Potentially Preventable Readmissions (PPRs) Policy and Calculations

Illinois Department of Healthcare and Family Services

July 31, 2012 (Revised)
OVERVIEW

» HFS is implementing a policy to support the reduction of potentially preventable readmissions (PPRs)

» State legislation requires that HFS show a $40 million expenditure reduction in SFY 2013 for hospital readmissions

» HFS is using 3M’s PPR software to identify PPRs and establish a target PPR rate – adjusted for each hospital’s case mix, patient age and behavioral health

› Hospitals above the target rate will have a payment reduction based the number of PPR chains above that rate

› Hospitals below the target rate will have no payment reduction
OVERVIEW OF PRESENTATION

» Introduction to PPRs
» PPR Rate Calculations
» Identifying Payment Reductions Based on PPR Rates
» Applying PPR Payment Reductions In FY 2013
» Beyond Year One
» Provider Communications
WHAT ARE POTENTIALLY PREVENTABLE READMISSIONS?

» Return hospitalizations that may result from deficiencies in the process of care and treatment or lack of post discharge follow-up
  › Discharged too sick, too quickly
  › Poor discharge planning
  › Poor follow-up care

» Not all potentially preventable hospital readmissions (PPRs) are actually preventable

» 3M has developed a software program to identify PPRs
  › Identifies patients across different hospitalizations and hospitals
  › Uses APR-DRGs as foundation
  › Created PPR identification logic using Clinical Panels
For example:

» **New York** and **Massachusetts** have reduced Medicaid inpatient hospital rates based on hospital-specific PPR rates.

» **Texas** is exchanging Medicaid PPR performance information with individual hospitals and plans to adjust Medicaid hospital payments based on the results.

» **Florida, Pennsylvania,** and **Utah** analyze readmission rates and share results with hospitals and other stakeholders in a variety of ways.
SECTION 2:
PPR RATE CALCULATIONS
**DATA USED IN PPR RATE CALCULATIONS**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inpatient hospital claims data</td>
<td>State Fiscal Year 2010 Medical Assistance fee-for-service discharges (includes Medicaid, SCHIP and state-only funded programs), excluding:</td>
</tr>
<tr>
<td></td>
<td>• Managed care</td>
</tr>
<tr>
<td></td>
<td>• Dual eligibles</td>
</tr>
<tr>
<td></td>
<td>• Out-of-state non-cost reporting hospitals</td>
</tr>
<tr>
<td></td>
<td>• Claims with a detox primary diagnosis code (detox readmissions fall under a separate HFS policy through Senate Bill 2840)</td>
</tr>
</tbody>
</table>

*Note: Zero paid claims are included for purposes of tracking complete PPR chains. Interim bills are merged into a single claim.*
### DATA USED IN PPR RATE CALCULATIONS, CONT’D

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
</table>
| Discharges excluded from PPR rate calculation | • Standard 3M global exclusions, for example: neonatal care, malignancies, certain HIV DRGs, transfers, left against medical advice, single admissions where the patient died  
• Admissions related to trauma, burns, and some HIV DRGs – determinations made through 3M PPR logic (versus globally excluding selected DRGs)  
• Obstetrical care  
• Rehabilitation claims  
• Records with errors as identified by the 3M software (i.e., mismatched birthdates)                                                                                                                                                                                                                       |
| Look-back period                               | 30 days                                                                                                                                                                                                                                                                                                                                 |
TREATMENT OF OTHER PAYMENT POLICIES

» Detox admissions
  › Effective July 1, 2012, Medicaid will not pay for detox readmissions for clients admitted within 60 days after the initial admission\(^1\)
  › All detox admissions were removed from the claims data for purposes of the PPR rate calculation

» Hospital acquired conditions (HACs) and hospital provider potentially preventable complications\(^2\)
  › No adjustments to data used for PPR calculations
  › Readmissions associated with these events will be reflected in each facility’s PPR rate

(1) Primary diagnosis codes used for detox exclusions are:
  • Alcohol detoxification: 291.0 – 291.9 except 291.82, 303.00-303.92, 305.00-305.2, and 790.3
  • Drug detoxification: 292.0-292.9 except 292.85, 304.00-304.92, and 305.20-305.92

(2) These hospital provider potentially preventable complications are defined on HFS’ website and are not the same as 3M’s potentially preventable complications (PPCs)

Draft and Preliminary – 7/30/2012
STEP 1: IDENTIFY PPRs USING 3M SOFTWARE

3M software output includes the following variables critical to the analysis:

› Admissions not associated with a readmission – “Only Admissions” or “OAs"
› Initial admission in a PPR chain – “PPR Chains” or “IAs”
› Qualifying admissions – PPR Chains (IAs) and OAs
› APR-DRG and severity of illness (SOI) combination for each PPR chain
STEP 1: IDENTIFY PPRs USING 3M SOFTWARE, CONT’D

Readmissions in a PPR chain may all occur at the originating facility…

<table>
<thead>
<tr>
<th>Hospital A: Initial Admission</th>
<th>Hospital A: Readmission #1</th>
<th>Hospital A: Readmission #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 1: DRG 304, Spinal fusion</td>
<td>July 10: DRG 721, Post-op infection</td>
<td>July 15: DRG 347, Back pain</td>
</tr>
</tbody>
</table>

Or at other facilities…

<table>
<thead>
<tr>
<th>Hospital A: Initial Admission</th>
<th>Hospital B: Readmission #1</th>
<th>Hospital B: Readmission #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 1: DRG 304, Spinal fusion</td>
<td>July 10: DRG 721, Post-op infection</td>
<td>July 15: DRG 347, Back pain</td>
</tr>
</tbody>
</table>

Either way, the number of readmissions and associated payments are attributed to the originating facility.
STEP 2: CALCULATE THE “ACTUAL” OR “OBSERVED” PPR RATE FOR EACH HOSPITAL

Actual PPR Rate = \frac{\text{PPR Chains}}{\text{Qualifying Admissions}}

<table>
<thead>
<tr>
<th>Sample Hospital</th>
<th>Qualifying Admissions (IAs and OAs) A</th>
<th>PPR Chains (IAs) B</th>
<th>Actual PPR Rate C = B/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital A</td>
<td>1,000</td>
<td>120</td>
<td>12 percent</td>
</tr>
<tr>
<td>Hospital B</td>
<td>100</td>
<td>10</td>
<td>10 percent</td>
</tr>
<tr>
<td>Hospital C</td>
<td>100</td>
<td>20</td>
<td>20 percent</td>
</tr>
</tbody>
</table>
STEP 3: CALCULATE THE “EXPECTED” PPR RATE FOR EACH HOSPITAL – OVERVIEW

3.1 Calculate the statewide PPR rate for each DRG
3.2 Calculate statewide behavioral health and age adjustment factors
3.3 Calculate the expected PPR rate (based on the statewide average) for each hospital
STEP 3.1: CALCULATE THE STATEWIDE PPR RATE FOR EACH DRG

Statewide DRG PPR Rate = \[
\frac{\text{All PPR Chains for DRG}}{\text{All Qualifying Admissions for DRG}}
\]

For example (sample PPR rates only):

<table>
<thead>
<tr>
<th>APR-DRG</th>
<th>Description</th>
<th>Severity Level 1</th>
<th>Severity Level 2</th>
<th>Severity Level 3</th>
<th>Severity Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>194</td>
<td>Heart failure</td>
<td>14.8</td>
<td>19.1</td>
<td>22.6</td>
<td>32.1</td>
</tr>
<tr>
<td>753</td>
<td>Bipolar disorders</td>
<td>14.5</td>
<td>17.0</td>
<td>20.6</td>
<td>27.3</td>
</tr>
</tbody>
</table>

Statewide DRG PPR rates were not calculated for DRGs with less than five qualifying admissions (same policy as New York)
STEP 3.2: CALCULATE STATEWIDE BEHAVIORAL HEALTH AND AGE ADJUSTMENT FACTORS

» Rationale for adjustment:
  › Pediatric populations typically have lower readmission rates than adults in part due to greater control of their care through parental or other supervision
  › Individuals with a secondary diagnosis of behavioral health (mental health or substance abuse) are more likely to experience readmissions

» Definitions:
  › Pediatric – 18 years old and under
  › Behavioral health – Presence of 3M-assigned mental health flag (mental health or substance abuse secondary diagnosis)
3.2.1 Calculate the statewide PPR rates for each DRG observed in the claims data (Table 1, Column G)

3.2.2 Using the statewide PPR rates from 3.2.1, calculate the number of expected PPR chains at the behavioral health/non-behavioral health, adult/pediatric and DRG level. (Table 2, Column H)

3.2.3 Calculate the age/behavioral health factors – for each behavioral health/non-behavioral health and adult/pediatric level, divide the total actual PPR chains by the total expected PPR chains (Table 3, Columns G and H)

Handout 2: Sample Behavioral Health and Pediatric Adjustment Factor Calculation
STEP 3.3: CALCULATE THE EXPECTED PPR RATE FOR EACH HOSPITAL

3.3.1 For every DRG that a hospital has, calculate the expected number of PPRs by multiplying the number of qualifying admissions by two factors:
   › Statewide average PPR rate for the same DRG
   › The age/behavioral health adjustment rate

The result equals the expected number of PPRs for the DRG.

3.3.2 For each hospital, sum all of the expected PPRs across all DRGs.

3.3.3 For each hospital, divide the total number of expected PPRs by the number of qualifying admissions to obtain the expected PPR rate
## Sample Hospital Calculation

### Hospital A Claims *(mock data)*

<table>
<thead>
<tr>
<th>DRG</th>
<th>Age</th>
<th>Behav. Health</th>
<th>Qual. Admin (A)</th>
<th>PPR Chains (B)</th>
<th>Actual PPR Rate (C=B/A)</th>
<th>Statewide PPR Rate (D)</th>
<th>Age/Behav. Health Factors (E)</th>
<th>Expected PPR Chains (F=A<em>D</em>E)</th>
<th>Expected PPR Rate (G=F/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>141-1 Asthma, Minor</td>
<td>Pediatric</td>
<td>Yes</td>
<td>50</td>
<td>15</td>
<td>30%</td>
<td>3.5%</td>
<td>1.595</td>
<td>2.79</td>
<td>6%</td>
</tr>
<tr>
<td></td>
<td>Pediatric</td>
<td>No</td>
<td>100</td>
<td>20</td>
<td>20%</td>
<td>3.5%</td>
<td>0.666</td>
<td>2.33</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>Adult</td>
<td>Yes</td>
<td>60</td>
<td>10</td>
<td>17%</td>
<td>3.5%</td>
<td>1.941</td>
<td>4.08</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td>Adult</td>
<td>No</td>
<td>175</td>
<td>15</td>
<td>9%</td>
<td>3.5%</td>
<td>0.869</td>
<td>5.32</td>
<td>3%</td>
</tr>
<tr>
<td>720-1 Septicemia &amp; disseminated infections, Moderate</td>
<td>Pediatric</td>
<td>Yes</td>
<td>45</td>
<td>5</td>
<td>11%</td>
<td>4.2%</td>
<td>1.595</td>
<td>3.01</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td>Pediatric</td>
<td>No</td>
<td>70</td>
<td>5</td>
<td>7%</td>
<td>4.2%</td>
<td>0.666</td>
<td>1.96</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td>Adult</td>
<td>Yes</td>
<td>150</td>
<td>25</td>
<td>17%</td>
<td>4.2%</td>
<td>1.941</td>
<td>12.23</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>Adult</td>
<td>No</td>
<td>350</td>
<td>25</td>
<td>7%</td>
<td>4.2%</td>
<td>0.869</td>
<td>12.77</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>1,000</td>
<td>120</td>
<td>12%</td>
<td></td>
<td></td>
<td>44.49</td>
<td>4%</td>
</tr>
</tbody>
</table>

### Hospital A’s Actual/Expected Relativity Ratio: 3

(Actual PPR Rate of 12% divided by Expected PPR Rate of 4%)

In other words, Hospital A has three times the statewide average of PPRs, adjusting for case-mix, severity of illness, age and behavioral health.
SECTION 3:
IDENTIFYING PAYMENT REDUCTIONS BASED ON PPR RATES
PPR POLICY IN YEAR ONE (SFY 2013)

» HFS will establish a target PPR rate that individual hospitals will be compared against using SFY 2010 data.
  › Hospitals above the target rate will have a payment reduction based the number of PPR chains above that target
  › Hospitals below the target rate will have no payment reduction

» The PPR target rate is calculated as a percentage of each facility’s expected rate of PPR chain observations (based on the statewide average)

» For example, an individual hospital might have:
  › Actual PPR rate: 13.5 percent
  › Expected PPR rate (statewide average): 12.2 percent
  › Target PPR rate: 11.8 percent
### SAMPLE PPR PAYMENT REDUCTION CALCULATION

Key variables used in the PPR rate threshold:

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Target PPR Chains(^1) (A)</th>
<th>Actual PPR Chains (B)</th>
<th>PPR Chains Over Target (C=If B&gt;A, then B-A)</th>
<th>PPR Dollars per PPR Chain(^2) (D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital A</td>
<td>100</td>
<td>150</td>
<td>50</td>
<td>$4,000</td>
</tr>
</tbody>
</table>

Payment reduction determination:

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Payment Reduction Before Cap (E= C*D)</th>
<th>Total Medicaid Payments(^3) (F)</th>
<th>Payment Reduction Cap (G=F*7%)</th>
<th>Payment Reduction After Application of Cap (I=Lower of E and G)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital A</td>
<td>$200,000</td>
<td>$1,750,000</td>
<td>$122,500</td>
<td>$122,500</td>
</tr>
</tbody>
</table>

(1) The number of target PPR chains equals the facility-specific target PPR rate multiplied by the number of qualifying admissions

(2) Claims-based net liability payments associated with the readmissions of a PPR chain

(3) Claims-based Medicaid allowable payments associated with total admissions in analysis
SECTION 4:
APPLYING PPR PAYMENT REDUCTIONS IN FY 2013
State legislation requires that HFS show a $40 million savings in SFY 2013 for hospital readmissions.

All savings will be based on services provided (discharges) and liability received on or after October 1, 2012.

First year savings will be adjusted for nine months (October–June) and weighted to account for low claim volume the first two months (October–November).

First year savings will need to be aggressive to hit target $40M in savings in the shortened timeframe.

$40M savings will be applied to approximately 64 percent of SFY 2013 hospital claim liability (initial HFS estimates based on SFY 2010 data).
PAYMENT REDUCTION FACTOR

The prospective payment reduction will be calculated by applying a “factor” to the net liability on the claim\(^1\)

Factor = \[1 - \left(\frac{\text{Readmits Over Target} \times \text{PPR Dollars per PPR Chain}}{\text{Total Aggregate Hospital Payments}}\right)\]

(1) Includes any additional payments or adjustments added to the claim, such as DSH and MHVA
(2) Based on estimated SFY 2013 claim liability from October 2012 through June 2013, including SB 2840 reductions
OVER/UNDER SHOOTING $40M TARGET

» HFS will not overshoot the target payment reduction if claim submission is greater than expected.

» HFS will not undershoot the target payment reduction if a hospital’s claim submission is less than expected.

» Hospitals with payment reductions will be monitored on an on-going basis during SFY 2013 – if needed, the facility-specific factors will be adjusted based on each facility’s total payment reduction.

» Faster claim submission by hospitals can help to more evenly spread out the financial impact of the total payment reduction.
SECTION 5:
BEYOND YEAR ONE
BEYOND YEAR ONE

» Payment reductions are prospective adjustments to hospital-specific payments based on each hospital’s previous years PPR rate.

» HFS analyses indicate that the statewide Medicaid PPR rate for the most recently available three SFYs of data (SFYs 2009 - 2011*) has stayed fairly constant at approximately 12.5 percent.

» The time required for claims submission and payment creates a lag between the SFY of claims available for analysis and the year in which the payment reduction is applied.

* SFY 2011 analysis included 11 months of data as not all SFY 2011 data were available at the time of analysis.
BEYOND YEAR ONE - TIMELINE

» Baseline analysis will be done annually at the beginning of each SFY. The hospital factors are recalculated and applied prospectively according to each hospital’s performance.

» Time lag of at least 18 months before data can be analyzed, for example, it will be:
  » SFY 2014 before hospital readmission rates for FY 2013 can be analyzed
  » SFY 2015 before rates will reflect hospital efforts in response to initial implementation

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Analysis of FY 2010 claims data</td>
<td>Oct 1st, 2012 – Implement PPR hospital payment reductions</td>
<td>Readjust payments based on FY 2012 data</td>
<td>Readjust payments based on FY 2013 data</td>
<td>Readjust payments based on FY 2014 data</td>
</tr>
<tr>
<td>$40M savings</td>
<td>$40M savings</td>
<td>$40M savings</td>
<td>$40M savings</td>
<td>$40M savings</td>
</tr>
</tbody>
</table>
BEYOND YEAR ONE

» HFS will compare hospitals’ PPR rates annually to their initial base year rate (SFY 2010) to monitor hospital-specific progress.

» Continue targeting $40 million annual reduction, which would include two components:
  › Savings (if any) related to provider cost avoidance
  › Savings related to payment reductions if provider cost avoidance does not achieve the $40 million

» Currently, MCO encounter data is excluded but will be included in future analyses.

» Payment reduction will be applied to the MCO claims by adjusting the MCO rate.
BEYOND YEAR ONE

» Ideally, statewide PPR rate should lower each year and variance between individual hospital PPR rates should lessen.

» HFS may consider a budget neutral approach in the future to continue to incentivize the hospitals to keep the PPRs at a predetermined level statewide.
SECTION 6:
PROVIDER COMMUNICATION
» Detailed hospital-specific reports will be emailed to the providers annually

» The first year, provider PPR reports are scheduled to be emailed August 1, 2012

» HFS website (pending) will include PPR training documents, a link to 3M materials regarding the PPR software, and hospital-specific actual and target PPR rates

» Additional training for the hospitals is available

Note: Please register your hospital’s information at the following address http://www.hfs.illinois.gov/hospitals/ to receive your hospital specific reports. There is a link under Provider Information that will direct you to the registration site.
ADDITIONAL QUESTIONS?