



REPORT TO: PERFORMANCE AND AUDIT COMMITTEE – 25 MARCH 2019
REPORT ON: READMISSIONS PERFORMANCE ANALYSIS
REPORT BY: CHIEF FINANCE OFFICER
REPORT NO: PAC10-2019

1.0 PURPOSE OF REPORT

The purpose of this report is to provide assurance to the Performance and Audit Committee (PAC) that in-depth analysis of readmissions performance has been provided to relevant professionals and groups in order to support improvement.

2.0 RECOMMENDATIONS

It is recommended that the Performance and Audit Committee (PAC):

- 2.1 Note the content of this report and the analysis of readmissions (section 5 and appendix 1).
- 2.2 Requests that the Unscheduled Care Board consider the findings of the analysis with a view to further informing operational decisions making and improvement actions.
- 2.3 Requests that the Home and Hospital Transitions group further consider the local variation in readmission rates with a view to developing targeted responses to reduce variation.

3.0 FINANCIAL IMPLICATIONS

None.

4.0 BACKGROUND

- 4.1 Unscheduled hospital care is one of the biggest demands on the Partnership resources. Whilst significant improvements have been made from the pre-integration baseline (2015/16) in some aspects of unscheduled care, specifically bed days lost to delayed discharge and emergency bed day rates and numbers, performance in relation to readmissions has remained an area for improvement for the Dundee Partnership.
- 4.2 In May 2018 the PAC received an in-depth analytical report for unscheduled care, including readmissions (Article VIII of the minute of the Dundee PAC on 29 May 2018 refers). At this time a range of ongoing improvement activities were described across the unscheduled care pathway, however there was not a specific focus on readmissions.
- 4.3 Readmissions performance is consistently reported through the Partnership's Quarterly Performance Reports. As quarterly performance reporting is focused on the National Health and Wellbeing Indicators readmissions performance is measured using a single indicator; 'rate of readmissions to hospital within 28 days of discharge per 1,000 admissions' (national indicator 14). Data is reported for all ages and by locality and national benchmarking information is also provided.

4.4 As at Quarter 2 2018/19 performance against the national readmissions indicator can be summarised as:

Benchmarking – ISD MSG data

- The rate of readmissions was higher in Dundee than the Scottish rate.
- Dundee was the poorest performing Partnership in Scotland.
- The gap between Dundee and the 2nd poorest performing partnership deteriorated slightly from 5 readmissions per 1,000 admissions in 2018/19 Q1 to 9 readmissions per 1,000 in 2018/19 Q2.

Difference from 2015/16 Baseline to 2018/19 Q2 - NHS Tayside BSU data

- 13.39% increase in Dundee rate, which is a deterioration in performance.
- The Dundee rate has fluctuated since 2015/16 however 2018/19 Q2 showed the greatest increase from 2015/16 baseline.

Performance Trend between 18/19 Q1 and 18/19 Q2 - NHS Tayside BSU data

- Increased Rates of Readmission between 2018/19 Q1 and Q2 across all Localities.
- Locality showing biggest increase was Maryfield (15.60%).
- Locality showing smallest increase was Lochee (5.65%).

Variation across Localities in 2018/19 Q2 - NHS Tayside BSU data

- The highest readmission rate per 1,000 population was in Coldside (143).
- The lowest readmission rate per 1,000 population was in The Ferry (108).

Since 2016/17 performance against the national readmissions indicator has been consistently poor and an identified area for improvement.

5.0 READMISSIONS PERFORMANCE ANALYSIS

5.1 It is recognised that focus on a single performance indicator is unlikely to help the PAC, Unscheduled Care Board and operational managers to fully understand readmissions performance. Appendix 1 contains an in-depth analytical report that includes a range of measures of performance relating to readmissions, in order to give a more holistic picture of performance and potential areas for targeted improvement action.

5.2 The data used within the analytical report is taken from the SMR01 national dataset and trend data shows annual rolling totals for each financial quarter since 2014/15 Q4 (Apr14 to Mar15) up to 2018/19 Q2 (Oct17 to Sep18). This allows the reader to observe trends in the data and to identify which quarters the data climbs or falls. For national comparisons against all 31 Partnerships, the indicators only show financial year 2018/19 Q1 (Jul17 to Jun18) as this is the latest period that is published at Information Services Division (ISD) for unscheduled care activity.

5.3 The analytical report identifies that, when comparing against all other Health and Social Care Partnerships in Scotland, emergency admissions within 28 days as a rate per 1,000 admissions is highest in Dundee, 7th highest in Perth and Kinross and 14th highest in Angus (see Charts 1a and 1b). Dundee's position does not change when data is standardised for age, gender and deprivation (see Charts 2a and 2b).

5.4 Data shows that the increase in the 28-day readmission rate for Dundee since 2017/18 Quarter 2 has been largely due to decreases in admissions (see Charts 4a, 4b and 4c). Although readmission numbers have fallen slightly over this period, admission numbers have been decreasing at a faster rate pushing up the readmissions rate.

5.5 Relative to other Partnerships in Scotland, Dundee performs better in relation to readmissions within 28 days for older adults than for younger adults (see Charts 5a to 5d). When considering the adult population (age 18+) the 28-day readmission rate per 1,000 population in Dundee is better than the Scottish average with Angus and Perth and Kinross having amongst the lowest rate per 1,000 population of anywhere in Scotland.

- 5.6 Readmissions rates within General Medicine have historically been below the Scottish average, but have been increasing the last two quarters. Rates in Geriatric Medicine and Respiratory Medicine are also currently increasing. Rates in Gastroenterology have been decreasing since 2016/17 Quarter 4.
- 5.7 Emergency readmissions, as a rate of all admissions, is only one measure of clinical care outcomes. Other measures should be observed in conjunction with readmissions to get an overall picture of clinical care. Such measures include the hospital standardised mortality rates (HSMR), clostridium difficile infection rates (C.Diff), combined MRSA/MSSA infection rates (SAB) and the patient satisfaction experience survey (PSES). Ninewells Hospital and Perth Royal Infirmary both perform strongly, in comparison to the rest of Scotland, in these four safety measures.
- 5.8 In conclusion, the rate of readmissions to hospital within 28 days of discharge per 1,000 admissions has been steadily increasing for all ages in Dundee since March 2015. However, over the last year there have been improvements in the number of readmissions for Dundee residents. This reduction in readmission numbers has been offset by the much bigger improvements in admission numbers. It is plausible that the type of patients no longer admitted to Ninewells are at less risk of readmission than the type of patient still being admitted i.e. a higher proportion of Dundee patients admitted in 18/19 Quarter 2 have a greater complexity and intensity of need than those admitted in 17/18 Quarter 2, so readmission rates will increase.

6.0 ACTIONS TAKEN TO ADDRESS READMISSIONS

- 6.1 The Tayside Unscheduled Care Board recognised this performance position across Tayside and there has been a focus on better understanding the readmissions data and to identify any current practice which might impact on this. While it was acknowledged that the low level of admissions was a contributing factor to a high readmission rate compared to the rest of Scotland, as described in Appendix 1, a detailed analysis at medical speciality level identified Respiratory Medicine and Gastroenterology as outliers.
- 6.2 The Clinical Lead for Respiratory Medicine undertook a deep dive into any causal factors and identified that the 28-day respiratory readmission data for NHS Tayside is only slightly higher than the Scottish average for 28-day readmissions when based on per head of population data. The examination of readmission data in this field identified that readmissions remain common in respiratory medicine due to severity of disease and is linked to individual patients who can have multiple admissions. When comparing socioeconomic factors and deprivation categories across the three Tayside Health and Social Care Partnerships within Tayside, it is likely that these factors, added to the high level of Chronic Obstructive Pulmonary Disease (COPD) within Dundee, are driving higher rates of readmissions in Dundee City compared to Angus and Perth and Kinross.
- 6.3 There are currently robust community COPD services within Dundee which contribute to the low levels of admission. In addition both inpatient and community services take a multidisciplinary approach to supporting patients who are known to have frequent readmissions. The actions taken to support patients are showing early signs of impacting on the level of readmissions within this cohort of patients. Respiratory pathway improvements are currently part of the Inpatient Flow Transformation Programme (NHS Tayside). Dundee Health and Social Care Partnership invested in additional COPD nursing resources as part of the Delayed Discharge Improvement Funding. During the next year we will further review our current resources and models to ensure we are providing the appropriate level of support to patients experiencing COPD.
- 6.4 The Tayside Unscheduled Care Clinical Lead and the clinical lead for Gastroenterology are undertaking a detailed analysis of the readmission pathways at patient level and have made significant changes to the liver pathway. This has resulted in a preventative readmission pathway for patients requiring ascetic drains, which is supported by a nurse and associate physician who follow up by phone to support patients at home.
- 6.5 The Unscheduled Care Board will continue to explore the available data to identify and respond to areas where improvements can be made. Within the Health and Social Care Partnership our

intention is to look closer at the variance across localities to determine if there are further local initiatives which would support individuals and reduce current variance.

7.0 POLICY IMPLICATIONS

This report has been screened for any policy implications in respect of Equality Impact Assessment. There are no major issues.

8.0 RISK ASSESSMENT

Risk 1 Description	The risk of not reducing the readmissions could affect; outcomes for individuals and their carers and spend associated with readmissions if the Partnership's performance does not improve.
Risk Category	Financial, Governance, Political
Inherent Risk Level	Likelihood 3 x Impact 5 = Risk Scoring 15 (Extreme Risk)
Mitigating Actions (including timescales and resources)	<ul style="list-style-type: none"> - An in depth analysis of readmission data is included in this paper. - The Unscheduled Care Board is prioritising improvements in this area. - Senior Operational Managers will continue to be consulted with in order that findings can be used to make improvements.
Residual Risk	Likelihood 3 x Impact 3 = Risk Scoring 9 (High Risk)
Planned Risk Level	Likelihood 3 x Impact 3 = Risk Scoring 9 (High Risk)
Approval Recommendation	The risk level should be accepted with the expectation that the mitigating actions are taken forward.

9.0 CONSULTATIONS

The Chief Officer, Unscheduled Care Board and the Clerk were consulted in the preparation of this report.

10.0 BACKGROUND PAPERS

None.

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DATE: 25 March 2019

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Readmissions Report for Dundee H&SCP

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**Release date
20th Feb 2019**

Local Intelligence Support Team (LIST), ISD Scotland

Contents

Introduction	3
Data Sources	3
Main Points	3
Emergency Readmissions within 28 Days as a Rate per 1,000 Admissions	5
Readmission Rate by Itself Does Not Tell the Whole Story: Hypothetical Example	7
Trends in 28 Day Readmissions and All Admissions	8
Emergency Readmissions within 28 Days by Age Groups	9
Emergency Readmissions within 28 Days by Specialty	14
Medical Readmissions within 28 Days Standardised by Age, Gender and Deprivation Error! Bookmark not defined.	
Other Quality Measures to Assess Overall Clinical Care	16
Conclusion	18

Introduction

This report has been prepared by the Local Intelligence Support Team (LIST) on behalf of Dundee Health & Social Care Partnership in order to better understand unscheduled care activity.

This report aims to show how Dundee H&SCP compares to Scotland and other partnerships within NHS Tayside for emergency readmissions within 28 days. It also aims to demonstrate that the readmission rate, by itself, can be misleading and this measure needs to be taken in context with other measures.

Data Sources

The data used for this report is taken from the SMR01 national dataset and trend data shows annual rolling totals for each financial quarter since 2014/15Q4 (Apr14 to Mar15) up to 2018/19Q2 (Oct17 to Sep18). This allows the reader to observe trends in the data and to identify which quarters the data climbs or falls. For national comparisons against all 31 partnerships, the indicators only show financial year 2018/19Q1 (Jul17 to Jun18) as this is the latest period that is published at ISD for unscheduled care activity.

Main Points

Emergency readmissions within 28 days as a Rate per 1,000 Admissions

- As at 2018/19Q1, 28 day readmission rates for all age groups across the 32 partnerships was highest in Dundee, 7th highest in P&K and 14th highest in Angus
- The readmission rate per 1,000 admissions has been steadily increasing in Dundee, whereas there has been a slight decrease in Angus and P&K

Emergency readmissions within 28 days, Directly Standardised by Age-Gender-Deprivation, as a Rate per 1,000 Admissions

- Standardising by age, gender and deprivation does not change Dundee's position amongst all H&SCPs in Scotland as at 18/19Q1. The rate has decreased the crude rate measure slightly from 129 per 1,000 admissions to a standardised rate of 125 per 1,000 admissions

Trends in 28 Day Readmissions and All Admission Numbers

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- The increase in the 28 day readmission rate for Dundee, since 2017/18Q2, has largely been due to the decrease in admissions. Readmission numbers have been slightly decreasing during this period, but admissions have been decreasing at a faster rate, therefore pushing up the readmission rate per 1,000 admissions.

Emergency readmissions within 28 days by Age Group

- Relative to the rest of Scotland, Dundee performs better for older adult readmissions than for younger adult readmissions.
- With the exception of under 18s, Dundee has a 28 day readmission rate per 1,000 population lower than Scotland. For people aged 18+, Angus and P&K have amongst the lowest readmission rates per 1,000 population in Scotland.

Emergency readmissions within 28 days by Specialty

- General medicine readmission rates for Dundee residents have been historically below the Scottish rate but it has seen an increase in the last two quarters
- Geriatric medicine has also seen an increase in the last two quarters
- Respiratory medicine has been increasing since 2017/18Q3
- Gastroenterology has generally been decreasing since 2016/17Q4

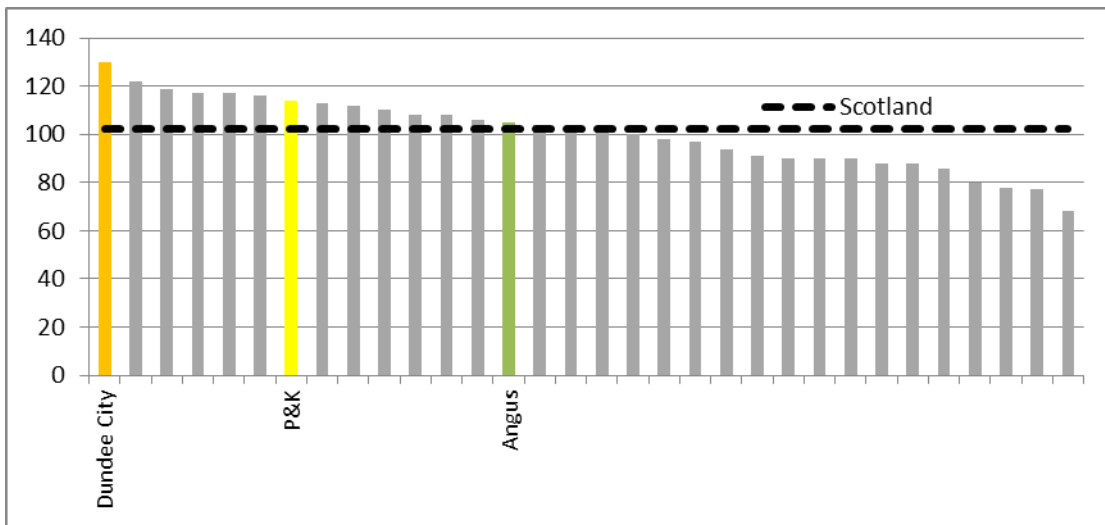
Information from Quality Indicators

- Ninewells Hospital and Perth Royal Infirmary both perform strongly, in comparison to the rest of Scotland, in the four safety measures of HSMR, C.Diff, SAB and PSES.

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Emergency Readmissions within 28 Days as a Rate per 1,000 Admissions

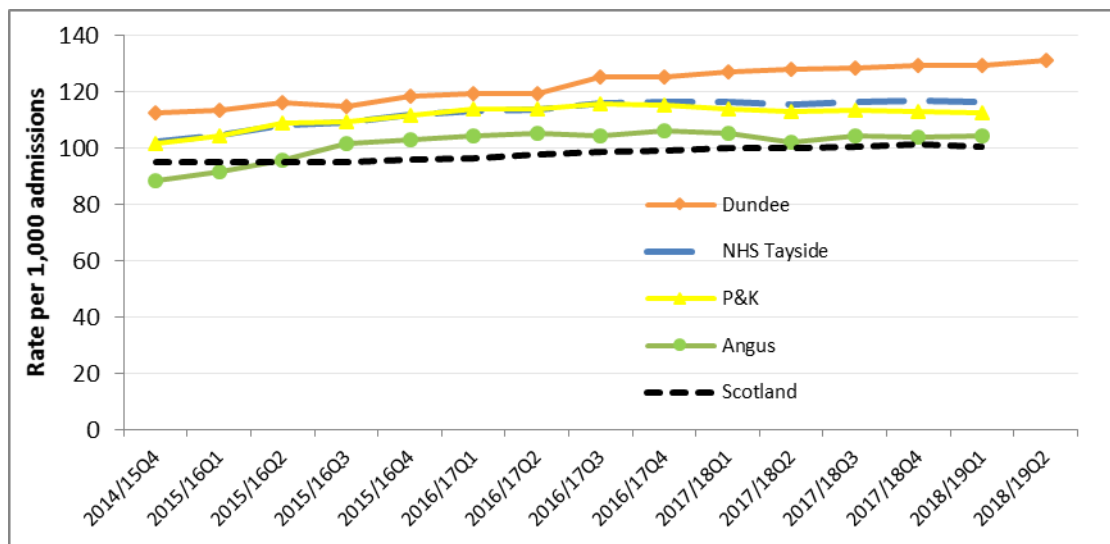
Emergency readmissions within 28 days, as a crude rate per 1,000 admissions, are highest in Dundee and the rate in Dundee has been steadily increasing since 2014/15Q4.

Chart 1a: Annual number of emergency readmissions within 28 days, as a crude rate per 1,000 admissions, for all age groups by HSCP as at 2018/19Q1.



Source: ISD LIST (Dundee) management information

Chart 1b: Annual rolling number of emergency readmissions within 28 days, as a crude rate per 1,000 admissions, for all age groups by H&SCP between 2014/15Q4 and 2018/19Q2

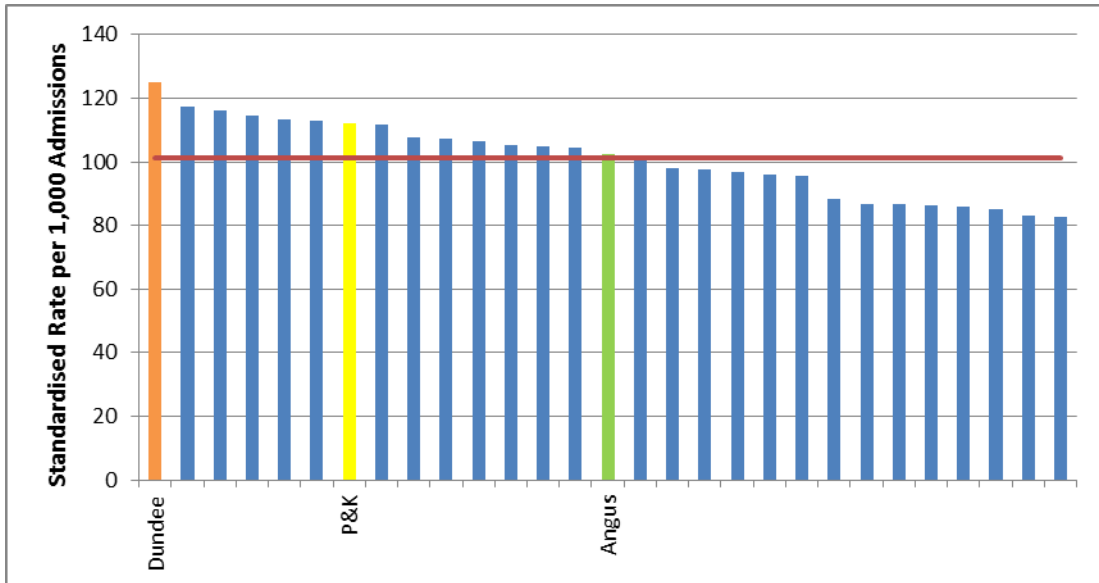


Source: ISD LIST (Dundee) management information

Local Intelligence Support Team (LIST), ISD Scotland
Emergency Readmissions within 28 Days, Directly Standardised by Age-Gender-Deprivation, as a Rate per 1,000 Admissions

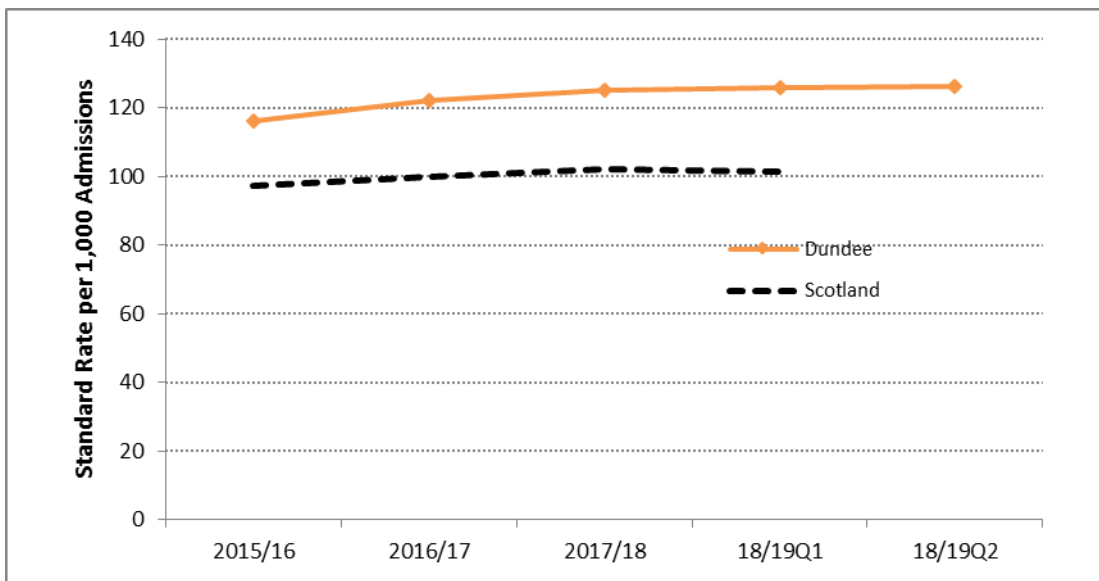
Standardising by age, gender and deprivation does not change Dundee’s position amongst all H&SCPs in Scotland as at 18/19Q1. The rate has decreased the crude rate measure slightly from 129 per 1,000 admissions to a standardised rate of 125 per 1,000 admissions.

Chart 2a: Annual number of emergency readmissions within 28 days, as a directly standardised rate per 1,000 admissions, for all age groups by HSCP as at 2018/19Q1.



Source: ISD LIST (Dundee) management information

Chart 2b: Annual rolling number of emergency readmissions within 28 days, as a standardised rate per 1,000 admissions, for all age groups by H&SCP between 2014/15Q4 and 2018/19Q1



Source: ISD LIST (Dundee) management information

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Readmission Rate by Itself Does Not Tell the Whole Story:
Hypothetical Example

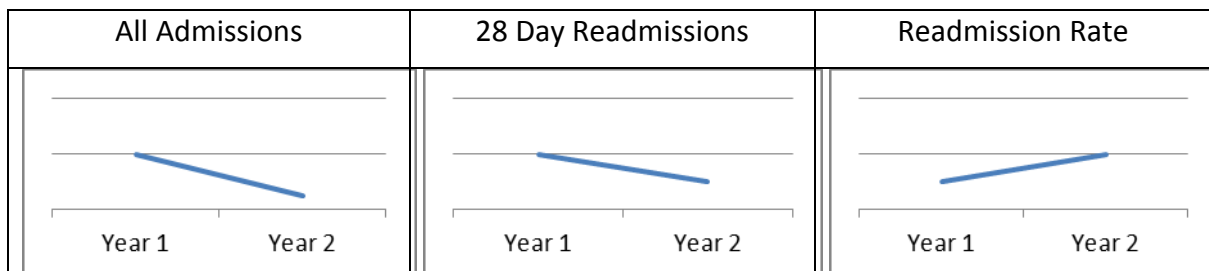
An increase in the emergency readmissions rate does not necessarily mean that there have not been improvements in readmissions. The hypothetical example below shows that if all admissions fell by 75% but readmission numbers had fallen by less than this, such as by 50%, then there would be an increase in the readmission rate.

This is a similar story as to what has happened in 28 day readmissions, as a rate per 1,000 admissions, for Dundee residents from 17/18Q2 to 18/19Q2 (see **Trends in 28 Day Readmissions and All Admissions**).

Table 1: Example of how readmission rates can increase whilst there is a decrease in all admissions and 28 day readmission numbers

	Year 1	Year 2	% Diff
All Admissions	20	5	-75%
28 Day Readmissions	10	5	-50%
Readmission Rate	50%	100%	+100%

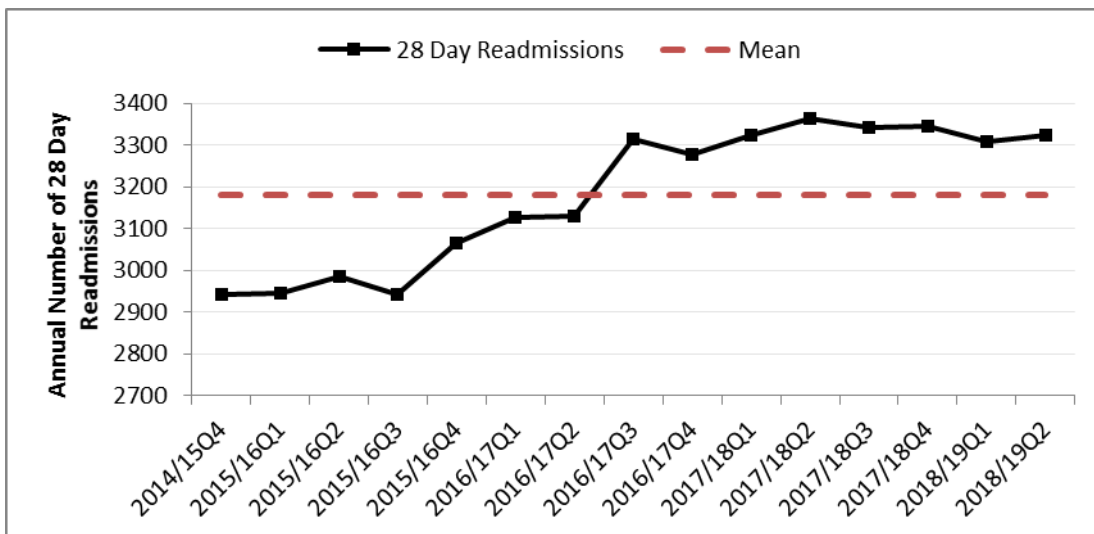
Chart 3: Example of how readmission rates can increase whilst there is a decrease in all admissions and 28 day readmission numbers



Local Intelligence Support Team (LIST), ISD Scotland Trends in 28 Day Readmissions and All Admissions

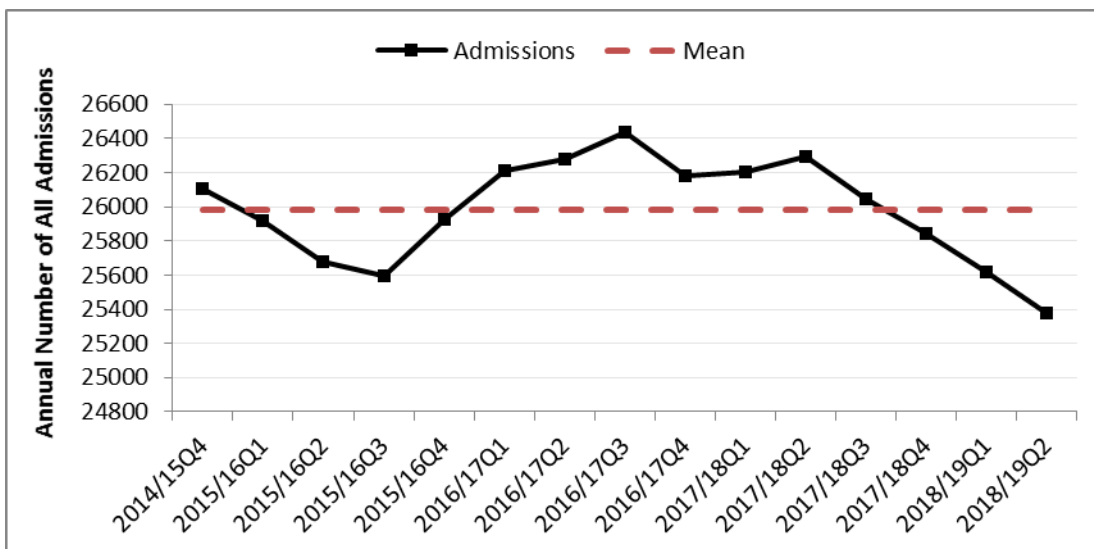
The rolling annual total of 28 day readmissions increased between 2014/15Q4 and 2017/18Q2, but since then the numbers have slightly declined from 3,364 in 2017/18Q2 to 3,323 in 2018/19Q2; a decrease of 1.2%. The rolling annual total of all admissions has declined since 2017/18Q2 from 26,292 to 25,378 in 2018/19Q2; a decrease of 3.5%. This combination has pushed up the readmission rate from 12.8% in 2017/18Q2 to 13.1% in 2018/19Q2.

Chart 4a: Rolling annual number of emergency readmissions within 28 days in Dundee between 2014/15Q4 and 2018/19Q2



Source: ISD LIST (Dundee) management information

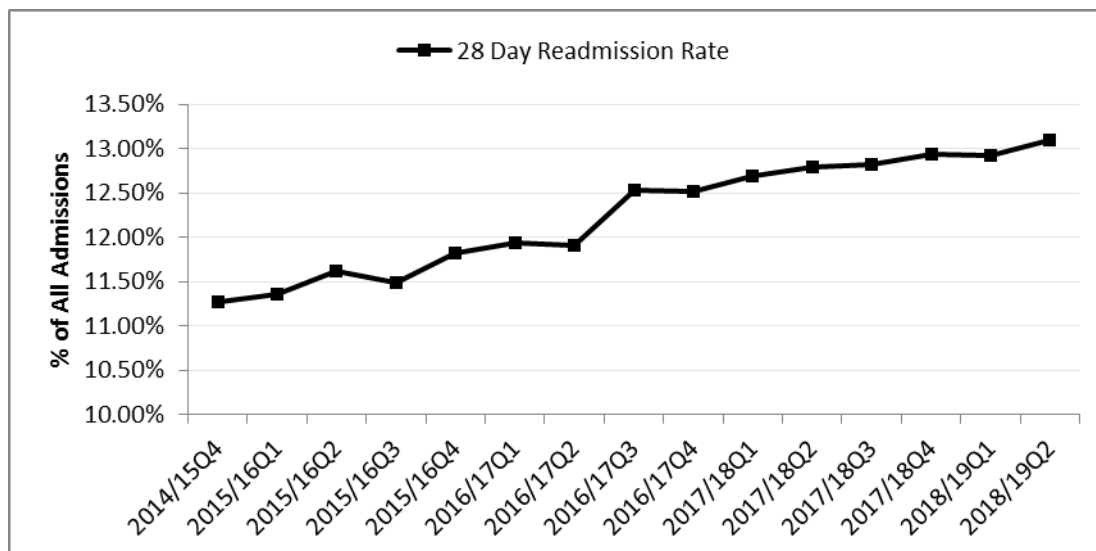
Chart 4b: Rolling annual number of all admissions in Dundee between 2014/15Q4 and 2018/19Q2



Source: ISD LIST (Dundee) management information

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Chart 4c: Rolling annual rate of emergency readmissions within 28 days in Dundee between 2014/15Q4 and 2018/19Q2



Source: ISD LIST (Dundee) management information

Emergency Readmissions within 28 Days by Age Groups

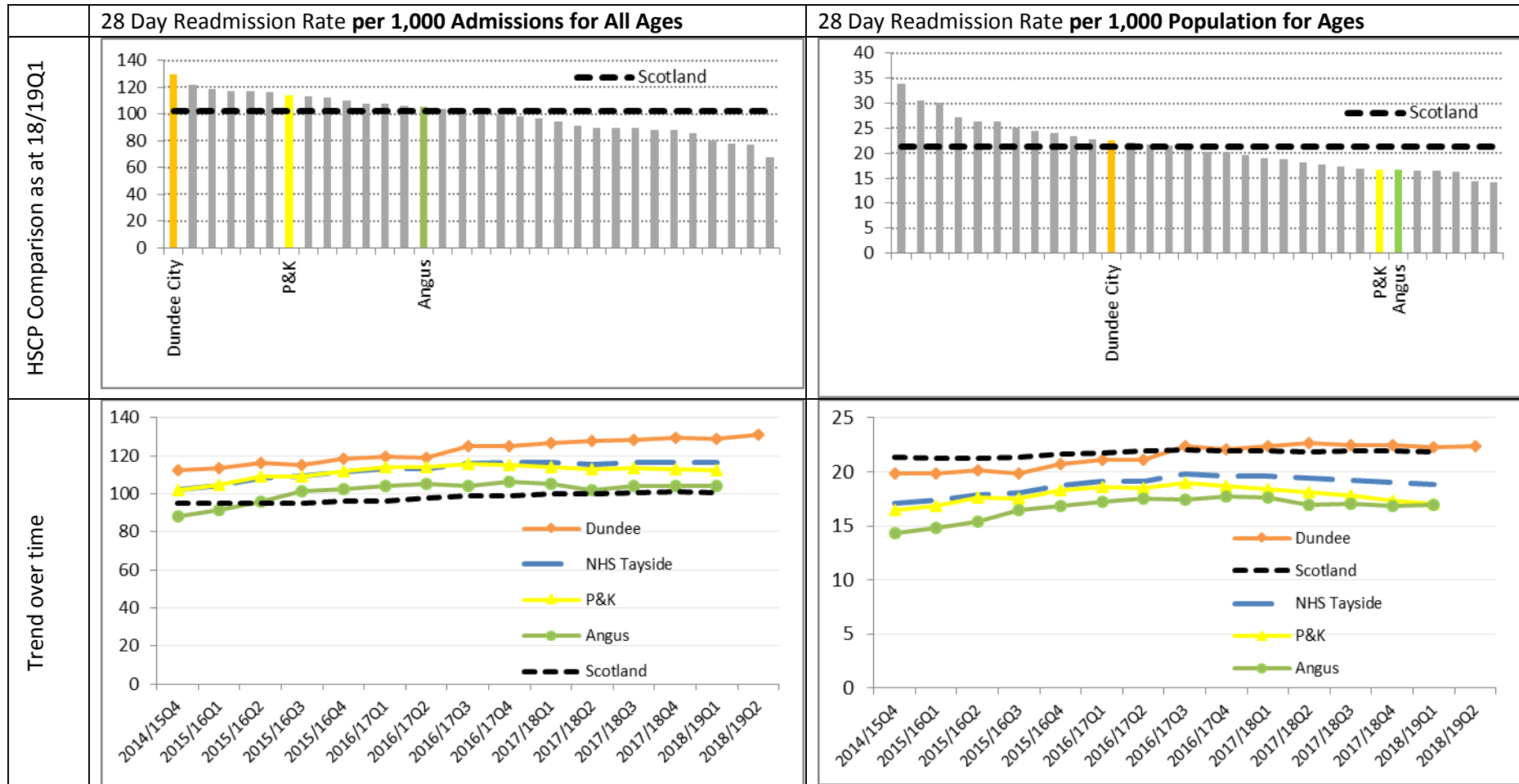
Charts 5a to 5d show readmissions within 28 days by age group, both as a crude rate per 1,000 admissions and as a crude rate per 1,000 population. As a rate per 1,000 admissions, Dundee has a rate higher than Scotland for all age groups. However, when the rate per 1,000 population is used instead, Dundee readmission rates are lower than Scotland in the 75+ and the 18-74 age groups.

The following charts demonstrate how 28 day readmissions rate in Dundee is relatively lower for older age groups than it is for younger age groups as well as the contrast between rates per 1,000 admissions and rates per 1,000 population:

- Readmissions within 28 days for people of all ages (page 9)
- Readmissions within 28 days for people of aged 75+ (page 10)
- Readmissions within 28 days for people of aged 18-74 (page 11)
- Readmissions within 28 days for people of aged under 18 (page 12)

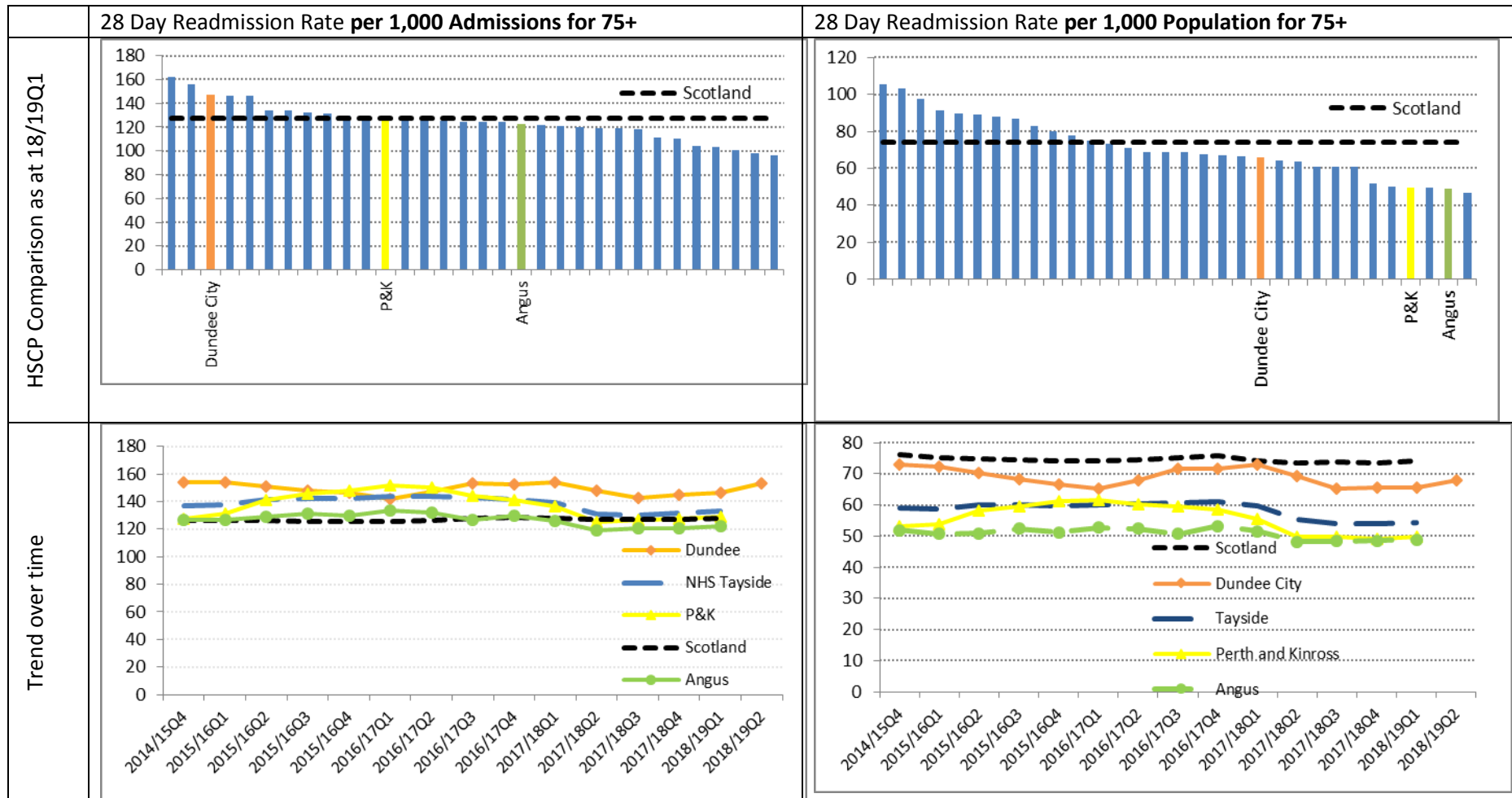
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Chart 5a: Readmissions within 28 days for people of all ages



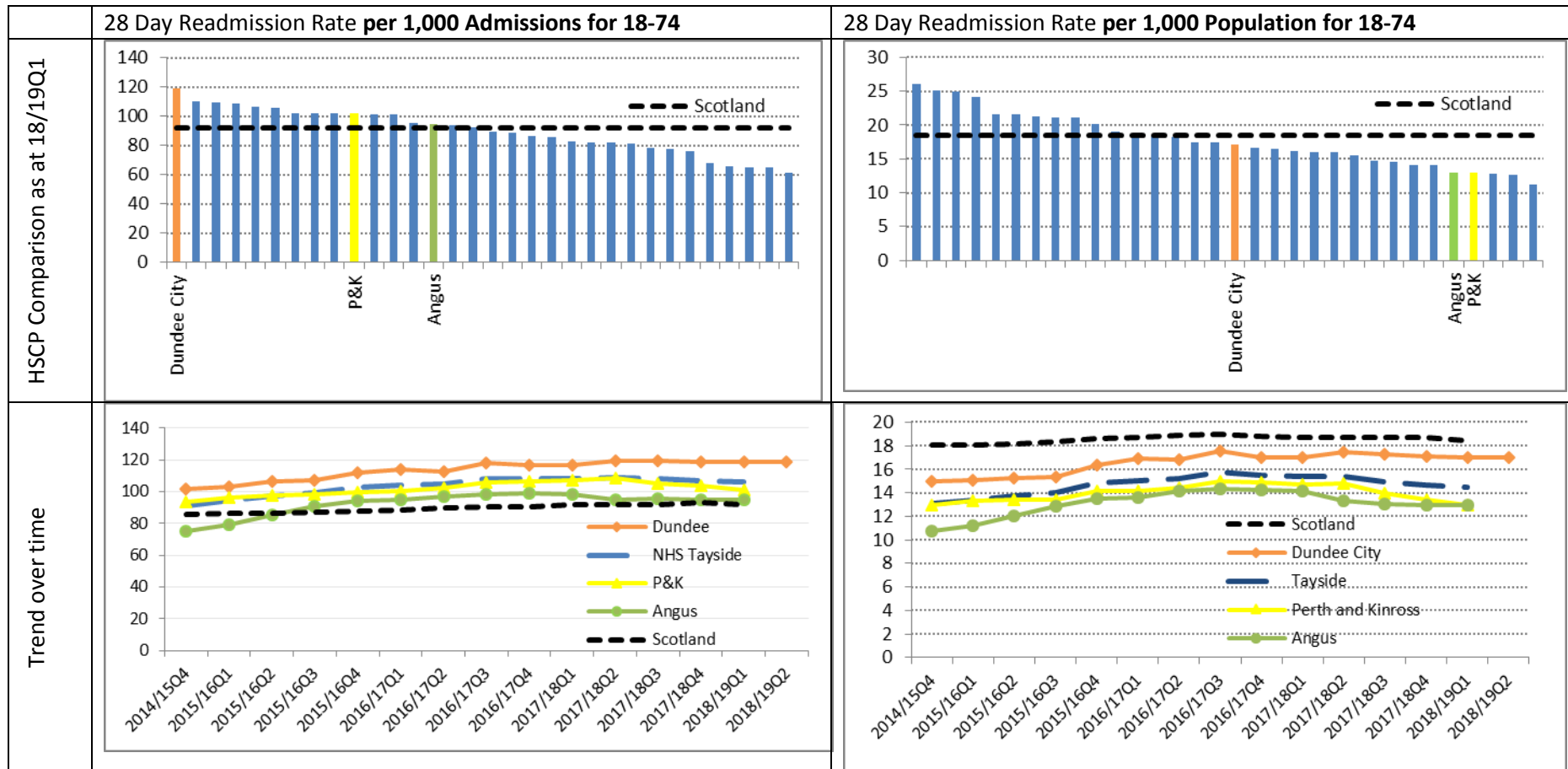
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Chart 5b: Readmissions within 28 days for people aged 75+



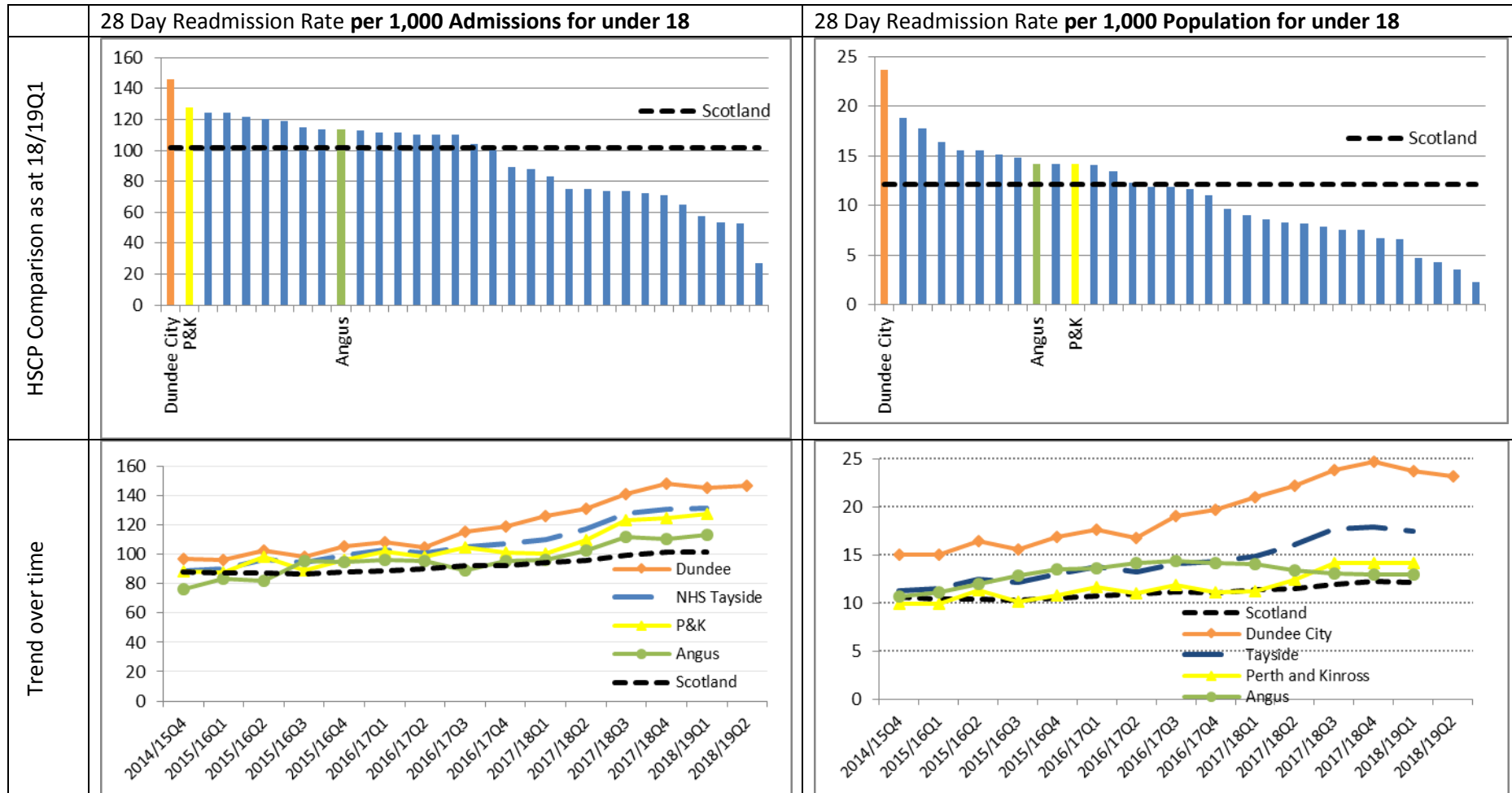
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Chart 5c: Readmissions within 28 days for people aged 18-74



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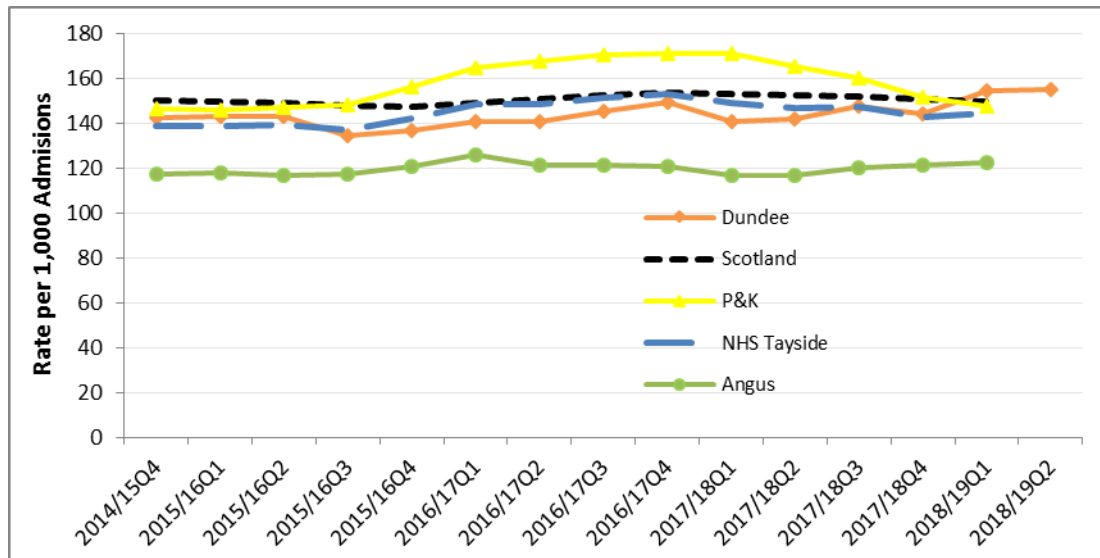
Chart 5d: Readmissions within 28 days for people aged under 18



Emergency Readmissions within 28 Days by Specialty

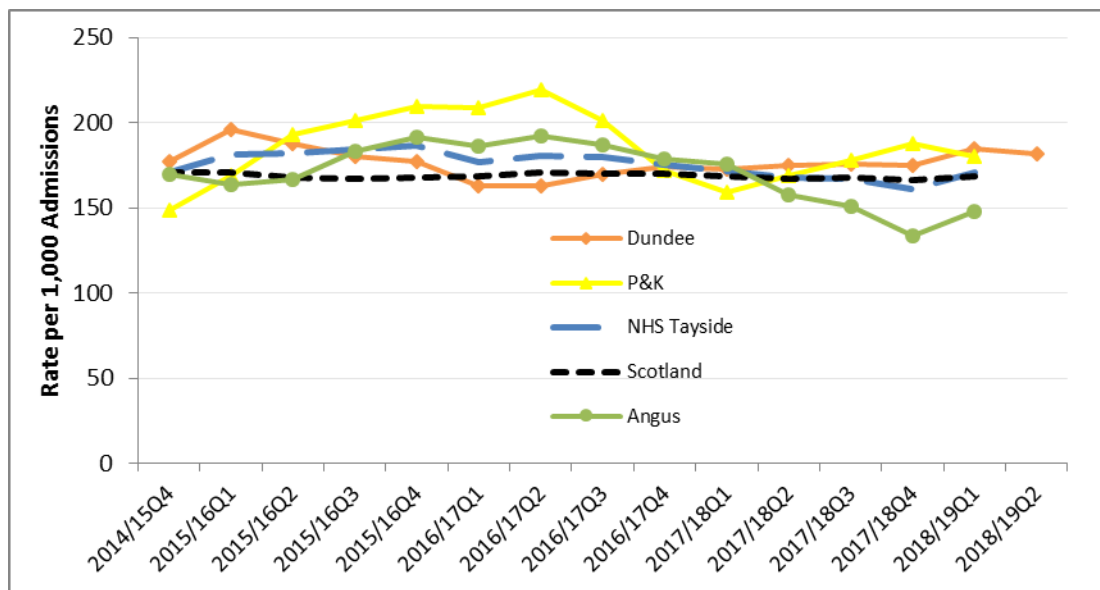
General medicine readmission rates for Dundee residents have been historically below the Scottish rate but it has seen an increase in the last two quarters. Geriatric medicine has also seen an increase in the last two quarters. Respiratory medicine has been increasing since 2017/18Q3. Gastroenterology has generally been decreasing since 2016/17Q4

Chart 6a: Readmissions within 28 days for people of all ages in General Medicine



Source: ISD LIST (Dundee) management information

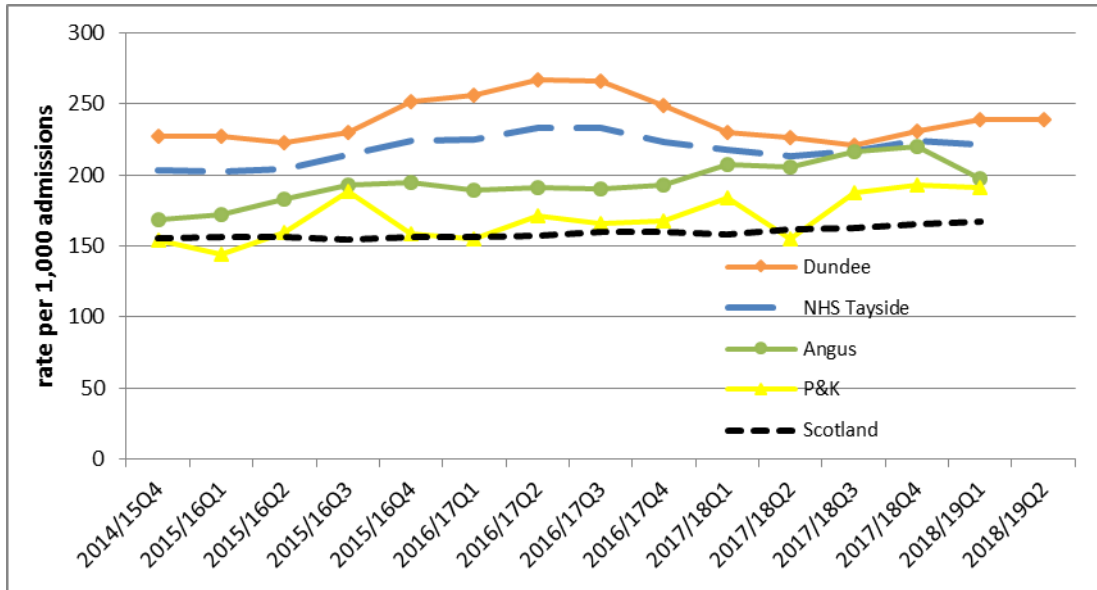
Chart 6b: Readmissions within 28 days for people of all ages in Geriatric Medicine



Source: ISD LIST (Dundee) management information

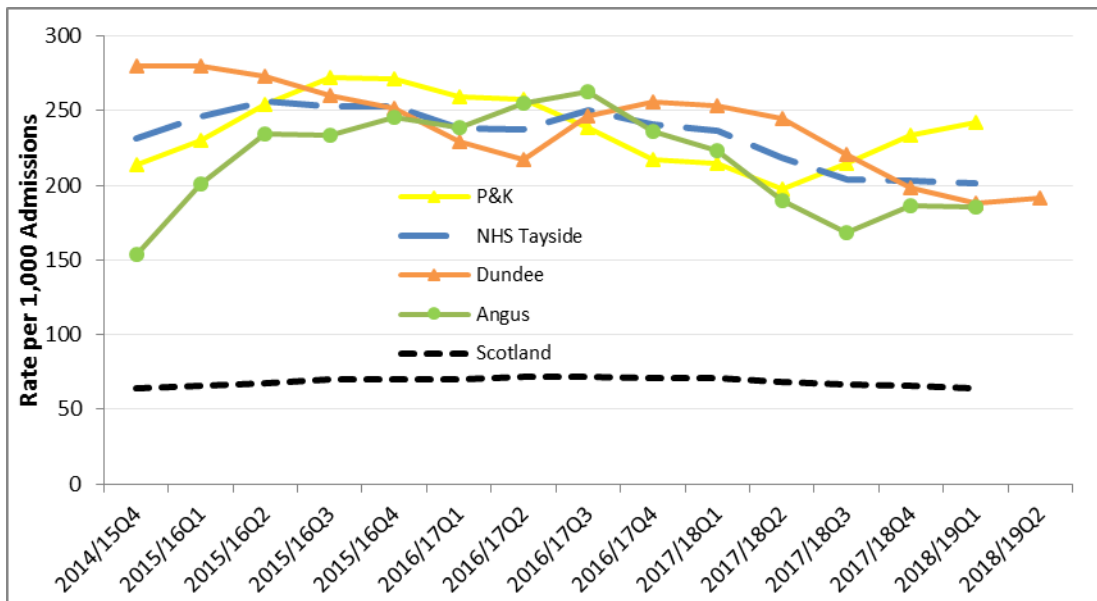
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Chart 6c: Readmissions within 28 days for people of all ages in Respiratory Medicine



Source: ISD LIST (Dundee) management information

Chart 6d: Readmissions within 28 days for people of all ages in Gastroenterology



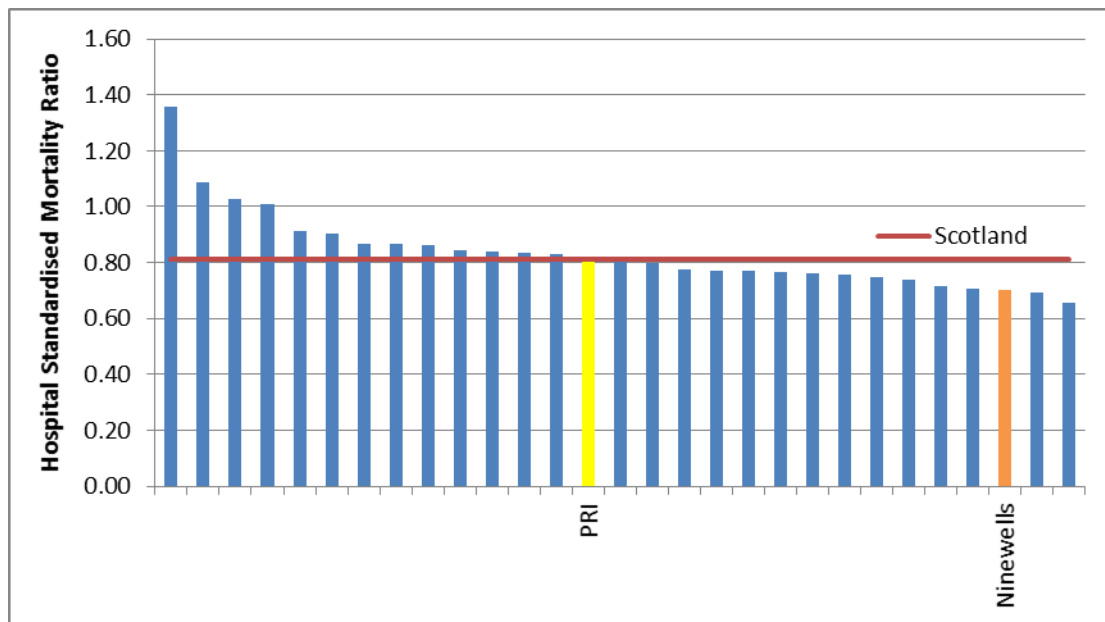
Source: ISD LIST (Dundee) management information

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Other Quality Measures to Assess Overall Clinical Care

Emergency readmissions, as a rate of all admissions, are only one measure of clinical care outcomes. Other measures should be observed in conjunction with readmissions to get an overall picture of clinical care. Such measures include the hospital standardised mortality rates (HSMR), clostridium difficile infection rates per 100,000 acute bed days (C.Diff), combined MRSA/MSSA infection rates per 100,000 acute bed days (SAB) and the patient satisfaction experience survey (PSES).

Using the latest information available from Quality Indicators (ISD), Ninewells Hospital and Perth Royal Infirmary both performed strongly, in comparison to the rest of Scotland, in the four safety measures of HSMR, C.Diff, SAB and PSES.

Chart 7a: Hospital Standardised Mortality Ratio by acute and general Hospitals in Scotland between Apr 18 and Jun 18

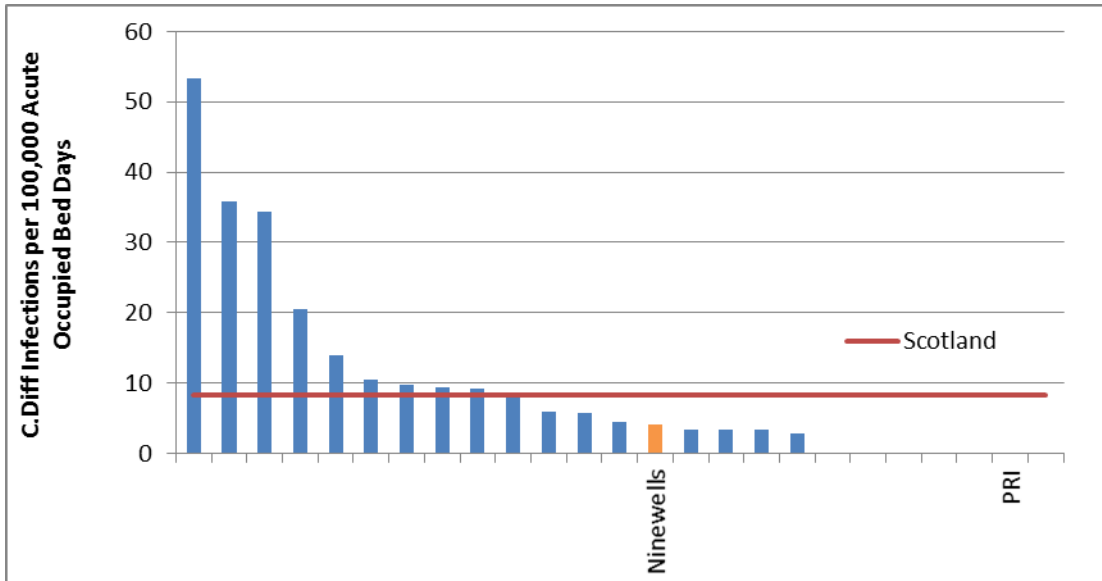


Source: ISD Quality Indicators

Note: Rates are standardised by age, gender, primary diagnosis, type of admission and severity of illness.

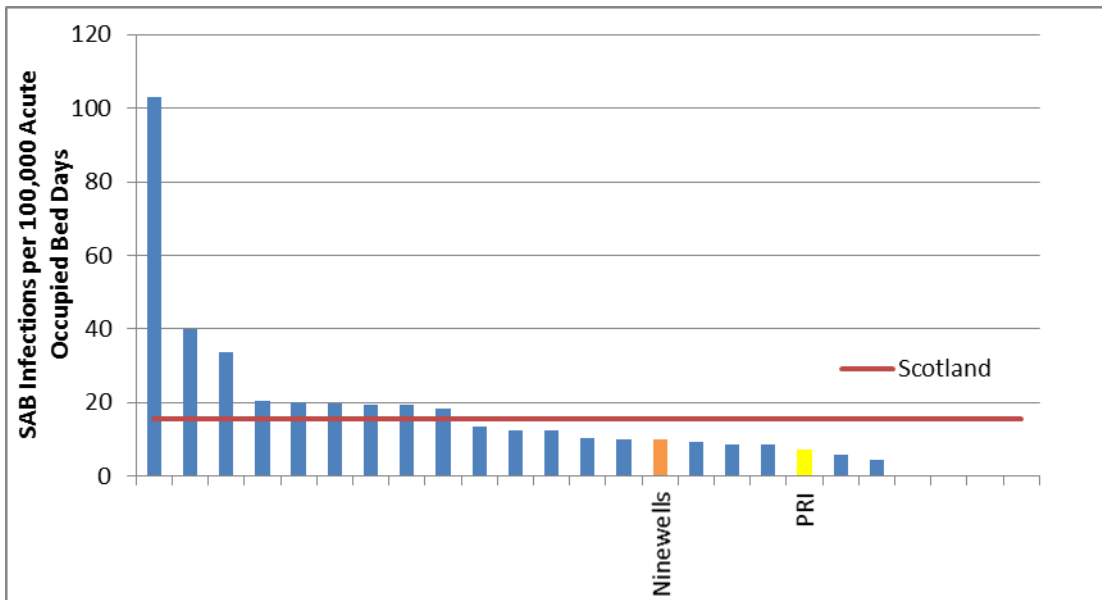
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Chart 7b: Clostridium difficile infections (over 15s) as a crude rate per 100,000 acute occupied bed days by acute and general Hospitals in Scotland between Apr 18 and Jun 18



Source: ISD Quality Indicators

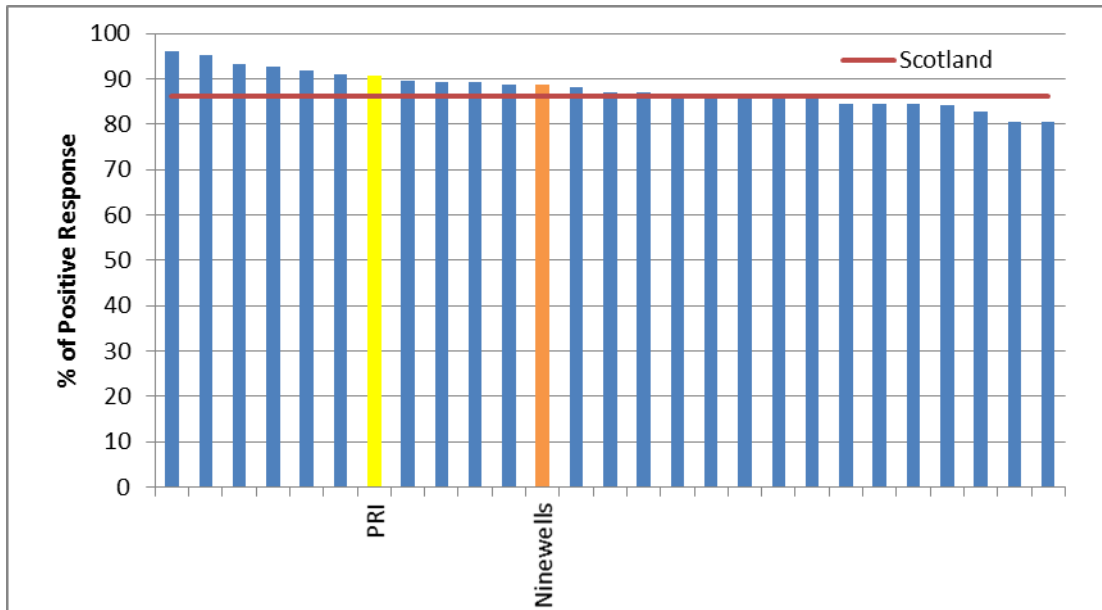
Chart 7c: Combined rate of MRSA/MSSA infections as a crude rate per 100,000 acute occupied bed days by acute and general Hospitals in Scotland between Apr 18 and Jun 18



Source: ISD Quality Indicators

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Chart 7d: Scottish Inpatient Experience Survey of Positive Response by acute and general hospitals between Apr17 and Sep 17



Source: ISD Quality Indicators

Conclusion

Readmissions within 28 days, as a rate per 1,000 admissions, have been steadily increasing for all ages in Dundee since March 2015. However, over the last year there have been improvements in the number of readmissions for Dundee residents, but this has been offset by the much bigger improvements in the reduction of all admissions. It is plausible that the type of patients no longer admitted to Ninewells were less of a readmission risk than the type of patient still being admitted i.e. a higher proportion of Dundee patients admitted in 18/19Q2 are “more sick” than those admitted in 17/18Q2, so readmission rates will increase. Changes in acute services over the last year that are likely to have had an positive impact on reducing medical admissions are Enhanced Community Support, Dundee Enhanced Community Support rapid Assessment model, professional to professional advice (AMU consultant to GP) and emergency department ongoing call handling.

It is also worth mentioning that as a rate per 1,000 population that Dundee H&SCP performs better than the Scottish rate for the age groups within the partnership’s remit. Ninewells Hospital performs well for other clinical care outcomes such as HSMR, MSSA/MRSA infection rates, C.Diff infection rates and in the Scottish Inpatient Experience Survey. These measures should be observed in conjunction with readmission rates to assess overall clinical care performance.

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