Session 169: Risk Adjustment in Medicaid: Recent Developments

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2019 SOA Annual Meeting
Risk Adjustment in Medicaid: Recent Developments
Session 169
Wednesday, 10/30/2019, 10:15 am – 11:30 am

Presenters:
Dave Neiman, FSA, MAAA
Xuemin Zhang, ASA, MAAA
Moderator: Dan Henry, FSA, MAAA

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Planned Topics

- Overview of Medicaid Risk Adjustment
- What's New
  - SDOH
  - More Attention to Data Management
- Fixing the Supply Chain
- Remediation

Panel Bios

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Dan Henry, FSA, MAAA

- Consulting Actuary, Milliman
- 12+ Years Healthcare experience:
  - Commercial, Medicaid, Self-funded plans, Providers
  - Rate setting, rate review, contracting, risk sharing arrangements, financial reporting
  - Behavioral health
  - Microinsurance

Milliman

Dave Neiman, FSA, MAAA

- Born in Minneapolis, Minnesota
- Graduated from the University of Minnesota in 2002 with a degree in Finance
- Joined Wakely Consulting Group in 2012
- Principal in Denver Office – Primary focus on Government Programs with emphasis on Health Plan Financial Management Cycle support. Medicaid experience in 10+ states over the last 5 years.
- Hobbies:
  - Hiking mountains
  - Snowboarding
  - Travel
  - Chasing a knucklehead black lab

Wakely

Xuemin Zhang, ASA, MAAA

- Grew up in Beijing, China
- Majored on architecture design in college
- Health actuary since 2002
  - worked on a little bit of everything
  - focused on Medicaid since 2014
- Joined Evolent Health in 2016 (through merger with Valence Health) and got into risk scores

evolent HEALTH™

Overview of Medicaid Risk Adjustment

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Goals of Risk Adjustment

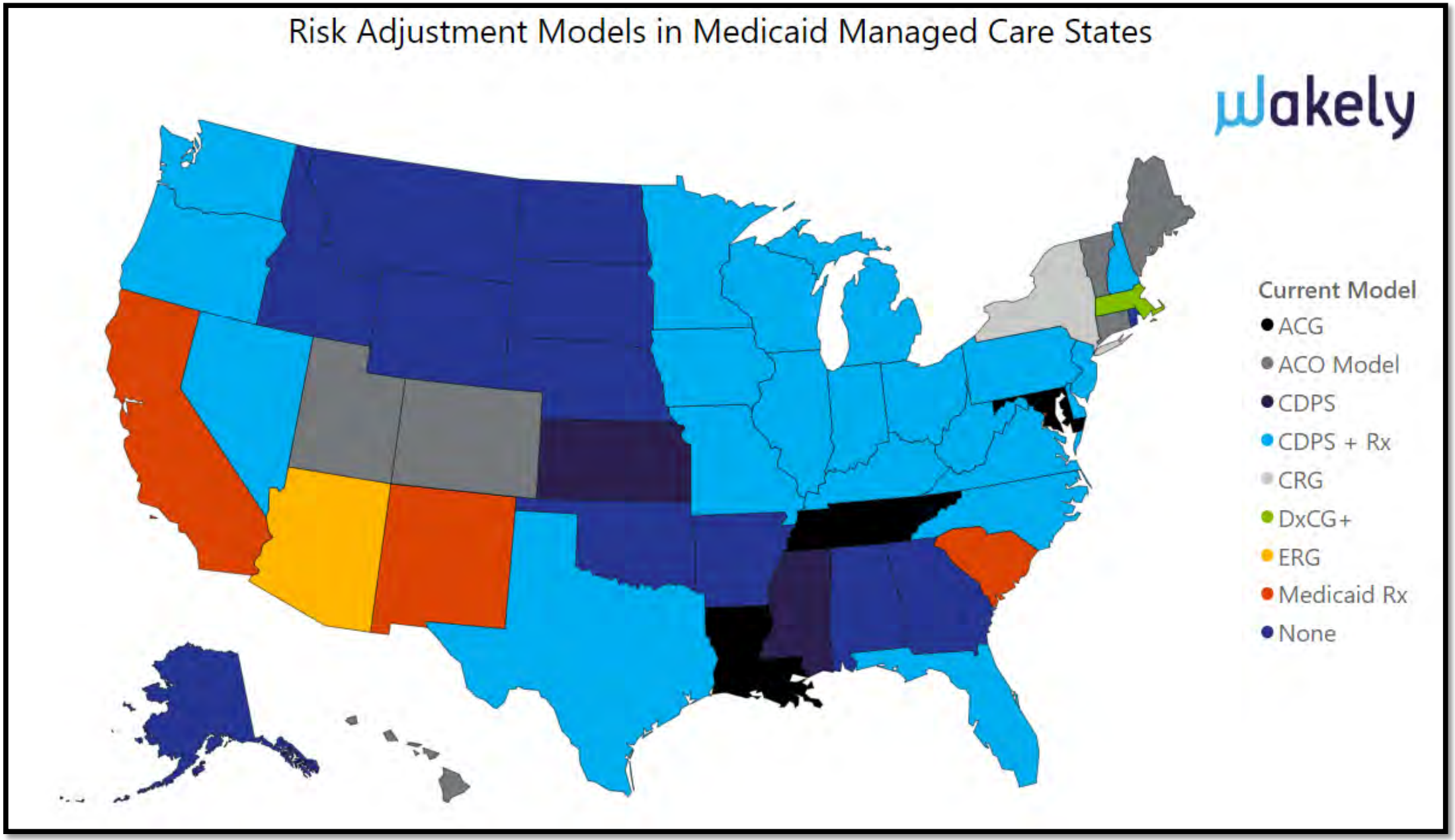
- To make **equitable comparisons** among health plans that take the health status of their enrolled members into consideration
- To **minimize the incentives** for plans and providers from selectively enrolling healthier members
- To provide **adequate financing** for those who treat individuals with higher-than-average health needs
- For Medicaid, provide a **budget-neutral** (zero-sum) mechanism to allocate capitated payments between contracted managed care organizations

Source: ResDAC

Medicaid Risk Adjustment Overview

- Use diagnoses from administrative data (claims)) plus demographic information (age/gender) to estimate health care acuity.
- Programs vary by state
- Zero-sum, budget neutral approach
- Risk adjustment can be:
  - Prospective - issuers know their risk scores in advance
  - Retrospective – often used when a new program is implemented
- Member-level risk scores calculated using encounter data
- Five most common risk-adjustment models: CDPS/Medicaid-Rx, CRG, ACG, ERG, DxCG
- Some states have developed state-specific risk weights

Risk Adjustment Models in Medicaid Managed Care States



Models Used

		Model	States
CDPS Family	53Percent	CDPS + Rx	21
		CDPS	2
		Medicaid Rx	4
Other Risk Model	12Percent	CRG	1
		ACG	3
		ERG	1
		DxCG+	1
ACO Model	12Percent		6
None	24Percent		12

Comparison

	MA	ACA	Medicaid
Model	CMS-HCC	HHS-HCC	Mostly CDPS
Prospective or Concurrent	Prospective	Concurrent	Predominantly Prospective
Revenue Impact	Additive	Revenue Neutral	Revenue Neutral
Use	All Medicare Advantage	All ACA	Not all states and not all programs in states that use RA

Social Determinants of Health

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Start With Two Definitions

- “Social determinants of health (SDOH) are the conditions in which people are born, grow up, live and work that shape health outcomes. These conditions include a wide spectrum of life factors—income, housing, education, food access, transportation, social support and stress, just to name a few.”

  https://theactuarymagazine.org/when-life-affects-health/

- “The complex, integrated, and overlapping social structures and economic systems that are responsible for most health inequities. These social structures and economic systems include the social environment, physical environment, health services, and structural and societal factors. Social determinants of health are shaped by the distribution of money, power, and resources throughout local communities, nations, and the world.”

  https://www.cdc.gov/nchhstp/socialdeterminants/definitions.html

American Academy of Actuaries Recent Communication to CMS

- CMS has identified ways to financially support states developing SDOH programs.
  - MassHealth's Flexible Services Program scheduled to begin January 2020.
  - North Carolina's waiver provides a federal match for services that will affect determinants of health.
- MCOs historically built community partnerships and added SDOH value-added benefits.
- Recommend that CMS formally examine how plan investments focused on affecting SDOH might be included in Medicaid capitation rates.
- Evidence suggests that the value and return on investment (ROI) directly correlated to SDOH investments benefits states, Medicaid programs, and Medicaid populations.

SDoH in Medicaid – General[1]

State	Comments
Maryland	Requires plans to ID homeless & link with services
Mass.	Requires plans to provide homeless services & interface with Housing First model
N. Mexico	Requires plans to ensure coordination between providers & WIC
Nevada	Requires plans to employ full-time Supportive Housing Specialist
N. Carolina	Requires plans to screen for food, housing, transport & violence; care managers can refer to human service organizations with rapid cycle testing to evaluate
Oregon	Requires strategies to eliminate disparities & improve health/wellbeing, collect SDOH data & partner with diverse community organizations to address disparities
R. Island	Requires plans to connect members with housing supports
Wash.	Requires plans to coordinate with & enroll members in social service programs
W. Virginia	Requires plans to help with workforce opportunities, ID & address work barriers

[1]*Improving Quality Scores by Addressing Disparities Paul Cotton, Director of Federal Affairs, National Committee for Quality Assurance*

Using SDOH in Risk Adjustment

- Massachusetts using SDoH in risk adjustment since October 2016
  - Adding SDOH to risk adjustment model improved predictability of cost/utilization[1]
  - Creative data mining was used such as 3 different addresses in 12 months = unstable housing and development of a neighborhood stress score measuring the economic stress of the member's neighborhood
- Oregon committed to utilizing SDoH in risk adjustment as part of CCO 2.0
- SDOH is difficult to capture
  - No standard way/place to collect data
  - Can be scattered in various state departments
  - SDOH providers have no standard way to report
- ICD-10 has a few SDOH diagnosis codes (Z55.x-Z65.x) that could be captured through claims if more widely used, but they do not cover all types of SDOH – could be expanded

[1]*https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2647322*

Using SDOH in Risk Adjustment - Massachusetts

- DxCG Risk Model Enhanced to Include Measures of SDoH
  - DMH (Department of Mental Health) client
  - Not DMH but DDS (Department of Developmental Services?) client
  - All other disabled
  - Homeless, by ICD-9 coding
  - 3+ addresses in a year
  - Serious mental illness (SMI)
  - Substance use disorder (SUD)
  - NSS7 (Neighbor Stress Score)

- Neighborhood Stress Score
  - Percent of families with incomes less than 100% of the Federal Poverty Level (FPL)
  - Percent less than 200% of FPL
  - Percent of adults who are unemployed
  - Percent of households receiving public assistance
  - Percent of households with no car
  - Percent of households with children and a single parent
  - Percent of people age 25 or older who have no high school degree

SDOH ICD-10-CM Code Categories

Z55 Education & Literacy	Z56 Employment & Unemployment	Z57 Occupational Risk Factor Exposure
Z59 Housing & Economic Circumstances	Z60 Social Environment	Z62 Upbringing
Z63 - Primary Support Groups (Family)	Z64 – Psychosocial (Pregnancy)	Z65 – Psychosocial (Crime/prison)

Fixing the Supply Chain

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Fundamental Principles

"You can't manage what you can't measure."

Peter Drucker

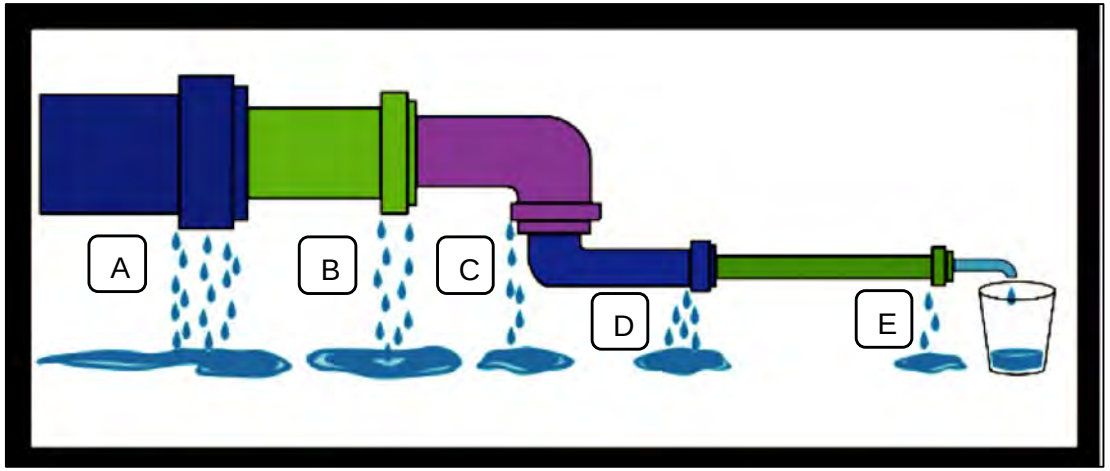
"You get what you inspect, not what you expect."

Alan MacLennan

"Everyone has a plan until you get punched in the face."

Mike Tyson

Data Pipeline



A. Clinical data that did not make it into the medical record. This may be because the clinician did not use the appropriate level of specificity, did not code all of the diagnoses or did not carry forward chronic diagnoses from prior period.

B. Clinical data that did not make it from the medical record to the health plan because of extraction issues and over-editing.

C. Clinical data that did not get into the claim system. This may be because of claim system limits on the number of diagnoses, capitation encounters are stored in a different system, front end over-editing, rejected records that contained valid information, EDI vendor edits, and other items.

D. Clinical data that did not get into the operational data store. This may be because of outdated or inaccurate extraction logic, "extra diagnoses" are stored in a different data base, a claim system conversion or upgrade has changed the source system data structure, and other reasons.

E. Clinical data that did not get extracted from the ODS or data warehouse for the end use, the extract was over edited, the submission cut-off was missed, the downstream edits rejected encounters that contained valid data and other reasons.

Effective Data Management

- There is sufficient reporting, at the member, provider, and product levels to ensure that all stakeholders in the health plan can track performance on key clinical data quality metrics.
- Clinicians that have sufficient knowledge of how to ensure diagnosis accuracy, and therefore, their clinical narratives translate into appropriate member risk stratification (emphasis on clinical narratives rather than medical coding).
- Processes exist for ensuring that clinical narratives are translated to the appropriate set of diagnosis codes. Moreover, encounters must be created so as to ensure that diagnosis codes will be accepted by the target system (e.g., proper procedure coding, oversight of clearinghouses, etc.)
- There is an ongoing process to ensure that the plan's formulary is aligned with the prescription drugs (and their NDC codes) that align with illness burden identification.

Effective Data Management, continued…

- There are programs and interventions (e.g., retrospective medical record review, in-home assessments, etc.) in place to collect data describing patient acuity that wasn't incorporated into the clinicians' narrative in the EMR or paper medical record.
- The information technology (IT) infrastructure has mechanisms to ensure that all data received from claims adjudication platforms, clearinghouses, revenue management vendors, as well as other clinical entities are complete and accurate. In addition, the complete data are passed on to the data submission vendors
- Data submission is accomplished by ensuring that all native data is submitted, not just that all the data transferred to the data submission vendor or department

What Is Needed – Internal Operations

- Management reports
- Operational monitoring reports
- Member level reports/database description
- Claim audit: comparing received claims clinical data fed to downstream systems or vendors
- Encounter return file reviews
- Forecasting
- Look for diagnosis missing from current experience period
- Look for inappropriate edits
- Social Determinants of Health coding capture strategy

What Is Needed – It Takes a Village

- Understand the risk adjustment model and the state's rules
- Provider group performance evaluation
  - Provider profiling and education
  - Reporting to provider groups to support provider data quality incentive program
- Vendor evaluation, return on investment, management, and oversight
- Improving operational performance with downstream data processes

Tactics

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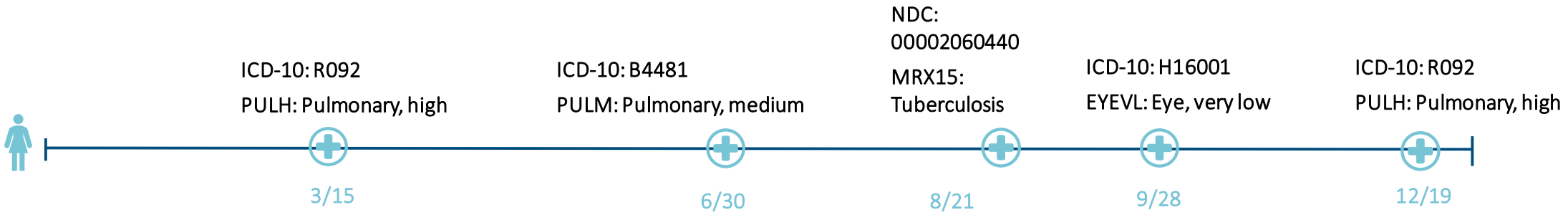
CDPS Example



Event Date	Risk Factor	Weight	Sum to Risk Score	Notes
Varies by State	Disabled, Aged 1-4	0.024	0.024	
3/15/2017	PULH	1.519	3.105	1.519 for PULH 1.587 for interaction of PULH and disabled child
6/30/2017	PULM	1.300	0	PULM is subordinate to PULH
8/21/2017	MRX15	0.179	0	MRX15 is subordinate to PULH
9/28/2017	EYEVL	0.052	0.052	
12/19/2017	PULH	1.519	0	PULH is already accounted for
All Dates	All Risk Factors		3.181	

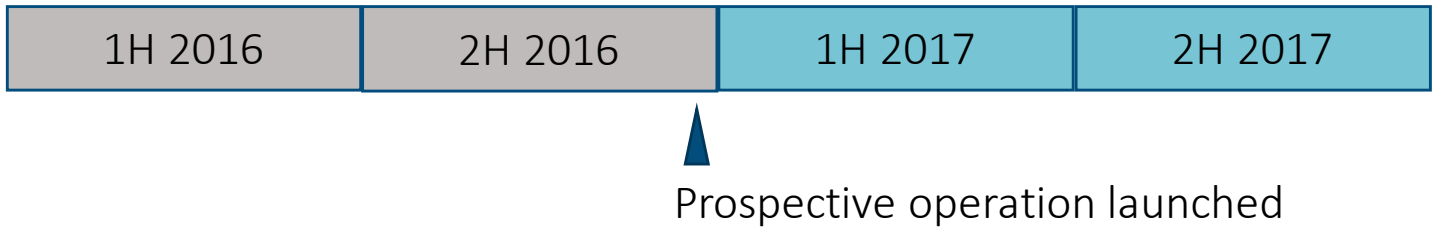
Prospective Operation

- Suggest suspect conditions before the encounter

Education & Outreach	Data Management	Suspect Generation	Patient Assessment	Documentation & Billing	Tracking & Reporting
					
▪ Physician leadership outreach ▪ Risk Adjustment education sessions	▪ Client data file aggregation ▪ Load to Evolent Data Warehouse	▪ Creation of suspect conditions ▪ Patient prioritization	▪ Distribute suspects to physician practices ▪ RAF score & performance reporting (prospective ops)	▪ Physician documents encounter ▪ Submits bill for all identified HCCs to Health Plan	▪ Track KPIs to identify leading / lagging practices, physicians ▪ Calculate incentive payments

Prospective Operation, continued

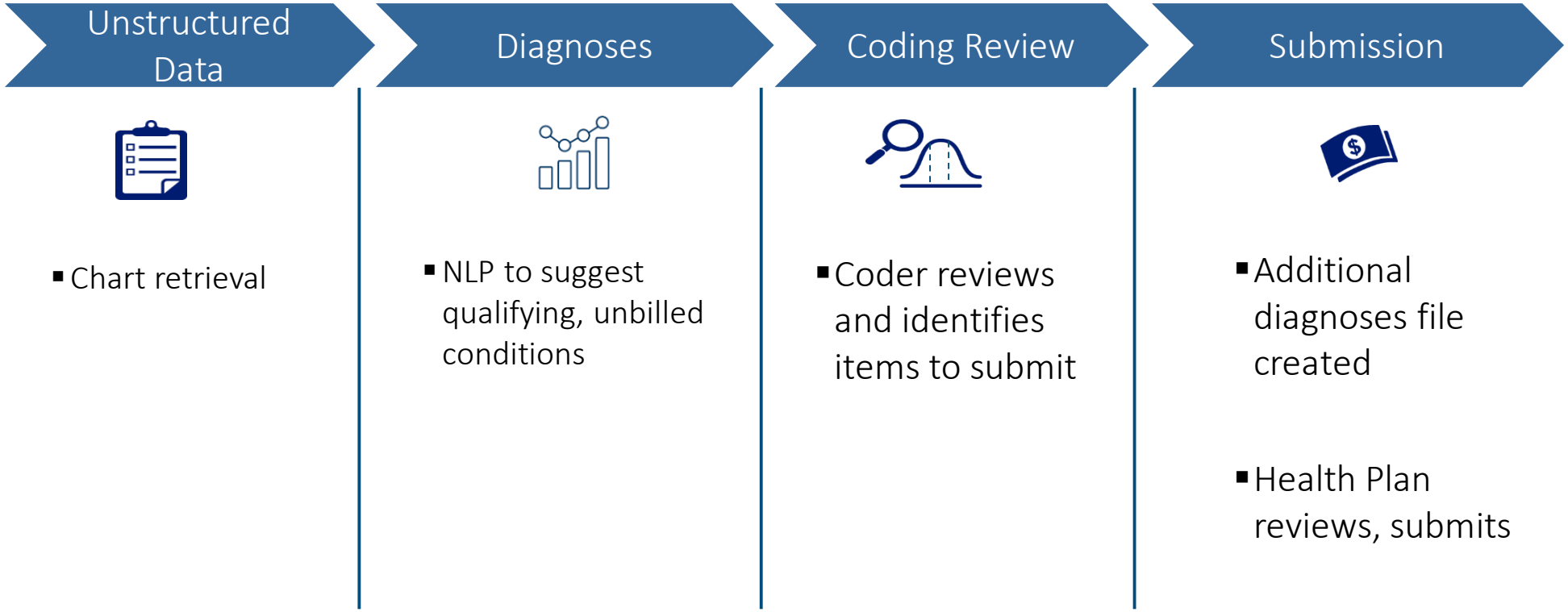
- Improve suspect generation
- Engage providers
- Medicaid only: base period shift when state actuary changes could impact ROI



Payment Quarter	Base Period Previous State Actuary	Base Period New State Actuary
2018 Q1	July 2016 to June 2017	CY 2016
2018 Q2	July 2016 to June 2017	CY 2016

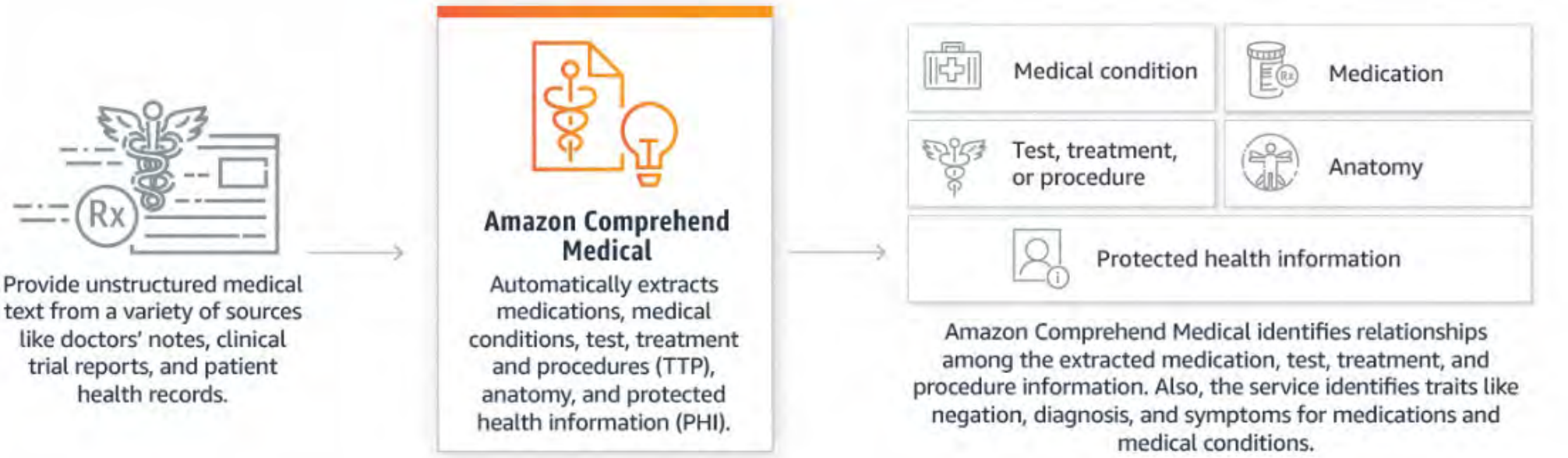
Retrospective Operation

- Chart review for encounters already happened



Retrospective Operation
Free (or close to free) Tools Online

- Google Tesseract or Amazon Textract (OCR)
- Amazon Comprehend
  - Pre-Trained ML Model using Deep Learning based NLP to recognize all the ways a doctor might record notes[a]



[a] *https://www.wsj.com/articles/amazon-starts-selling-software-to-mine-patient-health-records-1543352136*

No Annual Retro Operation Window For Medicaid

Medicaid encounter data submission deadline is before payment period begins, leaving no window for annual retrospective operation

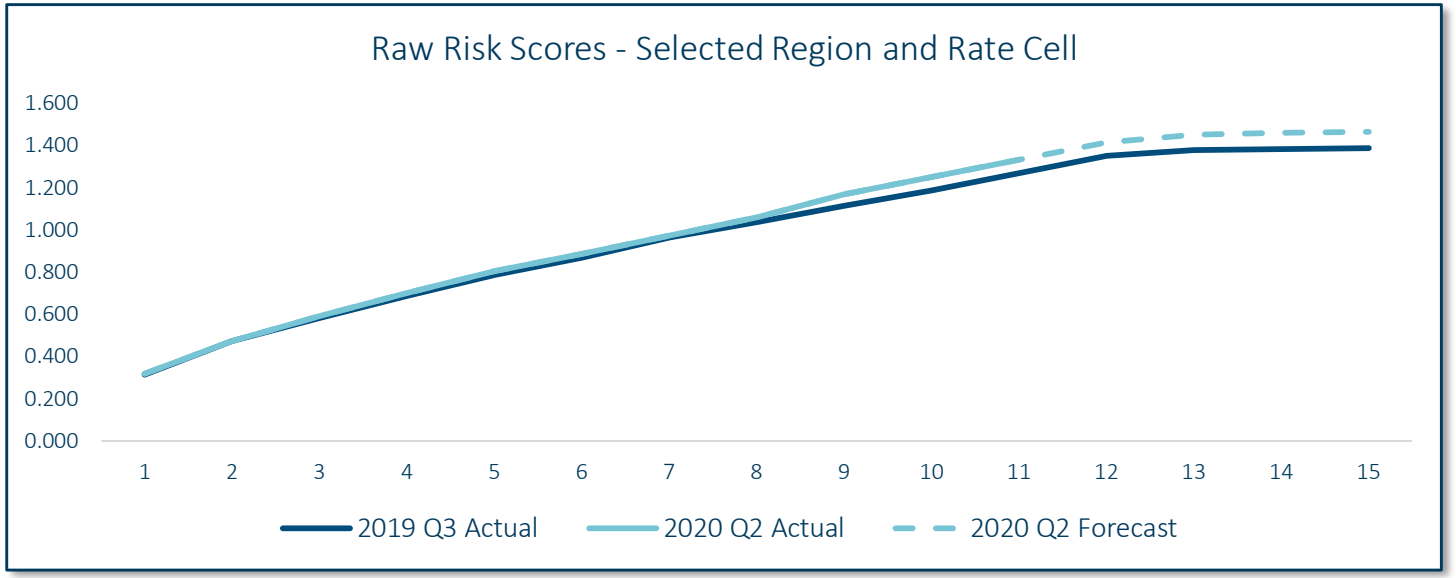
Risk Adjustment LOB	Same Encounter and Payment Periods	Score Used for Payment Follows Individual	Retro Operation Window Allowed by Data Submission Deadline	Current Risk Adjustment Operations
ACA	Yes	No	4 months	Prospective + Retrospective
Medicaid	No	No	0 month	Pro Only
Medicare	No	Yes	13 months	Pro + Retro

Encounter Submission

- Prioritize rejections that will have an impact on risk score

Forecast Risk Score and Quantify Value of Operation

- Use past pattern to forecast future



	Base Period												Runout		
Payment Quarter	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2019 Q3	201804	201805	201806	201807	201808	201809	201810	201811	201812	201901	201902	201903	201904	201905	201906
2020 Q2	201811	201812	201901	201902	201903	201904	201905	201906	201907	201908	201909	201910	201911	201912	202001

Questions!