

# **Acuity Audit of Hospital Bed Occupancy in Devon**

**June 2018**

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## **Executive Summary**

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i) The 2018 Acuity Audit is the fifth audit over an eight-year period. It is the first to include all of the acute and community hospitals across the Sustainability and Transformation Partnership (STP) footprint. It included the four acute hospitals of:

- Royal Devon and Exeter (Royal Devon and Exeter NHS Foundation Trust)
- Derriford Hospital (University Hospitals Plymouth NHS Trust)
- North Devon District Hospital (Northern Devon Healthcare Trust)
- Torbay Hospital (Torbay and South Devon NHS Foundation Trust)

The community hospitals and wards across Devon, Torbay and Plymouth managed by:

- Livewell Southwest
- Northern Devon Healthcare Trust
- Royal Devon and Exeter NHS Foundation Trust
- Torbay and South Devon NHS Foundation Trust

It did not include any intermediate care beds which are used in some areas.

- ii) 23.4% of all hospital beds on the day of the audit were occupied by patients who were 'fit to leave' that care setting.
- iii) There were higher rates of patients who were 'fit to leave' a community hospital bed (53.5%) than were 'fit to leave' an acute hospital bed (19.6%). This is consistent with previous audits.
- iv) Higher levels of dementia (45.2%) were seen in the community hospitals than in acute hospitals (16.0%)
- v) The population of patients within community hospitals was statistically significantly older than within the acute hospitals.
- vi) Occupancy recorded in 2018 has remained high, at 90%, which is the same as 2015.
- vii) The 2015 audit had been the first of the five audits to record delays due to wards being closed due to infections. For both North Devon District Hospital and the Royal Devon & Exeter Hospital this was the single biggest delay category in 2015, with Torbay Hospital being unable to take part in that audit due to high levels of infections. In 2018 there were no patients 'fit to leave' who were prevented from doing so due to the ward being closed due to infection.
- viii) There continues to be evidence of increased complexity of needs of the hospital patient population, and an increased acuity of patients who can be cared for at home.
- ix) The acuity audit suggests that there are different discharge processes in hospitals which leads to delays in different settings across the locations. Plymouth had notably lower rates of 'fit to leave' patients on the day of the audit – which was two weeks after a 'hard reset' which had a focus on all discharge-related activity.
- x) The 2018 audit shows 'fit to leave' rates to be the lowest seen over the eight year period and statistically significantly lower overall than any of the other audits.

- xi) Further analysis shows the ‘fit to leave’ rate in acute hospitals to be statistically significantly lower than previous audits but no difference within community hospitals.
- xii) The acuity audit identifies areas where delays to discharge exists and gives some guidance on services that are required to reduce delays.
- xiii) There have been changes in the number and location of hospital beds over the eight years that the audits have taken place.
- xiv) The 2018 acuity audit showed that there were 520 patients who were ‘fit to leave’ their current care setting and identified some of the main categories leading to delay.
- xv) The key points from this audit are the increase in discharge dates being set and the reduction in length of stay experienced by patients once fit to leave hospital.

## **1. Introduction**

- 1.1 This report sets out the methodology, results and conclusions of an audit of hospital occupancy on Tuesday 15<sup>th</sup> May 2018. The aim of the audit was to define the care needs of the inpatient population on that date, and to compare this with the results of four previous audits conducted on Tuesday 15<sup>th</sup> June 2010, Tuesday 17<sup>th</sup> May 2011, Tuesday 15<sup>th</sup> May 2012 and Tuesday 19<sup>th</sup> May 2015.
- 1.2 The previous acuity audits in 2015 and 2012 did not include Torbay Hospital so where reference is made to the last audit, for the Royal Devon & Exeter Hospital, Northern Devon District Hospital and Derriford Hospital, this refers to the 2015 audit and for Torbay this refers to the 2012 audit.

## **2. Background**

### **Reasoning**

- 2.1 Throughout the year there is considerable pressure on hospital beds, and reports of delays in discharging patients into the most appropriate care setting. An acuity audit was undertaken as part of the “urgent care” work stream within the Devon Health Community Transformation Programme in June 2010, with subsequent audits completed to review the impact of services and working practices designed to improve patient flow. The 2015 acuity audit was designed to help inform some of the decisions around transforming community services, and to compare the current situation with the progress made in previous years. The 2018 audit gives an opportunity to observe any impacts from the ‘care closer to home’ integrated model.

There have been considerable changes in the architecture of the NHS over the timescale of these audits. Some of the main changes include;

- Initial separation of commissioning and provider services and formation of Clinical Commissioning Groups (CCGs) in 2013 following the Health and Social Care Act 2012. Many commissioning functions, including commissioning most of in-patient care, transferred to these Clinical Commissioning Groups. Primary Care Trusts ceased to exist, from April 2013

- The transfer of many of the Public Health functions to the Local Authority in April 2013
- The formation of the Sustainability and Transformation Programme (STP) and closer working between the two CCGs of NEW Devon and South Devon & Torbay
- ‘Care closer to home’ and increased community care
- A reduction in the number of in-patient beds both in acute and community hospitals

## **Objectives**

2.2 The objectives of the audit were to:

- identify the numbers and percentage of patients that do not need to be in their current care setting
- identify the number and percentage of patients who were ‘fit to leave’ their current setting and could be managed at home
- identify the type of health and social care needs of patients ‘fit to leave’ their current care setting
- identify barriers preventing patients from being in the most appropriate care setting
- identify areas where the patient pathway appears to work particularly well
- assist in developing recommendations to reduce pressure on beds, delays in the patient pathway
- understand the complexity of patients and identify any difference from previous years

## **Assumptions**

2.3 In analysing and interpreting the results, certain assumptions have been made. These are:

- all patients that are admitted to hospital required admission
- delays to patient discharge or progress through a pathway, including into rehabilitation, are detrimental to the patient
- caring for a patient in an acute care setting is either more expensive than, or at least as expensive as, caring for a patient in alternative settings, including at home
- that the audit tool is valid, in that results would be the same whoever undertook the audit

## Audit Comparability

2.4 The acuity audit has now been undertaken five times over an eight year period. The original audit tool was developed in Torbay and has been adapted with additional audit criteria recorded in subsequent versions. It is important to understand these changes which are listed in Figure 1, when making year on year comparisons.

2011

- An additional question was introduced for those classified as 'fit to leave' asking how long the patient had been 'fit to leave', with three options of 0 days, 1-3 days and 4+ days.
- Additional information was collected on the reason that a patient classified as 'fit to leave' was still in the bed today, from a selected list of coded options.

2015

- An additional question was introduced to record the admission route as either, planned, unplanned or transferred from another hospital.
- An additional question was introduced to capture whether the patient had dementia/cognitive impairment.
- There was some refining of the coded options capturing the reasons for patients who were 'fit to leave' still being in hospital, with 'ward closed due to infection' as an additional option.

2018

- There was some further refining of the coded options capturing the reasons for patients who were 'fit to leave' still being in hospital
- An additional question was introduced around caring support prior to admission with options of none (independent), non-paid (friend/family/carer), paid carer/package of care, care home or unknown.

Figure 1: Version control of audit tool used

Year	Exeter and East	Northern Devon	Plymouth	Torbay
2010	Torbay v1	Torbay v1	Torbay v1	Torbay v1
2011	Devon v1.1	Devon v1.1	Devon v1.1	Torbay v2
2012	Devon v1.1	Devon v1.1	Devon v1.1	-
2015	Devon v1.2	Devon v1.2	Devon v1.2	Devon v1.2
2018	Devon v1.3	Devon v 1.3	Devon v 1.3	Devon v 1.3

2.5 The organisations that took part in the 2018 audit were:

### Northern Devon Healthcare NHS Trust

- North Devon District Hospital (Acute Hospital) (NDDH)
- Community Hospitals (Northern locality)

### Royal Devon & Exeter NHS Foundation Trust

- Royal Devon & Exeter Hospital (Acute Hospital) (RD&E)
- Community Hospitals (Eastern locality)

Torbay & Southern Devon Health & Care NHS Trust (T&SD HCT)

- Community Hospitals (Torbay, South Devon locality)

University Hospitals Plymouth NHS Trust

- Derriford Hospital

Livewell Southwest

- Community services (Western locality)

Full details of the Hospitals are listed in Appendix B.

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### **3. Method**

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#### **Audit Tool**

3.1 The audit tool was designed to determine the following for each patient:

- whether they were 'fit to leave' their current care setting
- their outstanding assessment and intervention needs

3.2 Questions were also asked about the patients' care setting, so that the findings of the audit could be analysed to compare differences between:

- type of care (defined as acute or community hospital)
- locality
- type of acute setting (defined as surgical or medical)

#### **Audit Process**

3.3 The audit took place on Tuesday 15<sup>th</sup> May 2018. The audit tool was circulated to senior managers who further distributed it to managers within acute and community hospital care settings. Only professionals with access to the staff caring for the patients were used to conduct the audit. This was done to minimise any variation in results between auditors arising due to the subjective nature of the questions. Some of the auditors had been involved in one or more of the previous acuity audits.

3.4 The audit tools were then digitised and emailed to the Devon County Council Public Health team who collated and validated the data before conducting the analysis.

#### **Analysis of Data**

##### **Cross sectional analysis – Proportion of patients 'fit to leave' their current care setting**

3.5 As one of the primary objectives was to identify potential for providing a more appropriate setting for patients, the proportion of patients who the auditors felt were 'fit to leave' their current care setting was analysed for each of the returns, cross sectioned by type of hospital (acute, community) and then by the type of acute setting

(medical, surgical). This was to help enable the identification of any areas where there may be barriers to patients being in the most appropriate setting.

### **Patient Age**

- 3.6 An analysis of patient age in the original 2010 audit suggested that patients who were 'fit to leave' were, on average, older than those not fit to leave. As part of the 2011, 2012 and 2015 audits a cross sectional analysis was done on the average age by hospital type and 'fit to leave' status, and this has been repeated for 2018.

### **Patient Needs**

- 3.7 To try to identify the needs of those patients who were classed as 'fit to leave', where the auditor had identified that the patient could be managed at home, a further analysis was conducted.
- 3.8 The analysis recorded whether the patient required a range of services including
- Physiotherapy
  - Occupational therapy
  - Nursing care
  - Basic essential care
  - Overnight care/support

### **Occupancy Levels**

- 3.9 Occupancy levels were recorded as a percentage of the available open beds on each ward.

### **3.10 Additional Needs**

Data were collected on the number of patients

- experiencing dementia or cognitive impairment
- receiving planned end of life care
- with different levels of care support prior to admission

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## **4. Results**

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### **Results Overview**

- 4.1 Where data fields were incomplete this is reflected in the numbers available to analyse. All actual numbers are contained within the tables.
- 4.2 Data were collected from four acute trusts and the community hospitals/wards across Devon, Torbay and Plymouth (Appendix B) generating 2,223 individual patient records.
- 4.3 The audit recorded 1,963 individuals within an acute setting and 260 within a community hospital setting.

- 4.4 Figure 2 shows the overall numbers involved in the audits, and an initial summary of 'fit to leave' status by hospital type and Locality. All confidence intervals in this report have been calculated at the 95% level.

Figure 2: Overall patient numbers and patients 'fit to leave' by locality and hospital type

Setting	Medically fit to leave this care setting?			Total	% Fit to leave*	95% Confidence Range
	Fit	Not fit	Not recorded			
Royal Devon & Exeter Hospital	170	437	1	608	28.0%	(24.5% to 31.8%)
Derriford Hospital	102	714	0	816	12.5%	(10.3% to 15.0%)
North Devon District Hospital	49	179	2	230	21.5%	(16.3% to 27.4%)
Torbay Hospital	60	248	1	309	19.5%	(15.2% to 24.4%)
<b>Acute Total</b>	<b>381</b>	<b>1,578</b>	<b>4</b>	<b>1,963</b>	<b>19.4%</b>	<b>(17.7% to 21.3%)</b>
<b>Community Total</b>	<b>139</b>	<b>121</b>	<b>0</b>	<b>260</b>	<b>53.5%</b>	<b>(47.2% to 59.7%)</b>
<b>Grand Total</b>	<b>520</b>	<b>1,699</b>	<b>4</b>	<b>2,223</b>	<b>23.43%</b>	<b>(21.7% to 25.3%)</b>

\* excludes those with blank 'fit to leave' status

### Cross Sectional Analysis – Proportion of Patients 'Fit To Leave' Their Current Care Setting

- 4.5 This section shows the results for the analysis of the proportion of patients 'fit to leave' their current care setting, cross sectioned by locality, hospital type and type of acute settings.

### Patient Age

- 4.6 This section shows the results of a statistical t-test of average age, cross sectioned by hospital type and 'fit to leave' status.

Figure 3: Patient age by hospital type and 'fit to leave' status

Hospital type	Fit to Leave Status	Mean Age	St.Dev	No. of individuals	95% Confidence Range
Acute	Not Fit	69.5	18.6	1,578	(68.6 to 70.4)
	Fit	75.9	17.7	381	(74.1 to 77.7)
	All*	70.7	18.6	1,959	(69.9 to 71.5)
Community	Not Fit	83.0	10.5	121	(81.1 to 84.9)
	Fit	80.4	11.5	139	(78.5 to 82.3)
	All	81.6	11.1	260	(80.2 to 83.0)
<b>Acute and Community Grand Total</b>	<b>Not Fit</b>	<b>70.4</b>	<b>18.5</b>	<b>1,699</b>	<b>(69.5 to 71.3)</b>
	<b>Fit</b>	<b>77.1</b>	<b>16.4</b>	<b>520</b>	<b>(75.7 to 78.5)</b>
	<b>All*</b>	<b>72.0</b>	<b>18.2</b>	<b>2,219</b>	<b>(71.2 to 72.8)</b>

\*excludes those with a blank 'fit to leave' status

4.7 Figure 4: Analysis of 'fit to leave' patients, across all hospital settings, who could be managed at home, with further needs (n=258)

Need	2018 Audit		2015	2012	2011	2010
	Number	(%)	(%)	(%)	(%)	(%)
Basic Essential care	195	75.6%	71.5%	51.0%	51.1%	70.9%
Further occupational therapy	117	45.3%	41.0%	29.4%	34.7%	53.4%
Further physiotherapy required	118	45.7%	38.0%	27.3%	33.5%	46.6%
Active nursing care	61	23.6%	36.0%	25.9%	26.7%	36.9%
Overnight care/support	84	32.6%	41.0%	24.5%	25.6%	32.0%

### Number of Days Medically Fit

4.8 Of the 160 that had been fit to leave for 4+ days, 48 (30%) did not have a discharge date set.

Figure 5: Number of days medically fit – number of patients

Hospital Type	Hospital Setting	A - 0 Days(Today)	B - 1-3 Days	C - 4+ Days	Blank	Total
Acute*	Royal Devon & Exeter Hospital	61	60	47	2	170
	Derriford Hospital	72	15	15	0	102
	North Devon District Hospital	12	8	6	23	49
	Torbay Hospital	26	22	9	3	60
<b>Total</b>		<b>171</b>	<b>105</b>	<b>77</b>	<b>28</b>	<b>381</b>
Community	<b>Total</b>	<b>20</b>	<b>36</b>	<b>83</b>	<b>0</b>	<b>139</b>
<b>Grand Total</b>		<b>191</b>	<b>141</b>	<b>160</b>	<b>28</b>	<b>520</b>

### Reason in Bed

4.9 Figure 6: Analysis of the reason in bed patients, conducted on patients classed as 'fit to leave'

Hospital Type	Hospital Setting	Awaiting Equipment	Awaiting CHC Funding Approval	Awaiting Social Care Funding Approval	Awaiting Health Package of care*	Awaiting Social Care Package*	Family involvement/ choice	Housing	Safeguarding issues	Transport issues	Awaiting community hospital placement	Other (Specify)
Acute	Royal Devon & Exeter Hospital	0	5	3	10	30	7	1	1	0	13	98
	Derriford Hospital	0	0	0	10	0	0	0	0	0	10	18
	North Devon District Hospital	0	0	5	0	2	1	0	0	0	0	20
	Torbay Hospital	0	0	0	0	5	6	0	2	0	6	41
<b>Total</b>		<b>0</b>	<b>5</b>	<b>8</b>	<b>20</b>	<b>37</b>	<b>14</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>29</b>	<b>177</b>
Community	<b>Total</b>	<b>2</b>	<b>1</b>	<b>4</b>	<b>10</b>	<b>29</b>	<b>8</b>	<b>7</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>71</b>
<b>Grand Total</b>		<b>2</b>	<b>6</b>	<b>12</b>	<b>30</b>	<b>66</b>	<b>22</b>	<b>8</b>	<b>6</b>	<b>1</b>	<b>29</b>	<b>248</b>

\* often reflects a joint short term offer of NHS funded care

## Occupancy

4.10 Figure 7: Analysis of occupancy levels in Acute and community hospitals

Hospital Type	Hospital Setting	Proportion (%)	95% Confidence Range
Acute	Royal Devon & Exeter Hospital	97.1%	(95.5% to 98.3%)
	Derriford Hospital	94.1%	(92.3% to 95.6%)
	North Devon District Hospital	92.7%	(88.8% to 95.6%)
	Torbay Hospital	95.7%	(92.8% to 97.6%)
	<b>Total</b>	95.1%	(94.1% to 96.0%)
Community	<b>Total</b>	90.0%	(85.9% to 93.2%)
	<b>Grand Total</b>	<b>94.5%</b>	<b>(93.5% to 95.4%)</b>

## Discharge date

4.11 Figure 8: Analysis of discharge dates set by hospital type

Hospital Type	Fit to Leave Status	Discharge Date Not Set	Discharge Date Set
Acute*	Not Fit	28.2%	71.8%
	Fit	23.9%	76.1%
Community	Not Fit	18.0%	82.0%
	Fit	19.6%	80.4%
Acute* and Community	<b>Not Fit</b>	<b>27.6%</b>	<b>72.4%</b>
	<b>Grand Total</b>	<b>22.7%</b>	<b>77.3%</b>

\*excludes those who had blank 'fit to leave' status and discharge data was blank

## Dementia/cognitive impairment

Figure 9: Reported rates of dementia/cognitive impairment by hospital and mean age

Hospital Type	Hospital Setting	Percentage reported to have dementia/cognitive impairment	Mean Age
Acute	North Devon District Hospital	19.6%	76.1
	Royal Devon & Exeter Wonford	23.4%	72.2
	Torbay Hospital	16.5%	69.6
	University Hospitals Plymouth	8.9%	68.7
	<b>Total</b>	<b>15.8%</b>	<b>70.8</b>
Community	<b>Total</b>	<b>41.5%</b>	<b>81.6</b>
	<b>Grand Total</b>	<b>18.8%</b>	<b>72.0</b>

4.12 Figure 10: Method of admission to hospital (acute hospitals only) with rates of dementia

Admission Type	Patient numbers	Recorded with dementia/cognitive impairment	Percentage
Planned	240	16	6.7%
Unplanned	1,679	287	17.1%
Transfer	43	8	18.6%
<b>Total</b>	<b>1,962</b>	<b>311</b>	<b>15.9%</b>

## Caring Support

4.13 Figure 11: Caring Support prior to hospital by hospital type

	Acute		Community		Grand Total
	Number	Percentage	Number	Percentage	
Non-independent	1,164	59.3%	123	47.3%	1287
Non-paid e.g. family/friend/carer	240	12.2%	44	16.9%	284
Paid carer/package of care	262	13.3%	68	26.2%	330
Care home	137	7.0%	21	8.1%	158

\* excludes where preadmission care recorded as unknown or blank

## Pre-Admission caring support

4.14 Figure 12: Pre-admission caring support (where stated) and 'fit to leave'

	Number fit to leave	% fit to leave of category
Non-independent	254	19.7%
Non paid e.g. family/friend/carer	65	22.9%
Paid carer/package of care	126	38.2%
Care home	46	29.1%
<b>Grand Total</b>	<b>520</b>	<b>23.4%</b>

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## 5. Discussion

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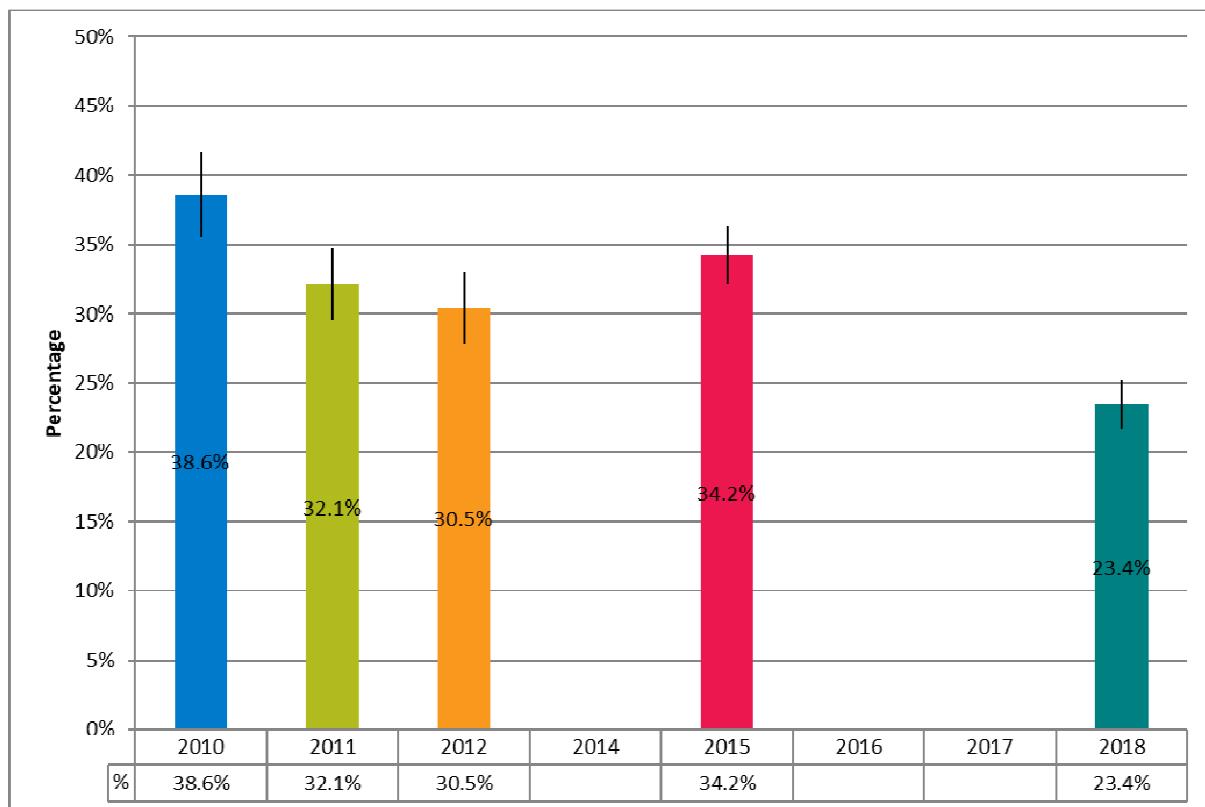
### Patients 'Fit To Leave' Their Current Care Setting

- 5.1 Overall, the percentage of patients in the 2018 audit who were 'fit to leave' was 23.4%
- 5.2 This represents a statistically significant reduction between the percentage of patients 'fit to leave' in the 2018 audit and all of the four previous audits, as shown in figure 14.

Figure 13: Percentage of patients ‘fit to leave’ by year (where ‘fit to leave’ status was completed)

Year	Fit to Leave	Not Fit to Leave	No. of Patients	Proportion Fit to Leave (%)	95% Confidence Range
2010	384	611	995	38.6	(35.6% - 41.7%)
2011	415	878	1,293	32.1	(29.6% - 34.7%)
2012	378	863	1,251	30.5	(27.9% - 33.1%)
2015	668	1,286	1,954	34.2	(32.1% - 36.4%)
2018	520	1,699	2,219	23.4	(21.7% – 25.3%)

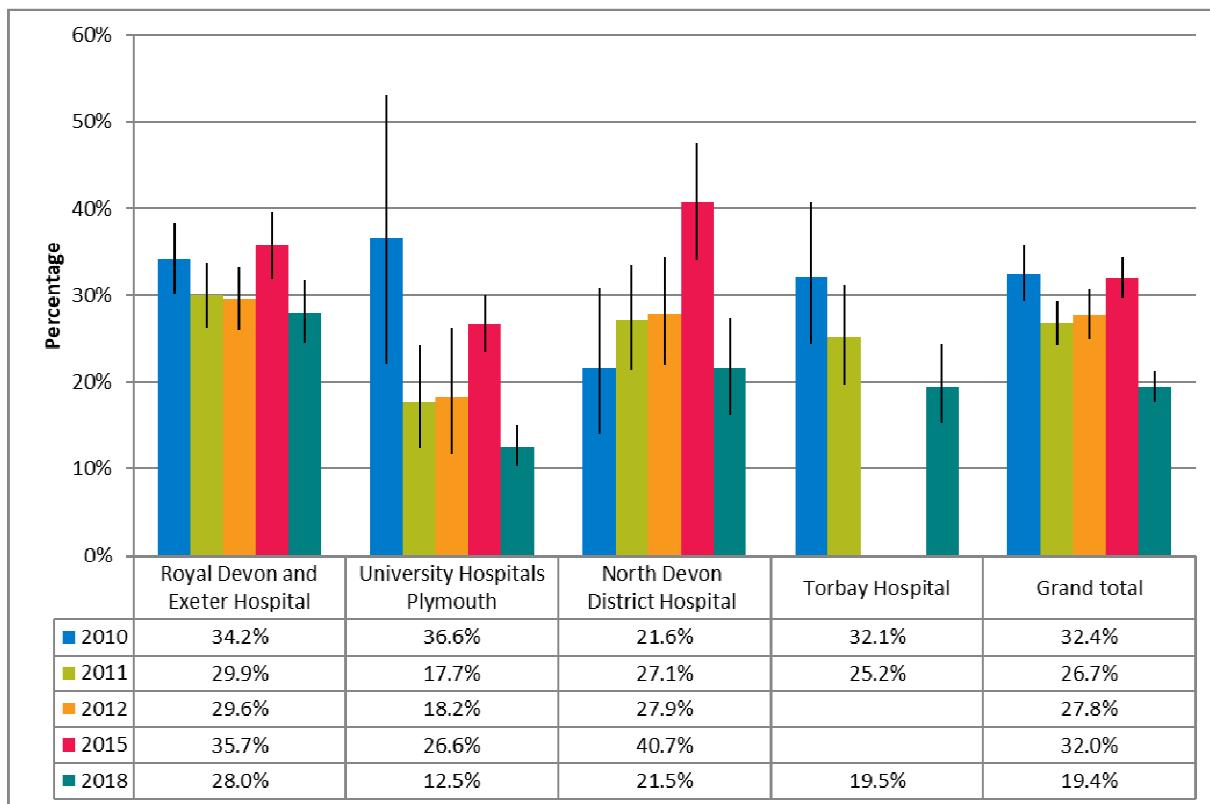
Figure 14: Percentage of patients fit to leave by year



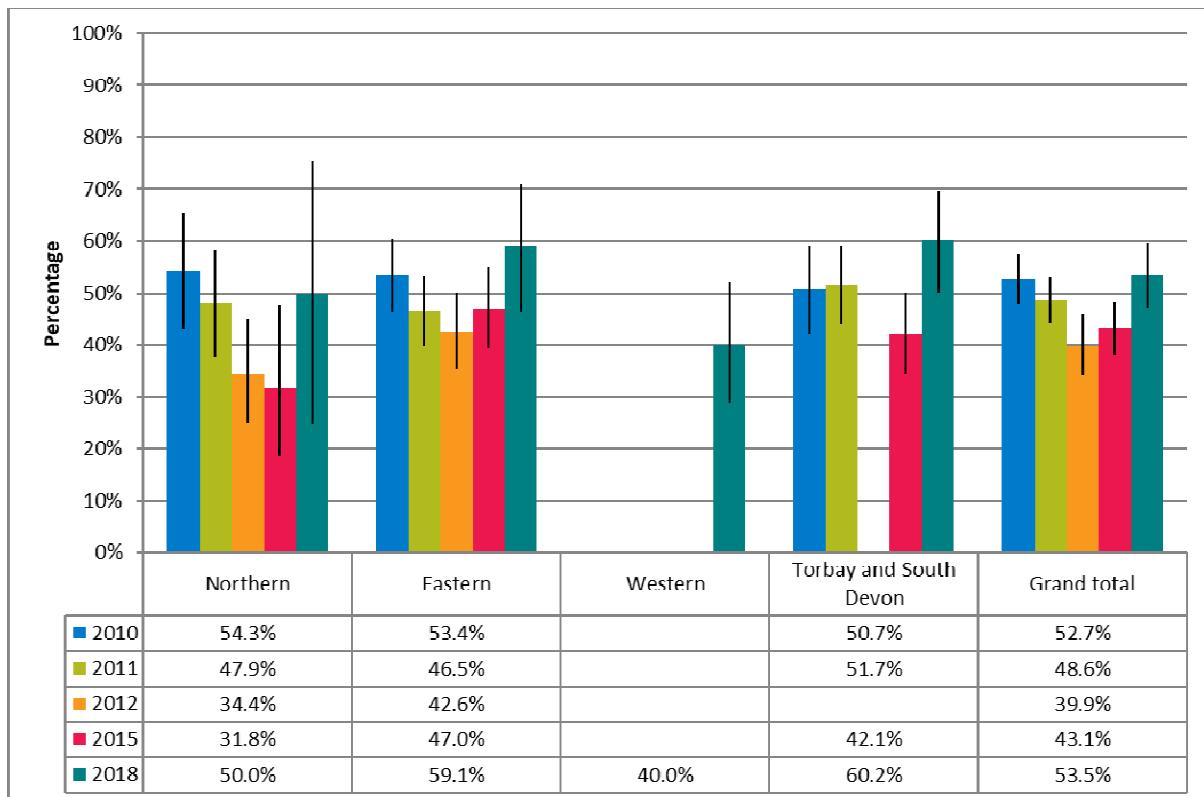
### Acute Patients by Locality

- 5.3 Within an acute setting in 2018, the overall percentage of patients ‘fit to leave’ was 19.4% (381 patients). This shows a significant decrease when compared against all previous audits.
- 5.4 The percentage of patients ‘fit to leave’ for each of the localities has increased compared to the percentages seen in 2015, as shown in figure 16.
- 5.5 The percentage of patients ‘fit to leave’ acute settings in 2018 is lower than the percentages seen in 2010. Notable differences were observed at Derriford Hospital and North Devon District Hospital, where the percentage of those ‘fit to leave’ were statistically significantly lower than the 2015 rates, as shown in figure 15.

**Figure 15: Patients in acute wards defined as ‘fit to leave’ by Locality – by year**



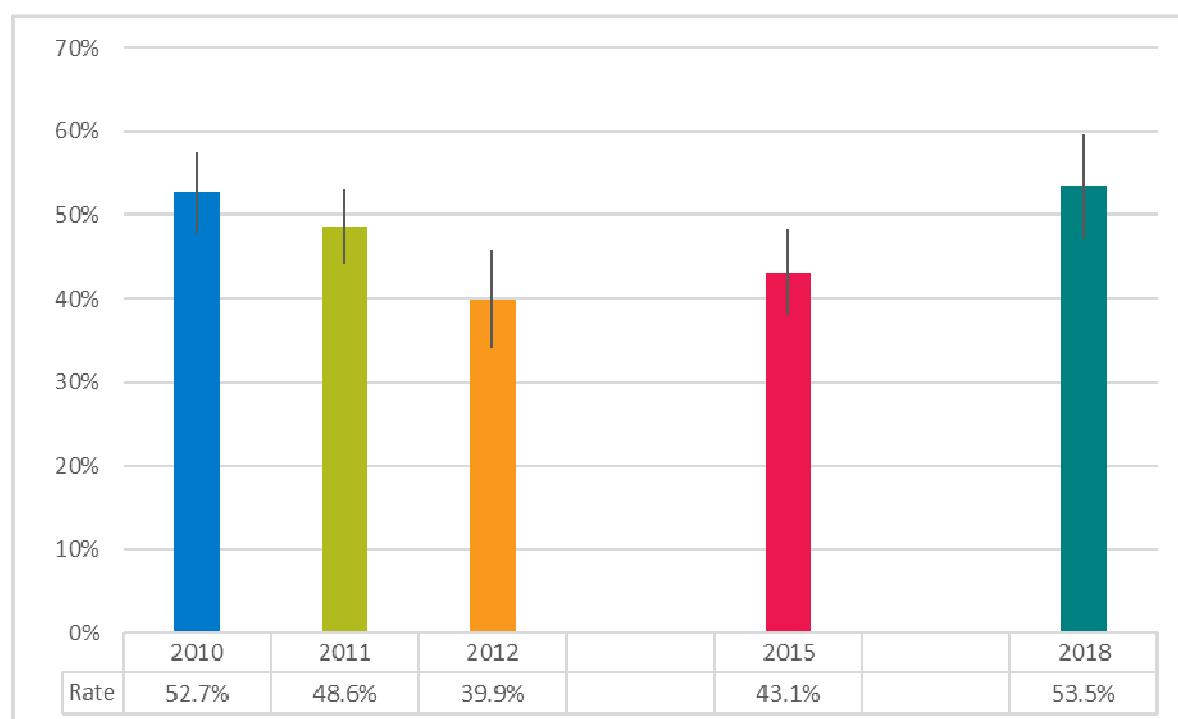
**Figure 16: Patients within community settings defined as ‘fit to leave’ by locality – by year**



## **Community Patients by Locality**

- 5.6 Within a community setting, the overall percentage of patients 'fit to leave' was 53.5%. A cross sectional analysis of community hospital patients by locality showed that there was no significant difference in the percentage of patients categorised as 'fit to leave' their care setting, between any of the locality areas, as shown in figure 17.
- 5.7 When comparing the percentage of community patients 'fit to leave' for each of the localities with the same data last recorded in 2015, it can be seen that there has not been a statistical change in the percentage of patients classified as 'fit to leave'. There has been no statistical change, in 'fit to leave' status from the first audit in 2010 across all community hospital localities.
- 5.8 The proportion of patients 'fit to leave' a community setting (53.5%) is statistically significantly higher than an acute setting (19.4%).

**Figure 17: Patients occupying community hospital beds that are fit to leave setting**

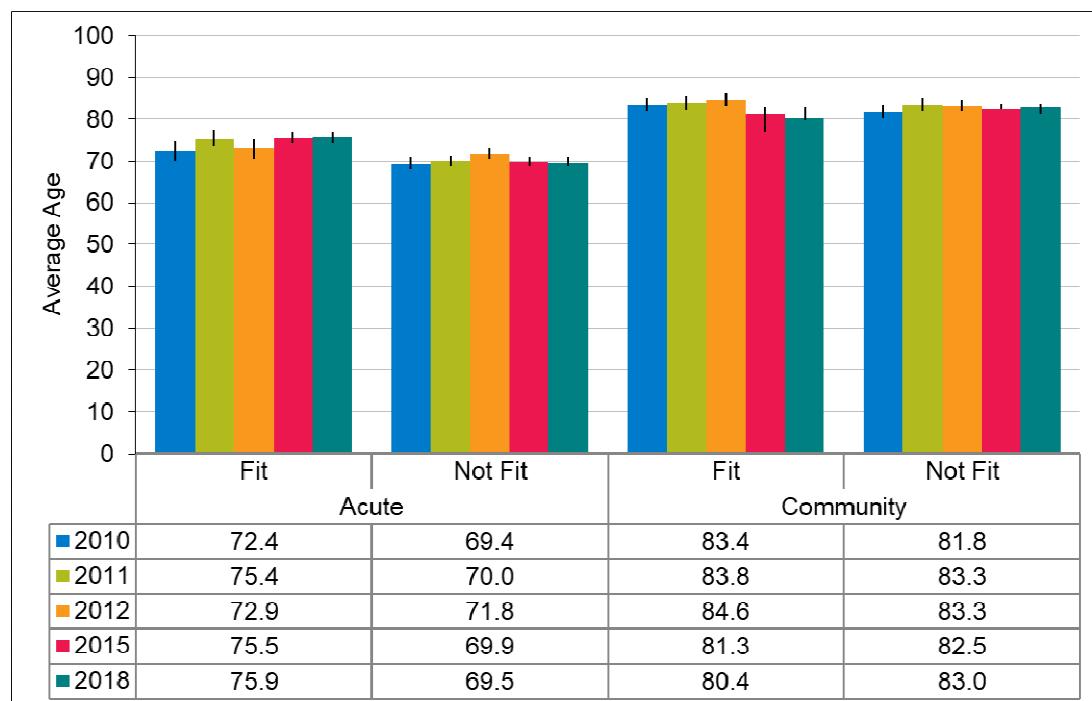


## **Age**

- 5.9 Year on year there has been no significant change in the average age of patients fit or not fit to leave either a community or acute setting, nor has there been any significant change in the age of the hospital population.

- 5.10 Every year patients in a community setting have been statistically significantly older than patients in an acute setting. This supports the hypothesis that younger patients are more likely to be discharged home, whereas older patients are more likely to be discharged to a community hospital setting. This observation is seen again in 2018 although the patients within an acute hospital have seen a slight increase in age.

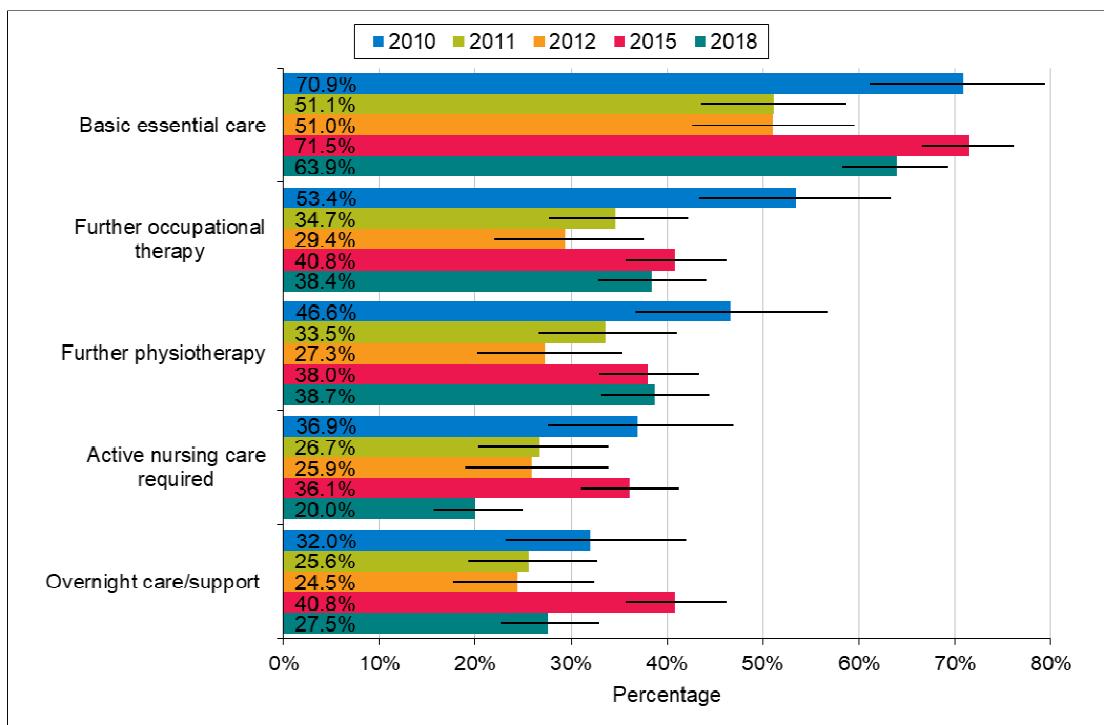
**Figure 18: Year on year comparison of patient age in community and acute settings**



### Patient Needs

- 5.11 The 258 patients, across all hospital settings, that met the criteria for the patient needs assessment ('fit to leave' and could be cared for at home) represented 59.2% of those 'fit to leave' and 11.6% of the total patient population audited.
- 5.12 The needs assessment showed that patients often needed more than one service, as illustrated in figure 19. In total of the 258 patients, 118 (45.7%) required physiotherapy, 195 (75.6%) required basic essential care, 84 (32.6%) required overnight care, 117 (45.3%) requiring occupational therapy and 61 (23.6%) requiring nursing care.
- 5.13 There are statistically significant changes in the percentage of patients' needs in this audit when compared to the first audit in 2010. The active nursing care requirement is significantly lower than 2010 and overnight care/support is significantly lower than 2015. It is noteworthy that the hierarchy of need has remained relatively constant in all five audits, with 'basic essential care' being the most common.

**Figure 19: Needs of patients in patients' needs analysis**



#### **Number of Days Medically Fit to Leave**

- 5.14 In an acute setting, 48.4% of all patients classed as 'fit to leave' had become so on the day of the audit. This is an increase from 2015 where in the same setting 33% of all patients were recorded as 'fit to leave'.
- 5.15 Alongside a higher percentage of overall patients that were 'fit to leave', this suggests that issues preventing patients being in the most appropriate care setting are greater in community settings compared to acute settings.

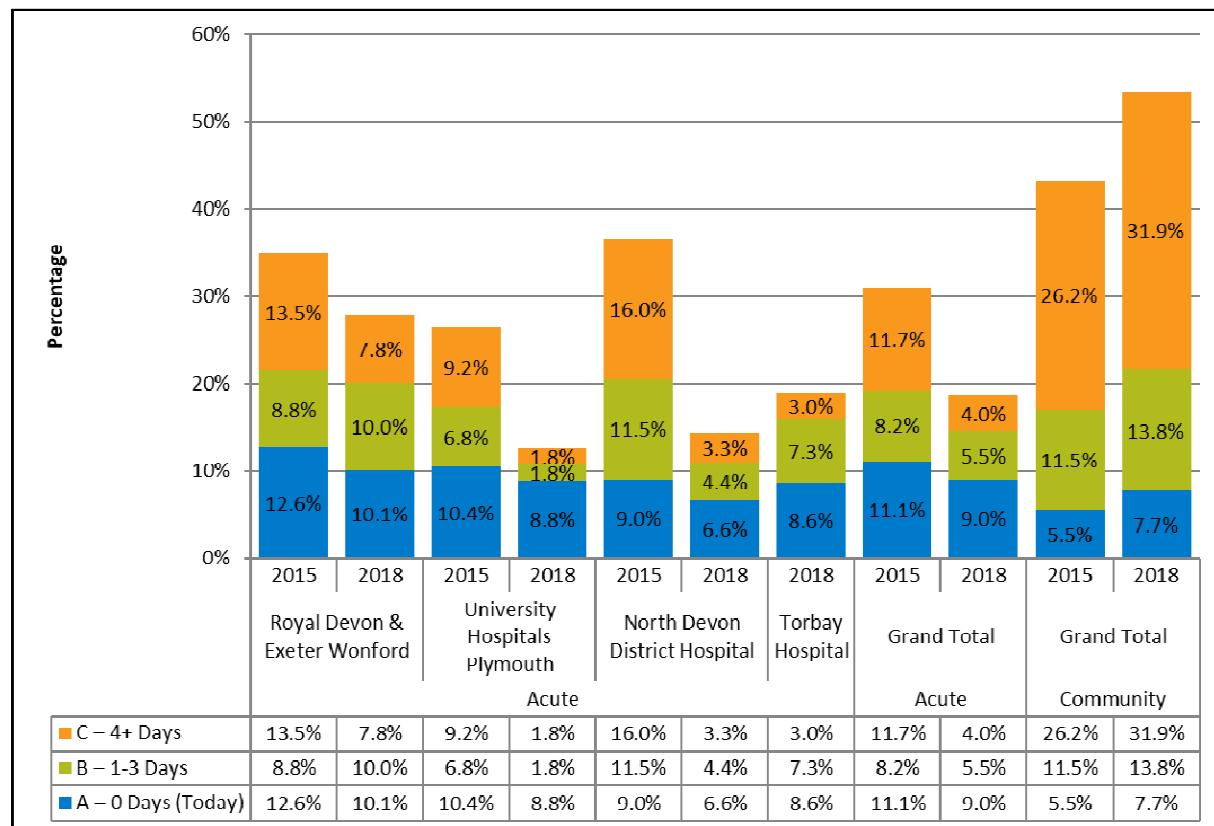
#### **Co-morbidity of dementia/cognitive impairment**

- 5.16 A diagnosis of dementia or cognitive impairment was more frequently recorded in the community hospitals, (45.6%) than in the acute hospitals (16.0%). Patients experiencing dementia or cognitive impairment were more likely to have a delayed discharge from hospital, with 34.0% of patients who were 'fit to leave' being recorded as having dementia or cognitive impairment. In 2015, 48% of patients were 'fit to leave' were recorded as having dementia or cognitive impairment.
- 5.17 Of the 419 patients who had either dementia or a cognitive impairment, 175 were 'fit to leave' (41.8%). Of these patients 82 (46.9%) had been 'fit to leave' for 4+ days.
- 5.18 Fewer than 10% of patients who had a planned admission to hospital were recorded as having a co-morbidity of dementia, compared to 17% of patients who had an unplanned admission or transferred from another hospital.
- 5.19 There were fewer patients recorded in the 2018 audit with dementia or cognitive impairment.

## Admission Route

- 5.20 Most admissions (85.6%) to acute hospitals were unplanned admissions. For community hospitals most patients had been transferred from another hospital.

**Figure 20: Number of days medically fit – percentage of all patients in Acute settings**



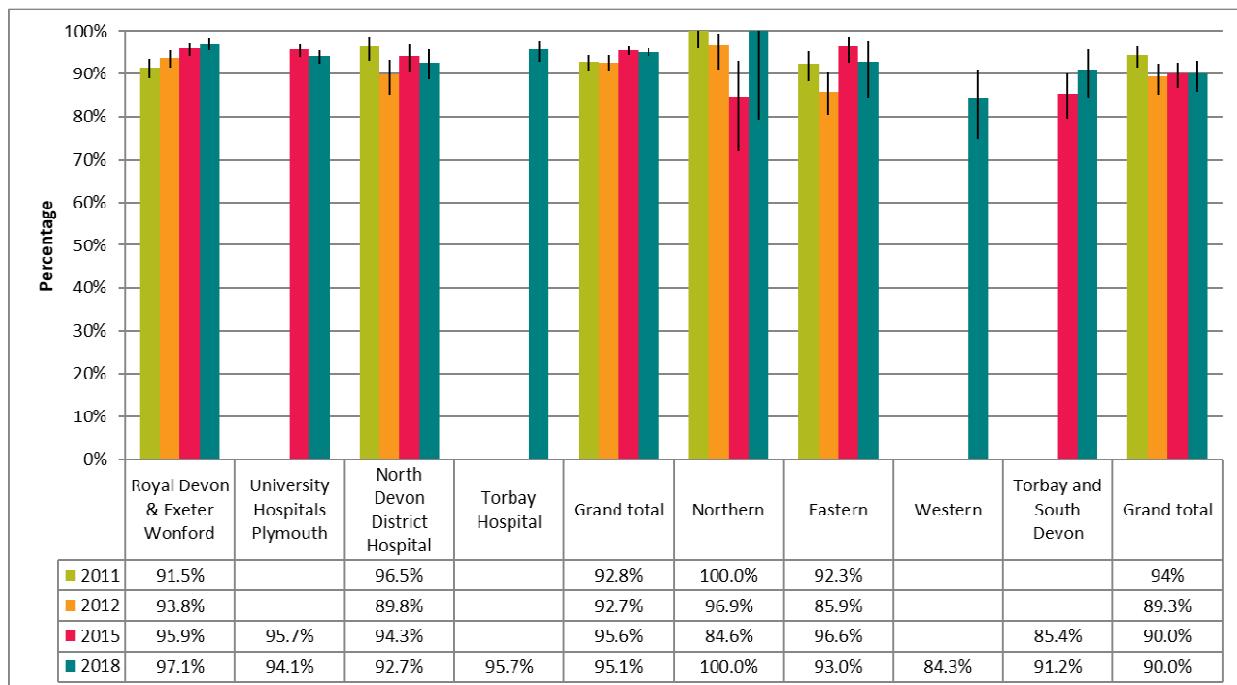
## Reason in Bed

- 5.21 The analysis on ‘reasons in bed’ for those patients that were classed as ‘fit to leave’ showed that there was a broad range of reasons which varied both by hospital type and locality.
- 5.22 A large number of returns cited ‘other’ as a reason for delay rather than one of the categories but for those who chose a category the most common reasons for being delayed in an acute hospital were awaiting either a health or social care package of care, awaiting a community hospital placement or family involvement. Awaiting health or social care packages of care was also the largest category for those delayed in a community setting.
- 5.23 Of the 1,963 patients in an acute setting 29 were waiting for a transfer to a community hospital setting. This compares to 75 patients (out of an in patient population of 1,605) in 2015.

## Occupancy Levels

- 5.24 Occupancy levels across the healthcare system on the day of the audit had a mean value of 90.0% which is the same as 2015. As in previous audits although it was not a requirement of the audit, several auditors did report escalation beds being open in additional to the normal available beds, and outliers from other wards. 100% occupancy was recorded in the Northern locality in the 2011 and 2018 audits.

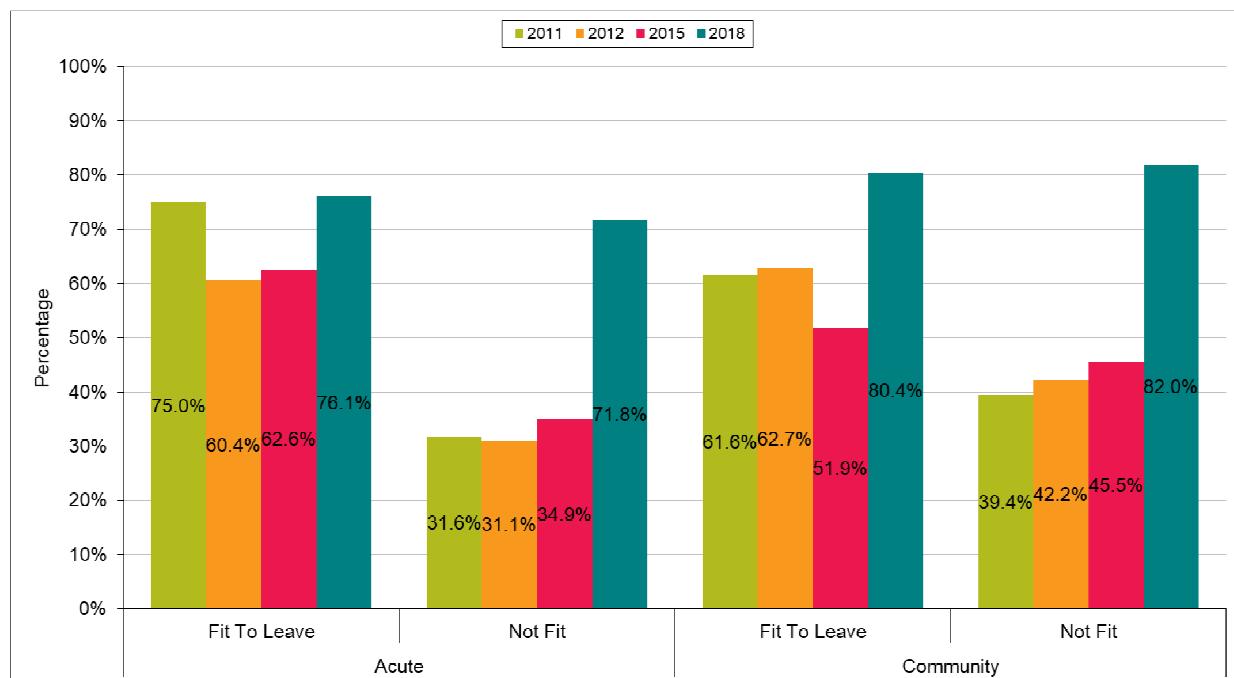
**Figure 21: Occupancy rates by hospital type**



## Discharge Date Set

- 5.25 The majority of patients (73.6%) had a discharge date set. This is an increase on the 45% of patients with a discharge date set in 2015.
- 5.26 Previous audits had shown that patients who were 'fit to leave' were more likely to have a date set in both acute and community settings. This variance is now largely gone with 76.1% of 'fit to leave' and 71.8% of those that were not 'fit to leave' having a discharge date set in the acute hospitals. Within community hospitals 80% of patients 'fit to leave' and 67.8% of those not 'fit to leave' had discharge dates set.

**Figure 22: Percentage of patients with discharge date set**



## Infection

- 5.27 In 2015 the category of delayed due to infection was added as it was noted by auditors in previous years to explain why patients who were 'fit to leave' were still delayed. The 2015 audit showed 40 patients who were 'fit to leave' could not leave because the ward was closed due to infection. This had represented 6% of all of the patients fit to leave. In addition, Torbay hospital had also not been able to take part in the 2015 audit due to the level of infections they were experiencing. In the 2018 audit there were no patients who were delayed due to infections.

## End of Life

- 5.28 There were 72 patients recorded as receiving end of life care. Of these, 63 were within acute hospitals and nine within community hospitals. Patients receiving end of life care represented 3.2% of the in-patient population, which is an increase from 2.4% in the previous audit.

## Pre admission caring support

- 5.29 There was a correlation between the level of care being provided prior to hospital admission and the likelihood of remaining in hospital when 'fit to leave'. Higher rates were seen for patients who received either non-paid support or paid support than if they were independent. For patients who were admitted from care homes there were lower rates than for those with paid support but higher than for those who were independent or receiving non paid support.

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## **6. Summary of Findings**

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### **Fit to Leave**

- 6.1 Within the acute hospital setting 19.4% of patients were ‘fit to leave’ their care setting. Within the community hospital setting 53.5% of patients were ‘fit to leave’ their care setting. A total of 23.4% patients were ‘fit to leave’ their care setting across the health community.
- 6.2 There is a statistically significant decrease in the percentage of patients ‘fit to leave’ an acute setting in 2018 compared to all four previous audits.
- 6.3 There is a no statistically significant difference between the percentage of patients fit to leave a community hospital in 2018 compared to the last audit or the first audit in 2010.
- 6.4 The proportion of patients ‘fit to leave’ a community setting is statistically significantly higher than those in an acute setting.

### **Patient Age**

- 6.5 Over the past eight years, there has not been any statistically significant change in the average age of patients in either an acute or community setting. The proportion of population, by age band in 2018 compared to 2015, is displayed in Appendix C.
- 6.6 Over the past eight years the average age of patients in a community setting has been consistently statistically significantly higher than the average age of patients in an acute setting.

### **Patient Needs**

- 6.7 The needs of the patients who were ‘fit to leave’ and could be managed at home are complex with the majority requiring basic essential care. Fewer remaining in hospital required ongoing

### **Number of Days Medically Fit to Leave**

- 6.8 Within the acute hospitals, 20% of patients who were ‘fit to leave’ had been fit for four or more days. It is estimated that for the 77 acute patients in the sample, a minimum of 308 bed days were used for patients who were ‘fit to leave’ their care setting (though the actual number is likely to be higher).
- 6.9 Within the community hospitals, 60% of patients who were ‘fit to leave’ had been fit for four or more days. It is estimated that for the 83 community patients in the sample, a minimum of 320 bed days were used for patients that were ‘fit to leave’ their care setting (though the actual number is likely to be higher).
- 6.10 The profile of the days that a ‘fit to leave’ patient has been delayed (Figure 20) has changed with a lower percentage of patients being delayed in the 4+ days category or the 1-3 days category. A higher percentage of patients were discharged on the day that they became ‘fit to leave’.

## **Reason for Remaining in a Bed**

- 6.11 The greatest reasons for delay were, ‘awaiting health or social care packages of care’, ‘family involvement’ and ‘awaiting a community hospital placement’.

## **Occupancy Levels**

- 6.12 Occupancy rates across acute and community settings were consistently above 90%, as has been seen in previous audits.

## **Discharge Date**

- 6.13 The majority (75%) of patients had a discharge date set. This is one of the biggest differences between this and previous audits which had shown a minority of patients with discharge dates set. Improving the recording of discharge dates has been a recommendation of the previous audits.

## **Dementia**

- 6.14 Recording of dementia continues to appear variable across the hospitals and localities. Given the demographics of Devon with the older than average population, and the correlation with dementia it is important to understand the impact that dementia or cognitive impairment as a co-morbidity has on the complexity of discharge. Recognising dementia, particularly in the older population is therefore an important step in planning these discharges. Overall, in 2018 fewer patients were reported to have dementia or cognitive impairment than in the previous audit which was the first time this was recorded. Currently it does not appear that there is consistent recognition of dementia across all areas.

## **Infection**

- 6.15 Infection in an in-patient setting causes considerable delay to patients being discharged. In the 2015 audit, 40 patients had been delayed due to infection. In 2018 no patient was delayed due to infection.

## **Care Prior to admission**

- 6.16 Patients receiving care prior to admission were more likely to be fit to leave than those who were independent on admission. Delays were more noted for paid care packages than when the care was provided by friends and family. Patients who had been admitted from care homes also experienced delays.

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## **7. Conclusions**

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### **Numbers and Percentage of Patients That Do Not Need To Be Cared For In Their Current Care Setting**

- 7.1 The percentage of patients 'fit to leave' a community setting was higher than for the acute setting. Overall, the percentage of patients 'fit to leave' their care setting has reduced. There is statistically significant difference (lower rates) between the percentage of patients 'fit to leave' in 2018 compared to all of the four previous audits.

### **Number and Percentage of Patients Who Could Be Managed At Home**

- 7.2 The 2018 audit demonstrates that 13.8% of all patients occupying beds on the day of the audit, in the opinion of the auditors, did not need to be in their current hospital bed. Of this group, 39 could have returned home without requiring any further support. Of these 26 had become 'fit to leave' on the day of the audit and fewer than five had been fit for 4+ days.

### **Type of Health and Social Care Needs of Patients 'fit to leave' Their Current Care Setting**

- 7.3 Between 2010 and 2018 there has been no statistically significant change in the percentage of patients who could be managed at home requiring 'basic essential care', 'further occupational therapy', 'further physiotherapy' or 'overnight care/support'. There was a statistically significant reduction in the patients who could be managed at home requiring active nursing care.

### **Recommendations**

- 7.4 Particular attention should be given to indicators which correlate to patients remaining in a hospital bed when they could be cared for in an alternative setting. These indicators include

- Older age
- Unplanned admission
- Identifying patients experiencing dementia or cognitive impairment
- Receiving care prior to admission

- 7.5 The audit did identify some areas that require further analysis which include

- End of life care
- Admission from care homes

- 7.6 It is recommended that commissioners and providers use these findings to reduce pressure on NHS beds, remove delays in the patient pathway, improve patient care and health and care outcomes.

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**DIRECTOR OF PUBLIC HEALTH**

**Donna Luckett**  
**PUBLIC HEALTH INFORMATION ANALYST**

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## **8. Acknowledgements**

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We should like to thank all of the hospital staff who completed the returns as part of this 2018 acuity audit.

Matt Edmunds – specialty registrar in Public Health for previous acuity audits and wording/analysis

## **APPENDIX A – AUDIT TOOL**

**Devon Acuity Audit 2018**



Hospital Name

**ANSWER**

**Ward Name**

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**Ward Type (Medical/ Surgical)**

**ANSWER**

Date

15 May 2018

**Form Completed By**

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### Number of Open Beds

**ANSWER**

### **Number of Occupied Beds**

**ANSWER**

\*Caring support prior to admission - List to choose from: 1- None-independent 2- Non paid e.g. family/friend/carer 3- Paid carer/package of care 4- Care home 5- Unknown

\* Why are they in this bed today? List to choose from: A- Awaiting Equipment B- Awaiting CHC Funding Approval C- Awaiting Social Care Funding Approval D- Awaiting Health Package of care E- Awaiting Social Care Package F - Family involvement/choice G - Housing H - Safeguarding issues I- Transport issues J-Ward Closed Due To Infection K-Awaiting community hospital placement L- Other (Specify)

## **APPENDIX B – AUDIT LOCATIONS**

	<b>Hospital</b>	
<b>Acute Trusts</b>	Royal Devon & Exeter Hospital Derriford Hospital Northern Devon District Hospital Torbay Hospital	Royal Devon & Exeter NHS Foundation Trust University Hospitals Plymouth NHS Trust Northern Devon Healthcare NHS Trust Torbay and South Devon Health NHS Foundation Trust
<b>Community Hospitals</b>	South Molton Exmouth Sidmouth Tiverton	Northern
	Livewell Mount Gould South Hams Tavistock	Eastern
	Brixham Dawlish Newton Abbot Totnes	Western
		South Devon and Torbay

## **APPENDIX C – Admission proportion by setting**

