



**MACPAC**  
Medicaid and CHIP Payment and Access Commission



# Evaluating Medicaid Managed Care Encounter Data for Policy Analysis

April Grady

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# Overview

Background information on encounter data use and reporting

Previous studies examining the usability of encounter data from federal sources

Draft results from MACPAC analysis of comprehensive managed care encounter data for 2010

# Importance of Encounter Data is Growing

Managed care is a large and growing share of the Medicaid program

- Between 2000 and 2011, the share of enrollees in comprehensive risk-based plans increased from 38 to 50 percent
- Most individuals gaining eligibility in 2014 are expected to enroll in managed care

Encounter data provide a record of the services provided to enrollees in managed care plans

# Encounter Data Could be Used at the Federal Level for a Variety of Purposes

Monitor and compare access to and quality of care in fee-for-service (FFS) and managed care systems, nationally and across states

- Some states already do this on an individual basis

Reduce the need for additional state reporting

- CMS-416 data on the early and periodic screening, diagnostic, and treatment (EPSDT) benefit
- Child and adult health quality measures, which are voluntary

# States Use Encounter Data for a Variety of Purposes

Most common uses are quality assurance, rate setting, service use monitoring, EPSDT reporting, program trending, quality measure reporting, immunization monitoring, and expenditure monitoring

States face challenges in collecting, validating, and reporting encounter data; Centers for Medicare & Medicaid Services has recently been providing technical assistance

# Most Analyses of Medicaid Claims Data from Federal Sources Have a FFS Focus

Due in part to a lack of information on encounter data in the Medicaid Statistical Information System (MSIS)

Problematic because FFS enrollees may not be representative of the overall Medicaid population

In addition, structural differences between FFS and managed care may influence service use and spending patterns

# Recent Analyses Show Improvements in Encounter Data from Federal Sources

Comprehensive managed care plans during 2007-2009 (Byrd and Dodd 2012)

- Majority of states may have data of reasonable completeness and quality for research purposes
- More states with usable data over years examined

Behavioral health plans during 2009 (Nysenbaum et al. 2012)

- Fewer states submitting data, and only a small number may be usable

# MACPAC Analyzed Comprehensive Managed Care Encounter Data for 2010

MACPAC analyzed encounter data for comprehensive managed care (CMC) enrollees during 2010, using methods similar to those of the 2007-2009 study noted earlier

We found that the majority of states with CMC had potentially usable encounter data, with variation by event type (outpatient visits, inpatient hospital stays, drug prescriptions) and eligibility group



# 2010 CMC Encounter Data Analysis Methods

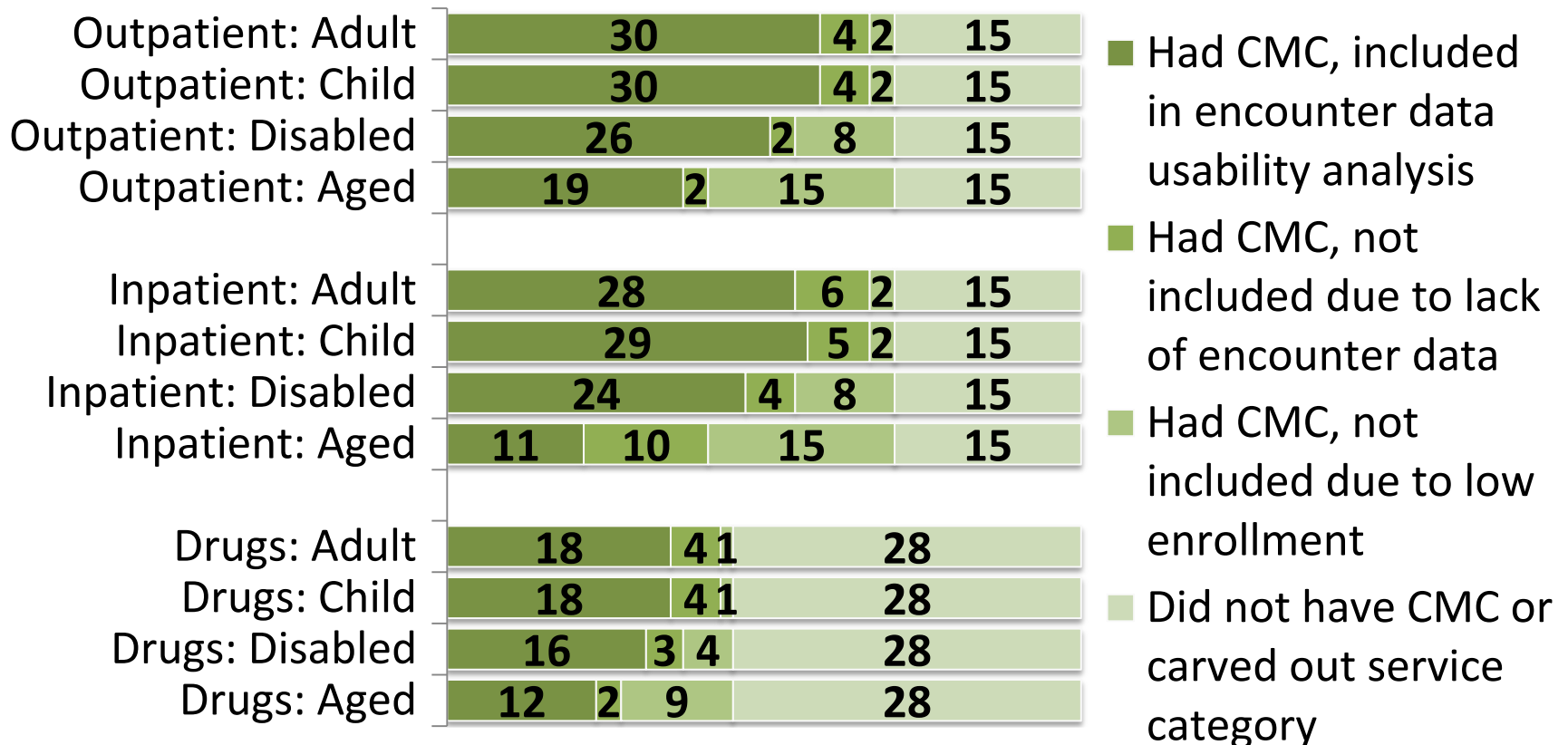
Used MSIS data for 2010 on outpatient (physician, clinic, outpatient hospital) visits, inpatient hospital stays, and drug prescriptions

Included full-benefit, non-dually eligible enrollees

Required states to meet CMC enrollment and encounter data submission thresholds

Compared encounter data values for completeness and quality metrics to benchmark ranges of FFS values from states without CMC

# Number of States Included in 2010 CMC Encounter Data Analysis



**Notes:** CMC is comprehensive managed care. Results are draft and subject to change based on future refinements to methodology.

**Source:** MACPAC analysis of Medicaid Statistical Information System data.

# Inpatient Hospital Stays in 2010 CMC Encounter Data: Completeness

Completeness Metrics	Benchmark Range Based on FFS Values and Number of States with CMC Encounter Data Value in Range			
	Adult	Child	Disabled	Aged
Percent of enrollees with at least one stay	0.0% - 41.3% 27 of 28	0.1% - 15.4% 28 of 29	5.3% - 29.6% 19 of 24	2.7% - 31.3% 11 of 11
Average number of inpatient stays per user	1.1 - 1.2 23 of 28	1.07 - 1.13 17 of 29	1.4 - 2.0 20 of 24	1.1 - 1.8 11 of 11

**Notes:** CMC is comprehensive managed care. Total number of states reflects those that met CMC enrollment and encounter data submission thresholds. Results are draft and subject to change based on future refinements to methodology.

**Source:** MACPAC analysis of Medicaid Statistical Information System data.

# Inpatient Hospital Stays in 2010 CMC Encounter Data: Quality

Quality Metrics	Benchmark Range Based on FFS Values and Number of States with CMC Encounter Data Value in Range			
	Adult	Child	Disabled	Aged
Average length of inpatient stay (days)	1.8 - 4.1 25 of 28	2.4 - 5.8 26 of 29	5.1 - 10.5 21 of 24	4.8 - 9.1 8 of 11
Average number of diagnosis codes per stay	1.9 - 9.3 26 of 28	1.5 - 6.7 27 of 29	2.4 - 14.5 22 of 24	0.6 - 17.0 11 of 11
Percent of stays with procedure code	47.2% - 100% 25 of 28	25.3% - 72.4% 25 of 29	25.6% - 74.8% 21 of 24	7.4% - 89.6% 11 of 11
Percent of stays with accommodation code	90.0% - 100% 24 of 28	90.0% - 100% 22 of 29	90.0% - 100% 20 of 24	90.0% - 100% 9 of 11

**Notes:** CMC is comprehensive managed care. Total number of states reflects those that met CMC enrollment and encounter data submission thresholds. Results are draft and subject to change based on future refinements to methodology.

**Source:** MACPAC analysis of Medicaid Statistical Information System data.

# Many States with CMC Had Potentially Usable Encounter Data for 2010

Event Type	Number and Percent of States			
	Adult	Child	Disabled	Aged
Outpatient visits	24 of 34 71%	26 of 34 76%	22 of 28 79%	19 of 21 90%
Inpatient hospital stays	26 of 34 76%	25 of 34 74%	20 of 28 71%	11 of 21 52%
Prescription drugs	18 of 22 82%	17 of 22 77%	14 of 19 74%	11 of 14 79%

**Notes:** CMC is comprehensive managed care. Outpatient visits include physician, clinic, and outpatient hospital. CMC encounter data were deemed potentially usable if at least 1 of 2 completeness metrics and a specified number of quality metrics (4 of 5 for outpatient, 3 of 4 for inpatient, 1 of 2 for drugs) fell within benchmark ranges. Total number of states includes those that had substantial CMC enrollment but reported little or no CMC encounter data. Results are draft and subject to change based on future refinements to methodology.

**Source:** MACPAC analysis of Medicaid Statistical Information System data.

# Inclusion of 2010 CMC Encounter Data Affects Service Use Statistics

State	Individuals Eligible on the Basis of a Disability				
	Percent enrolled in CMC	Percent with an inpatient hospital stay		Average length of stay (days)	
		FFS enrollees	FFS & CMC enrollees	FFS enrollees	FFS & CMC enrollees
A	Between 80% - 90%	31%	24%	7.9	6.3
B	Between 80% - 90%	10%	15%	13.2	8.3
C	Between 40% - 50%	25%	23%	9.2	7.9

**Notes:** Fee-for-service (FFS) enrollees are those with no comprehensive or limited-benefit managed care plan participation in at least one month; comprehensive managed care (CMC) enrollees are those with CMC plan participation in at least one month. Figures for FFS enrollees only include FFS claims; those for FFS & CMC enrollees include both FFS and encounter claims. Results are draft and subject to change based on future refinements to methodology.

**Source:** MACPAC analysis of Medicaid Statistical Information System data.

# 2010 CMC Encounter Data Analysis

## Future Considerations

Alternative benchmarks for evaluating usability of encounter data (current analysis used FFS)

Attribution of encounter claims to specific plans (ID numbers are problematic)

Examination of additional services and managed care plan types

Presentation of service use and other statistics for FFS and managed care populations