

# Health Economics:

## Medicare and Medicaid Hospital Reimbursement

Jacobi Medical Center  
Noon Conference Feb 14, 2011  
Colin D. Cha Fong

# Goals

- Brief introduction to Medicare and Medicaid
- How the hospital is reimbursed by these programs for the care you provide patients
- Describe some considerations of hospital management related to our patient census
- Provide insight into some of the reasons why you work with SW, case mgt, and documentation specialists

# Overview of Medicare and Medicaid

# Medicare

- Established in 1965
- Covers 3 primary groups
  - Aged 65 and older
  - Some with disabilities
  - Hemodialysis
- About 47 million individuals
  - 39 Million age 65 and older
  - 8 million non-elderly with disability

# Different Parts to Medicare

- A – Inpatient – hospital or SNF
- B – Physician services, some supplies
- C – Medicare Advantage
- D – Prescription drug benefits

# Medicaid

- Established also in 1965
- Covering primarily the indigent
- Based on poverty level
- Covers prescriptions
- Administered individually by each state

# Medicaid in NY

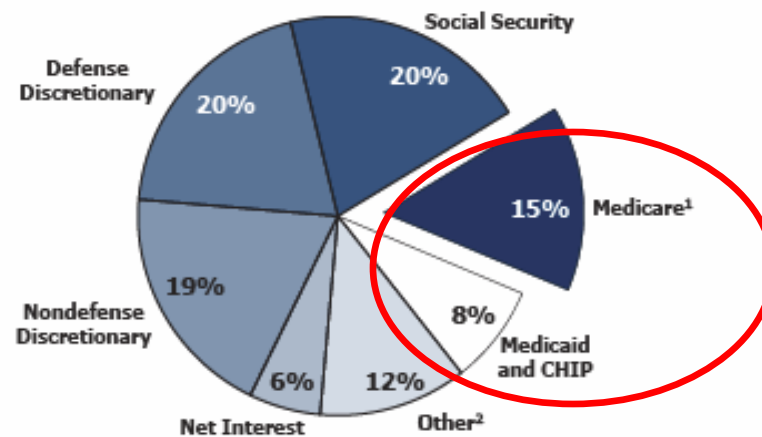
- Covers about 4.7 million individuals
- \$1 billion alone to administer across state
- Calendar year 2009
  - about \$46 billion in expenditures
- Most expensive program in the country

State of NY, DOH

Nov 2010 Medicaid Administration Report

# How much does the country spend?

Figure 8.1  
Medicare Spending as a Percent of Total Federal Spending,  
Fiscal Year 2010



Total Federal Spending, FY2010 = \$3.5 Trillion

NOTES: FY is fiscal year. <sup>1</sup>Amount for Medicare excludes offsetting premium receipts (premiums paid by beneficiaries, amounts paid to providers and later recovered, and state contribution (drawback) payments to Medicare Part D). <sup>2</sup>Other category includes other mandatory outlays, offsetting receipts, and negative outlays for Troubled Asset Relief Program.

SOURCE: Congressional Budget Office, The Budget and Economic Outlook: An Update, August 2010.

Per these numbers, 23% of federal spending goes to Medicare/aid



# How do we fund these programs?

## ■ Medicare

- Federal Insurance Contributions Act (FICA)
- 6.2% contribution to Social Security Trust Fund
- 1.45% contribution to Medicare
- Matched by the employer

## ■ Medicaid

- Managed by states and funded by state with contribution from the federal government (typically 50% in NY)

## ■ And where do these funds come from?

# Your check from HHC

	Gross Pay	Federal	F.I.C.A.	State	City	Section 1127	Other	NET PAY
CURR.	2253.73	300.84		105.63	62.60S	0.00		1528.65
Y.T.D.	24630.04	3360.05		1175.84	696.52	0.00	PPED: 12/18/10	
Type of Pay	Gross Amount	Type of Deduction	Amount	-----YEAR-TO-DATE-----				
REG BMH	2142.50	MEDICARE TAX	32.68					
EGA BMH	111.23	TDA 403B						
***TOTAL GROSS***	2253.73	ZA UNION						
		PARKING FEE						
		1A HLTH GHICBP						
		*TOTAL OTHER*						

NON-NEGOTIABLE

RETAIN THIS STATEMENT OF EARNINGS AND DEDUCTIONS  
NEW YORK CITY HEALTH AND HOSPITALS CORPORATION

HHC 2201 (R Oct 06) G.A.#. 2714188

$$\text{Medicare Tax} = 1.45\% = \frac{32.68}{2253.73 \text{ (Gross Pay)}}$$

1.45% matched by HHC

*With permission from member of housestaff*

# What about Medicaid?

	Gross Pay	Federal	F.I.C.A.	State	City	Section 1127	Other	NET PAY
CURR.	2253.73	300.84		105.63	62.60S	0.00		1528.65
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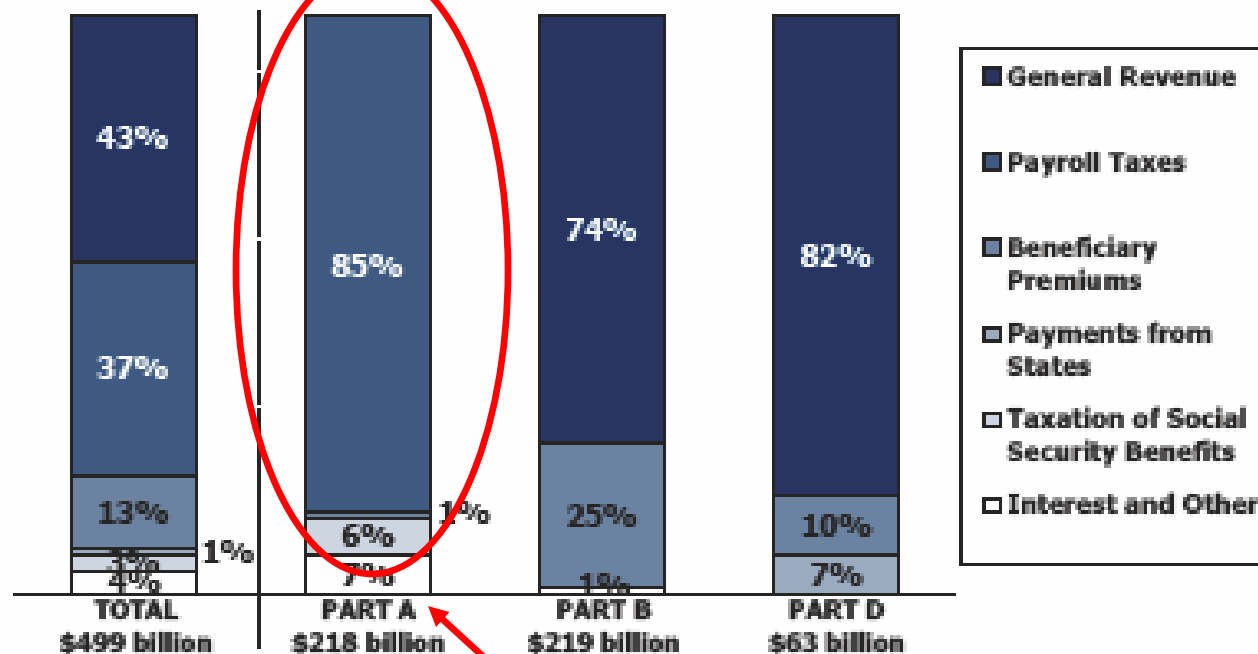
RETAIN THIS STATEMENT OF EARNINGS AND DEDUCTIONS  
NEW YORK CITY HEALTH AND HOSPITALS CORPORATION

HHC 2201 (R Oct 06) G.A.#. 271418S

*With permission from member of housestaff*

# Where do those Medicare taxes go?

Figure 9.1  
Estimated Sources of Medicare Revenue, 2010



SOURCE: 2010 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds.

**Part A: Inpatient Payments**

# Hospital Reimbursement

# A digression to hospital management

- First, remember not-for-profit does not mean no profit.
- Second, think about a hotel . . .

# How much does one night cost?

- Daily rate, as of 2/10/11
- If you were to go to patient accounts and say, I have no insurance and I'd like to pay for my entire stay . . . How much would the room cost alone be for one day?

# If you were to pay out of pocket

- Gen Med bed - \$2730/night
- ICU bed - \$4130/night
- Now add on labs, EKGs, imaging, etc.



- Few people actually pay those rates
- So reimbursement depends on who's paying
  - Medicare
  - Medicaid
  - Private/commercial insurance
  - Other
  - No insurance

# What about patients with no insurance?

- Emergency Medicaid, which can turn into Medicaid
  - Unless you do not have citizenship
  - Once active, is good for 6 months, need to recertify
  - Functions and is paid like Medicaid
  - Does not mean they will get Medicaid

# What if no medicaid?

- Say, we apply for emergency medicaid and it is rejected.
- Charity pool for uncompensated care
- Charity care

- And a little background on insurance coverage in the US . . .
  - Medicare to the rise of managed care
- Now think about a table for 4 in a restaurant . . .

# Diagnosis Related Groups (DRGs)

# Diagnosis Related Groups

- Classification system based primarily on diagnoses, age, treatments received intended to reflect the resources utilized in caring for a given group of patients
- For reimbursement, the DRG essentially leads to a flat fee paid to the hospital to provide all the necessary care for a given patient

# History of the DRG

- 1960s developed, piloted in the 70s
- 1983 Social Sec Act amended to include a national DRG-based hosp prospective payment system
- 80s updated yearly, but by Medicare and focusing on issues affecting the elderly
- Late 80s AP-DRG system developed
- 2007 MS-DRG system, severity adjusted
- 2009 APR-DRG system

# Starts with a diagnosis

- Remember the principal diagnosis field in the discharge summary?
- That diagnosis gets translated into a code for billing and epidemiological purposes
- As do the comorbid conditions you write and document in your H&P, progress notes, etc



# How many codes count?

- For Medicare, determined based upon the coded chart from the
  - Principal Dx
  - Up to 8 Additional Dx
  - Up to 6 Procedures during the admission

# ICD-9 now and ICD-10 coming

- The diagnoses you write are categorized under codes, the current system is called ICD-9
- International Classification of Diseases
- Updated yearly
  
- Hospitals are currently transitioning to a new system, ICD-10, active Oct 1, 2013
- Fiscal Year 2014 start 10/01/2013

# DRG 312 Syncope and Collapse

- Diagnoses
  - 458.0 Orthostatic hypotension
  - 458.2 Iatrogenic hypotension
  - 780.2 Syncope and collapse

# DRG 313 Chest Pain

- 786.50 Unspecified chest pain
- 786.51 Precordial pain
- 786.59 Other chest pain (sometimes where MSK gets put)
- V71.7 Observation for suspected cardiovascular disease
  
- However, it's missing one commonly used diagnosis

# “ROMI”

- Is a plan, not a diagnosis or a problem
- R/o ACS – is a plan, not a diagnosis
- R/o PNA – is a plan, not a diagnosis
- Etc, etc, etc

# Some advantages of the DRG system

- A system for classifying, not exact, but a system that is manageable
- Allows for comparison
- Relate Case Mix Index to resource utilization
- Allows for simpler reimbursement without consideration of too many variables (prognosis, treatment difficulty)

# What is the Case Mix Index?

- Often thought of as reflecting the acuity of our patients (higher meaning more ill)
- However, the DRG system was designed to reflect costs or resources utilized
  
- A measure of the resources consumed by our patients
- Essentially, the avg DRG weight for all of our patients
  - Take all the DRGs, sum the weights and divide by the number of DRGs

# What about Weiler?

- Jacobi Medical Center – 330127
  - Case Mix Index 1.4712
  
- Montefiore 330059
  - Case Mix Index 1.6093
  - But Comprises Monte-Moses, North, Weiler
  - Monte-North – formerly, Our Lady of Mercy



Back to operating a hospital

Think again about the restaurant . . .

# All patients are not the same

- A pneumonia patient could be simple or hard to provide care for
- Different levels of acuity
  - Medicare Severity - DRG
  - MS-DRG system developed
  - To capture severity of illness

# MS-DRGs adopted by Medicare

- As of 10/1/2007 (the start of Fiscal Year 2008)
- Expanded to 745 MS-DRGs
- Three severity levels
  - MCC: With major complications or comorbidities
  - CC: With complications or comorbidities
  - Non CC: Without complications or comorbidities

# Medicare Severity system

- MCC (major complications and comorbidities)
  - 1603 codes (51 pages in a PDF file)
- CC (complications and comorbidities)
  - 3491 codes (93 pages in a PDF file)
- Non-cc (no complications or comorbidities)

# DRG 193 Simple Pneumonia and Pleurisy

- 193 Simple PNA and Pleurisy with MCC
- 194 Simple PNA and Pleurisy with CC
- 195 Simple PNA and Pleurisy w/o CC/MCC
- Reimbursement accordingly is higher or lower

# But the differences can be big

Medicare Payment and Volume Data						
	ST BARNABAS HOSPITAL		NEW YORK WESTCHESTER SQUARE MEDICAL CENTER		JACOBI MEDICAL CENTER	
	4422 THIRD AVENUE BRONX, NY 10457 (212) 960-9000		2475 ST RAYMOND AVENUE BRONX, NY 10461 (718) 430-7300		1400 PELHAM PARKWAY SOUTH BRONX, NY 10461 (718) 918-5000	
	Acute Care 4.2 miles		Acute Care 1.3 miles		Acute Care 2.2 miles	
	<a href="#">Map &amp; Directions</a>		<a href="#">Map &amp; Directions</a>		<a href="#">Map &amp; Directions</a>	
	<a href="#">Add To My Favorites</a>		<a href="#">Add To My Favorites</a>		<a href="#">Add To My Favorites</a>	
	Median Medicare Payment to Hospital	Number of Medicare Patients Treated <sup>c</sup>	Median Medicare Payment to Hospital	Number of Medicare Patients Treated <sup>c</sup>	Median Medicare Payment to Hospital	Number of Medicare Patients Treated <sup>c</sup>
Heart failure and shock w/o CC/MCC MS-DRG 293	\$1,335	94 Medicare Patients	\$5,421	46 Medicare Patients	\$1,744	37 Medicare Patients
Heart failure and shock w MCC MS-DRG 291	\$19,931	61 Medicare Patients	\$10,963	87 Medicare Patients	\$19,020	48 Medicare Patients
Heart failure and shock w CC MS-DRG 292	\$10,057	91 Medicare Patients	\$7,560	43 Medicare Patients	\$13,116	51 Medicare Patients

<sup>c</sup> Number of Medicare Patients Treated: The number of discharges the hospital treated for each MS-DRG from October 2007 through September 2008. The United States and state average of Medicare Patients does not include hospitals with zero cases.

# Some DRGs are not broken out

- Syncope & Collapse (DRG 312)
- Chest pain (313)
- So, if patients are ultimately placed in these DRGs, it does not matter what their comorbid conditions are
- Some DRGs have a second level
- So, a given DRG can have 1 to 3 levels

# Common CCs

*(Complications and Comorbidities)*

- Systolic or diastolic heart failure
- BMI > 40
- SIRS
- CKD Stage IV or V
- HTN with CKD, any stage
- Hypo or Hypernatremia
- Acute Kidney Failure



# Common Major CCs

- End Stage Renal Disease (on HD not Stage V)
- Sepsis, Severe Sepsis, Septic Shock
- Acute systolic or diastolic heart failure
- Pressure ulcers, Stage III or IV
- Pneumonia
- Pulmonary embolism
- HIV

# How many do you need?

- For Medicare and this MS-DRG system, you only need one CC or one MCC to qualify for the respective level
- For example, if you patient is on HD – he or she will have a major cc . . . Anytime the patient is admitted, regardless of the cause
- Which makes sense because there can be complications and dialysis needs to be provided while they are inhouse
- However, this may not affect anything – like routine chest pain admissions – the DRG only has one level

# Medicare is watching

- Hospitals scrutinize the system and in turn, Medicare monitors the billing
- “Acute kidney failure, unspecified”
- Used to be a MCC, but as of Oct 1, 2010 was downgraded to a CC

# Words that don't count here

- CHF . . . Without further clarification
- CKD . . . Without a stage
- Obesity . . . Without a BMI

# So, here's the CC list again- What's familiar about it?

- Systolic or diastolic heart failure
- BMI > 40
- SIRS
- CKD Stage IV or V
- HTN with CKD, any stage
- Hypo or Hypernatremia
- Acute Kidney Failure
- Pressure Ulcer, Stage III or IV

# ... Those Quadramed interrupts

- “Doctor, if you think this patient has SIRS, please document in the chart.”
- “Morbid obesity was documented, please document BMI > 40”
- “Did this patient have hyponatremia?”
- “If the pressure ulcer was present on admission, please document.”

Why did the  
clinical documentation specialist  
ask me to document  
“Present on Admission”?

# Hospital Acquired Conditions

- HAC were implemented as of Oct 1, 2008, Hospital Acquired Conditions – 3 criteria
  - high cost, high volume, or both
  - Are assigned to a higher paying MS-DRG when present as a secondary diagnosis, that is when present lead to a higher paying DRG
  - could reasonably have been prevented through the application of evidence-based guidelines

Deficit Reduction Act of 2005, Section 5001  
Federal Register, Vol 75, No 157, p50080



# Hospital Acquired Conditions for FY2011

- Air Embolism
- Blood Incompatibility
- Pressure Ulcer Stages III & IV
- Falls and Trauma
  - With fracture, dislocation
- Catheter-Associated UTI
- Vascular Catheter-Associated Infection
- Manifestations of Poor Glycemic Control

# Hospital Acquired Conditions for FY2011

- Foreign Object Retained After Surgery
- Surgical Site Infection
  - Mediastinitis following CABG
  - following orthopedic procedures –  
spine/neck/shoulder/elbow
  - following bariatric surgery
- DVT/PE following Total Knee Replacement or  
Hip Replacement

# Financial impact

- Implemented as of Oct 1, 2008.
- From Medicare's perspective they save because the DRGs are not higher
- For October 2008 to September 2009 (Fiscal 2009), it was estimated that about 18.8 million dollars were saved by this
- The point – it is here to stay

Federal Register  
Vol 75, No 157, p50097

- One commenter noted that DVT/PE might be unreasonable because it is unclear how many would be prevented by EBM
- CMS responded that this year data on these HACs would be released for review and reconsideration
- The list can be amended, but one concern is that it will only become larger.

# Medicaid uses APR-DRGs

- All Patients Refined Diagnosis Related Group
- Addresses Medicaid population and non-elderly population
- Specifies based on severity
- Minor, moderate, major, and extreme
- Includes a mortality score

# APR-DRGs

- In contrast to the MS-DRG system, the severity is based not on the presence of one particular factor (that is a cc or mcc)
- Levels of severity are assigned based on the mix of complications/comorbids present, both
  - The severity of a particular factor
  - The combination of comorbids

# APR-DRGs

- Better reflects true acuity
- Sepsis is one thing,
- But sepsis with acidemia or ARF is much more concerning on the floor

# Calculating a Hospital's Payment

CMS Website



# Step 1: Base payment Rate

- Each hospital has a base payment rate
- This is standard amount applying broadly to all hospitals – like a base unit of payment
- Based upon labor and non-labor costs
  - Labor costs adjusted by wage index
  - Non-labor costs adjusted by a cost-of-living adjustment factor

# Standardized Rate for FY2011

	Labor	Nonlabor
National	\$3552.91	\$1611.20

- Based on 1981 hospital costs per hospital data submitted to Medicare
- Annual adjustment called hospital market basket or cost-of-living

# Wage Index and Adjustments

- Jacobi – 330127 (Medicare provider number)
- Wage Index 1.3122 (same as Monte's)
- Cost-of-living adjustment 2.35%
- Hospital required to submit data on quality
- Reduced 2% if you do not submit the data
  - Think CHF, AMI, PNA patients

# Regional differences in labor cost

CBSA Code	Urban Area	3 Yr Estimated Avg Hourly Wage
41884	San Francisco-San Mateo-Redwood City	51.6877
35644	New York-White Plains-Wayne, NY-NJ	44.1205
19740	Denver-Aurora-Broomfield, CO	35.6538
48540	Wheeling, WV-OH	23.089

## Step 2: Assign a DRG

- Our clinical documentation is coded and sent to an outside company/system to submit to Medicare
- Each patient admission is assigned a MS-DRG which carries a certain weight
- This weight is a multiplier factor that is multiplied times the base payment rate

# Range of weights

MS-DRG	Name	DRG Weight
001	Heart Transplant or Implant of Heart Assist System w MCC	26.3441 (Highest)
227	Cardiac Defib Implant w/o Cardiac Cath w/o MCC	5.1936
871	Septicemia or Severe Sepsis w/o MV 96+ Hours w/MCC	1.9074
292	Heart Failure & Shock w/CC	1.0302
202	Bronchitis & Asthma w/CC/MCC	0.8424
313	Chest Pain	0.5499
795	Normal Newborn	0.1649 (Lowest)

# CHF vs CHF w/ICD placement

MS-DRG	Name	DRG Weight
001	Heart Transplant or Implant of Heart Assist System w MCC	26.3441 (Highest)
227	Cardiac Defib Implant w/o Cardiac Cath w/o MCC	5.1936
871	Septicemia or Severe Sepsis w/o MV 96+ Hours w/MCC	1.9074
292	Heart Failure & Shock w/CC	1.0302
202	Bronchitis & Asthma w/CC/MCC	0.8424
313	Chest Pain	0.5499
795	Normal Newborn	0.1649 (Lowest)

# Differences in weights

MS-DRG	Name	DRG Weight
193	Simple Pneumonia & Pleurisy w/MCC	1.4796
194	Simple Pneumonia & Pleurisy w/CC	1.0152
195	Simple Pneumonia & Pleurisy w/o CC/MCC	0.7096



## Step 3: DSH Payment

- Payment for those hospitals that care for a larger percentage of low-income patients
- Added on, not a multiplier
- May depend on percentage or sometimes if a hospital serves a very large region

## Step 4: Indirect Medical Education

- For approved teaching hospitals
- Add-on percentage payment
- For the extra costs anticipated in a teaching program, such as
  - Testing for academic purposes
  - Unnecessary ordering of labs, imaging, etc.

# Direct Graduate Medical Education payments

- Also, the hospital receives direct funding from Medicare for support of the residency program

# Step 5: New technology add-on

- Add-on payment for admissions utilizing new technologies, specified by CMS
- What about cases that stay for months?

## Step 6: Consider as outlier

- If the costs for an admission are exorbitant, the hospital receives extra payments for these outlier cases
- Added on to MS-DRG adjusted base rate
- There are cost thresholds specific to each DRG

# In summary

- Base rate x DRG weight = DRG adjusted rate
- DRG adjusted rate plus, if applicable,
  - DSH payment
  - Indirect Medical Education
  - New technology add on
  - Outlier payments

# Last analogy

- We've covered the basic framework for payments by Medicare and Medicaid - Inpatient
- Back to the restaurant idea, but now think about it as if it is an all-you-can eat, fixed price buffet
- If we are paid a fixed amount at the end of the day for a patient, how else can the hospital increase its revenue?

# Take home message – the Don'ts

- Do not try to game the system
- Do not falsify your documentation or order procedures so the hospital can get more reimbursement
- Do not oversimplify our entire clinical situation to an all-you-can eat buffet (and say that Dr. Cha Fong told you so) – it's only an analogy



# Take home message – The Do's

- Treat your patient first and foremost.
- Document accurately and specifically so that the hospital can be reimbursed appropriately.
- Understand better how interdisciplinary care helps the hospital and more importantly, our patients well-being.
- Appreciate the economic environment for the hospital now and for you in the future.

*Any questions?*