The Department of Health and Human Services

Children's Health Insurance Program Reauthorization Act

2011 Annual Report on the

Quality of Care for Children in Medicaid and CHIP

Health and Human Services Secretary
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Executive Summary

Medicaid and the Children's Health Insurance Program (CHIP) are a major source of health coverage for low-income children ranging in age from infants to early adulthood. Together, these programs provide coverage for about 40 million children during the course of a year, providing access to a comprehensive set of benefits including preventive and primary care services and other medically necessary services. This report, required by section 1139A(c)(2) of the Social Security Act (Act), as amended by section 401(a) of the Children's Health Insurance Program Reauthorization Act of 2009 (CHIPRA), summarizes State-specific and national information on the quality of health care furnished to children under Titles XIX (Medicaid) and XXI (CHIP) of the Act.

CHIPRA and the Patient Protection and Affordable Care Act of 2010 (Affordable Care Act) have helped to foster a new culture and expectation for improving the quality of care in Medicaid/CHIP and more broadly for all Americans. The Department of Health and Human Services (HHS) is working closely with States, health care providers, and program enrollees to ensure a high quality system of care for children in Medicaid/CHIP, as well as for those with private insurance and other sources of coverage. As the HHS agency responsible for ensuring effective health care coverage for Medicare and Medicaid and CHIP beneficiaries, the Centers for Medicare & Medicaid Services (CMS) plays a key role in promoting quality health care for children in Medicaid/CHIP. CMS' quality agenda is closely aligned with that of the recently released HHS National Quality Strategy's three aims of achieving better care, a healthier population and community, and affordable care.[1]

Since the release of the Secretary's first annual Report on the Quality of Care for Children in Medicaid and CHIP in 2010, CMS has continued to strengthen existing efforts, and undertake new efforts, to measure and improve the quality of care provided to children in Medicaid/CHIP. These efforts have included:

- releasing a letter to State Health Officials describing the major components of CMS' quality measurement and improvement efforts for children covered by Medicaid/CHIP; [2]
- issuing a technical specifications manual for the initial core set of children's health care quality measures;[3]
- partnering with the Agency for Healthcare Research and Quality (AHRQ) in funding seven Pediatric Centers of Excellence to enhance the existing children's quality measures and developing new measures for priority topics such as behavioral health and patient safety;[4]
- hosting, in partnership with the CMS Center for Medicare and Medicaid Innovation , a symposium on improving maternal and infant health outcomes;

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[1] http://www.healthcare.gov/center/reports/quality03212011a.html
[2] http://www.cms.gov/smdl/downloads/SHO11001.pdf
[3] http://www.cms.gov/MedicaidCHIPQualPrac/Downloads/CHIPRACoreSetTechManual.pdf
[4] http://www.ahrq.gov/chipra/pqmpfact.htm

- developing a model EHR format, through an agreement with AHRQ, that will be evaluated by two of the CHIPRA Quality Demonstration Grantees;

- hosting two State-Federal workshops on oral health to discuss CMS' goals and strategy to improve oral health, and

- convening the first national Medicaid/CHIP quality conference: Improving Care, Lowering Cost.

The CMS continues to work collaboratively with States and other stakeholders to strengthen systems for measuring and collecting data on access and quality, including developing capacity and knowledge through the CHIPRA quality demonstration grantees in ten State and multi-state collaborations and working with CMS' Technical Advisory Groups (workgroups that focus on policy areas such as quality, oral health, mental health, managed care, and coverage).

The 2011 Secretary's Report, provides information on activities CMS undertook to update information on the quality of care children receive in Medicaid/CHIP, including reviewing the external quality review (EQR) technical reports for States, analyzing Federal fiscal year (FFY) 2010 data submitted to CMS for standardized reporting on the initial core set of children's quality measures, reviewing data on the use of dental services by children in Medicaid/CHIP, and summarizing findings from a review of the literature published since 2005. Key findings from the 2011 Secretary's Report on children's health care quality include:

Measurement and Reporting

- Forty-two States and the District of Columbia voluntarily reported one or more of the children's quality measures for FFY 2010. The median number of measures reported was 7, reflecting a strong first-year effort by States. The most frequently-reported measures were the three well-child and primary care practitioner (PCP) access measures that States have been reporting since FFY 2003 (reported by 40 to 42 States each).

- The majority of States with managed care delivery systems include in their external quality reviews findings on performance measures specific to children and adolescents, although the specific measures and accompanying specifications vary greatly. The most commonly-collected measures were well-child visits, childhood immunizations, and adolescent well-care visits. States also engage in a variety of quality improvement efforts based on the State's priorities and other factors, such as clinical areas that need improvement and opportunities for cost savings.

Quality and Access to Care

- States exhibited high performance on the primary care practitioner (PCP) access measures and lower performance on well-child visits. The median rate of children with a visit to a PCP over the course of 1 year ranged from a high of 96 percent among children ages 12 to 24 months to 89 percent for children ages 12 to 19. States reported lower rates for well-child visits. Across States, 56 percent of infants had 6 or more well-child visits in the first 15 months of life, on average. Adolescents had the lowest rate of well-child visits, with a median of 47 percent of adolescents ages 12 to 21 receiving at least one well-child visit.[5]

- Rates of PCP access were comparable for publicly-insured and privately-insured children, but well-child visit rates were slightly lower for publicly-insured children. In general, the percentages of Medicaid/CHIP children with a PCP visit during the year were comparable to the rates for commercially-insured children.[6] Well-child visit rates were lower among publicly-insured children during the first 15 months and ages 3 to 6, but slightly higher among adolescents. For example, 56 percent of publicly insured children had 6 or more visits during the first 15 months, compared to 76 percent of privately-insured children.

- Children's access to dental services in Medicaid/CHIP has improved since 2000. Approximately 40 percent of children received a dental service in FFY 2009 compared with 27 percent of children in 2000. However, the percentage of children receiving any dental service or a preventive dental service in FFY 2009 was below the Healthy People 2010 goals for these services.

This second annual Secretary's Report helps to illustrate the commitment by HHS and States to improve the quality of care received by children enrolled in Medicaid/CHIP. Results from this analysis are consistent with research showing that children in Medicaid/CHIP generally have better access to care than those who are uninsured; however, evidence is mixed as to whether children with public coverage experience comparable access to and quality of care as privately insured children. The CHIPRA, coupled with the American Recovery and Reinvestment Act of 2009 (ARRA), and Affordable Care Act have provided HHS and States with new resources to strengthen the foundation of a high-quality system of health services for children and adults enrolled in Medicaid/CHIP.

To support State efforts in quality measurement and improvement, CMS announced the launch of its "CHIPRA Technical Assistance and Analytic Support Program" with an award of a contract to Mathematica Policy Research in May 2011. Mathematica – teamed with the National Committee for Quality Assurance, the Center for Health Care Strategies and the National Initiative for Children's Healthcare Quality – will work with CMS to support States' child health care quality measurement and improvement efforts. CMS will provide an update on these and other efforts to improve and assess the quality of care provided to children in Medicaid/CHIP in the 2012 Secretary's Report.

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[5] The American Academy of Pediatrics (AAP) and Bright Futures recommend 9 well-child visits in the first 15 months of life and annual well-child visits for children ages 3 and older.

[6] Based on National Committee for Quality Assurance HEDIS benchmarks.

I. Introduction

Since the release of the 2010 Secretary's Report on the Quality of Care for Children in Medicaid and CHIP, the Centers for Medicare & Medicaid Services (CMS) within the United States Department of Health and Human Services (HHS), has actively engaged with its many partners, including States, health care providers, health care quality experts, and families, in efforts to improve the care for children enrolled in Medicaid and the Children's Health Insurance Program (CHIP). As the single largest payer of health services for children in the United States, CMS plays a pivotal role in working with States and other partners in implementing quality measurement and improvement strategies.

Medicaid and CHIP provide health coverage for about 40 million children who range in age from infants to early adulthood. During the recent economic downturn, Medicaid and CHIP served as a safety net for low-income children. Between 2008 and 2009, the number of children eligible for and enrolled in Medicaid/CHIP increased. Rates of participation for eligible children rose from 82.1 to 84.8 percent nationally between 2008 and 2009. This increase in participation was associated with a decline in the number of eligible but uninsured children of about 340,000. Gains were achieved in each of the four census regions and for children in each race/ethnicity, language, income and age group examined.[7] Medicaid/CHIP continue to provide a strong base of coverage and access to care for low-income children in this nation.

Recent legislation has helped to foster a new culture and expectation for quality improvement activities in Medicaid/CHIP and more broadly for all Americans. Through the Children's Health Insurance Program Reauthorization Act of 2009 (CHIPRA), the American Recovery and Reinvestment Act of 2009 (ARRA), and the Patient Protection and Affordable Care Act of 2010 (Affordable Care Act), CMS is working in partnership with States and other stakeholders to develop an efficient and effective infrastructure for quality monitoring and improvement activities in Medicaid/CHIP. These efforts are aligned with the recently released HHS National Quality Strategy's three aims of better care, healthier people and communities, and affordable care.

The objective of this report, required by Section 1139A(c)(2) of the Social Security Act, as amended by section 401(a) of CHIPRA, is to summarize State-specific information on the quality of health care furnished to children under titles XIX (Medicaid) and XXI (CHIP). Section 1139A(c)(1)(B) of the Act specifically requests information gathered from the external quality reviews of managed care organizations (MCOs)[8] and benchmark plans.[9] The Secretary of HHS was required to make this information publicly available annually starting September 30, 2010.

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[7] Kenney G et al. 2011. Gains for Children: Increased Participation in Medicaid and CHIP in 2009. Urban Institute.

[8] Established under the authority of Section 1932 of the Social Security Act.

[9] Established under the authority of Sections 1937 and 2103 of the Social Security Act.

II. State and Federal Systems for Quality Measurement, Reporting, and Improvement

The National Strategy for Quality Improvement in Health Care (National Quality Strategy),[10] required by the Affordable Care Act, was issued by HHS in March 2011 and sets priorities to guide improvements in health care as well as a strategic plan for how to achieve it. The National Quality Strategy identifies principles to guide the development of an infrastructure to achieve the interrelated aims of the quality strategy. These underlying principles[11] address areas important to children's health care quality such as: increasing person-centeredness and family engagement; eliminating disparities in care; making primary care a bigger focus; enhancing coordination of care; and integrating care delivery. CMS also recognizes that the quality of care a child receives is closely interlinked with having a stable source of coverage.[12] Thus, keeping eligible children enrolled in Medicaid/CHIP is a top priority that supports CMS' quality agenda. CMS efforts related to implementation of the National Quality Strategy for children in Medicaid/CHIP are discussed in this section of the report.

Measuring Quality of Care

Quality measures that are uniformly and reliably collected are essential in monitoring and improving the quality of children's health care services. One of the major findings from the recently released IOM report, Child and Adolescent Health and Health Care Quality: Measuring What Matters, is that current quality measures "do not support useful analysis of the extent to which children and adolescents in the United States are healthy or are receiving high-quality care." [13] While this finding is of concern, it was not unexpected. Most States currently collect and report indicators of the quality of care in Medicaid/CHIP but not in a standardized manner, which makes analysis of these indicators difficult. Moreover, differences in State resources, data collection systems, analytic capabilities, and collected measures have limited CMS' ability to evaluate children's quality of care in Medicaid/CHIP nationwide.

To remedy this, CMS and other Federal partners are collaborating with States to establish ways to uniformly and reliably measure and report data on children's quality of care in Medicaid/CHIP, irrespective of whether care is obtained in a full risk managed care, fee-for service, or primary care case management service delivery model (Table 1). The first step in this process was to identify an initial core set of child health care quality measures for voluntary use by States. The identification of the initial core set brought CMS and the States one step closer to the development of an evidence-informed, nationwide system for measuring and reporting on children's quality of care (Table 2). Included in the initial core set are measures related to prevention and health promotion, management of acute conditions, management of chronic conditions, access to care, and family experiences of care. In February 2011, CMS released a letter[14] to State Health Officials describing the components of the quality

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[10] The National Strategy for Quality Improvement in Health Care was submitted to Congress on March 21, 2011. http://www.healthcare.gov/center/reports/quality03212011a.html.

[11] For a full listing of the National Quality Strategy's underlying principles visit: http://www.ahrq.gov/workingforquality/nqs/principles.htm#principles

[12] When a child rotates in and out of the health system, it makes it difficult, if not impossible, for physicians and other caregivers to provide high quality care or to measure the care obtained.

[13] Committee on Pediatric Health and Health Care Quality Measures. 2011. Child and Adolescent Health and Health Care Quality: Measuring What Matters. IOM/National Academy Press. Wash, D.C. Chapter 6.

[14] State Health Official letter released February 14, 2011. http://www.cms.gov/smdl/downloads/SHO11001.pdf

measurement framework, the initial core set of measures, and guidance on reporting the core measure to CMS.

To further support State efforts in quality measurement and reporting, in May 2011, CMS announced the launch of its "CHIPRA Technical Assistance and Analytic Support Program." Through this program, Mathematica Policy Research, the National Committee for Quality Assurance (NCQA), the Center for Health Care Strategies (CHCS), and the National Initiative for Children's Healthcare Quality (NICHQ) will support States in measuring, reporting, and improving children's health care quality. This team brings broad and long-standing expertise in Medicaid and CHIP policy and research, child health, quality measurement and improvement, and data analysis. CMS is confident that this Technical Assistance and Analytic Support Program will help States build capacity, improve completeness and accuracy of collection and reporting on the core measures, and learn how to use the measures to improve quality.[15]

Supplementing the initial core measures is the development of the CHIPRA Pediatric Quality Measures Program (PQMP). Working in partnership with the Agency for Healthcare Research and Quality (AHRQ), AHRQ and CMS awarded grants to seven Centers of Excellence in Pediatric Quality Measures in March 2011 (see Section IV), which comprise the PQMP.[16] These Centers of Excellence are charged with refining the initial core set of measures to make them more broadly applicable across types of payers and developing additional quality measures that address dimensions of care, where standardized measures do not currently exist. This year, CMS also began working with the Office of the National Coordinator for Health Information Technology (ONC) to electronically-specify the CHIPRA initial core measures as well as identify additional children-focused measures that may need to be further developed.

In addition to the work underway with AHRQ and ONC, CMS undertook several activities to assess the status of quality measurement, reporting, and improvement efforts by States for the 2011 Secretary's Report, including:

- Reviewing findings on child quality measures reported to CMS by the States;
- Conducting a search of the literature for studies and reports on the quality of care children in Medicaid/CHIP receive;
- Reviewing External Quality Review (EQR) Technical Reports for all States required to report on quality of care for managed care delivery systems in Medicaid programs; and
- Analyzing information from the Consumer Assessment of Healthcare Providers and Systems (CAHPS®) to assess the quality of care of children in Medicaid/CHIP.

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[15] States can submit specific questions about Medicaid/CHIP quality measurement or reporting efforts to: CHIPRAQualityTA@cms.hhs.gov.

[16] http://www.ahrq.gov/chipra/pqmpfact.htm

Federal Quality Standards and CMS' Organizational Activities

Federal law requires State Medicaid programs using managed care organizations (MCOs) or prepaid inpatient health plans (PIHPs) to develop and update a quality strategy that includes standards for access to care, health plan structure and operations, and quality measurement and improvement (42 CFR Part 438, Subpart D). States also are required to have an external quality review of each contracted MCO and PIHP, which includes validation of performance measures and performance improvement projects. Details regarding the results of these reviews are discussed later in this Report (Section III).

Effective July 1, 2009, States contracting with MCOs for delivery of care under separate CHIP programs were required by section 403 of CHIPRA (as codified at section 2103(f)(3) of the Act) to institute the same quality-assurance program for CHIP-contracting MCOs as required for Medicaid MCOs under section 1932(c) of the Act.

Since the 2010 Secretary's report, CMS has engaged in a number of activities to provide technical assistance to State Medicaid and CHIP programs on quality measurement and improvement. Many of these activities involved collaboration with other Federal partners. Highlights of these efforts include:

- Provided technical assistance to States in developing their Medicaid quality strategies for managed care as well as quality improvement projects for home, community-based, and institutional services;
- Provided feedback to States on their external quality review technical reports;
- Released a Technical Specifications Manual for the initial core set of children's quality health care measures;[17]
- Held a CHIP Annual Reporting Template System (CARTS) webinar to train States on how to report the CHIPRA core measures to CMS;
- Sponsored an all-State conference call to provide States with guidance and clarification on the initial core set of children's quality measures;
- Hosted two State-Federal workshops on oral health to discuss CMS' goals and strategy to improve oral health, in partnership with meetings of the National Academy for State Health Policy and the National Association of State Medicaid Directors;
- Sponsored several webinars for State Medicaid/CHIP officials and their clinical partners (topics included improving birth outcomes; inpatient safety in the neonatal intensive care unit; interventions to improve asthma care; and the HHS initiative on patient safety – the Partnership for Patients Initiative);

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[17] http://www.cms.gov/MedicaidCHIPQualPrac/Downloads/CHIPRACoreSetTechManual.pdf

- Convened the first national CMS Medicaid/CHIP Quality Conference that provided States an opportunity share experiences and receive technical assistance on how to collect and use the children's core set of quality measures to drive quality improvement;

- Organized monthly calls with State Medicaid/CHIP quality representatives as part of the CMS Quality Technical Assistance Group (QTAG). The calls focused on quality topics and also highlighted efforts of CHIPRA Quality Demonstration Grantees (one example of a topic covered was a presentation by a representative of the Medicaid Medical Directors Learning Network about use of psychotropic medications among children);

- Conducted several training sessions for CMS regional office staff on the Early and Periodic Screening, Diagnostic and Treatment (EPSDT) benefit;

- Issued a final rule requiring States to implement non-payment policies for health care-acquired conditions, as required by the Affordable Care Act Section 2702;[18]

- Issued a notice of proposed rule-making to create a standardized process for states to follow in order to measure the access of Medicaid beneficiaries to covered services.[19] The proposed rule recommended that States use a framework for evaluating access developed by the Medicaid and CHIP Payment and Access Commission (MACPAC).[20]

- Updated the CMS Medicaid and CHIP Quality website to reflect additional resources available to States.[21]

The CMS recognizes the opportunity and need to coordinate quality measurement and HIT activities between CHIPRA and the Health Information Technology for Economic and Clinical Health Act (HITECH) which was enacted as part of ARRA.[22] The Medicare and Medicaid EHR Incentive Programs, established under HITECH, define the minimum requirements that providers must meet for the "meaningful use" of Certified EHR Technology in order to qualify for incentive payments.[23]

As part of the CHIPRA, quality measurement activities are being leveraged with HIT to improve children's health care quality through the development of a model children's EHR format. The model EHR format is being developed through an agreement with the AHRQ and will be evaluated by two of the CHIPRA Quality Demonstration Grantees (North Carolina and Pennsylvania). CMS and AHRQ expect the dissemination of the model children's EHR Format to begin in the spring of 2012.

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[18] 76 Fed. Reg 32,816 (June 6, 2011), http://www.gpo.gov/fdsys/pkg/FR-2011-06-06/pdf/2011-13819.pdf

[19] 76 Fed. Reg. 26,342 (May 6, 2011), http://www.gpo.gov/fdsys/pkg/FR-2011-05-06/pdf/2011-10681.pdf

[20] MACPAC was established by CHIPRA to advise the Congress on Federal and State Medicaid and CHIP policies, including access to and quality of care. See discussion at 76 Fed. Reg. 26, 344.

[21] http://www.cms.gov/MedicaidCHIPQualPrac/03_evidencebasedcare.asp

[22] http://www.hhs.gov/ocr/privacy/hipaa/understanding/coveredentities/hitechact.pdf

[23] Simply described "meaningful use" means providers need to show they are using certified EHR technology in ways that can be measured significantly in quality and in quantity. https://www.cms.gov/ehrincentiveprograms/30_Meaningful_Use.asp#BOOKMARK1

To further encourage the use of the children's health care quality measures by providers, CMS is working with the ONC to re-tool and re-specify the initial core set of children's measures that are not part of Stage 1 of Meaningful Use for possible inclusion in Stages 2 and 3, subject to rule-making. It is CMS' hope that the result of this work will be clinical quality measures that can capitalize on the clinical data captured through EHRs to assist in furthering the mandates of CHIPRA.

The CMS Federal-State Data Systems for Quality Reporting

The CMS uses several data sources to assess the performance of State Medicaid and CHIP programs and the quality of care provided to program enrollees. While the claims-based State Medicaid Management Information System (MMIS) and its Federal counterpart, the Medicaid Statistical Information System (MSIS), remain the primary data sources used to manage these programs, other CMS data systems, including the CHIP Annual Reporting Template System (CARTS) and the CMS Form-416, were modified to meet current statutory and regulatory requirements in the reporting of quality of care metrics by State Medicaid and CHIP programs to CMS. For the longer term, systems currently under development present opportunities to strengthen quality reporting for children at CMS.

Reporting of quality information through CARTS began in 2005 when CHIP programs were encouraged to report annual data on four Healthcare Effectiveness Data and Information Set (HEDIS®) measures. In Federal fiscal year 2010 (FFY 2010),[24] States began to voluntarily report the 24 initial core set of quality measures for children to CARTS. CARTS will also be used in the near term as a tool for collecting information required by CHIPRA to assess the retention and duration of children enrolled in Medicaid and CHIP starting December 31, 2013.

In addition, improvements to CMS Form-416, the reporting tool used to assess the effectiveness of Medicaid's Early and Periodic Screening, Diagnostic and Treatment (EPSDT) benefit, aim to improve the quality and usefulness of data on the services provided to children in Medicaid. In 2011, CMS issued updated instructions for the CMS-416, and established an internal EPSDT workgroup to improve the accuracy and usefulness of data collected on the CMS-416. Recent efforts from the workgroup include undertaking a series of data-validation tests to determine whether CMS-416 data align with data collected through other CMS systems, with the goal of identifying opportunities for streamlining and alignment with other CMS systems.

Despite multiple information sources and a wealth of program data collected through these sources, current Medicaid and CHIP data are not sufficiently complete, accurate, or timely to meet the objectives for evaluating program performance or the quality of care enrollees receive. Many factors contribute to these data limitations, including the complexity of Medicaid and CHIP programs, variations in State data collection, differences in States' capacity for quality reporting, and variations in State resources, including staff. The collection and reporting of managed care data has also been a particular challenge to some States. As about 60 percent of children enrolled in Medicaid and CHIP receive benefits through some form of risk-based managed care delivery system, this consequently affects the completeness and usefulness of data for quality reporting and other activities.[25] In addition, the need to upgrade or reprogram data-

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[24] FFY 2010 was October 1, 2009-September 30, 2010. Data for FFY 2010 were to be reported to CARTS by December 31, 2010.

[25] CMS analysis of CHIP Statistical Enrollment Data System data. See Table 1.

collection systems is another barrier to some States. Other challenges to providing complete and accurate data to CMS are the multiple State and Federal reporting requirements facing States. These (often duplicative) reporting requirements put a strain on staff and other State resources.

The CMS is committed to developing a uniform information and reporting system that will include accurate data for information management and monitoring quality improvement. As the Secretary's first annual Report on the Quality of Care for Children in Medicaid and CHIP noted, MSIS is being reviewed by CMS to consider options for an integrated system that would streamline several current Medicaid and CHIP data-collection efforts through expanded streamlined MSIS, and would include Medicaid and CHIP payment and quality reporting needs.[26] This effort also aims to improve the collection and reporting of managed care encounter data. In addition, CMS' expectation is that the investment in promoting the adoption of EHRs with minimum data standards for child health care will enable States to collect and report on measures of access and quality with greater accuracy and efficiency.

Efforts to streamline, simplify, or create integrated data systems present opportunities to help ensure that Medicaid and CHIP quality reporting is done uniformly, and may also help to ease potential burdens and redundancies imposed by various CMS reporting requirements. Opportunities for integration have the potential to facilitate better health outcomes for children and reduce health care costs associated with inefficiencies in the health care delivery system.

Private Sector Efforts Supporting Medicaid Quality Measurement and Improvement

NCQA's Medicaid Managed Care Toolkit,[27] developed in collaboration with CMS in 2006, includes information to support public reporting of quality measures and summarizes Federal Regulations on quality measurement. States may elect to use the NCQA accreditation process for managed care organizations, which includes HEDIS® data collection and reporting (Appendix A). As noted in the Toolkit, a majority of the quality requirements under the Code of Federal Regulations for managed care can be met by compliance with an equivalent or similar NCQA standard. As of January 2009, 25 Medicaid programs recognize or require NCQA accreditation (Appendix B). Of the 25 programs, ten States (DC, IN, KY, MA, MO, NM, RI, SC, TN, and VA) require NCQA accreditation by health plans participating in Medicaid.

Other nationally-recognized organizations dedicated to improving quality of care in the United States have provided significant support to States' efforts to evaluate and implement quality improvement initiatives in Medicaid and CHIP programs (Appendix C). These organizations have established peer-to-peer and regional learning collaboratives on targeted clinical quality improvement initiatives, directed technical assistance to States on quality improvement methodologies, created opportunities to share lessons learned and promising practices in utilizing evidenced-based clinical improvement projects, and provided direct Medicaid leadership training that includes quality improvement technical support.

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[26] As required by section 6504 of the Affordable Care Act.

[27] The NCQA Managed Care Toolkit is regularly updated and can be found at: http://www.ncqa.org/tabid/134/Default.aspx.

III. National and State-Specific Findings on Quality and Access in Medicaid and CHIP

Existing research provides strong evidence that "coverage matters." Children covered by either public or private insurance consistently have better access to care than children who are uninsured. Moreover, studies show that access and use are higher after uninsured children gain insurance coverage. Evidence is mixed on the quality of health care by type of coverage. Research, though limited, suggests that children in Medicaid/CHIP tend to have higher rates of dental use and more frequent developmental screening using standardized tools compared to other children. On the other hand, recent research suggests children who are publicly insured have more difficulty than those who are privately insured obtaining needed care from specialists. Thus, while "coverage matters" in improving access overall, the nature of the care received can vary by the type of service, the child's age, his or her race/ethnicity, and other factors. [28, 29, 30]

This section provides "baseline information" on the status of access and quality in Medicaid/CHIP, as States initiate quality reporting and quality-improvement initiatives envisioned under CHIPRA. Thus, the evidence on the quality of children's health care is likely to grow over the next few years, as States demonstrate their commitment to voluntarily reporting the initial core set of children's quality measures. One recent survey, for example, revealed that 90 percent of Medicaid and CHIP directors consider children's health care quality to be a high priority. [31] As States build capacity to collect, report, and use the measures, they can tailor their quality improvement initiatives to their individual State contexts and needs.

Quality Measurement Using the Children's Health Care Quality Measures Set

CHIPRA section 401 required the Secretary to identify an initial core set of child health care quality measures for voluntary use by State Medicaid and CHIP programs and to develop a standardized reporting format for the CHIPRA core measures set. The CHIP Annual Reporting Template System (CARTS) serves as the reporting vehicle for standardized reporting on the CHIPRA core measures.

Beginning in Federal fiscal year (FFY) 2010, States that volunteered to report the core measures were required to use CARTS to report on 23 measures and were given the option of using CARTS to report results from the Consumer Assessment of Healthcare Providers and Systems (CAHPS) Child Medicaid Survey. Appendix D provides a summary description of the 24 measures that comprise the initial core set of children's health care quality measures. This section of the report summarizes State reporting on the measures in the FFY 2010 CARTS report.

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[28] Bethell, C., Kogan, M.., Strickland, et al. (2011). A national and state profile of leading health problems and health care quality for US children: Key insurance disparities and across-state variations. Academic Pediatrics, 11(3 Suppl), S22-33.

[29] Berdahl, T., Owens, P. L., Dougherty, D., et al. (2010). Annual report on health care for children and youth in the United States: Racial/ethnic and socioeconomic disparities in children's health care quality. Academic Pediatrics, 10(2), 95-118.

[30] Shone, L. P., Dick, A. W., Klein, J. D., et al. (2005). Reduction in racial and ethnic disparities after enrollment in the state children's health insurance program. Pediatrics, 115(6), e697-705.

[31] deLone S and Hess C (2011). Medicaid and CHIP Children's Healthcare Quality Measures; What states Use and What They Want. Academic Pediatrics, 11, No 3S.

Overview of State Reporting of the CHIPRA Measures in FFY 2010

Forty-two States and the District of Columbia submitted data to CARTS for FFY 2010 on the initial core set of quality performance measures. Not surprisingly, the most frequently-reported measures in FFY 2010 were the three child health care measures that States have been reporting through CARTS since FFY 2003 (Figure 1). These measures assess children's use of preventive and primary care services and were each reported by 40 to 42 States in FFY 2010. The higher rate of reporting for these three measures reflects States' experience reporting on these measures for the past 8 years. See Appendix E, Table E.1, for State-by-State detail on the frequency of reporting of the 24 children's health care quality measures in FFY 2010.

Eight measures were reported by 20 or more States; of these, seven are based on HEDIS specifications, while one is based on the EPSDT (CMS Form-416) system. These specifications are familiar to State Medicaid and CHIP programs, and as a result, many were able to report these measures voluntarily based on the specifications issued in February 2011. The seven measures reported by five or fewer States in FFY 2010 involve coding schemes (such as CPT-category II codes) or data sources (such as vital records or hospital records) that few States were able to incorporate into their FFY 2010 reports. The CAHPS measure was reported in CARTS by only one State in FFY 2010; another 15 States submitted CAHPS data to AHRQ. In preparation for submission of the FFY 2011 reports, which are due by December 31, 2011, CMS is focusing special attention on refining the specifications and providing technical assistance to States for the measures that few States were able to report.

The number of child health care quality measures reported by States in FFY 2010 ranged from 0 measures in 8 States to 18 measures in 1 State (Georgia) (Figure 2) (see Section III of this report for a profile of Georgia's strategy for reporting the quality measures). The median number of quality measures reported in FFY 2010 was 7 (The median indicates that half the states reported 7 or more measures and half the states reported fewer than 7 measures). Altogether, 14 States reported at least half of the CHIPRA quality measures in FFY 2010, while 12 States reported on 1 to 5 measures.

When States did not report a measure in FFY 2010, they were asked to specify the reason for not reporting. As shown in Table 3, the most common reason was that data were not available, although many States did not specify a reason. Other reasons for not reporting were because reporting was voluntary or because of budget and data system limitations. For example, Alaska and Rhode Island noted that they did not report some measures because doing so would require a medical record review that they were not equipped to conduct. Through technical assistance and training, CMS will be working with States to build their capacity for reporting more core measures in FFY 2011 and subsequent years.

Analysis of Five Frequently Reported CHIPRA Quality Measures in FFY 2010

The first annual Secretary's Report noted that States vary in their reporting of quality measures and that CMS has been working with States to improve the collection and reporting of their data. The systematic use of CARTS has resulted in more transparency about variations in State reporting. In addition, the ongoing provision of training and technical assistance has identified refinements to the technical measure specifications and the CARTS reporting system.

This section documents the results of State reporting of five frequently-reported measures in FFY 2010:

- Children's and adolescents' access to primary care practitioners (PCPs) (measure 14)
- Well-child visits in the first 15 months of life (measure 10)
- Well-child visits in the 3rd, 4th, 5th, and 6th years of life (measure 11)
- Adolescent well-child visits (measure 12)
- Childhood immunization status (measure 5)

These measures are useful in assessing the adequacy of children's access to and use of primary and preventive care. Measures related to dental services were also frequently reported in FFY 2010 and are discussed elsewhere in this report. Tables E.2 through E.6 in Appendix E provide State-by-State detail on reporting of the five selected measures in FFY 2010. These CHIPRA measures provide insights into the current status of health care quality provided to publicly-insured children and areas for improvement.

Data show that performance was higher on the PCP access measures than on the well-child visit and immunization status measures in FFY 2010. As shown in Table 4, the vast majority of children had at least one PCP visit during the reporting period, although the median rate ranged from a high of 96 percent among children ages 12-24 months to 89 percent for ages 12 to 19 (the median rate indicates that half of the States reported a rate at or above this level and the other half reported a rate below this level). There was limited variation in the rates across States, with a range of 2 to 7 percentage points for the 25th and 75th percentiles for all age groups. These quality measures suggest that most children had a PCP visit during the year.

In contrast, fewer children received the recommended number of well-child visits. The American Academy of Pediatrics (AAP) and Bright Futures recommend 9 well-child visits in the first 15 months of life and annual well-child visits for children ages 3 and older.[32] As shown in Figure 3, the rate of well-child visits was substantially lower than this recommendation. Across States, a median of 56 percent of infants had 6 or more well-child visits in the first 15 months of life, on average. Adolescents had the lowest rate of well-child visits, with a median of 47 percent of adolescents ages 12 to 21 receiving at least one well-child visit.

The variation among States in well-child visit rates is substantial, as reflected in the range of the 25th and 75th percentiles (Table 4). States' performance on this measure was best, on average, for children ages 3-6, with a median of 64 percent of children receiving the AAP and Bright Futures recommended annual well-child visit. This median, however, reflected a range of performance across States, from a low of 26 percent of children ages 3-6 in North Carolina's CHIP program having a well-child visit to a high of 82 percent of children ages 3-6 in Maryland's Medicaid/CHIP program having a well-child visit (Table 5). Whether the variation is due to provider service delivery patterns or an artifact of the data is uncertain at this time.

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[32] American Academy of Pediatrics. Recommendations for Preventive Pediatric Health Care. Practice Management Online at http://practice.aap.org. 2010. The AAP and Bright Futures recommend well-child visits for newborns, 3-5 days, 1 month, 2 months, 4 months, 6 months, 9 months, 12 months, and 15 months.

The median childhood immunization rate for children turning age 2 was 71 percent, with a 20-point spread between the 25th and 75th percentiles and two States reporting rates below 25 percent. Two main factors may be driving the wide range in rates across States: (1) the variation in the use of hybrid versus administrative data only; and (2) differences in the immunizations included in the reported measure. Future training and technical assistance efforts will focus on more standardized reporting of this measure across States.

Comparing Medicaid/CHIP and Private Coverage

How does the quality of care for children enrolled in Medicaid/CHIP programs compare with that of commercially insured children? Table 6 shows the State medians for the five selected measures reported in FFY 2010 and health plan medians for commercially-insured populations, as provided by the National Committee for Quality Assurance (NCQA). Although the populations covered by Medicaid/CHIP and private insurance may differ on socioeconomic and other demographic characteristics, this comparison provides context for performance reported in CARTS.

In general, the percentages of children with a PCP visit during the year are very comparable between the two groups. Well-child visit rates are lower among publicly-insured children during the first 15 months and ages 3 to 6, but higher among adolescents. [33] Immunization rates appear to be lower among publicly-insured children as well, but this could be an artifact of data anomalies in state reporting; the rate for commercially insured children reflects a set of immunizations known as “Combo 2,” whereas the rate for publicly-insured children does not include a consistent set of immunizations across States. Because this was the first year of State reporting on childhood immunization status in CARTS, some States used Combo 2, whereas others reported on Combo 3, Combo 6, or Combo 10. In future years, CMS will be working with States to report on a consistent set of immunizations in CARTS and will be refining the technical specifications to encourage more consistent reporting.

Results from this analysis are consistent with recent studies on access to or quality of care among children in Medicaid/CHIP. In general, studies show that access to care improves after children enroll in Medicaid or CHIP. Similarly, studies show that children with public coverage generally have better access to care than those who are uninsured. Results are mixed as to whether children with public coverage experience the same access to care as privately insured children. Study outcomes included having a usual source of care, reduction of unmet needs, ease of accessing services, and use of services.

Sources of Variation in Child Quality Measures

One source of variation in State reporting of the CHIPRA quality measures is the population included in the measure. States can report on CHIP (Title XXI) only, CHIP and Medicaid (Title XIX), or Medicaid only. As shown in Figure 4, about half of the States that reported the five selected measures in FFY 2010 included both Medicaid and CHIP populations in their rates. Not

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[33] The American Academy of Pediatrics (AAP) and Bright Futures recommend well-child visits for newborns, 3-5 days, 1 month, 2 months, 4 months, 6 months, 9 months, 12 months, and 15 months. AAP Recommendations for Preventive Pediatric Health Care. Practice Management Online at http://practice.aap.org. 2010.

surprisingly, States with Medicaid-expansion CHIP programs more frequently included Medicaid (Title XIX) children than States with separate CHIP programs only (Tables E.2 through E.6 in Appendix E). This pattern is illustrated by the 42 States that reported the percentage of children ages 3 to 6 who received well-child visits (Table E.3): 4 of the 5 States with Medicaid-expansion CHIP programs included both Medicaid and CHIP children, while 11 of the 15 reporting States with separate CHIP programs included only CHIP children. Among States with combination programs (that is, States with both Medicaid expansion and separate CHIP components), about half included both Medicaid and CHIP children in their rates. CMS' ultimate goal, consistent with the intent of CHIPRA, is for States to report quality measures for all publicly insured children, regardless of whether they are covered under CHIP (Title XXI) or Medicaid (Title XIX).

States that include both Medicaid and CHIP populations provide a more complete picture of the quality of care provided to publicly-insured children in the State. Moreover, including Medicaid children increases the denominator for measures related to less-frequent events (such as follow-up after mental hospitalization or follow-up care for children prescribed ADHD medication) and for measures related to populations that are more likely to be covered under Medicaid than CHIP (such as infants). However, when States operate separate CHIP programs, they may face barriers to reporting on all publicly-insured children, which may explain the lower rates of combined reporting for Medicaid and CHIP children in States that maintain separate programs. CMS will continue to work with States to build capacity for combined reporting of Medicaid and CHIP children in the CHIPRA quality measures.

Another source of variation is the type of data used to develop the measures. As shown in Figure 5, most States used administrative (claims) data to measure performance, except for the immunization measure where more States relied on a hybrid approach using both administrative and medical record data to report performance. Although hybrid methods are more resource-intensive than measures using administrative data alone, rates produced using hybrid methods tend to be substantially higher than administrative-data-only rates. One study, for example, found that childhood immunization rates were 43 percentage points higher, on average, when hybrid methods were used.[34] Of the 15 measures examined in the study, only three—well-child visits in the first 15 months, well-child visits for ages 15 to 34 months, and adolescent well care—were not significantly different across the two methods. Thus, the type of data States used to calculate the measure may be an important source of variation among States, especially for immunization rates.

State Progress in Reporting Core Child Health Measures

Although FFY 2010 was the first year for voluntary reporting of the 24 initial core set of quality measures, States have been reporting three of the measures in CARTS since FFY 2003 (A fourth measure, appropriate medications for asthma, was discontinued in FFY 2010). Trends in the number of States reporting the three measures were tracked for 4 years, with FFY 2003 and 2005 representing States' early experience and FFY 2008 and 2010 representing States' later

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[34] Pawlson, G., Sarah Hudson Scholle, and Anne Powers. "Comparison of Administrative-Only Versus Administrative Plus Chart Review Data for Reporting HEDIS Hybrid Measures." American Journal of Managed Care, vol. 13, no. 10, October 2007, pp. 91-96. Available online at http://www.ncqa.org/Portals/0/PublicComment/HEDIS2010Update/AJMC_Oct07.pdf.

experience. As shown in Figure 6, the number of States reporting these three measures steadily increased from FFY 2003 to 2008, and declined slightly in FFY 2010. The decline from FFY 2008 to 2010 may be due in part to the increased emphasis on reporting according to standardized measure specifications and some States may not have reported as a result.

Despite the slight decrease in the total number of States reporting each of these measures in FFY 2010, the quality of reporting for the three measures improved because more States used HEDIS specifications to report the measures in FFY 2010 than in FFY 2008 (Figure 7). In FFY 2008, for example, four States used CMS 416 EPSDT specifications to report the percentage of children receiving well-child visits in the first 15 months of life (these specifications compare the number of actual well-child visits to the number of expected well-child visits for the population of children). The increased adherence to standardized measure specifications in FFY 2010 indicates progress toward the goal of consistent and comparable reporting across States and over time.

State performance on the three child health measures was similar to or slightly improved between FFY 2008 and FFY 2010 for the States that reported using HEDIS specifications in both years (data not shown). In the 32 States using HEDIS specifications in both years, the median percentage of children with at least one well-child visit in the first 15 months was consistently high at 97 percent in FFY 2008 and 98 percent in FFY 2010. Children ages 3 to 6 were substantially less likely than infants to have had a well-child visit, although the rate appears to be increasing over time; the median percentage of 3 to 6-year-olds with at least one well-child visit increased from 61 percent in FFY 2008 to 63 percent in FFY 2010 among the 35 states using HEDIS in both years. Finally, the median percentage of children ages 12 to 19 with at least one PCP visit rose from 87 percent to 89 percent between FFY 2008 and FFY 2010 in the 33 States using HEDIS in both years. Future reports will continue to track progress in child health quality over time among States reporting using the CHIPRA measure specifications.

External Quality Reviews of Managed Care Organizations

Although States use a variety of financing and delivery models to provide health care services to children in Medicaid/CHIP, an estimated 61 percent of children obtain their care through full-risk managed care arrangements in 43 States and the District of Columbia (see Table 1). All States that use managed care for the delivery of health care in Medicaid or CHIP are required to have a system-wide quality program. For CHIP, this requirement became law with enactment of CHIPRA.[35]

Section 1139A(c) of the Act, as amended by section 401 of CHIPRA, specifically requires the Secretary of HHS to include in this annual report the information that States collect through external quality reviews of MCOs and Prepaid Inpatient Health Plans (PIHPs)[36] participating in Medicaid or CHIP. In 2010, 18 different External Quality Review Organizations (EQROs) held contracts with States to conduct annual quality reviews (see Appendix F) .

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[35] Section 403 of CHIPRA requires all States that operate a CHIP managed care program to comply with the requirements of Section 1932 of the Social Security Act. This includes the managed care quality and external quality review requirements established in 42 C.F.R. 438 subparts D and E.

[36] 42 C.F.R. § 438.2 defines a PIHP as an entity that: 1) provides medical services to enrollees under contract with the State agency, and on the basis of prepaid capitation payments, or other payment arrangements that do not use State plan payment rates; 2) provides, arranges for, or otherwise has responsibility for the provision of any inpatient hospital or institutional services for its enrollees; and 3) does not have a comprehensive risk contract.

As of 2011, eight States (AK, AR, ID, LA, ME, MT, OK, and SD) do not use MCOs or PIHPs to deliver services for children and adolescents, and thus, have no external quality review (EQR) reporting. Mississippi has just begun to implement Medicaid managed care and will report EQR data to CMS in FFY 2012 at the earliest. While Wyoming, North Dakota, and New Hampshire do not use a managed care delivery system for the Medicaid program, these States do use managed care for the CHIP population. Therefore, section 403 of CHIPRA binds them to the Federal EQR reporting requirement for the CHIP population. These States are in the process of obtaining a CHIP EQR and will submit the corresponding EQR reports to CMS in FFY 2012.

States that do not provide services for children and adolescents through some form of managed care generally offer care through a range of financial service delivery models, such as fee-for-service (FFS) or primary care case management (PCCM). For those States, quality review is solely the responsibility of the State and CMS has no oversight authority. The net effect of these variations in delivery systems and reporting requirements is that there has not been a single CMS national Medicaid or CHIP quality database that facilitates a national assessment of quality of care performance measures. The CHIPRA requirement for the voluntary collection and reporting of child quality measures has helped to fill this gap. Additionally, while State EQR reports are specific to managed care, they do provide a glimpse at the various strategies that States use to monitor and improve the quality of care for children in Medicaid and CHIP.

Appendix G displays a summary of selected information available to CMS through State managed care EQR reports.[37] CMS abstracted data from annual EQR reports to identify: 1) State-specified children and adolescent health care performance measures;[38] 2) findings on children's and adolescent's health care quality issues and recommended follow-up; 3) performance improvement projects relating to children's and adolescent's health; and 4) whether the EQR found any issues in validating the State's data. The CMS assessment revealed that States engage in a variety of different quality improvement efforts, based on each State's priorities and other factors such as clinical areas that need improvement and opportunity for cost savings.

Reporting and Validation of Performance Measures in EQR Reports

In accordance with 42 C.F.R. §438.240, States that use Medicaid managed care delivery systems are required to have each participating MCO or PIHP annually measure and report to the State its performance using standard measures specified by the State or MCO. States are then required, per 42 C.F.R. §438.358, to validate any performance measures reported by the MCO or PIHP during the preceding 12 months.[39] The results of these assessments appear in the annual EQR report that States submit to CMS.

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[37] At the time of this printing, neither Texas nor Oregon had submitted the required EQR report, so neither State is reflected in this analysis. Oregon has a separate behavioral health plan, for which CMS did receive an EQR report. However, CMS did not receive an EQR report related to physical health for children and adolescents in Oregon.

[38] CMS did not include non-standard HEDIS® measures in its analysis.

[39] 42 C.F.R. §438.320 defines validation as the review of information, data, and procedures to determine the extent to which they are accurate, reliable, free from bias, and in accord with standards for data collection and analysis.

In its review of the 38 submitted EQR reports[40], CMS found all 38 States to be in compliance with the performance measure validation requirement. CMS found that four States (DE, IN, IA, and NC) did not collect any performance measures specific to children or adolescents as part of their managed care program.[41] Because regulation only requires States to validate the performance measures, the amount of detail provided in each EQR report differed by State. For example, four States (AL, FL, TN, and WI) did not provide any findings or follow-up and made available only a listing of the performance measures they collect and validate. While most States generated an overall State average for each performance measure, five States (CO, GA, HI, KS, and NM) only offered rates stratified by MCO or PIHP (Appendix G).

The health care quality performance measures for children and adolescents most frequently assessed by Medicaid managed care programs include well-child visits, childhood immunizations, and adolescent well-care visits. In addition, States tended to focus on collecting performance measures related to lead screening, access to primary care practitioners, and the provision of appropriate medications (pharyngitis, upper respiratory infections, medication for asthma). Many of the measures most commonly found in States' EQR reports overlap with the initial core set of children's quality measure (Figure 8).

Performance Improvement Projects (PIPs)

In its review of the submitted EQR reports, CMS found that 31 State programs required or engaged in PIPs specific to children or adolescents. Among these, the actual number of PIPs that specifically related to children or adolescents within the State varied. For example, some States only had one applicable PIP and others had seven or eight applicable PIPs (specifically, CA and FL had the most applicable PIPs ranging from reducing rates of obesity in children and adolescents to improving the rate of child and adolescent dental care). Figure 9 displays the common PIP themes that CMS identified in an analysis of the submitted State EQR reports. As in previous years, most States focused their PIPs on well-child care, immunizations, and adolescent well-care visits. Seven States (AL, IN, IA, MD, MI, NC, and TN) did not take part in any PIPs relating to children or adolescents, two of which operate behavioral health carve-outs and have no children enrolled in their managed care program (IA and NC). All 38 States that submitted an EQR report to CMS were found to be in compliance with the PIP validation requirement.

Benchmark Benefit Plans

Section 401(c) of CHIPRA amends the Social Security Act to require the Secretary to report information collected from States through external quality reviews of managed care organizations and under benchmark plans. Benchmark benefit plans give States flexibility in offering some Medicaid-eligible individuals a benefits package that is not necessarily comparable to the benefits available Statewide through Medicaid. Sections 1937 and 2103 of the Act identify types of health benefit packages that qualify as benchmark benefit packages. There

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[40] Of the 50 States and the District of Columbia, 8 States do not use a managed care delivery system and are not required to submit an EQR report; 3 States operate managed care only for CHIP and are in the process of obtaining an EQRO to begin reporting; and 2 States were not able to submit their EQR report prior to the publication of this Report.

[41] NC and IA only operate mental health carve-out PIHPs. Although children are eligible to enroll in these plans, neither State reported that children were enrolled in managed care plans in FFY 2010.

are no separate State reporting requirements for benchmark plans other than the EQR reporting process used for MCOs and PIHPs.

Currently, eleven States operate Medicaid benchmark plans (CT, DC, ID, KY, KS, MN, NY, VA, WA, WI, and WV). Four of these States (DC, MN, WI and WV) deliver care through MCOs or PIHPs and thus require an EQR.[42] The EQR reports for these four States do not separate out information related to the quality of benchmark plans. Because this information is reported in the aggregate, which is allowable under EQR requirements, specific EQR data are not available on the performance of the benchmark plans in these States.

As of July 2011, there were eleven CHIP benchmark plans which deliver care through MCOs or PIHPs and thus require an EQR (CA, CO, IA, IL, IN, MA, ND, NH, NJ, UT, and WV). Two of these States (ND and NH) use managed care only for CHIP and are in the beginning stages of EQR reporting. The remaining nine States currently submit EQR reports to CMS, but do not separate out information related to the quality of CHIP benchmark plans. Because this information is also reported in the aggregate, specific EQR data are not available on the performance of the CHIP benchmark plans in these States.

Consumer Experiences with Health Care

Consumer assessment of experiences with health care is another dimension of the quality of care, reflecting an aspect of patient-centeredness. As mandated by section 402 of CHIPRA, parents' satisfaction with their children's health care will be measured by States using the AHRQ's Consumer Assessment of Healthcare Providers and Systems (CAHPS) Health Plan Survey Child Medicaid Questionnaire. State CHIP programs will be required to report the CAHPS Child Medicaid Questionnaire by December 31, 2013; state reporting by Medicaid programs will continue to be voluntary. Only one State reported CAHPS data for their CHIP program through CARTS in FFY 2010; thus, in the absence of State-level data in FFY 2010, aggregate data from the National CAHPS Benchmarking Database were analyzed, showing the overall rating of consumer satisfaction along four dimensions: health care, health plan, personal doctor, and specialists. These four dimensions were compared for Medicaid children (n=71,700; 132 health plans), Medicaid adults (n=72,700; 186 health plans), and Commercial adults (n=113,800; 288 health plans).

As shown in Figure 10, at least 60 percent of parents of children enrolled in Medicaid reported a rating of 9 or 10 (on a scale of 1 to 10) across all four dimensions. Overall ratings were consistently higher for Medicaid children than they were for adults covered by either Medicaid or commercial insurance. Less than half of Medicaid adults and commercial adults rated their overall health care experience a 9 or 10, compared with 60 percent of parents reporting about their children's experience. The disparity was even greater on overall health plan ratings, where a rating of 9 or 10 was reported for 38 percent of commercially insured adults, 51 percent of Medicaid adults, and 63 percent of Medicaid children.

In general, these results suggest that parents of children in Medicaid are more satisfied with their children's health care, health plans, and providers than adults served by Medicaid or commercial

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[42] Since the 2010 Secretary's Report, three of these eleven States began contracting with Medicaid benchmark plans (CT, DC, and MN).

health plans. However, these results also suggest substantial room for improvement among both public and private payers across all dimensions of consumer experiences.

Use of Dental Services in Medicaid and CHIP

Despite considerable progress in pediatric oral health care in recent years, tooth decay remains one of the most common chronic diseases of childhood. Tooth decay can cause significant pain, loss of school days, infections and even death. CMS views oral health as inseparable from overall health, and dental care is an essential element of primary care for children. While all children enrolled in Medicaid and CHIP have coverage for dental services, ensuring access to these services remains a concern. In Medicaid, children's dental benefits are required through the EPSDT benefit. In CHIP, the children's dental benefit became mandatory in 2010 through CHIPRA.

The CMS has been working with its Federal and State partners, as well as the dental and medical provider communities, children's advocates and other stakeholders to improve access to pediatric dental care. To sustain the progress already achieved, and to accelerate further improvements, CMS released its national Oral Health Strategy in April 2011, which includes a range of activities that States and the Federal government can undertake to improve access.[43] Reflecting the importance of access to preventive dental services, the initial core set of children's health care quality measures includes two measures of the use of dental services.

The field of quality measurement in medicine is better established and more widespread than in dentistry. Currently, indicators of dental care access – information on the frequency and broadly defined type of services children receive (e.g., preventive or treatment services) – are the primary quality measures used in dentistry. While this is not ideal, it is a place to start. For example, States can learn important information about their oral health services examining the percentages of children receiving dental services.

The EPSDT CMS-416, the annual EPSDT report, is a key source of data on children's use of oral health services in Medicaid/CHIP. It includes data from all States and the District of Columbia for children enrolled in Medicaid, as well as for children covered by CHIP in the 34 States in which CHIP is implemented in whole or in part through a Medicaid expansion.

To examine Medicaid/CHIP program performance nationwide and at the State level, the 2011 Secretary's Report uses two indicators based on the CMS-416 report: 1) percentage of children who received any dental service in the past year and 2) percentage of children who received a preventive dental service in the past year. This report examines data on both measures as well as how performance changed between 2000 and 2009.[44]

A Record of Improvement

Data collected by CMS show a clear record of improved children's access to dental care in Medicaid/CHIP. Approximately 40 percent of children in Medicaid received a dental service in

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[43] www.cms.gov/MedicaidDentalCoverage/Downloads/5_CMSDentalStrategy04112011.pdf

[44] For the 17 States (AL, AZ, CO, CT, GA, KS, MS, NV, NY, OR, PA, TX, UT, VT, WA, WV, WY) where CHIP is implemented separately from the Medicaid program, CMS collects similar oral health data in CARTS. Information from those States on use of dental services by children in CHIP will be available in the 2012 Secretary's Report.

2009, reflecting a nearly 50 percent increase over the 27 percent of children who received a dental service in 2000 (Table 6). Use of preventive dental services also increased substantially over the same period, with 35 percent of children enrolled in Medicaid receiving a preventive dental service in 2009. This proportion reflected a 61 percent increase over the 21 percent of children receiving a preventive dental service in 2000 (Table 7).

States also vary in the gains they have achieved since 2000. The 13 States in the top quartile of performance had gains ranging from a two-fold increase in the percent of children receiving a dental service in New Mexico to a more than three-fold increase in Maryland (Table 6). In the bottom quartile, were 13 States with gains up to 26 percent to a decline of 20 percent. Of the States with the smallest rate of improved access between 2000 and 2009, three States (NE, VT and WA) were among the top performers on this measure in 2009 with access rates above 46 percent.

These improvements in access occurred during a time period when the number of children enrolled in Medicaid/CHIP and eligible for EPSDT, as reported on the CMS-416, grew from 23.5 million to 33.8 million. The increase in percentage of children receiving a dental service during a period of enrollment growth gives an indication that the dental provider capacity serving children in Medicaid/CHIP expanded during this time. While these improvements are impressive, they remain below the Healthy People 2010 goal of 56 percent of children and adults having a dental visit within a year.[45]

These national numbers mask considerable variation in performance among States. A review of State-specific data on the indicators revealed:

- Receipt of Any Dental Service: The 13 States (AR, CO, IA, ID, MA, NC, NE, NH, NM, SC, TX, VA, and WA) in the top quartile of performance in children receiving a dental service, had performance ranging from 46 percent to 62 percent of children receiving a dental service in 2009 (Figure 11).

- Receipt of Preventive Dental Service. The 13 States (AL, AR, ID, IA, MA, NC, NE, NH, NM, SC, TX, VT, and WA) in the top quartile of performance in children receiving a preventive dental service had performance ranging from 42 percent to 53 percent of children receiving a service in 2009 (Figure 12).

Through the CMS Oral Health Initiative and implementation of the Oral Health Strategy, CMS is working with States to help them continue to improve access to oral health care for Medicaid- and CHIP-enrolled children. Our goal is to increase children's utilization of preventive dental services by at least 10 percentage points nationally by 2015. In addition, we are partnering with the American Dental Association to develop new oral health quality measures focused more on clinical quality and on achieving and measuring improved oral health outcomes. Future reports will include updates as to these new measures.

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[45] This report uses the Healthy People (HP) 2010 goal as the benchmark since data were collected in FFY 2009. 2020 has lowered its goals for 2020.
http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=32 .
Information on the HP 2010 goals can be obtained through the HP archives.
http://www.healthypeople.gov/2010/document/html/objectives/21-10.htm

State Spotlight: Georgia

Georgia reported 18 of the 24 initial CHIPRA measures in FFY 2010, more than any other State. Georgia attributes its success to the active use of the measures in its managed care contracts, auto-assignment process, and quality-improvement initiatives. The State requires the three Medicaid and CHIP MCOs to report 32 quality measures, 14 of which are included in the initial CHIPRA quality measures set. In addition, the State uses a subset of the measures in its quality-based auto-assignment process, which assigns a higher rate of Medicaid and CHIP enrollees to the MCO that has the highest level of quality. Moreover, the State actively uses the quality measures to assess MCOs' achievement against targets, develop performance-improvement plans, and enforce contractual provisions related to quality of care (such as corrective action plans or financial penalties, where necessary). The State meets regularly with MCO staff and has engaged them in a collaborative performance improvement project to improve the rate of well-child visits in the first 15 months. Other projects focus on reducing obesity, reducing emergency room visits, and improving dental access.

Georgia has taken a proactive role in designing its data systems to support quality measurement at the State level. The State requires the MCOs to report encounter data and calculates the quality measures that rely on administrative data. As a result, the State is able to produce State-level rates for Medicaid and CHIP enrollees in managed care or fee-for-service, allowing it to characterize the quality of care for children regardless of the program or delivery system in which they are enrolled. The data system also captures continuous enrollment in public coverage regardless of transitions during the year from one program to another or one delivery system to another. The State uses HEDIS-certified software to ensure that its HEDIS measures comply with the measure specifications. Beginning in 2011, the State will be conducting medical record reviews for a sample of Medicaid and CHIP enrollees to enable the calculation and reporting of hybrid measures at the State level.

Like other States, Georgia reported challenges with reporting the initial CHIPRA measures set in FFY 2010. Of the six measures not reported by Georgia in FFY 2010, two rely on HEDIS or HEDIS-like specifications that the State did not require of its MCOs in the 2009 measurement year, but will be required in a future year; two specify procedure coding that Georgia does not use in its administrative data systems; one requires data from hospitals and is difficult to collect at the State level; and one requires a new primary data collection effort that is currently unbudgeted. Two other measures reported in FFY 2010 deviated from the CHIPRA measure specifications due to data limitations. The State is an active participant in discussions with CMS and other States about how to refine the measures and their specifications to improve the completeness, consistency, and usefulness of the CHIPRA quality measures for quality improvement. Georgia recognizes the value of State-level reporting of the CHIPRA quality measures to provide benchmarks that States can use to compare the performance of their Medicaid and CHIP programs with that of other States to drive improvements in the quality of care for children in Medicaid and CHIP.

IV. Strengthening Quality of Care through Demonstration Grants and Partnerships

CHIPRA provides CMS with many opportunities and levers to improve children's health care quality. As described in other sections of this Report, one such lever is the initial core set of children's health care quality measures. Other levers include the CHIPRA Quality Demonstrations, the Pediatric Quality Measures Program, and the collaborative partnerships across HHS that facilitate the implementation of these quality-focused initiatives.

CHIPRA Quality Demonstrations

On February 22, 2010, CMS awarded $20 million in first-year CHIPRA Quality Demonstration Grants to 10 States: Colorado, Florida, Maine, Maryland, Massachusetts, North Carolina, Oregon, Pennsylvania, South Carolina, and Utah. These projects will be conducted over a five-year period, with cumulative grant awards totaling $100 million. Including both single-State projects and multi-State collaborations, 18 States will participate in these projects. Section 1139A(d) of the Act, as added by section 401(a) of CHIPRA outlines the four areas of focus for the Demonstrations:

- Experiment with, and evaluate the use of new measures for quality of Medicaid/CHIP children's health care;
- Promote the use of Health Information Technology (HIT) for the delivery of care for children covered by Medicaid/CHIP;
- Evaluate provider-based models which improve the delivery of Medicaid/CHIP children's health care services; or
- Demonstrate the impact of the model Electronic Health Record (EHR) format for children developed and disseminated under section 401(f).

During the year and a half since the Demonstrations began, CMS has created numerous opportunities to spread initial lessons learned from the Quality Demonstrations across the 10 Grantees and beyond. CMS sponsored monthly Grantee-only calls, spotlighted each Grantee on its Quality Technical Assistance Group calls, and sponsored a Grantee poster session at its first annual Medicaid/CHIP Quality Conference in August 2011. As part of the Conference, each Grantee created a poster-board that outlined its Demonstration activities and allowed for Conference participants to learn more about the Grantee's plans to better measure and improve children's health care quality.

As the Grantees make their way through the second year of the grants, they move from the planning phase to implementation of their quality improvement projects. As such, CMS will have even more opportunities to understand how these grants will be used to measure and improve children's health care quality across 18 States. Brief summaries of the Grantee activities are profiled below.

Colorado, in partnership with New Mexico, has begun to form an Interstate Alliance of School-Based Health Centers (SBHCs) to integrate school-based health care into a medical home approach to improve the care of underserved school-aged children and adolescents. Colorado has selected its four SBHC, and New Mexico will identify its first year practice sites by September 2011. The States plan to utilize the SBHCs to improve the delivery of care within schools setting and to improve screening, preventive services, and management of chronic conditions. In addition, the goal will be to educate adolescents to encourage more involvement in their own health care and follow-up by school-based health centers with primary care physicians. This demonstration project will also focus on the integration of mental health with primary care for children with chronic care needs.

Florida, in partnership with Illinois, has begun collecting the initial core set of children's health quality measures as well as other supplemental measures. These two partners will work to ensure the on-going Statewide health information exchange to enhance the development of provider-based systems of care that incorporate practice redesign and strong referral and coordination networks, particularly for children with special health care needs. To this end, each State has collaborated to design a new pediatric medical home project. The two States have also begun their work to improve birth outcomes through activities such as the identification of a perinatal data set, an IT strategy for making patients' data available to delivery hospitals, and an evidence-based quality improvement project to identify opportunities to reduce elective pre-term deliveries.

Maine has been focused on testing the initial core set of child health quality measures. In partnership with Vermont, they will expand their information technology systems to improve the exchange of child health data and expedite the provision of services to children in foster care. The two States will also adapt and strengthen a pediatric medical home model and test the impact of these changes on payment reform, implementation of consensus practice guidelines, and provider education on child health outcomes. This year, Maine developed a plan to conduct an EPSDT/Bright Futures Learning Initiative through the fall of 2013. This plan, referred to as First STEPS (Strengthening Together Early Preventive Services), is a comprehensive effort to provide outreach, education, and quality improvement support to primary care practices to improve EPSDT rates.

Maryland, in partnership with Georgia and Wyoming, will focus on improving the health and social outcomes for children with serious behavioral health needs. They have begun to implement or in some cases, expand upon a Care Management Entity (CME) provider model to improve the quality of care and control the cost associated with children with serious behavioral health needs enrolled in Medicaid/CHIP. The CME model incorporates wrap-around services, peer supports, and intensive care coordination. The States will utilize the CME model to improve access to appropriate care services and use health information technology to support clinical decision-making. The grantees will also use the CME model as a way to reduce the unnecessary use of services, improve clinical and functional outcomes for youth with serious behavioral needs, and involve children and their families in health care-related decisions.

Massachusetts is working with the University of Massachusetts Medical School, the Children's Hospital of Boston, Massachusetts Quality Health Partners, and the National Initiative for Children's Healthcare Quality (NICHQ) to apply and evaluate recommended measures of children's health care quality and to make comparative quality performance information available to providers, families, and policymakers. Over the past several months, the State selected primary care practice sites to participate in its medical home project and has begun planning a medical home learning collaborative. The State will use the learning collaboratives and practice coaches to transform pediatric practices into medical homes that provide family and child-oriented care, and enhance outcomes for children with Attention Deficit and Hyperactivity Disorder (ADHD), asthma, and childhood obesity.

The North Carolina agency is working with the State's Academy of Family Physicians, the State Pediatric Society, and Community Health of North Carolina to build upon its public-private partnership. As part of their grant, they will implement and evaluate the use of recommended quality measures, develop new measures and strengthen its medical home model for children with special health care needs. In its first grant year, the State define a process to collect and report data children's health care quality core measures and reported on 13 of the 24 measures. By the end of 2012, the State plans to report on 23 of the measures. North Carolina is also working with CMS and AHRQ to test an EHR format for children.

Oregon, in partnership with Alaska and West Virginia, is testing a patient- centered medical home model and will use health information technology to improve the quality of children's health care. The three States will also collect the initial core set of quality measures and launch various learning collaboratives focused on oral health and children with special health care needs. Due to the differences in geography, objectives, and needs within their health care delivery systems, the States have spent the first several months of the grant program exploring ways to collect the core measures so that can be applied across different financing delivery models and at the practice-level.

Pennsylvania partnered with several medical centers and hospitals in the State to test and report the CHIPRA recommended pediatric quality measures as well as promote the use of health information technology to maximize the early identification of children with developmental delays, behavioral health needs, and special health care needs. Pennsylvania will facilitate the coordination of care among the primary care medical home, specialists, and child-serving social service agencies. To date, the State has linked two of the four health systems participating in the Demonstration to the Pennsylvania Department of Health's Statewide Immunization Information System and plans to link the remaining two by Fall 2012. One of the partnering children's hospitals has already implemented a screening tool that is used by the patient prior to the clinic visit to identify potential conditions needing special attention and enhance communication between providers and patients. Pennsylvania is also working with CMS and AHRQ to test a model EHR format for children.

South Carolina is working to build a quality improvement infrastructure that enables pediatric primary care practices to establish medical homes that effectively coordinate physical and mental health services. The State will use health information technology to gather, aggregate, and report on outcome data to support the provision of evidence-based care and allow providers to initiate quality improvement efforts based on peer-to-peer comparisons. The State has selected 18 pilot practices to participate in the project. These practices will participate in learning collaboratives to disseminate knowledge, develop and adjust action plans, and assess the success of implementation. The State hosted it first Learning Collaborative in January 2011 and a second in July 2011.

Utah, in partnership with Idaho, has begun to develop a regional quality system guided by the medical home model to enable and assure on-going improvement in the care of children enrolled in Medicaid and CHIP. The project's focus is to improve health outcomes for children with special health needs through the use of EHRs, Health Information Exchanges (HIEs), and other HIT tools. In its first year, Utah implemented a medical home demonstration project and will next implement medical home project in Idaho. As part of its medical home activities, the two States will pilot a new administrative service using medical home Coordinators embedded in primary and sub-specialty care practices to support on-going improvement in care, coordination of care, and support for children with special health care and their families.

As part of these Demonstrations, the grantees are addressing key quality improvement topics that can serve to advance improvement of children's health care quality:

- Behavioral Health –Several grantees plan to enhance access to behavioral health services through improved coordination and integration of physical and behavioral health services; implementation of pre-visit questionnaires to enable providers to individualize encounters based on identified concerns; increased focus on care management and coordination; and testing of new reimbursement methodologies.

- Care Coordination – Among the grantees there are plans to target improvement in care coordination by using electronic health records to improve the continuity of services for children in foster care; offering financial incentives to ensure the feedback of referral information for children receiving early intervention services from other medical and community providers to the medical home; and coordinating care for children across payers throughout a State.

- Oral Health – A subset of the grantees seek to build a closer connection between their medical homes and dental care services/referrals. For example, one grantee will provide training children's medical homes to perform oral health screening, fluoride varnish application for young children, and dental referrals to improve dental health outcomes. Another grantee plans to promote adoption of an oral health assessment screening tool and expanded reporting of dental services by primary care physicians.

Mathematica Policy Research, working under an agreement with AHRQ, will evaluate these demonstration projects to determine their effectiveness in improving the quality of health care provided to enrolled children and to assess if, and how the programs increased transparency and patient choice.

Pediatric Quality Measures Program

Through the CHIPRA Quality Demonstrations, Grantees will test and evaluate the use of the initial core set of children's health care quality measures. To address the need for improved core measures and for the development of new measures in health care quality areas not reflected in initial core set, AHRQ, with funding from CMS, will work with seven Centers of Excellence to develop new measures and refine the core measures as necessary.[46] The AHRQ/CMS Centers of Excellence, which comprise the Pediatric Quality Measures Program (PQMP), are a cohort of entities with expertise in health care quality measurement specific to the needs of children and their health care delivery system and include collaborations of academic institutions, children's hospitals, and measurement experts. The PQMP, required by section 1139A(b)(1) of the Act, is designed to (1) improve and strengthen the initial core set of measures to make them more broadly applicable to Medicaid, CHIP, and other programs; and (2) develop additional quality measures that address dimensions of care where standardized measures do not currently exist. Two of the Quality Demonstration grantees (Illinois and Massachusetts) are developing new measures related to children's health care quality and participate in the activities of the PQMP.

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[46] http://www.ahrq.gov/chipra/pqmpfact.htm

Coordination with HHS Quality Partners

The CMS collaborates with and leverages the ongoing work of other HHS agencies focused on improving the quality of child health, including the Health Resources and Services Administration (HRSA), the Centers for Disease Control and Prevention (CDC), and the Substance Abuse and Mental Health Services Administration (SAMHSA), AHRQ, and ONC. CMS is working with HRSA and CDC on an oral health initiative and will continue solidifying collaborations related to children's quality of care. In particular, HRSA's Maternal and Child Health Bureau, with its similar quality goals and priorities for improving children's health, will be a key partner for CMS efforts to improve maternal and infant health outcomes. The CDC has been, and will continue to be, a partner for CMS on children's health care issues such as obesity prevention and immunization efforts. The CDC's body-mass index (BMI) measurement research is important to CMS' CHIPRA quality measurement program, which includes a measure relating to the documentation of BMI by a provider. CMS' partnership with AHRQ on identification of the initial core measure set for children, the new Pediatric Quality Measures Program, and the model Electronic Health Record format for children's care were noted earlier. CMS also is working closely with the Office of the National Coordinator to develop a limited number of new children's health care quality measures and electronically specify the current initial core measures set for children.

In April 2011, the Obama Administration launched the Partnership for Patients: Better Care, Lower Costs, a new public-private partnership that will help improve the quality, safety, and affordability of health care for all Americans.[47] The Partnership has two goals: (1) keep patients from getting injured or sicker, and (2) help patients' heal without complication. CMS will work with the partnership in its efforts to implement the new rule regarding nonpayment of provider preventable conditions. States have a significant role to play in the Partnership for Patients activities, including collecting and reporting on the children's core quality measure related to patient safety.

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[47] http://www.healthcare.gov/center/programs/partnership

V. Summary and Conclusions

Since the release of the first Secretary's Report on the Quality of Care for Children in Medicaid and CHIP in 2010, HHS has made substantial progress in building a foundation for an integrated system of quality measurement and improvement in Medicaid/CHIP. Most States voluntarily reported one or more of the initial core set of children's health care quality measures in FFY 2010 and at least half of these States reported on seven or more measures. Although there is variation in the definition of the population and data sources, State reporting has become more transparent and standardized. This strong first-year response on reporting of measures is an indication that States recognize the importance of measuring the performance of Medicaid/CHIP programs. Additionally, the CMS review of external quality review technical reports reveals that States are also engaged in a variety of efforts to improve the quality of care for children in Medicaid managed care and that efforts are expanding to include children in CHIP managed care programs.

To assist States in further improving the completeness and consistency of their reporting and in improving their performance, CMS has undertaken several efforts including: (1) establishing a technical assistance and analytic support program; (2) convening States and other stakeholders for a one-day conference in Baltimore in August 2011 to provide training and technical assistance on the collection and reporting of the measures; and (3) refining the technical measure specifications in response to issues encountered during the FFY 2010 reporting period. With access to data on a comprehensive set of performance measures and efforts underway to improve the stability of coverage for children in Medicaid/CHIP, HHS now has a greater capacity to work toward its goal of achieving a first class system of coverage and care for all children enrolled in Medicaid/CHIP.

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Table 1. Number and Percent of Children Enrolled in Medicaid or CHIP by State and Service Delivery Type, FFY 2010

State	Managed Care		Fee-for-Service		Primary Care Case Management		Total
National Totals	25,751,873	61%	8,837,890	21%	7,585,278	18%	42,175,041
Alabama	47,919	5%	137,545	14%	798,847	81%	984,311
Alaska	0	0%	91,508	100%	0	0%	91,508
Arizona	884,794	89%	105,887	11%	0	0%	990,681
Arkansas	0	0%	505,077	100%	0	0%	505,077
California	4,421,700	71%	1,767,088	29%	0	0%	6,188,788
Colorado	151,309	27%	346,282	62%	61,688	11%	559,279
Connecticut	285,515	94%	17,618	6%	0	0%	303,133
Delaware	85,621	89%	5,984	6%	5,104	5%	96,709
District of Columbia	68,710	70%	28,792	30%	0	0%	97,502
Florida	1,328,808	57%	335,859	14%	654,662	28%	2,319,329
Georgia	1,219,016	90%	57,388	4%	70,801	5%	1,347,205
Hawaii	137,705	97%	4,287	3%	0	0%	141,992
Idaho	0	0%	69	0%	211,355	100%	211,424
Illinois	159,058	7%	761,050	32%	1,489,457	62%	2,409,565
Indiana	711,043	86%	119,084	14%	17	0%	830,144
Iowa	44,844	13%	122,362	34%	189,882	53%	357,088
Kansas	195,865	76%	52,307	20%	9,250	4%	257,422
Kentucky	139,824	25%	75,588	14%	335,908	61%	551,320
Louisiana	0	0%	143,609	18%	676,264	82%	819,873
Maine	0	0%	45,101	26%	130,824	74%	175,925
Maryland	538,215	97%	18,569	3%	0	0%	556,784
Massachusetts	293,934	47%	216,214	34%	120,322	19%	630,470
Michigan	1,183,362	94%	75,370	6%	0	0%	1,258,732
Minnesota	363,494	75%	124,022	25%	0	0%	487,516
Mississippi	95,556	13%	618,332	87%	0	0%	713,888
Missouri	393,486	61%	255,946	39%	0	0%	649,432
Montana	0	0%	25,241	26%	70,165	74%	95,406
Nebraska	45,214	21%	111,868	53%	55,275	26%	212,357
Nevada	181,100	74%	62,880	26%	0	0%	243,980
New Hampshire	10,245	10%	94,916	90%	0	0%	105,161
New Jersey	730,055	91%	75,051	9%	0	0%	805,106
New Mexico	307,379	80%	75,264	20%	0	0%	382,643

State	Managed Care		Fee-for-Service		Primary Care Case Management		Total
New York	2,224,113	85%	395,913	15%	0	0%	2,620,026
North Carolina	0	0%	383,376	26%	1,114,301	74%	1,497,677
North Dakota	0	0%	10,690	20%	44,079	80%	54,769
Ohio	1,109,959	79%	294,108	21%	0	0%	1,404,067
Oklahoma	517,569	86%	82,486	14%	0	0%	600,055
Oregon	292,931	83%	58,837	17%	2,072	1%	353,840
Pennsylvania	1,202,622	80%	75,671	5%	222,945	15%	1,501,238
Rhode Island	122,034	93%	9,540	7%	0	0%	131,574
South Carolina	429,604	77%	129,156	23%	0	0%	558,760
South Dakota	0	0%	15,150	24%	47,716	76%	62,866
Tennessee	811,657	93%	0	0%	59,212	7%	870,869
Texas	2,837,263	67%	312,845	7%	1,058,221	25%	4,208,329
Utah	231,445	77%	42,447	14%	25,304	8%	299,196
Vermont	0	0%	14,567	18%	65,350	82%	79,917
Virginia	585,544	75%	141,780	18%	49,357	6%	776,681
Washington	605,084	82%	130,260	18%	6,500	1%	741,844
West Virginia	196,614	69%	78,478	27%	10,400	4%	285,492
Wisconsin	553,321	81%	128,151	19%	0	0%	681,472
Wyoming	8,342	13%	58,277	87%	0	0%	66,619

Notes: Children included in this table include those enrolled in separate child health programs, Medicaid expansion programs, and combination programs.

Managed care is defined in the SEDS instructions as a system in which the State contracts with health maintenance organizations (HMOs) or health insuring organizations (HIOs) to provide a comprehensive set of services on a prepaid capitated risk basis. Enrollees choose a plan and a primary care provider (PCP), who will be responsible for managing their care. A child is counted in the managed care category if managed care was the last system in which he or she was covered for basic services during the quarter. However, data are State reported, and States sometimes use their own delivery type definitions that do not correspond with the definitions included in the SEDS instructions.

Source: The CMS analysis of CHIP Statistical Enrollment Data System (SEDS) as of August 2011.

Table 2. Initial Core Set of Children's Quality Measures for Medicaid and CHIP

Legislative Measure Topic/Subtopic	Measure Number	Current Measure Label
Prevention and Health Promotion		
Prenatal and Postpartum Care	1	Frequency of Ongoing Prenatal care
	2	Timeliness of Prenatal Care
	3	Percent of live births weighing less than 2,500 grams
	4	Cesarean rate for nulliparous singleton vertex
Immunizations	5	Childhood Immunization Status
	6	Immunizations for Adolescents
Screenings	7	Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents: Body Mass Index Assessment for Children/Adolescents
	8	Developmental Screening In the First Three Years of Life
	9	Chlamydia Screening
Well-Child Visits	10	Well-Child Visits in the First 15 Months of Life
	11	Well-Child Visits in the 3rd, 4th, 5th, and 6th Years of Life
	12	Adolescent Well-Care Visit
Dental Care	13	Total Eligibles Who Received Preventive Dental Services
Management of Acute Conditions		
Appropriate Use of Antibiotics	14	Appropriate Testing for Children with Pharyngitis
	15	Otitis media with effusion (OME) – avoidance of inappropriate use of systemic antimicrobials in children – ages 2 through 12
Dental Care	16	Total eligibles who received dental treatment services
Emergency Care	17	Ambulatory Care: Emergency Department Visits
Inpatient Safety	18	Pediatric central-line associated blood stream infections – Neonatal Intensive Care Unit and Pediatric Intensive Care Unit
Management of Chronic Conditions		
Asthma	19	Annual number of asthma patients 2 through 20 years old) with one or more asthma-related emergency room visits
Attention Deficit Hyperactivity Disorder	20	Follow-Up Care for Children Prescribed Attention Deficit Hyperactivity Disorder (ADHD) Medication
Mental Health	21	Follow-up after hospitalization for mental illness
Diabetes	22	Annual Pediatric hemoglobin A1C testing
Availability		
	23	Child and Adolescent Access to Primary Care Practitioners
Family Experiences of Care		
	24	CAHPS® 4.0 (child version including Medicaid and Children with Chronic Conditions supplemental items)

Source: http://www.cms.gov/smdl/downloads/SHO11001.pdf

Table 3. Reasons for Not Reporting CHIPRA Quality Measures in FFY 2010 CARTS Reports

Measure	Number of States Reporting	Number of States Not Reporting	Data Not Available	Population Not Covered	Sample Size Too Small	Other	Not Specified
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life (#11)	42	9	2	0	0	0	7
Well-Child Visits in the First 15 Months of Life (#10)	40	11	2	1	2	0	6
Children and Adolescents' Access to Primary Care Practitioners (#14)	40	11	4	0	0	0	7
Adolescent Well-Care Visits (#12)	29	22	8	1	0	2	11
Total Eligibles Who Received Preventive Dental Services (#13)	22	29	8	1	0	7	13
Chlamydia Screening (#9)	21	30	16	0	0	2	12
Childhood Immunization Status (#5)	20	31	13	1	0	3	14
Appropriate Testing for Children with Pharyngitis (#15)	20	31	18	0	0	1	12
Total Eligibles Who Received Dental Treatment Services (#17)	19	32	12	1	0	6	13
Prenatal and Postpartum Care: Timeliness of Prenatal Care (#1)	15	36	15	3	2	5	11
Ambulatory Care: Emergency Department Visits (#18)	15	36	21	0	0	2	13
Follow-Up Care for Children Prescribed ADHD Medication (#21)	15	36	20	1	0	1	14
Frequency of Ongoing Prenatal Care (#2)	12	39	18	4	1	5	11
Immunizations for Adolescents (#6)	12	39	21	0	0	3	15
Follow-Up After Hospitalization for Mental Illness (#23)	11	40	23	1	0	1	15
Weight Assessment and Counseling for Nutrition: Body Mass Index Assessment for Children and Adolescents (#7)	10	41	22	0	1	2	16
Annual Pediatric Hemoglobin Testing and Control (#22)	8	43	21	0	2	2	18
Annual Number of Asthma Patients with > 1 Asthma-Related Emergency Room Visit (#20)	5	46	26	0	0	3	17
Percent of Live Births Weighing Less Than 2500 grams (#3)	3	48	27	4	0	3	14
Cesarean Rate for Nulliparous Singleton Vertex (#4)	2	49	26	5	1	2	15
Developmental Screening in the First Three Years of Life (#8)	2	49	29	0	0	6	14
Otitis Media with Effusion - Avoidance of Inappropriate Use of Systemic Antimicrobials (#16)	1	50	29	0	1	2	18
CAHPS Health Plan Survey 4.0H, child version (#24)	1	50	0	0	0	0	50
Pediatric Central-Line Associated Bloodstream Infections (#19)	0	51	29	0	1	4	17

Notes: Delaware did not submit a CARTS Report for FFY 2010. Arkansas, Hawaii, Idaho, Kansas, Massachusetts, Oregon, and Texas submitted FFY 2010 CARTS Reports, but did not submit data on any of the core CHIPRA quality measures. To report Measure 24, States have the option of attaching their CAHPS results to the CARTS report or submitting the data directly to AHRQ.

Source: Mathematica analysis of CARTS FFY2010 reports, as of June 30, 2011.

Table 4. Performance Rates on Frequently Reported Children's Health Care Quality Measures in FFY 2010 CARTS Reports

Measure	Age Group	Number of States Reporting Using HEDIS Specifications	Mean	Median	25th Percentile	75th Percentile
Access to Primary Care						
Percent with a PCP Visit	12-24 months	36	95.4	96.2	95.5	97.9
	25 months-6 years	38	88.0	89.5	85.8	92.1
	7-11 years	38	89.1	91.1	87.2	93.3
	12-19 years	38	87.6	88.7	85.4	91.3
Well-Child Visits						
Percent with 6 or More Visits	First 15 months	38	52.6	55.8	49.3	65.3
Percent with 1 or More Visits	3-6 years	40	63.4	64.1	58.9	74.5
Percent with 1 or More Visits	12-21 years	29	47.0	47.0	37.4	56.7
Childhood Immunization Status						
Percent Up to Date on Immunizations	2 years	19	63.5	70.6	58.6	78.2

Notes: Table includes States that used HEDIS specifications to report these measures. Table excludes States that used other specifications and States that did not report these measures in FFY 2010 CARTS Reports.Two States did not report the percent with a PCP visit for children ages 12-24 months but reported rates for other age groups.

Source: Mathematica analysis of FFY 2010 CARTS Reports, as of June 30, 2011.

Table 5. Percentage of Children Receiving Well-Child Visits in the 3rd, 4th, 5th, and 6th Years of Life, as Reported by States in their FFY 2010 CARTS Reports (n= 42 States)

		Population Included in Measure		
State	Year of Data	CHIP	Medicaid (Title XIX)	Percentage of Children Receiving 1+ Well-Child Visits in the 3rd, 4th, 5th, and 6th Years of Life
Alabama	2010	√		46.4
Alaska	2009	√	√	51.0
Arizona	2009	√		74.1
California	2009	√		76.8
Colorado	2010	√		61.1
Connecticut	NR	√	√	77.0
District of Columbia	2009	√	√	73.6
Florida	2010	√		63.3
Georgia	2009	√	√	53.4
Illinois	2010	√	√	61.1
Indiana	2009	√	√	69.1
Iowa	2009	√		58.8
Kentucky	2009	√	√	76.7
Louisiana	2010	√		65.5
Maine	2010	√		58.9
Maryland	2009	√	√	81.8
Michigan	2009		√	75.9
Minnesota	2009	√	√	65.6
Mississippi	2009	√		33.6
Missouri	2009	√	√	60.2
Montana	2009	√		44.4
Nevada	2009	√		70.7
New Hampshire	2009	√		80.4
New Jersey	2009	√	√	77.4
New Mexico	2009	√	√	60.9
New York	2009	√		81.0
North Carolina	2009	√		26.3
Ohio	2009	NR	NR	61.2

Oklahoma	2009	√	√	64.9
Population Included in Measure				Percentage of Children Receiving 1+ Well-Child Visits in the 3rd, 4th, 5th, and 6th Years of Life
State	Year of Data	CHIP	Medicaid (Title XIX)	
Pennsylvania	2009	√	√	76.5
South Dakota	2009	√		46.6
Tennessee	2009	√		59.5
Utah	2009	√		50.0
Vermont	2009	√	√	70.6
Virginia	2009	√	√	72.7
Washington	2009	√	√	62.1
West Virginia	2009	√		73.5
Wisconsin	2009	√	√	63.1
Wyoming	2010	√		45.6

Notes: Delaware did not submit a CARTS report for FFY 2010. Arkansas, Hawaii, Idaho, Kansas, Massachusetts, Oregon, and Texas submitted FFY 2010 CARTS Reports, but did not submit data on any of the core CHIPRA quality measures. South Carolina submitted a CARTS Report with data for some measures but did not report Measure 11. Appendix Table E.3 includes additional details related to State-specific reporting on Measure 11.

NR = Not Reported.

Source: Mathematica analysis of CARTS FFY2010 reports, as of June 30, 2011.

Table 6. Comparison of Median Rates for State Medicaid/CHIP Programs and Commercial Health Plans for Frequently Reported Children's Health Care Quality Measures, FFY 2010

Measure	State Medicaid/CHIP Median	Health Plan Commercial Median
Percent with a PCP Visit		
12 to 24 months	96	98
25 months to 6 years	90	92
7 to 11 years	91	92
12 to 19 years	89	89
Percent with Well-Child Visits		
First 15 months, 6+ visits	56	76
3 to 6 years, 1+ visits	64	71
12 to 21 years, 1+ visits	47	41
Childhood Immunization Status		
2 years	71	79

Sources: State Medicaid/CHIP medians from FFY 2010 CARTS reports; Health Plan Commercial medians from unpublished data provided by the National Committee for Quality Assurance (NCQA).

Table 7. Percentage of Children Receiving Any Dental Service, FFY 2000 and 2009

State	2000	2009	Percent Change 2000-2009
Maryland	11%	39%	256%
Oklahoma	15%	42%	172%
North Dakota	13%	33%	162%
Arkansas	19%	47%	151%
Idaho	27%	62%	133%
New Jersey	17%	38%	123%
Alabama	21%	45%	117%
Nevada	17%	37%	117%
North Carolina	22%	47%	115%
Virginia	19%	41%	115%
Kansas	20%	40%	105%
Arizona	21%	43%	104%
New Mexico	23%	46%	101%
Mississippi	22%	41%	87%
Delaware	21%	37%	81%
South Dakota	24%	42%	78%
Georgia	21%	38%	77%
South Carolina	28%	47%	66%
District of Columbia	24%	40%	63%
Illinois	26%	42%	61%
Michigan	21%	33%	61%
New Hampshire	31%	50%	59%
Pennsylvania	21%	34%	59%
Iowa	32%	50%	56%
Massachusetts	31%	47%	51%
Louisiana	26%	38%	48%
Tennessee	28%	42%	48%
Hawaii	28%	41%	47%
Indiana	29%	43%	47%
Missouri	19%	27%	47%
Texas	37%	54%	45%
Colorado	34%	49%	44%
New York	25%	35%	39%
Utah	27%	37%	38%
Oregon	26%	35%	34%
Wisconsin	20%	27%	32%
Wyoming	30%	39%	32%
West Virginia	33%	43%	30%
Rhode Island	34%	43%	26%
Connecticut	31%	39%	25%
Minnesota	32%	38%	20%
California	30%	35%	19%
Vermont	45%	53%	16%
Alaska	34%	38%	14%
Montana	24%	27%	12%
Washington	43%	48%	11%
Kentucky	33%	37%	10%
Maine	35%	37%	5%
Ohio	39%	39%	0%
Florida	23%	23%	-1%
Nebraska	60%	48%	-20%
National Average	27%	40%	47%

Notes: Percent change calculated using unrounded numbers. Shading denotes quartiles based on percent change between FFY 2000 and 2009.

Source: EPSDT CMS Form 416

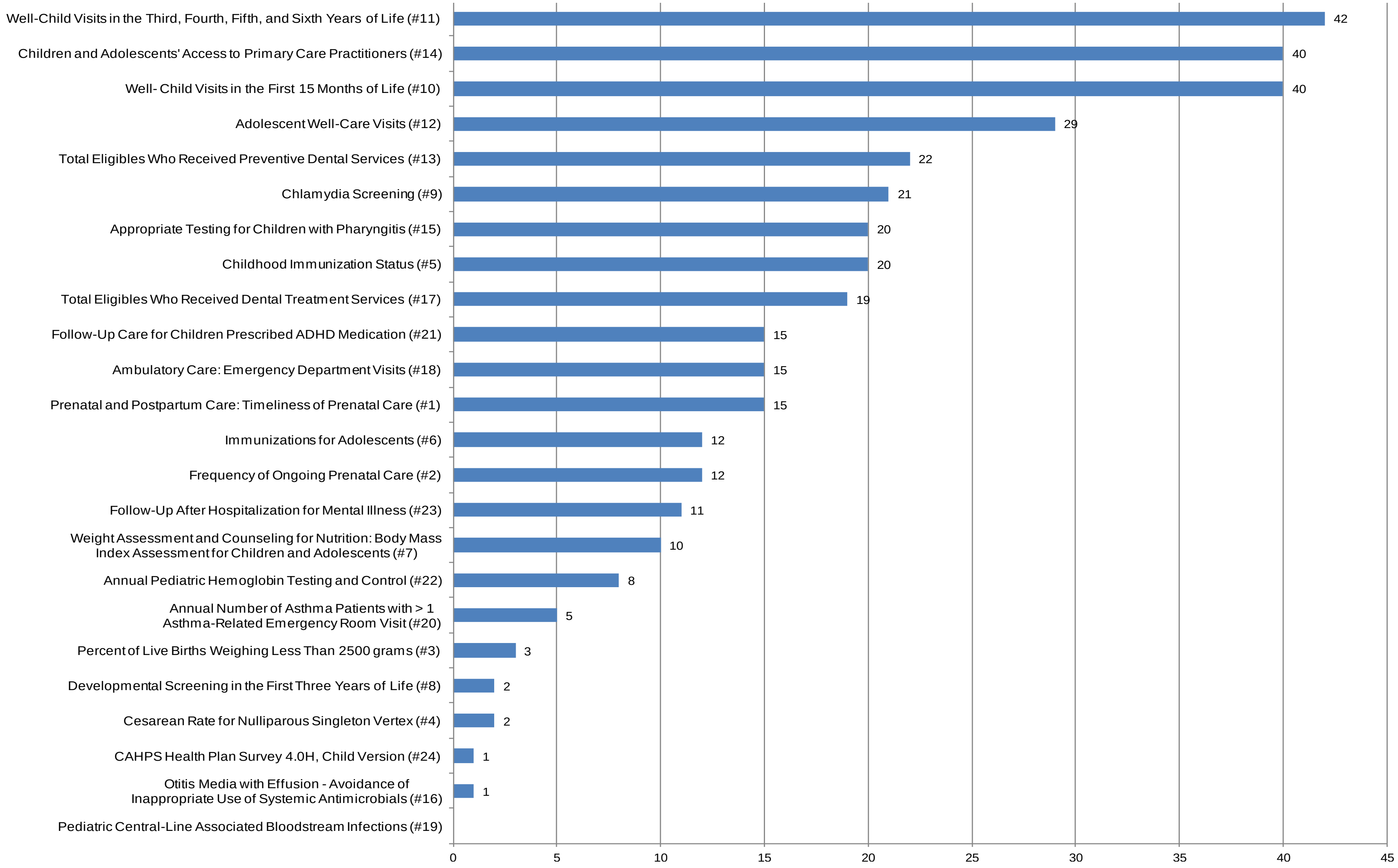
Table 8. Percentage of Children Receiving Preventive Dental Service, FFY 2000 and 2009

State	2000	2009	Percent Change 2000-2009
Utah	7%	37%	449%
Maryland	8%	34%	342%
Oklahoma	12%	39%	214%
North Carolina	15%	44%	199%
Arkansas	16%	45%	182%
Delaware	12%	34%	182%
Kansas	14%	38%	174%
North Dakota	10%	27%	173%
Idaho	20%	53%	162%
Alabama	17%	42%	147%
Virginia	16%	38%	137%
South Carolina	19%	44%	133%
Arizona	16%	37%	132%
New Jersey	14%	33%	128%
New Mexico	18%	42%	126%
New York	15%	31%	115%
Kentucky	15%	31%	110%
District of Columbia	17%	36%	109%
South Dakota	20%	38%	94%
Nevada	16%	31%	91%
Mississippi	19%	35%	86%
Georgia	19%	35%	85%
Michigan	18%	33%	82%
Iowa	25%	44%	76%
Pennsylvania	17%	29%	73%
Tennessee	22%	37%	73%
New Hampshire	27%	46%	70%
Louisiana	21%	34%	60%
Massachusetts	27%	43%	57%
Oregon	19%	29%	57%
Illinois	25%	40%	56%
Indiana	25%	39%	56%
Wyoming	23%	35%	54%
Connecticut	23%	34%	48%
Missouri	17%	24%	46%
Wisconsin	16%	24%	45%
Rhode Island	28%	40%	43%
West Virginia	27%	38%	39%
Texas	32%	44%	38%
Hawaii	26%	35%	33%
Colorado	28%	37%	32%
Vermont	40%	52%	29%
Montana	19%	24%	28%
Minnesota	27%	34%	26%
Ohio	27%	34%	26%
California	23%	29%	24%
Alaska	27%	32%	20%
Washington	41%	45%	9%
Maine	32%	35%	8%
Florida	19%	14%	-25%
National Average	21%	35%	61%

Notes: Percent change calculated using unrounded numbers. Shading denotes quartiles based on percent change between FFY 2000 and 2009.

Source: EPSDT CMS Form 416.

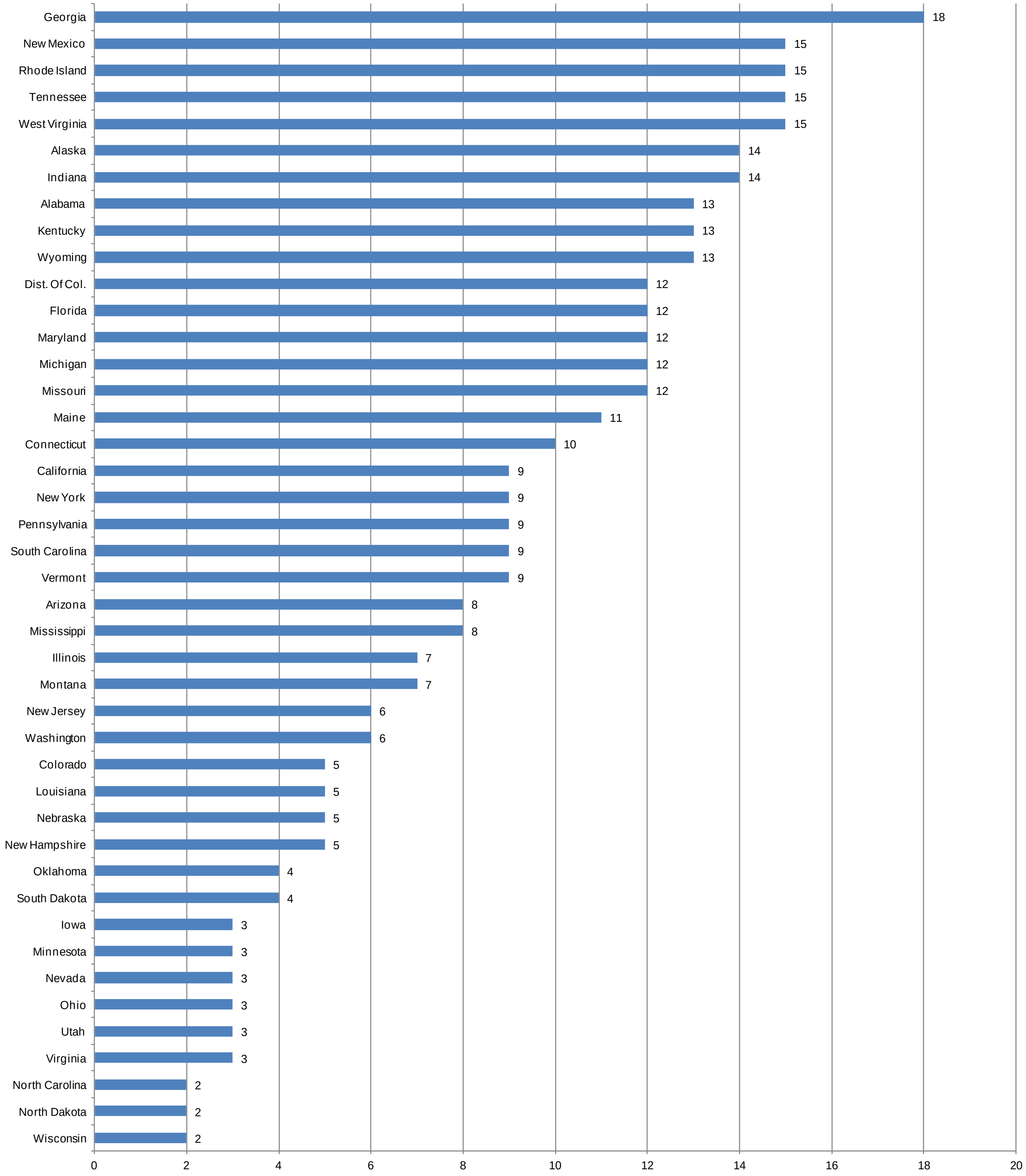
Figure 1. Number of States Reporting the CHIPRA Quality Measures in FFY 2010 CARTS Reports



Notes: Measure number in parentheses. Delaware did not submit a CARTS Report for FFY 2010. Arkansas, Hawaii, Idaho, Kansas, Massachusetts, Oregon, and Texas submitted FFY 2010 CARTS Reports, but did not submit data on any of the core CHIPRA quality measures.

Source: Mathematica analysis of FFY 2010 CARTS Reports, as of June 30, 2011.

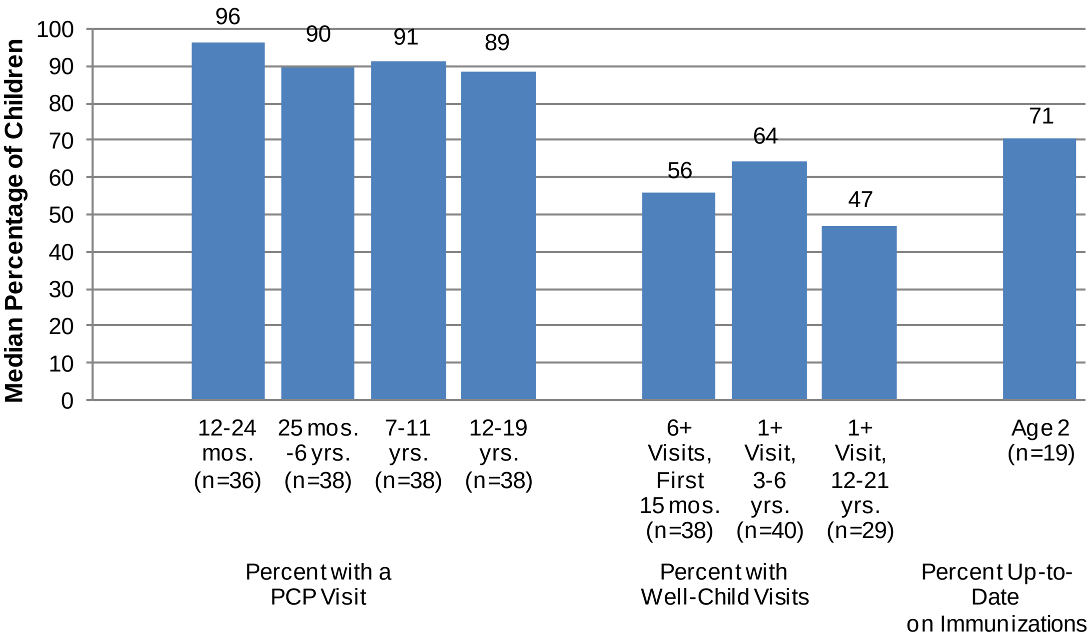
Figure 2. Number of CHIPRA Quality Measures Reported in FFY 2010 CARTS Reports, by State



Notes: Delaware did not submit a CARTS Report for FFY 2010. Arkansas, Hawaii, Idaho, Kansas, Massachusetts, Oregon, and Texas submitted FFY 2010 CARTS Reports, but did not submit data on any of the core CHIPRA quality measures.

Source: Mathematica analysis of FFY 2010 CARTS Reports, as of June 30, 2011.

Figure 3. Median Performance on Frequently Reported Children's Health Care Quality Measures, FFY 2010

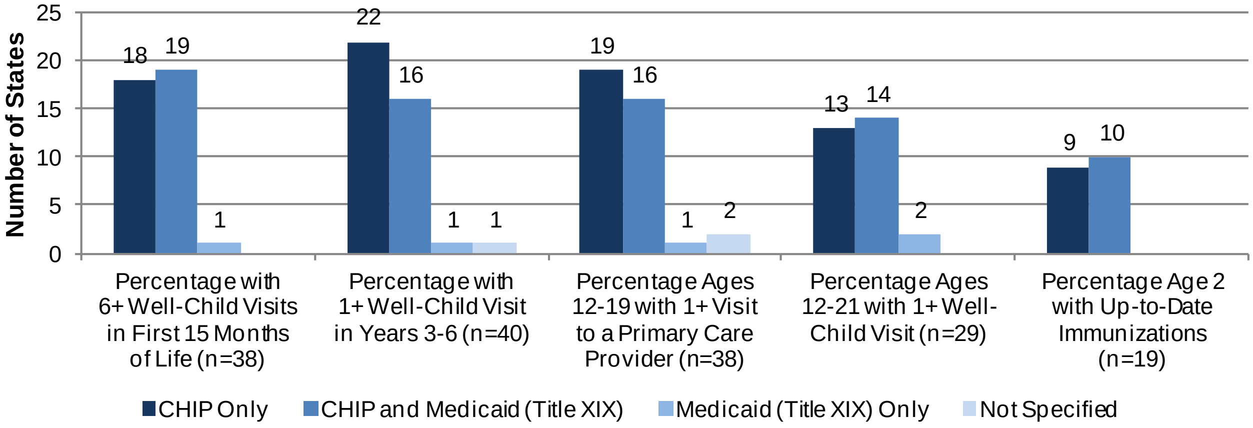


Notes: Figure includes States that used HEDIS specifications to calculate measures. Figure excludes States that used other specifications and States that did not report these measures in FFY 2010 CARTS Reports.

n= Number of States

Source: Mathematica analysis of FFY 2010 CARTS Reports, as of June 30, 2011.

Figure 4. Populations Included in Frequently Reported Children's Health Care Quality Measures, FFY 2010

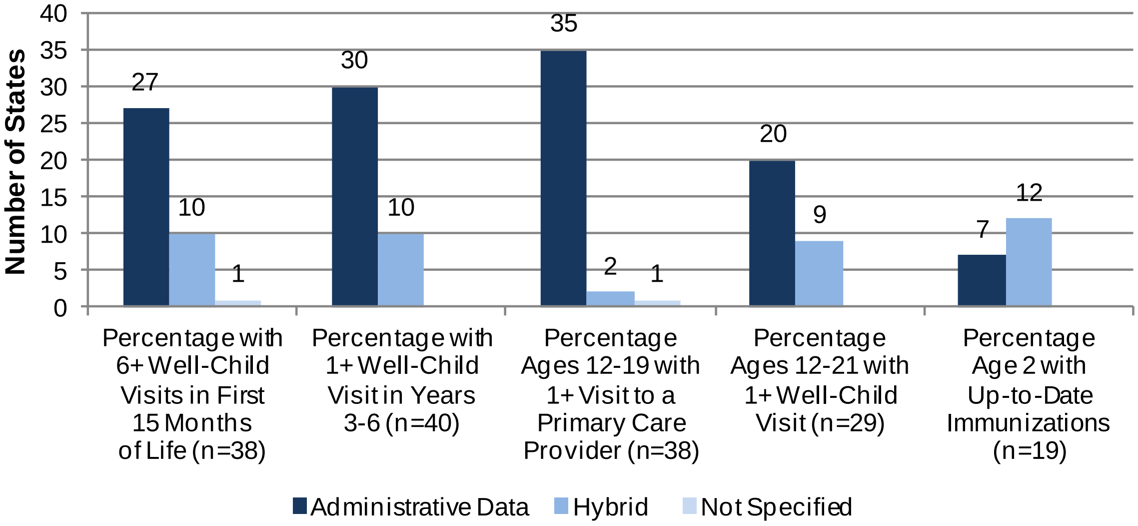


Notes: Figure includes States that used HEDIS specifications to calculate measures. Figure excludes States that used other specifications and States that did not report these measures in FFY 2010 CARTS Reports.

n= Number of States.

Source: Mathematica analysis of FFY 2010 CARTS Reports, as of June 30, 2011.

Figure 5. Data Sources Used for Frequently Reported Children's Health Care Quality Measures, FFY 2010

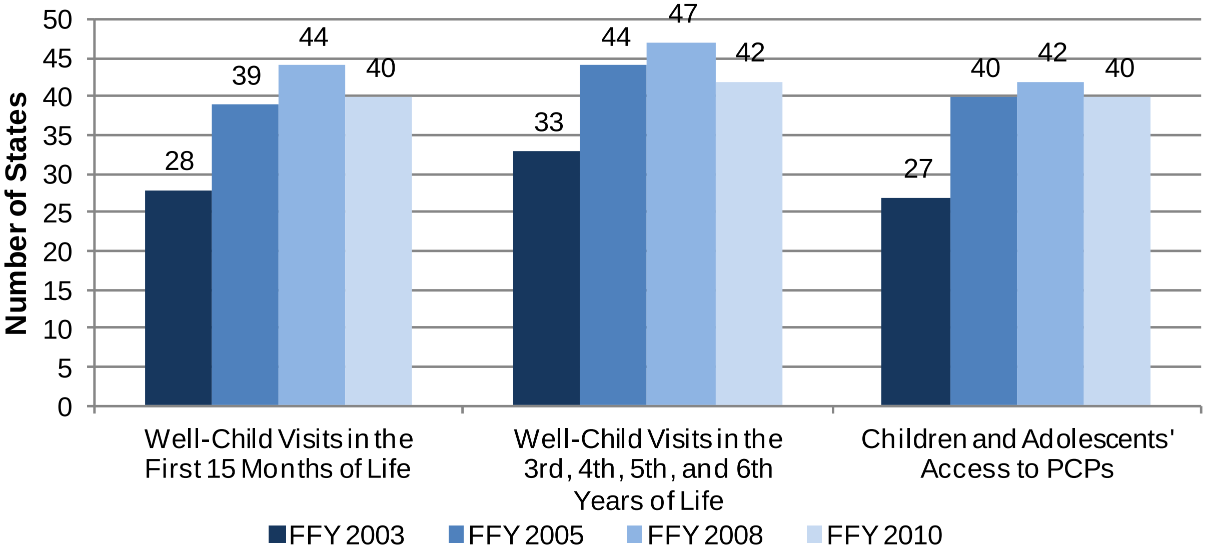


Notes: Figure includes States that used HEDIS specifications to calculate measures. Figure excludes States that used other specifications and States that did not report these measures in FFY 2010 CARTS reports. Hybrid methods rely on both medical records and administrative data to calculate the measure.

n= Number of States.

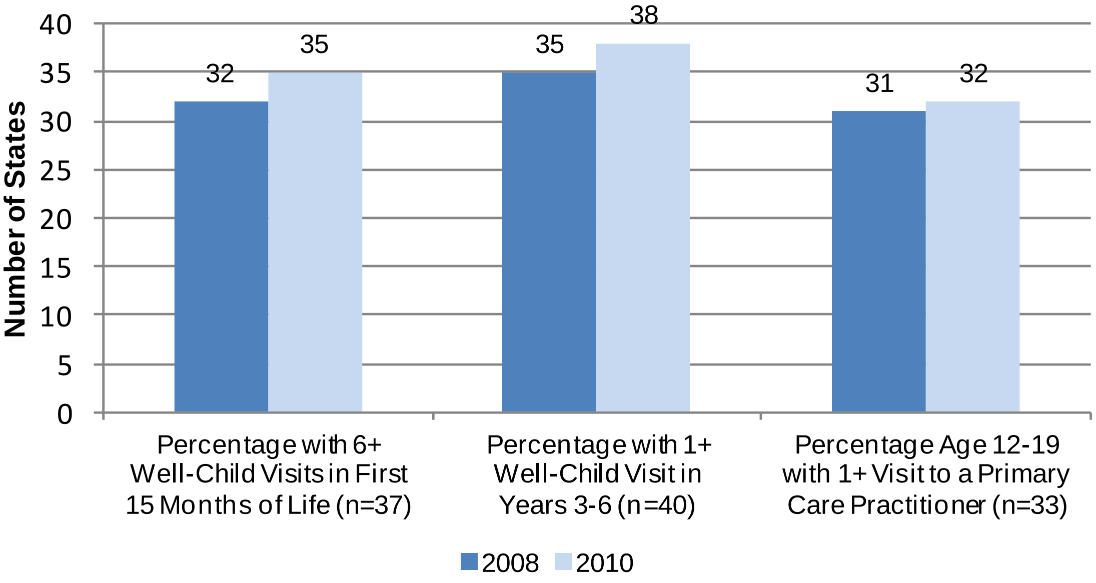
Source: Mathematica analysis of FFY 2010 CARTS Reports, as of June 30, 2011.

Figure 6. Trends in State Reporting on Three Children's Health Care Quality Measures in CARTS, FFY 2003, 2005, 2008, and 2010 Reports



Source: Mathematica analysis of FFY 2003, 2005, 2008 and 2010 CARTS Reports.

Figure 7. Number of States Using HEDIS Specifications to Report Three Children's Health Care Quality Measures in FFY 2008 and FFY 2010 CARTS Reports



Notes: Figure includes States that reported measure in CARTS reports for both FFY 2008 and 2010. The number of States included for each measure is shown in parentheses.

HEDIS= Healthcare Effectiveness Data and Information Set.

n= Number of States.

Source: Mathematica analysis of FFY 2008 and 2010 CARTS Reports.

Figure 8. Performance Measures in External Quality Review (EQR) Reports Listed by General Topic

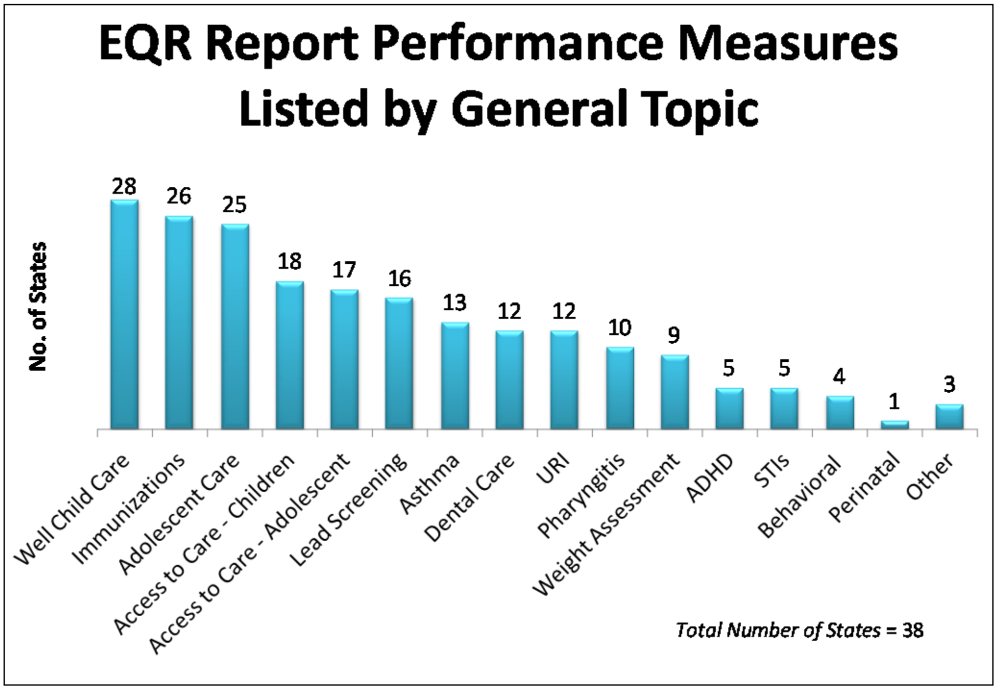


Figure 9. Performance Improvement Projects in External Quality Review (EQR) Report Listed by General Topic

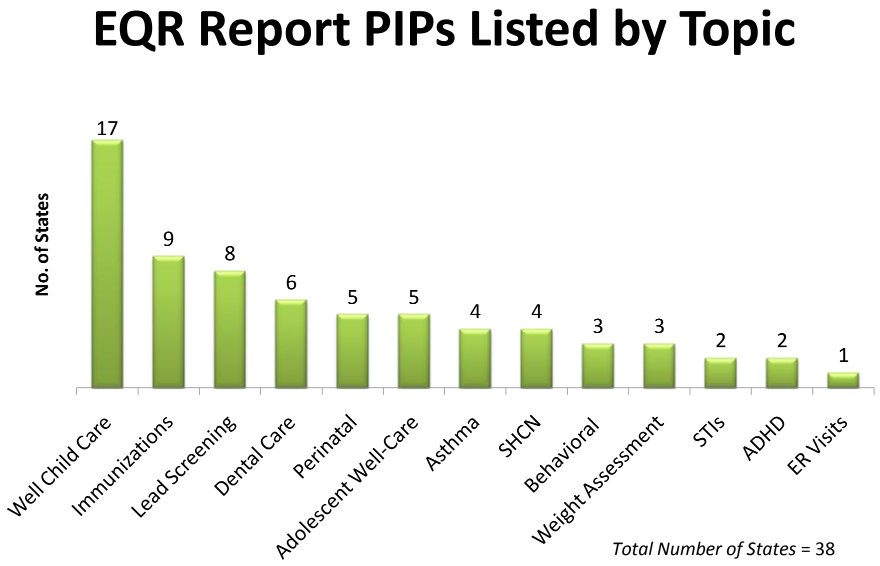


Figure 10. Overall Rating of Consumer Experiences with Health Care, 2010

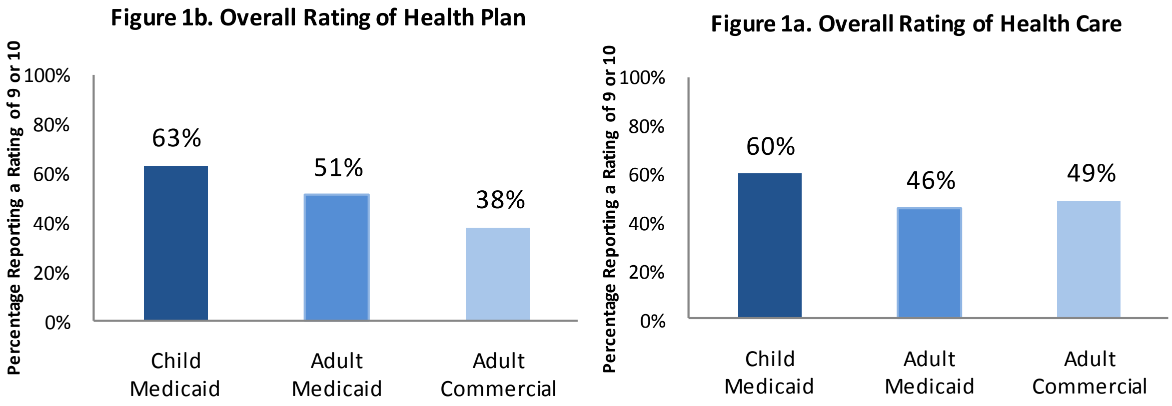


Figure 1c. Overall Rating of Personal Doctor

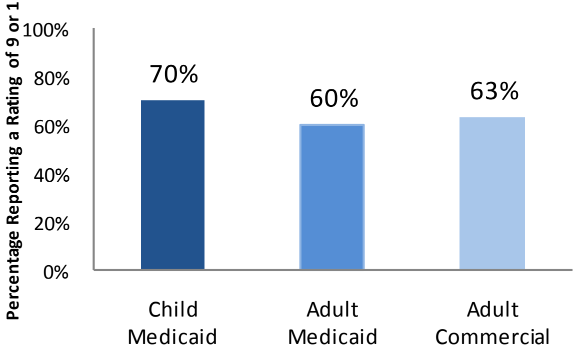
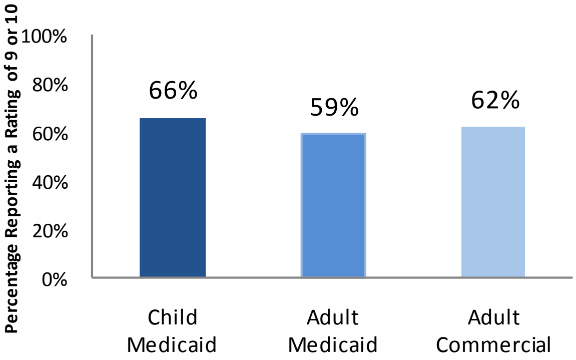
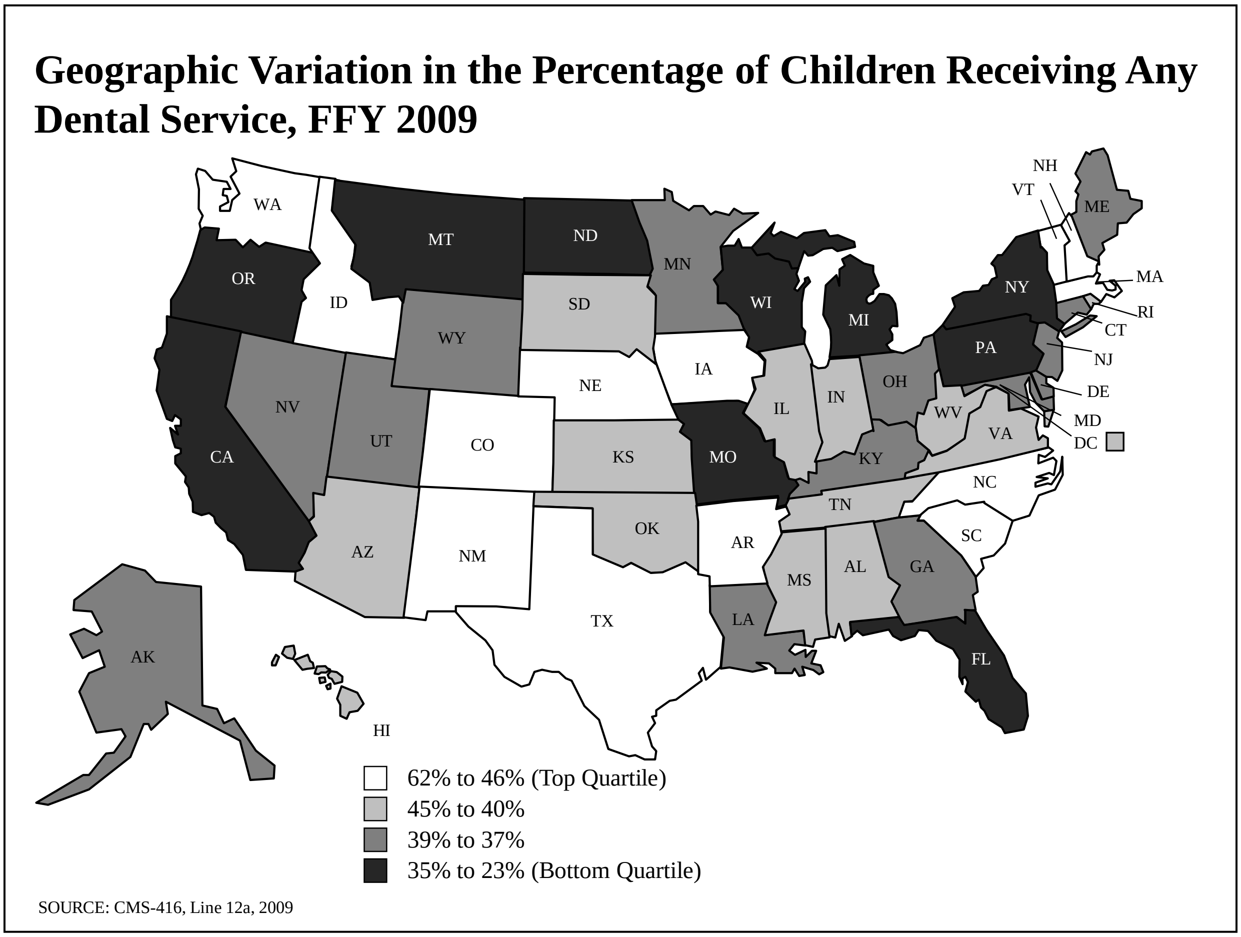


Figure 1d. Overall Rating of Specialists



Source: Agency for Healthcare Research and Quality. The CAHPS Benchmarking Database: 2010 CAHPS Health Plan Survey Chartbook. Available online at https://www.cahps.ahrq.gov/CAHPSIDB/Public/About.aspx.

Figure 11. Geographic Variation in the Percentage of Children Receiving Any Dental Service, FFY 2009

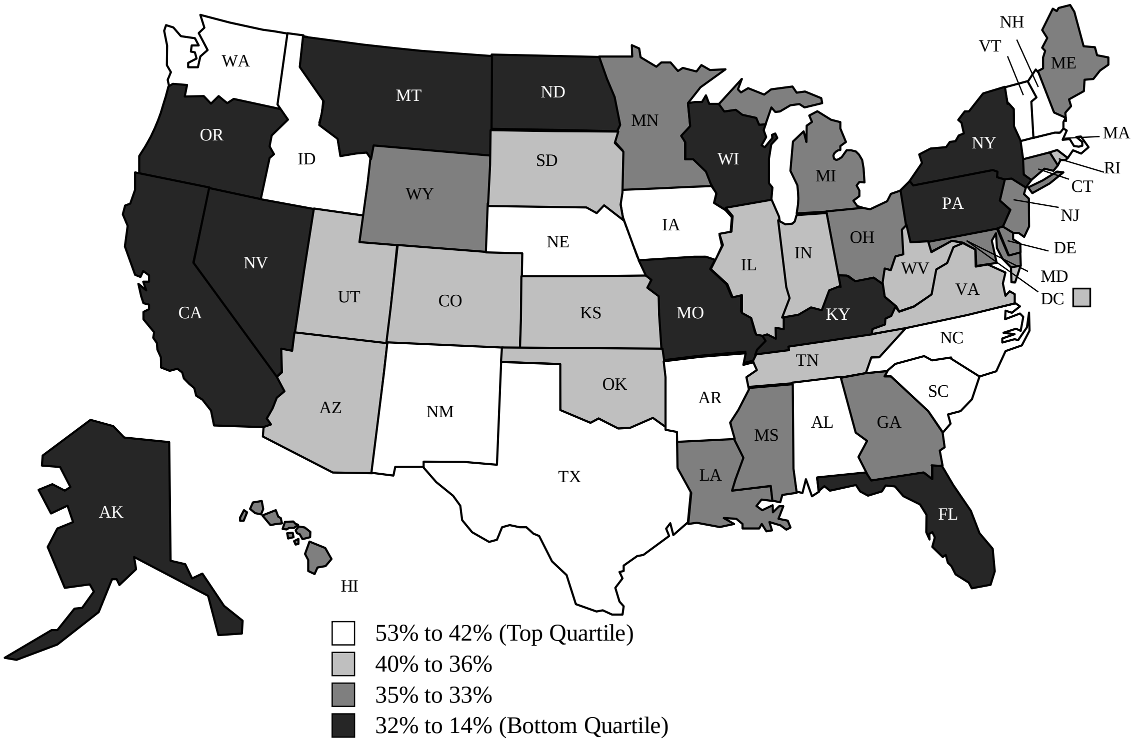


Geographic Variation in the Percentage of Children Receiving Any Dental Service, FFY 2009

SOURCE: CMS-416, Line 12a, 2009

Figure 12. Geographic Variation in the Percentage of Children Receiving Preventive Dental Services, FFY 2009

Geographic Variation in the Percentage of Children Receiving Preventive Dental Services, FFY 2009



☐ 53% to 42% (Top Quartile)
▨ 40% to 36%
▨ 35% to 33%
■ 32% to 14% (Bottom Quartile)

SOURCE: CMS-416, Line 12b, 2009