Risk Adjustment Models: Key Considerations

Presented By:

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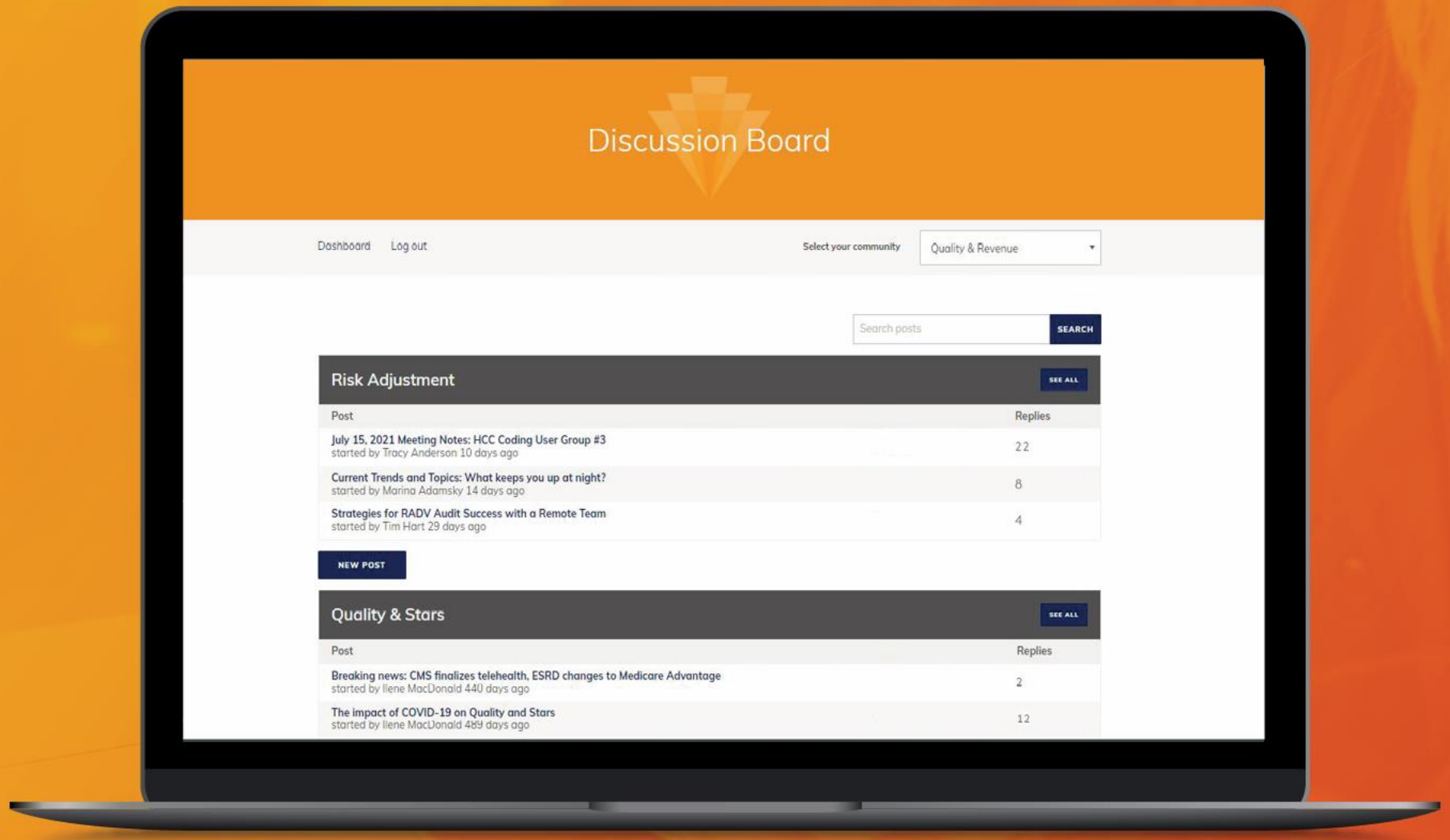


ASK YOUR QUESTIONS IN OUR DISCUSSION BOARD

Today’s speakers

Gretchen Mills

- Manager Market Insights, 3M HIS Strategy Group
- Identify emerging HC trends, closely track public policy, shift to VBP
- 30 + years HC Payer experience
  - Aetna Medicare Advantage
  - Provider owned Medicaid managed care

Clark Cameron

- Manager, 3M Regulatory and Government Affairs
- 3M payment methodology commercialization
- Specializing in risk adjustment and capitated programs like Medicare Advantage and Medicaid managed care

Polling questions

1. For what type of organization do you work?

- Provider
- Payer
- Payvider (an organization combining providers with a payer, for example Geisinger Health System)
- Healthcare organization
- Consulting Firm
- Healthcare IT vendor
- Other

2. Are you currently using any HCC Optimization software?

What we will cover

- Who is 3M Health Information Systems?
- Two types of risk adjustment
- 3M Clinical Risk Groups (CRGs) as example of clinical categorical model
- Q&A
- Hierarchical Condition Categories (HCCs) as example of a regression model
- Risk adjustment as a tool for health equity
- Q&A

3M Health Information Systems

3M Clinical Intelligence Advancing Healthcare

Create Time to Care

Creating time for clinicians to focus on the patient

Eliminate Revenue Cycle Waste

Increasing confidence in accurate payment while reducing costs & inefficiency

Drive Value-Based Care

Improving outcomes while eliminating unnecessary care

Enabling better, smarter, safer healthcare

Risk Adjustment

Fairness Fairness Fairness Fairness Fairness Fairness

- Budget
- Payment
- Disease burden

Provide the resources needed

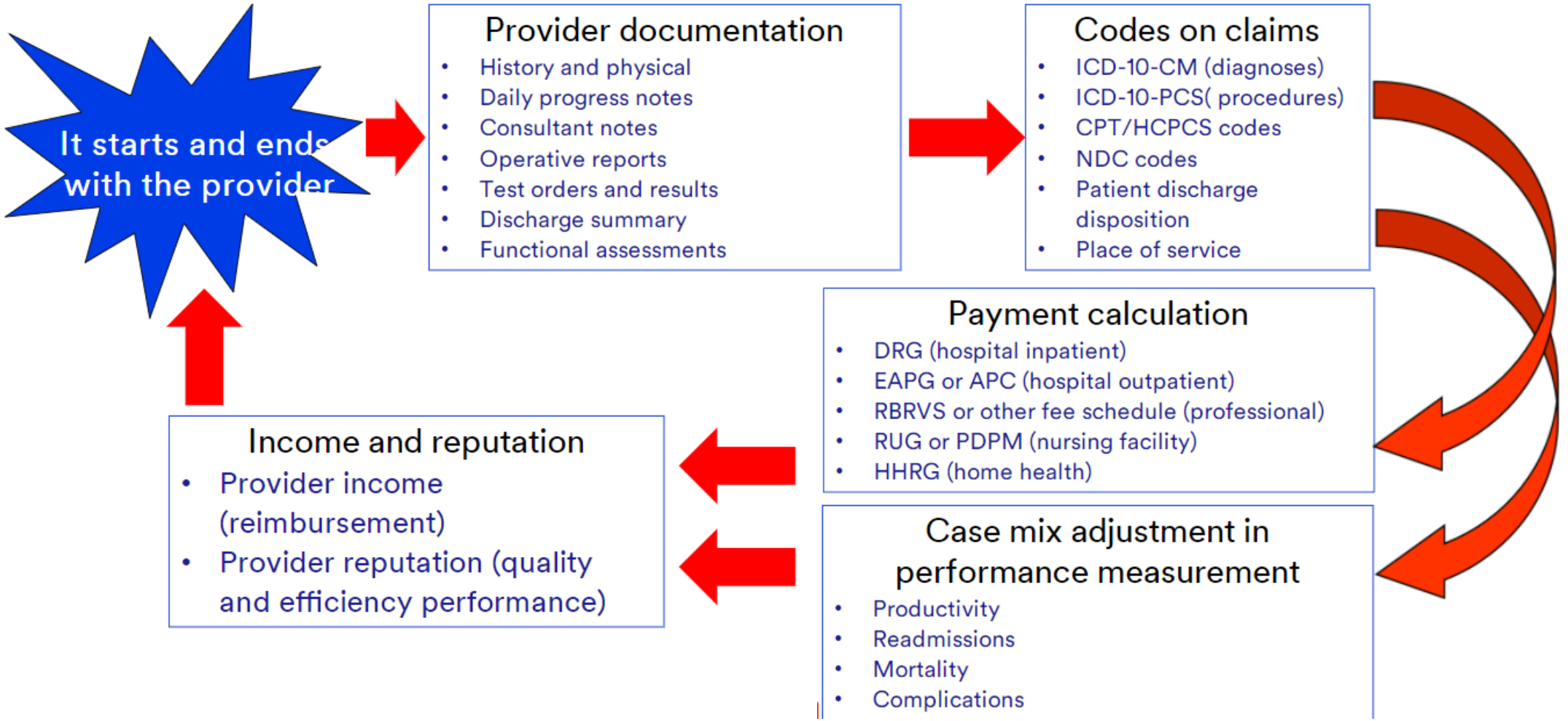
Don’t overpay for healthier people

Don’t underpay for sicker people

Level the playing field across contractors

Protect beneficiaries, patients

Why claims and code sets matter



Two types of risk adjustment

Model	Clinical Categorical	Regression
What it is	Classification System	Scoring Algorithm
How it works	Grouped by diagnosis, chronic illness, comorbidity factored into severity level	Demographic factors and sets of medical codes linked to specific diagnoses, severity adjustment
Inputs	Age, sex, claim data, Rx can be included; purely clinical model, not historical	Age, sex, claim data, Medicaid & SNF status Rx can be included
Output	Each individual is assigned to a single Clinical category	A total risk score; linear sum of individual factors
Examples	3M CRGs, ACGs	CMS HCCs, CDPS

Which is better?

What is your use case? Best tool for the job?

Examples:

Predicting revenue from government program

Performing detailed clinical analysis of patient population, utilization patterns

Regression is "go to" model for statisticians – accuracy, ease of use

Over two decades of experience

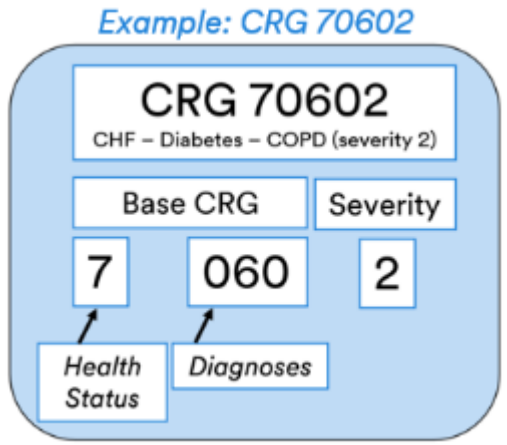
CRGs are used to adjust for differences in patient acuity:

- Capitation payment
- Measuring population health status
- Comparing actual to expected for utilization and costs
- 3M's Potentially Preventable tools

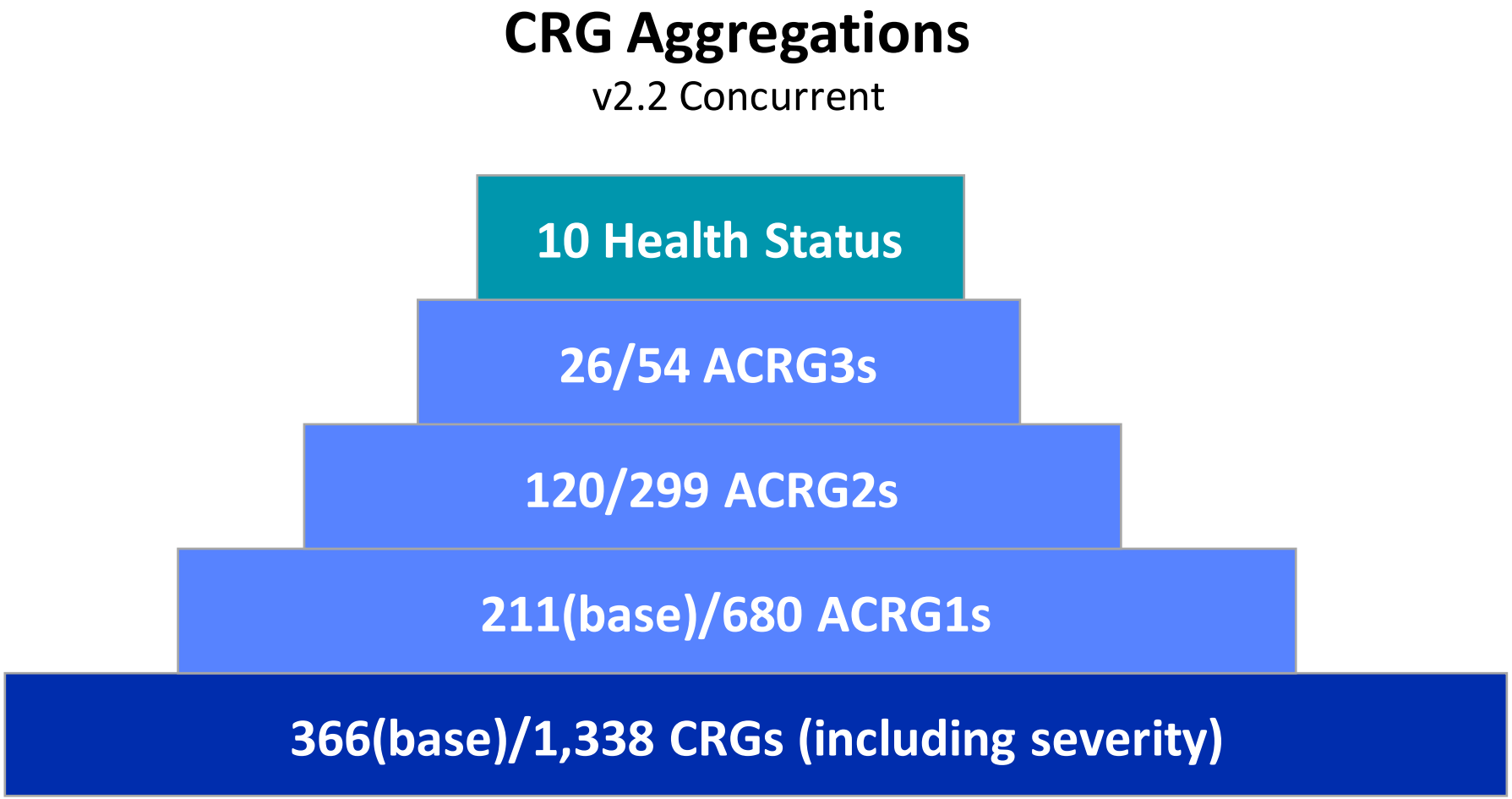
Overview of the 3M CRG assignment process

At the broadest level, the 3M CRGs are organized into ten health status groups:

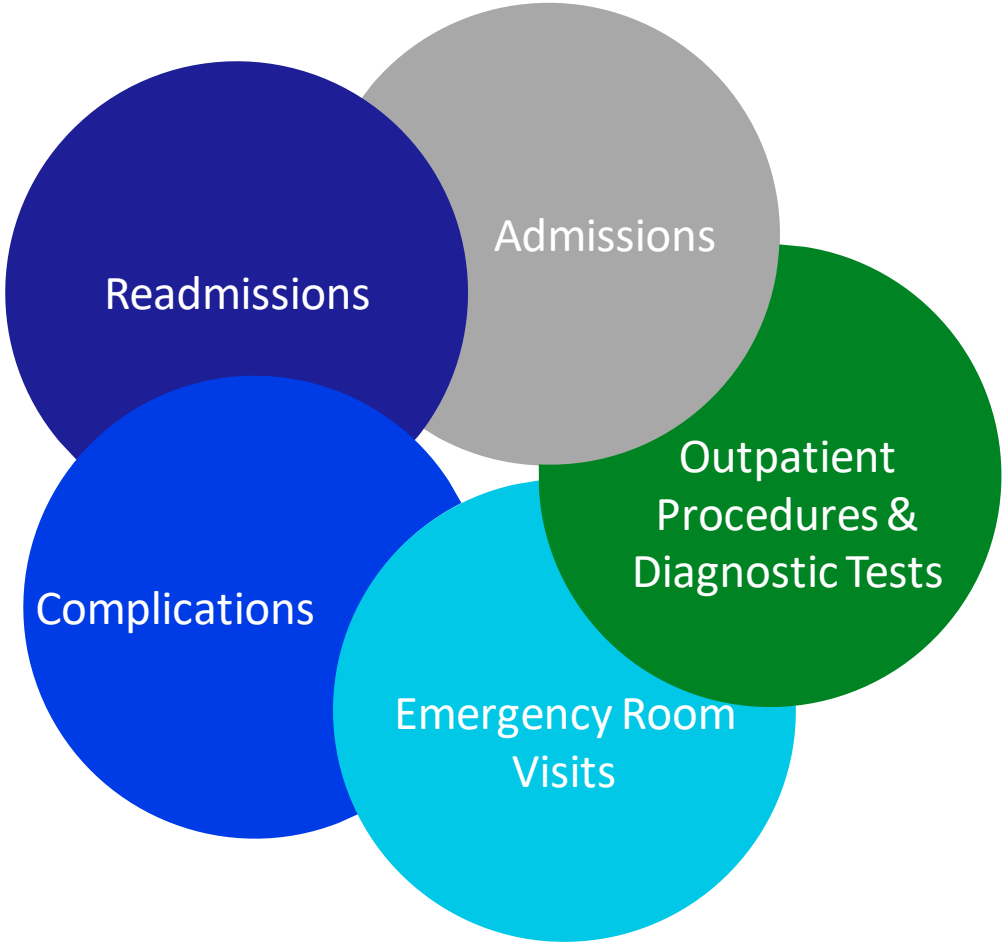
3M CRG health status group	Example(s)	Base 3M CRGs	Severity levels	Number of 3M CRGs
9 – Catastrophic Conditions	History of Major Organ Transplant	10	4	40
8 – Malignancy, Under Active Treatment	Lung malignancy + chemotherapy	19	4	76
7 – Significant Chronic Disease in Three or More Organ Systems (Triplets)	CHF + Diabetes + COPD	25	6	150
6 – Significant Chronic Disease in Multiple Organ Systems (Pairs)	CHF + Diabetes	70	6	420
5 – Single Dominant or Moderate Chronic Disease	Diabetes	115	4	460
4 – Multiple Minor Chronic	Hypertension + Migraine disease	4	4	16
3 – Single Minor Chronic Disease	Hypertension	53	2	106
2 – History of Significant Acute Disease	Pneumonia, Premature Newborns	39 (Concurrent) 33 (Prospective)	0	39 (Concurrent) 33 (Prospective)
1 – Healthy	Upper Respiratory Infections, Newborns	30 (Concurrent) 26 (Prospective)	0	30 (Concurrent) 26 (Prospective)
0 – Non-Users	Non-users	1	0	1
		Total Base CRGs 366 (Concurrent) 356 (Prospective)		**Total Number of 3M CRGs 1,338 (Concurrent) 1,328 (Prospective)**



Aggregation options enable flexibility in use



Focus on Outcomes: Potentially Preventable Events



PPEs represent an end manifestation or outcome of an underlying quality problem

Advantages of Clinical Risk Groups (CRGs)

Predict future spending based on enrollee characteristics

Describe past inputs and outcomes to support performance improvement

Provide language for physicians and administrators to communicate

Flexible – handle large and small enrollee populations

Florida: Understanding Population Health Using CRGs

Of 4 million Medicaid enrollees, 31% have a CRG Health Status other than Healthy…

Of the 4.0 million enrollees, 32,000 are in CRG Health Status Group 7, Chronic Disease in Three or More Organ Systems

Of the 32,000 people in Health Status Group 7, approximately 2,000 have heart failure, diabetes, and COPD, split roughly equally in severity levels 1 to 6

Figure 1: Percentage of Medicaid Recipients Categorized as Healthy Compared to Any of the Other Eight Health Statuses, August 2014-July 2015

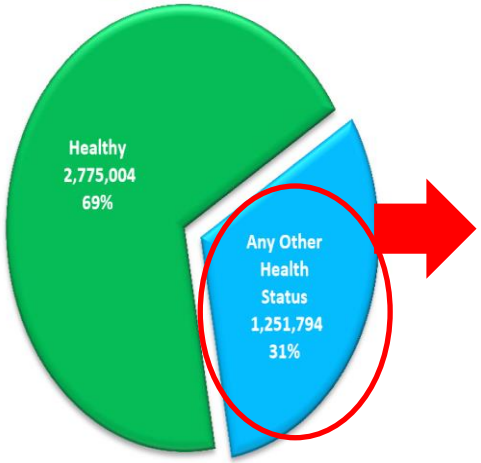


Figure 2: Percentage of Medicaid Population Classified in a Non-Healthy Status by Health Status, August 2014-July 2015

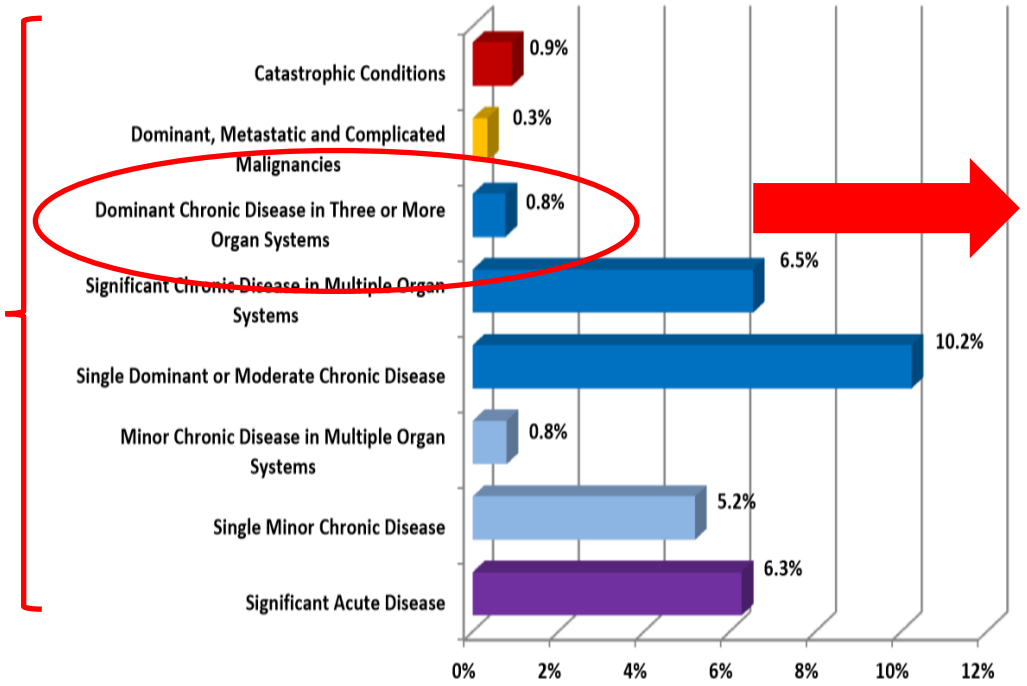
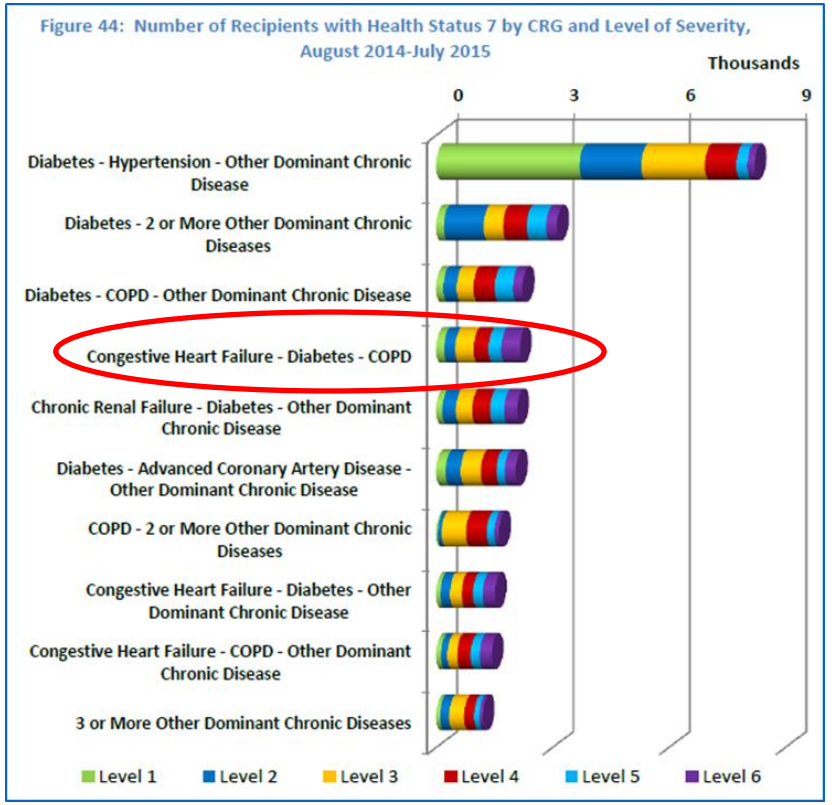


Figure 44: Number of Recipients with Health Status 7 by CRG and Level of Severity, August 2014-July 2015



Source: Florida Agency for Health Care Administration, *Analyzing the Disease Burden of Florida Medicaid Enrollees Using Clinical Risk Groups,* www.fdhc.state.fl.us/medicaid/Finance/data_analytics/BI/docs/Quarterly_SMMC_Report_Winter_2016.pdf

CRGs and care management options

Prioritizing care coordination:

1. Segment members by illness burden according to internal strategies
2. Identify those who are at a greater risk of having a preventable hospital admission or ED visit, allowing prioritization of care coordination activities aimed at prevention

Informing transitions of care:

3. Identify who is at greater risk for a potentially preventable hospital readmissions and inform priorities for follow-up after an inpatient stay

Members flagged to be at a higher risk for all potentially preventable events based on their CRG status and severity may be ideal priorities for high intensity, high touch care management.

A data feed from 3M into a client's care management solution can improve this segmentation and prioritization.

CRGs for primary care risk adjustment

2021 Ohio CPC Per Member Per Month (PMPM) Payments

Remains the same as 2019

The PMPM payment for a given CPC practice is calculated by multiplying the **PMPM for each risk tier** by the **number of members attributed to the practice in each risk tier**

Tiers	Health Status	Example	CPC PMPM
CPC PMPM Tier 1	Healthy	Healthy (no chronic health problems)	$1.80
	History of significant acute disease	Chest pains	
	Single minor chronic disease	Migraine	
CPC PMPM Tier 2	Minor chronic diseases in multiple organ systems	Migraine and benign prostatic hyperplasia (BPH)	$8.55
	Significant chronic disease	Diabetes mellitus	
	Significant chronic diseases in multiple organ systems	Diabetes mellitus and CHF	
CPC PMPM Tier 3	Dominant chronic disease in 3 or more organ systems	Diabetes mellitus, CHF, and COPD	$22.00
	Dominant/metastatic malignancy	Metastatic colon malignancy	
	Catastrophic	History of major organ transplant	

- Practices and MCPs receive payments prospectively and quarterly
- Risk tiers are updated quarterly, based on 24 months of claims history with 3 months of claims run-out
- Quarterly PMPM payments are meant to support practices in conducting the activities required by the CPC program

Detailed requirement definitions are available on the Ohio Medicaid website: http://medicaid.ohio.gov/provider/PaymentInnovation/CPC#1657108-cpc-payments

Template | PowerPoint Presentation (ohio.gov)

Impact of z codes on base CRG

Base condition – Asthma				
Primary ICD 10-Dx	SDOH ICD 10-Dx	Final CRG	Weight (TANF Child)	PMPM
J45.30 Mild persistent asthma, uncomplicated	None reported	51381 – Asthma Level 1	1.476	$263.47
J45.30 Mild persistent asthma, uncomplicated	Z62.21 Child in Welfare Custody	62801 – Foster Care/Child Abuse and Other Moderate Chronic Disease Level 1	3.122	$557.28

Base condition – Schizophrenia				
Primary ICD 10-Dx	SDOH ICD 10-Dx	Final CRG	Weight (TANF Adult)	PMPM
F20.9 Schizophrenia, unspecified	None reported	57431 – Schizophrenia Level 1	1.449	$694.71
F20.9 Schizophrenia, unspecified	Z59.0 Homelessness	57433 – Schizophrenia Level 3	3.824	$1,833.38

3M

~4million Medicaid pop

HCCs – an example of regression model

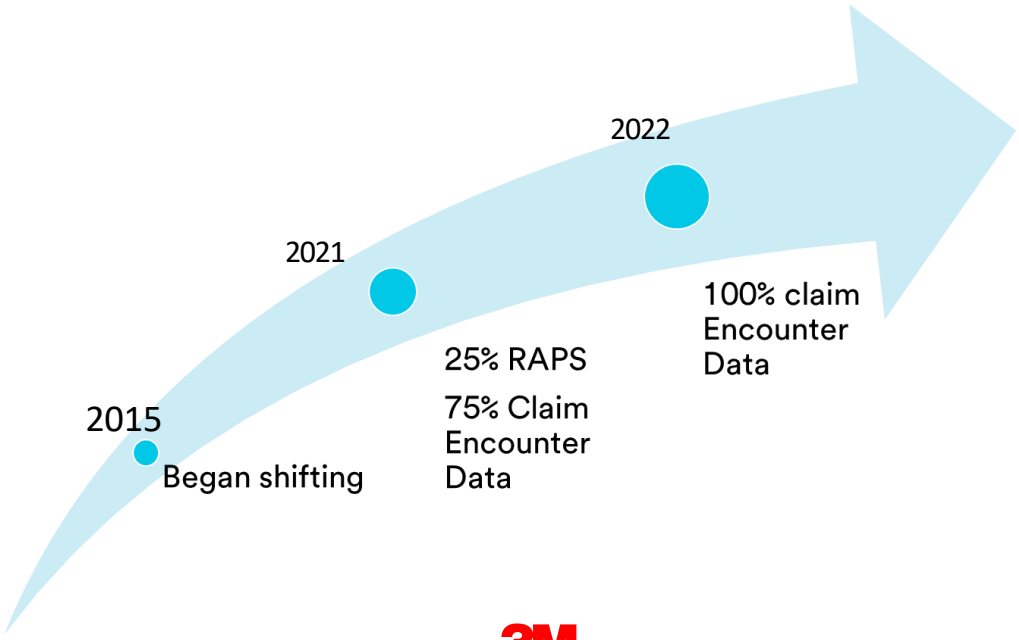
HCCs – key things to know

Hierarchical Condition Categories are sets of medical codes linked to specific clinical diagnoses.

- 2020 – 86 HCC categories
- Base year predicts future costs, reiterate every year

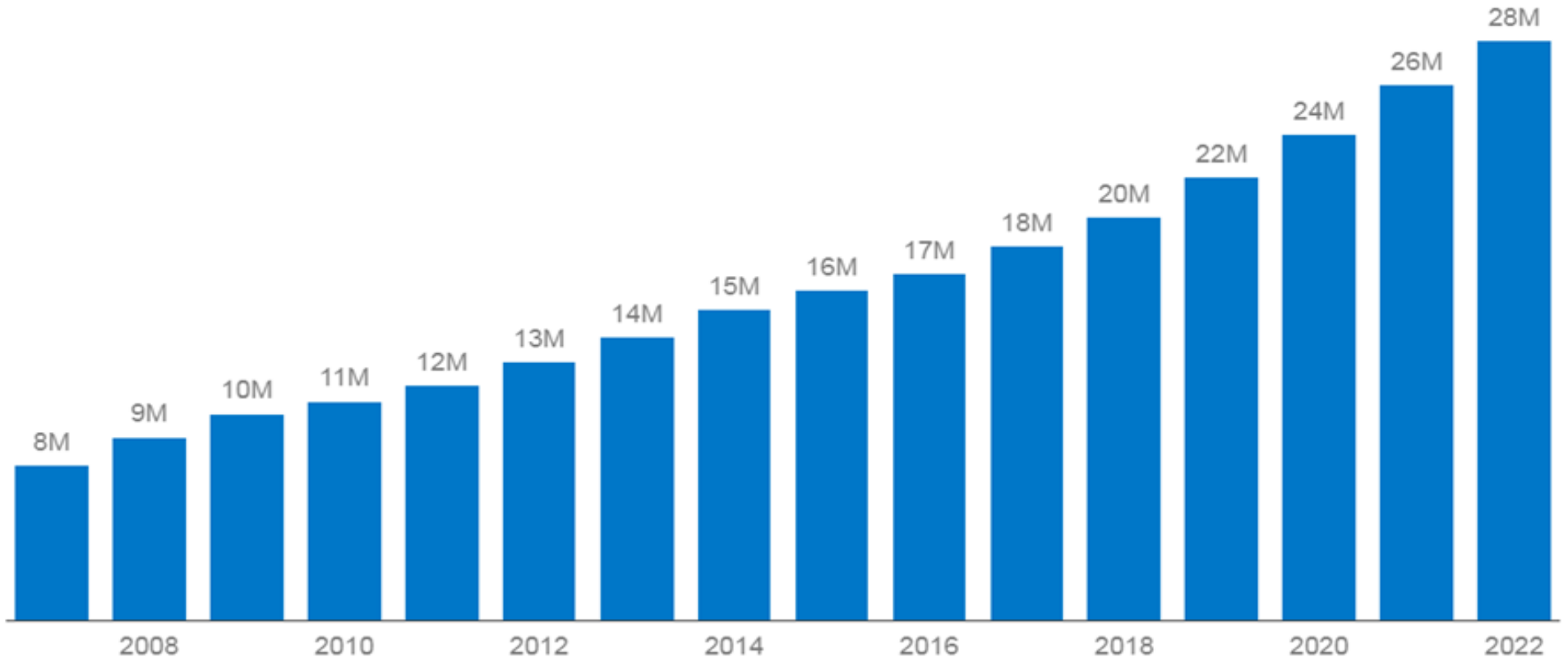
Two Types of HCCs

1. CMS Medicare HCCs
2. HHS Market place HCCs



Total Medicare Advantage Enrollment, 2007-2022

Medicare Advantage Penetration | **Medicare Advantage Enrollment**



NOTE: Includes Medicare Advantage plans: HMOs, PPOs (local and regional), PFFS, and MSAs. About 58.6 million people are enrolled in Medicare Parts A and B in 2022.

SOURCE: KFF analysis of CMS Medicare Advantage Enrollment Files, 2010-2022; Medicare Chronic Conditions (CCW) Data Warehouse from 5 percent of beneficiaries, 2010-2017; CCW data from 20 percent of beneficiaries, 2018-2020; and Medicare Enrollment Dashboard 2021-2022. • PNG

KFF

3M

Medicare Advantage – Cliff's Notes version

Medicare

Fee-for-Service

Medicare

Advantage

- **HCCs are the CMS methodology used to adjust capitation payments to Medicare Advantage (MA) plans for the expected health expenditure risk of their members.**

HCCs – Cliffs Notes version

- HCC is a risk-adjustment, classification system.
- HCCs convert a  to a 

based on 
- HCC formula:
  (demographics) + (disease) + (disease) + (interaction) = Risk Score or RAF

- Medicare Advantage Formula:
  (base rate) x (risk score) = CMS Reimbursement to Medicare Advantage plans

HCC example

No Conditions Coded	
76 Year Old Female	.468
Medicaid Eligible	.177
DM Not Coded	
Vascular Not Coded	
CHF Not Coded	
No Interaction	
Total RAF	**.645**
PMPM Payment	**$585**
Yearly Payment	**$7,015**

HCC example

No Conditions Coded		Some Coded – Not Specific from Claims Submission	
76 Year Old Female	.468	76 Year Old Female	.468
Medicaid Eligible	.177	Medicaid Eligible	.177
DM Not Coded		DM w/o Comp.	.181
Vascular Not Coded		Vascular w/o Comp.	.324
CHF Not Coded		CHF Not Coded	
No Interaction		No Interaction	
Total RAF	**.645**	**Total RAF**	**1.15**
PMPM Payment	**$585**	**PMPM Payment**	**$1,042**
Yearly Payment	**$7,015**	**Yearly Payment**	**$12,508**

HCC example

No Conditions Coded		Some Coded – Not Specific from Claims Submission		All Conditions Coded Chart Review by Certified Coder	
76 Year Old Female	.468	76 Year Old Female	.468	76 Year Old Female	.468
Medicaid Eligible	.177	Medicaid Eligible	.177	Medicaid Eligible	.177
DM Not Coded		DM w/o Comp.	.181	DM with Comp.	.608
Vascular Not Coded		Vascular w/o Comp.	.324	Vascular with Comp.	.645
CHF Not Coded		CHF Not Coded		CHF Coded	.395
No Interaction		No Interaction		Interaction (DM +CHF)	.204
Total RAF	**.645**	**Total RAF**	**1.15**	**Total RAF**	**2.497**
PMPM Payment	**$585**	**PMPM Payment**	**$1,042**	**PMPM Payment**	**$2,263**
Yearly Payment	**$7,015**	**Yearly Payment**	**$12,508**	**Yearly Payment**	**$27,159**

Value-Based Payment (VBP) models are a framework to address health equity

- VBP models — especially those with more advanced payment structures or with direct links to addressing social needs — can provide financial flexibility and accountability, which allows health care organizations to more easily address SDoH at the population level.

- VBP can be an important financing mechanism for social drivers of health services, which have chronic resource constraints.

- What's worked? — There is relatively strong evidence that when health care and community-based organizations work together on housing or nutrition interventions (and moderate evidence for non-emergency medical transportation), they can reduce costs and generate return on investment.

What is Health Equity vs Health Equality?

Health equality - everyone is given the same health intervention without consideration of underlying needs.

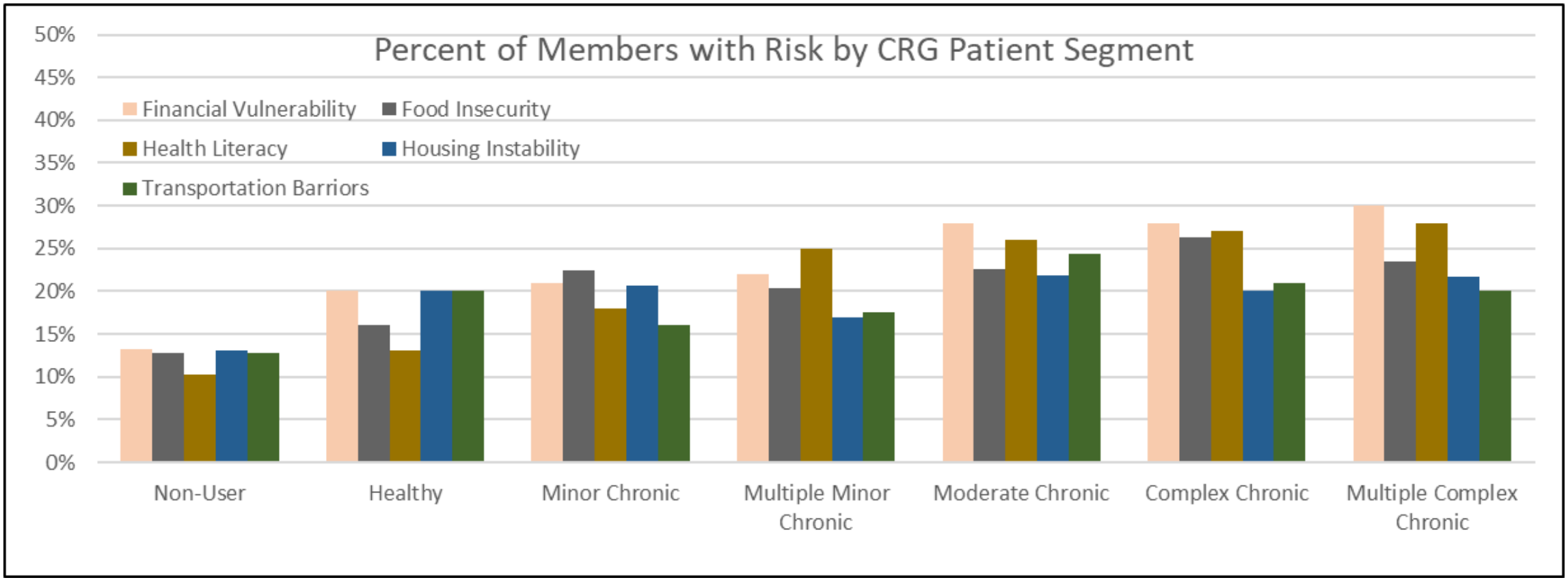
Health disparities - significant differences in health outcomes between populations.

Health inequities - the unjust distribution of resources and power between populations which manifests in disparities.

Health equity - everyone has what they need to attain their highest level of health.

Import of Socio-Clinical Risk in disease progression

Social risk is generally present more frequently with higher levels of risk.



* Available with SDoH Analytics

THANK YOU