Inpatient Psychiatric Reimbursement Reform

September 13, 2010
(with corrections)

Background

- Legislation
  - A new inpatient psychiatric reimbursement methodology was passed in the 2009-10 Medicaid reform legislation
- Implementation date
  - Initially planned for December 1, 2009
  - The executive budget delayed it to April 1, 2010
  - Revised start date is October 1, 2010
- Task Force
  - The psychiatric payment methodology was developed through a joint initiative with representatives from DOH, OMH, GNYHA, HANYS
- Goal
  - Utilizing a Medicare-like approach, develop a reimbursement strategy to pay more appropriately for inpatient psychiatric admissions and address length of stay
- Maintain Budget Neutrality
  - The operating payments for inpatient psychiatric services under the current system and under the new methodology will be budget neutral
- Transition
  - A $25 Million annual investment as a result of rebasing to 2005 costs will be used for transitioning to the new methodology

Impetus for Change:
Current System's Weaknesses

- Cost base is 1981, non-Medicare payers
  - Outdated
  - Inpatient costs attributable to Medicaid patients not recognized
- Same per diem rate throughout the stay
  - Higher costs for initial work up, and lower costs later in the stay not recognized
  - No incentives for length of stay reduction (NYS is twice the national average)
- Doesn't recognize different levels of mental health care service provided
- Doesn't recognize observable , systematic cost differences in Office of Mental Health's priority areas
  - Rural hospitals, adolescents, presence of mental retardation, and physical comorbidities
- Payments based on hospital-specific costs do not encourage efficiency

New Methodology:
Highlights

- Applicable to Article 28 exempt psychiatric inpatient hospitals and exempt units
- Major constructive change in the way inpatient psychiatric rates are calculated and how Medicaid claims are paid after October 1, 2010
- A modernized approach making reimbursement more adequate and equitable
- New system will pay for the level of service rendered, address length of stay variance, and will be more consistent with how Medicare reimburses for this service
- Inpatient psychiatric per diem rates will be based on 2005 Medicaid operating costs (per statute)
- Additional investment of $25M annually over existing inpatient psychiatric expenditures as provided for in the 2009-10 budget to assist hospitals to transition to the new methodology
- Transition will gradually be phased into the statewide price over the period 10/1/2010-12/31/2014

Summary of Payment Model

Rate Components

Statewide Price
Adjusted by
- Hospitals' WEFs
- Rural adj. factor=1.23

×

APR-DRG Weight
(22 Psych DRGs w/ 4 severity levels each)

×

Payment Factors
Age:
(17 & under=1.09)
(18 & over=1.00)
x
Mental Retardation=1.06

×

Comorbidity Factor
(to address both physical & mental health)
18 comorbidity categories with various payment factors

×

LOS Scale
Days 1-4=1.20
Days 5-11=1.00
Days 12-22=0.96
Days 23 & over=0.92

+

ECT
$281 per treatment adjusted for hospital's WEF

+

Non-Operating Per Diem
(Capital + DME + Transition if applicable)

=

Final total payment

Note: Physician fees will be paid separately

Data Overview

Legislation requires use of 2005 Medicaid costs

- ICR: Best source for provider cost
- SPARCS: Best source for all-payer case-level data
  - Basis to match case-level charges to ICR
  - Development of departmental ratios of cost to charges (RCCs)
  - More complete reporting of charges compared to 2005 MMIS
  - More secondary diagnoses reported compared to 2005 MMIS
- MMIS: Best source to determine psychiatric cases
- One year's worth of data not reliable enough to estimate systematic determinants of cost

Data Sources Used

- Decided to use ’05 & ’06 data for more reliable estimates
  - Most complete datasets at the start of the project
- Cost estimation: Departmental RCCs
  - RCCs estimated using ’05 & ’06 ICRs
  - Applied to charges in ’05 & ’06 SPARCS
- Determining cases paid under psych exempt system
  - ’05 & ’06 MMIS data
  - Augmented by information from SPARCS
    - Diagnosis codes
    - Cost estimates

Model Development: Goals

- Capital payments
  - No change (i.e. pass-through payments)
- Operating payments
  - Carve-out direct graduate medical education (DME) costs
    - 2005 costs determined from 2005 ICRs
    - Trended to 2010
  - Electroconvulsive Therapy (ECT)
    - Determine rate per treatment
    - Adjust for hospitals' wage equalization factors (WEFs)
  - For the remaining operating costs
    - Make adjustments for severity of illness, patient risk factors, and other systematic cost variations

Model Development: Operating Payment Adjustments

- Facility-level adjustment: WEF
  - To account for wage differences in hospitals' labor markets
  - For Oct. 1st: same as acute care Medicaid payment system
- ECT rate
  - Use the federal rate in effect during the first half of 2010: $281
- Severity of illness:
  - Based on DRG relative weights
    - Calculated specifically for psychiatric patients
    - Uses hospital-specific relative value (HSRV) method
  - APR-DRGs to account for four severity levels
  - Consistent with acute care weight methodology
- All other adjustments:
  - Regression based

DRGs for Medicaid Psych Patients with Cost Estimates, 2005-2006

DRG	Cases	Days	DRG	Cases	Days
Degenerative Nervous System Disorders Exc Mult Sclerosis	16	945	Organic Mental Health Disturbances	593	13,284
Nontraumatic Stupor & Coma	4	33	Childhood Behavioral Disorders	2,935	55,044
Postpartum & Post Abortion Diagnoses w/o Procedure	19	334	Eating Disorders	129	3,200
Other Antepartum Diagnoses	92	1,387	Other Mental Health Disorders	176	3,037
Mental Illness Diagnosis w O.R. Procedure	66	2,315	Drug & Alcohol Abuse or Dependence, Left Against Medical Advice	145	997
Schizophrenia	16,882	368,687	Alcohol & Drug Dependence w Rehab or Rehab/Detox Therapy	42	784
Major Depressive Disorders & Other/Unspecified Psychoses	11,776	156,455	Opioid Abuse & Dependence	686	6,186
Disorders of Personality & Impulse Control	200	1,796	Cocaine Abuse & Dependence	968	7,355
Bipolar Disorders	12,372	184,020	Alcohol Abuse & Dependence	629	4,899
Depression Except Major Depressive Disorder	5,662	56,479	Other Drug Abuse & Dependence	420	3,225
Adjustment Disorders & Neuroses Except Depressive Diagnoses	1,539	12,967	Non-Psychiatric DRGs	209	2,512
Acute Anxiety & Delirium States	541	3,896			

Note: Medicare DRG "psychoses" is split among "schizophrenia," "major depressive disorders & other/unspecified psychoses," and "bipolar disorders" under APR-DRG system.

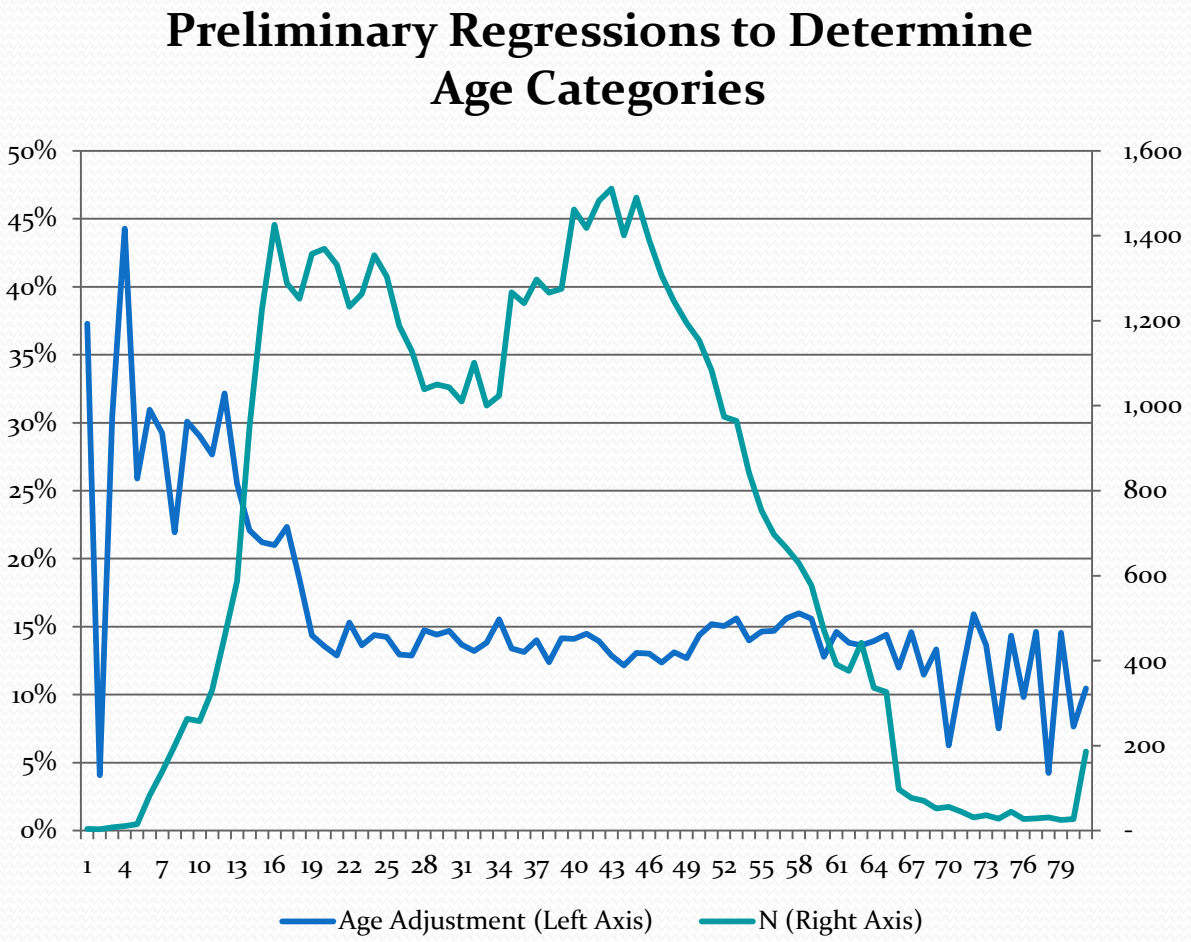
Regression Model

- Estimate operating cost, excluding DME & ECT
  - Standardize by
    - WEF
    - DRG weights
- Explore possible sources for systematic risk
  - Rural vs. urban facilities
  - Indirect costs of teaching activities
  - Patient age
  - Higher cost earlier in the stay due to initial work-up
  - Lower cost later in the stay due to more stable condition
  - Medical/physical comorbidities
  - Change in cost structure over the years
  - Etc.

Facility-level Adjustments

- Rural vs. urban
  - Accounting for all the other factors, facilities in rural New York had 23.09% higher costs
  - Statistically significant
- Indirect costs of teaching
  - Variable: Interns and residents to beds ratio
  - Alternated between (-) & (+) in various models
  - Statistically insignificant

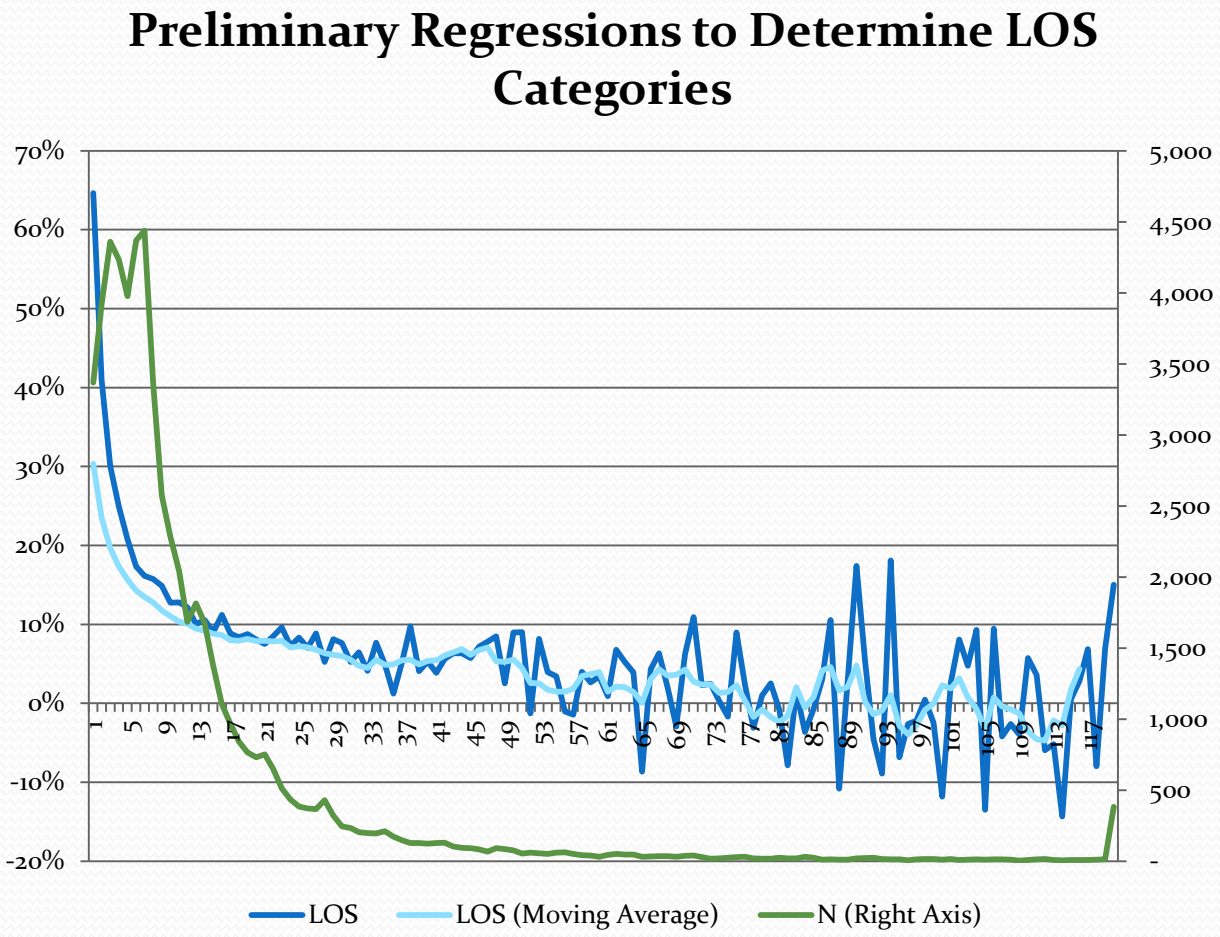
Exploring the Effect of Age on Cost



Final Age Adjustment Factor

- Low case counts for very young and very old patients
  - Volatile adjustment factors if the groups are too small
- Decision:
  - Single adjustment factor for pediatric cases
    - Patients zero to 17 years old
    - Adjustment factor = 1.0872

Exploring the Effect of LOS on Cost



Adjustment Factors for Day Intervals ("LOS Scale")

- Days 1-4 = 1.20
- Days 5-11 = 1.00
- Days 12-22 = 0.96
- Days 23 & over = 0.92

Comorbidity Adjustment Factors

- Mental retardation as a secondary diagnosis
  - Adjustment factor = 1.0599
- One other medial/physical comorbidity
  - Uses ICD-9-CM codes reported on the patient bill
  - Considers secondary diagnoses that are complicating conditions (CC/Major CC) under the MS-DRG system
  - Based on hierarchical condition categories (HCCs) used by various Medicare risk-adjustment methodologies
  - 18 comorbidity groups
  - Applies the highest adjustment factor if there are more than one comorbidity present

Comorbidity Categories

Category	Adjustment Factor
Cancers	1.0942
Protein-Calorie Malnutrition	1.0848
Disorders of Fluid/Electrolyte/Acid-Base Balance	1.0630
Other Endocrine/Metabolic/Nutritional Disorders	1.1405
Other Hepatitis and Liver Disease	1.0856
Peptic Ulcer, Hemorrhage, Other Specified Gastrointestinal Disorders	1.1032
Other Musculoskeletal and Connective Tissue Disorders	1.0638
Blood Disorders	1.1056
Other Developmental Disability	1.2014
Brain/Head Injury	1.1361
Cardio-Respiratory Failure and Shock	1.1608
Acute Coronary Syndrome	1.4046
Stroke/Occlusion/Cerebral Ischemia	1.2109
Respiratory Illness	1.0662
Other Eye Disorders	1.1224
Renal Disease	1.0954
Complications of Medical Care and Trauma	1.1297
Major Organ Transplant Status	1.1762

Payment Calculation Example
List of Diagnoses

Dx Sequence	ICD9 Code	Comorb. Code	Comorbidity Description	ICD9 Description
1	29652	-	Not applicable (principal Dx)	Bipolar I disorder, most recent episode (or current) depressed, moderate
2	5849	16	Renal Disease	Acute renal failure, unspecified
3	72888	7	Other Musculoskeletal and Connective Tissue Disorders	Rhabdomyolysis
4	2724	-	Not used	Other and unspecified hyperlipidemia
5	4019	-	Not used	Unspecified essential hypertension
6	1101	-	Not used	Dermatophytosis of nail

Payment Calculation Example

					Parameter	Variable	Adjustment	$ Amount
Statewide per diem rate (with a 4% outlier pool)								$ 601.86
Facility-level Adjustments: Same for All Patients	Labor Cost Adj.	Wage equalization factor (WEF)			Opcert	xxxxxxx	1.0178	
	Population Density	Rural location			23.09%	-	1.0000	
	Composite facility-level adjustment factor						1.0178	$ 612.57
Patient-level Adjustments: Different for Each Patient	APR-DRG	Bipolar Disorders, SOI-3			DRG	753-3	1.0576	
	Pediatric case				8.72%	-	1.0000	
	Mental Retardation Diagnosis Present				5.99%	-	1.0000	
	Comorbidity Adjustments: Apply the maximum of the adjustments if patient has multiple comorbidities	1	Cancers		9.42%	-	1.0000	
		2	Protein-Calorie Malnutrition		8.48%	-	1.0000	
		3	Disorders of Fluid/Electrolyte/Acid-Base Balance		6.30%	-	1.0000	
		4	Other Endocrine/Metabolic/Nutritional Disorders		14.05%	-	1.0000	
		5	Other Hepatitis and Liver Disease		8.56%	-	1.0000	
		6	Peptic Ulcer, Hemorrhage, Other Specified Gastrointestinal Disorders		10.32%	-	1.0000	
		7	Other Musculoskeletal and Connective Tissue Disorders		6.38%	1	1.0638	
		8	Blood Disorders		10.56%	-	1.0000	
		9	Other Developmental Disability		20.14%	-	1.0000	
		10	Brain/Head Injury		13.61%	-	1.0000	
		11	Cardio-Respiratory Failure and Shock		16.08%	-	1.0000	
		12	Acute Coronary Syndrome		40.46%	-	1.0000	
		13	Stroke/Occlusion/Cerebral Ischemia		21.09%	-	1.0000	
		14	Respiratory Illness		6.62%	-	1.0000	
		15	Other Eye Disorders		12.24%	-	1.0000	
		16	Renal Disease		9.54%	1	1.0954	
		17	Complications of Medical Care and Trauma		12.97%	-	1.0000	
		18	Major Organ Transplant Status		17.62%	-	1.0000	
		Maximum adjustment					1.0954	
	Composite patient-level adjustment factor						1.1584	
Facility & case-specific per-diem operating rate								$ 709.62
Length of Stay Adjustments	Day Groups	1	Days 1 through 4		20%	4	4.8000	
		5	Days 5 through 11		0%	6	6.0000	
		12	Days 12 through 22		-4%	-	-	
		23	Day 23 and beyond		-8%	-	-	
	LOS and adjusted LOS					10	10.8000	
	Day adjustment factor						1.0800	
Payment Calculation	Operating Payments	Payment based on per-diem rate			$ 709.62	10	1.0800	$ 7,663.88
		ECT payment (adjusted by WEF)			$ 281.00	1	1.0178	$ 286.00
		Direct GME payment			$ 61.53	10	n/a	$ 615.30
		Operating payment						$ 8,565.18
	Capital payment				$ 54.82	10	n/a	$ 548.20
	Transition payment (TBD)							$ -
	Total payment							$ 9,113.38

Summary of Adjustments

Category	Approx. Value of Adjustments (Million Dollars)
WEF	13.3
Rural Adjustment	4.6
APR-DRG Weights	0.3
Pediatric Patients	4.9
Mental Retardation Comorbidity	0.4
Other Comorbidities	1.5
LOS Scale	3.1
Total	**28.1**

Old vs. New Payment System

Existing System	New System
• Case mix adjusted operating per diem based on hospital specific cost	• Operating per diem is based on a statewide price adjusted by hospital's WEF
•Pays the same operating per diem rate for each day of service	• Applies APR-DRG weight (4 severity levels)
	• Applies payment adjustments for pediatric cases, mental retardation, rural hospitals, & physical comorbidities
	• Operating per diem adjusted by the LOS scale to address varying costs at specific intervals
	• Separate payment for Electroconvulsive Therapy (ECT)
	• Reduced payments for readmissions: For readmissions to the same hospital within 30 days, the 1st day of the readmission will be treated as day 4 of the LOS scale with subsequent days continuing onward
• Capital and DME paid for each day of service	• 2005 DME per diem rate trended to Oct. 1, 2010 • Capital: budgeted capital expenses divided by expected days for the rate year

Budget Neutrality
(Based on 2006 Case Distribution)

- Currently, the statewide average operating rate is about $637 per day
- This price will be adjusted downward to about $602 to account for the SIWs, various payment factors and LOS scale in the new methodology so as to maintain budget neutrality
- Therefore, the existing payments and new payments will be equal in the aggregate

	Existing Payments	New Payments
Operating Payments	$575.1M	Risk-adjusted payments: $502.3M ECT payments: $0.2M DME payments: $72.6M
Capital Payments	As budgeted	As budgeted

Fiscal Impact

- Without further adjustments, there would be approximately $46m redistribution of payments
- Mitigating factors:
  - The State is investing additional $25M into the system
  - Two of the units with large losses already closed
- Allocation of $25M investment:

Period	Transition	Statewide Rate
10/1/2010 – 12/31/2011	$25M	$0
1/1/2012 – 12/31/2012	$17M	$8M
1/1/2013 – 12/31/2013	$8M	$17M
1/1/2014 – 12/31/2014	$0	$25M

Distribution Method of $25M Transition Fund

- 50% (12.5M) based on revenue loss
  - Transition dollars will be allocated such that hospitals will not lose more than approximately 5% revenue from the existing payments to the new payments in year 1
  - Same method as acute transition
- 50% (12.5M) based on payment to cost ratio
  - Transition dollars will be allocated to hospitals whose costs are well above their revenues under the new methodology based on 2006 data
- Thresholds for distribution will be published when final statewide rate is determined
- Transition funds will be paid through rate adjustments

Billing Implications

- Billing practices similar to billing for Medicare patients should be sufficient
  - Make sure all diagnoses are properly documented
  - Make sure all diagnoses are properly coded
  - Need to bill for correct number of ECTs
  - Need to bill all charges
    - This is very important for future rebasing of the system

Future Updates

- Rebasing
  - There will be more frequent rebasing of cost data in the future, similar to the acute methodology, including updating the base year, service intensity weights, the payment factors, the LOS scale, and the ECT rate
- Wage Equalization Factor (WEF)
  - In the future, DOH will consider recalculating WEFs for the inpatient psychiatric rates that will be based on psychiatric data only.
  - If psychiatric only WEFs are implemented, DOH will simultaneously recalculate and implement the acute WEFs to exclude the psychiatric wage and fringe data.