CMS
CENTERS FOR MEDICARE & MEDICAID SERVICES

Improving the Quality of Medicaid Encounter Data

Medicaid Innovation Accelerator Program - Data Analytics National Webinar

October 12, 2017

3:00 – 4:30 PM EDT

Logistics for the Webinar

- All lines will be muted
- Use the chat box on your screen to ask a question or leave a comment
  - Note: chat box will not be seen in “full screen” mode
- Slides and a transcript will be posted online within a few weeks of the webinar

Welcome!

- Jessie Parker, GTL and Analyst on Medicaid IAP Data Analytic Team, Data and Systems Group, CMCS

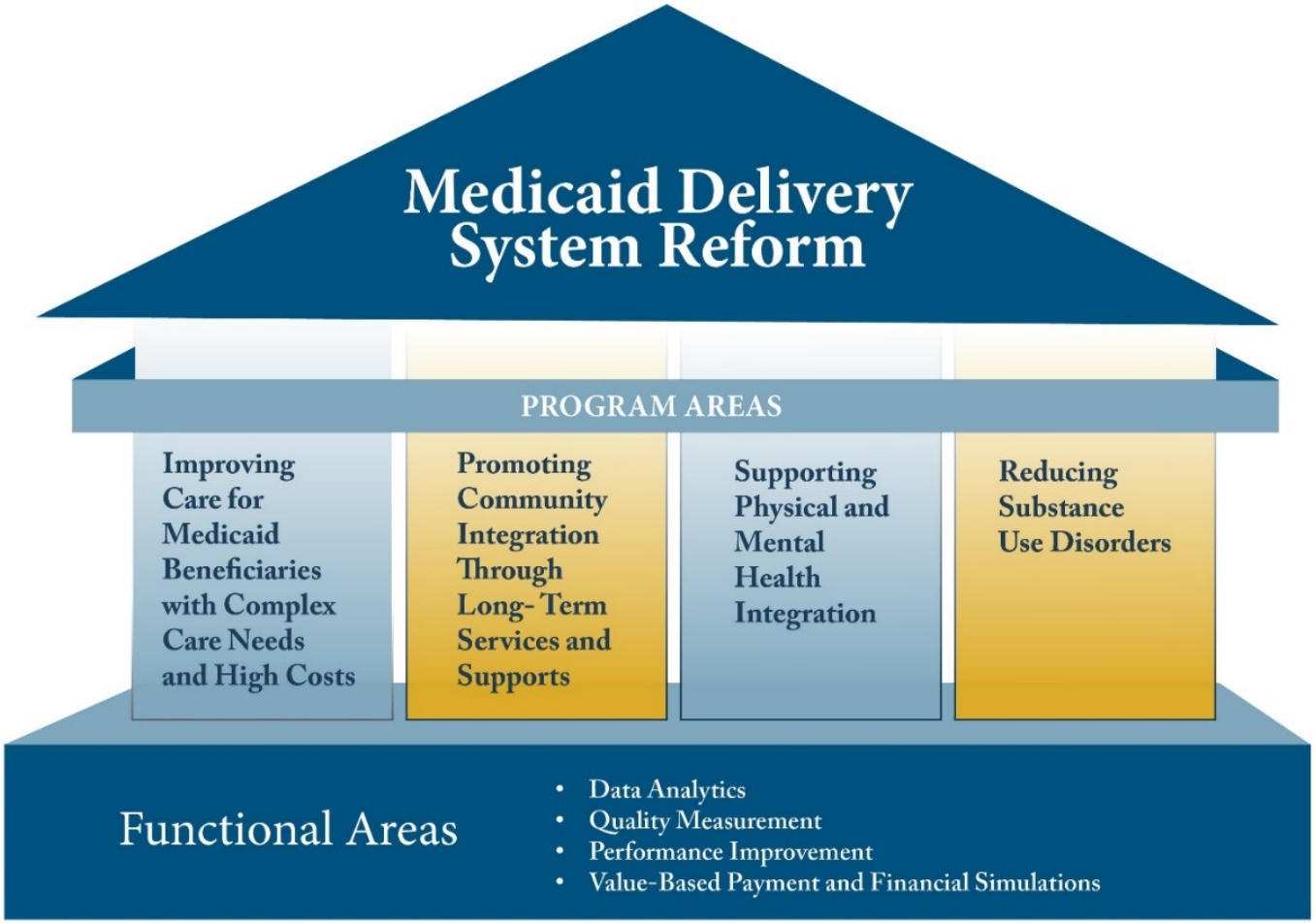
Today's Speakers

- Teresa Gibson, PhD, Senior Director, Health Outcomes Research, Federal Government Health and Human Services, Truven Health Analytics
- Jon Huus, Supervisor Data Quality and Analytics, Encounter Data Quality Unit, Minnesota Department of Human Services
- Denise Love, Executive Director, National Association of Health Data Organizations (NAHDO)

Agenda for Today's Webinar

- Overview of Medicaid Innovation Accelerator Program
- Encounter Data: Definitions, Challenges, Strategies
- Improving Medicaid Encounter Data
- Minnesota Managed Care Encounter Data Processes
- Lessons Learned about Encounter Data from State All-Payer Claims Databases (APCD)

Medicaid Innovation Accelerator Program (IAP)



Goals for Today's Webinar

In this interactive webinar, states will learn about:

- Importance of high quality encounter data;
- Challenges to high quality encounter data;
- Approaches to cleaning encounter data; and
- Minnesota Medicaid's approach to ensuring data accuracy, completeness, and standardization.

Data Quality & Encounter Data

Definitions, Challenges, Strategies

Teresa B. Gibson, PhD
Truven Health Analytics, an IBM Company

Information on Encounter Records

- Patient
- Provider
- Diagnoses
- Service Date(s)
- Payments
  - Third Party
  - Patient
- Place of Service
- Procedure Code

Managed Care Organizations (MCOs)

- Administration
- Financial Risk
- Impact on administration

2014 Medicaid Managed Care Trends

- 77% of Medicaid beneficiaries were enrolled in managed care organizations (MCO)
- 39% of all Medicaid dollars were paid to MCOs
- 600+ comprehensive Medicaid MCO contracts

High Quality Encounter Data is Needed

- Risk adjustment
- Program oversight and integrity
- Quality measurement

States may also use encounter data for quality review, federal reporting, policy analysis, measuring network access and adequacy, and MCO contract monitoring.

Challenges to High Quality Encounter Data

- File formats
- Rejections
- Variations in timing and quality
- Coding and completeness

Data Cleaning

- Modification of Medicaid Management Information System (MMIS) edits
- Modernization of state MMIS
- Implementation of regular data monitoring
- Collaboration to reduce provider roster issues

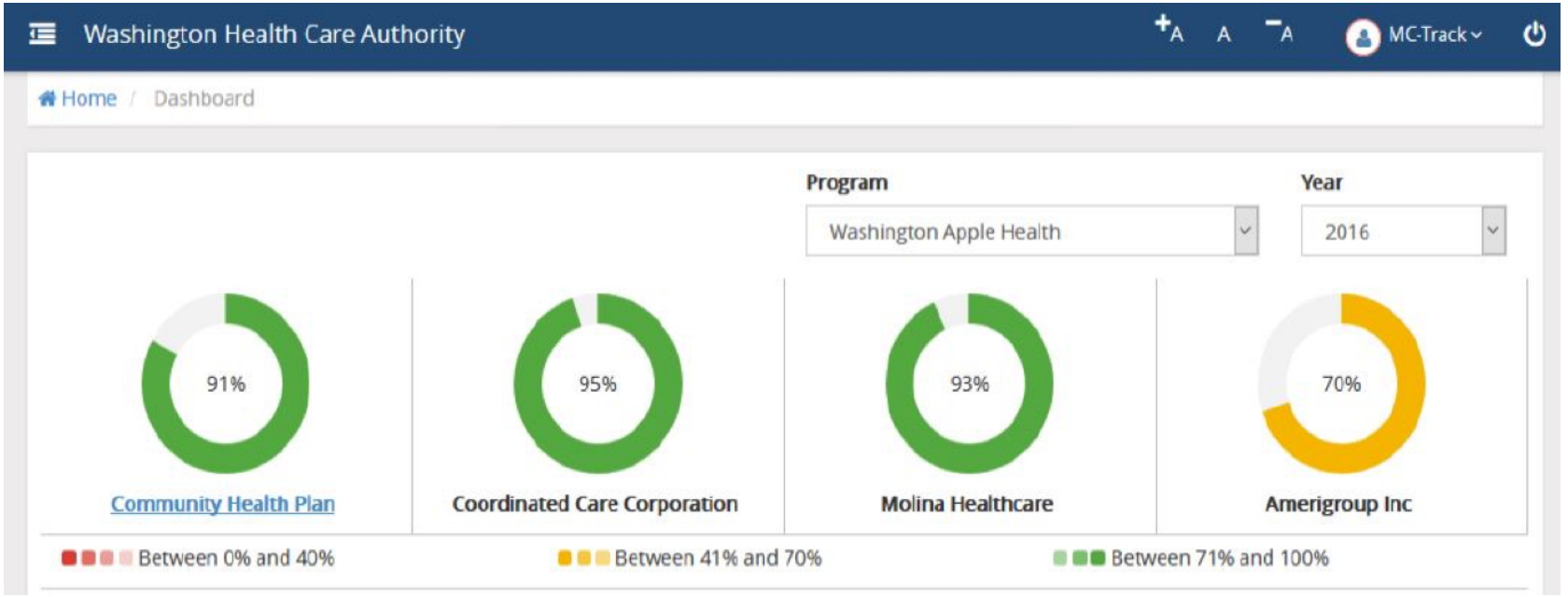
Example: CA Dashboard Summary

California's Encounter Data Improvement Project publishes Quality Measures for Encounter Data (QMED) via a public quarterly performance dashboard.

Source: "Now That You Have Encounter Data, What Ya' Gonna Do With it?", MESC Presentation, California Department of Health Care Services, 2017

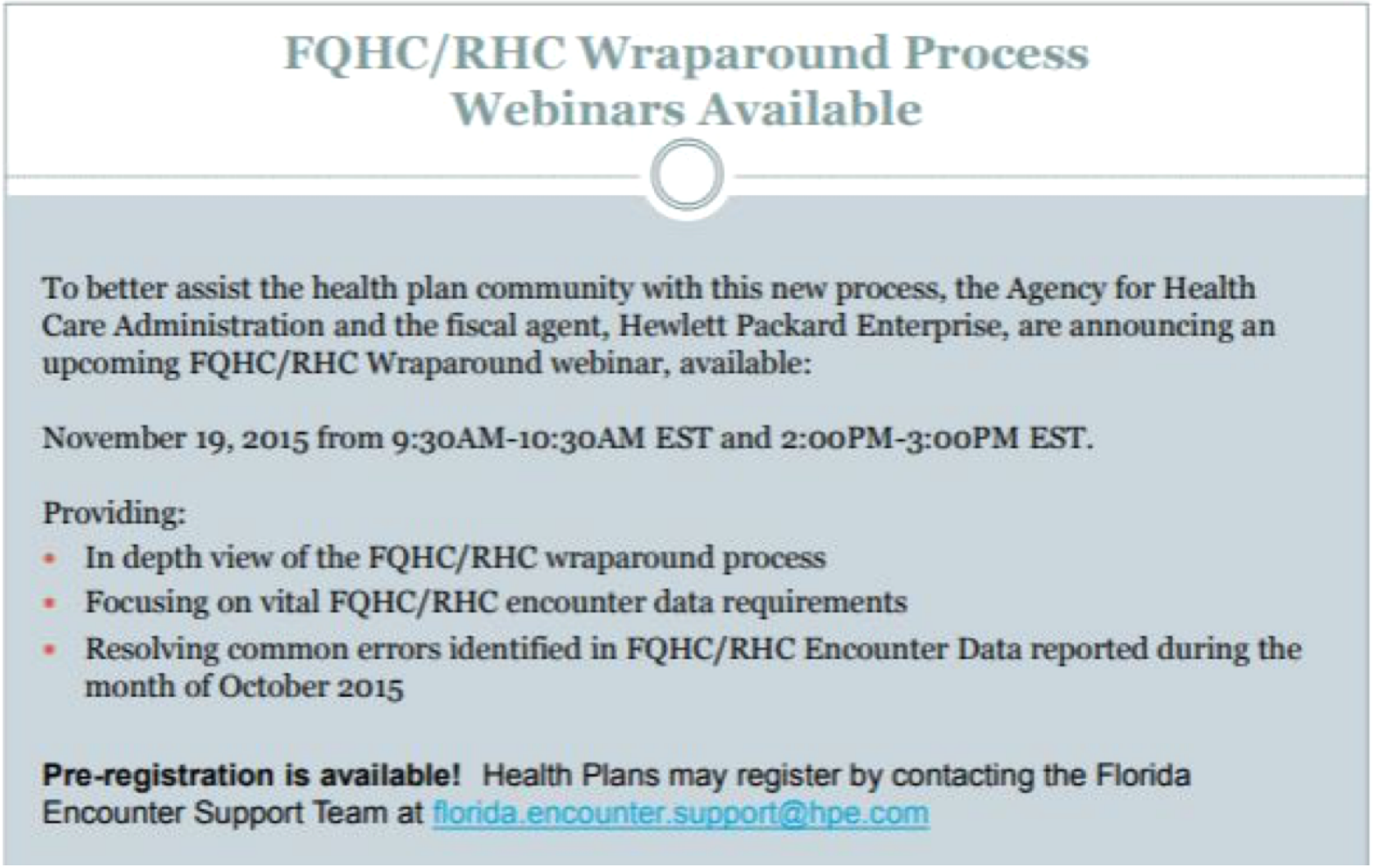
Example: WA Dashboard Summary

Washington's MC-Track Dashboard Project provides an overview of encounter data quality, as well as HEDIS and CAHPS measures, by plan.



Source: "Enterprise Management Through the MITA Program Office and Managed Care Contracts," MESC Presentation, Washington State Health Care Authority, 2017

Example: State & MCO Partnerships



FQHC/RHC Wraparound Process Webinars Available

To better assist the health plan community with this new process, the Agency for Health Care Administration and the fiscal agent, Hewlett Packard Enterprise, are announcing an upcoming FQHC/RHC Wraparound webinar, available:

November 19, 2015 from 9:30AM-10:30AM EST and 2:00PM-3:00PM EST.

Providing:

- In depth view of the FQHC/RHC wraparound process
- Focusing on vital FQHC/RHC encounter data requirements
- Resolving common errors identified in FQHC/RHC Encounter Data reported during the month of October 2015

Pre-registration is available! Health Plans may register by contacting the Florida Encounter Support Team at florida.encounter.support@hpe.com

Source: Florida Medicaid Update, November 2015

Tools

- Data scrubbing or data auditing
- Detecting data anomalies and correcting them can have a high payoff.
  - Address inconsistent field lengths, inconsistent descriptions, inconsistent value assignments, missing entries and violation of integrity constraints.
- Optional fields in data entry forms are significant sources of inconsistent data.
  - Limit the use of optional fields, provide guidance for populating optional fields, and pay particular attention to optional fields.

Example: Data Anomalies

- New York State processes encounter data through eMedNY which automatically notifies plans if an encounter file does not pass through processing.

Tier 1 Edit		Explanation
'Incomplete "", Header Record'	=	Record is not 1200 bytes; will give the size and record that is not 1200 bytes
Required "" record missing'	=	Require records missing; will include the record type missing (H1, D1, or T1)
'Record "" is of unknown type or invalid sequence'	=	Require records not in sequence; will include the record type in error (H1, D1, or T1)
'Specified mode "" does not match' 'Test/Prod Indicator'	=	Test/Prod indicator is incorrect; must be PROD
'Misaligned ASCII "", "CR" in record "" column""' OR 'Unexpected ASCII "", "CR" in record "" column""'	=	Carriage return (CR) is to short, long or misaligned

Source: New York State Medicaid Program, Managed Care Reference Guide: Encounter Data Submission, Version 2005

Improving Data Quality

- Provide regular information and feedback
- Clarify requirements in MCO contracts
- Set consequences for performance

Home > Government > Medicaid

Kaiser Permanente faces $2.5M-plus in penalties for Medi-Cal data shortfall

By Joseph Conn | January 30, 2017

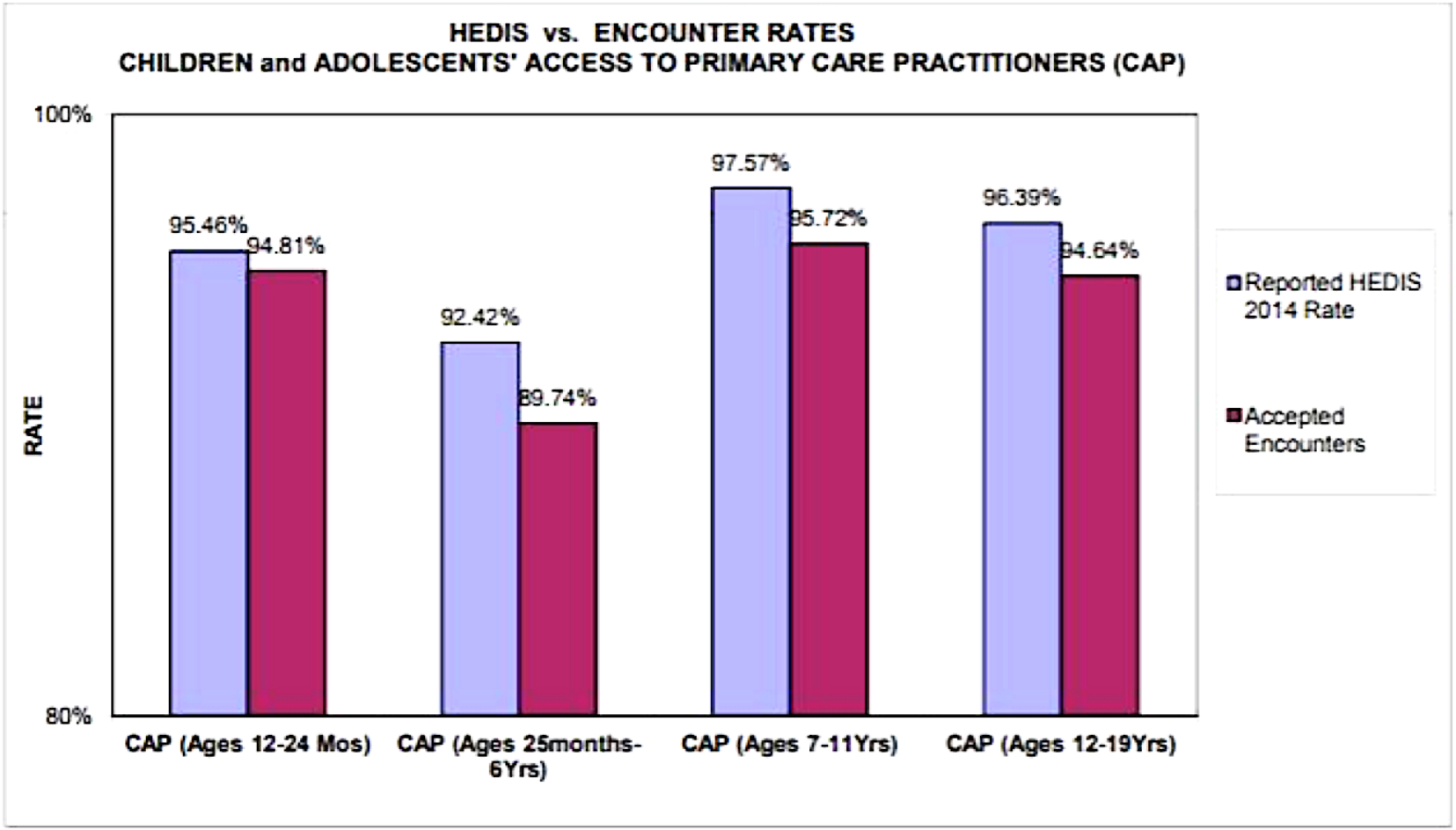
(Story updated at 8:57 p.m. ET)

Source: Modern Healthcare, January 30, 2017

Evaluating Encounter Data Quality

- Benchmarks
- Data validation
- Quality scorecard
- Standardization

Example: Benchmarks



Source: Kentucky Encounter Data Rate Benchmarking Study: MCO HEDIS 2014 Rates Versus Plan Encounter Data Calculated Dates

Example: Data Validation Reports

Record Count (Includes all encounter record lines): 249,862

Variable Name	*# Missing*	*% Missing*	*# Invalid Data*	*% Invalid Data*
Billing Provider Key	0	0.00%	N/A	N/A
Category of Service	0	0.00%	N/A	N/A
Claim Adj Reason	40,761	16.30%	N/A	N/A
Claim Adj Void	0	0.00%	0	0.00%
Claim Detail Status	0	0.00%	0	0.00%
First Date of Service	0	0.00%	57	0.00%
ICN Number	0	0.00%	N/A	N/A
Last Date of Service	0	0.00%	50	0.00%
Place of Service	0	0.00%	N/A	N/A
Performing Provider Key	249,862	100.00%	N/A	N/A
Procedure Code	1	0.00%	0	0.00%
Recipient County	1,255	0.50%	N/A	N/A
Recipient Medicaid ID	52	0.00%	0	0.00%
Recipient Ethnicity	52	0.00%	N/A	N/A
Recipient Race	52	0.00%	N/A	N/A
Referring Provider Key	249,862	100.00%	N/A	N/A
Submitter ID	0	0.00%	0	0.00%
Tooth Number	181,998	72.80%	N/A	N/A

NOTE: Includes all encounters submitted to IPRO.
Includes paid, denied, adjusted and void encounters

Source: Encounter Data Validation, Paul Henfield, Managed Care, IPRO, November 13, 201

Questions?

Minnesota Managed Care Encounter Data

Ensuring Data Accuracy, Timely Submissions, Completeness and Standardization

Jon Huus, Supervisor Data Quality and Analytics, Encounter Data Quality Unit, Minnesota Department of Human Services

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Agenda

- Mission: Accuracy, Completeness, Timeliness, and
- Consistency/Standardization
- About Minnesota Medicaid
- Encounter Claim Data Process Flows
- Where Managed Care Data Becomes Compromised
- Strategies
- Notes
- Questions

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About Minnesota Medicaid

Population

- Minnesota Medicaid and Basic Health Plan: 1.2 million enrollees at any given point (and growing)
- 75% enrolled in managed care, 25% handled via Fee for Service
- 8 Managed Care Organizations currently

Encounter Data Quality Unit (EDQU)

- 7 full time staff transitioned from mainframe to data analytics focus over past 3 years
- SAS and Teradata data warehouse
- Automated web reporting environment for MCOs
- Rely on MMIS capabilities for editing
- Closely associated with the health care data analytics groups within DHS
- Quarterly meeting with all data analysts and researchers

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Encounter Data Quality Unit (EDQU) *Mission*

Accuracy

Completeness

Timeliness

Standardization

*Bottom line: Data quality is all the things that go into making managed care encounter data **usable** for analytics for policy, rate setting, research, CMS requirements and executive and legislative decision-making.*

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Encounter Claim Data Process Flows

Process:

- Client receives service
- Provider bills MCO by claim submission
- MCO adjudicates and “pays” provider (some payments are $0)
- MCO claims are moved into varying types of data warehouses
- MCO regathers claim data from data warehouse and creates encounter claim files
- X12s and NCPDP encounter claim files are submitted to DHS
- DHS processes encounter claims through MMIS
- MMIS processing is parallel to the processing of our FFS claims
- Claims data is stored on the MMIS mainframe system

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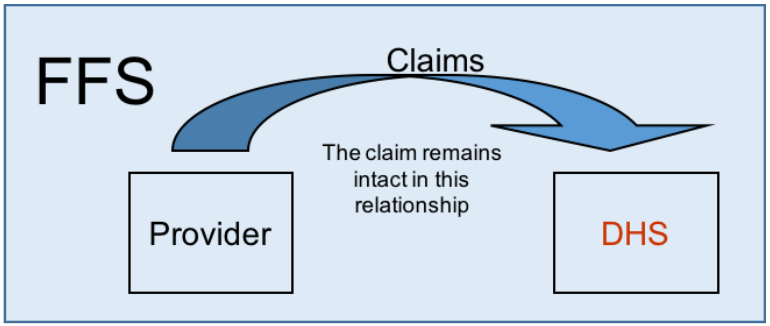
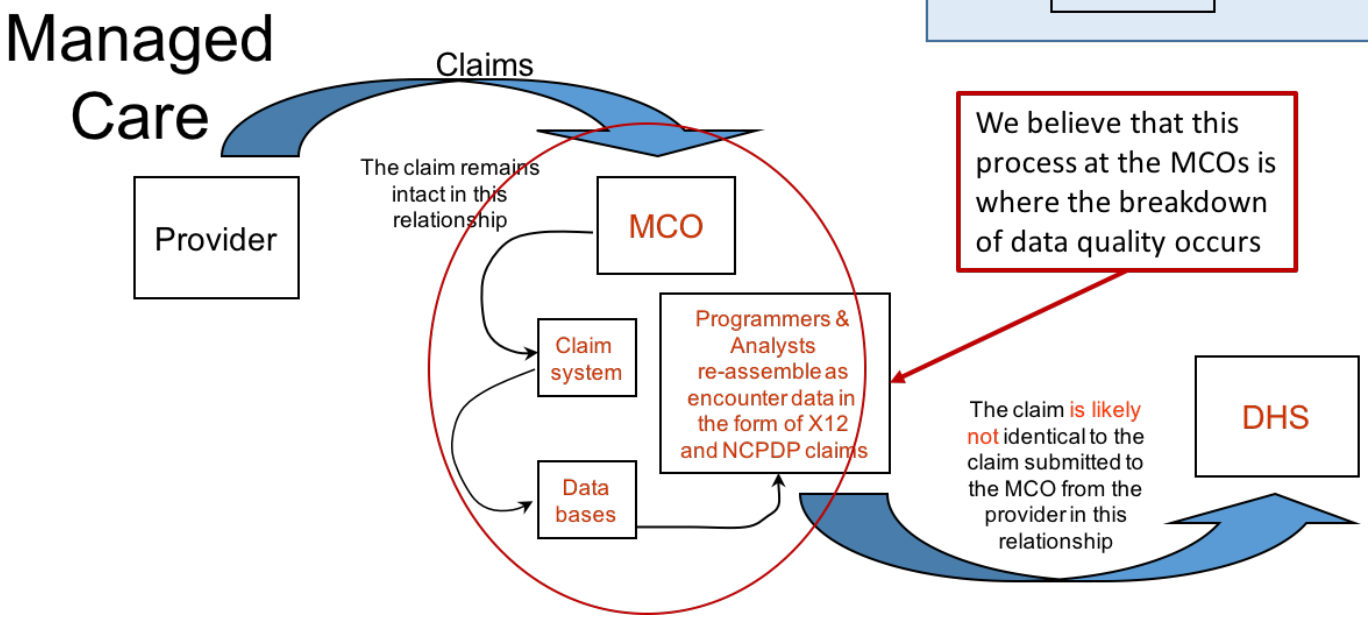
Where Managed Care Data Often Becomes Compromised





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Strategies for Controlling the Quality of Encounter Data *p1*

- Extensive, Timely Feedback to MCOs
- Corrected Claims Penalty
- Benchmarking
- Quality Assurance Protocols (QAPs)
- Data Editing
- Control Reporting Project

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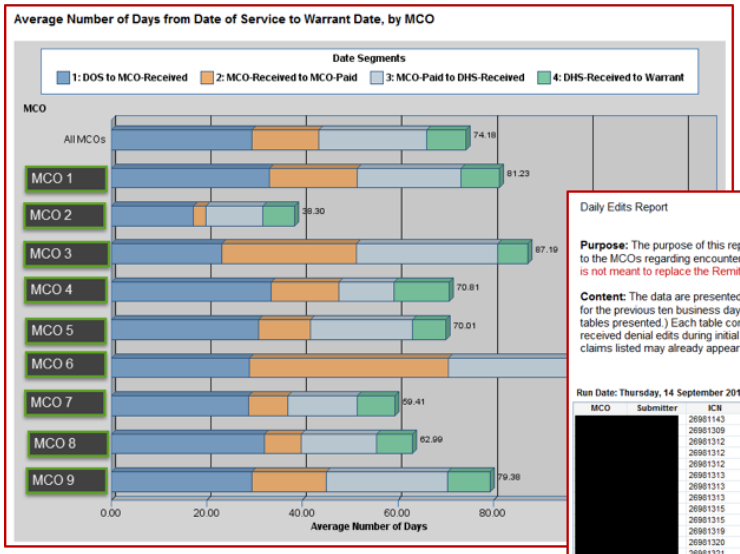
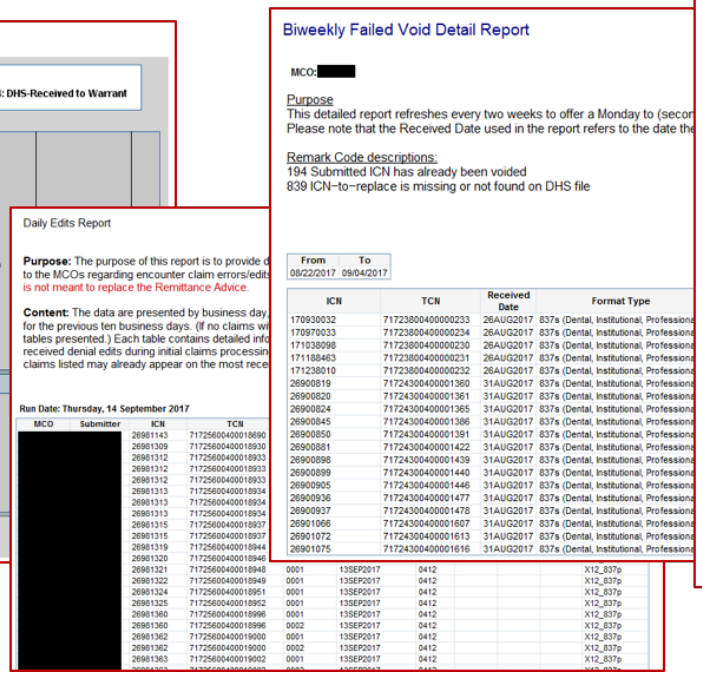
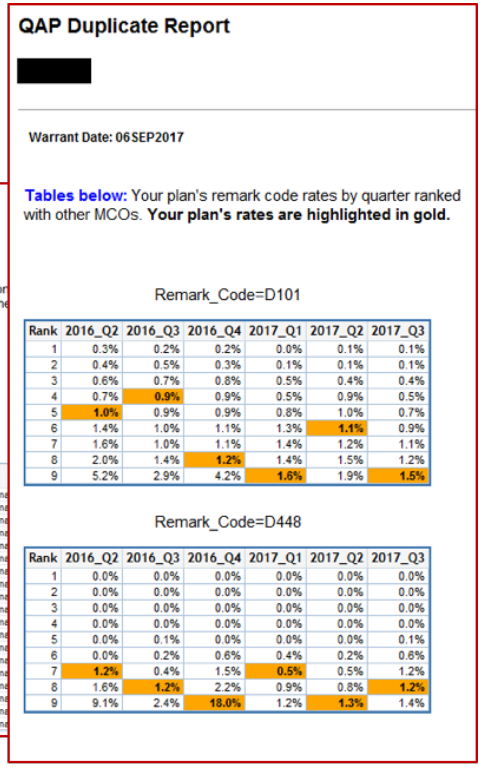
Strategies for Controlling the Quality of Encounter Data *p2*

Reporting/Transparency:

Extensive, Timely Feedback to MCOs







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Strategies for Controlling the Quality of Encounter Data *p3*

Corrected Claims Penalty

Purpose: Hold MCOs accountable for correction of managed care encounter claims data found to have errors

Process: Grace period (to make corrections) of one 3-month quarter following the end of the quarter in which the claim was processed by DHS

Note:

20 MMIS mainframe edits included

Significant investment in SAS programming

Financial realization relatively small ad to

Effective – errors are being corrected

Complex rules by definition

Correction Status as of 2016Q4 ERR	2016Q1	2016Q2	2016Q3	2016Q4	Totals	% to Total
A: Not Corrected	8,050	17,750	53,006	117,149	195,955	76.44%
B: Correction Attempt Failed	0	116	328	1,431	1,875	0.73%
C: Correction Successful	10,729	13,361	11,028	16,719	51,837	20.22%
D: Successfully Contested	3,979	516	204		4,699	1.83%
E: Unsuccessfully Contested	0	85	18		103	0.04%
F: Declared Exemption	603	335	117		1,055	0.41%
H: Removal by DHS Decision	716	95	2	0	813	0.32%
Totals	**24,077**	**32,258**	**64,703**	**135,299**	**256,337**	**100.00%**

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Strategies for Controlling the Quality of Encounter Data *p4*

Benchmarking

Purpose: Assess *completeness* of data submissions ('…has DHS received all the data from the MCO?')

Process: Compares actual to expected claim submissions and paid amounts

Challenge: ACA and redistribution of enrollees among Minnesota's MCOs, make creating good predictors more challenging.

MCO 1

Service	2015_Q2	2015_Q3	2015_Q4	2016_Q1	2016_Q2	2016_Q3	2016_Q4	2017_Q1
Dental_Services	0.26	0.23	0.24	0.25	0.26	0.26	0.25	0.21
Emergency_Visits	0.05	0.06	0.05	0.06	0.05	0.05	0.05	0.05
Imaging_Services	0.05	0.05	0.05	0.06	0.05	0.05	0.05	0.05
Office_Visits	0.33	0.33	0.33	0.36	0.33	0.33	0.34	0.37
PCA_Services	1.33	1.35	1.26	1.31	1.47	1.55	1.65	1.71
Specialty_Rx	1.30	1.27	1.31	1.29	1.35	1.63	1.58	1.56

MCO 2

Service	2015_Q2	2015_Q3	2015_Q4	2016_Q1	2016_Q2	2016_Q3	2016_Q4	2017_Q1
Dental_Services	0.26	0.26	0.23	0.26	0.26	0.24	0.25	0.26
Emergency_Visits	0.06	0.06	0.05	0.09	0.08	0.09	0.09	0.09
Imaging_Services	0.06	0.06	0.06	0.09	0.08	0.09	0.09	0.09
Office_Visits	0.33	0.32	0.33	0.44	0.43	0.43	0.43	0.46
PCA_Services	7.84	7.79	8.06	36.89	36.91	34.50	35.55	37.02
Specialty_Rx	1.27	1.25	1.24	2.23	2.16	2.56	2.39	2.54

All MCOs

Service	2015_Q2	2015_Q3	2015_Q4	2016_Q1	2016_Q2	2016_Q3	2016_Q4	2017_Q1
Dental_Services	0.25	0.25	0.23	0.25	0.25	0.24	0.24	0.25
Emergency_Visits	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Imaging_Services	0.06	0.05	0.06	0.06	0.05	0.05	0.05	0.05
Office_Visits	0.33	0.32	0.32	0.35	0.33	0.31	0.32	0.35
PCA_Services	6.61	6.61	6.95	6.97	6.88	6.89	7.15	7.33
Specialty_Rx	1.27	1.27	1.28	1.32	1.30	1.31	1.27	1.37

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Strategies for Controlling the Quality of Encounter Data *p5*

Quality Assurance Protocols (QAPs)

10 Protocols

- **1: Timeliness of Submissions**
- **2: Resubmissions**
- **3: MCO Quality Checks Against Benchmarks**
- **4: Duplicate Encounter Records Submitted**
- **5: Rejections and Denials by DHS**
- **6: Control Reporting and Reconciliation**
- **7: Claim Reviews**
- **8: Remediation Plans**
- **9: Data Quality Assurance Report**
- **10: MCO Review of Provider Data**

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Strategies for Controlling the Quality of Encounter Data *p6*

Data Editing

- The vehicle for processing managed care encounter claim data is via the MMIS claim system
- 5 years ago, all but one of about 1,000 FFS edits were turned off and the process of writing new MMIS edits for managed care data began
- Currently approximately 60 managed care specific edits in MMIS
- The conundrum of what to do (or not to do) with encounter claims that fail one or more edits
- We have gradually come to the realization that REPORTING on errors for post-adjudicated claims can sometimes be more useful than mainframe edits, far more flexible

Header Edits

Edit	Description
D101	Duplicate or conflict for same provider
D112	First DOS & last DOS more than 18 months apart
D189	Service units are missing or non-numeric
D228	Drug quantity missing or zero
D248	DOB does not match DOB on DHS recipient file
D250	Recipient ID not on DHS recipient file
D300	Pay-to provider ID not on DHS provider file
D448	Pharmacy duplicate
D466	MCO paid date is invalid, in the future, missing, or before DOS
D467	MCO paid amount is missing or less than zero
D508	MCO paid amounts on lines do not total header paid amount
D552	Claim submitted 36 months after service date
D760	MCO contract ID is invalid
D799	ICD-10 diagnosis code with service date prior to 10/01/2015
D800	ICD-9 diagnosis code with service date on/after 10/01/2015
D805	MCO-denied claim received before implementation
D806	HM segment is missing
D808	Replacement not accepted
F177	Attempted replacement of a failed replacement
F762	ICN-to-replace has multiple matches on DHS file

Line Edits

Edit	Description
D101	Duplicate or conflict for same provider
D127	DOS after date processed by DHS
D152	NDC Code missing
D163	Line DOS outside header DOS range
D189	Service units are missing or non-numeric
D228	Drug quantity missing or zero
D360	NDC code does not follow FDA formatting
D395	PCA First DOS is not ed
D412	Treating provider ID nc
D421	PCA treating provider t
D464	PCA units are blank, ze
D466	MCO paid date is invali
D467	MCO paid amount is m
D476	PCA services require p
D803	CD room & board not c

Warning Edits

Edit	Description
W189	Service units are missing or non-numeric
W203	Restricted Recipient, HCDPP referral required
W214	Procedure Code S0302 submitted without valid referral code
W267	TPL resource available, claim should be denied by MCO
W281	TPL payment too low, multi-cost avoid
W284	Encounter claim w/o PPHP enrollment
W288	Prescribing NPI missing or not on DHS provider file
W412	Treating provider ID not on DHS provider file
W423	PCA treating provider not affiliated with pay-to on DOS
W450	Diagnosis code missing or not on DHS file
W481	Invalid CARC or denial reason code
W509	MCO allowed amounts on lines do not total header allowed amount
W574	Other Insurance Indicator = 4 but no N-codes sent
W800	ICD-9 diagnosis code with service date on/after 10/01/2015
W810	MCO allowed amount is missing or less than zero

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Strategies for Controlling the Quality of Encounter Data *p7*

Control Reporting

Purpose: This large on-going project requires the MCOs to reconcile financial reporting submitted to the State at an aggregate level with aggregated paid amounts from the managed care encounter claim data submitted to DHS.

Two major activities:

1. Aggregate Reconciliation: DHS works with MCOs to reconcile differences between MCO reported aggregate paid amounts, and DHS summarized encounter claim paid amounts.

2. Detail Reconciliation: DHS provides the MCOs feedback at least semi-annually in a data file with granular, line-by-line claim status of encounter claims they have submitted to DHS.

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Notes

- All data quality efforts depend on DHS internal analytics --- this has changed dramatically from a mainframe orientation
- Edits vs. reporting
- MCO denied claims <- TMSIS
- TPL
- How good is the Minnesota encounter data now?

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Contact Information

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mn.gov/dhs

Questions?

Improving Medicaid Encounter Data

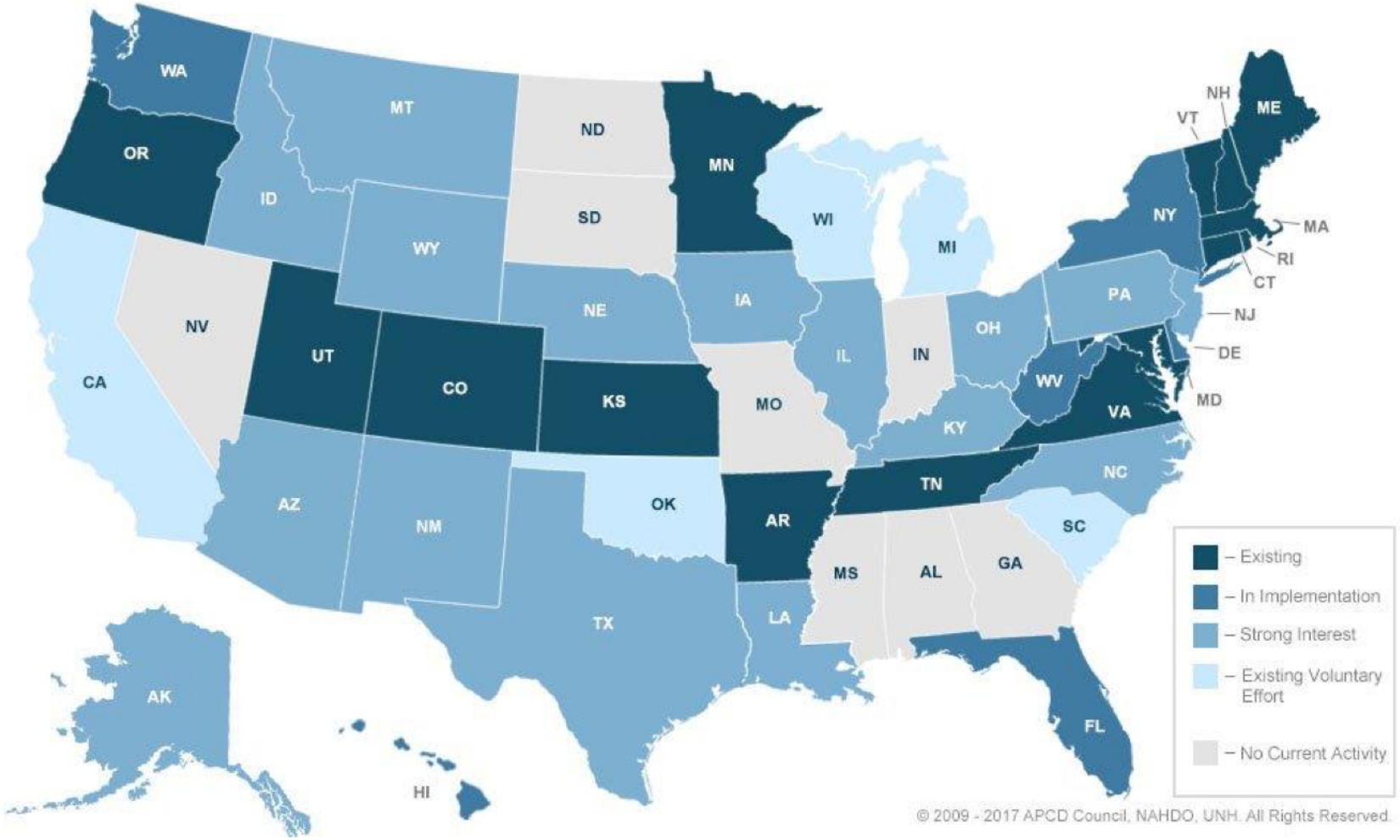
Lessons Learned from APCDs

Denise Love
National Association of
Health Data Organizations (NAHDO)

The Big Picture

- **Use of state data systems to drive system transformation (payment reform and evaluation**
  - **State All Payer Claims Database (APCDs):**
    - 16 in implementation with additional in planning phases.
    - Medicaid claims/eligibility are important components of most of these APCDs
- **Use of shared/public data requires:**
  - Credible underlying data for broad buy-in of results
  - State involvement in data collection, analytics, use

State APCDs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NC
VA
PA
NY
MD
DE
NJ
CT
RI
MA
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AK
HI
– Existing
– In Implementation
– Strong Interest
– Existing Voluntary Effort
– No Current Activity
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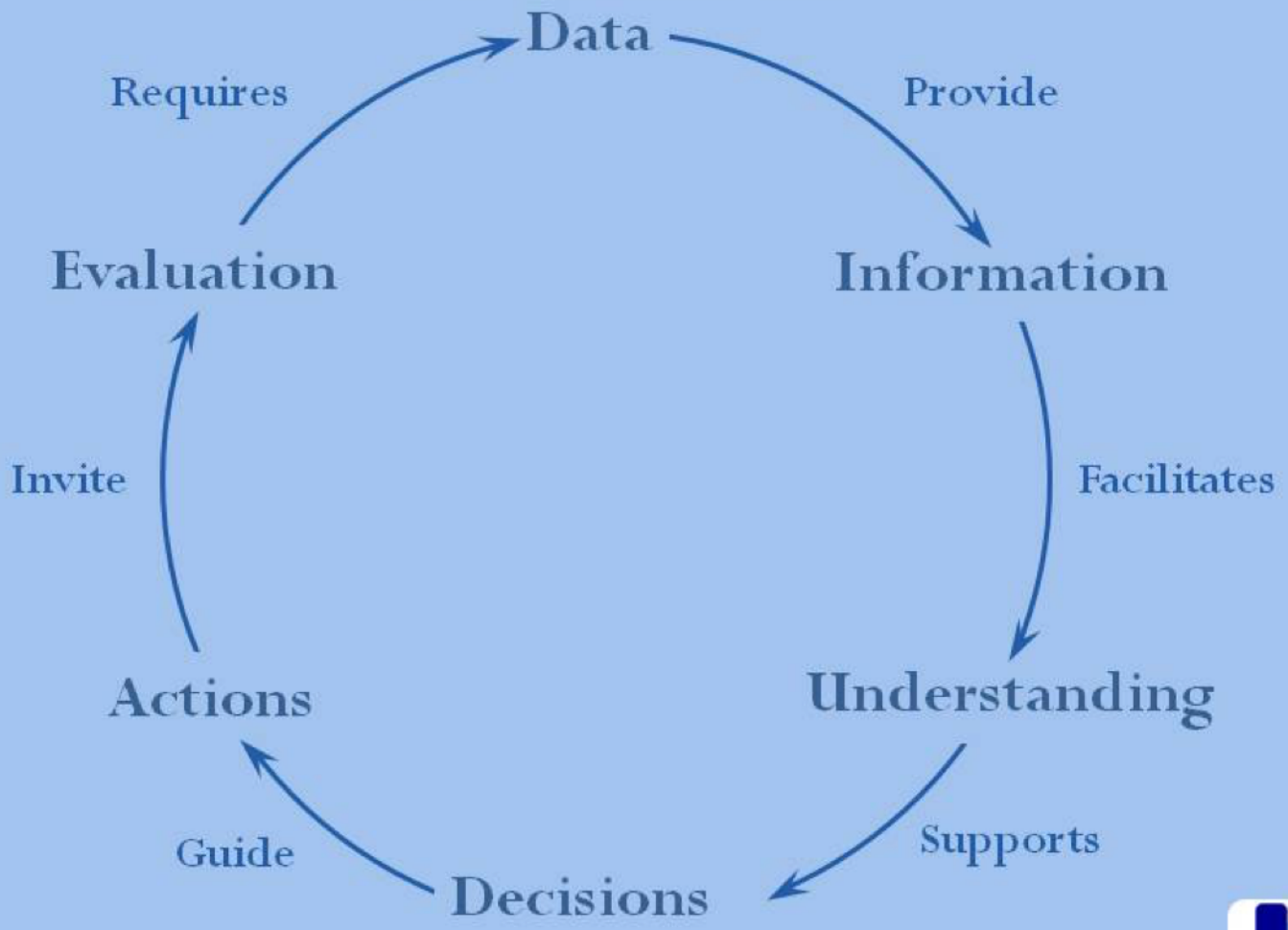
Use Case Examples for APCDs

- Comprehensive, statewide All-Payer Data:
  - More comprehensive risk adjustment across payers
  - Larger sample size for network, clinic, physician metrics
  - Value-based purchasing
  - Policy evaluation
  - Support and evaluate payment/health care reform
  - Total Cost of Care Measure
  - Coordination of benefits resource
  - Retrospective and predictive analytics (opioids, case-managed populations, key diagnoses)

Good Data Are Essential for Good Decision Making, Intelligent Action, and Continued Improvement



Data Quality is a Priority for State APCDs

- Data specification and reporting requirements developed with input from stakeholders, including plans
- Testing with each carrier prior to onboarding
- Extensive editing
- Payer review and remediation after initial validation and post-processing edit checks
- Review of known issues and QC prior to analytics
- Carrier feedback reports for payer review/remediation
- Compliance is important
- APCDs usually can link the processed data back to raw data files to verify accuracy

Data Quality Key Best Practices

- State involvement in all stages:
  - Data collection
  - Analytic methods
  - Reports
- Clarity on data use and shared access policies
- Standard and custom reports

Contact Information

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Questions?

Takeaways

- High quality encounter data is imperative to completing accurate risk adjustment, program oversight and integrity, and quality measurement
- State involvement in data collection, analytics, and use may support MCOs in improving data quality
- Strategies to improve data include:
  - Providing extensive, timely feedback to MCOs;
  - Implementing a corrected claims penalty;
  - Benchmarking;
  - Developing Quality Assurance Protocols (QAPs); and
  - Editing data

Thank You

Thank you for joining today's webinar!

Please take a moment to complete the post-webinar survey.

We appreciate your feedback!

For more information & resources, please contact MedicaidIAP@cms.hhs.gov