them contained suggestions for improvement.



The patient voice: what patients said about examinations, diagnosis and treatment

199 comments were made about: 'nursing staff', 'doctors or consultants' and 'waiting times for planned procedures'. 19% of comments were received in response to Q60, which asked for suggestions for improvement. Some examples of the comments for this stage of care are provided below.

Nursing staff

"What stood out for me was the nursing staff. From the ward nurse and the [Nurse Type]. They were amazing and working under horrendous conditions"

"The nursing staff didn't seem to have the basic requirements, e.g. three phone calls had to be made to locate a pillow for under my head and numerous calls and a lengthy waiting period for a porter to escort the nurse to take me to [Ward Type]."

Doctors or consultants

I was very well treated and cared for by the staff and doctors in the hospital and I have no fault to find with the way I was treated."

"Trainee doctors should have more training before attending patients without supervision, i.e. a [Doctor] tried to take blood from me 19 times on one hand before getting assistance."

Waiting times for planned procedures

"Yes — cut the waiting time to be seen by a doctor. 6 months is too long, especially for the elderly."

"I went in on Monday to have an operation but it could not be done until Thursday because the technician could not spare 20 minutes to turn off [Procedure Type]. I spent 5 days in a hospital bed when one day would have done and I was not very happy as this bed could have been used by someone who needs it!"

Quantitative results for questions on examinations, diagnosis and treatment

Thirteen questions asked about examinations, diagnosis and treatment.

Q31 was the highest scoring question in this stage of care. Out of 461 people, 373 (81%) said they were always given privacy when being examined or treated in University Hospital Waterford. This area achieved an overall score of 8.8 out of 10.

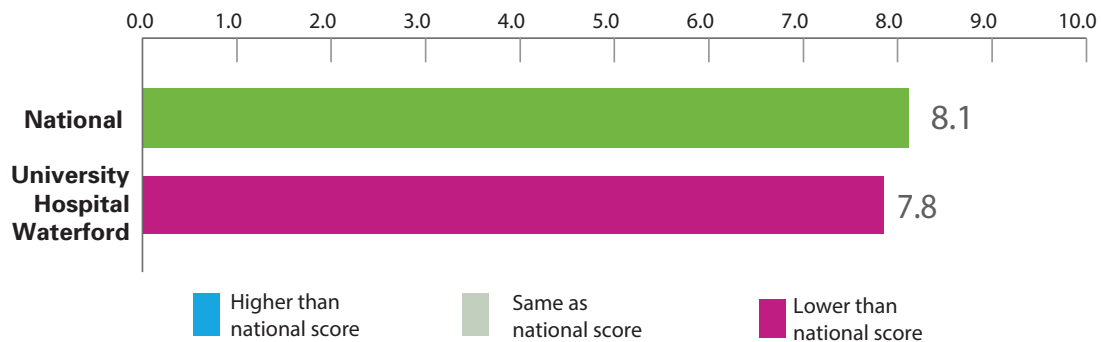
However, even though 54% of people said that they had enough time to discuss their care and treatment with a doctor, 211 people (46%) reported that they were not, or were only to some extent. Figure 12. summarises the scores for University Hospital Waterford during examinations, diagnosis and treatment.

Figure 12. University Hospital Waterford scores for questions on examinations, diagnosis and treatment



Figure 13. shows that, within the examinations, diagnosis and treatment stage, the average score for University Hospital Waterford (7.8 out of 10) is significantly lower than the national average (8.1 out of 10). This means that patients who attended University Hospital Waterford in May 2017 reported a less positive experience than patients in other hospitals.

Figure 13. Comparison of University Hospital Waterford with the national average score for examinations, diagnosis and treatment (out of a maximum of 10).



Examinations, diagnosis and treatment: what do these results mean?

This was one of the higher performing stages of care for University Hospital Waterford, but it still fell below the national average. Many patients reported that they were given enough privacy when being examined and treated while on the ward, but were less positive about communication from medical staff regarding their condition and how they could expect to feel after their treatment.

Discharge or transfer

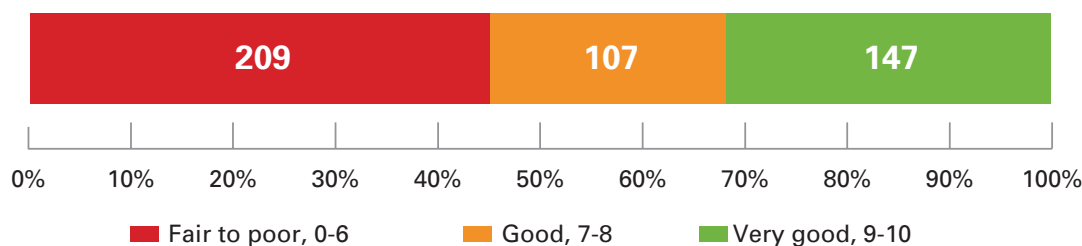


In summary: what were the experiences of patients during discharge or transfer from hospital?

'Discharge or transfer' refers to peoples' experiences of discharge, such as notice given of discharge and the provision of information, advice and support to manage patients' conditions.

Out of the 463 people who rated their experience of discharge or transfer from the hospital, 209 (45%) said that their experience was 'fair to poor'. 147 (32%) reported having a very good experience of their discharge or transfer from University Hospital Waterford. Figure 14. below summarises these experience ratings.

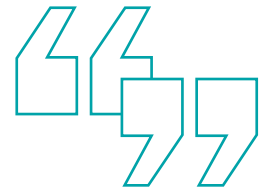
Figure 14. Experience ratings for discharge or transfer



What were the key findings for discharge or transfer?

- 227 people (63%) said that a member of staff explained the purpose of the medicines they would need to take at home in a way they could understand.
- 152 people (46% of those who answered Q46) said they were not informed about the side effects of medication to watch for at home.
- People made 38 comments about their experience of discharge or transfer from the hospital, and 22 (58%) of these were suggestions for improvement.

The patient voice: what patients said about discharge or transfer from hospital



In total, patients from University Hospital Waterford made 38 comments in the 2017 survey about 'discharge and aftercare management'. The majority of comments (58%) suggested areas for improvement. Some examples of comments from this stage of care are provided below.

Discharge and aftercare

"The follow up care after the appointment was good as I was seen quickly and after a couple of appointments I was put on the meds that suited me!"

"The consultant should look at how the patient is feeling and not how many days they are in hospital. The patient should be able to get out of bed before they go home. There should be some enquiry as to how the patient is going to manage at home."

Quantitative results for questions on discharge or transfer from hospital

Twelve questions asked about discharge or transfer.

Q41 was the highest scoring question in this stage of care. Out of 460 people, 285 (62%) said that they were given enough notice of their discharge from hospital.

Q44 and Q46 were the lowest scoring questions of this stage. 251 (55% of people who answered Q44) said that they were not provided with any printed information about what they should or should not do at home after leaving hospital. Communication is a key area for improvement as regards this stage of care in University Hospital Waterford. Out of 331 people, 152 (46%) reported that they were not informed about the side effects of their medication before they went home.

"More information required about potential issues after discharge and management of these."

Figure 15. summarises the scores for University Hospital Waterford for questions on discharge or transfer from the hospital.

Figure 15. University Hospital Waterford scores for discharge or transfer

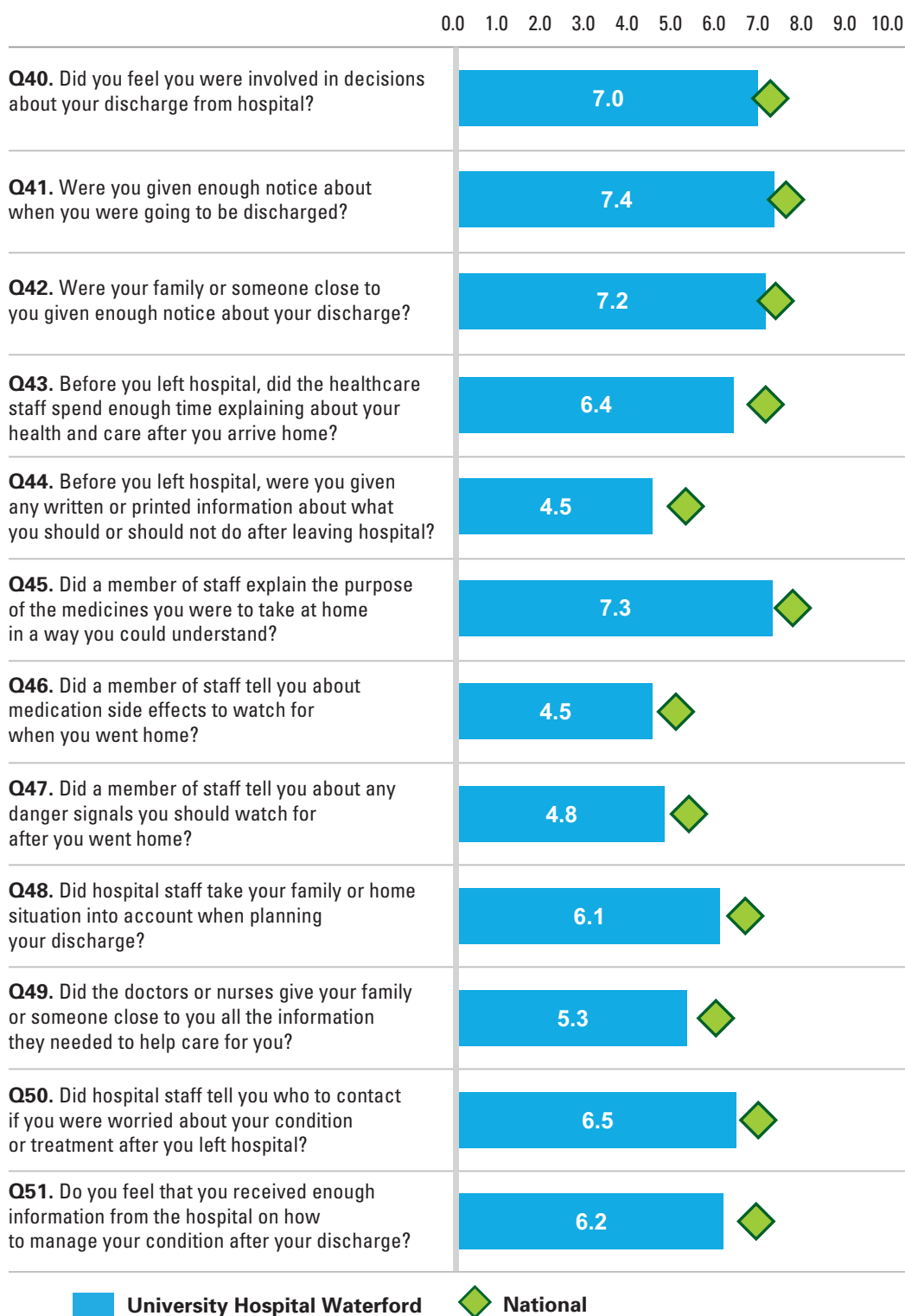
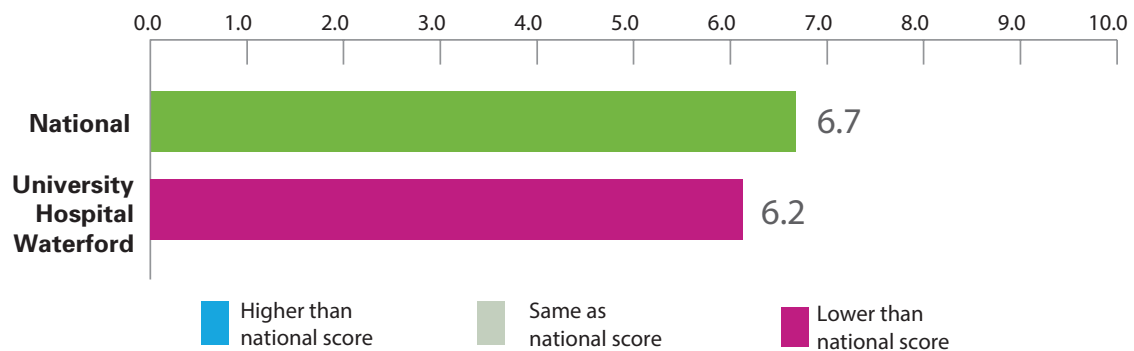


Figure 16. shows that, as regards discharge or transfer from hospital, the average score for University Hospital Waterford (6.2 out of 10) is significantly lower than the national average (6.7 out of 10). This means that patients who attended University Hospital Waterford in May 2017 reported a less positive experience than patients in other hospitals, based on the national average scores for this stage of care.

Figure 16. Comparison of University Hospital Waterford with the national average score for discharge or transfer (out of a maximum of 10).



Discharge or transfer: what do these results mean?

University Hospital Waterford did not perform as well on this stage of care compared with other stages. Communication is a key area which needs to be improved within the discharge process; while patients said they were told about the purpose of the medicines they were to take at home, they reported a lack of communication about the side effects of the medication and also said they did not receive any printed information on aftercare. In general, University Hospital Waterford performed well below the national result for this stage of care.

Other aspects of care



In summary: what were patients' experiences of other aspects of care?

'Other aspects of care' refers to the more general aspects of care that are not specific to a particular stage of care, but rather, apply throughout the hospital journey.

What were the key findings for other aspects of care?

- Q29 and Q52 were the highest scoring questions on other aspects of care (both achieved an average score of 8.7 out of 10). Out of 461 people, 361 people (78%) said that they were treated with respect and dignity in University Hospital Waterford. Out of 462 people, 362 (72%) said that they always had confidence and trust in hospital staff.
- Out of the 446 people who answered Q11, 213 (48%) said that the toilets and bathrooms in University Hospital Waterford were very clean.
- Q27 was the lowest scoring question of the 'other aspects of care' stage, with an average score of 7.0 out of 10. Out of a total of 341 people, 153 (45%) reported that their family or friends did not have or only to some extent had sufficient opportunity to talk to a doctor.

The patient voice: what patients said about other aspects of care



Patients from University Hospital Waterford made 204 comments in the 2017 survey about 'staff in general', 'communication with family and friends', 'physical comfort', 'hospital facilities', 'clinical information and history' and 'health insurance'. Just over a quarter of people (31%) suggested areas for improvement. Some examples of comments for this stage of care are provided below. 'hospital facilities', 'clinical information and history' and 'health insurance'. Just over a quarter of people (29%) suggested areas for improvement. Some examples of the comments received for this stage of care are provided below.

Staff in general

"I have always had a high regard for Waterford University Hospital. The staff have always been fantastic, helpful and friendly."

"The attitude of some staff, (nurses) needs to change. Staff should be employed on their ability to do their job, not to just to fill a vacant position."

Communication with family and friends

"My father was very confused while in hospital and myself and my mother were there a lot with him, so while he may not have understood some of what the doctors said I feel things were explained adequately to us. I completed this form with him."

"My family had to take time off to speak to doctors looking after me as they could not be contacted after 5. Also, it was hard to speak to nurses who looked after me during the day as they had finished their shift."

Physical comfort

"Despite the hustle and bustle at the hospital, as soon as I entered a sense of ease and comfort entered my mind that gave me relief and wellbeing, and I felt I will be healed and looked after always."

"During my stay in the [Ward Type] the windows were sealed completely and so there was no fresh air going through the ward. It was stuffy and very hot and at times very smelly (due to commode smells when being used) I felt this was unhealthy and not nice."

Hospital facilities

"The ward I was in had no air conditioning. The windows could not be opened for some reason. It should not be happening in 2017. It's not good for patients or nurses."

Clinical information and history

"I take a lot of medication and they told me not to bring them as they would provide them but they did not."

Private health insurance

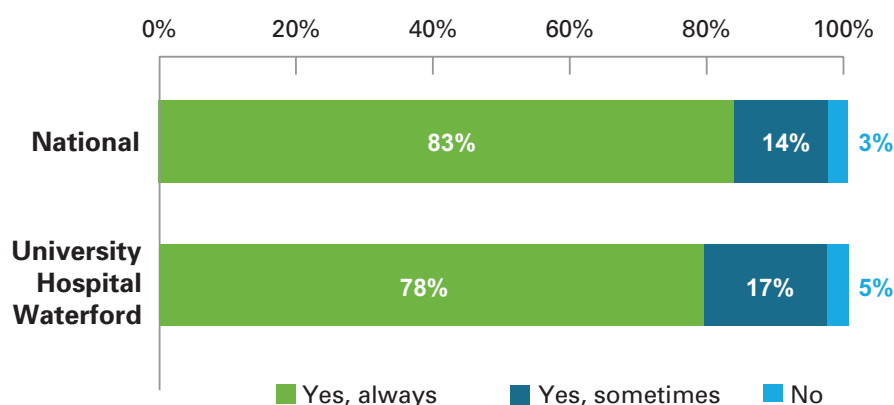
"As I was admitted as a private patient, I did not receive private patient treatment. I was on a general ward which was not to V.H.I. standards by any concerns. I did not sleep for three nights due to a disruptive ward, over a three night stay."

Quantitative results for questions on other aspects of care

Question 52 asked people if they felt that they were treated with respect and dignity while in University Hospital Waterford in May 2017. Overall, 361 people (78%) said that they were always treated with respect and dignity. However, 22 people (5%) said that they were not.

Figure 17. below shows patients' ratings of the level of dignity and respect they were shown in hospital.

Figure 17. Ratings for dignity and respect

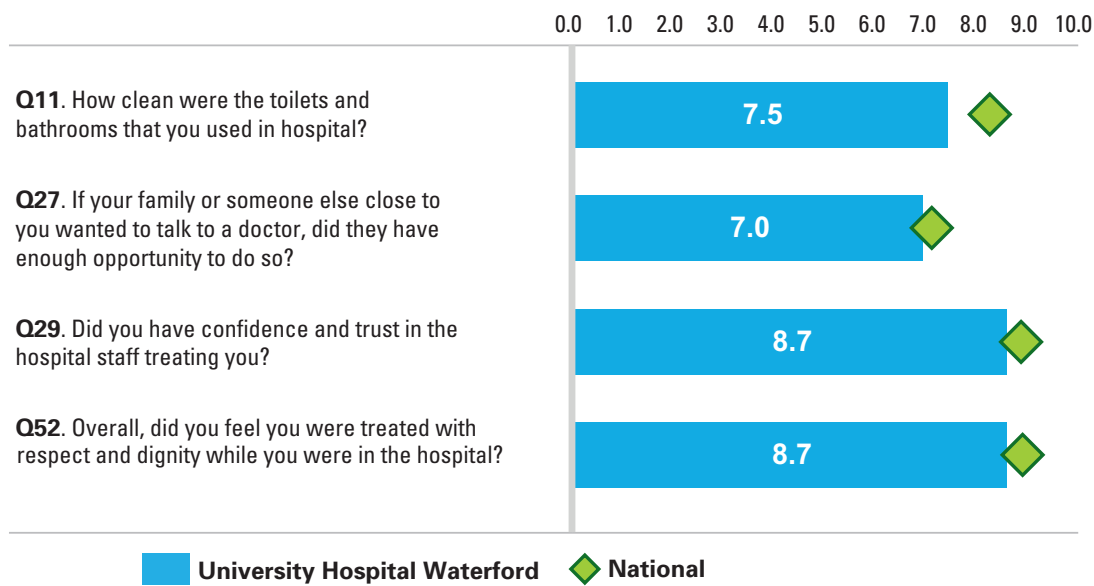


Question 29 asked people if they had confidence and trust in the hospital staff treating them. 362 people (78% of all people who answered Q29) said that they always had confidence and trust in the hospital staff treating them, while 22 people (5%) said that they did not.

Question 11 asked people about the cleanliness of the bathrooms and toilets in University Hospital Waterford. While 213 people (48% of all people who answered Q11) said that the bathrooms and toilets were very clean, 74 people (17%) said that they were not very clean or not at all clean.

Question 27 asked people if their family or someone close to them had sufficient opportunities to talk to a doctor in University Hospital Waterford. Out of 341 people, 188 (55%) said that their family or people close to them had sufficient opportunities to talk to a doctor. However, 153 (45%) reported that their family or friends did not have or only to some extent had sufficient opportunity to talk to a doctor.

Figure 18 summarises the scores for University Hospital Waterford for questions about other aspects of care.

Figure 18. University Hospital Waterford scores for other aspects of care

Other aspects of care: what do these results mean?

Patients in University Hospital Waterford reported that they were treated with dignity and respect and had confidence and trust in the hospital staff who treated them. The cleanliness of toilets and bathrooms was also rated highly. However, people reported less positive experiences as regards the opportunities for their families or friends to speak with hospital staff.



Chapter 3

Overall experience

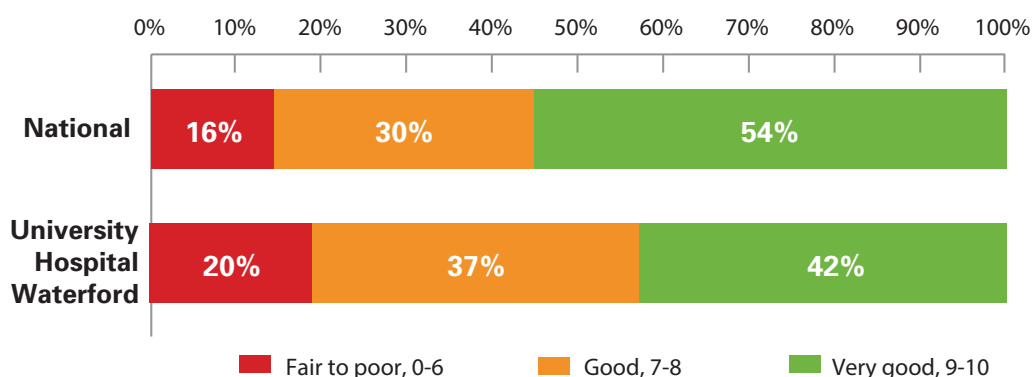
Ratings of overall experience

People were also asked to rate their overall hospital experience on a scale of 0 to 10, with 10 being the most positive experience, and 0 the most negative experience.

Figure 19. below provides the average overall rating of hospital experience reported by people who completed the survey in University Hospital Waterford, compared with the national average.

In general, 42% of people who stayed in University Hospital Waterford in May 2017 reported having a very good experience in this hospital, whereas 20% of people indicated a fair to poor experience.

Figure 19. Overall rating of hospital experience for University Hospital Waterford and nationally





Chapter 4

Conclusion

How did patients experience hospital care in University Hospital Waterford in May 2017?

Overall, patients' ratings of their experiences at University Hospital Waterford were slightly below the national average. 79% of patients at University Hospital Waterford said they had a 'very good' or 'good' experience, compared with 84% nationally.

While University Hospital Waterford scored below the national average for each question, patients did report some positive experiences. The survey found that patients in University Hospital Waterford generally had good experiences of privacy once they reached a ward and the level of dignity and respect shown to them. People also reported positive experiences of pain management and the standard of cleanliness and hygiene on the wards. Most patients said that they had confidence and trust in the hospital staff treating them.

The survey found that 78% of people reported waiting more than six hours to be admitted to a ward, indicating that waiting times in the emergency department requires improvement in University Hospital Waterford. 13 of these people reported waiting in the emergency department for more than 48 hours in May 2017.

The findings also indicate a lack of privacy in the emergency department while patients were being examined or treated.

Questions around discharge and aftercare management received some of the lowest scores in the survey. In particular, people felt that they were not informed about the side effects of medication, or the danger signals to watch out for at home. People also reported a lack of printed information about what they should or should not do after leaving hospital. These results indicate that communication during the discharge process needs improvement in University Hospital Waterford.

During their time on the ward, people reported negative experiences with the type of food provided in the hospital, as well as difficulties in communicating with staff about their worries and fears. Patients were also dissatisfied with the amount of information they received about their condition or treatment.

These findings will serve to inform quality improvement initiatives in University Hospital Waterford, defining the future of patient-centred care in the hospital.

What happens next?

The HSE has committed to using the findings of the National Patient Experience Survey 2017 to support wide-ranging quality improvements in every public hospital in Ireland. In direct response to what people have said in this survey, the HSE will develop and publish a national quality improvement plan which will outline a vision and direction for the future of patient-centred care in Ireland.

The HSE has also set up a governance structure, including an oversight group, to lead the development of this national quality improvement plan, which will be made publicly available on www.patientexperience.ie in December 2017.

The Department of Health will use the information gathered to inform the development of policy in relation to acute healthcare. Finally, the findings of the survey will be used to develop HIQA's approach to the monitoring of hospitals.

Appendix 1:

National Patient Experience Survey 2017 questions

| No. | Question |
|-----|--|
| 1 | Was your most recent hospital stay planned in advance or an emergency? |
| 2 | When you arrived at the hospital, did you go to the Emergency Department (also known as the A&E Department or Casualty)? |
| 3 | When you had important questions to ask doctors and nurses in the Emergency Department, did you get answers that you could understand? |
| 4 | While you were in the Emergency Department, did a doctor or nurse explain your condition and treatment in a way you could understand? |
| 5 | Were you given enough privacy when being examined or treated in the Emergency Department? |
| 6 | Overall, did you feel you were treated with respect and dignity while you were in the Emergency Department? |
| 7 | Did you remain in the Emergency Department for the entire time of your stay? |
| 8 | Following arrival at the hospital, how long did you wait before being admitted to a ward? |
| 9 | Were you given enough privacy while you were on the ward? |
| 10 | In your opinion, how clean was the hospital room or ward that you were in? |
| 11 | How clean were the toilets and bathrooms that you used in hospital? |
| 12 | When you needed help from staff getting to the bathroom or toilet, did you get it in time? |
| 13 | Did staff wear name badges? |
| 14 | Did the staff treating and examining you introduce themselves? |
| 15 | How would you rate the hospital food? |
| 16 | Were you offered a choice of food? |
| 17 | Were you ever unable to eat during mealtimes (e.g. because you were away from the ward, recovery from surgery etc.)? |
| 18 | Were you offered a replacement meal at another time? |
| 19 | Did you get enough help from staff to eat your meals? |
| 20 | When you had important questions to ask a doctor, did you get answers that you could understand? |
| 21 | Did you feel you had enough time to discuss your care and treatment with a doctor? |
| 22 | When you had important questions to ask a nurse, did you get answers that you could understand? |

| No. | Question |
|-----|--|
| 23 | If you ever needed to talk to a nurse, did you get the opportunity to do so? |
| 24 | Were you involved as much as you wanted to be in decisions about your care and treatment? |
| 25 | How much information about your condition or treatment was given to you? |
| 26 | Was your diagnosis explained to you in a way that you could understand? |
| 27 | If your family or someone else close to you wanted to talk to a doctor, did they have enough opportunity to do so? |
| 28 | Did you find someone on the hospital staff to talk to about your worries and fears? |
| 29 | Did you have confidence and trust in the hospital staff treating you? |
| 30 | Were you given enough privacy when discussing your condition or treatment? |
| 31 | Were you given enough privacy when being examined or treated? |
| 32 | Do you think the hospital staff did everything they could to help control your pain? |
| 33 | Did a doctor or nurse explain the results of the tests in a way that you could understand? |
| 34 | Before you received any treatments did a member of staff explain what would happen? |
| 35 | Before you received any treatments did a member of staff explain any risks and/or benefits in a way you could understand? |
| 36 | Beforehand, did a member of staff explain the risks and benefits of the operation or procedure in a way you could understand? |
| 37 | Beforehand, did a member of staff answer your questions about the operation or procedure in a way you could understand? |
| 38 | Beforehand, were you told how you could expect to feel after you had the operation or procedure? |
| 39 | After the operation or procedure, did a member of staff explain how the operation or procedure had gone in a way you could understand? |
| 40 | Did you feel you were involved in decisions about your discharge from hospital? |
| 41 | Were you given enough notice about when you were going to be discharged? |
| 42 | Were your family or someone close to you given enough notice about your discharge? |
| 43 | Before you left hospital, did the healthcare staff spend enough time explaining about your health and care after you arrive home? |
| 44 | Before you left hospital, were you given any written or printed information about what you should or should not do after leaving hospital? |
| 45 | Did a member of staff explain the purpose of the medicines you were to take at home in a way you could understand? |
| 46 | Did a member of staff tell you about medication side effects to watch for when you went home? |

| No. | Question |
|-----|---|
| 47 | Did a member of staff tell you about any danger signals you should watch for after you went home? |
| 48 | Did hospital staff take your family or home situation into account when planning your discharge? |
| 49 | Did the doctors or nurses give your family or someone close to you all the information they needed to help care for you? |
| 50 | Did hospital staff tell you who to contact if you were worried about your condition or treatment after you left hospital? |
| 51 | Do you feel that you received enough information from the hospital on how to manage your condition after your discharge? |
| 52 | Overall, did you feel you were treated with respect and dignity while you were in the hospital? |
| 53 | Overall... (please circle a number from 0 to 10 that summarises your experience. 0 represents a very poor experience, 10 represents a very good experience.) |
| 54 | Who was the main person or people that filled in this questionnaire? |
| 55 | Are you male or female? |
| 56 | What is your month and year of birth? |
| 57 | What is your ethnic or cultural background? |
| 58 | Do you currently have: A medical card; Private health insurance; Both medical card and private health insurance; Neither medical card nor private health insurance? |
| 59 | Was there anything particularly good about your hospital care? |
| 60 | Was there anything that could be improved? |
| 61 | Any other comments or suggestions? |

Appendix 2:

Background to the National Patient Experience Survey Programme

The National Patient Experience Survey Programme is a partnership between the Health Information and Quality Authority (HIQA), the Health Service Executive (HSE) and the Department of Health. The aim of the National Patient Experience Survey Programme is to engage with and understand the experience of patients and use this feedback to inform the future development, planning, design and delivery of improved patient-centred care in Irish hospitals.

The objectives of the programme are to provide patients with the opportunity to share their experience, helping the partner organisations to:

- determine the quality of healthcare delivery in Ireland
- identify areas of best practice in Irish healthcare, as well as areas in need of improvement
- provide measures of patient experience which will inform the future planning and delivery of healthcare
- allow for comparisons of patient experiences nationally and internationally, and
- develop and build quality and safety improvement initiatives.

The programme is governed by a steering group, which is made up of patient representatives and senior decision-makers from each of the partner organisations. A delivery group and an advisory group were also set up to oversee the development and implementation of the National Patient Experience Survey.

Further information on the management of the survey is available at www.patientexperience.ie.

Appendix 3:

Identifying areas of good experience and areas needing improvement

Two methods were combined to identify the areas of good experience and the areas needing improvement.

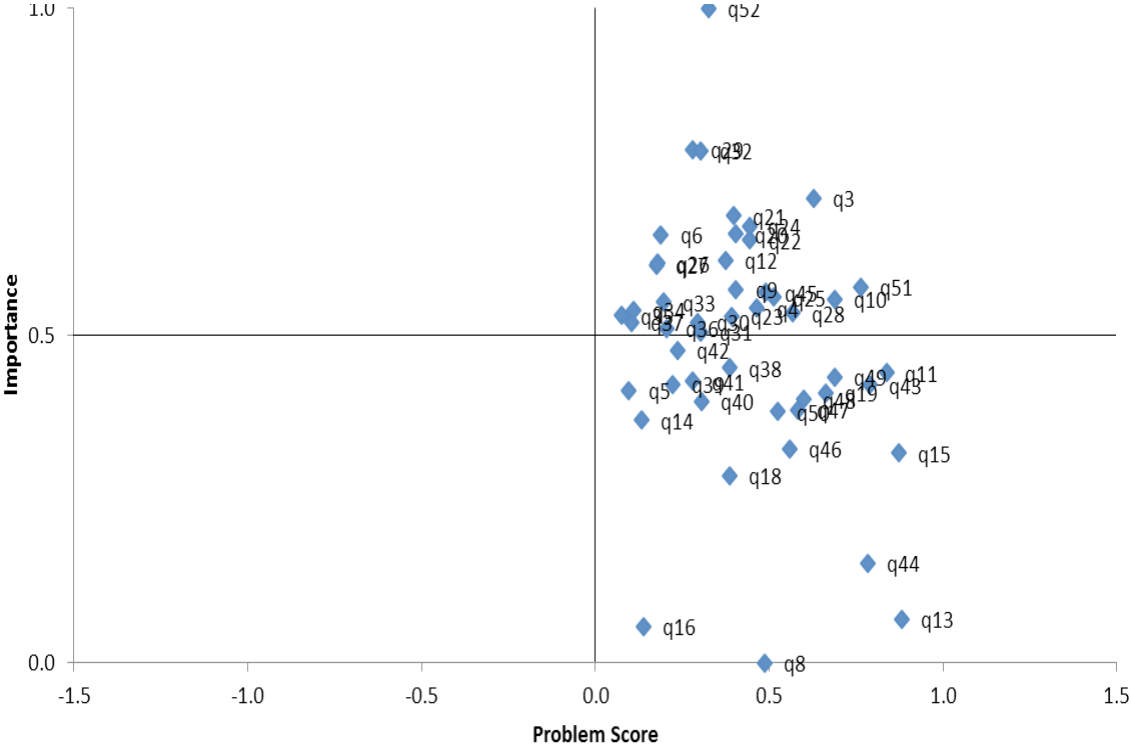
1. Questions that had particularly high scores out of 10 were identified as areas of good experience, while questions that had particularly low scores out of 10 were identified as areas needing improvement.
2. Questions that had a strong relationship with overall ratings of experience (Q53) were selected as areas of good experience or areas needing improvement. Further detail on this process is provided below:

Some questions were more important to patients' ratings of overall experience. For example, a question on being treated with dignity and respect may have a stronger relationship with overall experience than a question on patient ratings of the hospital food.

Figure 20. below, shows a map of the survey questions based on how strongly each question is connected to overall experience. The map also shows the difference between the score for each question in University Hospital Waterford and the score for each question nationally. This map helps to identify some of the areas of positive experience and areas needing improvement presented in Chapter 1. The importance of the relationship between each question and overall experience is given as a number between 0 and 1, with 1 being the most important possible relationship. The difference between question scores for University Hospital Waterford and national scores is described as a 'problem score'. If a question has a problem score with a value greater than zero, it means that University Hospital Waterford has scored less than the national average for that question. For example, if a hospital scored 8.8 for Q52 which is lower than the national average of 9.0, this would mean it had a problem score of 0.2 for this question.

Questions that have high problem scores and are important to patients' overall experience appear in the top right section of the map - these are areas needing improvement in University Hospital Waterford. Questions that have low problem scores and are important to patients' overall experience can be found in the top left-hand section of the map - these are areas of good experience, as reported by patients of University Hospital Waterford.

Figure 20. Overall patient experience map for University Hospital Waterford



Appendix 4:

A technical note on analyses and interpretation

Preliminary note

Please note that values in figures do not always add up to 100% exactly. This is due to rounding.

Scoring methodology

The National Patient Experience Survey scoring methodology is based on the methodology adopted by the Care Quality Commission on behalf of the National Health Service (NHS) in England.

The scores for the patient journey were calculated by grouping survey questions into five stages of care²: admissions; care on the ward; examinations, diagnosis and treatment; discharge or transfer; and other stages of care. Scores are presented for individual questions making up a stage of care. The responses to questions in each stage were also summarised to form overall scales ranging from 0-10.

Figure A. is an example of how response options were converted into scores in the 2017 survey. It should be noted that only evaluative questions could be scored, that is, questions which assess an actual experience of care. Routing or demographic questions were not scored. More 'positive' answers were assigned higher scores than more negative response options. In the example 'No' was given a score of 0, 'Yes, sometimes' was given a score of 5 and 'Yes, always' was given a score of 10. The last response option 'I had no need to ask/I was too unwell to ask any questions' was not scored, as it cannot be evaluated in terms of best practice.

2 There are 48 questions relating to the patient journey stages of care. Filter questions, that is, questions whose main purpose it was to route respondents to the next applicable question, were excluded from this categorisation.

Figure A. Example of a scored question in the 2017 survey

The Emergency Department

Q3. When you had important questions to ask doctors and nurses in the Emergency Department, did you get answers that you could understand?

- 10 Yes, always
- 5 Yes, sometimes
- 0 No
- 5 I had no need to ask / I was too unwell to ask any questions

The table below shows how scores are calculated for a specific question. In this example the scores of five respondents are presented. The score for Q3 is calculated by summing the scores in the right hand column (10+10+5+0+5), before dividing them by the number of people who responded to this question (30/5=6). The average score for Q3 is 6 out of 10.

Q3. When you had important questions to ask doctors and nurses in the Emergency Department, did you get answers that you could understand?

| Respondent | Score |
|----------------------|-----------|
| 1 | 10 |
| 2 | 10 |
| 3 | 5 |
| 4 | 0 |
| 5 | 5 |
| Sum of scores | 30 |

Scores for the stages of care (scales) were constructed by calculating the average scores for all questions belonging to that stage.

Comparing groups

When is a difference a 'real' difference?

Statistical tests were carried out to examine if there were significant differences in patient experience across patient groups (that is men and women, and different age groups).

A 'z-test' was used to compare patient experience data at the 99% confidence level. A z-test is a statistical test used to examine whether two population mean scores are different, when the variances are known and the sample size is large. A statistically significant difference means it is very unlikely that results were obtained by chance alone. Therefore, when a score is significantly 'higher than' or 'lower than' the national average, this is highly unlikely to have occurred by chance.

To protect anonymity of people who took part in the survey, and to allow for strong comparisons, sample sizes of less than 30 were not reported.

The National Patient Experience Survey 2017 technical report, available in 2018 at www.patientexperience.ie, provides details on all aspects of the analyses, including response rates, mapping of questions to reporting themes, computation of patient journey scores, statistical comparisons, and application of adjustment weights.

How was the survey data analysed and reported?

Quantitative survey data was analysed using the statistical package SPSS (Version 24).

The responses to the open-ended questions were transcribed and anonymised. All references to names of patients or hospital staff, places, nationalities, wards, specific health conditions, operations and procedures were removed from the qualitative comments before they were thematically analysed and coded.

Analysing open-ended comments

The last three questions (questions 59-61) of the 2017 survey encouraged participants to provide additional information, in their own words, on their experience in hospitals. The free-text comments were very useful as they allowed people to give a more in-depth description of their experience. It also allowed them to talk about various things (good or bad) that could not be captured by the structured questions. Nationally, a total of 21,528 comments were received in response to the open-ended questions in the 2017 survey.

A coding framework was developed to carry out a thematic analysis of the open-ended responses to the free-text questions at the end of the questionnaire. All open-ended-questions were analysed and multi-coded using the following 20 codes:

- Dignity, respect and privacy
- Communication with the patient
- Emergency Department management and environment
- Emergency Department waiting times
- Staffing levels
- Staff availability and responsiveness
- Other healthcare staff
- Other staff
- Food and drink
- Cleanliness and hygiene
- Nursing staff
- Doctors or consultants
- Waiting times for planned procedures
- Discharge and aftercare management
- Staff in general
- Communication with family and friends
- Hospital facilities
- Parking facilities
- Clinical information and history
- Private health insurance.

Glossary

Acute hospital: a hospital that delivers emergency, non-emergency/elective and outpatient care to people who are ill or injured.

Emergency care: refers to life-saving care. People who present to hospital with a medical emergency may need to be admitted to hospital.

Emergency department: an area in a hospital where patients can access emergency care 24 hours a day, seven days a week. The emergency department is also sometimes known as 'Accident and Emergency' (A&E) or 'casualty'.

Hospital groups: all public hospitals in Ireland are organised into seven hospital groups, six of which participated in the 2017 survey. The Children's Hospital Group is the seventh hospital group in Ireland. Paediatric hospitals and children's services were not surveyed on this occasion.

Inpatient: a person who is admitted to hospital to receive medical or surgical treatment and stays at least one night.

Non-emergency/elective care: care that is not usually urgent, but rather is planned in advance by the patient and a doctor.

Patient experience of hospital care: what a person feels, observes, perceives, recognises, understands and remembers about their medical care and treatment in hospital.

Patient journey: the patient's progression through hospital from admission to discharge.

Patient or person-centred care: care that is centred on the needs, values and preferences of the patient/person. Essential to this definition is the promotion of kindness, dignity, privacy and autonomy.

Stages of care: refers to specific points along the patient journey. The stages of care are: admissions; care on the ward; examinations, diagnosis and treatment; and discharge or transfer.

References

1. Singer AJ, Thode Jr HC, Viccellio P, Pines JM. The Association Between Length of Emergency Department Boarding and Mortality. *Academic Emergency Medicine*. 2011;18(12):1324-9.
2. Plunkett PK, Byrne DG, Breslin T, Bennett K, Silke B. Increasing wait times predict increasing mortality for emergency medical admissions. *European Journal of Emergency Medicine*. 2011;18(4):192-6.