

Chapter 2:

State Readiness to Report Mandatory Core Set Measures

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Key Points

- Beginning in fiscal year (FY) 2024, states are required to report on the core set of quality measures for children enrolled in Medicaid and the State Children's Health Insurance Program (CHIP) and the core set of behavioral health measures for adults enrolled in Medicaid.
- The core sets allow states, the public, and the Centers for Medicare & Medicaid Services (CMS) to monitor performance on standardized indicators of the quality of care provided to Medicaid and CHIP beneficiaries.
- States and CMS incorporate the core sets into a variety of initiatives, such as value-based purchasing initiatives and monitoring of Section 1115 substance use disorder demonstration waivers and Section 1945 health homes. The core sets are also used in the Medicaid and CHIP Scorecard.
- Voluntary reporting of the Child and Adult Core Set measures has increased over the last several years, but reporting varies by state, measure, and core set.
- In the FY 2018 reporting year, all 50 states and the District of Columbia reported at least one Child Core Set measure, but the total number of measures reported by states, regardless of whether the measures met minimum state reporting and data quality criteria, ranged from 1 to 24 measures, with a median of 18.
- Congress provided six years between the 2018 enactment of the reporting mandate and its implementation. Past experience implementing new policies points to the need for CMS to issue early and clear guidance to provide states sufficient time to plan for and make necessary policy and programmatic changes, and address challenges.
- Challenges states and plans face include accessing certain data, adhering to the core set technical specifications, and having sufficient administrative capacity. These challenges are not new but are more pressing now that reporting will be mandatory.
- While states and CMS have begun to prepare, more needs to be done to ensure that states will be able to report on all measures. States identified factors that would bolster their readiness, including early CMS guidance, ongoing technical assistance, and additional resources.
- CMS has not yet issued guidance. Several questions that will affect state planning are unanswered and states cannot fully prepare.
- CMS is considering strategies to address the concerns and challenges that states and plans face. CMS is also considering ways to make core set reporting less burdensome.

CHAPTER 2: State Readiness to Report Mandatory Core Set Measures

Beginning in fiscal year (FY) 2024, states will be required to report on the core set of health care quality measures for children enrolled in Medicaid and the State Children's Health Insurance Program (CHIP) and on the core set of behavioral health measures for adults enrolled in Medicaid. The Bipartisan Budget Act of 2018 (BBA, P.L. 115-123) made state reporting on the Child Core Set mandatory. Subsequently, in an effort to measure and evaluate the quality of substance use disorder (SUD) treatment services in the midst of the nationwide opioid epidemic, Congress required that states report behavioral health measures in the Adult Core Set under the Substance Use-Disorder Prevention that Promotes Opioid Recovery and Treatment for Patients and Communities Act of 2018 (SUPPORT Act, P.L. 115-271).

The goals of the Child and Adult Core Sets are to facilitate standardized reporting by states on a uniform set of performance measures and encourage states to use results to drive quality improvement (CMS 2019a). The core sets also allow states, the public, and the Centers for Medicare & Medicaid Services (CMS) to monitor trends in performance on standardized indicators of quality of care provided to Medicaid and CHIP beneficiaries under both fee-for-service (FFS) and managed care arrangements and examine performance across states (HHS 2011a). Reporting is currently voluntary, and states vary in the number of measures they report. For example, although all 50 states and the District of Columbia reported at least one Child Core Set measure in FY 2018, the number of measures reported ranged from 1 to 24 (CMS 2019b).

The deadline for mandatory reporting is still several years away, meaning that states and CMS have time to plan and to make any needed policy and

operational changes. However, past experience implementing new Medicaid policies and initiatives suggests that considerable resources and attention will be needed to develop implementation parameters, make policy and programmatic changes, and address challenges that arise. As CMS and states begin preparing for this mandate, MACPAC assessed state readiness to meet the statutory requirements for core set reporting, including state planning efforts, current administrative capacity, and how CMS can best support these activities. This chapter presents our findings.

The chapter begins with an overview of the Child and Adult Core Sets and the development, selection, and maintenance of core set measures. We then discuss funding, technical assistance, and other resources that CMS has provided to states to assist with reporting. The chapter continues with a look at the current state of Child and Adult Core Set reporting, including annual timelines, changes in state reporting capacity, and how states use the core measures to inform quality improvement efforts. Then, based on findings from our interviews with states, CMS, and other stakeholders, the chapter discusses challenges in reporting related to administrative capacity and the availability and timeliness of performance data.

To meet the FY 2024 deadline, states will need guidance from CMS within the next year on the specific core set reporting requirements, including the list of measures that will be mandatory and how deviations from the core set technical specifications will be addressed. Some states already have capacity to report many of the core set measures and are optimistic about their readiness for mandatory reporting, but others are less ready. Many states would welcome additional technical assistance and other resources, particularly to address areas that historically have been challenging. Challenges facing states include accessing data from medical records or maintained by other state agencies, obtaining data for certain populations to ensure complete reporting, and having sufficient administrative capacity to collect and analyze data.

The Commission will continue to monitor state planning and federal policies to support state Medicaid and CHIP programs in meeting the core set reporting mandate.

Development of the Core Sets

Prior to implementation of the core set, there was wide variation in the reliability and completeness of state data on the quality of care received by enrollees in Medicaid and CHIP, reflecting differences in state resources, data collection systems and capabilities, performance measures, and quality improvement priorities (CMS 2011). According to a 2010 report by the Secretary of the U.S. Department of Health and Human Services (the Secretary) on the quality of care for children in Medicaid and CHIP, such variation made it difficult to examine performance across states and populations (CMS 2011, Mangione-Smith et al. 2011, HHS 2010). Measurement and reporting systems used by many state Medicaid agencies often lagged behind those used by managed care organizations (MCOs), hindering statewide performance measurement (HHS 2010). In addition, states identified a need to shift the overall focus of quality monitoring to include measures that capture population-level health outcomes and progress toward specific program goals (Smith et al. 2009). The introduction of a standardized core set of measures was also intended to allow states to track their performance over time and benchmark their own outcomes against national data (Mangione-Smith et al. 2011).

CMS established the Child and Adult Core Sets in response to congressional directives and consulted states, quality measurement experts, and stakeholders in the development process. Reporting still varies by state, but has increased overall since voluntary reporting began.

Initial Child Core Set

The Children's Health Insurance Program Reauthorization Act of 2009 (CHIPRA, P.L. 111-3) required development of a core set of children's

health care quality measures to monitor the quality of care and health outcomes for children covered by Medicaid and CHIP (§ 1139A of the Social Security Act (the Act)). The legislation directed the Secretary to identify, by January 1, 2010, an initial set of measures based on existing quality of care measures, with a specific focus on capturing duration of insurance coverage, availability and effectiveness of preventive services, treatment and management of chronic conditions, and patient experiences with care (Mangione-Smith et al. 2011).

CMS collaborated with the Agency for Healthcare Research and Quality (AHRQ) to develop the initial Child Core Set in consultation with key stakeholders, including provider groups, national organizations representing children and families, state Medicaid and CHIP officials, and organizations involved in health care quality measurement; this group was referred to as the AHRQ Subcommittee of the National Advisory Council on Quality Measures for Children's Healthcare in Medicaid and CHIP Programs (SNAC).¹ In 2009, AHRQ convened the SNAC to review measures based on the criteria of scientific validity, feasibility of reporting and use by state Medicaid and CHIP programs, alignment with federal quality measurement priorities, and importance in improving health outcomes for children (CMS 2011, Mangione-Smith et al. 2011).² To address feasibility in reporting, the SNAC sought to create a set of measures that struck a balance in terms of different data sources (such as administrative or medical record data), types of measures (outcome, process, or structural), and types of services assessed (such as primary care or specialty care). CMS and AHRQ compiled the initial core set primarily from the National Committee for Quality Assurance (NCQA) Healthcare Effectiveness Data and Information Set (HEDIS) and other existing quality of care measures for children.³ Following a review of 119 nominated measures, public comments, and several rounds of voting, the SNAC eliminated measures that did not meet the committee's criteria for validity, feasibility, and importance; the committee also examined measures to see if any overlapped (Mangione-Smith et al. 2011).⁴ The committee ultimately recommended 25

measures to the Secretary for inclusion in the initial core set. The Secretary released an initial core set of 24 measures in 2009, with voluntary reporting to begin in FY 2010 (HHS 2011a).

The initial Child Core Set included measures capturing receipt of preventive services such as immunizations, developmental screenings, and well-child visits; management of acute and chronic conditions such as asthma and diabetes; and family experiences of care (HHS 2011a).⁵

Initial Adult Core Set

The Patient Protection and Affordable Care Act (ACA, P.L. 111-148, as amended) required the development of a core set of adult health care quality measures in Medicaid (§ 1139B of the Act). In 2010, CMS and AHRQ convened a separate advisory committee to evaluate measures for inclusion in the initial Adult Core Set (HHS 2012, AHRQ 2011). Measures for review included those endorsed by the National Quality Forum (NQF), those submitted by Medicaid medical directors, measures currently in use by CMS, and other measures recommended by members of the SNAC. Similar to the process used for identifying the initial Child Core Set, AHRQ and CMS identified five criteria for evaluating the proposed core set measures: importance in leading to gains in health care quality or improving health outcomes, scientific evidence, scientific soundness, current use in and alignment with existing federal programs (such as the National Quality Strategy and the Medicare and Medicaid Electronic Health Record Incentive Programs), and feasibility for state reporting (Dougherty et al. 2014, HHS 2012).

Similar to the Child Core Set, the initial Adult Core Set was designed to reflect the health needs of the target population, with measures capturing cancer screenings and management of chronic conditions such as diabetes, hypertension, and chronic obstructive pulmonary disorder (HHS 2012). The Adult Core Set also included five behavioral health measures to capture use of preventive and treatment services for mental health conditions and substance use disorders. During the public

comment period, stakeholders commented on the desirability of selecting measures that were already in use by other federal performance measurement programs (including the Child Core Set), and concerns about feasibility of reporting. CMS issued the initial core set of 26 adult quality measures in 2012, and voluntary reporting of these measures began in 2014 (HHS 2014).

Early experience and CMS support to states

Creation of the Child and Adult Core Sets was accompanied by a number of other companion efforts focused on quality improvement activities, including some activities that used core set measures. CHIPRA required CMS to establish quality demonstration projects to identify and replicate strategies for improving quality of care for children. In 2010, grants were awarded to 18 states to help build an infrastructure for data collection and reporting of the Child Core Set, with a particular focus on promoting use of data from electronic health records to support quality improvement (AHRQ 2015, HHS 2010). States participating in these demonstrations implemented projects that included developing pediatric electronic health records and applying health information technology to quality improvement efforts, and they used Child Core Set measures to monitor policy, programmatic, and delivery model changes (AHRQ 2019).⁶ For example, Maine's Medicaid program used performance data on six Child Core Set measures to determine whether providers in the state's Accountable Communities Initiative were eligible to receive shared savings (AHRQ 2015).

The ACA created the Adult Medicaid Quality (AMQ) grant program. From 2012 to 2014, this program supported state Medicaid agencies in developing staff capacity to collect, report, analyze, and use data from the Adult Core Set to monitor and improve quality of care and in implementing at least two quality improvement projects relating to Adult Core Set measures.⁷

CHIPRA also required CMS to provide technical assistance to states for adopting and implementing the Child Core Set (§ 1139A(a)(7) of the Act). The goals were to increase the number of states consistently and uniformly reporting the initial measures based on CMS technical specifications and to facilitate state use of performance data to drive quality improvement (CMS 2011).

In addition, CHIPRA established the Pediatric Quality Measures Program (PQMP) to strengthen the initial Child Core Set and to test, validate, and develop new quality measures across several domains for inclusion in subsequent iterations of the Child Core Set. Another goal of the PQMP was to contribute to improvements in quality of care and to the elimination of child health care disparities. In 2011, AHRQ and CMS awarded grants to seven centers of excellence—including health services researchers, state Medicaid agencies, and stakeholders—to evaluate how measures are implemented at the provider level and to develop new and enhanced pediatric measures (AHRQ 2018). Current PQMP grantees are focusing on assessing the usability of newly developed measures by states, health plans, and providers (AHRQ 2018).

Current Reporting

For FY 2020, there are 24 measures in the Child Core Set, and 13 behavioral health measures in the Adult Core Set (Appendix 2A). In the Child Core Set, 15 measures (approximately two-thirds) are HEDIS measures. The remaining Child Core Set measures come from other measure stewards such as CMS or the Centers for Disease Control and Prevention (CDC).⁸ Among the Adult Core Set behavioral health measures, nine are HEDIS measures.⁹

For each measure, CMS establishes technical specifications on data collection, preparation, and reporting (CMS 2019c). These technical specifications include detailed instructions on populations eligible for inclusion, data collection time frames, and calculation of performance rates. The specifications also include references for value

sets, which are complete sets of codes that must be used to identify a service or condition in calculating the performance measure. CMS generally adopts the measure specifications of the measure steward, although it may customize these to reflect the specific needs of the Medicaid program.

The Child and Adult Core Sets are reviewed and updated annually for reporting feasibility and clinical relevance (§§ 1139A and 1139B of the Act). Since 2014, CMS has worked with the NQF's Measures Application Partnership (MAP) to convene stakeholder reviews of both the Child and Adult Core Sets (CMS 2014a). These reviews provide an opportunity to add or remove measures to the core sets and to identify potential gaps in measure domains where further quality improvement efforts are needed (Brooks 2018).

Typically, CMS has added two to three measures each year to capture emerging quality improvement areas, such as maternal health and access to behavioral health care services (CMS 2019a, 2014a, 2013a, 2013b). For example, CMS added three measures in recent years to track performance in addressing misuse of opioids: use of opioids at high dosage in persons without cancer (OHD-AD), use of pharmacotherapy for opioid use disorder (OUD-AD), and concurrent use of opioids and benzodiazepines (COB-AD). At least one measure has been retired each year, usually as a result of low reporting rates and state data collection challenges.¹⁰ However, CMS has also removed measures from the core sets in instances where states reach consistently high performance rates with little room for further improvement (Mathematica 2019).¹¹

Both the child and adult MAP workgroups have emphasized the need to shift the focus of the core sets from process measures, which may capture receipt of specific services, to outcome measures, in particular those for certain populations such as children with chronic health care needs (NQF 2018, Brooks 2016).

States report measures on a uniform timeline; this is meant to support consistency in reporting and comparability across states (Table 2-1).

TABLE 2-1. Timeline for State Reporting of Child and Adult Core Set Measures, FY 2019

Time period	Activity
May 2018	MAP workgroups met to review proposed FY 2019 Child and Adult Core Sets
November 2018	CMS released FY 2019 Child and Adult Core Set measures
February 2019	CMS released technical specifications and resource manuals for core sets
September 2019	States began reporting FY 2019 performance data in MACPro
December 2019	Deadline for states to submit FY 2019 performance data ¹

Notes: FY is fiscal year. MAP is the National Quality Forum’s Measures Application Partnership. MACPro is the Medicaid and CHIP Program Portal.

¹ States were required to submit FY 2019 performance data by December 31, 2019.

Sources: CMS 2019d. NQF 2018.

State reporting of the Child and Adult Core Set measures has increased over the last several years, but varies by state, measure, and core set (Figure 2-1; Figure 2-2; and Appendix 2B, Table 2B-1).¹²

The number of Child Core Set measures that met minimum state reporting and data quality criteria and were publicly reported by CMS increased from 12 for FY 2010 to 23 for FY 2018 (CMS 2019b, HHS 2011b). (CMS only reports state performance on measures that are reported by at least 25 states using the core set technical specifications, and that meet CMS standards for data quality.¹³) For the FY 2018 reporting year, all 50 states and the District of Columbia reported at least one of the 26 Child Core Set measures, but the total number of measures reported by states, regardless of whether the measures met minimum state reporting and data quality criteria, ranged from 1 to 24 measures with a median of 18 (CMS 2019b). States were more likely to report measures which rely on administrative or hybrid data (that is, data from both administrative sources and medical records); they were less likely to report measures that rely solely on medical record review, vital records data, or electronic health records (CMS 2019b, 2019e).¹⁴

The number of behavioral health measures in the Adult Core Set publicly reported by CMS has also increased—from two in FY 2014 to six in FY 2018 (CMS 2019e, 2015). Forty-four states and the District of Columbia reported at least one of the 11 behavioral health measures in the Adult Core Set for FY 2018; the total number of

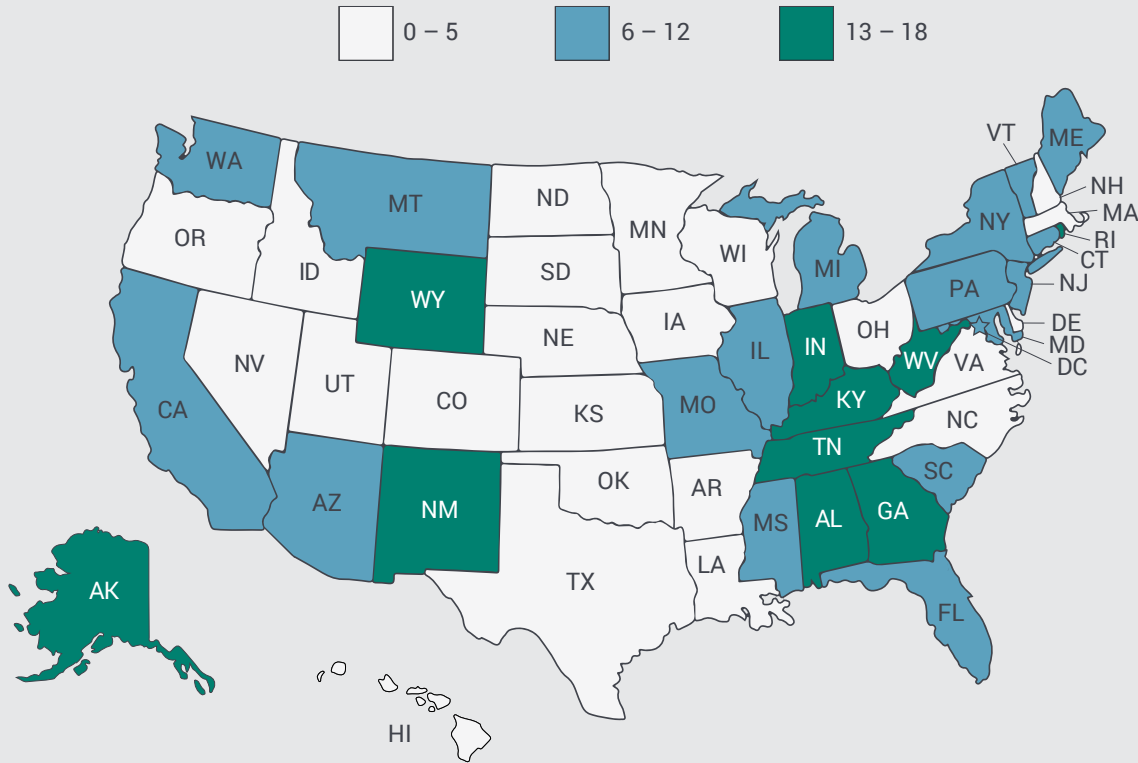
measures reported by states ranged from 0 to 11 measures, with a median of 7 (CMS 2019e).

Use of the Core Sets

The Child and Adult Core Sets are components of several broader federal and state efforts to improve quality of care for children and adults covered by Medicaid.¹⁵ At the state level, Medicaid programs are working with partner agencies, health plans, and providers to promote use of core set in value-based purchasing initiatives (CMS 2016).¹⁶ For example, Maryland has used performance rates for four of the Child Core Set measures to establish payment incentive thresholds for managed care plans (CMS 2016). Florida’s clinician incentive program includes measures for well-child visits and child and adolescent access to primary care (Orfield et al. 2019). Well-child visit performance metrics are also used in Indiana’s pay-for-outcomes program (MDwise 2018).

CMS requires states to report certain core measures under the special terms and conditions of Section 1115 SUD demonstration waivers and to comply with Section 1945 health homes requirements (CMS 2017b). For example, states with Section 1115 SUD demonstrations are required to report annually on core set measures such as initiation and engagement of alcohol and other drug abuse or dependence treatment (IET-AD) and concurrent use of opioids and benzodiazepines (COB-AD)

FIGURE 2-1. Number of Child Core Set Measures Reported by States, FY 2010



Notes: FY is fiscal year. Data are based on all Child Core Set measures reported by states for the FY 2010 reporting cycle. Totals include measures reported using Child Core Set or other specifications, which may include specifications for Healthcare Effectiveness Data and Information Set measures.

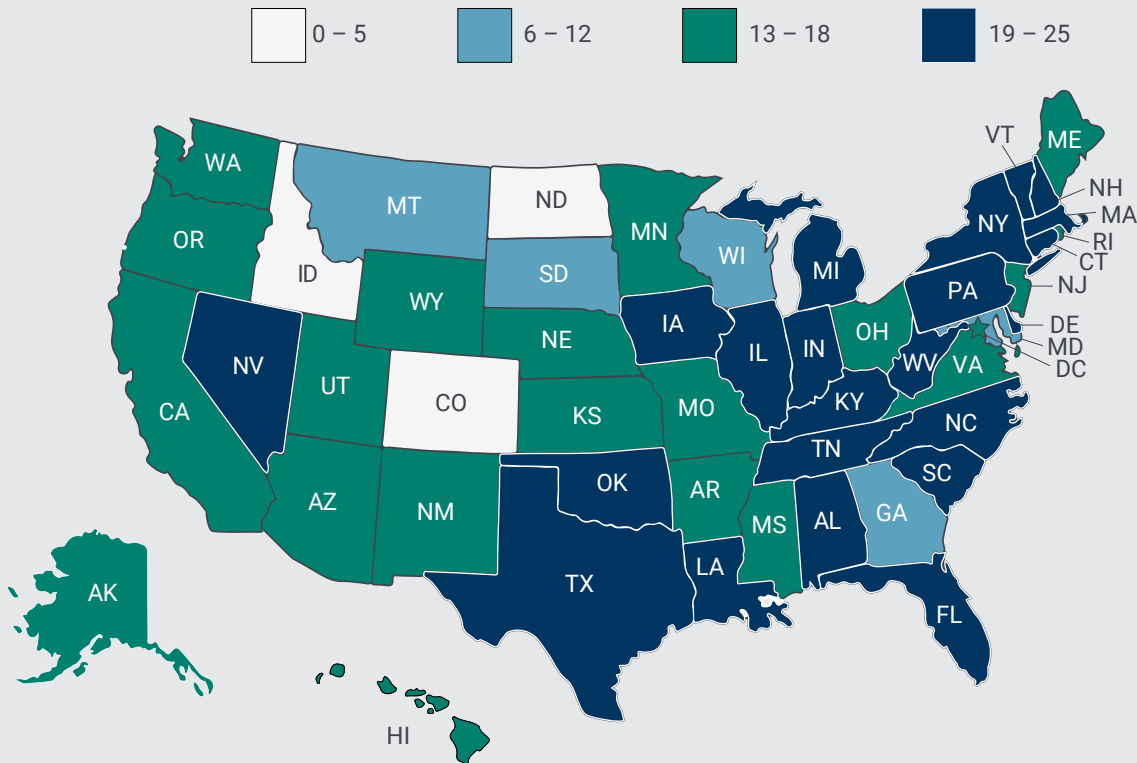
Source: MACPAC, 2019, analysis of HHS 2011b.

(CMS 2019f). In addition, in November 2019, CMS added two behavioral health measures from the Adult Core Set (use of pharmacotherapy for opioid use disorder (OUD-AD) and follow-up after emergency department visit for alcohol and other drug abuse or dependence (FUA-AD)) to the existing health home core set for states operating health homes programs for individuals with substance use disorders (CMS 2019g).¹⁷

CMS has also incorporated several measures from the Child and Adult Core Sets as part of its Medicaid and CHIP Scorecard. Initially, the scorecard included measures focused on behavioral health, postpartum care, well-child visits, and chronic disease management (CMS 2019h).

In November 2019, CMS released an updated version of the scorecard, with data on state performance for several additional measures from the Child and Adult Core Sets, including preventive care (breast cancer screening (BCS-AD)), chronic disease management (comprehensive diabetes care: hemoglobin A1c (HbA1c) poor control (>9.0%) (HPC-AD)), and maternal health (live births weighing less than 2,500 grams (LBW-CH)) (CMS 2019i).

FIGURE 2-2. Number of Child Core Set Measures Reported by States, FY 2018



Notes: FY is fiscal year. Data are based on all Child Core Set measures reported by states for the FY 2018 reporting cycle. Totals include measures reported using Child Core Set or other specifications, which may include specifications for Healthcare Effectiveness Data and Information Set measures.

Source: MACPAC, 2019, analysis of CMS 2019b.

Factors Affecting State Readiness for Core Reporting

Mandatory reporting of the core sets is four years away and, in the intervening time, CMS and states have work to do to address the challenges associated with data collection and measure calculation. Much can be learned from states' experience with voluntary core set reporting.

To understand the status of state readiness, and to identify what steps states and CMS need to take to prepare for FY 2024, MACPAC contracted with Mathematica to conduct interviews with Medicaid and CHIP officials in seven states, representatives

of MCOs and behavioral health organizations (BHOs) involved in state core set reporting, and CMS staff and contractors. We selected states for inclusion in the study based on a range of characteristics: the proportion of beneficiaries covered through managed care (as an indication of states' ability to leverage MCOs for reporting); the number of measures reported for the most recent year; the rate of increase in measures reported over a one- to two-year period; and whether a state reported a measure that was reported by less than half of other states in the most recent reporting year (as an indication of states' ability to report on more challenging measures).¹⁸

While states and CMS have begun to prepare, more needs to be done to ensure that states will be able to report on all measures. State Medicaid programs face numerous technical challenges that will affect their ability to meet the FY 2024 mandate (Christensen et al. 2017, Shah et al. 2016, Doetsch and Smith 2014, Knapp et al. 2014, HHS 2010). These include accessing data from medical records or other state agencies; adhering to the core set technical specifications when these deviate from the HEDIS specifications or if state billing codes differ from codes in specifications; and having sufficient administrative capacity to collect and analyze data. These challenges are not new but become more pressing as mandatory reporting approaches.

Moreover, CMS has not yet issued guidance, which states indicate is a key barrier to preparing for mandatory reporting. Without early guidance, several questions that will affect state planning are unanswered; examples include what measures will be required and how deviations from the core set technical specifications will be handled.

Accessing data

Measures in the Child and Adult Core Sets draw on multiple sources of data, each of which poses specific collection challenges. Nine of the Child Core Set measures rely on administrative data; 13 on administrative, hybrid, or electronic health record (EHR) data; and the remainder use state vital records or survey data. Eight of the adult behavioral health measures rely exclusively on administrative data; four on the administrative, hybrid, or EHR data, and the remaining measure is based on survey data.

Medical record and EHR data. Collecting data from paper and electronic medical records can be difficult for states, MCOs, and BHOs for several reasons (Box 2-1). Accessing data from paper charts and EHRs for hybrid measures requires establishing cooperative relationships with clinicians and clinician networks before conducting the reviews themselves. Providers receive multiple concurrent requests for performance

data, and their offices are not necessarily set up to respond to the volume of data requested.

Theoretically, it should be easier to collect and analyze information from EHRs than paper charts, but EHRs are not always complete and systems are not all interoperable. In our interviews, some states indicated that it was unlikely that they could address the challenges with EHR interoperability and data extraction from EHRs by FY 2024. EHRs can be incomplete if providers do not record data that are not tied to a payment or if reporting is not incorporated into provider workflow. Further, providers use different EHR systems, which vary in robustness and data format. This lack of uniformity creates challenges for states and MCOs as they work with providers to program data extraction according to measure specifications.

States and plans noted that providers would need time to implement EHR programming changes if the core set for mandatory reporting in 2024 includes hybrid or EHR-based measures. Officials in Massachusetts estimated needing at least two years to prepare for hybrid data collection for just one of the suggested data collection systems.¹⁹ One state indicated that it planned to begin working with MCOs on a limited basis to incorporate reporting on one or two EHR measures into upcoming contract revisions. This would allow the state and MCOs to work together to identify challenges and options for overcoming them before 2024.

Accessing medical record and EHR data can be especially challenging for states with FFS delivery systems in which state staff are responsible for collecting and reporting this data. Compared to MCOs or BHOs, some state Medicaid agencies have less in-house technical expertise and infrastructure. States are currently weighing the cost of resources required to capture non-HEDIS measures based on medical record or EHR data against the perceived value of reporting these measures.

Data from other state entities. State Medicaid programs face technical and administrative barriers to accessing data that are collected and maintained by other state agencies (Box 2-1). Examples include

BOX 2-1. Challenges in Collecting Data on Behavioral Health Services

The often-fragmented nature of behavioral health service delivery can make it difficult to obtain data needed for core set reporting. For example, to report on the measure of screening for depression and follow-up plan: ages 12–17 (CDF-CH), data for a single individual may need to be obtained from multiple care settings. In addition, reporting systems in community behavioral health agencies may lack the technical capability to transmit behavioral health data to the Medicaid agency. Medicaid officials in one state noted that long-term efforts are underway to enhance these systems.

Linking and sharing of data on treatment for substance use disorder (SUD) is complicated by federal confidentiality and disclosure rules, commonly referred to as 42 CFR Part 2, which govern the use of SUD treatment and prevention records for people receiving treatment from federally assisted programs. MACPAC has previously reported that confusion among plans and providers about the applicability of 42 CFR Part 2, including requirements for patient consent for disclosure of data, could hamper data sharing and result in missing or incomplete patient medical records or claims data (MACPAC 2018).

It can be especially challenging to obtain electronic health record (EHR) data for users of behavioral health services because behavioral health providers are less likely to use EHRs than other providers (MACPAC 2018). Historically, behavioral health providers have lacked financial incentives for adoption of EHRs and they face technical and cost barriers to establishing and maintaining 42 CFR Part 2 compliant systems (MACPAC 2018).

immunization registry data needed to calculate the childhood immunization status measure (CIS-CH), and state vital records data needed for the live births weighing less than 2,500 grams measure (LBW-CH). There are two particular challenges: securing a data use agreement (DUA) and linking person-level information.

Accessing data from other agencies requires establishing a DUA or a memorandum of understanding (MOU); some states estimate that this can take six months or longer. Some state officials interviewed noted that their Medicaid agencies had relatively limited experience with this process and that having sample DUAs from other states would be helpful. Even when DUAs are established, lack of uniform identifiers between state registries and other data sources and Medicaid claims data can make it difficult to link the data. Thus, states need to find other approaches for linking data. For example, some states are considering the feasibility of using names and birth dates to link data but they

acknowledge that recording errors and differences in spelling or birth dates could be problematic.

Data quality, completeness, and timeliness.

Incomplete and poor quality data have prevented some states from including certain populations or services in core set reporting. States have had difficulty including tribal populations, individuals dually eligible for Medicaid and Medicare, and, in some cases, the FFS population in measure calculation. For example:

- Some tribal nations do not share data on health care services provided to Medicaid-eligible tribal members by the Indian Health Service due to concerns about sovereignty over the data of their people as well as for technical reasons such as limitations of tribal EHR systems, limited access to broadband internet, and insufficient staff capacity.
- Challenges accessing Medicare data prevent some state Medicaid agencies from being able to report on individuals who are dually eligible

for Medicare and Medicaid.²⁰ In interviews, CMS and its technical assistance contractors characterized accessing Medicare data as one of the most difficult challenges facing states. Requesting Medicare data is a complex and multistep process requiring state Medicaid agency officials to navigate various Medicare data sources, make clear and specific requests for data that satisfy administrative requirements, and determine the most feasible and appropriate method for integrating Medicare and Medicaid data (SDRC 2019). To facilitate state Medicaid agency access to and use of Medicare data, CMS established a data resource center to provide guidance and assistance in navigating the process for requesting and working with the data (SDRC 2019).²¹ CMS anticipates that states will need ongoing technical assistance in this area.

- Some states do not include their FFS population in core set reporting because they primarily rely on MCOs to provide data for core set measures. Oregon reports core set measures based on administrative data for both managed care and FFS populations, but does not include FFS populations in measures that use the hybrid or EHR data collection methodologies. Washington does not report on the FFS population for measures using EHR data, but does so for some of the measures that use administrative data.²²

State administrative data may be incomplete for purposes of core set reporting if providers do not record all needed data elements. In addition, Medicaid administrative data may lack information on services that clinicians provide but do not bill for. For example, some providers may not bill for certain services (e.g., developmental screening) because of low payment rates. State payment policies may also affect completeness of administrative data. For example, Arkansas pays a global fee for pregnancy care but does not have the claims for individual prenatal or postnatal visits needed for core measures related to timeliness of prenatal care (e.g., PPC-CH).

Data needed for certain core measures may not be available in a timely manner. For example, the technical specifications for the children's experience of care measure require annual data from the Consumer Assessment of Healthcare Providers and Systems (CAHPS[®]) survey, but some states (e.g., Washington and Arkansas) do not require MCOs to conduct the CAHPS[®] survey annually, due in part to the cost of administering it. MCO contracts could be changed to require the survey to be conducted annually, but states would need to weigh the costs of doing so against other programmatic objectives. Data from vital records also might not be available prior to the core set reporting deadline. Officials in Indiana and Washington noted there could be time lags of 12–18 months in the availability of those data.

Adhering to technical specifications

States sometimes face challenges in strictly adhering to the core set technical specifications, which can affect the consistency of state reporting. This is particularly an issue for certain HEDIS measures with technical specifications that differ from those for similar core set measures; for example, the CMS age ranges for certain measures are more granular than the HEDIS age ranges.²³ Some states (e.g., Massachusetts) take additional analytic steps to report the age stratifications in the core set technical specifications; however others do not, instead reporting the measure as calculated by the MCO or BHO for the purpose of HEDIS reporting.

Some states deviate from the core set technical specifications to account for state-specific billing and coding practices.²⁴ For example, Massachusetts directs providers to use state-specific modifiers that describe who delivered the service and if a need was identified when billing for developmental screenings. However, the sets of codes used in the technical specifications to identify a service or condition for measure calculation (referred to as the value set) for the developmental screening in the first three years of life measure (DEV-CH) do not include these modifiers. Thus, services reported with the state's modifiers would be

left out of the core set measure calculation, which Medicaid officials in Massachusetts say produces an inaccurate measure of the state's performance. Similarly, Arkansas found that calculating the measure of follow-up after emergency department visit for mental illness (FUA-AD) using the core set specifications produced inaccurately low rates of follow-up visits; when the state began calculating the measure based on the state-specific codes, accuracy improved.

CMS has acknowledged that it may not always be possible for states to adhere to the specifications, instructing states to report information about any such deviations (CMS 2019c). Looking ahead, it is not clear whether such deviations will be accepted for mandatory reporting in FY 2024.

HEDIS versus non-HEDIS measures. States view reporting on HEDIS measures as relatively straightforward because data collection and reporting is generally contractually delegated to MCOs or BHOs. Reporting on non-HEDIS measures, particularly those using hybrid data collection, is more challenging because it is not typically delegated to MCOs or BHOs. However, some of the non-HEDIS measures may have analogous HEDIS measures; examples of such measures are use of opioids at high dosage in persons without cancer (OHD-AD), concurrent use of opioids and benzodiazepines (COB-AD), and diabetes care for people with serious mental illness: hemoglobin A1c (HbA1c) poor control (>9.0%) (HPCMI-AD). Thus, states may have to consider whether to use their own resources to calculate and report non-HEDIS measures per specifications or deviate from the specifications and instead report the analogous HEDIS measure calculated by MCOs or BHOs.

Future changes to core sets or specifications. The Secretary must annually update and refine the core sets (§ 1139A(b)(5) of the Act). Once reporting is mandatory, implementation of such changes and the amount of lead time states will be given to report new or amended measures will have a substantial effect on state readiness for reporting. In our interviews, state and CMS officials noted that

it can take a number of years for states to report measures when technical specifications change or new measures are added. States, MCOs, and BHOs may be more able to adapt if new measures come from HEDIS or rely on administrative data. In addition, states with managed care delivery systems, because they can delegate data collection and reporting to MCOs and BHOs, may be able to implement the changes more easily than states with FFS systems because Medicaid agency staff in FFS states would have to assume those responsibilities.

Administrative capacity

As noted earlier, voluntary state reporting of core set measures has increased over time, so to some extent, the states' infrastructure and processes for reporting are already in place. However, voluntary reporting allows states to increase or decrease their core set reporting activities commensurate with available resources and other quality measurement efforts. Washington, for example, defines a common measurement set used by public and private payers to track performance for its statewide quality measurement and accountability effort each year. Although many of its measures are the same as core set measures, the state sometimes determines that alternate measures more accurately assess performance on state-specific health priorities. For instance, in 2019, Washington did not include the core set measure of medical assistance with smoking and tobacco use cessation (MSC-AD) in its state common measurement set or report it to CMS. Instead, the state opted to add a state-specific measure to its common measurement set to assess youth use of tobacco and electronic vapor products, a priority issue for the state.

State roles and resources. Current efforts to report on the core sets are time- and resource-intensive. With mandatory reporting, states anticipate having to increase the amount of resources dedicated to core set reporting.

Even when states rely heavily on MCOs and BHOs to collect data and calculate measures, state officials are responsible for many key functions.

State staff roles include administrative functions (e.g., modifying contracts and managing contractors) and analytic functions. For example, to use state immunization registry data, state staff must establish DUAs for accessing the data, create data linkages, assess data integrity and completeness, and conduct systems programming for using the data in measure calculation. State officials also work with vendors to compile data for reporting. Once data are submitted, state officials work with MCOs, BHOs, and vendors to ensure accuracy and understanding of the data before using it to calculate the state-level measures for reporting to CMS. For non-HEDIS measures, state staff are responsible for programming, data collection, and measure calculation. In addition, data for all measures must be submitted manually through the CMS Medicaid and CHIP Program portal, which some states find inefficient and vulnerable to errors.

States anticipate needing to hire and train additional staff. However, it is often difficult to hire and retain staff with technical skills in data collection (including clinicians to conduct medical record reviews), measure production, and reporting, particularly in states that are small or have tight labor markets.

Plan roles and resources. MCOs have teams involved in data collection and reporting of HEDIS measures and, by extension, core set measures. For example, MCO staff extract data according to technical specifications and required formats—and in some cases integrate needed data sources—so that the data can be sent to their contracted HEDIS vendor to calculate measure rates; MCO staff also oversee the vendor contract. They also employ clinicians to review and extract data from medical records, including EHRs and paper charts.²⁵ Other analytic staff assess data for completeness and accuracy and interpret results to identify areas for potential MCO-specific quality improvement activities. MCOs may also have staff that work with providers and clinics to encourage complete data reporting.

Like states, MCOs and BHOs also anticipate needing to hire and train staff once the reporting mandate takes effect. The need for more staff may be heightened if states delegate additional tasks such as reporting on non-HEDIS core set measures to MCOs or BHOs. MCOs and BHOs would need to develop new processes and systems for data collection and measure calculation.

Factors that can facilitate readiness for mandatory reporting

States identified several factors that would bolster their readiness for mandatory reporting in FY 2024, including early guidance from CMS, ongoing technical assistance from CMS, and additional resources.

Early guidance. States emphasized the need for CMS to issue guidance as early as possible, particularly regarding the specific measures to be reported and how the reporting mandate will be implemented. CMS decisions on these matters will have direct bearing on the steps states must take to prepare. For example, if CMS decides that all measures on the current core set must be reported in 2024, then state Medicaid programs will need to start taking steps now to access data maintained by other state entities as well as medical records data. If, however, CMS decides to phase in requirements, such as beginning with mandatory reporting of measures that use administrative data and gradually incorporating those requiring medical record or EHR data, states would have more time to access those data. Another approach suggested by states would be to create mandatory and voluntary core set measures with the number of mandatory measures growing over time. CMS officials stated they plan to work closely with states to determine the best approach for implementing mandatory reporting.

States also seek guidance on whether CMS will continue to accept measure reporting that deviates from the core set technical specifications, because that will affect the required scope of their data collection and their

processes for calculating measures. States support maintaining some degree of flexibility.

It is difficult to say definitively how much lead time states need to prepare for mandatory reporting, particularly given the many unknowns. However, some states estimate needing at least two years to ramp up their efforts. During this period, states must do the following: assess staffing and budgetary needs and availability; recruit and train staff; assess data sources; engage clinicians to encourage more complete billing, diagnosis, and procedure coding for quality measurement; identify new data sources; enter into DUAs or MOUs for data sharing with other agencies; plan, develop, and test data collection systems and linkages to sources; and modify contracts with MCOs, BHOs, and possibly other vendors.

In the past, lack of state readiness has led to delays in implementation of new policies. For example, electronic visit verification (EVV) implementation has been hampered by a relatively short implementation timeframe, lack of timely guidance and clarity about EVV requirements, and technical difficulties (ANCOR 2018). The EVV requirements were slated to take effect in January 2019, two years after the requirements were established. However, CMS did not issue formal guidance until May 2018, seven months before the effective date.²⁶ The timing of the guidance, along with remaining questions, such as which providers are subject to EVV requirements and stakeholder concerns about privacy, challenged states' ability to fully prepare for implementation. In response, Congress took action in July 2018 to postpone EVV implementation for personal care services (PCS) to January 2020.²⁷ In addition, CMS has granted exemptions from the implementation deadline to nearly all states, delaying implementation to 2020 or 2021 (CMS 2019j, MACPAC 2019).²⁸

Technical assistance. CMS and its technical assistance contractor already provide technical assistance to states on a number of core set-related topics, but as they look to mandatory reporting, states have identified a need for additional

assistance. Currently, CMS and its contractor develop and issue fact sheets, toolkits, and webinars; provide one-on-one support; and host an annual quality conference. These publications and events cover a number of topics including:

- interpreting technical specifications for the core set measures, including applications across delivery systems, data sources, and data collection approaches;
- assessing data quality to improve completeness and accuracy of state reporting of the core set measures; and
- designing and implementing quality improvement initiatives focused on the core set measures (CMS 2018a).²⁹

CMS's technical assistance contractor also provides support to health plans and clinicians—if they are coordinated with the state's Medicaid agency—as they extract necessary data and calculate the core set measures.

States have also identified the following additional technical assistance needs:

- how to collect data and calculate measures for populations covered under FFS;
- approaches for securing access to data from other state entities and tribal governments;
- strategies for accessing EHR data; and
- leveraging external quality review organization (EQRO) capabilities for core set reporting.

States noted particular challenges in reporting on the Adult Core Set behavioral health measures and expressed interest in targeted technical assistance on obtaining data for these measures. Nearly all data challenges associated with core set reporting are heightened for behavioral health data because of the variety of settings where Medicaid beneficiaries obtain behavioral health services and specific protections and sensitivities surrounding behavioral health data, especially data related to treatment for SUDs.

MCOs and BHOs play key roles in collecting and reporting data for core set measures and will also need ongoing technical assistance. Even though CMS's technical assistance contractor currently provides assistance to plans in coordination with states, MCO and BHO staff may be unaware of this opportunity.

Resources. States will need to hire and train staff and dedicate resources to support mandatory reporting activities. For example, states will need to hire additional analytic and clinical staff, engage in more laborious medical record data collection, and train staff for medical record data extractions. However, the statutes establishing the reporting mandate did not provide additional resources for states.

CMS efforts to support state readiness

CMS is aware of many of the concerns and challenges that states and plans face with core set reporting, and is considering a variety of strategies to address them. First, CMS has increased collaboration with states and subject matter experts in the annual review of the core set measures to identify measures that will be most useful for state Medicaid agencies and CMS and most relevant to Medicaid beneficiaries. In addition, CMS anticipates expanding the one-on-one technical assistance provided to states as well as technical assistance resources such as fact sheets, sample programming code, and webinars.

CMS is also considering ways to make reporting less burdensome on states. CMS is assessing the availability of data needed for reporting on all categories of beneficiaries and the feasibility of leveraging the Transformed Medicaid Statistical Information System (T-MSIS) to support core set reporting. For example, CMS might be able to use the T-MSIS to calculate certain claims-based measures on states' behalf, thus freeing up state resources for more complex measures. CMS estimates that up to 50 percent of current core set measures could be calculated for states using T-MSIS data. As of December 2019, CMS was actively engaged in developing a strategy and

timeline for marshalling the CMS resources required to implement this approach.

CMS identified EQROs as a resource that states could leverage to calculate and report on core set measures. For example, EQROs could help states validate performance measures by reviewing the data and information to determine the accuracy of the performance measures reported by MCOs and BHOs. They can also aggregate performance measure data reported across MCOs and BHOs.

Our analysis focused on state readiness for mandatory core set reporting, but CMS's readiness—as well as the resources it has to assist states with their reporting efforts and to analyze the state-submitted data—is an important consideration. For example, as the reporting mandate draws nearer, states, MCOs, and BHOs will need more CMS technical assistance. In addition, if all states report on all mandatory core set measures, CMS will receive more core set data to review and validate than what they receive under voluntary reporting.

Looking Ahead

The core sets provide federal and state governments, MCOs, and providers with a standard set of quality measures for assessing performance and identifying opportunities for improvement. In mandating state reporting of the core sets, Congress sought to ensure the availability of standardized data on the quality of care that Medicaid beneficiaries receive, to inform opportunities to improve quality of care (115th Congress 2018).

States are starting to consider the steps that will be needed to comply with the requirement. However, they cannot fully prepare for mandatory reporting until CMS issues guidance concerning how the mandate will be implemented (e.g., gradually phased in or all at once), which measures will be in the mandatory core set, and whether deviations from the technical specifications will be acceptable and under what circumstances. CMS will also need

to provide states with early and ongoing technical assistance.

Fortunately, Congress provided a six-year period between the 2018 enactment and the FY 2024 implementation of the core set reporting mandate. In addition, states and CMS have experience with voluntary core set reporting, which should offer insights into the challenges that states, plans, and CMS will need to address. Although FY 2024 may seem distant now, past experience with implementing new policies point to the need for CMS to issue early and clear guidance to provide states sufficient time to plan for and make necessary policy or programmatic changes. The Commission will continue to track state core set reporting as well as CMS's next steps for implementing the reporting mandate.

Endnotes

¹ SNAC members included state Medicaid and CHIP officials; organizations representing states (e.g., the National Academy for State Health Policy and the National Association of Medicaid Directors); provider groups such as the American Academy of Family Physicians, the American Academy of Pediatrics, and the National Association of Pediatric Nurse Practitioners; and patient advocacy groups such as the March of Dimes (Mangione-Smith et al. 2011).

² In addition to accepting nominations for measures from its members, the SNAC solicited proposed measures through a public nomination process (Mangione-Smith et al. 2011).

³ In addition, some of the initial Child Core Set measures, including those that capture receipt of preventive dental services, were derived from reporting requirements for Form CMS-416. As another example, the measure on family care experience was based on the Consumer Assessment of Healthcare Providers and Systems (CAHPS[®]) survey (HHS 2011a).

⁴ Criteria for importance included: the measure is actionable; cost of the condition to the nation is high; health care systems should clearly be accountable for the quality problem assessed by the measure; the extent of the quality problem addressed by the measure should be substantial;

there should be documented variation in performance on the measure; the measure should be representative of a class of quality problems; the measure should assess an aspect of health care where there are known disparities; the measure should contribute to a final core set that represents a balanced portfolio of measures that is consistent with the intent of the [CHIPRA] legislation; and improving performance on measures included in the core set should have the potential to transform care for the nation's children (Mangione-Smith et al. 2011).

⁵ Although access to primary care was a discrete domain in the initial measure list (and in subsequent annual updates to the Child Core Set through FY 2019), the core set was primarily a vehicle for measuring quality, which can be defined as health care services that are safe, effective, patient-centered, timely, efficient, and equitable (IOM 2001).

⁶ Ten states (Alaska, Florida, Illinois, Maine, Massachusetts, North Carolina, Oregon, Pennsylvania, South Carolina, and West Virginia) implemented CHIPRA demonstration projects using quality measures to improve care quality (AHRQ 2019).

⁷ Twenty-six states were eligible to receive up to \$1 million a year over the two-year period. Some states used these funds to design and develop data analytic units for the first time. The AMQ grant program was funded by the ACA (CMS 2013c).

⁸ CMS, AHRQ, and NCQA are often referred to as measure stewards. In this capacity, they are responsible for developing, maintaining, and updating a particular measure or set of measures (CMS 2017a).

⁹ In part to mitigate reporting burden for states and in part to align the core sets with existing measures, the majority (about two-thirds) of measures in both initial core sets were HEDIS measures (HHS 2012). However, at the time the initial core sets were being created, CMS and other stakeholders commented on the limitations of HEDIS measures, which were originally developed for use by health plans, and supported including measures that would address a broad range of health care settings and conditions relevant to the Medicaid population (HHS 2012).

¹⁰ For example, in 2013, CMS retired the measure of otitis media with effusion—avoidance of inappropriate systemic antimicrobials in children age 2–12 (NQF #0657). Most Medicaid and CHIP agencies had not been able to report this measure because it draws from Current Procedural Terminology Category II codes. Providers do not commonly report these codes because they are not used for billing (AMA 2019, CMS 2013a).

¹¹ For example, CMS removed the measure of use of multiple concurrent antipsychotics in children and adolescents (APC-CH) from the FY 2020 Child Core Set because state performance was consistently high. In 2017, the median performance rate for this measure was 2.7 percent, with lower rates being better (Mathematica 2019).

¹² We do not report on state variation in reporting of adult behavioral health measures because it has not changed much over time.

¹³ CMS is required to report to Congress every three years on the status of voluntary reporting on the core quality measures and on other efforts to advance quality of care in Medicaid and CHIP. CMS also issues a report each year describing state performance on the measures (CMS 2018b, 2018c).

¹⁴ For FY 2018, 48 states reported the measure of well-child visits in the third, fourth, fifth, and sixth years of life (W34-CH). By comparison, 16 states reported the measure of cesarean birth (PC02-CH), which relies on medical record review and vital records data. In addition, three states reported on the measure of audiological diagnosis no later than three months of age (AUD-CH), which is based exclusively on electronic health record data (CMS 2019b).

¹⁵ For example, in 2010, CMS launched the Oral Health Initiative, which established goals for states to increase the use of preventive dental services by children enrolled in Medicaid (CMS 2014b). To facilitate standardized reporting among participating states, and to promote alignment with existing measure sets, CMS encouraged states to use two measures from the initial Child Core Set (receipt of preventive dental services (PDENT), and receipt of dental treatment services (TDENT)) to monitor trends in oral health.

¹⁶ Medicaid managed care plans use HEDIS measures (many of which are Child and Adult Core Set measures) for NCQA

accreditation; 26 states delivering services through managed care require contracted plans to have NCQA accreditation (NCQA 2019).

¹⁷ State reporting on health homes for individuals with substance use disorders was established through Section 1945(c)(4)(B) of the Act. The core set of health homes quality measures was established in 2013 (CMS 2013c). The FY 2020 Health Home Core Set consists of eight measures from the Adult Core Set, an additional measure on hospital admissions for chronic conditions, and three utilization measures capturing emergency department visits and hospital and institutional admissions (CMS 2019k).

¹⁸ We examined state policies for coverage of behavioral health services as an indicator of state reporting capacity for the behavioral health measures in the Adult Core Set.

¹⁹ State officials identified numerous steps that they would need to take including incorporating reporting into managed care entity contracts, working with managed care plans to understand their chart extraction process, establishing a plan for data gathering and reporting to the state, and testing plan extraction and reporting systems.

²⁰ Washington noted that historical data on services covered through Medicare Parts A and B for dually eligible beneficiaries was typically not available in a timely enough fashion for use in annual core set reporting.

²¹ CMS's State Data Resource Center provides guidance documents for making data requests from the nine available data files using four data request processes (SDRC 2019).

²² State officials noted that many FFS enrollees often do not meet the continuous enrollment criteria (which dictate how long a beneficiary must be enrolled in Medicaid to be included in the measure) in the technical specifications. For example, to be included in the measure of well-child visits in the third, fourth, fifth, and sixth years of life (W34-CH), children must be continuously enrolled for one year. The technical specifications allow for one gap in enrollment of up to 45 days. In addition, state officials in Washington noted that they do not have experience in vetting and operationalizing non-HEDIS measures based on medical record and EHR data.

²³ Many HEDIS measures include wide age ranges (e.g., age 5–64), whereas the age ranges for core set measures are more stratified (e.g., under age 18, 18–64, and 65 and older). According to CMS contractors, age stratifications in the core set were introduced partly to accommodate state data limitations (Orfield et al. 2019). Some states told CMS that they would not be able to report data for dually eligible beneficiaries, so many Adult Core Set measures include a breakout for adults age 65 and older to separate out this population.

²⁴ The technical specifications may not account for state-specific billing and coding policies for certain services, which can result in excluding some services from the calculation of performance on core set measures even though the services were provided.

²⁵ The sample size for HEDIS measures that use the hybrid method should be 411, except in certain circumstances as described in the technical specifications (CMS 2019c).

²⁶ In addition, CMS hosted two webinars, one in December 2017 and one in January 2018.

²⁷ In 2016, the 21st Century Cures Act (P.L. 114-255) mandated that states adopt electronic visit verification (EVV) systems for Medicaid-covered PCS. EVV systems require providers to electronically verify certain information to confirm that scheduled visits actually occurred. This is intended to reduce opportunities for fraud and improper Medicaid payments for PCS. Legislation enacted in July 2018 (P.L. 115-222) delayed implementation in response to stakeholder concerns about readiness.

²⁸ States demonstrating that they have experienced unavoidable delays despite having made good faith efforts to implement EVV may request postponement of implementation of EVV for up to one year (CMS 2019).

²⁹ CMS's core set technical assistance contractor is Mathematica.

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APPENDIX 2A: Child and Adult Core Set Measures, FY 2020

TABLE 2A-1. Child Core Set Measures, FY 2020

Measure abbreviation	Measure name	Data collection method
Primary care access and preventive care		
WCC-CH	Weight assessment and counseling for nutrition and physical activity for children/adolescents	Administrative, hybrid, or EHR
CHL-CH	Chlamydia screening in women ages 16–20	Administrative or EHR
CIS-CH	Childhood immunization status	Administrative, hybrid, or EHR
CDF-CH	Screening for depression and follow-up plan: ages 12–17	Administrative or EHR
W15-CH	Well-child visits in the first 15 months of life	Administrative or hybrid
IMA-CH	Immunizations for adolescents	Administrative or hybrid
DEV-CH	Developmental screening in the first three years of life	Administrative or hybrid
W34-CH	Well-child visits in the third, fourth, fifth and sixth years of life	Administrative or hybrid
AWC-CH	Adolescent well-care visits	Administrative or hybrid
Maternal and perinatal health		
PC02-CH	PC-02: Cesarean birth	Hybrid
AUD-CH	Audiological diagnosis no later than 3 months of age	EHR
LBW-CH	Live births weighing less than 2,500 grams	State vital records
PPC-CH	Prenatal and postpartum care: timeliness of prenatal care	Administrative or hybrid
CCP-CH	Contraceptive care – postpartum women ages 15–20	Administrative
CCW-CH	Contraceptive care – all women ages 15–20	Administrative
Care of acute and chronic conditions		
AMR-CH	Asthma medication ratio: ages 5–18	Administrative
AMB-CH	Ambulatory care: emergency department (ED) visits	Administrative
Behavioral health care		
ADD-CH	Follow-up care for children prescribed attention-deficit/hyperactivity disorder (ADHD) medication	Administrative or EHR
FUH-CH	Follow-up after hospitalization for mental illness: ages 6–17	Administrative
APM-CH	Metabolic monitoring for children and adolescents on antipsychotics	Administrative

TABLE 2A-1. (continued)

Measure abbreviation	Measure name	Data collection method
APP-CH	Use of first-line psychosocial care for children and adolescents on antipsychotics	Administrative
Dental and oral health services		
SEAL-CH	Dental sealants for 6-9 year-old children at elevated caries risk	Administrative
PDENT-CH	Percentage of eligibles who received preventive dental services	Administrative (Form CMS-416)
Experience of care		
CPC-CH	Consumer Assessment of Healthcare Providers and Systems (CAHPS®) Health Plan Survey 5.0H – Child version including Medicaid and children with chronic conditions supplemental items	Survey

Notes: FY is fiscal year. EHR is electronic health record.

Source: CMS, 2019m, *2020 Core set of children's health care quality measures for Medicaid and CHIP (Child Core Set)*, Baltimore, MD: CMS, <https://www.medicaid.gov/medicaid/quality-of-care/downloads/performance-measurement/2020-child-core-set.pdf>.

TABLE 2A-2. Behavioral Health Measures in the Adult Core Set, FY 2020

Measure abbreviation	Measure name	Data collection method
CDF-AD ¹	Screening for depression and follow-up plan: age 18 and older	Administrative or EHR
IET-AD	Initiation and engagement of alcohol and other drug abuse or dependence treatment	Administrative or EHR
MSC-AD	Medical assistance with smoking and tobacco use cessation	Survey
AMM-AD	Antidepressant medication management	Administrative or EHR
FUH-AD	Follow-up after hospitalization for mental illness: age 18 and older	Administrative
SSD-AD	Diabetes screening for people with schizophrenia or bipolar disorder who are using antipsychotic medications	Administrative
HPCMI-AD	Diabetes care for people with serious mental illness: hemoglobin A1c (HbA1c) poor control (> 9.0%)	Administrative or hybrid
OHD-AD	Use of opioids at high dosage in persons without cancer	Administrative
COB-AD	Concurrent use of opioids and benzodiazepines	Administrative
OUAD-AD	Use of pharmacotherapy for opioid use disorder	Administrative
FUA-AD	Follow-up after emergency department visit for alcohol and other drug abuse or dependence	Administrative
FUM-AD	Follow-up after emergency department visit for mental illness	Administrative
SAA-AD	Adherence to antipsychotic medications for individuals with schizophrenia	Administrative

Notes: FY is fiscal year. EHR is electronic health record.

¹ CDF-AD is included in the Behavioral Health Core Set. In the Adult Core Set, it is identified as a primary care access and preventive care measure.

Source: CMS, 2019n, *2020 Core set of adult health care quality measures for Medicaid (Adult Core Set)*, Baltimore, MD: CMS, <https://www.medicare.gov/medicaid/quality-of-care/downloads/performance-measurement/2020-adult-core-set.pdf>.

APPENDIX 2B: Changes in State Reporting of the Child Core Set Measures, FYs 2010 and 2018

TABLE 2B-1. Number of Child Core Set Measures Reported by States, FYs 2010 and 2018

State	FY 2010	FY 2018
Total number of measures in core set	24	26
Alabama	13	24
Alaska	14	17
Arizona	8	15
Arkansas	0	17
California	9	16
Colorado	5	3
Connecticut	10	19
Delaware	0	22
District of Columbia	12	18
Florida	12	21
Georgia	18	9
Hawaii	0	13
Idaho	0	1
Illinois	7	20
Indiana	14	23
Iowa	3	23
Kansas	0	17
Kentucky	13	21
Louisiana	5	22
Maine	11	15
Maryland	12	12
Massachusetts	0	22
Michigan	12	21
Minnesota	3	14
Mississippi	8	18
Missouri	12	15
Montana	7	11
Nebraska	5	15
Nevada	3	19
New Hampshire	5	24
New Jersey	6	17
New Mexico	15	16

TABLE 2B-1. (continued)

State	FY 2010	FY 2018
New York	9	22
North Carolina	2	22
North Dakota	2	1
Ohio	3	16
Oklahoma	4	22
Oregon	0	15
Pennsylvania	9	23
Rhode Island	15	18
South Carolina	9	24
South Dakota	4	11
Tennessee	15	23
Texas	0	22
Utah	3	16
Vermont	9	21
Virginia	3	17
Washington	6	18
West Virginia	15	22
Wisconsin	2	8
Wyoming	13	18

Notes: FY is fiscal year. NA is not applicable. Data are based on all Child Core Set measures reported by states for the FY 2010 and 2018 reporting cycles. Totals include measures reported using Child Core Set or other specifications, which may include specifications for Healthcare Effectiveness Data and Information Set (HEDIS) measures.

Source: MACPAC, 2019, analysis of CMS, 2019b, *Quality of care for children in Medicaid and CHIP: Findings from the 2018 Child Core Set, Chart pack*, September 2019, Baltimore, MD: CMS, <https://www.medicaid.gov/medicaid/quality-of-care/downloads/performance-measurement/2019-child-chart-pack.pdf>; and U.S. Department of Health and Human Services (HHS), 2011, *2011 Annual report on the quality of care for children in Medicaid and CHIP: Appendices*, Washington, DC: HHS, https://www.medicaid.gov/medicaid/quality-of-care/downloads/2011_sec_rep_app.pdf.

