

Quality Improvement in Case Review

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Objectives

- Explain Medicare Quality Improvement Organization (QIO) role in quality improvement
- Review types of QIO case review
- Identify types of quality improvement activities that may result from case review
- Review actual case examples where quality improvement resulted from case review

QIO Overview

- Contracted by the Centers for Medicare & Medicaid Services
- One for each state/U.S. territory
- Ensure care delivered to Medicare beneficiaries is:
 - Medically necessary/reasonable
 - Provided in most appropriate setting
 - Of a quality that meets professionally recognized standards of health care

QIO Overview

- Divided into two major divisions
 - Setting-specific quality improvement (prospective)
 - Case review/compliance (retrospective)

Medicare Case Review

- Types of Medicare case review the QIO will review:
 - Mandatory
 - Example: review of hospital submitted higher-weighted diagnosis-related groups (DRGs)
 - Beneficiary-initiated
 - Example: beneficiary complaint regarding the quality of care received

Medicare Case Review

- Types of case review that is performed:
 - DRG validation
 - Utilization
 - Quality

Quality Improvement in Case Review

- What types of quality improvement activities can occur as the result of case review findings?

Quality Improvement in Case Review

- Sanction activity
 - Social Security Act
 - Code of Federal Regulations
 - Required by law and regulation in egregious cases
 - Occurs very infrequently
- May result in a corrective action plan that results in improvement in quality of care

Quality Improvement in Case Review

- Most quality of care issues are not egregious
- Frequently the quality issues are the result of poor processes

Quality Improvement in Case Review

- Types of quality improvement activities that may result from case review:
 - Physician education
 - CME
 - Focused re-education in a specific or broad area
 - Development of a quality improvement plan
 - When systems or processes of care delivery can be improved

Quality Improvement in Case Review

- Types of quality improvement activities that may result from case review (continued):
 - Physician review may recommend:
 - Consideration of an alternative approach to future care
 - When a different method of care delivered could be expected to improve the care
 - Offer advice to the provider/practitioner
 - When a more current method of care could have been considered although the quality of the care was adequate

Quality Improvement in Case Review

- Less frequent types of quality improvement activities
 - Meeting with the physician/provider to discuss the care that was provided
 - Intensified review of additional medical records

Quality Improvement in Case Review

- Case examples

Case Example #1

- Review findings
- Case summary
- Quality improvement activities

Case Example #2

- Review findings
- Case summary
- Quality improvement activities

Case Example #3

- Review findings
- Case summary
- Quality improvement activities

Questions?

Contact Information

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Data Analysis: Identifying Opportunities for Quality Improvement

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Hospital Payment Monitoring Program QIOSC

TMF Health Quality Institute

April 22, 2007

Objectives

- Learn how the Hospital Payment Monitoring Program (HPMP) helps hospitals prevent payment errors
- Identify payment error trends, risk areas
- Learn how Program for Evaluating Payment Patterns Electronic Report (PEPPER) data supports compliance activities
- Explore the connection between data analysis, auditing and improved quality

HPMP

- Nationwide collaborative effort implemented by the Centers for Medicare & Medicaid Services (CMS) and Quality Improvement Organizations (QIOs) to reduce Medicare payment errors
- Protects Medicare Trust Fund
- Analyze, identify patterns of payment errors
- Reduce/prevent payment errors through system improvement with tools, education, comparative data (PEPPER)

Payment Error Data

- Each year 38,448 short-term, acute-care hospital records randomly selected
 - Records initially screened by Clinical Data Abstraction Center
 - Records failing screening forwarded to the QIO for review
- Each year 1,392 long-term, acute-care hospital records randomly selected
 - Records are requested by QIOs and reviewed

Payment Error Data

- Review results allow estimation of Medicare dollars in error, as reported annually by CMS in the Improper Medicare Fee for Service Payments Report (www.cms.hhs.gov/cert)
- Guides QIO HPMP projects and interventions
- Data are available for fiscal years (FYs) 1998, 2000-2005
- See handout for detailed information for FY 2005

PEPPER

- QIO case review results determine target areas
- Hospital-specific and statewide comparative claims data for CMS focus areas
- Target areas indicate potential errors due to diagnosis-related group (DRG) coding, medical necessity
- Assists hospitals with prioritizing auditing/monitoring activities

PEPPER Data

- Report on past payments
- Claims data 4-6 months old
- Based on discharge dates
- Organized by federal fiscal year quarters

Fiscal Quarter	Months
1 st	October-November-December
2 nd	January-February-March
3 rd	April-May-June
4 th	July-August-September

CMS HPMP Target Areas

Short-Term, Acute Care Hospitals Focus: Coding

Target Area	Description
DRGs 014 and 559	Intracranial hemorrhage or cerebral infarction; Acute ischemic stroke with thrombolytic agent
DRG 079	Respiratory infections and inflammations, age > 17, w/CC
DRG 089	Simple pneumonia and pleurisy, age > 17, w/CC
DRG 416	Septicemia, age > 17
DRGs w/ CC Pairs	Multiple DRGs

CMS HPMP Target Areas

Short-Term, Acute-Care Hospitals Focus: Medical Necessity

Target Area	Description
DRG 127 (1-day stays)	Heart failure and shock
DRG 143 (1-day stays)	Chest pain
DRGs 182/183 (1-day stays)	Esophagitis, gastroent., miscellaneous digestive disorders, age > 17; w/wo/CC
DRGs 296/297 (1-day stays)	Nutritional & miscell. metabolic disorders, age > 17, w/wo/ CC
DRG 243	Medical back problems
Seven day re-admit	Re-admits w/in 7 days to same or another ST hospital (excl. patient status 02)
1-day stays (excl transfers)	LOS ≤ 1 day (excl. patient status 20, 07, 02)
3-day SNF qualifying admits	Discharged to a SNF after a 3-day LOS

CMS HPMP Target Areas

Long-Term, Acute-Care Hospitals Focus: Coding

Target Area	Description
DRG 087	Pulmonary edema and respiratory failure

Long-Term, Acute-Care Hospitals Focus: Medical Necessity

Target Area	Description
DRG 012	Degenerative nervous system disorders
DRG 088	Chronic obstructive pulmonary disease
DRG 249	Aftercare, musculoskeletal system and connective tissue

PEPPER Distribution

- QIOs distribute PEPPER
 - QualityNet exchange (secure electronic method), CD or hard copy
 - Cannot be sent via e-mail
- Electronic format: Microsoft Excel file

PEPPER Terminology

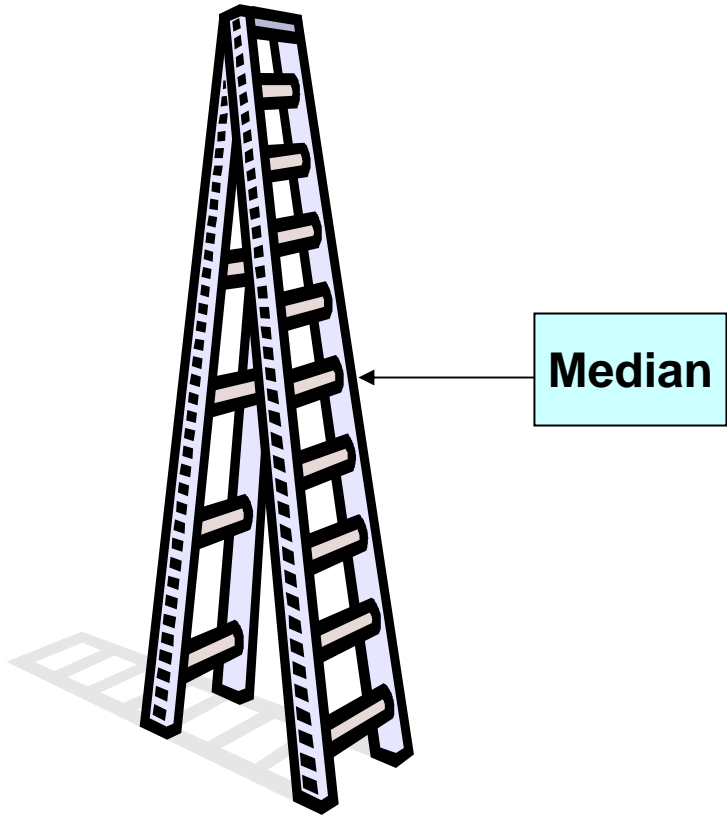
- Numerator—number of target area discharges
- Denominator—number of all discharges
- Example: target area DRG 243 Medical Back Problems (admission necessity focus)

$$\frac{\text{Numerator}}{\text{Denominator}} = \frac{\# \text{ of DRG 243 discharges}}{\# \text{ of all discharges}}$$

PEPPER Terminology

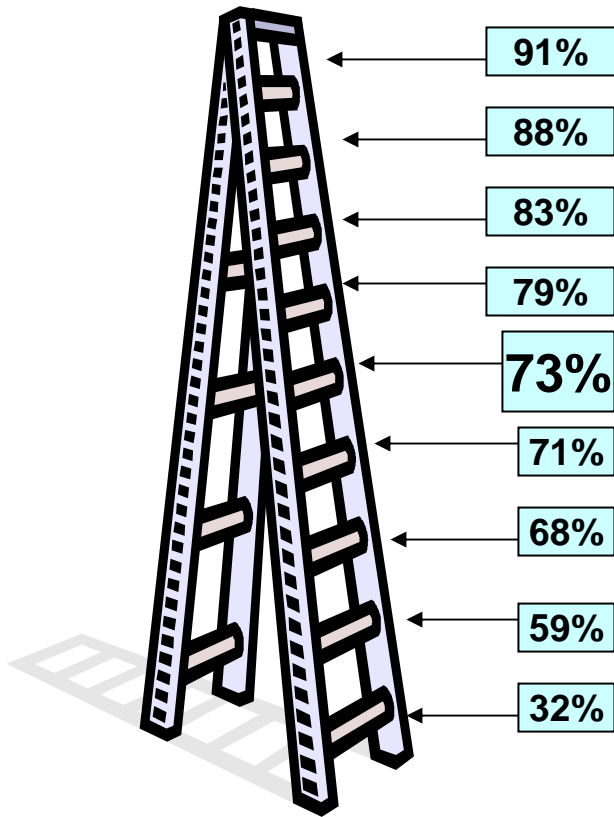
- Percent—percentage of target area discharges (numerator) related to the target area denominator
 - Compare and Target Area (data table) worksheets
 - **Red bold print**—at or above upper control limit percentile for the target area
 - *Green italic print*—at or below the lower control limit percentile for the target area
- Percentile—percentage of all hospitals below which a given hospital's percent value ranks

PEPPER Terminology



- Take a step-by-step approach
 - Consider that each rung of the ladder is a hospital
 - Hospital percentages are ordered from low to high for each target area
 - The percentage that falls in the middle is the “Median”

PEPPER Terminology

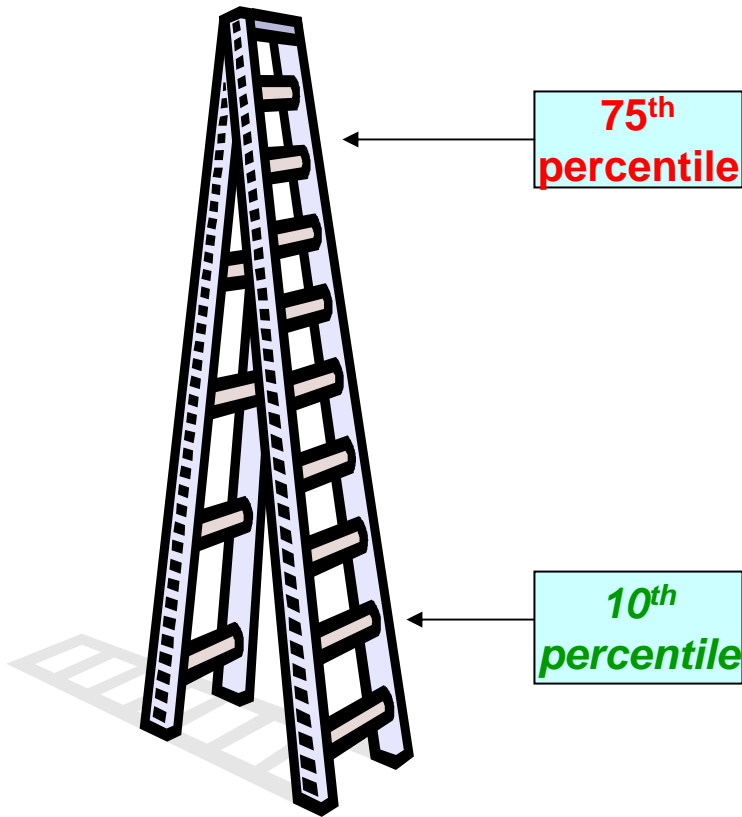


- For example, one hospital's percent for target area DRGs 014 & 559 is 73%, which falls in the middle of other hospitals' percents
- The median is 73%
- Half of the hospitals had a percent less than 73%
- The median is also the "50th percentile"

PEPPER Terminology

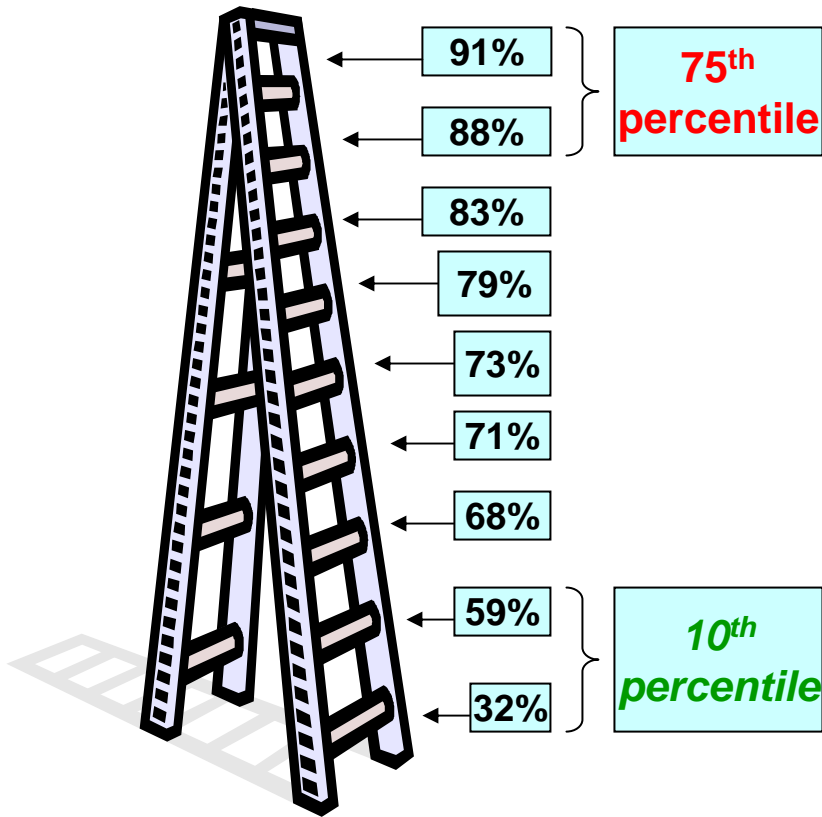
- Outlier—findings of “unusualness” for a given target area
 - Not related to other “outliers,” such as DRG cost outlier
- Outlier value—value assigned to a finding indicating “unusualness”
 - Negative values at or below 10th percentile (possible under-coding DRGs)
 - Positive values represent at or above 75th percentile (possible over-coding DRGs or over-utilization)

PEPPER Terminology



- If hospital percent is at the “75th percentile rung,” or higher, may be considered an outlier
 - 75% of the hospitals had a lower percentage
- If hospital percent is at the “10th percentile rung,” or lower, may be considered an outlier
 - 10% of the hospitals had a lower percentage

PEPPER Terminology



- Top two hospitals' percentages at or above 75th percentile
- Bottom two hospitals' percentages at or below 10th percentile

PEPPER Worksheets

- “Purpose”
 - General statement about PEPPER
 - Time period, provider number, provider name
- “How”
 - Describes how to prioritize and sort target area report findings
- “Compare”
 - Summarizes hospital findings for outlier target areas

**“Purpose”
Worksheet**

000007_DM_STPEPP_Q4FY2006_Hospital_A6.xls

	A	B	C	D	E	F	G	H	I	J	K
1											
2		Purpose of Short-Term, Acute-Care PEPPER									
3		Program for Evaluating Payment Patterns Electronic Report									
4		Data Report Through FY2006									
5											
6		000007 Hospital A6									
7		The Program for Evaluating Payment Patterns Electronic Report (PEPPER) is an electronic report									
8		containing hospital-specific data for target areas (specific Diagnosis Related Groups (DRGs) and									
9		discharges) that have been identified as at high risk for payment errors.									
10											
11		PEPPER was developed by TMF Health Quality Institute, under contract with the Centers for Medicare &									
12		Medicaid Services (CMS), an agency under the Department of Health and Human Services (DHHS), as the									
13		Hospital Payment Monitoring Program (HPMP) QIO Support Center (QIOSC). For help in using PEPPER,									
14		please refer to the Short-Term, Acute-Care PEPPER User's Guide at www.hmpresources.org or contact									
15		your state's QIO.									
16											
17		Data are shown for FY 2003, 2004, 2005 and Q4 FY2006 (ending September 30, 2006).									
18											
19											
20											
21		This is ST PEPPER version 17.0									
22											

Navigation bar: Purpose / How / Compare / 014 559 / 014 559 Graph / 079 / 079 Graph / 089

“How” Worksheet

Microsoft Excel - 000007_DM_STPEPP_Q4FY2006_Hospital_A6.xls

File Edit View Insert Format Tools Data Window Help

	A	B	C	D	E	F	G	H	I	J	K
2											
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How To Prioritize

A key to analyzing the PEPPER target area report is the ability to prioritize findings based on the statistical data provided in the report. The targeted areas determined to be 'outlier' are noted on the worksheet titled, 'Compare,' which is the Compare Targets Report for your hospital. Each target area in the Compare Targets Report has a value for the following measure:

- Outlier Value:** PEPPER-defined index value (number) assigned to a hospital's proportion in each target area that indicates the unusualness of the hospital's proportion relative to all short-term, acute-care PPS hospitals in the state. (Note: the PEPPER-defined outlier is not related to the DRG length of stay or cost outlier)
- Number of Target Discharges:** the number of discharges for a particular target area for a given time period (numerator for the target area).
- Outlier Value Times Number of Discharges:** number representing the outlier value number multiplied by the number of target area discharges. This is the recommended sort order, which takes into account both the unusualness and prevalence of a possible problem.
- Percent:** represents the percentage of target area number of discharges (numerator) related to the target area denominator. For example, for Hospital A, the hospital had 45 discharges (numerator) for target area DRG 143 (Chest Pain) One-Day Stays and 100 discharges for all DRG 143 stays (denominator) resulting in a proportion of 45%. The hospital percent is displayed in red bold print if it is at or above the upper control limit percentile for the target area, or it is displayed in green italics if it is at or below the lower control limit percentile for the target area. Please note that the PEPPER default upper control limit is the 75th percentile, and the default lower control limit is the 10th percentile.
- Percentile:** a number that corresponds to one of 100 equal divisions of a range of values in a group. In PEPPER, the percentile represents the percentage of all hospitals above which a given hospital's percent value ranks. For example, if Hospital A has a percent value of 2.3% and a percentile value of 75 for a target area, this would indicate that Hospital A's percent value is greater than the percent values of 75% of the hospitals in the state.

The Compare Targets Report can be sorted by any of these measures, although the recommended sort order is the Outlier Value Times Number of Discharges.

Meaning of the PEPPER Outlier Value

The following table shows the relationship between statewide percentile values and PEPPER-defined outlier values. For example, the statewide 1st percentile (only 1 percent of all hospitals in the state are at or below this value) shows a PEPPER outlier value of -10, the 10th percentile shows a value of -3.2, the 75th percentile shows a value of 2, the 90th percentile shows a value of 3.2, and the 99th percentile has an outlier value of 10.

Percentile:	1	2	4	5	10	20	30	40	50	60	70	75	80	85	90	95	96	98	99
PEPPER Outlier:	-10	-7.1	-5	-4.5	-3.2							2	2.2	2.6	3.2	4.5	5	7.1	10

Purpose How Compare 014 559 014 559 Graph 079 079 Graph 089 089 Graph 127 127 Gr

**“Compare”
Worksheet**

Microsoft Excel - 000007_DM_STPEPP_Q4FY2006_Hospital_A6.xls

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Short-Term, Acute-Care PEPPER
Compare Targets Report of FY2006 Data
000007 - Hospital A6

Target	Description	Outlier Value (larger ± = more unusual)	Number of Target Dischs	Outlier Value Number of Dischs	Percent	Perce- tile	Status (Hospital Use)
DRGs Part of a CC Pair	Proportion of discharges of DRGs with complications or comorbidity, excluding DRGs 079 and 089, to discharges of DRGs with or without complications or comorbidity, excluding DRGs 079, 080, 089 and 090.	3.7	1,122	4,155.1	87.38%	92.71	
DRGs 014 559	Proportion of discharges with DRG equal to 014 (intracranial hemorrhage or cerebral infarction) or 559 (acute ischemic stroke with use of thrombolytic agent), to discharges with DRG equal to 014, 015 (nonspecific CVA and precerebral occlusion without infarct), 524 (transient ischemia) or 559.	2.1	157	328.6	77.34%	77.17	

Purpose / How / Compare / 014 559 / 014 559 Graph / 079 / 079 Graph / 089 / 089 Graph / 127 / 127 Graph / 143 / 14

Other PEPPER Worksheets

- Target Area Data Table
 - Displays target area comparative data
- Target Area Graph
 - Graphical display of target area report findings
- Top 20 DRGs for one-day stays (STCHs only)
- Top 50 DRGs (LTCHs only)
 - Displays hospital's top 50 DRGs billed, by volume, during time period
 - Displays nationwide top 50 DRGs billed, by volume, during time period

**“DRGs 014 & 559”
Worksheet
(1 fiscal year)**

Microsoft Excel - 000007_DM_STPEPP_Q4FY2006_Hospital_A6.xls								
File Edit View Insert Format Tools Data Window Help								
	A	B	C	D	E	F	G	H
1	Short-Term, Acute-Care PEPPER							
2	DRGs 014 & 559, % of DRGs 014, 015, 524 & 559 Discharges							
3	000007	Hospital A6						
4	Time Periods	Target Area Discharge Count	Denominator Count (All DRG 014, 015, 524, 559 Discharges)	Percent (Target Area Count / Denominator)	Target Area Average Length of Stay (ALOS)	Denominator Average Length of Stay (ALOS)	Target Average Medicare Payment	Target Sum Medicare Payments
5	FY2006	157	203	77.3%	5.8	5.1	\$6,006	\$942,922
6								
7	1) Target discharges = total DRG 014 discharges (Note that DRGs 014 and 015 were redefined starting Oct 1, 2002)							
8	in the time period							
9								
10	Statewide Comparative Data for Target Proportion:							
11	Time Periods	90th Percentile	75th Percentile	Median	10th Percentile			
12	FY2006	82.8%	76.0%	66.9%	47.1%			
13								
14	Statewide comparative data were calculated using percentages from PPS hospitals.							
15	Medicare fiscal year (FY) = October 1 through September 30							
16								
17	Summary							
18	Change from FY2006 to FY2006							
19		From	To	Percentage				
20		FY2006	FY2006	Point Change				
21	Hosp Proportion	77.3%	77.3%	0.0				
22	State Median	66.9%	66.9%	0.0				
23								
24								
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26								
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32								
33								

**“DRGs 014 & 559”
Worksheet
(4 full fiscal years)**

Seeing red? Take care of your head (ache). It doesn't mean there's an error.



Microsoft Excel - 000007_DM_STPEPP_Q4FY2006_Hospital_A6.xls

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	A	B	C	D	E	F	G	H
1	Short-Term, Acute-Care PEPPER							
2	DRGs 014 & 559, % of DRGs 014, 015, 524 & 559 Discharges							
3	000007	Hospital A6						
4	Time Periods	Target Area Discharge Count	Denominator Count (All DRG 014, 015, 524, 559 Discharges)	Percent (Target Area Count / Denominator)	Target Area Average Length of Stay (ALOS)	Denominator Average Length of Stay (ALOS)	Target Average Medicare Payment	Target Sum Medicare Payments
5	FY2003	130	177	73.4%	5.2	4.8	\$6,646	\$864,038
6	FY2004	180	227	79.3%	6.2	5.6	\$7,760	\$1,396,798
7	FY2005	157	189	83.1%	5.7	5.3	\$7,445	\$1,168,808
8	FY2006	157	203	77.3%	5.8	5.1	\$6,006	\$942,922
9								
10	1) Target discharges = total DRG 014 discharges (Note that DRGs 014 and 015 were redefined starting Oct 1, 2002)							
11	in the time period							
12								
13	Statewide Comparative Data for Target Proportion:							
14	Time Periods	90th Percentile	75th Percentile	Median	10th Percentile			
15	FY2003	72.4%	61.5%	50.3%	17.8%			
16	FY2004	72.1%	60.8%	46.6%	7.1%			
17	FY2005	82.4%	76.7%	66.9%	40.0%			
18	FY2006	82.8%	76.0%	66.9%	47.1%			
19								
20	Statewide comparative data were calculated using percentages from PPS hospitals.							
21	Medicare fiscal year (FY) = October 1 through September 30							
22								
23	Summary							
24	Change from FY2003 to FY2006							
25		From	To	Percentage				
26		FY2003	FY2006	Point Change				
27	Hosp Proportion	73.4%	77.3%	3.9				
28	State Median	50.3%	66.9%	16.6				
29								
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32								
33								

Navigation: Purpose / How / Compare / 014 559 / 014 559 Graph / 079 / 079 Graph / 089 / 089 Graph / 127 / 127 Graph

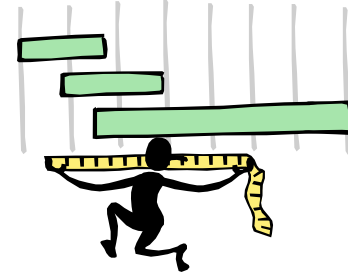
PEPPER Data

- Is comparative
- **Red** or **green** may indicate “outlier”
- Could indicate payment errors exist
- May indicate area to focus auditing or monitoring activity

PEPPER and Compliance

- 1998: The Office of Inspector General's Compliance Program Guidance for Hospitals
- Prioritize areas for auditing and monitoring
- Ensure that charges for Medicare services are medically necessary and correctly documented and billed
- See the HPMP Compliance Workbook (www.hpmpresources.org, Tools)

Be Proactive

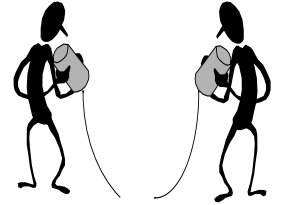


- Don't have to limit auditing/monitoring to the **red** or **green**
- Can expand efforts to other areas
 - Which DRGs comprise a large proportion of your discharges and/or reimbursement?

Data and Quality Improvement

- Incorporate PEPPER into compliance plan
- Analyze PEPPER data
- Conduct compliance audits
- Identify opportunities for process improvement
 - Medical record documentation
 - Coding roundtables
 - Admission screening procedures

Working with your QIO



- QIOs work collaboratively with hospitals
- QIOs develop tools, provide education to assist hospitals
- Contact the HPMP department in your state's QIO as a resource (to find your QIO go to www.medqic.org and click on "QIO Listings")

Questions?

Contact Information

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