Royal North Shore Hospital

Readmission and returns to acute care following hospitalisation for eight clinical conditions, July 2015 – June 2018

Measures that assess how healthcare affects patient outcomes, such as risk-standardised readmission ratios (RSRR), make a crucial contribution to informing efforts to improve care. They should be looked at alongside other measures and used by clinicians as a tool to prompt discussion and inform the development of quality improvement initiatives.

For this report, readmission includes both readmission following hospital discharge and returns to acute care from non-acute inpatient settings. This allows for fairer comparisons given the range of different arrangements hospitals have in place for non-acute care.

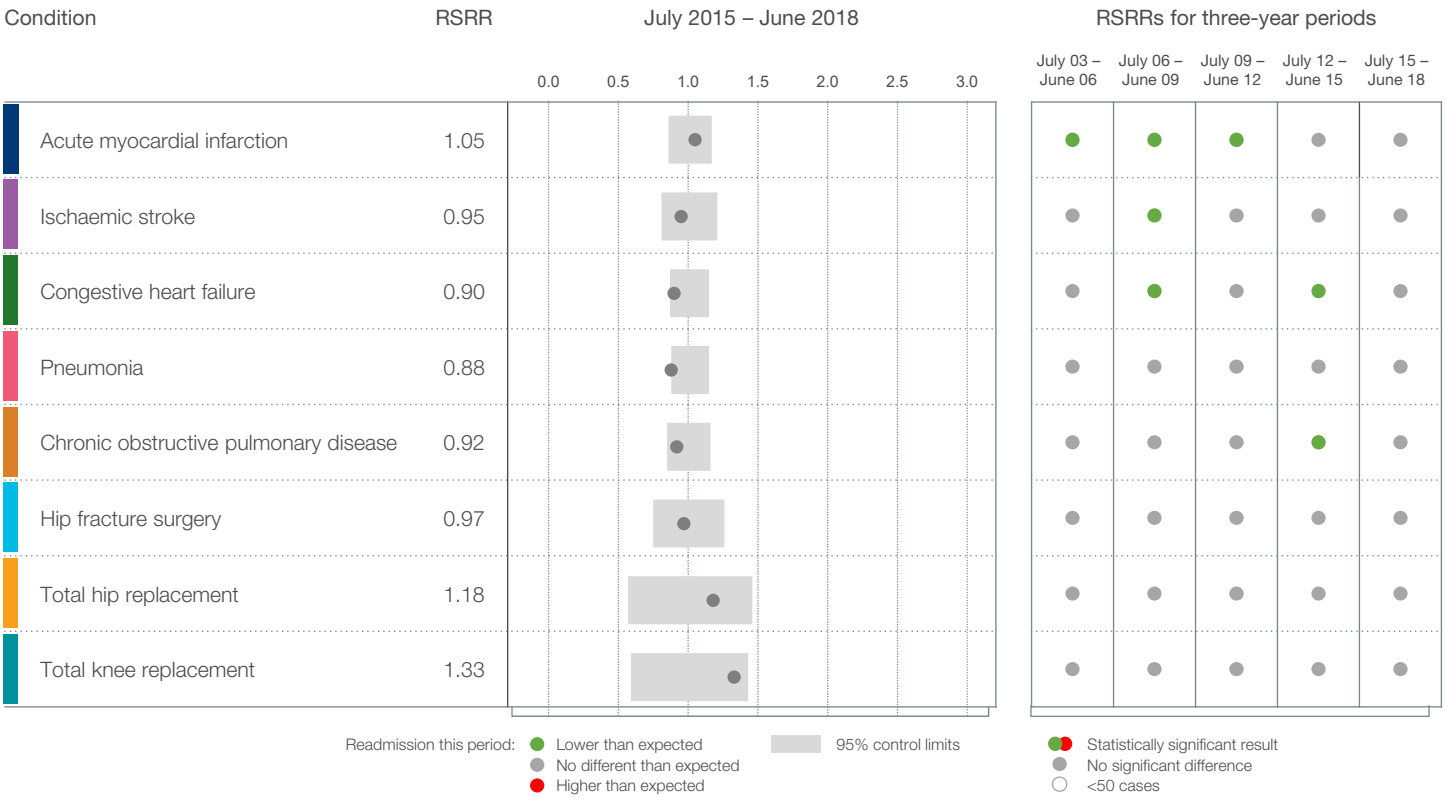
The RSRR differs from other readmission indicators principally because it is risk-adjusted and it takes into account readmission to any, rather than just the same, hospital. This includes readmissions to all hospitals, public and private, and provides a more meaningful and accurate reflection of readmissions, which are attributed to the last discharging hospital.

The RSRR calculation takes into account the volume and characteristics of adults treated in each hospital (known as the case mix), as different hospitals provide care to patients who may be more or less likely to require readmission following discharge.

For each hospital, the RSRR compares the 'observed' number of readmissions to any hospital, within 30 days of discharge for a specific clinical condition or within 60 days for specified surgical procedures, with the 'expected' number of readmissions. The expected number of readmissions is calculated based on all adults admitted with that condition to any New South Wales (NSW) hospital.

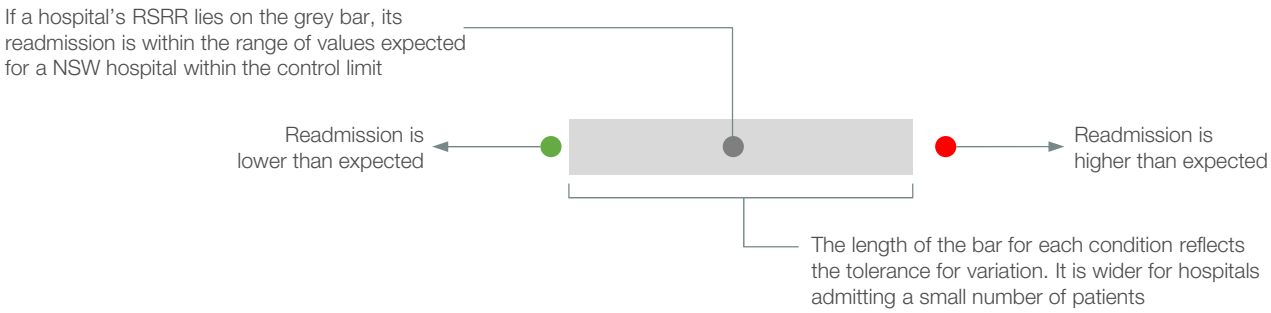
The RSRR is a ratio. A ratio of less than 1.0 indicates that readmission was lower than expected to that hospital, whereas a ratio higher than 1.0 indicates higher readmission. Small deviations from 1.0 are not considered meaningful. The RSRR is not designed to compare hospitals to each other. Rather it compares each hospital's outcomes with what would have been expected given its particular case mix.

Risk-standardised readmission ratios (RSRRs) for eight clinical conditions



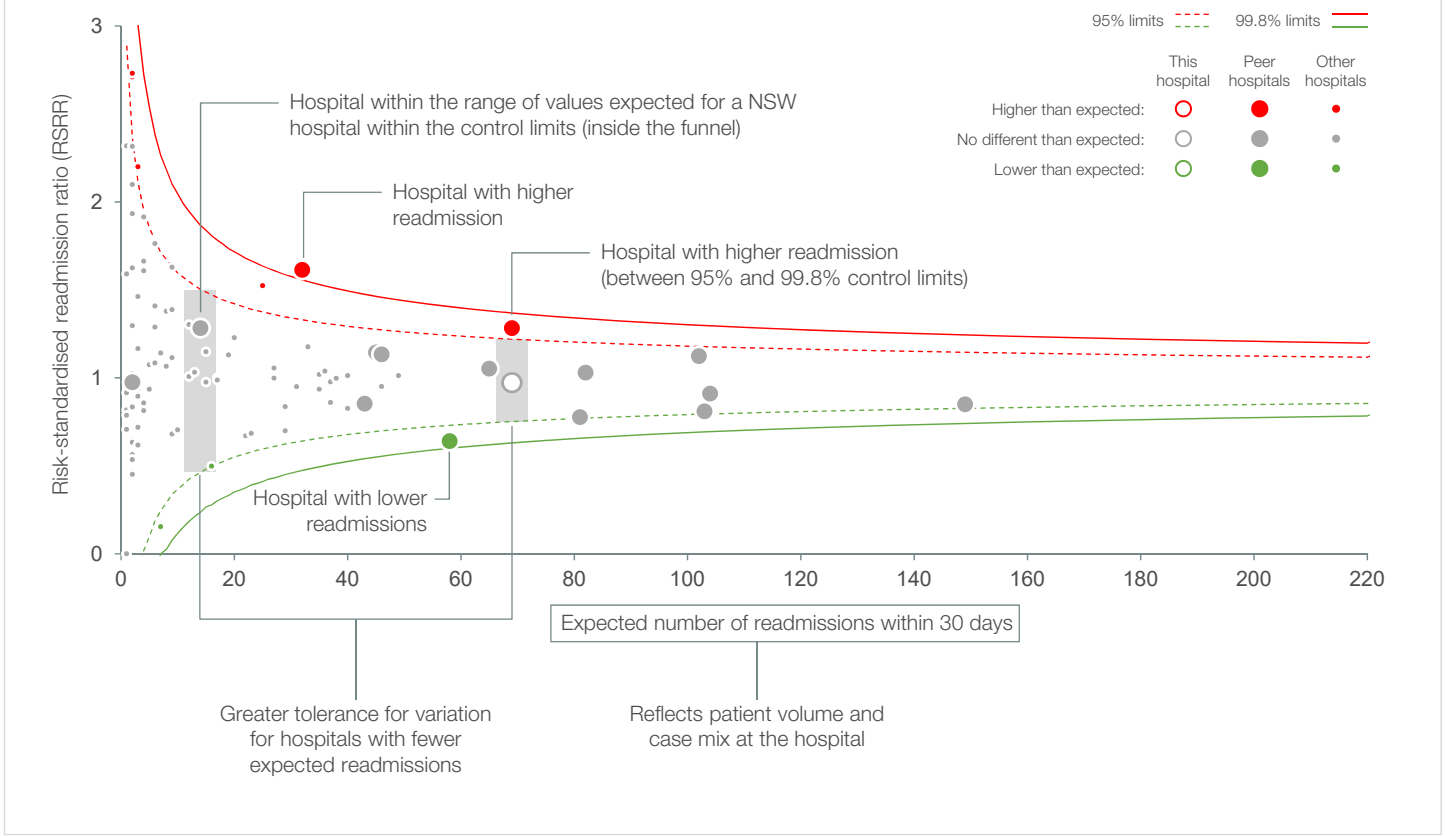
In June 2017, the NSW Health Admission Policy was released, stating that a patient treated in and discharged from an emergency department (ED) only, should not be recorded as an admitted patient. As a result, patients who attended an ED, but were not transferred to an inpatient ward, were not included in BHI readmission analyses from July 2015 onwards and comparison of results before and after this time should be made with caution. For more information, see the *Technical Supplement – Readmission and returns to acute care following hospitalisation for eight clinical conditions, July 2015-June 2018*.

How to interpret the dashboard



How to interpret a funnel plot

Funnel plots with 95% and 99.8% control limits around the NSW ratio are used to identify outlier hospitals, which are shaded in green or red. Control limits reflect the expected variation in the data.



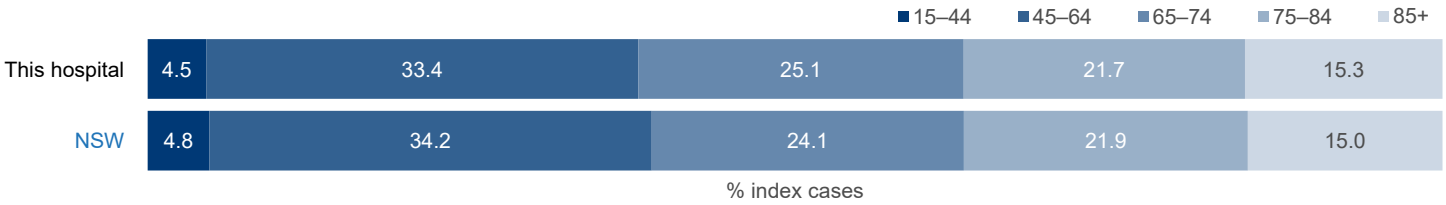
Royal North Shore Hospital

30-day readmission following hospitalisation for acute myocardial infarction, July 2015 – June 2018

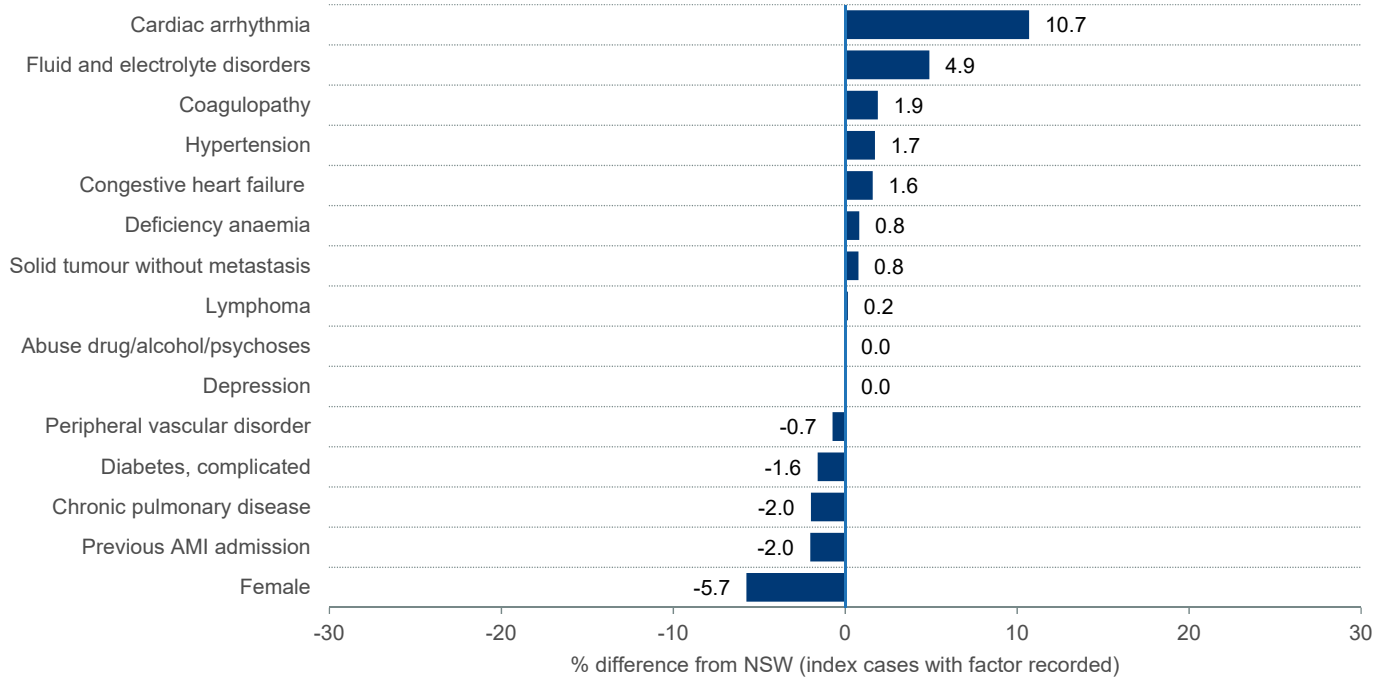
Patient cohort, index hospitalisations[1,2,3]

	This hospital	NSW
Total index cases for acute myocardial infarction	1,082	28,583
Average length of stay (days)	6.3	5.2
Patients transferred in from acute care in another hospital	284	9,182
Discharge destination		
Home	967	25,477
Other	115	3,106

Age profile for index hospitalisations (years)[4]



Patient factors associated with 30-day acute myocardial infarction readmission[5,6]



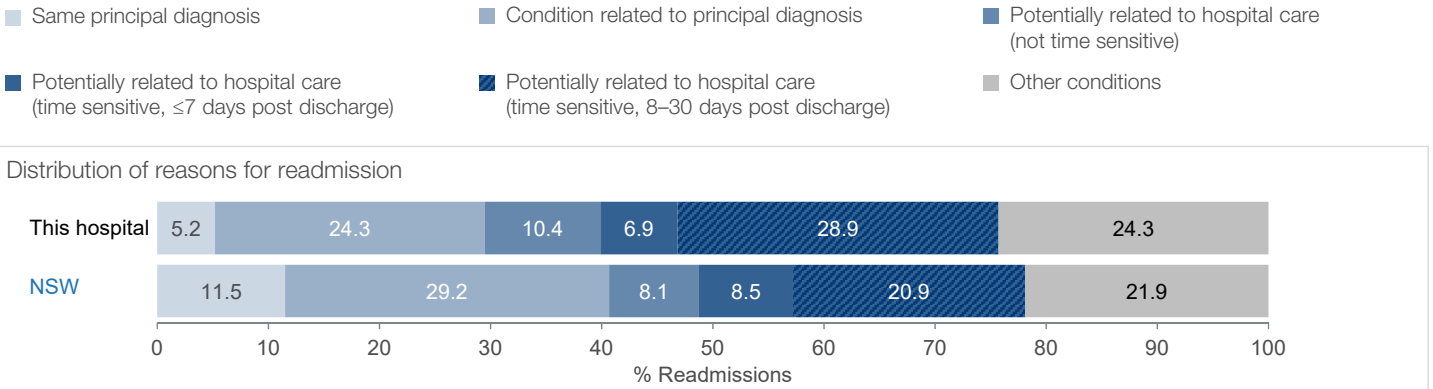
Royal North Shore Hospital

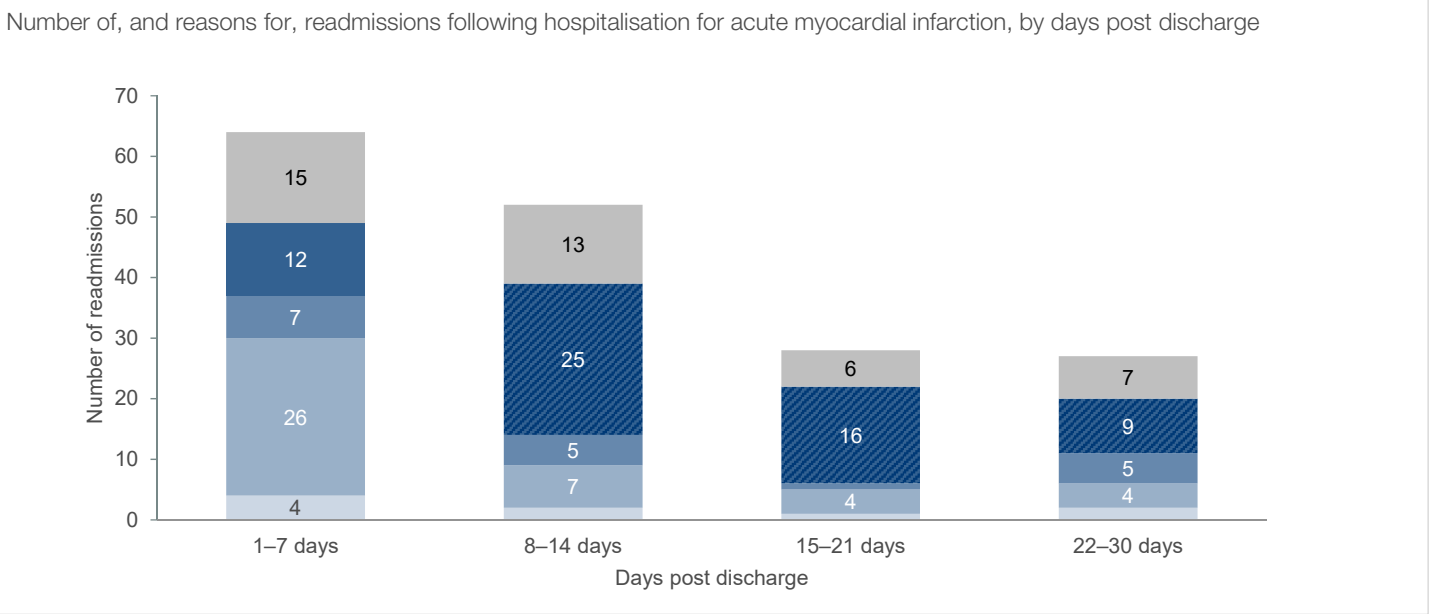
30-day readmission following hospitalisation for acute myocardial infarction, July 2015 – June 2018

Location of readmissions[7]

	This hospital	NSW
Total readmissions following index hospitalisation for acute myocardial infarction	171	4,250
Returns to acute care	6	159
Readmitted following hospital discharge	165	4,091
Readmitted to the same hospital where acute care was completed	98	2,815
Readmitted to a different hospital	67	1,276
To an urban public hospital	64	
To a regional or rural public hospital	3	
To a private hospital	0	

Reasons for and time to readmission[8]

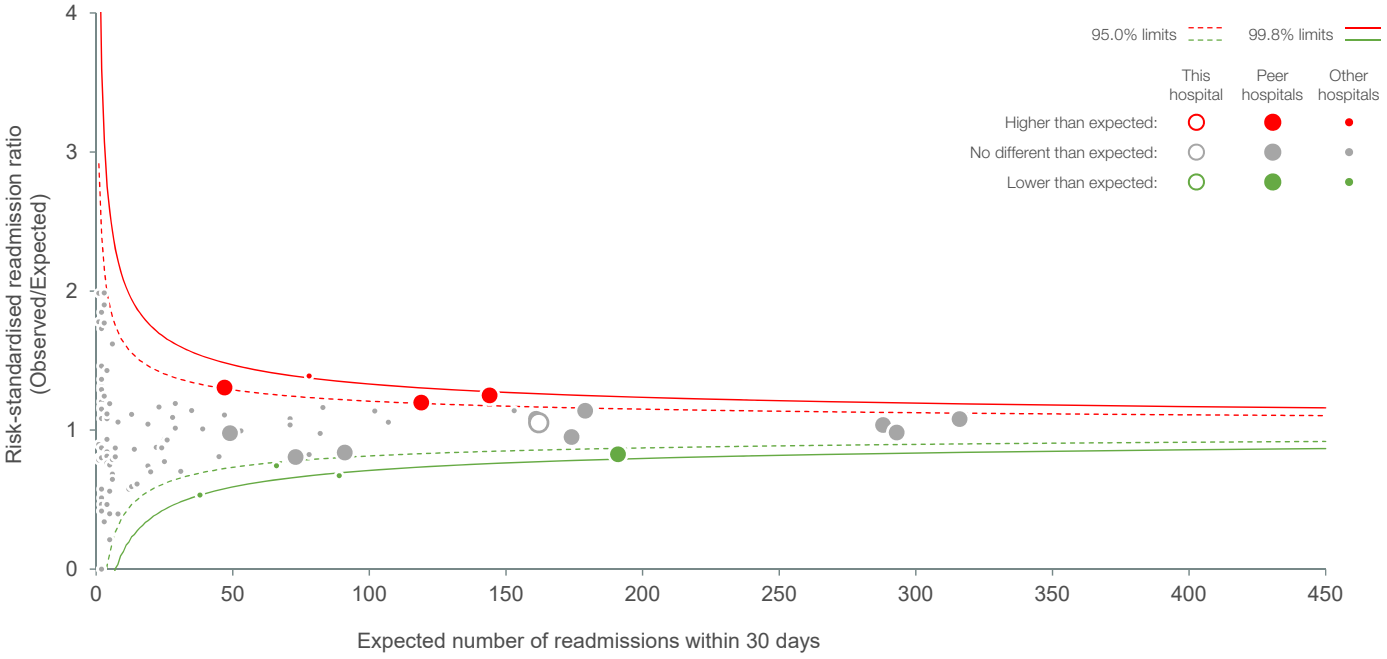




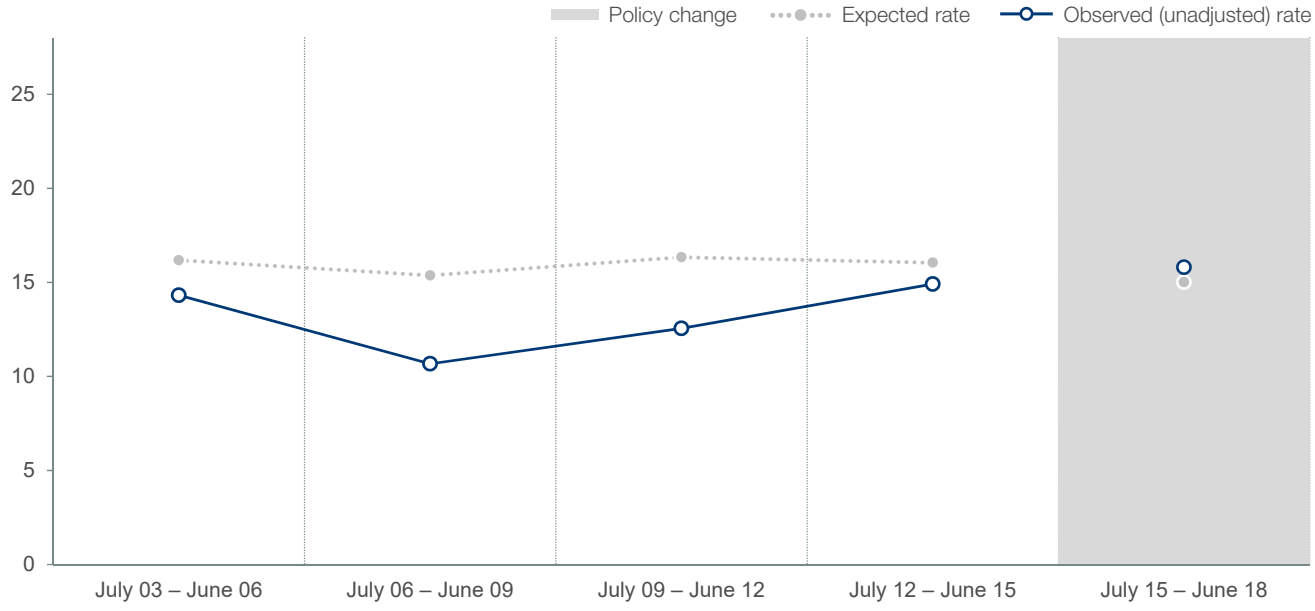
Royal North Shore Hospital

30-day readmission following hospitalisation for acute myocardial infarction, July 2015 – June 2018

Acute myocardial infarction risk-standardised **readmission ratios** by number of expected readmissions, NSW public hospitals[9]



Acute myocardial infarction, this hospital's expected **readmission rates**[10] and observed (unadjusted) readmission rates, July 2003 – June 2018



In June 2017, the NSW Health Admission Policy was released, stating that a patient treated in and discharged from an emergency department (ED) only, should not be recorded as an admitted patient. As a result, patients who attended an ED, but were not transferred to an inpatient ward, were not included in BHI readmission analyses from July 2015 onwards and comparison of results before and after this time should be made with caution. For more information, see the *Technical Supplement – Readmission and returns to acute care following hospitalisation for eight clinical conditions, July 2015-June 2018*.

Royal North Shore Hospital

Reference notes

1. Data refer to patients aged 15+ years who were discharged from this hospital to a non-acute care setting, between July 2015 and June 2018, following an acute hospitalisation with AMI as principal diagnosis (ICD-10-AM codes I21, I22).
2. For calculation of average length of stay, index admissions that were transferred in from, or transferred out to, another acute care hospital were excluded. Unreasonably long episodes are trimmed on the basis of the Diagnosis Related Group (DRG) of the episode. The trim point is the third quartile plus 1.5x the interquartile range of all in-scope episodes in each DRG.
3. For episodes coded as 'Discharged by hospital' or 'Discharged on leave', patients are considered as discharged home. All other modes of separation are deemed a discharge destination other than home. Where there is a non-acute care admission within one day of any discharge, it is not considered as discharged home regardless of the mode of separation.
4. Age at admission date.
5. Comorbidities are identified from the hospital discharge records using the Elixhauser comorbidity set (plus dementia) with a one year look-back from the date of the admission. Only those conditions that were found to have a statistically significant impact on readmission ($p<0.05$) are shown.
6. Age was a statistically significant factor in the final model for acute myocardial infarction.
7. Readmissions include both returns to acute care from non-acute inpatient settings and readmissions following hospital discharge. Hospitals are classified as urban and regional/rural using the geocoded address of the hospital assigned to Australian Bureau of Statistics statistical areas (SA2) and the Australian remoteness index for areas.
8. Reasons for readmission follow the same clinical grouping as used in the previous report *Return to acute care following discharge from hospital, July 2012 – June 2015*. Please refer to the previously published *Spotlight on Measurement: Measuring return to acute care following discharge from hospital, 2nd edition*, which outline the specifications used to describe reasons for readmission.
9. Results for hospitals with expected readmission <1 are not shown. Hospitals are classified according to the NSW Ministry of Health's peer grouping as at January 2018.
10. Readmission rates at an average NSW public hospital with the same case-mix.

Details of analyses are available in *Spotlight on Measurement: Measuring return to acute care following discharge from hospital, 2nd edition* and the *Technical Supplement – Readmission and returns to acute care following hospitalisation for eight clinical conditions, July 2015-June 2018*.

Data source: BHI analyses of Hospital Performance Dataset, NSW Ministry of Health Secure Analytics for Population Health Research and Intelligence.

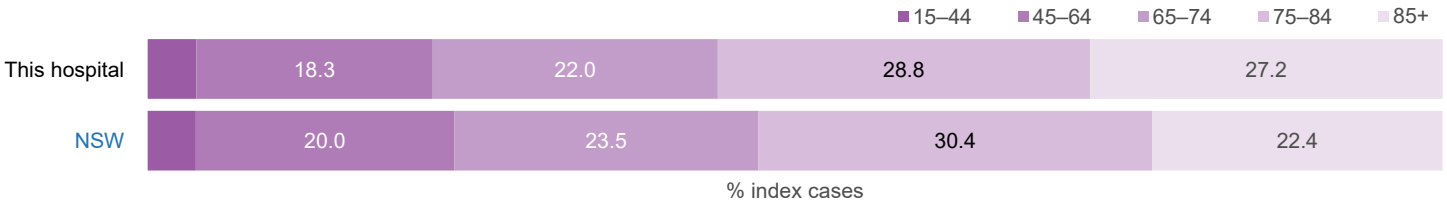
Royal North Shore Hospital

30-day readmission following hospitalisation for ischaemic stroke, July 2015 – June 2018

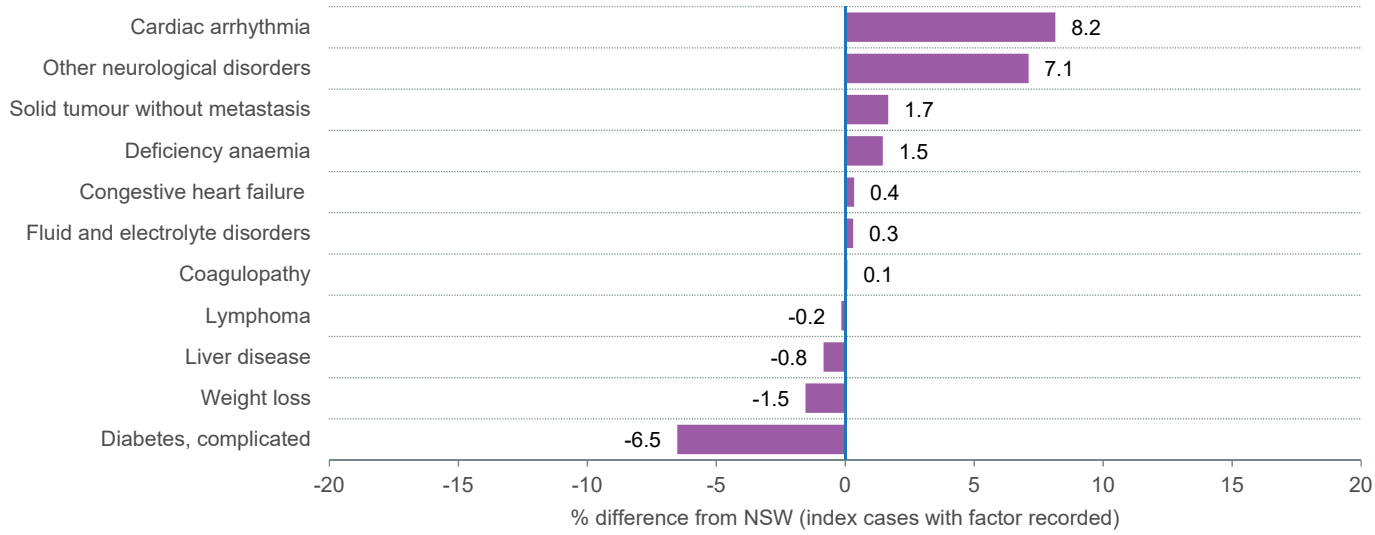
Patient cohort, index hospitalisations[1,2,3]

	This hospital	NSW
Total index cases for ischaemic stroke	981	16,435
Average length of stay (days)	6.5	7.3
Patients transferred in from acute care in another hospital	105	1,916
Discharge destination		
Home	460	8,688
Other	521	7,747

Age profile for index hospitalisations (years)[4]



Patient factors associated with 30-day ischaemic stroke readmission[5,6]



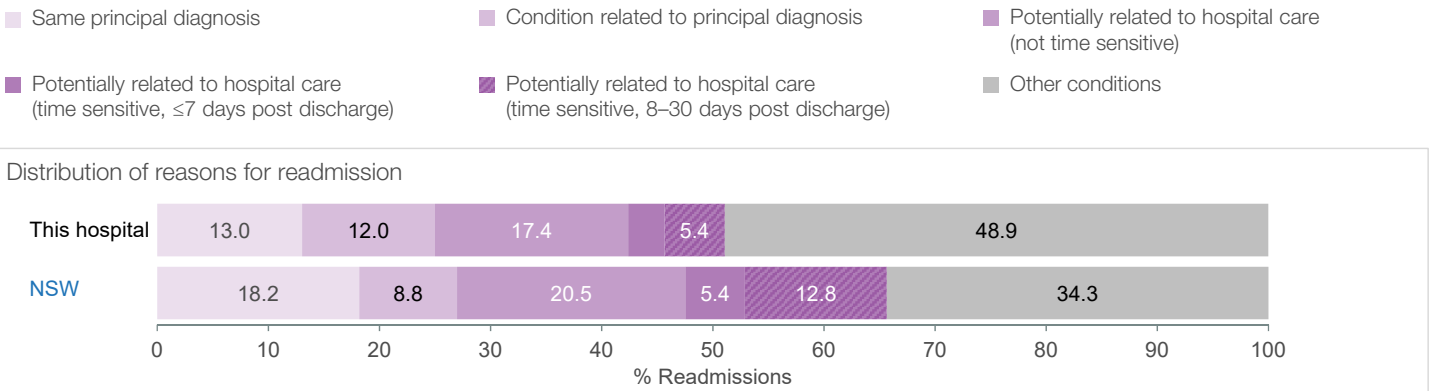
Royal North Shore Hospital

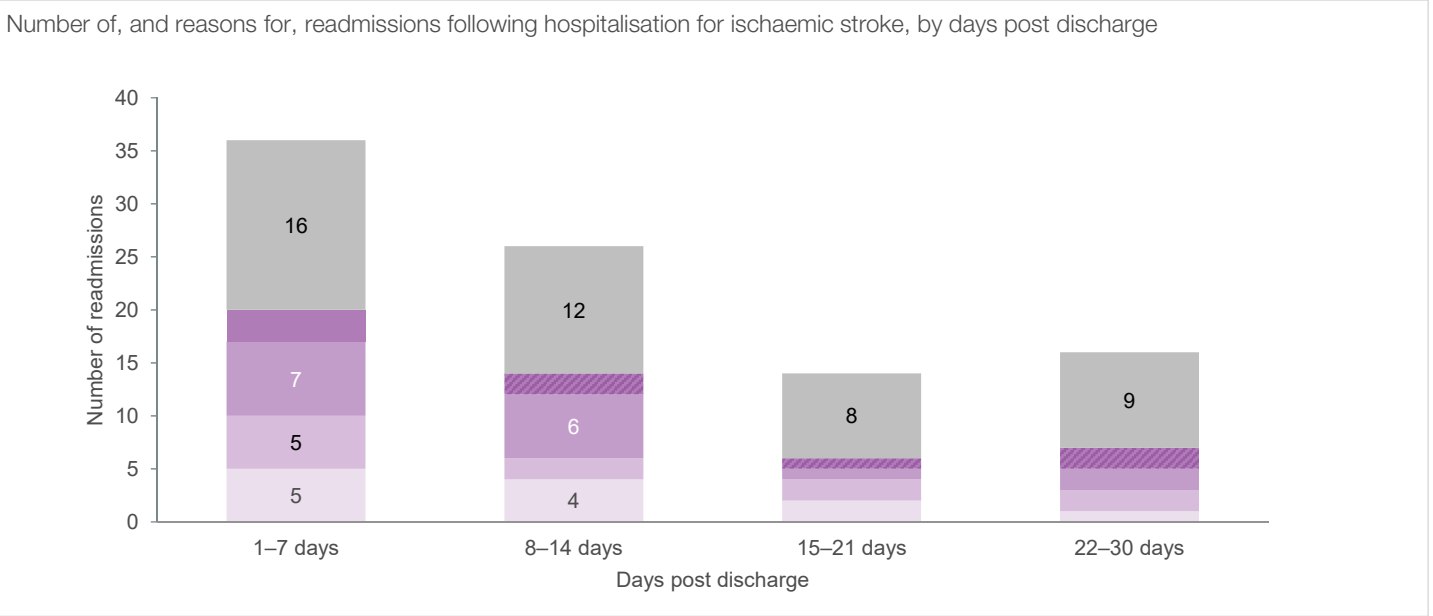
30-day readmission following hospitalisation for ischaemic stroke, July 2015 – June 2018

Location of readmissions[7]

	This hospital	NSW
Total readmissions following index hospitalisation for ischaemic stroke	92	1,638
Returns to acute care	28	505
Readmitted following hospital discharge	64	1,133
Readmitted to the same hospital where acute care was completed	51	868
Readmitted to a different hospital	13	265
To an urban public hospital	12	
To a regional or rural public hospital	0	
To a private hospital	1	

Reasons for and time to readmission[8]

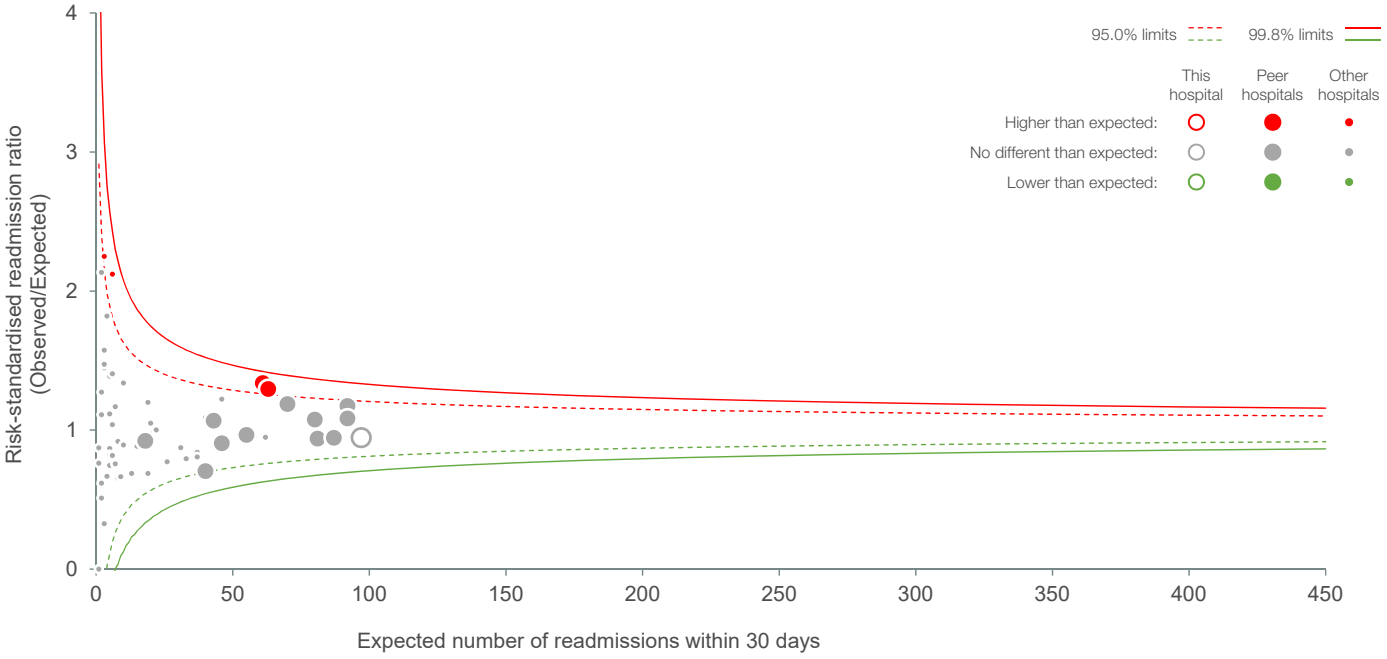




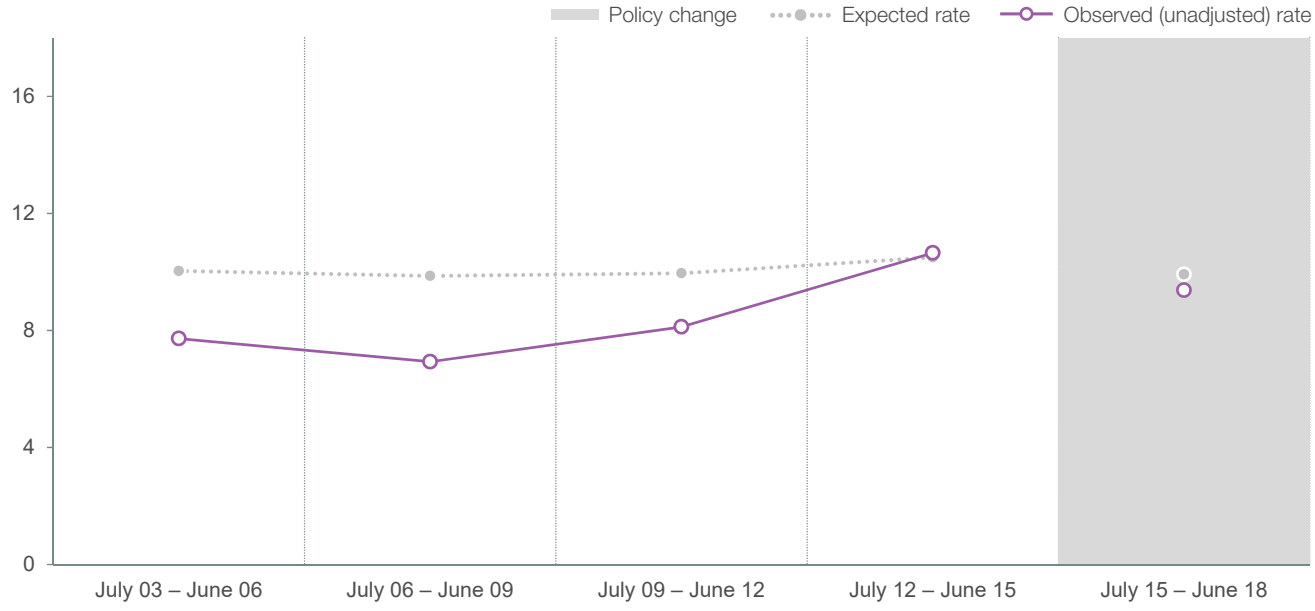
Royal North Shore Hospital

30-day readmission following hospitalisation for ischaemic stroke, July 2015 – June 2018

Ischaemic stroke risk-standardised **readmission ratios** by number of expected readmissions, NSW public hospitals[9]



Ischaemic stroke, this hospital's expected **readmission rates**[10] and observed (unadjusted) readmission rates, July 2003 – June 2018



In June 2017, the NSW Health Admission Policy was released, stating that a patient treated in and discharged from an emergency department (ED) only, should not be recorded as an admitted patient. As a result, patients who attended an ED, but were not transferred to an inpatient ward, were not included in BHI readmission analyses from July 2015 onwards and comparison of results before and after this time should be made with caution. For more information, see the *Technical Supplement – Readmission and returns to acute care following hospitalisation for eight clinical conditions, July 2015-June 2018*.

Royal North Shore Hospital

Reference notes

1. Data refer to patients aged 15+ years who were discharged from this hospital to a non-acute care setting, between July 2015 and June 2018, following an acute hospitalisation with ischaemic stroke as principal diagnosis (ICD-10-AM code I63).
2. For calculation of average length of stay, index admissions that were transferred in from, or transferred out to, another acute care hospital were excluded. Unreasonably long episodes are trimmed on the basis of the Diagnosis Related Group (DRG) of the episode. The trim point is the third quartile plus 1.5x the interquartile range of all in-scope episodes in each DRG.
3. For episodes coded as 'Discharged by hospital' or 'Discharged on leave', patients are considered as discharged home. All other modes of separation are deemed a discharge destination other than home. Where there is a non-acute care admission within one day of any discharge, it is not considered as discharged home regardless of the mode of separation.
4. Age at admission date.
5. Comorbidities are identified from the hospital discharge records using the Elixhauser comorbidity set (plus dementia) with a one year look-back from the date of the admission. Only those conditions that were found to have a statistically significant impact on readmission ($p<0.05$) are shown.
6. Age was not a statistically significant factor in the final model for ischaemic stroke.
7. Readmissions include both returns to acute care from non-acute inpatient settings and readmissions following hospital discharge. Hospitals are classified as urban and regional/rural using the geocoded address of the hospital assigned to Australian Bureau of Statistics statistical areas (SA2) and the Australian remoteness index for areas.
8. Reasons for readmission follow the same clinical grouping as used in the previous report *Return to acute care following discharge from hospital, July 2012 – June 2015*. Please refer to the previously published *Spotlight on Measurement: Measuring return to acute care following discharge from hospital, 2nd edition*, which outline the specifications used to describe reasons for readmission.
9. Results for hospitals with expected readmission <1 are not shown. Hospitals are classified according to the NSW Ministry of Health's peer grouping as at January 2018.
10. Readmission rates at an average NSW public hospital with the same case-mix.

Details of analyses are available in *Spotlight on Measurement: Measuring return to acute care following discharge from hospital, 2nd edition* and the *Technical Supplement – Readmission and returns to acute care following hospitalisation for eight clinical conditions, July 2015-June 2018*.

Data source: BHI analyses of Hospital Performance Dataset, NSW Ministry of Health Secure Analytics for Population Health Research and Intelligence.

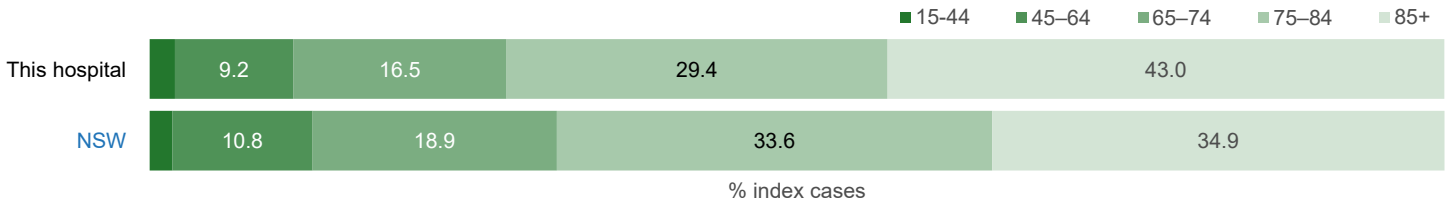
Royal North Shore Hospital

30-day readmission following hospitalisation for congestive heart failure, July 2015 – June 2018

Patient cohort, index hospitalisations[1,2,3]

	This hospital	NSW
Total index cases for congestive heart failure	972	33,686
Average length of stay (days)	6.9	6.0
Patients transferred in from acute care in another hospital	62	2,723
Discharge destination		
Home	818	29,025
Other	154	4,661

Age profile for index hospitalisations (years)[4]



Patient factors associated with 30-day congestive heart failure readmission[5,6]

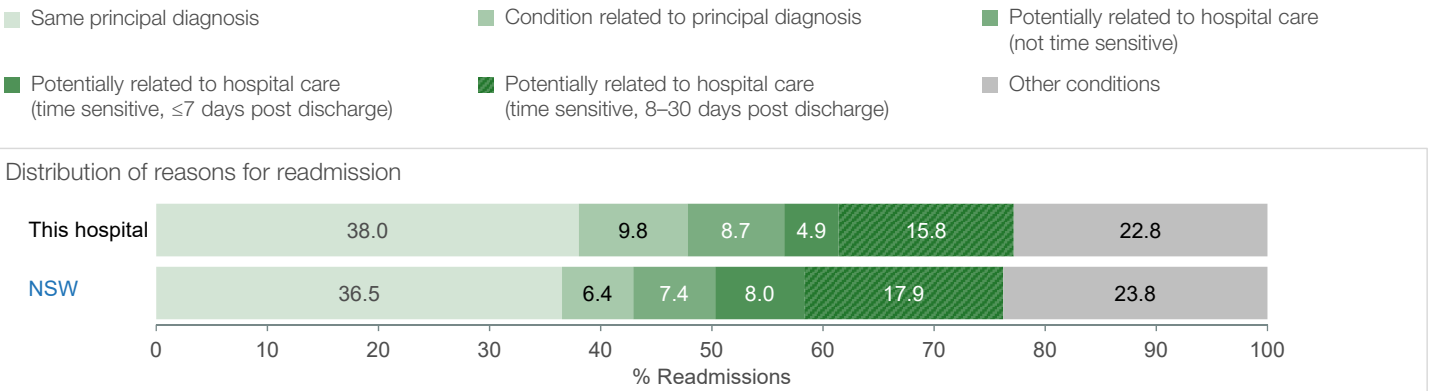
Royal North Shore Hospital

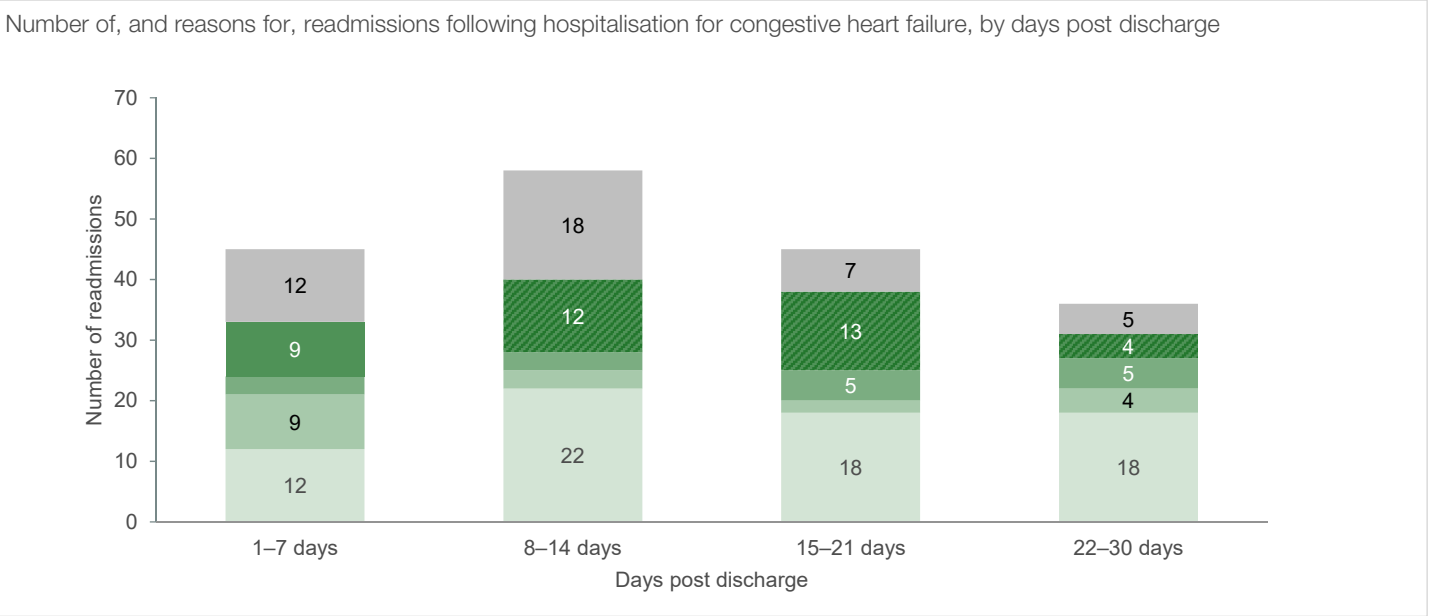
30-day readmission following hospitalisation for congestive heart failure, July 2015 – June 2018

Location of readmissions[7]

	This hospital	NSW
Total readmissions following index hospitalisation for congestive heart failure	184	7,465
Returns to acute care	14	309
Readmitted following hospital discharge	170	7,156
Readmitted to the same hospital where acute care was completed	147	5,843
Readmitted to a different hospital	23	1,313
To an urban public hospital	21	
To a regional or rural public hospital	0	
To a private hospital	2	

Reasons for and time to readmission[8]

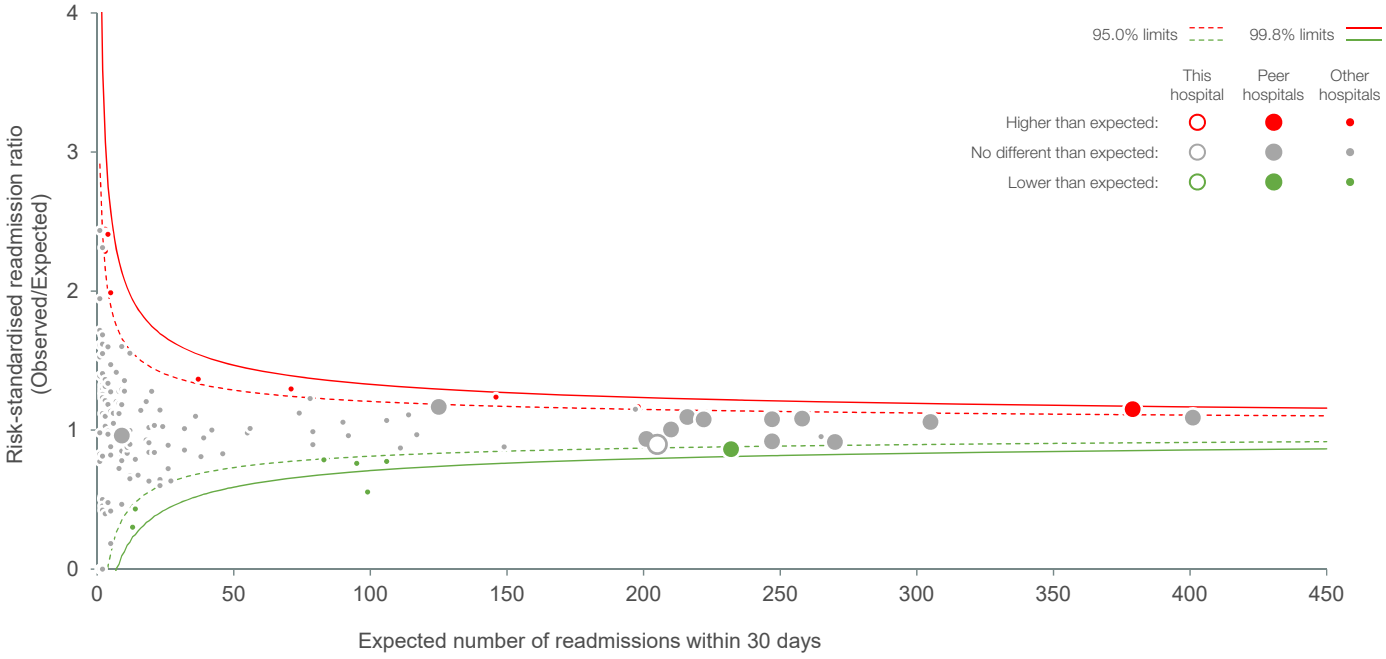




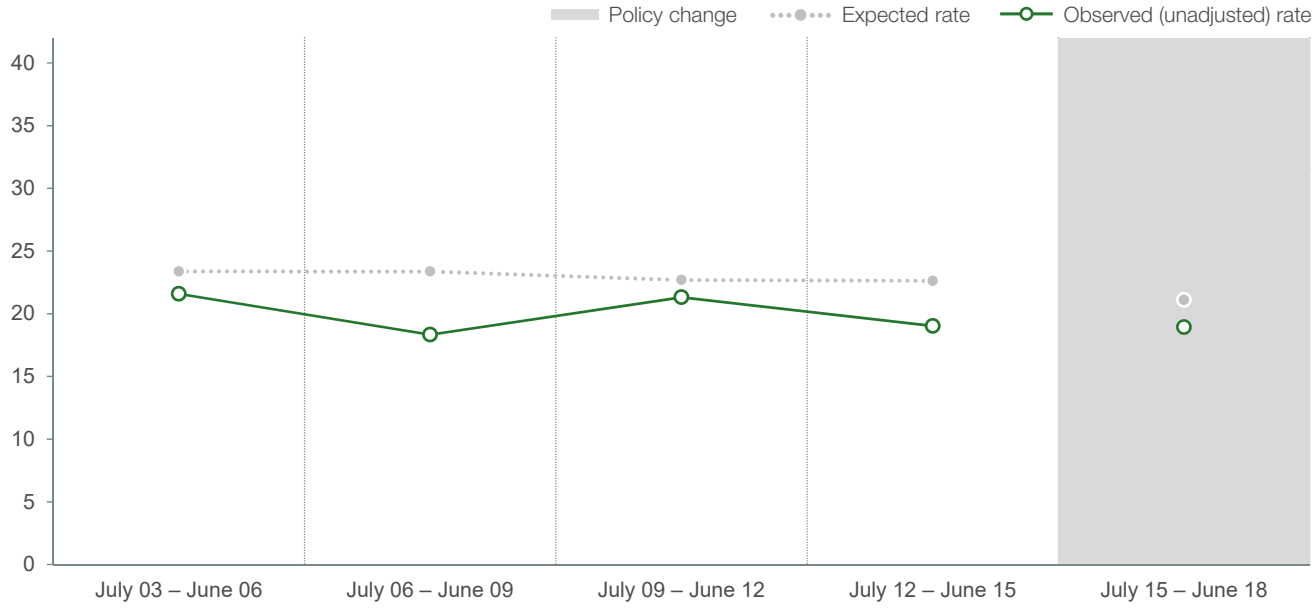
Royal North Shore Hospital

30-day readmission following hospitalisation for congestive heart failure, July 2015 – June 2018

Congestive heart failure risk-standardised **readmission ratios** by number of expected readmissions, NSW public hospitals[9]



Congestive heart failure, this hospital's expected **readmission rates**[10] and observed (unadjusted) readmission rates, July 2003 – June 2018



In June 2017, the NSW Health Admission Policy was released, stating that a patient treated in and discharged from an emergency department (ED) only, should not be recorded as an admitted patient. As a result, patients who attended an ED, but were not transferred to an inpatient ward, were not included in BHI readmission analyses from July 2015 onwards and comparison of results before and after this time should be made with caution. For more information, see the *Technical Supplement – Readmission and returns to acute care following hospitalisation for eight clinical conditions, July 2015-June 2018*.

Royal North Shore Hospital

Reference notes

1. Data refer to patients aged 15+ years who were discharged from this hospital to a non-acute care setting, between July 2015 and June 2018, following an acute hospitalisation with congestive heart failure as principal diagnosis (ICD-10-AM codes I11.0, I13.0, I13.2, I50.0, I50.1, I50.9).
2. For calculation of average length of stay, index admissions that were transferred in from, or transferred out to, another acute care hospital were excluded. Unreasonably long episodes are trimmed on the basis of the Diagnosis Related Group (DRG) of the episode. The trim point is the third quartile plus 1.5x the interquartile range of all in-scope episodes in each DRG.
3. For episodes coded as 'Discharged by hospital' or 'Discharged on leave', patients are considered as discharged home. All other modes of separation are deemed a discharge destination other than home. Where there is a non-acute care admission within one day of any discharge, it is not considered as discharged home regardless of the mode of separation.
4. Age at admission date.
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6. Age was not a statistically significant factor in the final model for congestive heart failure.
7. Readmissions include both returns to acute care from non-acute inpatient settings and readmissions following hospital discharge. Hospitals are classified as urban and regional/rural using the geocoded address of the hospital assigned to Australian Bureau of Statistics statistical areas (SA2) and the Australian remoteness index for areas.
8. Reasons for readmission follow the same clinical grouping as used in the previous report *Return to acute care following discharge from hospital, July 2012 – June 2015*. Please refer to the previously published *Spotlight on Measurement: Measuring return to acute care following discharge from hospital, 2nd edition*, which outline the specifications used to describe reasons for readmission.
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10. Readmission rates at an average NSW public hospital with the same case-mix.

Details of analyses are available in *Spotlight on Measurement: Measuring return to acute care following discharge from hospital, 2nd edition* and the *Technical Supplement – Readmission and returns to acute care following hospitalisation for eight clinical conditions, July 2015-June 2018*.

Data source: BHI analyses of Hospital Performance Dataset, NSW Ministry of Health Secure Analytics for Population Health Research and Intelligence.

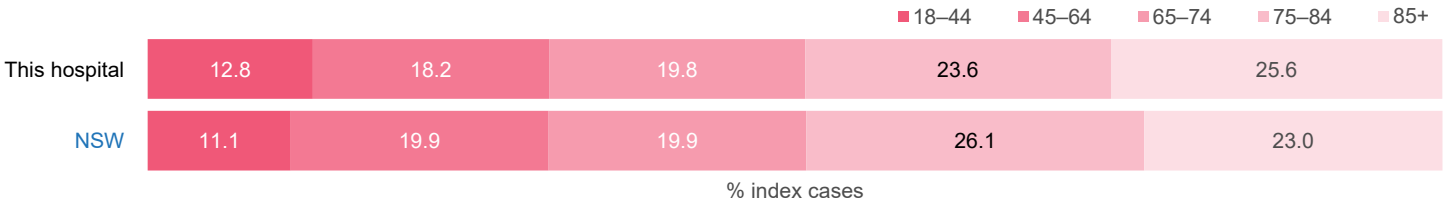
Royal North Shore Hospital

30-day readmission following hospitalisation for pneumonia, July 2015 – June 2018

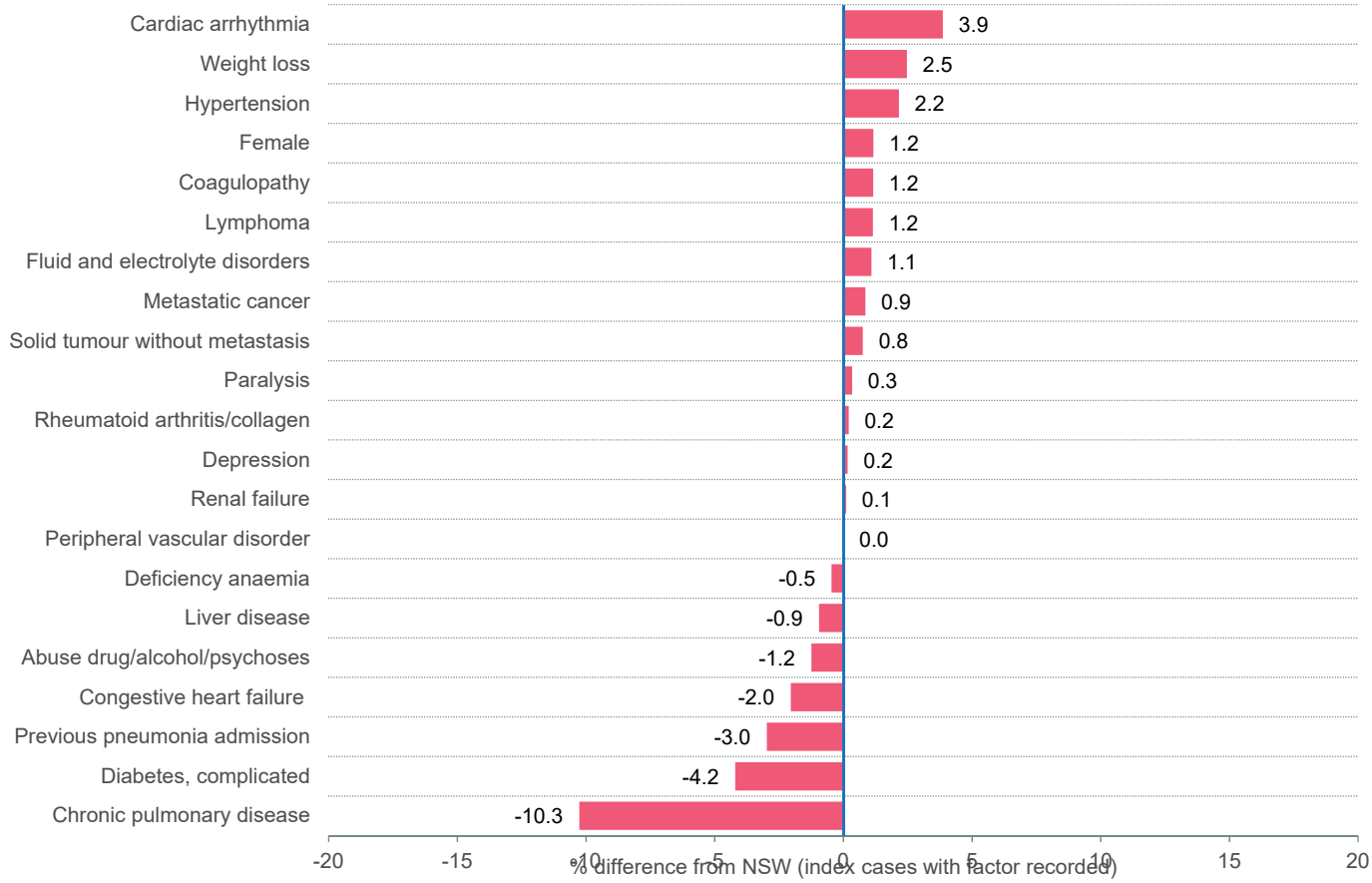
Patient cohort, index hospitalisations[1,2,3]

	This hospital	NSW
Total index cases for pneumonia	1,606	48,855
Average length of stay (days)	5.3	5.1
Patients transferred in from acute care in another hospital	103	3,190
Discharge destination		
Home	1,391	42,535
Other	215	6,320

Age profile for index hospitalisations (years)[4]



Patient factors associated with 30-day pneumonia readmission[5,6]



Royal North Shore Hospital

30-day readmission following hospitalisation for pneumonia, July 2015 – June 2018

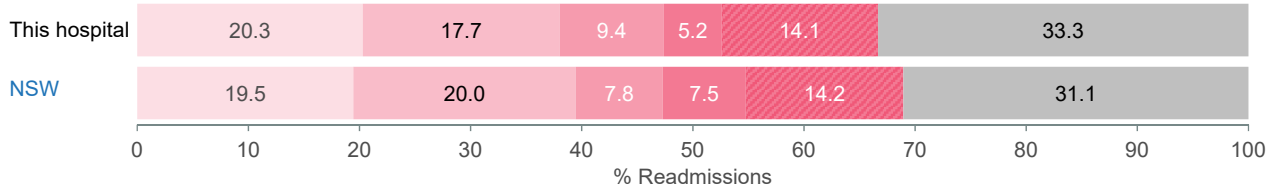
Location of readmissions[7]

	This hospital	NSW
Total readmissions following index hospitalisation for pneumonia	188	6,704
Returns to acute care	9	325
Readmitted following hospital discharge	179	6,379
Readmitted to the same hospital where acute care was completed	148	5,201
Readmitted to a different hospital	31	1,178
To an urban public hospital	25	
To a regional or rural public hospital	2	
To a private hospital	4	

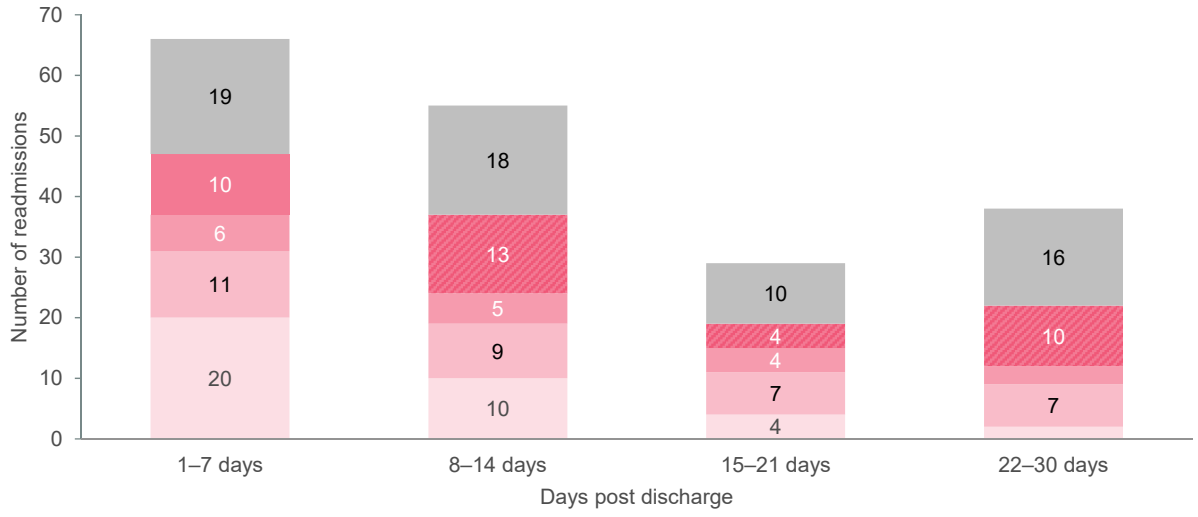
Reasons for and time to readmission[8]

Same principal diagnosis
Condition related to principal diagnosis
Potentially related to hospital care (not time sensitive)
Potentially related to hospital care (time sensitive, ≤7 days post discharge)
Potentially related to hospital care (time sensitive, 8–30 days post discharge)
Other conditions

Distribution of reasons for readmission



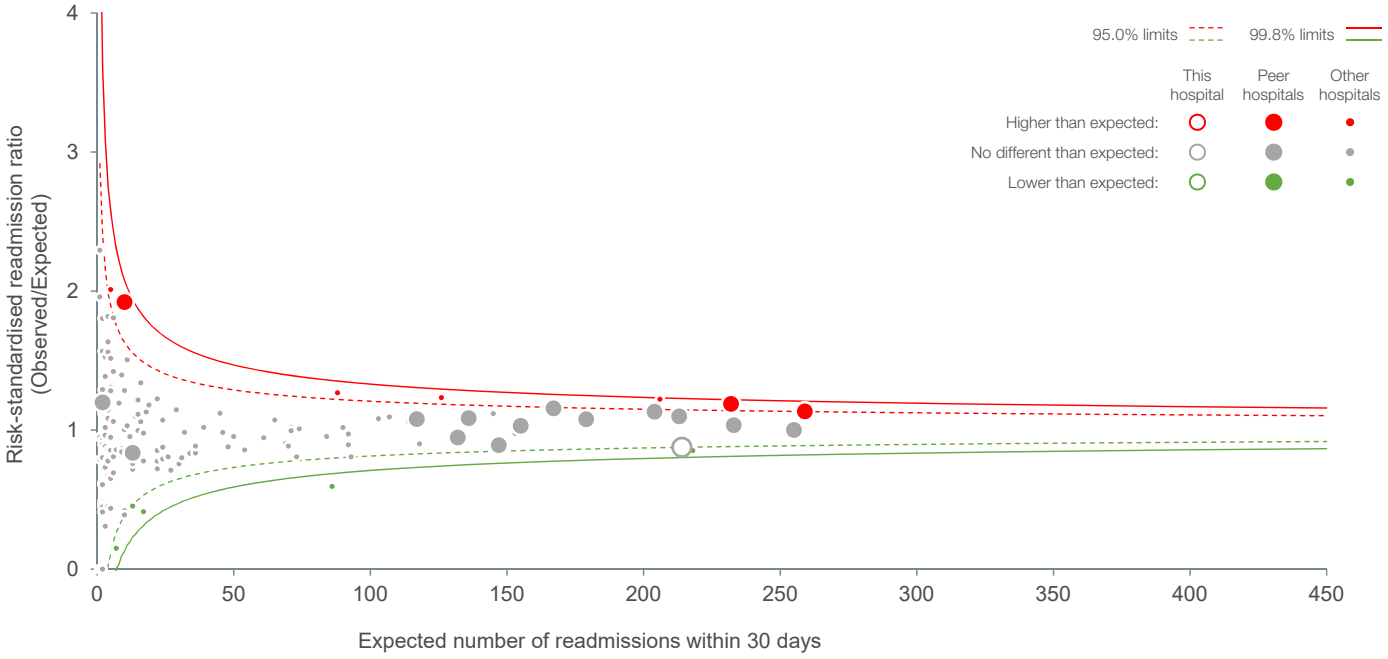
Number of, and reasons for, readmissions following hospitalisation for pneumonia, by days post discharge



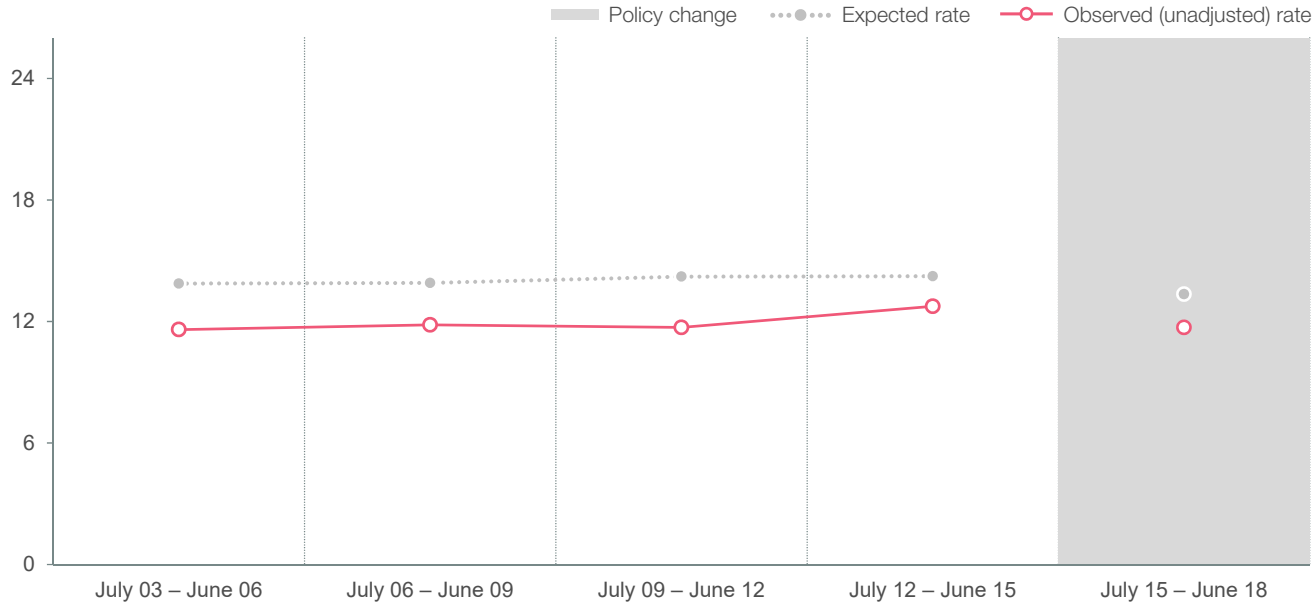
Royal North Shore Hospital

30-day readmission following hospitalisation for pneumonia, July 2015 – June 2018

Pneumonia risk-standardised **readmission ratios** by number of expected readmissions, NSW public hospitals[9]



Pneumonia, this hospital's expected **readmission rates**[10] and observed (unadjusted) readmission rates, July 2003 – June 2018



In June 2017, the NSW Health Admission Policy was released, stating that a patient treated in and discharged from an emergency department (ED) only, should not be recorded as an admitted patient. As a result, patients who attended an ED, but were not transferred to an inpatient ward, were not included in BHI readmission analyses from July 2015 onwards and comparison of results before and after this time should be made with caution. For more information, see the *Technical Supplement – Readmission and returns to acute care following hospitalisation for eight clinical conditions, July 2015-June 2018*.

Royal North Shore Hospital

Reference notes

1. Data refer to patients aged 18+ years who were discharged from this hospital to a non-acute care setting, between July 2015 and June 2018, following an acute hospitalisation with pneumonia as principal diagnosis (ICD-10-AM codes J13, J14, J15, J16, J18).
2. For calculation of average length of stay, index admissions that were transferred in from, or transferred out to, another acute care hospital were excluded. Unreasonably long episodes are trimmed on the basis of the Diagnosis Related Group (DRG) of the episode. The trim point is the third quartile plus 1.5x the interquartile range of all in-scope episodes in each DRG.
3. For episodes coded as 'Discharged by hospital' or 'Discharged on leave', patients are considered as discharged home. All other modes of separation are deemed a discharge destination other than home. Where there is a non-acute care admission within one day of any discharge, it is not considered as discharged home regardless of the mode of separation.
4. Age at admission date.
5. Comorbidities are identified from the hospital discharge records using the Elixhauser comorbidity set (plus dementia) with a one year look-back from the date of the admission. Only those conditions that were found to have a statistically significant impact on readmission ($p<0.05$) are shown.
6. Age was a statistically significant factor in the final model for pneumonia.
7. Readmissions include both returns to acute care from non-acute inpatient settings and readmissions following hospital discharge. Hospitals are classified as urban and regional/rural using the geocoded address of the hospital assigned to Australian Bureau of Statistics statistical areas (SA2) and the Australian remoteness index for areas.
8. Reasons for readmission follow the same clinical grouping as used in the previous report *Return to acute care following discharge from hospital, July 2012 – June 2015*. Please refer to the previously published *Spotlight on Measurement: Measuring return to acute care following discharge from hospital, 2nd edition*, which outline the specifications used to describe reasons for readmission.
9. Results for hospitals with expected readmission <1 are not shown. Hospitals are classified according to the NSW Ministry of Health's peer grouping as at January 2018.
10. Readmission rates at an average NSW public hospital with the same case-mix.

Details of analyses are available in *Spotlight on Measurement: Measuring return to acute care following discharge from hospital, 2nd edition* and the *Technical Supplement – Readmission and returns to acute care following hospitalisation for eight clinical conditions, July 2015-June 2018*.

Data source: BHI analyses of Hospital Performance Dataset, NSW Ministry of Health Secure Analytics for Population Health Research and Intelligence.

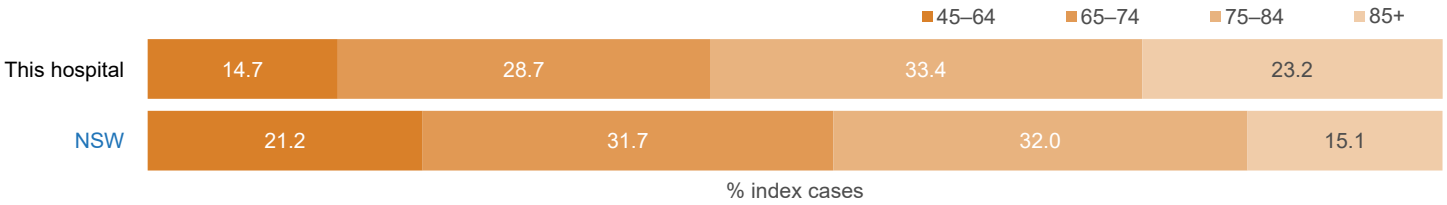
Royal North Shore Hospital

30-day readmission following hospitalisation for chronic obstructive pulmonary disease, July 2015 – June 2018

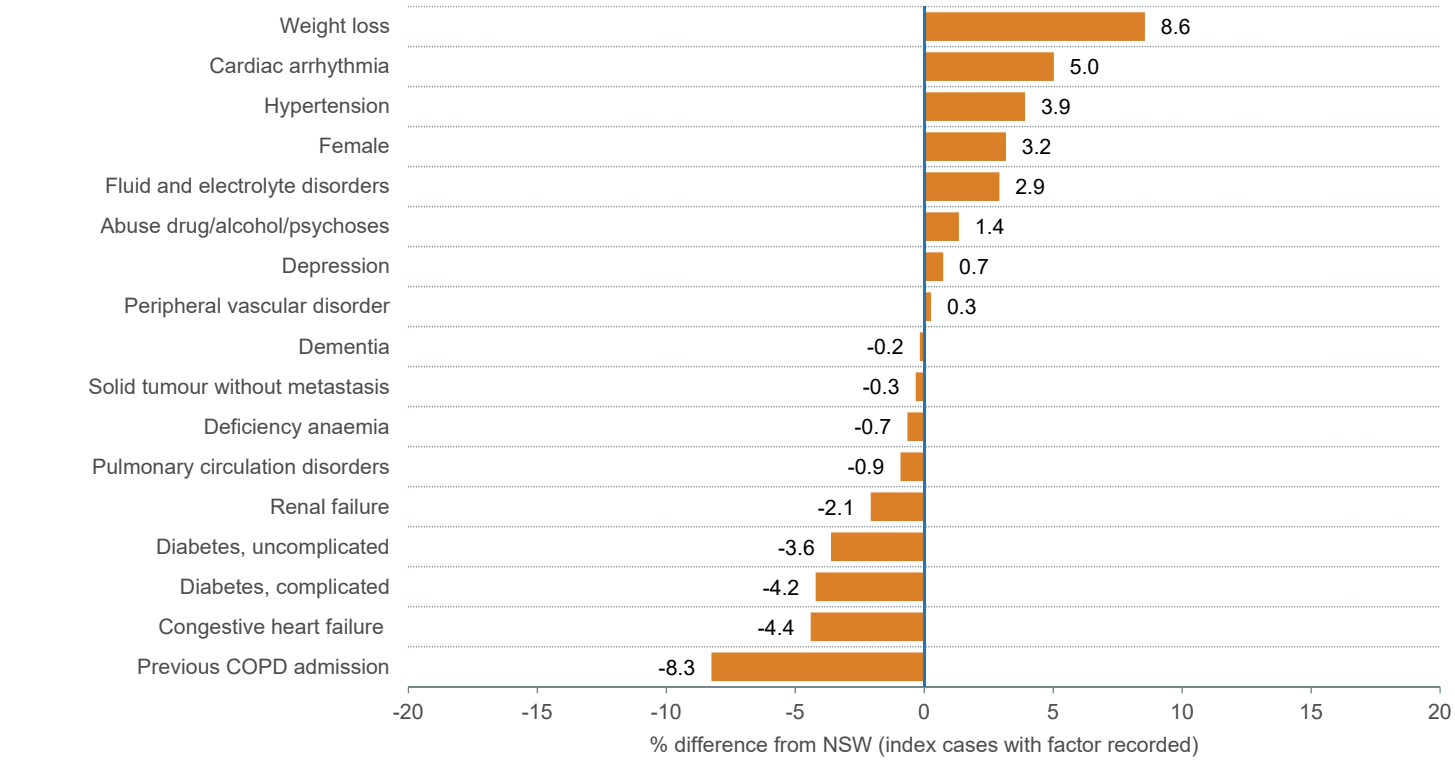
Patient cohort, index hospitalisations[1,2,3]

	This hospital	NSW
Total index cases for chronic obstructive pulmonary disease	776	48,336
Average length of stay (days)	5.5	4.8
Patients transferred in from acute care in another hospital	34	2,330
Discharge destination		
Home	663	43,932
Other	113	4,404

Age profile for index hospitalisations (years)[4]



Patient factors associated with 30-day chronic obstructive pulmonary disease readmission[5,6]



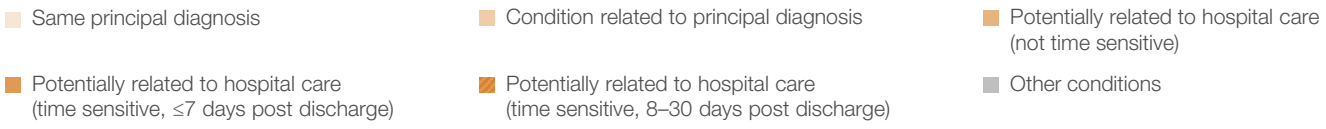
Royal North Shore Hospital

30-day readmission following hospitalisation for chronic obstructive pulmonary disease, July 2015 – June 2018

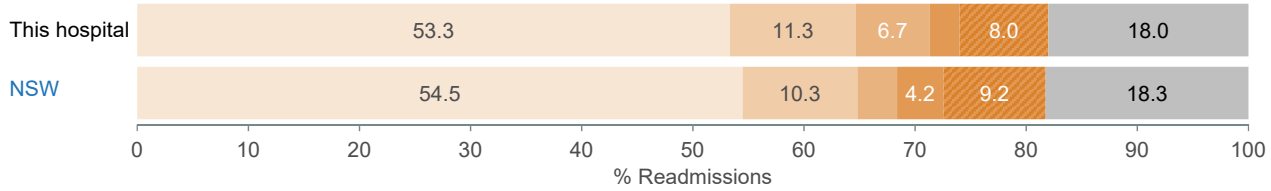
Location of readmissions[7]

	This hospital	NSW
Total readmissions following index hospitalisation for chronic obstructive pulmonary disease	147	10,241
Returns to acute care	11	233
Readmitted following hospital discharge	136	10,008
Readmitted to the same hospital where acute care was completed	120	8,472
Readmitted to a different hospital	16	1,536
To an urban public hospital	15	
To a regional or rural public hospital	0	
To a private hospital	1	

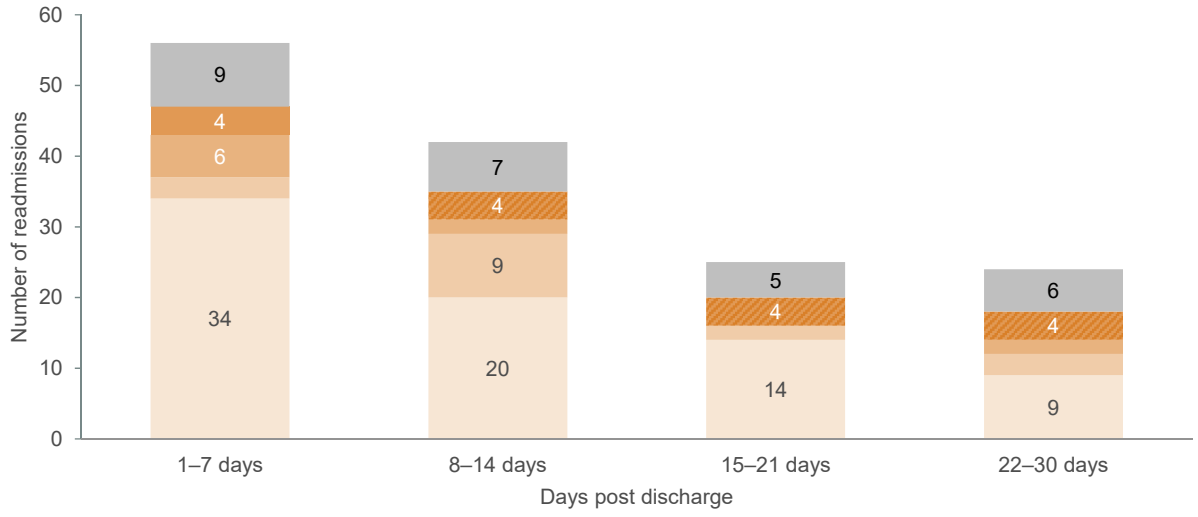
Reasons for and time to readmission[8]



Distribution of reasons for readmission



Number of, and reasons for, readmissions following hospitalisation for chronic obstructive pulmonary disease, by days post discharge

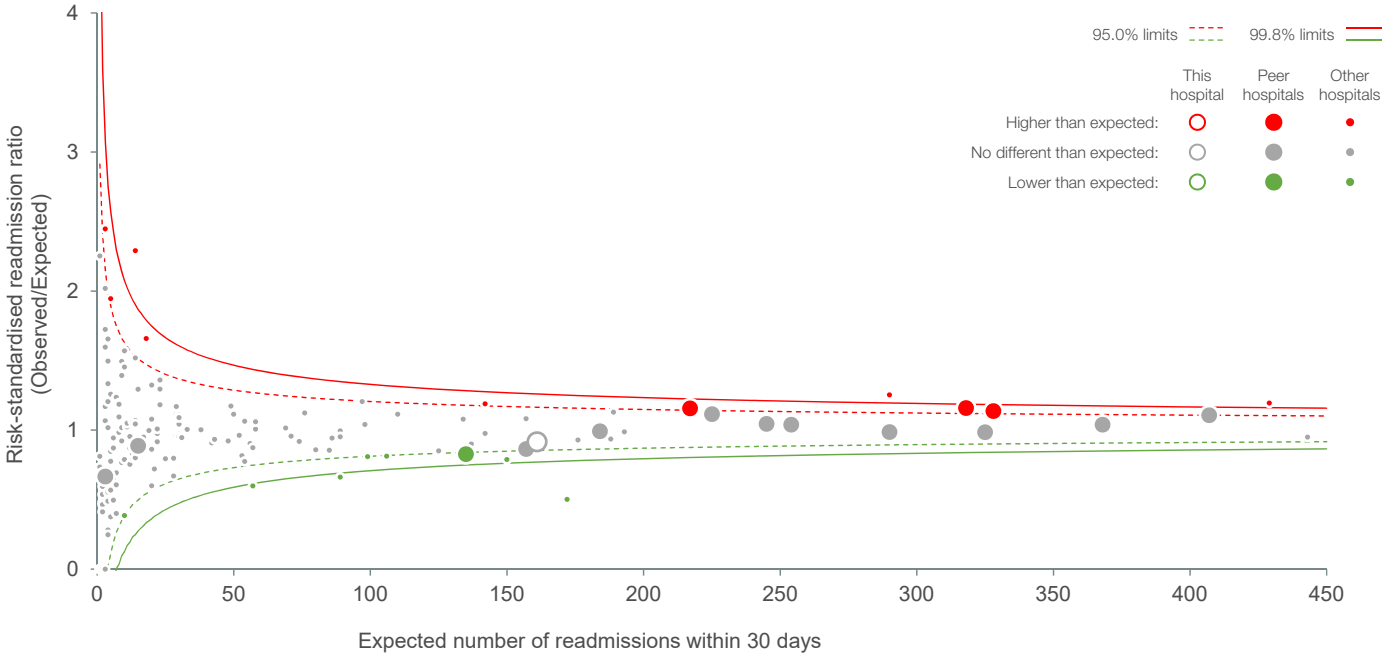


Royal North Shore Hospital

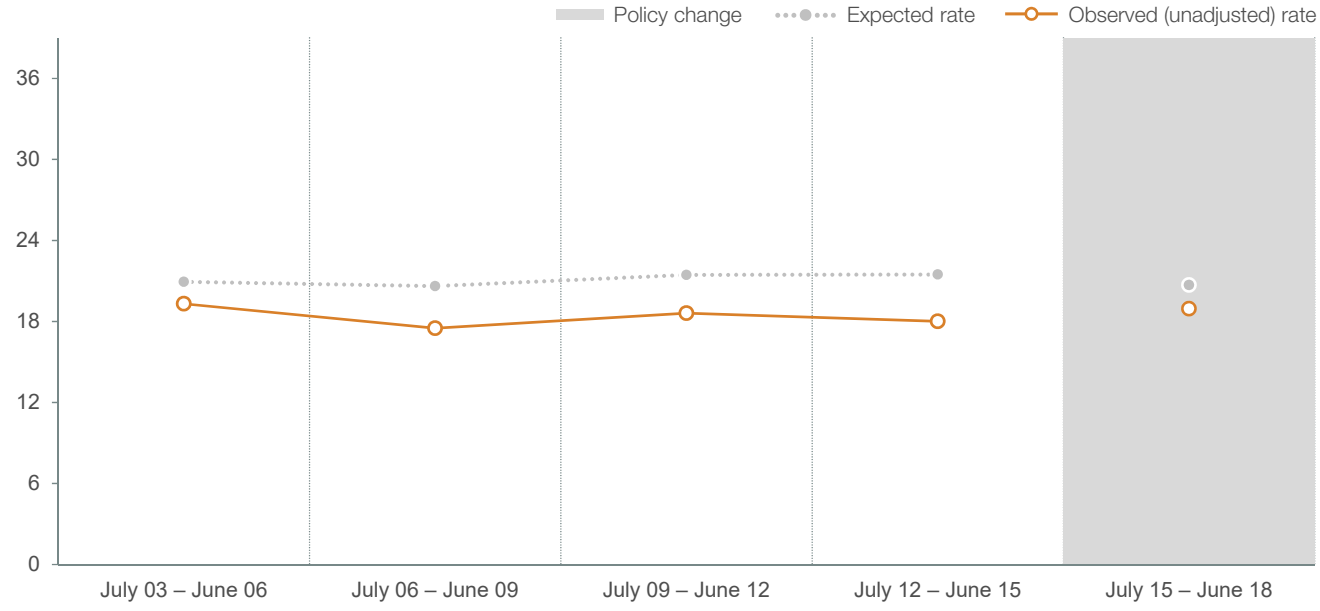
30-day readmission following hospitalisation for chronic obstructive pulmonary disease, July 2015 – June 2018

Chronic obstructive pulmonary disease risk-standardised **readmission ratios** by number of expected readmissions,

NSW public hospitals[9]



Chronic obstructive pulmonary disease, this hospital's expected **readmission rates**[10] and observed (unadjusted) readmission rates, July 2003 – June 2018



In June 2017, the NSW Health Admission Policy was released, stating that a patient treated in and discharged from an emergency department (ED) only, should not be recorded as an admitted patient. As a result, patients who attended an ED, but were not transferred to an inpatient ward, were not included in BHI readmission analyses from July 2015 onwards and comparison of results before and after this time should be made with caution. For more information, see the *Technical Supplement – Readmission and returns to acute care following hospitalisation for eight clinical conditions, July 2015-June 2018*.

Royal North Shore Hospital

Reference notes

1. Data refer to patients aged 45+ years who were discharged from this hospital to a non-acute care setting, between July 2015 and June 2018, following an acute hospitalisation with COPD as principal diagnosis (ICD-10-AM code J41, J42, J43, J44, J47, and J20 and J40 if accompanied by J41, J42, J43, J44 and J47 in any secondary diagnoses).
2. For calculation of average length of stay, index admissions that were transferred in from, or transferred out to, another acute care hospital were excluded. Unreasonably long episodes are trimmed on the basis of the Diagnosis Related Group (DRG) of the episode. The trim point is the third quartile plus 1.5x the interquartile range of all in-scope episodes in each DRG.
3. For episodes coded as 'Discharged by hospital' or 'Discharged on leave', patients are considered as discharged home. All other modes of separation are deemed a discharge destination other than home. Where there is a non-acute care admission within one day of any discharge, it is not considered as discharged home regardless of the mode of separation.
4. Age at admission date.
5. Comorbidities are identified from the hospital discharge records using the Elixhauser comorbidity set (plus dementia) with a one year look-back from the date of the admission. Only those conditions that were found to have a statistically significant impact on readmission ($p<0.05$) are shown.
6. Age was a statistically significant factor in the final model for chronic obstructive pulmonary disease.
7. Readmissions include both returns to acute care from non-acute inpatient settings and readmissions following hospital discharge. Hospitals are classified as urban and regional/rural using the geocoded address of the hospital assigned to Australian Bureau of Statistics statistical areas (SA2) and the Australian remoteness index for areas.
8. Reasons for readmission follow the same clinical grouping as used in the previous report *Return to acute care following discharge from hospital, July 2012 – June 2015*. Please refer to the previously published *Spotlight on Measurement: Measuring return to acute care following discharge from hospital, 2nd edition*, which outline the specifications used to describe reasons for readmission.
9. Results for hospitals with expected readmission <1 are not shown. Hospitals are classified according to the NSW Ministry of Health's peer grouping as at January 2018.
10. Readmission rates at an average NSW public hospital with the same case-mix.

Details of analyses are available in *Spotlight on Measurement: Measuring return to acute care following discharge from hospital, 2nd edition* and the *Technical Supplement – Readmission and returns to acute care following hospitalisation for eight clinical conditions, July 2015-June 2018*.

Data source: BHI analyses of Hospital Performance Dataset, NSW Ministry of Health Secure Analytics for Population Health Research and Intelligence.

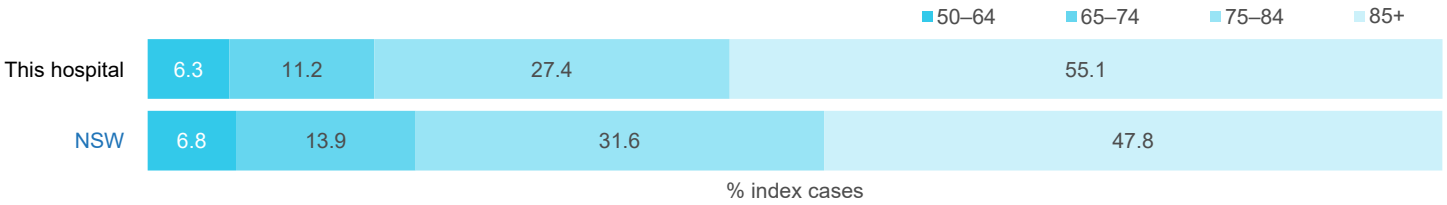
Royal North Shore Hospital

30-day readmission following hospitalisation for hip fracture surgery, July 2015 – June 2018

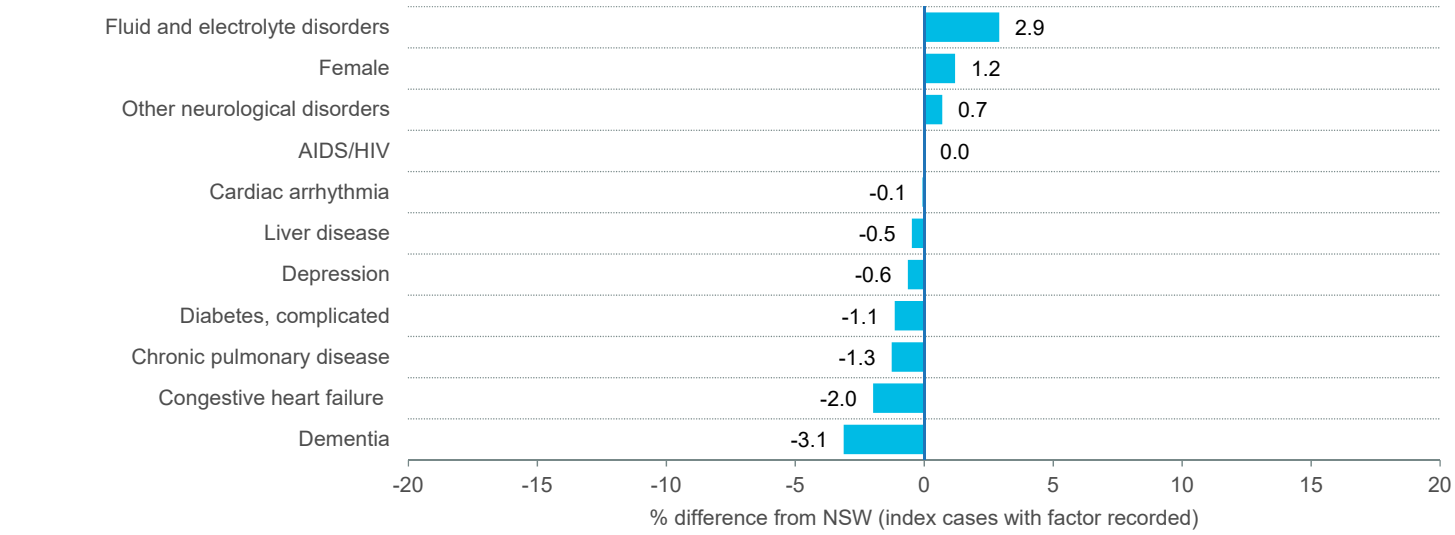
Patient cohort, index hospitalisations[1,2,3]

	This hospital	NSW
Total index cases for hip fracture surgery	554	14,895
Average length of stay (days)	8.7	9.7
Patients transferred in from acute care in another hospital	23	2,030
Discharge destination		
Home	132	4,404
Other	422	10,491

Age profile for index hospitalisations (years)[4]



Patient factors associated with 30-day hip fracture surgery readmission[5,6]



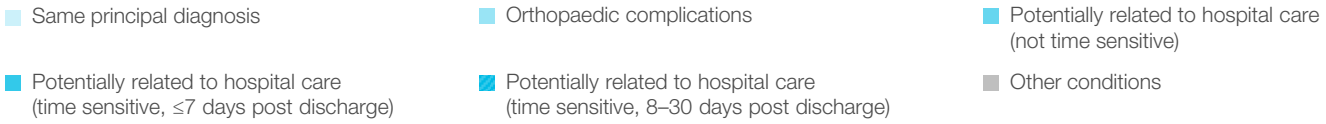
Royal North Shore Hospital

30-day readmission following hospitalisation for hip fracture surgery, July 2015 – June 2018

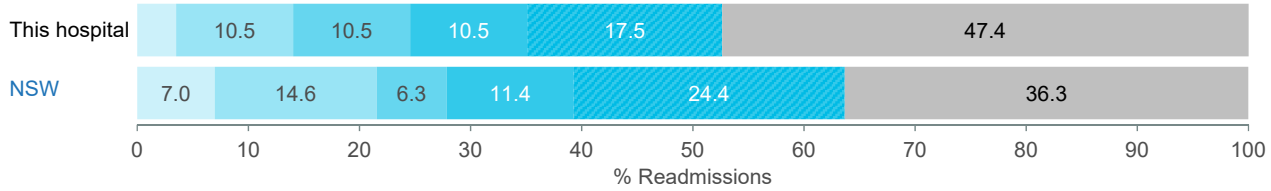
Location of readmissions[7]

	This hospital	NSW
Total readmissions following index hospitalisation for hip fracture surgery	57	1,617
Returns to acute care	33	677
Readmitted following hospital discharge	24	940
Readmitted to the same hospital where acute care was completed	19	696
Readmitted to a different hospital	5	244
To an urban public hospital	4	
To a regional or rural public hospital	0	
To a private hospital	1	

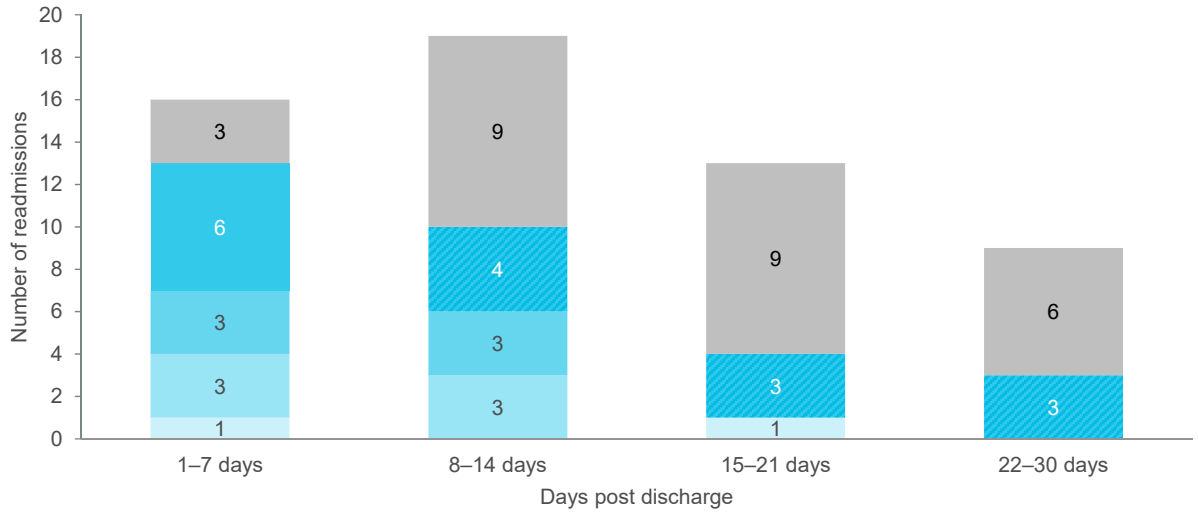
Reasons for and time to readmission[8]



Distribution of reasons for readmission



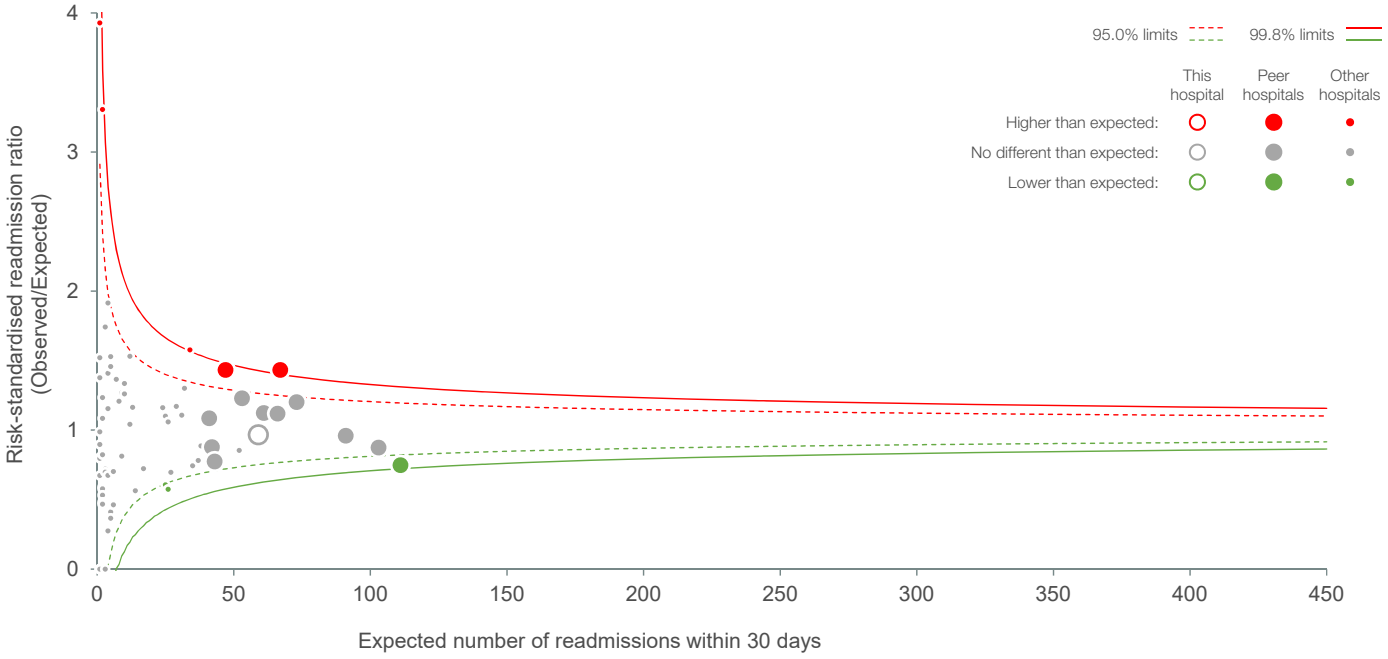
Number of, and reasons for, readmissions following hospitalisation for hip fracture surgery, by days post discharge



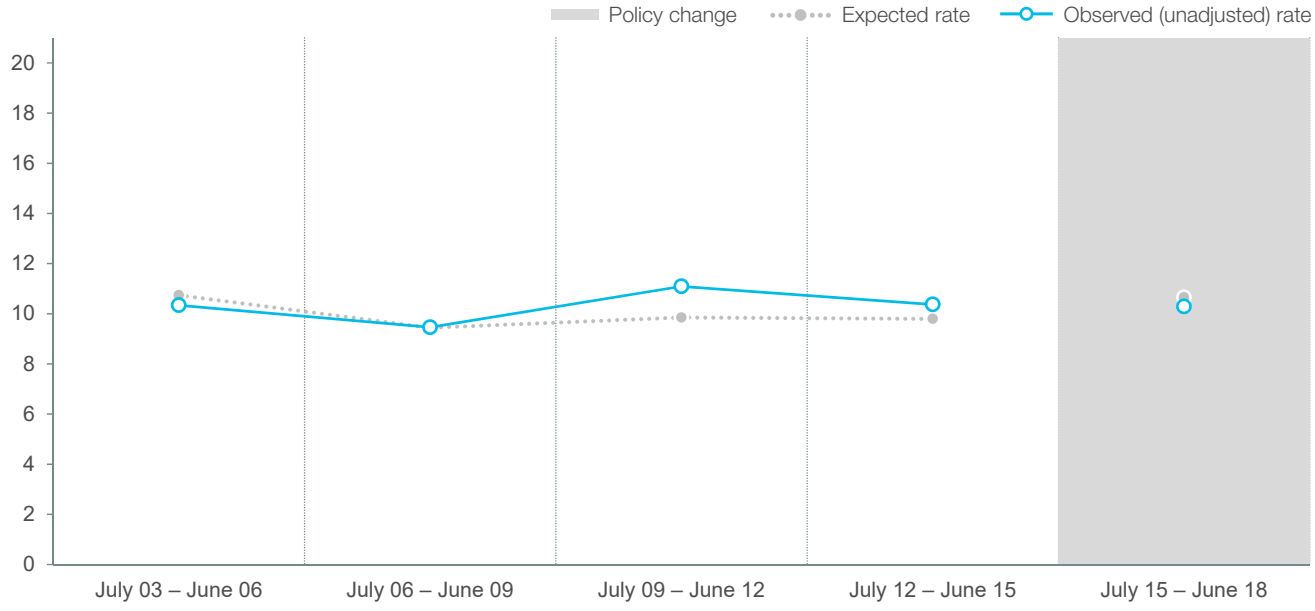
Royal North Shore Hospital

30-day readmission following hospitalisation for hip fracture surgery, July 2015 – June 2018

Hip fracture surgery risk-standardised **readmission ratios** by number of expected readmissions, NSW public hospitals[9]



Hip fracture surgery, this hospital's expected **readmission rates**[10] and observed (unadjusted) readmission rates, July 2003 – June 2018



In June 2017, the NSW Health Admission Policy was released, stating that a patient treated in and discharged from an emergency department (ED) only, should not be recorded as an admitted patient. As a result, patients who attended an ED, but were not transferred to an inpatient ward, were not included in BHI readmission analyses from July 2015 onwards and comparison of results before and after this time should be made with caution. For more information, see the *Technical Supplement – Readmission and returns to acute care following hospitalisation for eight clinical conditions, July 2015-June 2018*.

Royal North Shore Hospital

Reference notes

1. Data refer to patients aged 50+ years who were discharged from this hospital to a non-acute care setting, between July 2015 and June 2018, following an acute hospitalisation with hip fracture as principal diagnosis and treated with surgery (ICD-10-AM codes for hip fracture S72.0, S72.1, S72.2 accompanied with a fall codes W00-W19 and R29.6 and treated with a surgical procedure).
2. For calculation of average length of stay, index admissions that were transferred in from, or transferred out to, another acute care hospital were excluded. Unreasonably long episodes are trimmed on the basis of the Diagnosis Related Group (DRG) of the episode. The trim point is the third quartile plus 1.5x the interquartile range of all in-scope episodes in each DRG.
3. For episodes coded as 'Discharged by hospital' or 'Discharged on leave', patients are considered as discharged home. All other modes of separation are deemed a discharge destination other than home. Where there is a non-acute care admission within one day of any discharge, it is not considered as discharged home regardless of the mode of separation.
4. Age at admission date.
5. Comorbidities are identified from the hospital discharge records using the Elixhauser comorbidity set (plus dementia) with a one year look-back from the date of the admission. Only those conditions that were found to have a statistically significant impact on readmission ($p<0.05$) are shown.
6. Age was a statistically significant factor in the final model for hip fracture surgery.
7. Readmissions include both returns to acute care from non-acute inpatient settings and readmissions following hospital discharge. Hospitals are classified as urban and regional/rural using the geocoded address of the hospital assigned to Australian Bureau of Statistics statistical areas (SA2) and the Australian remoteness index for areas.
8. Reasons for readmission follow the same clinical grouping as used in the previous report *Return to acute care following discharge from hospital, July 2012 – June 2015*. Please refer to the previously published *Spotlight on Measurement: Measuring return to acute care following discharge from hospital, 2nd edition*, which outline the specifications used to describe reasons for readmission.
9. Results for hospitals with expected readmission <1 are not shown. Hospitals are classified according to the NSW Ministry of Health's peer grouping as at January 2018.
10. Readmission rates at an average NSW public hospital with the same case-mix.

Details of analyses are available in *Spotlight on Measurement: Measuring return to acute care following discharge from hospital, 2nd edition* and the *Technical Supplement – Readmission and returns to acute care following hospitalisation for eight clinical conditions, July 2015-June 2018*.

Data source: BHI analyses of Hospital Performance Dataset, NSW Ministry of Health Secure Analytics for Population Health Research and Intelligence.

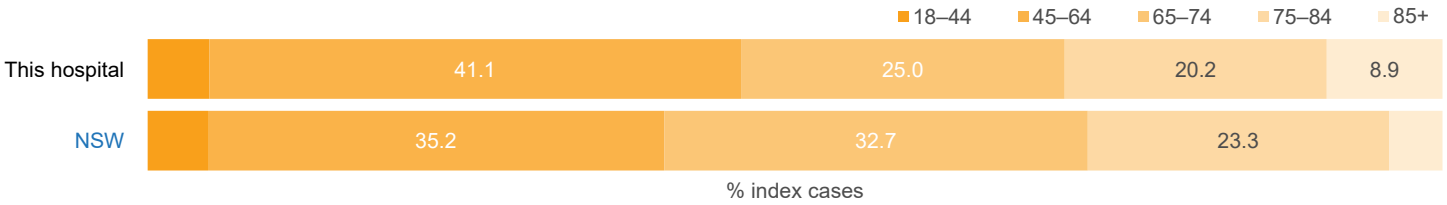
Royal North Shore Hospital

60-day readmission following hospitalisation for total hip replacement, July 2015 – June 2018

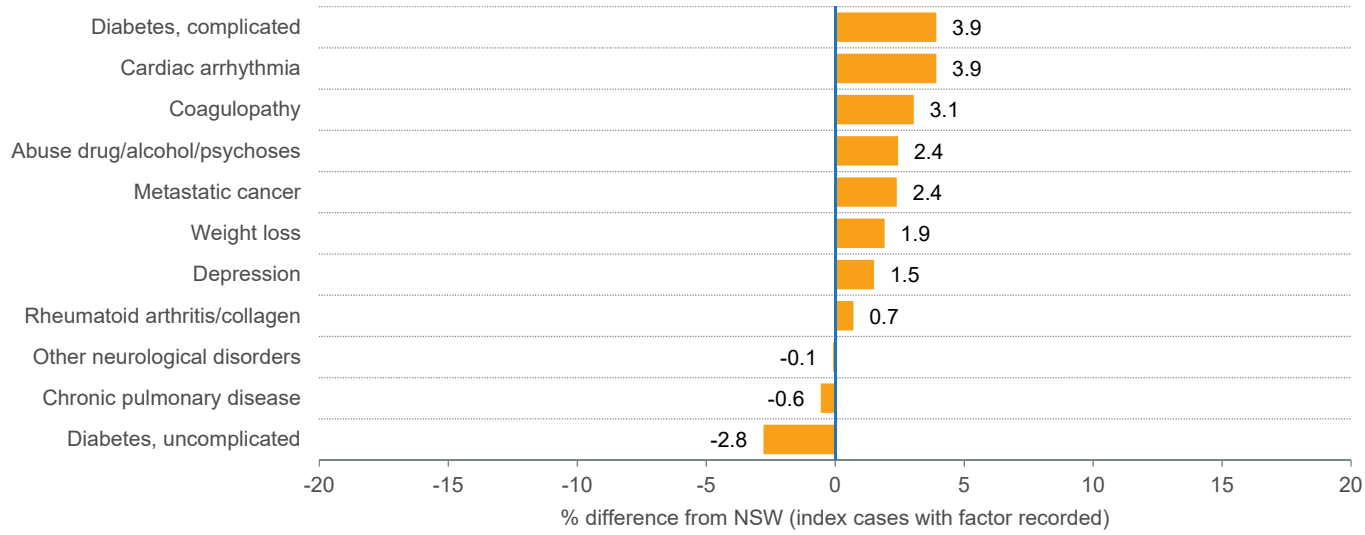
Patient cohort, index hospitalisations[1,2,3]

	This hospital	NSW
Total index cases for total hip replacement	168	8,985
Average length of stay (days)	7.0	4.7
Discharge destination		
Home	102	7,472
Other	66	1,513

Age profile for index hospitalisations (years)[4]



Patient factors associated with 60-day total hip replacement readmission[5,6]



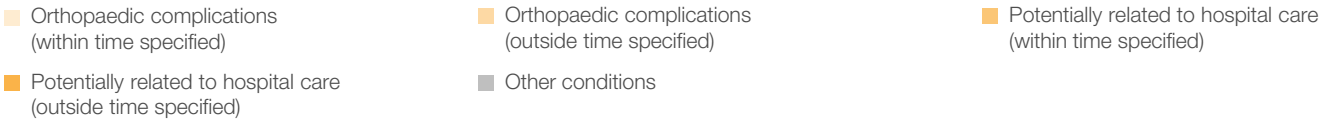
Royal North Shore Hospital

60-day readmission following hospitalisation for total hip replacement, July 2015 – June 2018

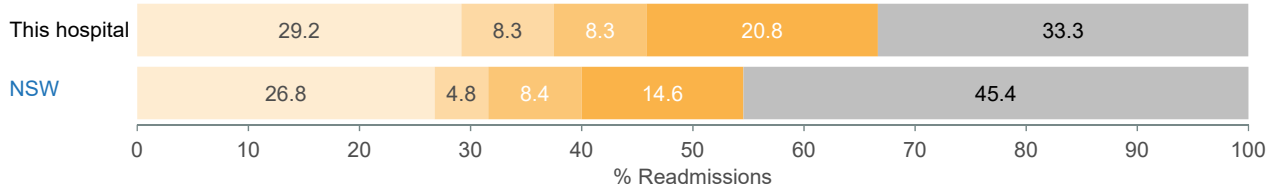
Location of readmissions[7]

	This hospital	NSW
Total readmissions following index hospitalisation for total hip replacement	24	949
Returns to acute care	5	107
Readmitted following hospital discharge	19	842
Readmitted to the same hospital where acute care was completed	12	499
Readmitted to a different hospital	7	343
To an urban public hospital	2	
To a regional or rural public hospital	5	
To a private hospital	0	

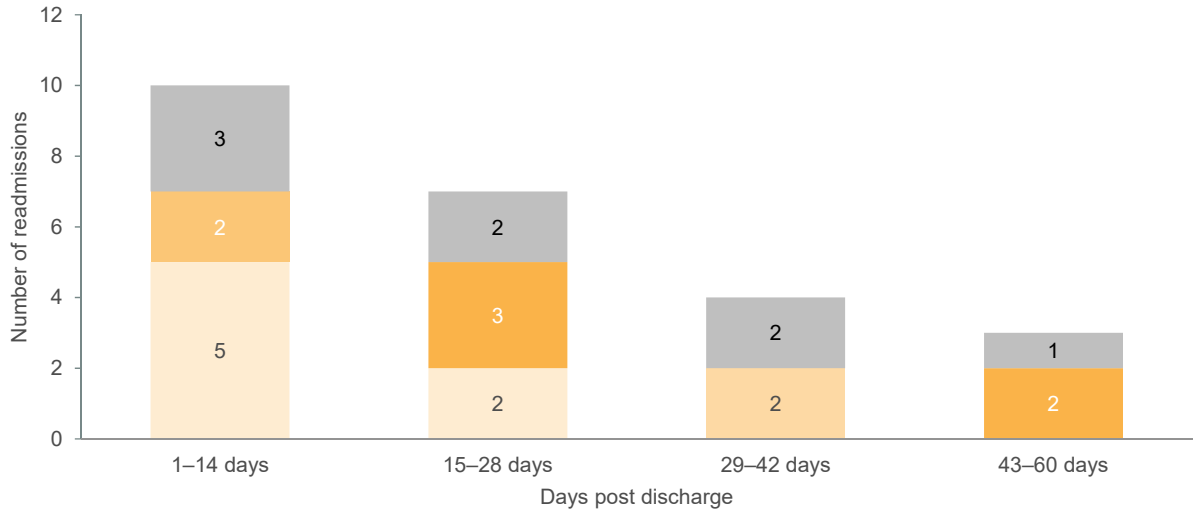
Reasons for and time to readmission[8]



Distribution of reasons for readmission



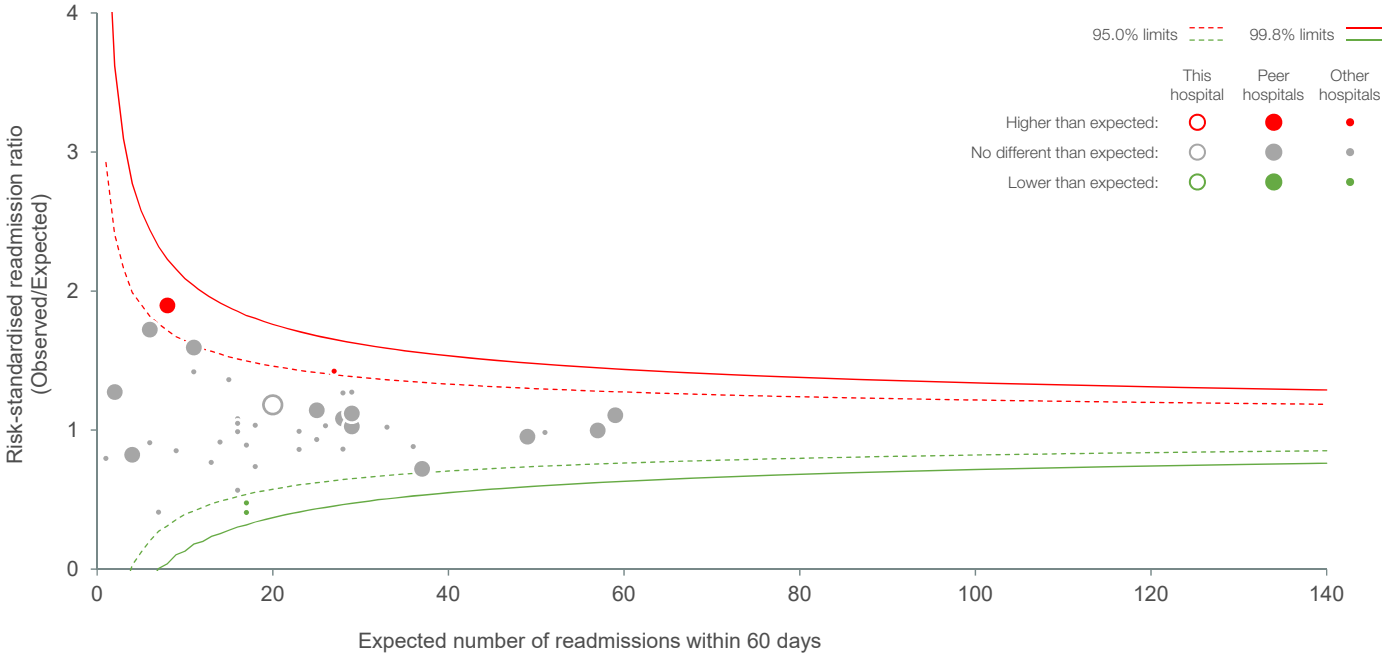
Number of, and reasons for, readmissions following hospitalisation for total hip replacement, by days post discharge



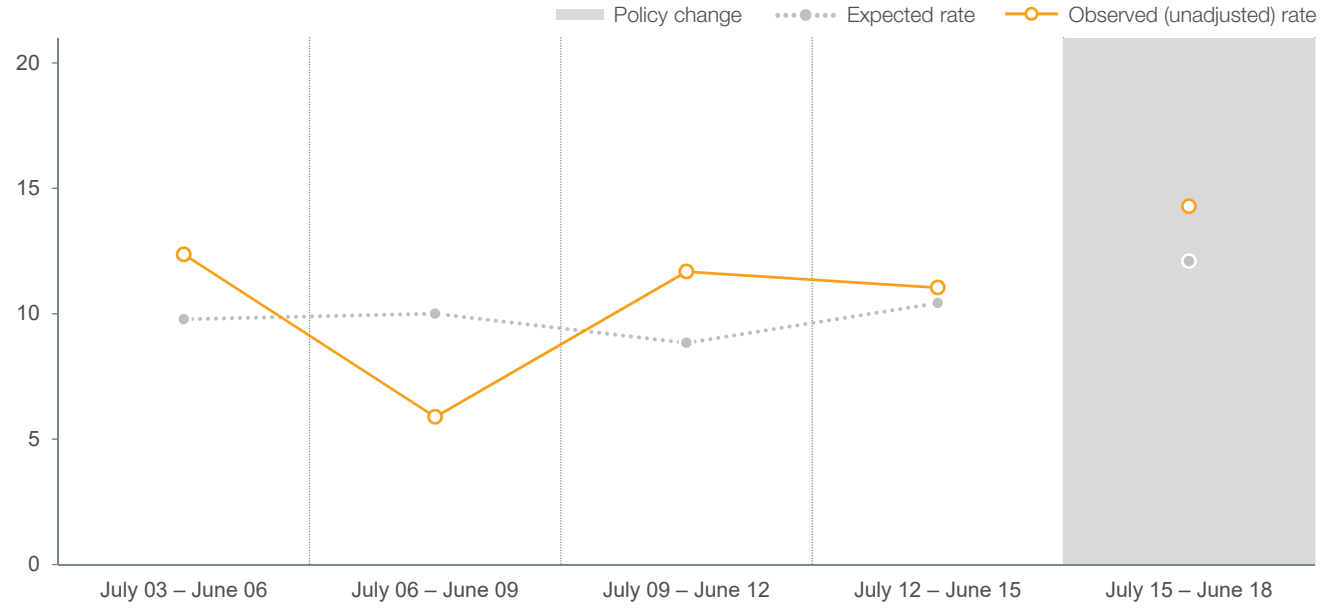
Royal North Shore Hospital

60-day readmission following hospitalisation for total hip replacement, July 2015 – June 2018

Total hip replacement risk-standardised **readmission ratios** by number of expected readmissions, NSW public hospitals[9]



Total hip replacement, this hospital's expected **readmission rates**[10] and observed (unadjusted) readmission rates, July 2003 – June 2018



In June 2017, the NSW Health Admission Policy was released, stating that a patient treated in and discharged from an emergency department (ED) only, should not be recorded as an admitted patient. As a result, patients who attended an ED, but were not transferred to an inpatient ward, were not included in BHI readmission analyses from July 2015 onwards and comparison of results before and after this time should be made with caution. For more information, see the *Technical Supplement – Readmission and returns to acute care following hospitalisation for eight clinical conditions, July 2015-June 2018*.

Royal North Shore Hospital

Reference notes

1. Data refer to patients aged 18+ years who were discharged from this hospital to a non-acute care setting, between July 2015 and June 2018, following an acute hospitalisation for an elective total hip replacement (ACHI codes 49318-00, 49319-00).
2. For calculation of average length of stay, index admissions that were transferred in from, or transferred out to, another acute care hospital were excluded. Unreasonably long episodes are trimmed on the basis of the Diagnosis Related Group (DRG) of the episode. The trim point is the third quartile plus 1.5x the interquartile range of all in-scope episodes in each DRG.
3. For episodes coded as 'Discharged by hospital' or 'Discharged on leave', patients are considered as discharged home. All other modes of separation are deemed a discharge destination other than home. Where there is a non-acute care admission within one day of any discharge, it is not considered as discharged home regardless of the mode of separation.
4. Age at admission date.
5. Comorbidities are identified from the hospital discharge records using the Elixhauser comorbidity set (plus dementia) with a one year look-back from the date of the admission. Only those conditions that were found to have a statistically significant impact on readmission ($p<0.05$) are shown.
6. Age was a statistically significant factor in the final model for total hip replacement.
7. Readmissions include both returns to acute care from non-acute inpatient settings and readmissions following hospital discharge. Hospitals are classified as urban and regional/rural using the geocoded address of the hospital assigned to Australian Bureau of Statistics statistical areas (SA2) and the Australian remoteness index for areas.
8. Reasons for readmission follow the same clinical grouping as used in the previous report *Return to acute care following discharge from hospital, July 2012 – June 2015*. Please refer to the previously published *Spotlight on Measurement: Measuring return to acute care following discharge from hospital, 2nd edition*, which outline the specifications used to describe reasons for readmission.
9. Results for hospitals with expected readmission <1 are not shown. Hospitals are classified according to the NSW Ministry of Health's peer grouping as at January 2018.
10. Readmission rates at an average NSW public hospital with the same case-mix.

Details of analyses are available in *Spotlight on Measurement: Measuring return to acute care following discharge from hospital, 2nd edition* and the *Technical Supplement – Readmission and returns to acute care following hospitalisation for eight clinical conditions, July 2015-June 2018*.

Data source: BHI analyses of Hospital Performance Dataset, NSW Ministry of Health Secure Analytics for Population Health Research and Intelligence.

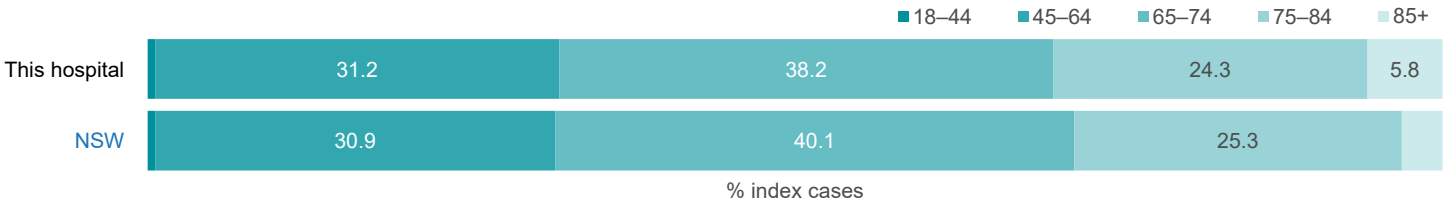
Royal North Shore Hospital

60-day readmission following hospitalisation for total knee replacement, July 2015 – June 2018

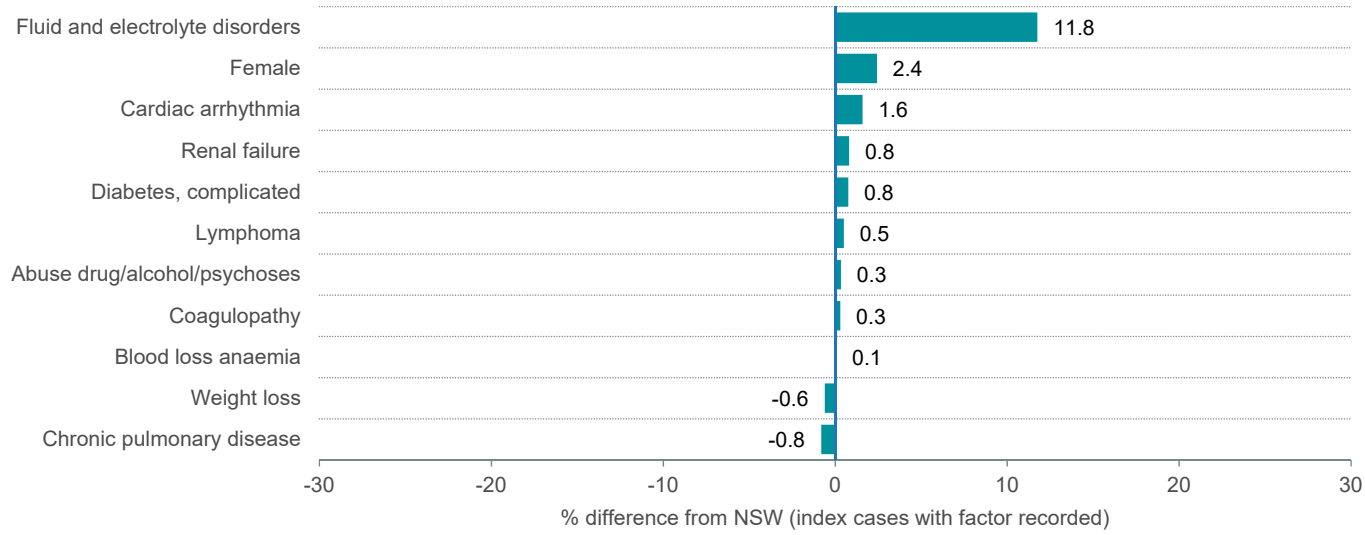
Patient cohort, index hospitalisations[1,2,3]

	This hospital	NSW
Total index cases for total knee replacement	173	15,940
Average length of stay (days)	7.1	4.9
Discharge destination		
Home	88	13,175
Other	85	2,765

Age profile for index hospitalisations (years)[4]



Patient factors associated with 60-day total knee replacement readmission[5,6]



Royal North Shore Hospital

60-day readmission following hospitalisation for total knee replacement, July 2015 – June 2018

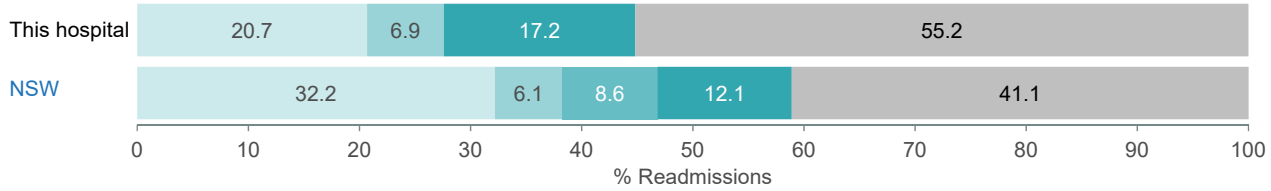
Location of readmissions[7]

	This hospital	NSW
Total readmissions following index hospitalisation for total knee replacement	29	1,892
Returns to acute care	3	152
Readmitted following hospital discharge	26	1,740
Readmitted to the same hospital where acute care was completed	16	1,052
Readmitted to a different hospital	10	688
To an urban public hospital	7	
To a regional or rural public hospital	0	
To a private hospital	3	

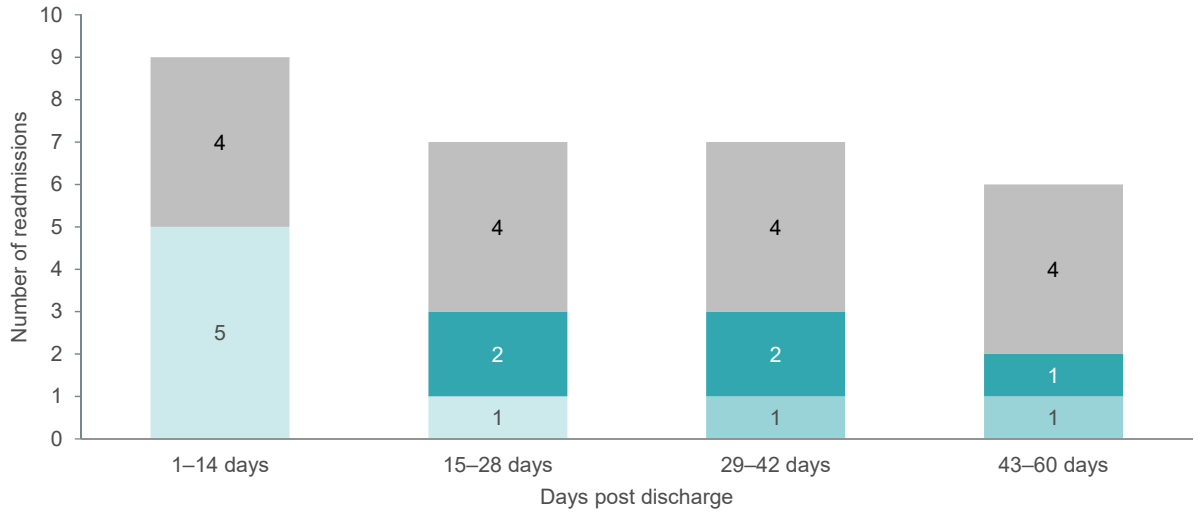
Reasons for and time to readmission[8]

Orthopaedic complications (within time specified)
Orthopaedic complications (outside time specified)
Potentially related to hospital care (within time specified)
Potentially related to hospital care (outside time specified)
Other conditions

Distribution of reasons for readmission



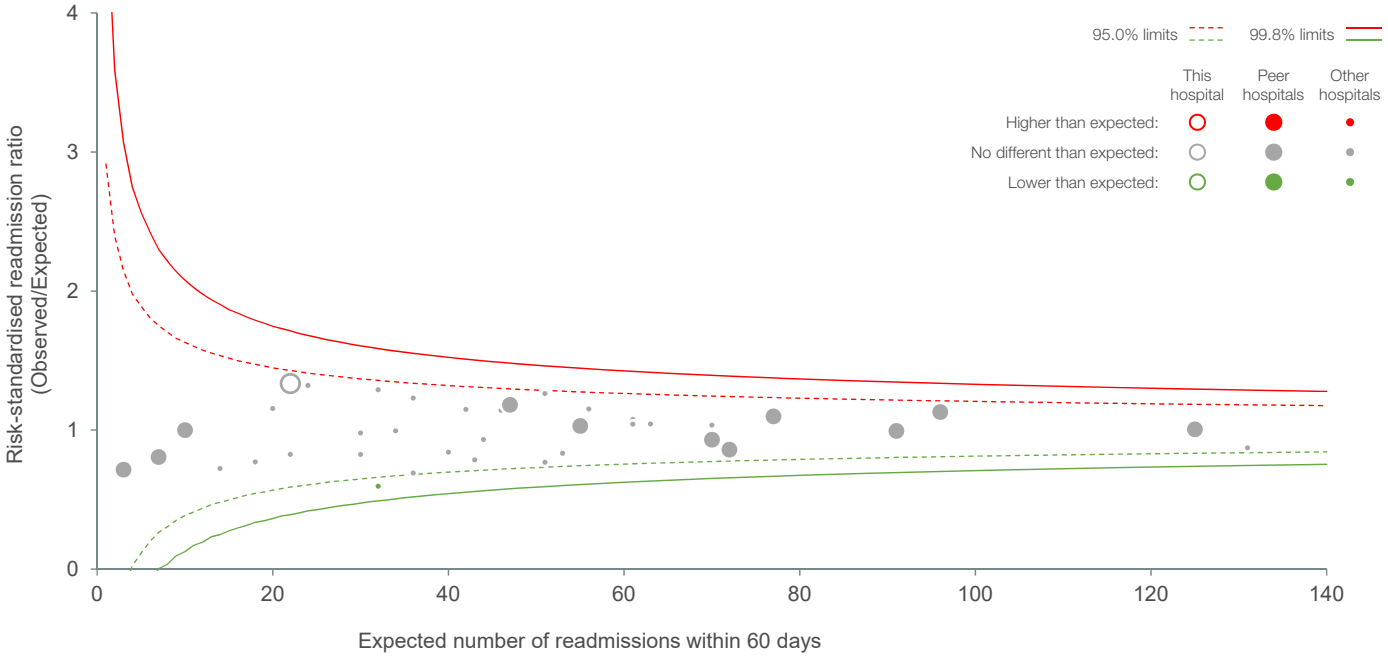
Number of, and reasons for, readmissions following hospitalisation for total knee replacement, by days post discharge



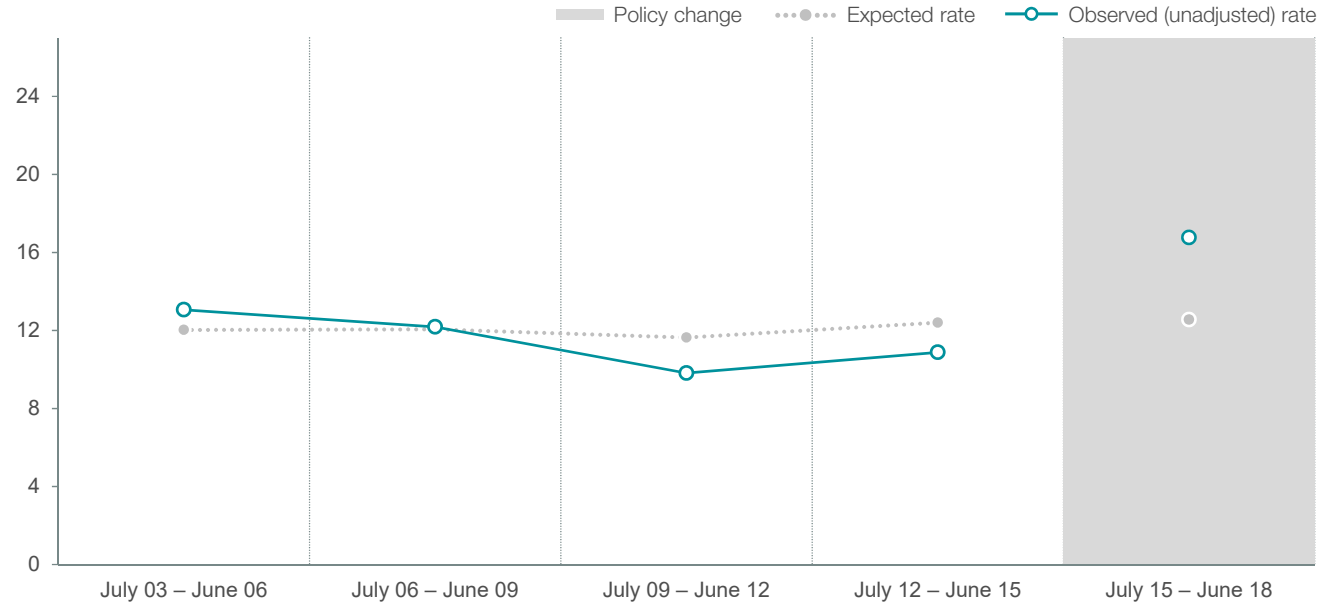
Royal North Shore Hospital

60-day readmission following hospitalisation for total knee replacement, July 2015 – June 2018

Total knee replacement risk-standardised **readmission ratios** by number of expected readmissions, NSW public hospitals[9]



Total knee replacement, this hospital's expected **readmission rates**[10] and observed (unadjusted) readmission rates, July 2003 – June 2018



In June 2017, the NSW Health Admission Policy was released, stating that a patient treated in and discharged from an emergency department (ED) only, should not be recorded as an admitted patient. As a result, patients who attended an ED, but were not transferred to an inpatient ward, were not included in BHI readmission analyses from July 2015 onwards and comparison of results before and after this time should be made with caution. For more information, see the *Technical Supplement – Readmission and returns to acute care following hospitalisation for eight clinical conditions, July 2015-June 2018*.

Royal North Shore Hospital

Reference notes

1. Data refer to patients aged 18+ years who were discharged from this hospital to a non-acute care setting, between July 2015 and June 2018, following an acute hospitalisation for an elective total knee replacement (ACHI codes 49518-00, 49519-00, 49521-00, 49521-01, 49521-02, 49521-03, 49524-00, 49524-01).
2. For calculation of average length of stay, index admissions that were transferred in from, or transferred out to, another acute care hospital were excluded. Unreasonably long episodes are trimmed on the basis of the Diagnosis Related Group (DRG) of the episode. The trim point is the third quartile plus 1.5x the interquartile range of all in-scope episodes in each DRG.
3. For episodes coded as 'Discharged by hospital' or 'Discharged on leave', patients are considered as discharged home. All other modes of separation are deemed a discharge destination other than home. Where there is a non-acute care admission within one day of any discharge, it is not considered as discharged home regardless of the mode of separation.
4. Age at admission date.
5. Comorbidities are identified from the hospital discharge records using the Elixhauser comorbidity set (plus dementia) with a one year look-back from the date of the admission. Only those conditions that were found to have a statistically significant impact on readmission ($p<0.05$) are shown.
6. Age was a statistically significant factor in the final model for total knee replacement.
7. Readmissions include both returns to acute care from non-acute inpatient settings and readmissions following hospital discharge. Hospitals are classified as urban and regional/rural using the geocoded address of the hospital assigned to Australian Bureau of Statistics statistical areas (SA2) and the Australian remoteness index for areas.
8. Reasons for readmission follow the same clinical grouping as used in the previous report *Return to acute care following discharge from hospital, July 2012 – June 2015*. Please refer to the previously published *Spotlight on Measurement: Measuring return to acute care following discharge from hospital, 2nd edition*, which outline the specifications used to describe reasons for readmission.
9. Results for hospitals with expected readmission <1 are not shown. Hospitals are classified according to the NSW Ministry of Health's peer grouping as at January 2018.
10. Readmission rates at an average NSW public hospital with the same case-mix.

Details of analyses are available in *Spotlight on Measurement: Measuring return to acute care following discharge from hospital, 2nd edition* and the *Technical Supplement – Readmission and returns to acute care following hospitalisation for eight clinical conditions, July 2015-June 2018*.

Data source: BHI analyses of Hospital Performance Dataset, NSW Ministry of Health Secure Analytics for Population Health Research and Intelligence.