# Connecting the Dots on Quality and Cost – The Critical Role of Risk Adjustment

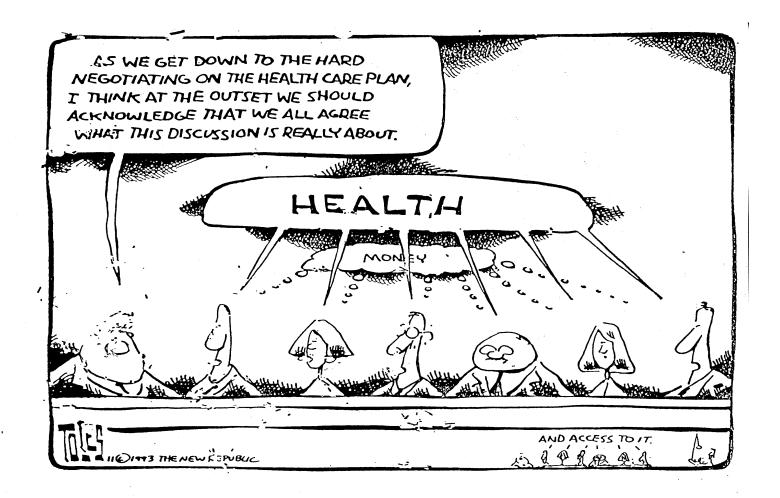


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"It's fine to discover cures, but, remember, chronic conditions are our bread and butter."



## Ideal Message for Today: Control health care costs? Solution: Improve Outcomes Quality!

In our state/plan/medical group, we are improving health care outcomes quality. We are changing the way we pay hospitals, doctors and HMOs. We reward them for better outcomes such as fewer complications. We are making data available to consumers because an active consumer is our best guarantee of better outcomes and lower costs. All consumers of health care want quality care, good outcomes and no complications.

Reliable and Valid Risk Adjustment is key to success to this challenge



#### **Details on the Main Points for this Conversation**

- The basics of how the Clinical Risk Groups (CRG) risk adjustment system developed by 3M HIS Clinical and Economics Research in use for the past 15 years works and why it was developed. What kinds of health conditions are included/excluded, how the weights are determined, and how the weights change from year to year.
- The advantages and disadvantages of the CRG system relative to HCCs and other risk adjustment systems for (a) cost profiling of providers, and (b) risk adjusting episode payments, bundled payments, care management payments, etc.
- The circumstances in which the CRG system does not adequately protect providers from insurance risk e.g., small patient panels, patients with specific types of characteristics, etc.
- Where additional R&D work is needed to create appropriate risk adjustments for payment systems.

#### Additional points to be discussed

- The limitations of risk adjustment based on claims data vs. clinical data
- The limitations of ICD-9/10 codes for risk adjustment
- The limitations of only using health diagnoses for risk adjustment
- The tradeoffs in concurrent vs. prospective risk adjustment
- The potential for "gaming" the risk adjustment system to increase payment or improve performance scores



## Lessons Learned from Inpatient Prospective Payment System

- Unit of payment was a patient centered categorical clinical model
  - Product with a price
  - DRGs created a language that limited the clinical and financial aspects of care
- Payment was payment in full that encompassed all resources
  - No complex rules for excluding services from DRG payment amount
- Outliers threshold with outlier payments protected hospitals from an extreme loss on any one patient
  - Reduce incentive to avoid complex cases

DRGs are used for Medicare payment to hospitals. All-Patient Refined DRGs are used by Medicaid and commercial payers in many states and used for payment, profiling and for risk adjustment. Both developed by researchers at 3M HIS originally at Yale.

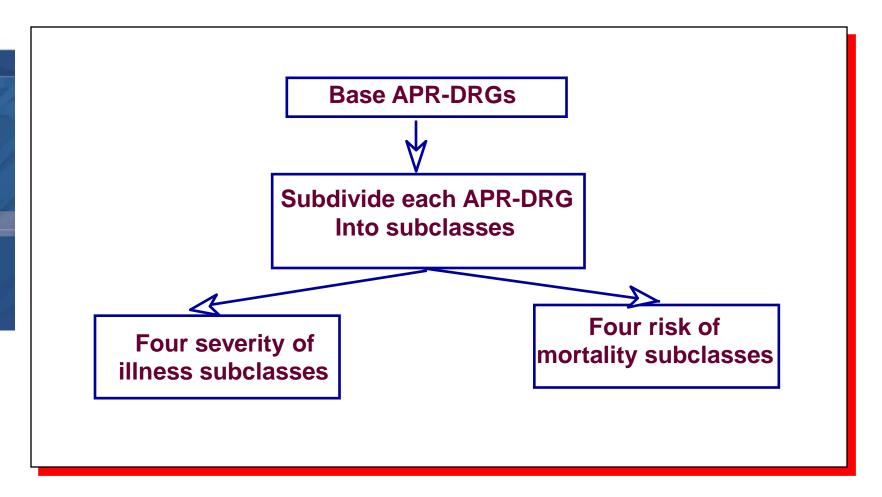
### Reasons for Success of Medicare Inpatient PPS

"The success of any payment system that is predicated on providing incentives for cost control is almost totally dependent on the effectiveness with which the incentives were communicated. ..... Because the DRGs were developed to group clinically similar patients, an extremely important means of communication between the clinical and financial aspects of care was created."

Federal Register, May 4, 2001



### **Summary of APR-DRGs**





#### CRGs are Similar in Concept to DRGs

- Each group is clinically meaningful and contains individuals who require similar amounts and type of resources
  - DRGs: Resources during a hospitalization
  - CRGs: Total resources used in the future
- A relative resource weight is associated with each group
  - Payment weights: Reflects practice patterns
  - Clinical groups: Describes type of individuals



### Objective of Development of Clinical Risk Groups (CRGs) for Episodes of Care

- Develop a clinically meaningful means of measuring the health status of a entire population for the purpose of predicting future health care expenditures – the key to "fair" capitation.
- Develop a management tool for Managed Care Organizations that can also be used for risk adjusting capitated payments and for retrospectively measuring episodes of illness
- Develop a language that links the clinical and financial aspects of care. Implies severity adjustment
- CRxGs profiles the use of pharmaceuticals on a severity adjusted, episode of illness basis – key to controlling pharmaceutical costs.
- Functional/ Mental health Status also incorporated into CRG model.
   This information absolutely needed for e.g. MH/SA and the DD populations



I wish I could help you. The problem is that you're too sick for managed care."



### CRG - HCC Comparison

	CRG	HCC				
Focus	Enrollee/Patient	Disease Cost				
Simplicity	Detailed logic making casual review hard while outputs easy to interpret and communicate	Initially selected as an incremental variation of PIP-DCG. Is increasingly complex and more "interactions" between disease groups handled under the hood (informative only for transient cost relationships). Requires differentiated models.				
Coding	Mitigates upcoding through severity adjustment and data validation rules	Has proven to be susceptible to large code creep				
Updating/Expansion	Separation of clinical and payment models enables straightforward updating of either	Interrelationship of clinical and payment models has complicated both updates and measurement of enrollee changes				
Communication	Offers comparative description of enrollees as discrete entities	Gives prediction of disease related cost				
Severity	Detailed severity of illness up to 6 levels	Minimal distinction re severity				
Clinical Detail	1000 groups – whether or not relevant for payment	Groups created based on payment needs not description of the population				

Severity Level							
1	2	3	4	5	6		
0.5953	0.7797	0.9246	1.3985				
0.8950	0.9782	1.1783	1.7863				
0.8426	1.0144	1.3077	2.2961				
0.9925	1.1082	1.4112	1.7560	2.2504	3.3735		
1.0632	1.2664	1.6494	2.0645	2.6528	3.6650		
1.0956	1.4792	1.7433	2.2875	2.8244	3.8638		
1.4588	2.1968	2.5539	3.2849	4.2358	5.7845		
	0.5953 0.8950 0.8426 0.9925 1.0632 1.0956	0.5953 0.7797 0.8950 0.9782 0.8426 1.0144 0.9925 1.1082 1.0632 1.2664 1.0956 1.4792	1       2       3         0.5953       0.7797       0.9246         0.8950       0.9782       1.1783         0.8426       1.0144       1.3077         0.9925       1.1082       1.4112         1.0632       1.2664       1.6494         1.0956       1.4792       1.7433	1     2     3     4       0.5953     0.7797     0.9246     1.3985       0.8950     0.9782     1.1783     1.7863       0.8426     1.0144     1.3077     2.2961       0.9925     1.1082     1.4112     1.7560       1.0632     1.2664     1.6494     2.0645       1.0956     1.4792     1.7433     2.2875	1       2       3       4       5         0.5953       0.7797       0.9246       1.3985         0.8950       0.9782       1.1783       1.7863         0.8426       1.0144       1.3077       2.2961         0.9925       1.1082       1.4112       1.7560       2.2504         1.0632       1.2664       1.6494       2.0645       2.6528         1.0956       1.4792       1.7433       2.2875       2.8244		

36 OF THE 1000 CRGS: Predicted Payment Weights by Severity Level for Individuals with DM, Hrt Failure (CHF) and/or Chronic Lung Disease(COPD). Practical Meaning: Relative future cost and Dis Mgmt impact for often coexisting chronic illnesses. Report for providers who want to manage consumers with coexisting illnesses

	Severity Level							
CRG Status	1	2	3	4	5	6		
Healthy	0.2009							
History of Significant Acute Disease	0.4993							
Single Minor Chronic Disease	0.4266	0.5867						
Minor Chronic Disease in Multiple Organ Systems	0.4666	0.5640	0.6411	0.8663				
Single Dominant or Moderate Chronic Disease	0.5256	0.7189	0.9370	1.1841	2.0850	3.7962		
Disease in Chronic Multiple Organ Systems	0.8857	1.4277	2.1845	2.9002	3.6478	6.1852		
Dominant Chronic Disease in Three or More Organ Systems	1.3768	1.8098	2.5294	3.6102	4.9347	6.6154		
Dominant and Metastatic Malignancies	1.4912	1.9160	2.9433	3.9762	5.1218			
Catastrophic Conditions	1.5661	2.7608	5.3801	9.0080	10.8938	13.2945		

AGGREGATED CRGS – describes the entire population. Population Payment Weights by Severity Level. <u>Practical Meaning</u>: A financial snapshot of future relative cost of population and impact of disease management (Dis Mgmt)

### Risk Adjustment Classification and Insurance Risk

- We need a lot more humility and appreciate the fact that case mix reflect medicine/ human beings and there is a lot of imprecision.
- There always must be an outlier policy in the use of any classification system. Cannot shift off the risk; if one does that; adverse risk selection is inevitable.
- Per MedPAC HCCs undervalues sicker patients;
- Risk Adjustment classification is key if we wish to pay for better outcomes



#### There are two kinds of Outcomes

- Those that can be easily translated into dollars- Potentially preventable events (PPEs) – there are 5
- Those that are very important but are not as easily translated into dollars: most important of these: engagement/empowerment/ confidence. Today these can be measured using tools developed by researchers such as John Wasson, Judy Hibbard and Kate Lorig. Mortality is a second measure
- Every senior health care leader should have a monthly dashboard summarizing results of these seven metrics. No other information is needed



### **3M Potentially Preventable Measures**

- Inpatient:
  - Potentially Preventable Readmissions (PPR)
  - Potentially Preventable Complications (PPC)
- Community:
  - Potentially Preventable ED Visits (PPV)
  - Potentially Preventable Initial Admissions (PPA)
  - Potentially Preventable Ancillary Services (PPS)



## Additional R&D Risk Adjustment Work Needed in the Following Areas

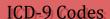
- Chronic MH/SA disorders; individuals with DD.
- The relationship between risk adjustment and total cost of care (underneath the hood the Partner's TCC methodology has significant challenges – specifically APCs for ambulatory visits, MS-DRGs are poor decriptors and ACGs are not clinically detailed for complex populations e.g. cancer) and risk adjustment for potentially preventable events.
- Socioeconomic disparities and its impact on risk adjustment is understood – politically challenging to implement
- Additional data elements: I-10. Health status and pharmaceutical data (incorporated). Additional clinical data useful for predictive modeling



# ICD-9 vs ICD-10 Case Example – I-10 is a dramatic step forward! But no data element or system is perfect

#### Patient A

Patient with a deep brain stimulator has a planned admission for a repositioning of the stimulator. A craniotomy is performed and the lead is repositioned. The patient goes home after an overnight stay

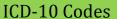


996.2 Mechanical complication of nervous system device, implant, and graft

01.23 Reopening of craniotomy site

#### Patient B

Patient with a ventricular shunt has an emergency admission due to leakage from the shunt. A craniotomy is performed, a fresh clot is removed, but attempts to control the bleeding are unsuccessful and the patient dies.



T85.120A Displacement of implanted electronic neurostimulator (electrode) of brain, initial encounter

00W00MZ Revision of Neurostimulator Lead in Brain, Open Approach

#### ICD-10 Codes

T85.03XA Leakage of ventricular intracranial (communicating) shunt

00C20ZZ Extirpation of Matter from Dura Mater, Open Approach

0W310ZZ Control Bleeding in Cranial Cavity, Open Approach



### Why Should This Approach Work?

- This approach builds on the national and international experience in implementing the Diagnosis Related Groups (DRG) system, the most effective payment reform methodology of the modern healthcare era
  - Quality improvement and dollars saved can be quantified in advance.
  - Specifies a path to health reform that reasonably increases provider performance and insurance risk while
  - Allowing for physicians and hospitals to participate in the definition of innovation (e.g. medical home/ ACO) and the path
  - Key to this approach is the transparency of the payment reforms and clinical detail inherent in the DRG based methodology
  - Has worked well already in other states (MD, FL,NY)

Humility is necessary--leading to a variety of pathway options while relying on transparency and clinical detail to evaluate efficacy.

- How should payment systems be designed so they direct resources to patients who have greater needs rather than patients who receive unnecessary services?"
- "The overarching objective for a payment system reform is to provide clinically credible incentives that results in sustainable behavior changes that improve efficiency of care and patient outcomes."



## Payment System Reform Can Incentivize Quality Improvement - Maryland Case Study - Use PPCs

Potentially Preventable Complication (PPC) Rates in Maryland-State FY2010-FY2013											
	PPC RATES					Annual Change					
	FY10	FY11	FY12	FY13		FY11	FY12	FY13		Average Annual Change	Total FY10- FY13 Change
TOTAL NUMBER OF COMPLICATIONS	53,494	48,416	42,118	34,200		-9.5%	-13.0%	-18.8%		-13.8%	-36.1%
UNADJUSTED COMPLICATION RATE PER 1,000 AT RISK CASES	1.92	1.82	1.65	1.41		-5.2%	-9.3%	-14.5%		-9.7%	-26.6%
RISK ADJUSTED COMPLICATION RATE PER 1,000 AT RISK CASES	1.92	1.77	1.58	1.3		-7.8%	-10.7%	-17.7%		-12.1%	-32.3%



### Reducing Avoidable Readmissions Effectively (RARE) Program – Minnesota Case Study – Use PPRs

- Collaborative statewide effort across healthcare organizations spearheaded the Minnesota Hospital Association, Institute for Clinical Systems Improvement and Stratis Health
- The 82 hospitals participating represented 85 percent of the annual statewide hospital readmissions in Minnesota
- Participating hospitals received clinically meaningful risk adjust reports and benchmarks identifying, comparing, and forecasting preventable readmissions
- Between 2011 and 2013 readmissions were reduced by over 20% by preventing 7,975 readmissions avoiding more than 31,900 bed days
- The RARE program received the 2013 John M. Eisenberg Patient Safety and Quality Award from the National Quality Forum (NQF) and The Joint Commission

#### A Path to Go Forward

- Medicare simply put is not going to drop HCCs
- New HCC's drops many clinical conditions; it is thus an unstable model for clinical care coordination and paying for better outcomes;
- Interestingly HCCs are beginning to evolve towards models such as CRGs as HCCs are beginning to address disease interaction between chronic illnesses. Same with other tools such as ACGs.
- Risk adjustment tools such as CRGs are useful compliment to HCCs for care coordination and paying for better outcomes.



### A Better Way for All: Paying for Better Outcomes

- Another option to across the board cuts or benefit limits or greater deductibles...
- PAY FOR BETTER OUTCOMES
- Keys to <u>better outcomes</u>:
  - Financial incentives,
  - Transparent/detailed risk adjustment
  - Relevant/Detailed Reports with Opportunity for Collaboration.
- Keep in mind there is no perfect risk adjustment system.
   MUST have outlier policy.









"This is a good time to get a feel for your bargaining skills."

