



Readmission Analysis Using 3MTM Methodology

Potentially Preventable Readmissions (PPRs)

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A xerox  Company

Objectives

- Identify at least three patient populations that are considered global exclusions for readmissions
- List at least five categories of discharge status used by 3M to classify potentially preventable readmissions (PPRs)
- Explain the concept of a readmission chain used in 3M PPR Methodology
- Describe how hospital quality management staff and case managers might use the 3M™ PPR reports in DataVision to improve outcomes

Terminology

Potentially Preventable Readmissions (PPRs)



- Readmission
 - A readmission is a return hospitalization after an earlier hospital admission.
- Initial Admission (IA)
 - An admission that is followed by a clinically related readmission within a specified readmission time interval. Subsequent readmissions are related to the care rendered during or immediately after the Initial Admission. An Initial Admission begins a readmission chain.
- Clinically Related
 - The underlying reason for readmission must be plausibly related to the care given during or immediately after an earlier hospital admission.
 - Determined by processing an encounter's diagnosis and procedure codes through clinical logic developed by 3M™ Health Information Systems (HIS)

Terminology

Potentially Preventable Readmissions (PPRs)



- Excluded Admission
 - An admission that is globally excluded from consideration as a readmission or Initial Admission because of the nature and complexity of the required follow-up care, such as multiple or major HIV conditions, or because the patient left against medical advice (AMA).
- Only Admission (OA)
 - An admission that does not have a previous Initial Admission or a clinically related readmission within the readmission time interval.
- 3M™ All Patient Refined Diagnostic Related Group (APR DRG)
 - Encounters are assigned to an APR DRG and a subclass according to a clinical logic that evaluates comorbidities, age, procedures, and principal diagnosis.
 - Incorporate clinical aspects of care to provide risk-adjusted, clinically based severity-of-illness and risk-of-mortality levels (subclasses).

Terminology

Potentially Preventable Readmissions (PPRs)



- Nonevent (NE)
 - Admissions for certain services during the interval between admissions are considered nonevents.
 - Encounters that include a malignancy APR DRG combined with a chemotherapy or radiotherapy procedure code are treated as nonevents; for example, APR DRG 136 Respiratory malignancy with ICD-9 procedure code 92.33 Particulate radiosurgery.
 - Admissions with an APR DRG of rehabilitation, aftercare, or convalescence are classified as nonevents.
 - Encounters with a principal diagnosis of palliative care are treated as nonevents.

Terminology

Potentially Preventable Readmissions (PPRs)



- Nonevent (NE)
 - Some same-day transfers within a hospital are considered nonevents if the discharge disposition of the first encounter is mapped by the Midas+ Comparative Database Dictionary Map function to Discharge to Rehabilitation, Discharge to Skilled Nursing Facility, or Hospice. In these cases, the subsequent encounter is treated as a nonevent if its admission date is the same as the discharge date of the previous encounter.
 - Encounters are ignored if classified as a nonevent during the interval between an Initial Admission and a readmission.

Terminology

Potentially Preventable Readmissions (PPRs)



- Readmission chain
 - A readmission chain is a sequence of PPRs that are all clinically related to the Initial Admission. A readmission chain may consist of an Initial Admission and only one PPR, which is the most common situation, or may include multiple PPRs after the Initial Admission.
- Transfer admission (TA)
 - Transfer Admissions are a subset of Only Admissions that do not meet the criteria to be PPRs, and have a discharge status of “transferred to an acute care hospital.” They are not classified as an Initial Admission even if a subsequent readmission occurs within the readmission time interval.

Terminology

Potentially Preventable Readmissions (PPRs)



- Potentially Preventable Readmission
 - A readmission within a specified timeframe that is clinically related to an Initial Admission
- Reasonable expectation that it was preventable by:
 - Provision of quality care in the initial admission
 - Adequate discharge planning
 - Adequate follow-up after discharge
 - Improved healthcare team coordination across the continuum of care

PPR Methodology Basics

Phase 1

Assign admission APR DRG
and identify globally excluded admissions and nonevents



Phase 2

Determine preliminary classifications of admissions



Phase 3

Identify PPRs and determine final classification of admissions

Phase 1

Assign admission APR DRG

- Encounter's diagnosis and procedure codes determine which base APR DRG is assigned
- Represents the underlying reason for the hospital admission
- Used in PPR logic to identify excluded admissions and nonevents, and to define the clinical relationship between initial admission and PPRs
- Divided into four severity-of-illness (SOI) levels, determined primarily by secondary diagnoses that reflect comorbid illnesses and the severity of the underlying illness

Phase 1

Identify global exclusions and nonevents

- Global exclusions
 - Some admissions require follow-up care for which preventability is difficult to assess, such as, HIV, drug and alcohol abuse, eye procedures and disorders, cystic fibrosis, leukemias, lymphomas, and chemotherapy
 - Readmissions after an initial admission for neonatal care
 - Discharge status of left against medical advice
- Nonevents
 - Admissions assigned to the base APR DRG for rehabilitation, aftercare, or convalescence
 - Same-day admission when the previous admission's discharge status is skilled nursing facility, hospice, rehabilitation, or other institution
 - Malignancies with a chemotherapy or radiotherapy procedure

Phase 2

Determine preliminary classification of remaining admissions

- Calculate the number of days between subsequent admission and prior admission
- Apply readmission time interval
- Determine preliminary classification of admissions
 - Initial Admission (IA)
 - Readmission (RA)
 - Only Admission (OA)
 - Transfer Admission (TA)

Phase 3

Identify PPRs and determine final classification of admissions

- Determine if readmission is clinically related to Initial Admission
- Identify readmission chains
- Reclassify readmission and Initial Admission when not clinically related
 - Readmissions that are not clinically related are reclassified to Initial, Transfer, or Only Admission
 - Initial Admissions with no PPR reclassified to Only Admission

Phase 3

Identify PPRs and determine final classification of admissions

- Assign final PPR classification
 - Initial Admission (IA)
 - Potentially preventable readmission (RA)
 - Only Admission (OA)
 - Transfer Admission (TA)

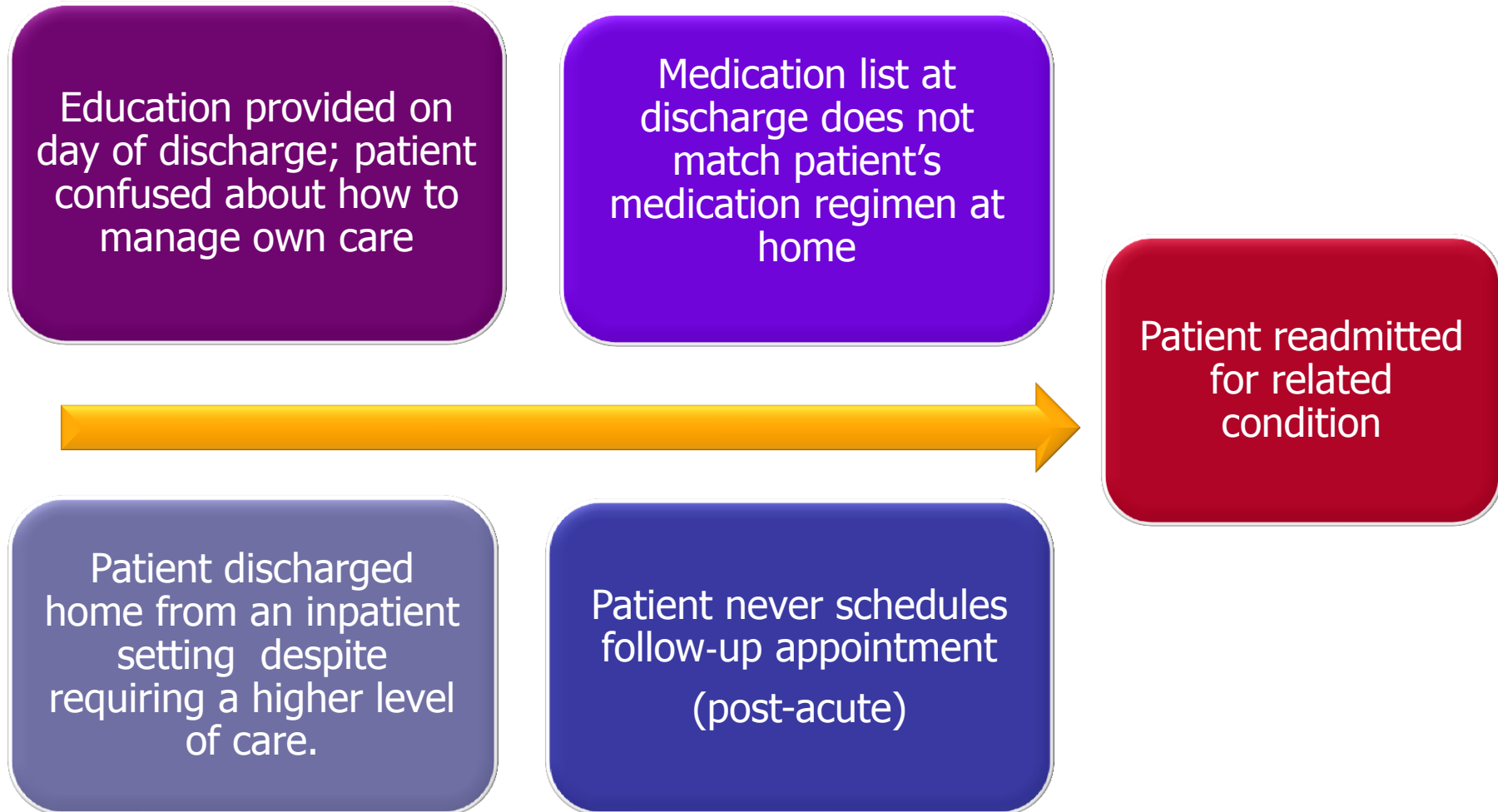
Breaking the Chain



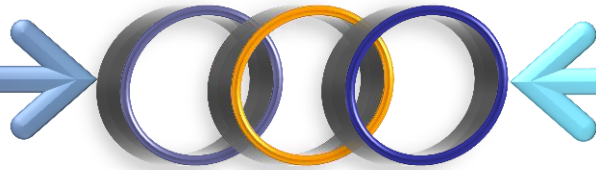
- Readmissions that are not clinically related to the Initial Admission
- Clinically related, but not preventable
- Admission date exceeds the time interval from the preceding admission's discharge date
- Readmission with a status of
 - Left against medical advice
 - Expired

- Occurrence of an excluded admission
 - Malignancy
 - Neonatal
 - Human Immunodeficiency Virus
 - Trauma and burn
 - Other global exclusions such as cystic fibrosis, eye procedures/care
 - Obstetrics
 - Age combined with specific APR DRG
 - For example, APR DRG 248 Major gastrointestinal and peritoneal infections if less than 6 years old

Patient Scenario



Clinical Relationship



- Determined by evaluating the relationship between the APR DRG assignment of the Initial Admission and the readmission
- Reasonable clinician test
- Readmissions for medical reasons are much more common than readmissions for surgical procedures, regardless of the reason for the Initial Admission

Clinical Relationship Reasons

Clinical Relationship	
Code	Description
1	Medical readmission for a continuation or recurrence of the reason for the initial admission or for a closely related condition.
2A	Ambulatory care-sensitive conditions as designated by AHRQ.
2B	All other readmissions for a chronic problem that might be related to care either during or after the initial admission.
3	Medical readmission for an acute medical condition or complication that might be related to or might have resulted from care during the initial admission or in the postdischarge period after the initial admission.
4	Readmission for a surgical procedure to address a continuation or a recurrence of the problem that caused the initial admission.
5	Readmission for a surgical procedure to address a complication that might be related to or might have resulted from care during the initial admission.
6A	Readmission for mental health reasons after an initial admission for a non-mental health, non-substance abuse reason.

Clinical Relationship Reasons

Clinical Relationship	
Code	Description
6C	Mental health or substance abuse readmission after an initial admission for a substance abuse or mental health diagnosis.
NC	Not clinically related
T	Trauma
C	Catastrophic
NP	Clinically related, not preventable
P	Probably planned readmission
E	Error
OB	Obstetrics
TR	Transplants
M	Malignancy

PPR Example

APR	Description	Clinical Relationship
194	Heart failure	Initial admission
460	Renal failure	Medical readmission for an acute medical condition or complication that might be related to or might have resulted from care during the initial admission or in the postdischarge period after the initial admission.
200	Cardiac structural and valvular disorders	All other readmissions for a chronic problem that might be related to care either during or after the initial admission.
207	Other circulatory system diagnoses	Medical readmission for an acute medical condition or complication that might be related to or might have resulted from care during the initial admission or in the postdischarge period after the initial admission.

30-Day PPR Example

APR	Description	Days Between
194	Heart failure	IA
460	Renal failure	5
200	Cardiac structural and valvular disorders	7
207	Other circulatory system diagnoses	26
194	Heart Failure	33 - IA
463	Kidney/urinary tract infection	10

Chain 1

Chain 2

Pairs vs. Chains

Midas+ All Cause Readmission

- Count all subsequent admissions in the time interval
- Pair an initial encounter with a readmission encounter
- Are not risk- or severity-adjusted

3M PPRs

- Count chains of clinically related admissions in the time interval
- Link an initial admission with clinically related readmissions until the chain is terminated
- Based on APR DRG risk- and severity-adjustment methodology

Pairs vs. Chains

	APR	Description	Days Between	
Pair 1	194	Heart failure	IA	Chain 1
	460	Renal failure	5	
Pair 2	200	Cardiac structural and valvular disorders	7	Chain 1
	207	Other circulatory system diagnoses	26	
Pair 3	194	Heart Failure	33 - IA	Chain 2
	463	Kidney/urinary tract infection	10	

READMISSION REPORTS

3M PPRs Added to APR DRG Reports

Hospital APR DRG Service Line Profile

APR-DRG Service Line ID	APR-DRG Service Line Description	# Cases	Observed Deaths	Expected Deaths	Mortality O/E Ratio	Observed ALOS	Expected ALOS	ALOS O/E Ratio	#PPR At Risk Cases	Observed 30-Day PPR	Expected 30-Day PPR	30-Day PPR O/E Ratio
Acute	All APR-DRGs for Acute Care Inpatients	11992	356	289.01	1.23	4.60	4.46	1.03	10223	829	770.19	1.08
296	Pulmonary	1876	96	65.59	1.46	5.57	4.75	1.17	1447	161	139.63	1.15
125	Gastroenterology	1331	26	17.25	1.51	3.72	3.90	0.95	1090	87	92.96	0.94
132	General Surgery	1175	23	19.20	1.20	5.60	6.03	0.93	1032	59	71.21	0.83
165	Infectious Disease	1122	87	68.37	1.27	5.62	5.20	1.08	858	72	64.88	1.11
50	Cardiology	1084	22	22.53	0.98	3.84	3.83	1.00	866	104	82.73	1.26

Hospital APR DRG Ranking Profile

APR-DRG Code	APR-DRG Description	APR-MDC Code	# Cases	Observed Deaths	Expected Deaths	Mortality O/E Ratio	Observed ALOS	Expected ALOS	ALOS O/E Ratio	#PPR At Risk Cases	Observed 30-Day PPR	Expected 30-Day PPR	30-Day PPR O/E Ratio
Acute	All APR-DRGs for Acute Care Inpatients	All	11992	356	289.01	1.23	4.60	4.46	1.03	10223	829	770.19	1.08
139	Other pneumonia	4	769	26	19.48	1.33	5.43	4.50	1.21	622	62	52.01	1.19
720	Septicemia & disseminated infections	18	629	84	66.41	1.26	6.60	6.04	1.09	422	50	40.01	1.25
140	Chronic obstructive pulmonary disease	4	466	5	4.95	1.01	4.71	4.36	1.08	380	53	50.67	1.05
194	Heart failure	5	358	14	10.46	1.34	4.83	4.65	1.04	253	41	36.12	1.14
383	Cellulitis & other bacterial skin infections	9	354	0	0.55	0.00	4.09	3.93	1.04	316	17	18.24	0.93
460	Renal failure	11	348	12	10.12	1.19	5.16	4.88	1.06	246	29	27.85	1.04

Report Parameters

Reporting Interval: Month , starting January 2011 , ending December 2011

Minimum number of cases to qualify for reporting: 1

Inpatient Population: Acute only

Show variation as: Ratios

Remove palliative care population: ☐ This setting does not affect Potentially Preventable Readmission (PPR) data.

Filter by age: All ages

APR-DRG Service Line:

Category: All Participating Facilities

Readmission Interval: 30 Days
15 Days
30 Days

- Palliative care v66.7 as a principal diagnosis is a nonevent (ignored)
- Palliative care as a secondary diagnosis is included

Cases vs. PPR At Risk Cases

APR-DRG Code	APR-DRG Description	APR-MDC Code	# Cases	Observed Deaths	Expected Deaths	Mortality O/E Ratio	Observed ALOS	Expected ALOS	ALOS O/E Ratio	#PPR At Risk Cases	Observed 30-Day PPR	Expected 30-Day PPR	30-Day PPR O/E Ratio
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460	Renal failure	11	348	12	10.12	1.19	5.16	4.88	1.06	246	29	27.85	1.04

358 vs. 253

- **# Cases** column represents encounters
- **#PPR At Risk Cases** represents Initial and Only Admissions in the PPR logic

Chains ... Not Encounters

APR-DRG Code	APR-DRG Description	APR-MDC Code	# Cases	Observed Deaths	Expected Deaths	Mortality O/E Ratio	Observed ALOS	Expected ALOS	ALOS O/E Ratio	#PPR At Risk Cases	Observed 30-Day PPR	Expected 30-Day PPR	30-Day PPR O/E Ratio
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41

- 41 readmission chains observed within 253 PPR at risk cases.
- A chain does not represent a single encounter. A single chain can include multiple readmissions.

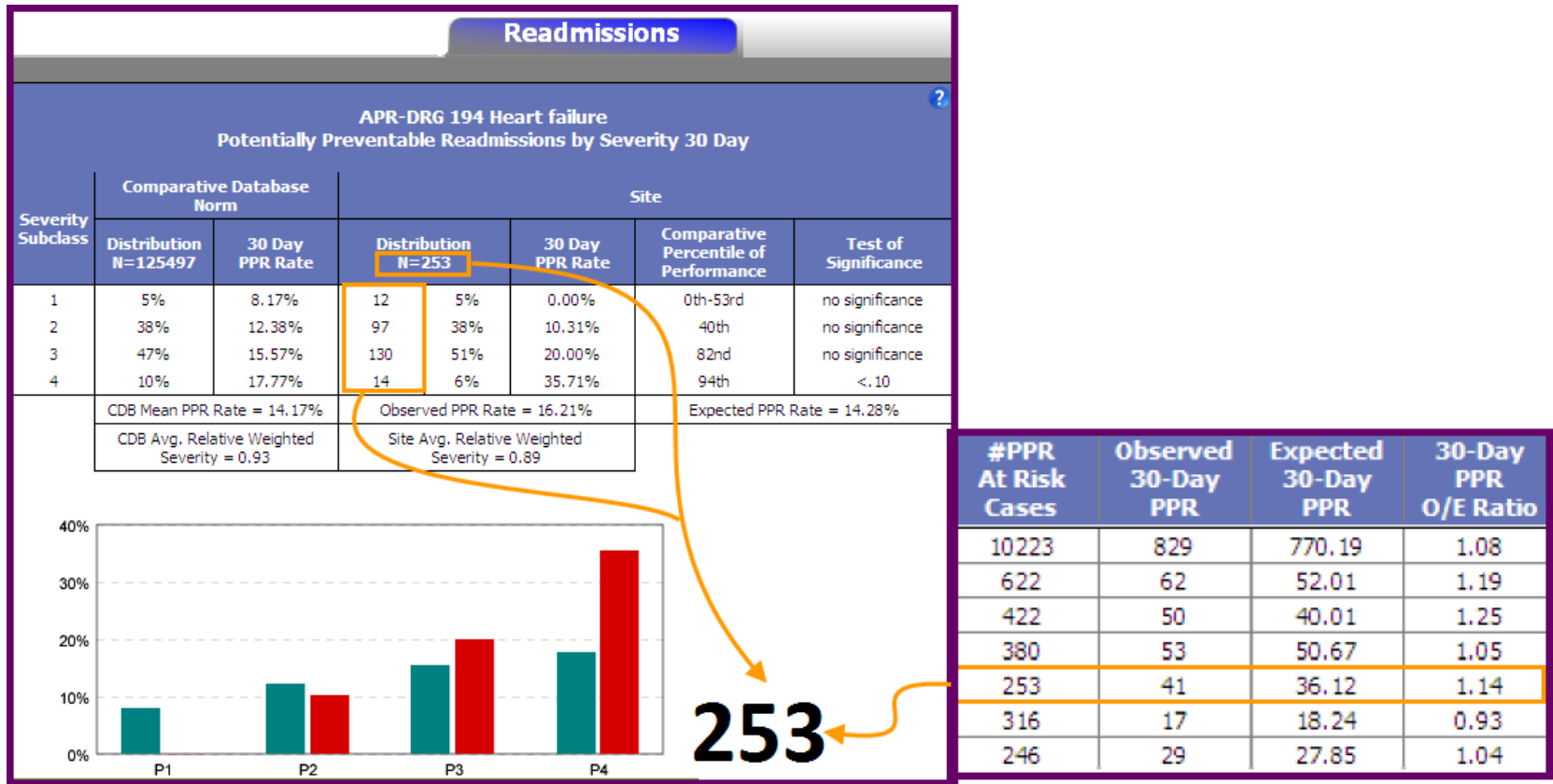
Expected PPR Value

APR-DRG Code	APR-DRG Description	APR-MDC Code	# Cases	Observed Deaths	Expected Deaths	Mortality O/E Ratio	Observed ALOS	Expected ALOS	ALOS O/E Ratio	#PPR At Risk Cases	Observed 30-Day PPR	Expected 30-Day PPR	30-Day PPR O/E Ratio
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460	Renal failure	11	348	12	10.12	1.19	5.16	4.88	1.06	246	29	27.85	1.04

36.12

- 36.12 readmission chains would be expected if your hospital performed the same as the Midas+ Comparative Database (CDB)
- Observed/Expected (O/E) values greater than 1 indicate your hospital performed worse than hospitals in the CDB

PPR At Risk Cases

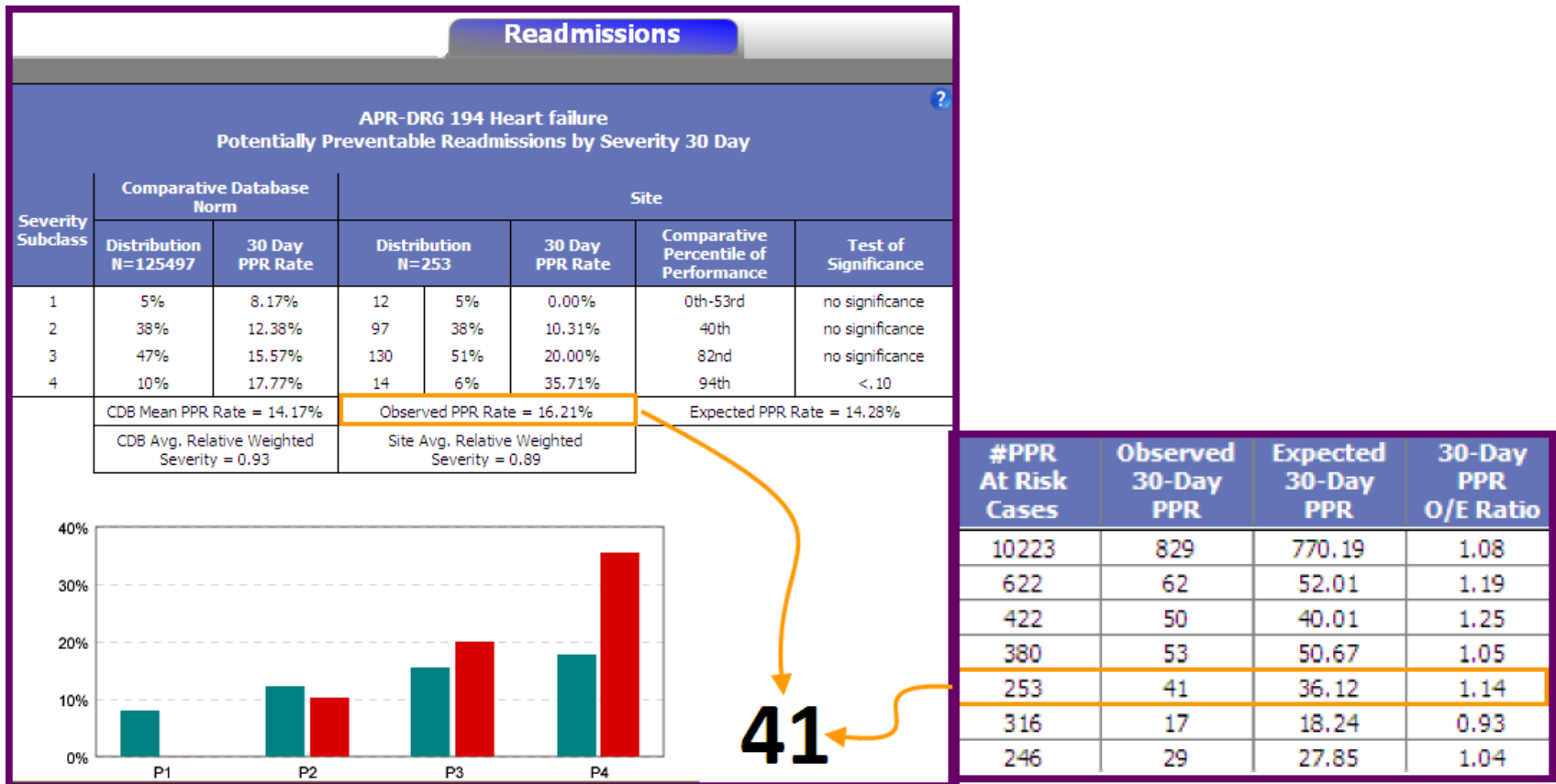


- APR DRG Subclass Detail shows the distribution of PPR At Risk Cases by severity-of-illness (SOI) subclass

Significance

- Rates can be compared with normative data by using APR DRG categories to control differences in the clinical characteristics of your patients and the normative population.
- Beware of too few observations or too much variability.
- The calculation of statistical significance for PPRs uses the Chi-Square test (X^2) for a single severity-of-illness level within an APR DRG category.

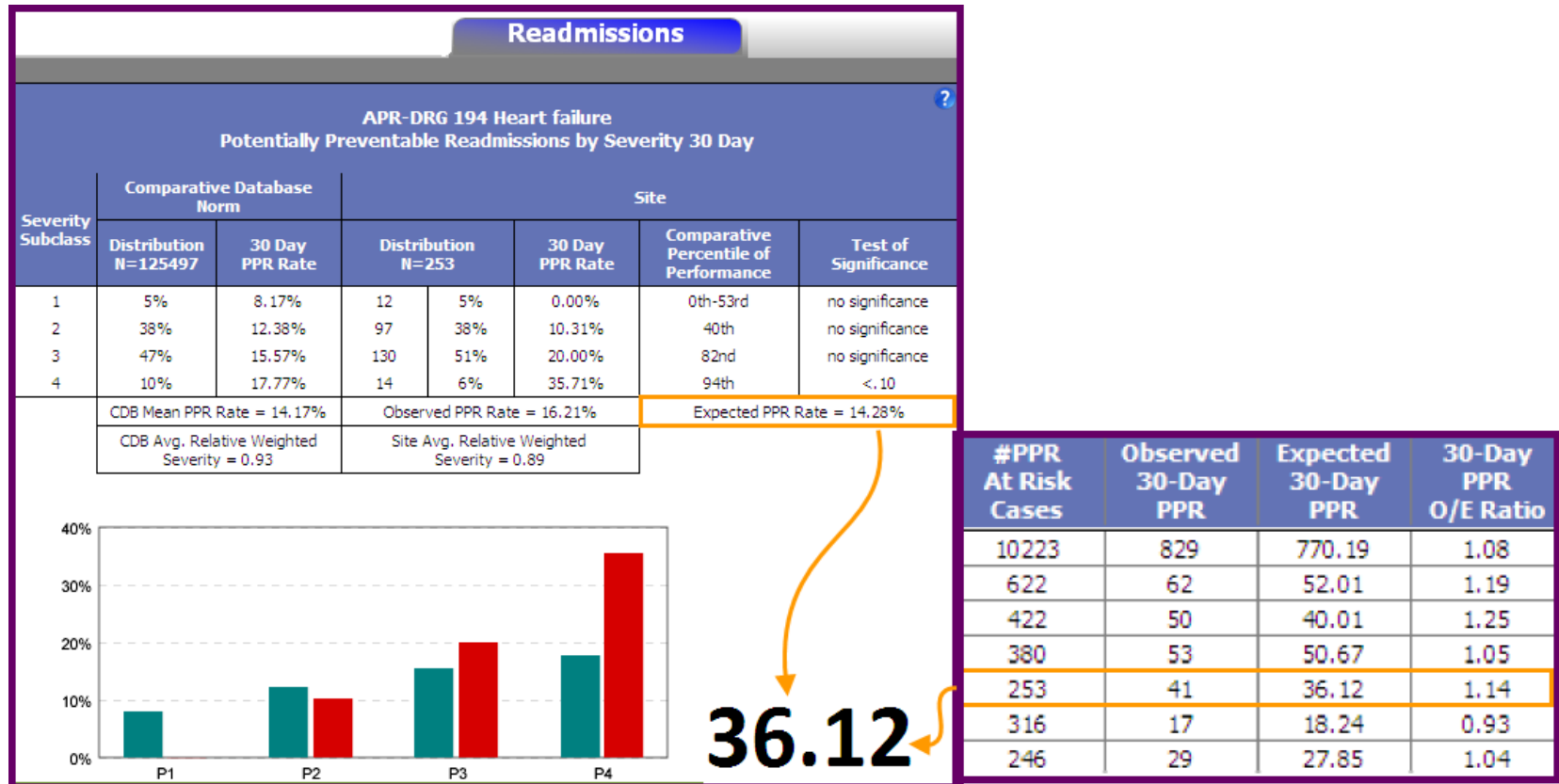
Observed PPR Rate



Observed rate = (Observed PPR chains ÷ At Risk Cases) * 100

$$(41 \div 253) * 100 = 16.21\%$$

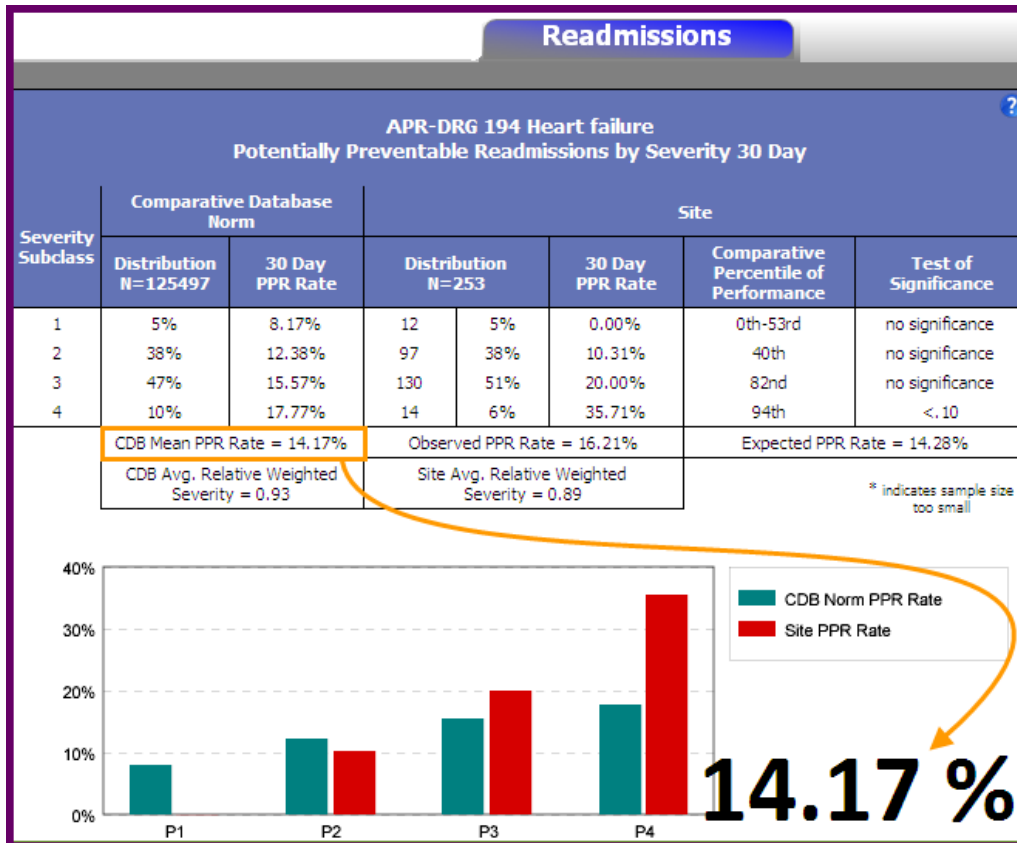
Expected PPR Rate



Expected rate = (Expected PPR chains ÷ At Risk Cases) * 100

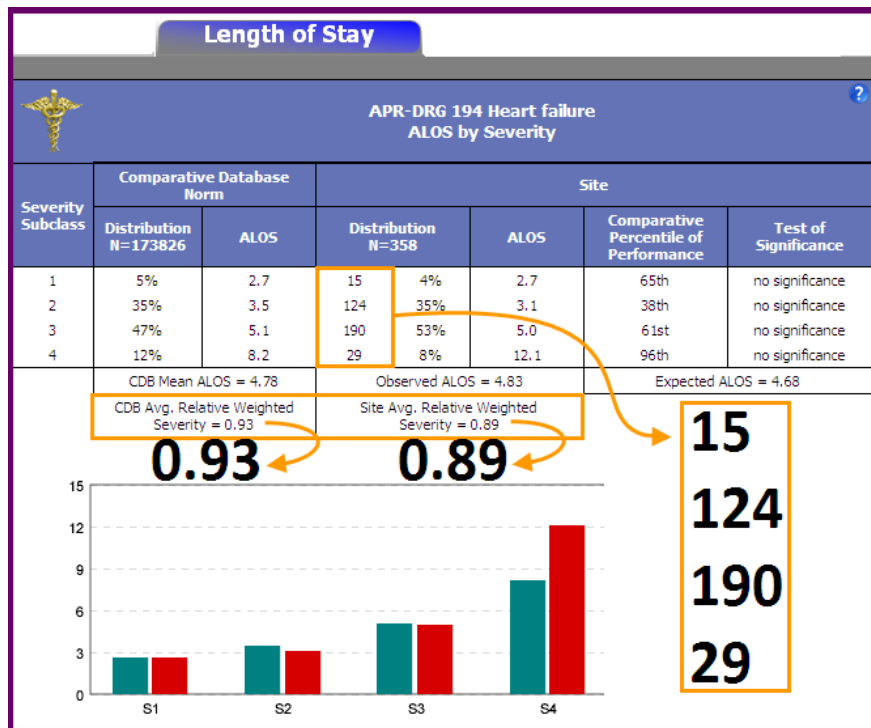
$$(36.12 \div 253) * 100 = 14.28\%$$

CDB Mean PPR Rate



- CDB Mean PPR Rate is the average PPR rate of all 125,497 encounters in the comparative pool

Average Relative Weighted Severity




- Allows comparison of your site's Average SOI rate with the CDB
- These values are also displayed on the Readmissions tab

Site Average Weighted Severity =

$\frac{\text{Sum of (site encounters) * (relative weight) for each subclass}}{\text{Total encounters for this APR-DRG at site}}$

$$\begin{array}{r}
 15 * 0.4968 \\
 124 * 0.6278 \\
 190 * 0.9418 \\
 + 29 * 1.9135 \\
 \hline
 \text{Total} \quad 319.7327 \\
 \\
 319.7327 \div 358 = 0.89
 \end{array}$$

Volume

Length of Stay				Readmissions				
				APR-DRG 194 Heart failure Potentially Preventable Readmissions by Severity 30 Day				
				Site				
Severity Subclass	Comparative Database Norm			Severity Subclass	Comparative Database Norm			
	Distribution N=173826	ALOS	Distribution N=358		Distribution N=125497	30 Day PPR Rate	Distribution N=253	
1	5%			1	5%	0.00%	0th-53rd	no significance
2	35%			2	38%	10.31%	40th	no significance
3	47%			3	47%	20.00%	82nd	no significance
4	12%			4	10%	35.71%	94th	<.10

- The Distribution count on the Mortality and Length of Stay tabs is the number of encounters in APR DRG population in Midas+ CDB
- The Distribution count on the Readmissions tab is the number of encounters at risk for a PPR
- Soon the caduceus will provide drill-down from the Readmission tab to provider reports

Readmissions are like neck and back pain ...



- Massage therapy
- Chiropractic adjustment
- Physical therapy
- Medications
- Steroid injections
- Laminectomy
- Spinal Fusion

... a wide range of options to assess and treat the problem!

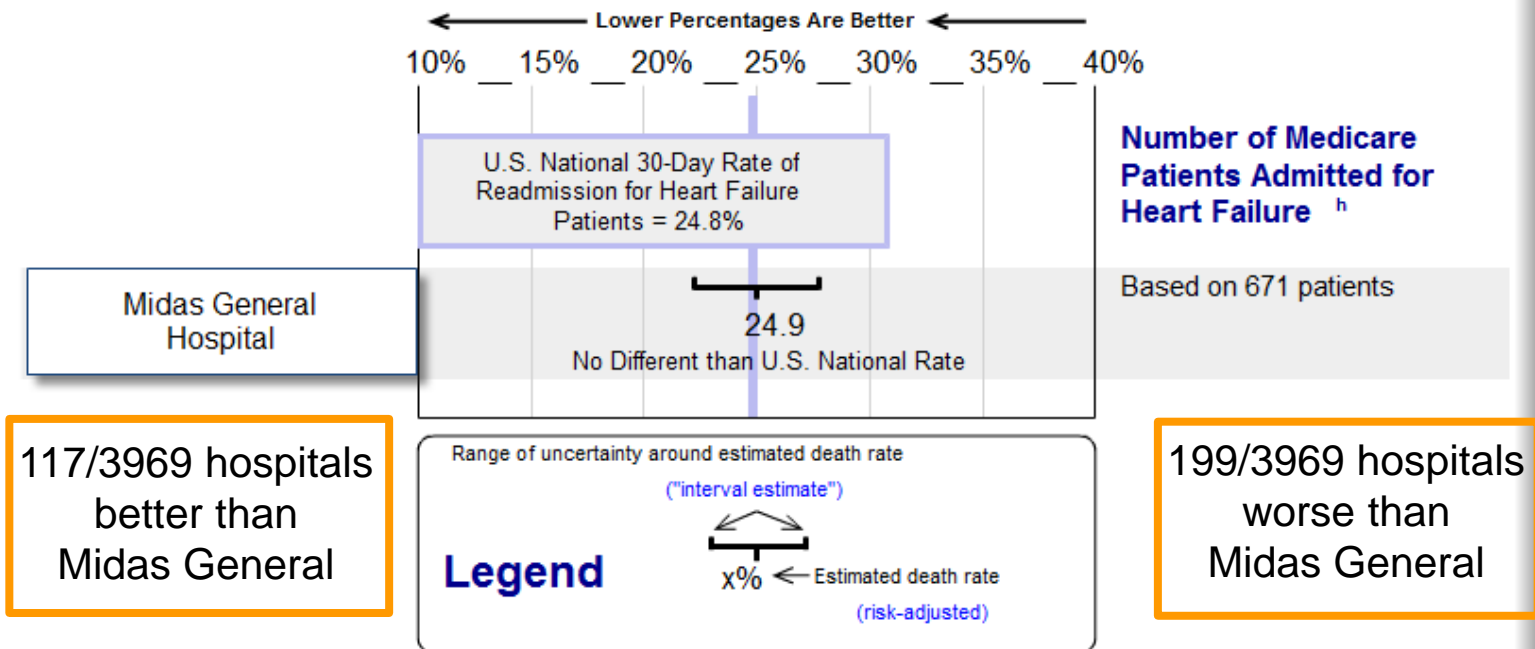
Measurement Options for Assessing Readmissions at Your Organization

- CMS risk-standardized 30-day CHF readmission
- CHF 30-day readmissions (ICD) measures
- DataVision Readmission Toolpack
 - CHF 30-day readmission (ICD-9 diagnosis population)
 - CHF 30-day readmission (MS DRG 291, 292, 293 population)
 - Heart Failure APR DRG 194 population
- 3M Potentially Preventable Readmissions

... a wide range of options to assess and treat the problem!

CMS Risk-Standardized 30-Day CHF Readmission Hospital Compare

Rate of Readmission for Heart Failure Patients



167 readmits/671 CHF discharges = 24.9%

CMS Risk-Standardized 30-Day CHF Readmission Hospital Compare

- Benefits
 - Reflects information provided to the public
 - Reflects readmission rates among hospitals
 - Tied to financial performance
 - Readmission Reduction Program and Value-Based Purchasing
- Disadvantages
 - Medicare payer only
 - Difficult to replicate
 - Difficult to validate
 - Updated annually
 - Over a year old data
 - Can't be used to trend
 - Not very sensitive
 - No patient drill-down
 - Little learning to support improvement

DataVision

CHF 30-Day Readmission Measures (ICD)

- CHF 30-day readmit measure in DataVision counts 69 “all cause” readmission **encounters** compared with 39 chains by using APR DRG PPR methodology

Indicator	Jan-Mar 2011	Apr-Jun 2011	Jul-Sep 2011	Oct-Dec 2011	Total
CHF % Readmits within 30 Days	16.429	21.176	21.818	16	18.158
CHF % Readmits within 30 Days (numerator)	23	18	12	16	69
CHF % Readmits within 30 Days (denominator)	140	85	55	100	380

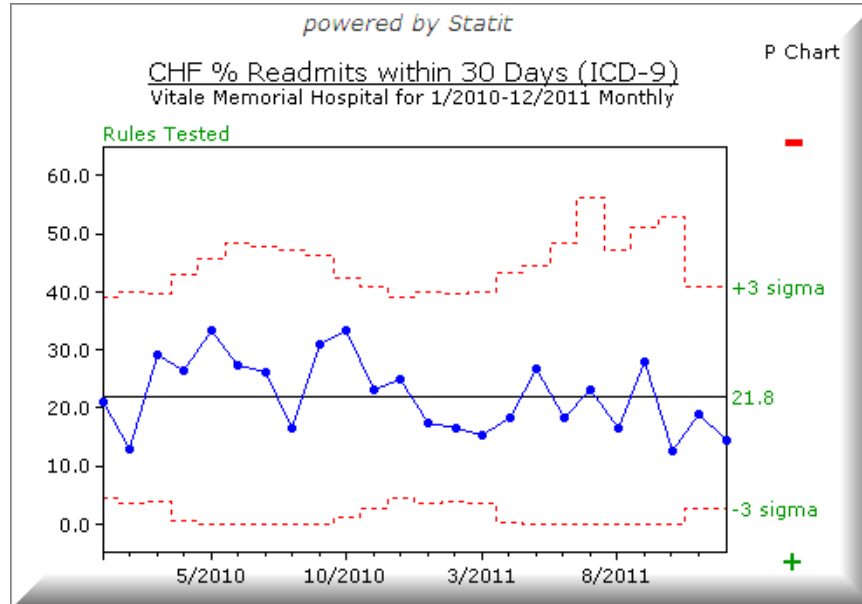
- CHF 30-day readmit measure in DataVision counts 380 encounters when defined by using principal ICD-9 diagnosis compared with 358 encounters when defined by using APR DRG 194

$$\text{Rate} = (\text{readmission encounters} \div \text{denominator}) * 100$$

$$18.16\% = (69 \div 380) * 100$$

Benefits of ICD-9-based DataVision Readmission Measures

Indicator	Jan-Mar 2011	Apr-Jun 2011	Jul-Sep 2011	Oct-Dec 2011	Total
CHF % Readmits within 30 Days	16.429	21.176	21.818	16	18.158
CHF % Readmits within 30 Days (numerator)	23	18	12	16	69
CHF % Readmits within 30 Days (denominator)	140	85	55	100	380



- ✓ Updated nightly
- ✓ Trending and comparative data refreshed every quarter
- ✓ ICD-9 populations better understood by stakeholders
- ✓ Easy to validate
- ✓ Better for target setting in Statit because it's updated and transparent to users
- ✓ Drill-down to index encounter
- ✓ Readmits (numerators) can be tied to Worklists for concurrent review to proactively manage patients with history of readmissions

MS DRG 291, 292, and 293

30-Day Readmissions

DataVision Readmission Toolpack

Denominator Population			Readmission Encounters		
Indicator: C3M510 - MS-DRG 291/(291+292+293) - w MCC (denominator)			Nonelective readmits only		
Start Month: 1/2011 End Month: 12/2011			Acute and returning to the same facility.		
Vitale Memorial Hospital			C3M510 - MS-DRG 291/(291+292+293) - w MCC (denominator)		
			From 1/2011 to 12/2011 for readmits within 30 days.		
Age Group	Total	Percentage	Age Group	Total	Percentage
25-34	2	0.6%	35-44	1	50.0%
35-44	2	0.6%	45-54	4	16.7%
45-54	24	7.2%	55-64	15	34.1%
55-64	44	13.2%	65-74	14	16.7%
65-74	84	25.2%	75-84	19	16.8%
75-84	113	33.9%	85-94	9	14.8%
85-94	61	18.3%	95-104	1	33.3%
95-104	3	0.9%	Grand Total	63	18.9%
Grand Total	333	100.0%			

Rate = (readmission encounters ÷ denominator) * 100

$$18.9\% = (63 \div 333) * 100$$

APR DRG 194 Heart Failure

30-Day Readmissions

DataVision Readmission Toolpack

Denominator Population			Readmission Encounters		
Indicator: "APR DRG 194 Heart Failure"			Nonelective readmits only		
Start Month: 1/2011 End Month: 12/2011			Acute and returning to the same facility:		
Vitale Memorial Hospital			APR DRG 194 Heart Failure		
			From 1/2011 to 12/2011 for readmits within 30 days.		
Age Group	Total	Percentage	Age Group	Total	Percentage
25-34	2	0.6%	35-44	1	50.0%
35-44	2	0.6%	45-54	4	16.7%
45-54	24	6.7%	55-64	15	30.0%
55-64	50	14.0%	65-74	15	17.6%
65-74	85	23.8%	75-84	22	18.0%
75-84	122	34.2%	85-94	9	13.0%
85-94	69	19.3%	95-104	1	33.3%
95-104	3	0.8%	Grand Total	67	18.8%
Grand Total	357	100.0%			

Rate = (readmission encounters ÷ denominator) * 100

$$18.8\% = (67 \div 357) * 100$$

DataVision Readmission Toolpacks

Report: DATAVISION READMISSION TOOLPACK

Report Type: Text

Output Device: File

Selection Criteria: DATAVISION READMISSION TOOLPACK - For DataVision Populations

Please select "File" as Output Device. Use .CSV as the file extension.

Facility: Vitale Memorial Hospital

Index Population for Analysis: APR DRG 194 Heart Failure

Month Range: **From:** 1/2011 **To:** 12/2011

Length of Readmission (0-365) Days: 30

Please select the type of encounters you want to review as the second encounter in the readmission pair:

You must select at least one encounter type from Acute Care, Non-acute Care, Observation Status, or Emergency for this report to generate results.

Acute Care readmissions	<input checked="" type="checkbox"/>
Non-acute Care readmissions	<input type="checkbox"/>
Observation Status readmissions	<input type="checkbox"/>
Emergency readmissions	<input type="checkbox"/>
Exclude elective readmissions	<input checked="" type="checkbox"/>
Include Only Readmissions Back to the Same Facility:	<input checked="" type="checkbox"/>
Include Only Readmissions with the Same Clinical Condition:*	<input type="checkbox"/>

* When running readmissions for same clinical condition, only select populations defined by specific ICD9 or MS-DRG.

- ✓ Updated nightly
- ✓ Easy to validate
- ✓ Drill-down to details of index and readmit encounters
- ✓ Can be run for any population in DataVision or any population defined in SmarTrack
- ✓ Helps to rapidly identify patterns for readmission subgroups without extensive chart audit activities
- ✓ Requires judgment on what was avoidable vs. expected

3M PPR Rate – Heart Failure Readmission

APR-DRG Code	APR-DRG Description	APR-MDC Code	# Cases
Acute	All APR-DRGs for Acute Care Inpatients	All	11992
139	Other pneumonia	4	769
720	Septicemia & disseminated infections	18	629
140	Chronic obstructive pulmonary disease	4	466
194	Heart failure	5	354
383	Cellulitis & other bacterial skin infections	9	354
460	Renal failure	11	348

Observed Deaths	Expected Deaths	Mortality O/E Ratio	Observed ALOS	Expected ALOS	ALOS O/E Ratio
356	289.01	1.23	4.60	4.46	1.03
26	19.48	1.33	5.43	4.50	1.21
84	66.41	1.26	6.60	6.04	1.09
5	4.95	1.01	4.71	4.36	1.08
14	10.46	1.34	4.83	4.65	1.04
0	0.55	0.00	4.09	3.93	1.04
12	10.12	1.19	5.16	4.88	1.06

#PPR At Risk Cases	Observed 30-Day PPR	Expected 30-Day PPR	30-Day PPR O/E Ratio
10223	829	770.19	1.08
622	62	52.01	1.19
422	50	40.01	1.25
380	53	50.67	1.05
253	41	36.12	1.14
316	17	18.24	0.93
246	29	27.85	1.04

PPR Rate = (Observed PPR ÷ # PPR At Risk Cases) * 100

$$15.4\% = (41 \div 253) * 100$$

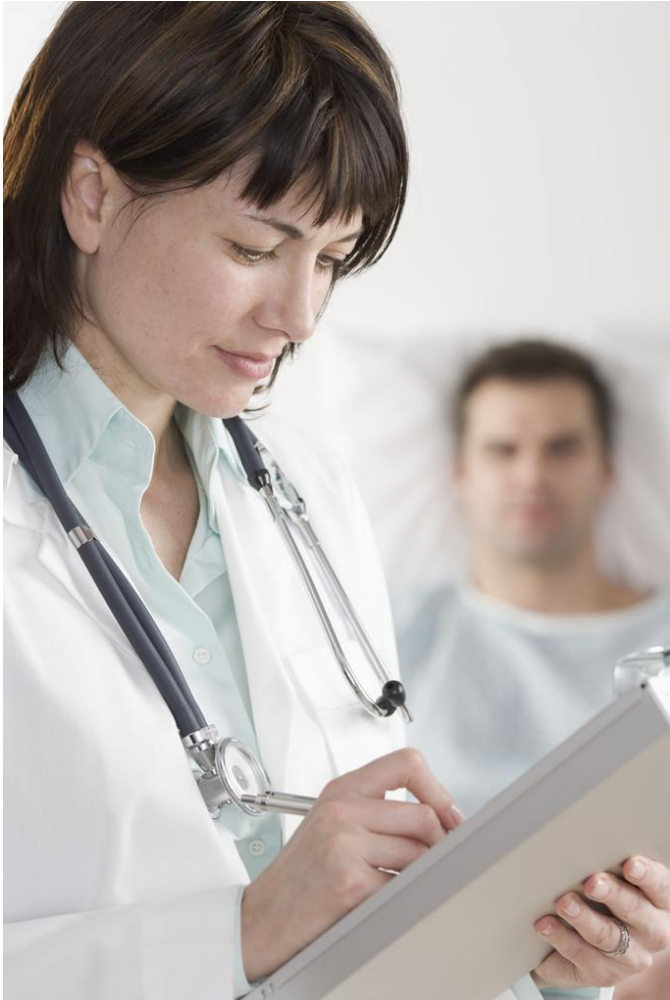
Do *not* use the **# Cases** to calculate a PPR Rate

Metrics

Different metrics yield different results and are used for different purposes

Measure	Rate	Best Practice Use
CMS CHF 30-day Readmission Rate	24.8% 161/671	<ul style="list-style-type: none">• National reporting• Financial impact
CHF 30-day Readmission Rate (ICD-9)	18.2% 69/380	<ul style="list-style-type: none">• Trending• Internal monitoring
CHF 30-day Readmission Rate (MS DRG)	18.9% 63/333	<ul style="list-style-type: none">• Trending• Financial impact
CHF 30-day Readmission Rate (APR DRG)	18.8% 67/357	<ul style="list-style-type: none">• Risk-adjusted reporting• Population health
CHF 30-day Readmission Rate (PPR)	15.4% 39/253	<ul style="list-style-type: none">• Case finding• Performance improvement

Benefits of 3M PPR



- ✓ Focuses attention on cases that you can affect through improved clinical and care management processes
- ✓ Helps you understand the needs of your key populations
- ✓ Trended PPR performance might be more sensitive to performance improvement initiatives
- ✓ Optimally used with APR DRG LOS and Mortality findings to understand changing populations

3M PPR Enhancements in 2012

- July 2012 DataVision web updates:
 - Add Readmissions tab to the APR DRG Lives/Days Saved
 - Add PPRs to APR DRG Provider Reports
- August 2012 DataVision server updates:
 - PPR Standard Report – Microsoft Excel workbook with macros to show encounter-level details of readmission chains
 - **Exposed to ALL DataVision clients** regardless of their licensure status for the 3M APR DRG software
 - Includes data update (plant back) of APR DRG data to the encounter file

Planned Enhancements for 2013

- Add 3M Potentially Preventable Complications (PPCs) reports to the DataVision web application and client server
- Integration of DataVision PPC and PPR reports with Statit Physician Profile & Review (PPR) and PiMD

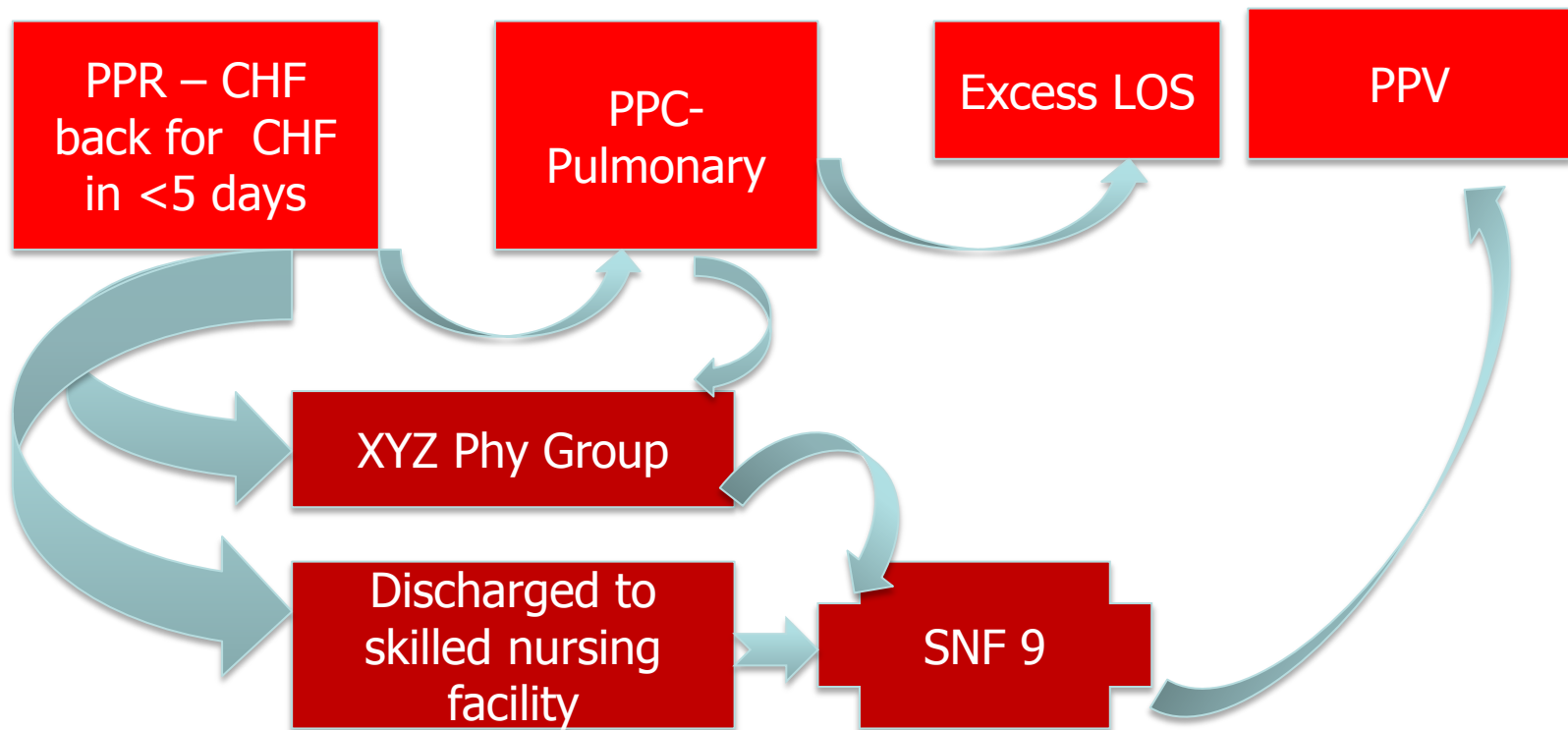
USING PPR DATA

How are risk-adjusted 3M Potentially Preventable Readmissions being used?

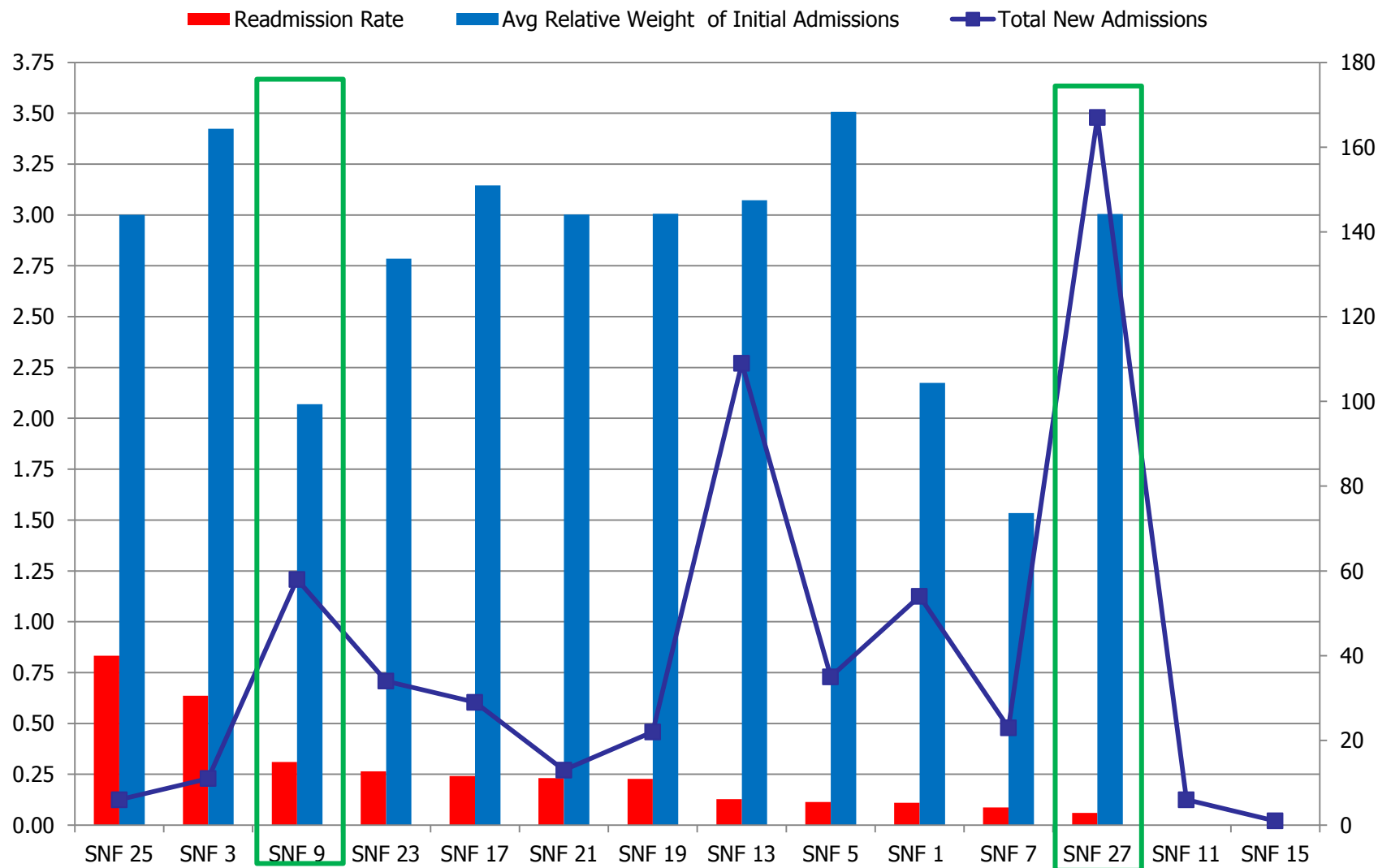
- Quality Improvement – root cause and trending
- Transitions of Care
- Identifying High risk populations for early CM prioritization
- Dialog with other clinicians
- Performance Management
- Negotiating contracts with payers – financial risk
- P4P programs

Case Study – St. Elsewhere Health

* Red indicates rates above benchmark



PPR rates by SNF and Relative Severity.



References

- *Potentially Preventable Readmissions Classification System – Methodology Overview*, 3M™ Health Information Systems, 2011.
- For more information, go to the 3M website at http://solutions.3m.com/wps/portal/3M/en_US/3M_Health_Information_Systems/HIS/Products/All and click **Potentially Preventable Readmissions (PPR) Solutions**.

Resources

- Quick Start Guide *APR DRG Reports*.
 - Quick Start Guides are available from www.midasplus.com.
After logging in, select **User Documentation**, select **CPMS** from the **Category** list, click **Search**, and then double-click the **Quick Start Guides** entry in the table.