

New York Managed Medicaid



**Using CRGs for Income Optimization &
Care Management**

April 3, 2008

Agenda

- **Introductions**
- **Challenges of Medicaid Managed Care Reimbursement**
- **CRG Characteristics & Assignment**
- **Approach to Income Optimization**
- **Other Uses of CRGs**

CareAdvantage, Inc.

About Us



- **Healthcare management, information technology and consulting firm founded in 1994**
- **Integrated solutions incorporating:**
 - **Data Warehousing**
 - **Analytics**
 - **Risk Stratification**
 - **Predictive Modeling**
- **Former health plan executives, senior medical directors, and experts in care management, data analysis and information technology**

CareAdvantage, Inc.

Our Work with CRGs

- **Utilizing 3M Health Information Systems Clinical Risk Groups (CRGs) algorithm for 7 years**
- **Contributed to the evolution and development of CRGs**
- **Leverage CRGs to create predictive modeling and decision support tools**

Challenge for NY Managed Medicaid Plans

Changing Environment

- **NY State is collecting information that will be used to risk adjust health plan premium based on CRGs**
- **Beginning Spring 2008, 25% of each Managed Medicaid Plan's premium will be based on a CRG risk score**
- **By 2011, 100% of premium is expected be CRG risk adjusted**
- **Mercer has extracted diagnostic, procedural and pharmacy data to generate each plan's risk score based on the CRG algorithm**

Challenge for NY Managed Medicaid Plans

Physician Under-Coding

- **Physician under-coding is a major threat to plans**
- **Physicians' income is traditionally driven by procedural coding and documentation, not diagnoses**
- **Plan premium will be adversely affected, if physicians do not document the full range of diagnoses and complications**

CRG Characteristics

Understanding the Algorithm

- **Risk stratification model utilizing claims data to provide a basis for predicting future healthcare cost**
- **Utilizes:**
 - **Diagnosis codes – ICD-9 Diag.**
 - **Selected procedure codes - ICD-9-Proc, HCPCS & CPT**
 - **Pharmacy – NDC codes**
- **271 chronic diseases with severity sub-classifications**
 - **Creating about 1,100 case mix and severity categories**
- **These categories can be aggregated into approximately 40 distinct risk groups**

CRG Characteristics

Understanding the Algorithm

- **Assigns members to a single, mutually exclusive risk group - updated each time data is refreshed**
- **Up to 6 levels of severity to improve financial analysis and prediction**
- **Transparent methodology establishes a foundation for intervention strategies**

CRG Characteristics

How CRGs Are Assigned

- **CRG assignment requires:**
 - **One in-patient instance or**
 - **At least two instances in an outpatient or office setting**
 - **Ancillary providers – Limited or no impact**
- **Significant co-morbidities and severity greatly influence CRG assignment**
- **Severity affected by:**
 - **Site of complications**
 - **Recency of complications**
 - **Recurrence of complications**

CRG Assignment

CRG Status & Severity Levels

<i>CRG Status</i>	<i>Description</i>	<i>Severity Levels</i>
1	Healthy	0
2	One or More Significant Acute Diseases	0
3	One Minor Chronic Disease	2
4	Multiple Minor Chronic Diseases	4
5	One Major Chronic Disease	6
6	Two Significant Chronic Diseases	6
7	Three or More Chronic Diseases	6
8	Complicated Malignancies	5
9	Catastrophic Conditions	6

CRG Assignment

CRG Case Mix/Severity Matrix

Distribution of individuals with diabetes in population of 250,000

Case Mix Type	Severity Level					
	1	2	3	4	5	6
1 Healthy						
2 One or More Significant Acute Diseases						
3 One Minor Chronic Disease						
4 Multiple Minor Chronic Diseases						
5 One Significant Chronic Disease	2290	665	227		57	
6 Two Significant Chronic Diseases	3718	1430	963	631	239	29
7 Three or More Significant Chronic Diseases	372	285	378	96	79	35
8 Complicated Malignancies	1	40	68	52	19	
9 Catastrophic Conditions	3	23	9	17	17	9

CRG Assignment

Case Mix/Severity Impact on Plan Risk Score

<i>Severity</i>						
<i>Status</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
<i>5</i>	0.6857	1.4435	2.9515	5.0421	5.2942	5.5589
<i>6</i>	1.7137	2.8508	3.9650	5.4371	9.8301	10.8131
<i>7</i>	2.9552	5.7071	7.3588	10.3551	17.4995	19.2494
<i>8</i>	3.8874	8.4256	14.2910	29.7343	32.7078	
<i>9</i>	3.6256	7.7972	8.5769	12.8754	14.1629	25.8472

Income Optimization

Creating the Solution - Retrospective

- **Identify members likely to have other significant diagnoses – undocumented or under documented (“near misses”)**
 - **Diabetes without complications (250.0) vs. diabetes with renal complications (250.40)**
- **Process for identification:**
 - **Significant increase or decrease in risk scores**
 - **Healthy Status with unconfirmed chronic diagnoses**
 - **Members without claims**
 - **Claims from provider types not used by CRGs**
 - **Code sets not used by CRGs (Revenue codes & temporary HCPCS)**
 - **Pharmacy data**

Income Optimization

Fall in Risk Score

No.	Analysis Period	CRG	CRG Description	BOI
1	01 CY 2004	56551	Acute Lymphoid Leukemia	1.0574
2	02 CY 2005	86551	Acute Lymphoid Leukemia	6.1833
3	03 CY 2006	86552	Acute Lymphoid Leukemia	15.1850
4	04 09/01/06 - 08/31/2007	62301	Other Dominant Chronic Disease and Other Nondominant Malignancy	1.9117

Income Optimization

“Healthy” Status

Code	Disease
1000	Healthy
1001	Healthy Non-User
1005	Major Gynecological Diagnosis without Other Significant Illness
1006	Diagnosis of Major Congenital or Neonatal Problems without Other Significant Illness
1009	Catastrophic Diagnosis without Other Significant Illness
1010	Malignancy Diagnosis without Other Significant Illness
1011	Significant Neurological Diagnosis without Other Significant Illness
1012	Significant Cardiovascular, Pulmonary or other Vascular Diagnosis without Other Significant Illness
1013	Major Mental Illness or Substance Abuse Diagnosis without Other Significant Illness
1014	Significant Connective Tissue or Orthopedic Diagnosis without Other Significant Illness
1015	Significant Gastrointestinal, Hepatic, Renal or Hernia Diagnosis without Other Significant Illness
1016	Diabetic Diagnosis without Other Significant Illness

Income Optimization

Sample of High Value Diagnoses

<i>ICD9 Dx Code</i>	<i>Relative reimbursement (Healthy = 0.2)</i>
250.5 Diab w ophthalmic manif*	1.6774
250.00 DMII wo cmp nt st uncntr	3.2607
250.0 Diabetes mellitus uncomp*	4.0426
250.30 DMII o cm nt st uncntrld	4.6950
250.6 Diab w neurologic manif*	6.1998
250.80 DMII oth nt st uncntrld	6.2626
250.70 DMII circ nt st uncntrld	7.6656
250.40 DMII renl nt st uncntrld	8.8358
250.9 Diabetes w complic NOS*	9.3180

Income Optimization

Creating the Solution - Prospective

- **New processes to identify members likely to have significant diagnoses:**
 - **Laboratory values**
 - **SuperBill**
 - **Physician incentives**
 - **Care manager input**
 - **Health Risk Assessments (HRAs)**

Other Uses of CRGs

Care Management

- **Clinical methodology for identifying types of care and disease management initiatives for implementation**
- **Identify high opportunity members for enrollment in care and/or disease management programs**
 - **Gaps in Care**
 - **Increasing and decreasing risk scores**
 - **Potential under-utilizers/utilization outliers**
 - **Future risk of admission &/or ER**
 - **Opportunity score**

Other Uses of CRGs

Performance Evaluation

- **Measure and monitor vendor performance**
 - **Using clinically matched cohorts**
 - **Actual to expected – Cost or utilization**
- **Evaluate provider quality and effectiveness of care using case mix and severity adjusted metrics**
- **Transparent methodology to facilitate actionable and defensible interventions**

Conclusion

Questions & Answers

