

Medi-Cal 2020 Demonstration California Children's Services Final Evaluation Design

Introduction

The California Children's Services (CCS) Program provides health care services including diagnostic, treatment, medical case management, and Medical Therapy Program services to children from birth up to 21 years of age with CCS-eligible medical conditions. Examples of CCS-eligible conditions include, but are not limited to, chronic medical conditions such as cystic fibrosis, hemophilia, cerebral palsy, heart disease, cancer, hearing loss, and traumatic injuries.

The CCS Program is administered as a partnership between local CCS county programs and the Department of Health Care Services (DHCS). Throughout California, CCS authorizes services for approximately 185,000 children served by a network of CCS-paneled specialty and subspecialty providers, and CCS-approved hospitals and special care centers. Historically, CCS only funds and manages the care of the CCS conditions, and not the primary care or care of non-CCS eligible health conditions, leading to fragmentation of health care.

Under the 1115 Waiver, the State of California will pilot two models of care delivery for children enrolled in the CCS program, namely, a provider-based Accountable Care Organization (ACO) and an existing Medi-Cal Managed Care Plan (MCP). The overarching goal of the CCS pilot project is to test two integrated delivery models for the CCS population that results in achieving desired outcomes related to access to care, improved coordination of care, promotion of community-based services, improved satisfaction with care, improved health outcomes and greater cost-effectiveness.

These demonstration projects will enable California to create health care delivery systems that respond to the specific needs of regions and populations throughout the state. Through a comprehensive evaluation, the pilots will help inform best practices so that at the end of the five-year demonstration period, recommendations may be made on restructuring of the CCS program design and delivery systems. This draft evaluation design outlines the evaluation component of the Section 1115 waiver for the CCS Demonstration Projects.

Goal and Objectives

The overarching goal of the CCS pilot project is for the State to test two integrated delivery models for the CCS population that results in achieving the desired outcomes related to access to care, improved coordination of care, promotion of community-based services, improved satisfaction with care, improved health outcomes and greater cost-effectiveness. The two models of care delivery include a provider-based ACO and an existing MCP.

Per the 1115 Waiver, the state must address the following evaluation questions:

1. What is the impact of the pilots on children's access to CCS services?
2. What is the impact of the pilots on clients' satisfaction?
3. What is the impact of the pilots on providers' satisfaction with the delivery of and the reimbursement of services?
4. What is the impact of the pilots on the quality of care?
5. What is the impact of the pilots on care coordination?
6. What is the impact of the pilots on amounts expended on CCS services, and the total cost of care?

Therefore, the objective of the evaluation is to demonstrate the integrated delivery system will:

1. Improve access to care;
2. Improve patient and family satisfaction;
3. Increase provider satisfaction with the delivery of and the reimbursement of services;
4. Deliver high-quality, well-coordinated care;
5. Improve care coordination by reducing inpatient and emergency room care; and
6. Reduce the total cost of care.

Evaluation Design and Methods

The CCS pilot evaluation design incorporates quantitative and/or qualitative process and/or outcome measures that adequately assess the effectiveness of the demonstration in terms of improved access to care, quality, care coordination, patient satisfaction, provider satisfaction, and total cost of care.

Since there are counties where the CCS services will not be incorporated into managed care or an ACO, the evaluation will utilize a difference-in-differences design. Fee-for-Service (FFS) CCS children from the non-pilot counties can serve as a comparison group for this design. This design allows for better causal inference of the impact of the CCS pilot in improving outcomes for children in counties where the pilot was implemented, relative to the FFS CCS comparison group. All required data will be pulled, post implementation, for the same time period, for both the pilot (MCP/ACO) and FFS CCS county.

The evaluation will meet the standards of leading academic institutions and academic journals. Data may be reported at the aggregate delivery system (MCP or ACO) or county level. When necessary, the data will be adjusted and/or controls will be put into place to maximize utility. Should there be data limitations, the data will be modified as needed, and only used appropriately to avoid misinterpretation. Any modifications and changes will be reported in the final evaluation report, which will consider how the findings may be generalized.

All measures will be benchmarked against available state and national standards and benchmarks. For example, National Committee for Quality Assurance (NCQA) Medicaid benchmarks for performance will be utilized when possible.

Evaluation Measures

Access to Care

Evaluation Question: What is the impact of the pilots on children's access to CCS services?

Hypotheses: An integrated delivery system (MCP/ACO) improves access to care.

To demonstrate access to appropriate primary, specialty and behavioral health care, DHCS shall measure the following:

1. Percent of children and young adults 12 months – 20 years of age who had a visit with a PCP.
2. Referral of a Child to Special Care Center (SCC).
3. Screening for Clinical Depression and Follow-Up Plan.

Measure 1: Percent of children and young adults 12 months – 20 years of age who had a visit with a PCP

Access to primary care is important for the health and well-being of children and adolescents.

- Definition: The measure reports on four separate percentages:
 - CCS Children 12 – 24 months who had a visit with a PCP during the reporting period.
 - CCS Children 25 months – 6 years who had a visit with a PCP during the reporting period.
 - CCS Children 7 – 11 years who had a visit with a PCP during the measure year or the year prior to the reporting period.
 - CCS Adolescents 12 – 20 years who had a visit with a PCP during the measurement year or the year prior to the reporting period.
- Numerator: Number of unique children, within defined age, with CCS-eligible medical conditions who had a visit with a PCP during the reporting period
- Denominator: All unique children within defined age, with CCS-eligible medical conditions, during the reporting period
- Standard: HEDIS¹
- Evaluation Type: Difference-in-differences design evaluating the MCP/ACO vs. FFS CCS Counties
- Data Sources: Post implementation, claims/encounter data

¹ <http://www.ncqa.org/report-cards/health-plans/state-of-health-care-quality/2015-table-of-contents/children-and-adolescents-access#sthash.iHAtdQCX.dpuf>

Measure 2: Referral of a Child to Special Care Center (SCC)

CCS has oversight of a system of SCCs that provide comprehensive, coordinated specialty health care to CCS clients with complex, physically handicapping medical conditions. SCCs consist of multi-disciplinary, multi-specialty teams that evaluate the child's/adult's medical condition and develop a comprehensive, family-centered plan of health care that facilitates the provision of coordinated treatment.

- Definition: This measure is based on the CCS requirement that certain CCS eligible medical conditions require a referral to a CCS SCC for ongoing coordination of services
- Numerator: Number of children in CCS, with medical conditions in the categories as listed in Numbered Letter 01-0108 requiring a SCC Authorization, who actually received an authorization for services
- Denominator: Number of children in CCS, with medical conditions in the categories as listed in Numbered Letter 01-0108 requiring a SCC Authorization
- Standard/Source of Measure: CCS Performance Measures from the Fiscal Year 13-14 Plan and Fiscal Guidelines²
- Evaluation Type: Difference-in-differences design evaluating the MCP/ACO vs. FFS CCS Counties
- Data Sources: Post implementation, claims/encounter, and authorization data

Measure 3: Screening for Clinical Depression and Follow-Up Plan

Depression causes suffering, decreases quality of life, and causes impairment in social and occupational functioning. It is associated with increased health care costs as well as with higher rates of many chronic medical conditions³.

- Definition: Screening for Clinical Depression and Follow-Up Plan Percentage of patients aged 12 years and older screened for clinical depression on the date of the encounter using an age appropriate standardized depression screening tool AND if positive, a follow-up plan is documented on the date of the positive screen
- Numerator: CCS patients screened for clinical depression on the date of the encounter using an age appropriate standardized tool AND, if positive, a follow-up plan is documented on the date of the positive screen
- Denominator: Number of unique children aged 12 years and older with CCS-eligible medical conditions
- Standard/ Source of Measure: NQF 0418⁴
- Sampling methodology: As determined by NQF 0418
- Evaluation Type: Difference-in-differences design evaluating the MCP/ACO vs. FFS CCS Counties
- Data Sources: Post Implementation, Chart Review, and claims/encounter data

² <http://www.dhcs.ca.gov/formsandpubs/publications/Documents/CMS/PFG/1314/Section03.pdf>

³ The World Health Organization (WHO), as seen in Pratt & Brody (2008)

⁴ http://www.aana.com/resources2/quality-reimbursement/Documents/2016_PQRS_Measure_134_11_17_2015.pdf

Client Satisfaction

Evaluation Question: What is the impact of the pilots on clients' satisfaction?

Hypotheses: An integrated delivery system (MCP/ACO) will improve patient and family satisfaction.

To demonstrate client satisfaction, DHCS shall measure the following:

1. Satisfaction with both primary care and subspecialty care access and quality of services.
2. Grievance and appeals.

Measure 1: Surveys of families related to satisfaction with participation CCS pilot including both primary care and subspecialty care access and quality of services.

- Definition: CAHPS Health Plan Survey 5.0H Child Version, Children With Chronic Conditions (Commercial and Medicaid)
- Standard/Source of Measure: HEDIS⁵
- Evaluation Type: Difference-in-differences design evaluating the MCP/ACO vs. FFS CCS Counties
- Data Source: CAHPS data

Measure 2: Grievance and Appeals

- Description: Number of ACO or MCP reported grievances and/or appeals for CCS children
 - a. Grievances by age and gender
 - b. Grievances by ethnicity
 - c. Grievances by type
 - d. Grievances by resolution
 - e. Appeals by age and gender
 - f. Appeals by ethnicity
 - g. Appeals by type
 - h. Appeals by resolution
- Standard/Source of Measure: Medi-Cal Managed Care Quality Dashboard
- Evaluation Type: MCP/ACO pilot, no comparison group identified due to non-comparable data as FFS does not formally document grievances and appeals
- Data Sources: ACO or MCP grievance and appeals data

Provider Satisfaction

Evaluation Question: What is the impact of the pilots on providers' satisfaction with the delivery of and the reimbursement of services?

Hypothesis: An integrated delivery system will increase provider satisfaction with both the delivery of and the reimbursement of services.

⁵ <http://www.ncqa.org/hedis-quality-measurement/certified-survey-vendors-auditors-software-vendors/hedis-survey-vendor-certification/cahps-5-0h-survey#sthash.WmiaDmrZ.dpuf>

To demonstrate provider satisfaction, DHCS shall measure physician, hospital/clinic, in-home pharmacy and durable medical equipment (DME) providers for satisfaction, including changes in reimbursement.

Measure 1: Surveys of physicians, hospitals/clinics, in-home pharmacy and DME providers assessing satisfaction with the delivery of services, as well as reimbursement of services under the CCS pilot.

- Evaluation Type: Difference-in-differences design evaluating the MCP/ACO vs. FFS CCS Counties
- Data Sources: FFS CCS, ACO or MCP provider satisfaction survey data

DHCS will defer to the independent evaluator to propose a provider survey and the content of the survey. The independent evaluator will determine the sampling methodology and the analysis process. The independent evaluator will use the same satisfaction survey tool for the ACO, MCP, and FFS analysis.

Quality of Care

Evaluation Question: What is the impact of the pilots on the quality of care?

Hypotheses: An integrated delivery system delivers high-quality, well-coordinated care.

To demonstrate quality of care, DHCS shall measure the following:

1. Childhood immunizations.
2. Controlling HbA1c Levels.

Measure 1: Childhood Immunization Status

Childhood vaccines protect children from a number of serious and potentially life-threatening diseases such as diphtheria, measles, meningitis, polio, tetanus and whooping cough, at a time in their lives when they are most vulnerable to disease. Approximately 300 children in the United States die each year from vaccine-preventable diseases.⁶

- Description: The percentage of children 2 years of age who had appropriate childhood immunizations.
- Numerator: The percentage of children 2 years of age who had four diphtheria, tetanus and acellular pertussis (DTaP); three polio (IPV); one measles, mumps and rubella (MMR); three H influenza type B (HiB); three hepatitis B (HepB), one chicken pox (VZV); four pneumococcal conjugate (PCV); one hepatitis A (HepA); two or three rotavirus (RV); and two influenza (flu) vaccines by their second birthday. This measure calculates a rate for each vaccine and nine separate combination rates.

⁶ <http://www.ncqa.org/report-cards/health-plans/state-of-health-care-quality/2015-table-of-contents/childhood-immunization-status>⁷ National Institute of Diabetes and Digestive and Kidney Diseases. National diabetes statistics. Available at: <http://diabetes.niddk.nih.gov/dm/pubs/statistics/index.htm>. Accessed March 14, 2005. - See more at: <http://www.ncqa.org/publications-products/other-products/quality-profiles/focus-on-diabetes/what-is-the-current-state-of-quality-of-care#sthash.GsTyVudl.dpuf>

- Denominator: Number of unique children 2 years of age with CCS-eligible medical condition(s)
- Standard/Source of Measure: HEDIS
- Evaluation Type: Difference-in-differences design evaluating the MCP/ACO vs. FFS CCS Counties
- Data Sources: Claims and Encounter Data

Measure 2: Controlling HbA1c Levels

Blood sugar control is critical to reducing the development and progression of diabetes microvascular complications. Studies have shown that reducing A1c levels by just 1% can reduce the risk of developing eye, kidney, and nerve disease by 40%⁷.

- Description: Percentage of patients with type 1 or type 2 diabetes mellitus who had a most recent hemoglobin A1c (HbA1c) greater than 8 percent
- Numerator: Number of patients from the denominator whose most recent hemoglobin A1c level during the measurement year is greater than 8 percent
- Denominator: Number of unique children under age 21 with CCS-eligible medical conditions with a diagnosis of type 1 or type 2 diabetes mellitus during the measurement year
- Standard/Source of Measure: NCQA / NQF/ PQRI/ PCPI⁸
- Evaluation Type: Difference-in-differences design evaluating the MCP/ACO vs. FFS CCS Counties
- Data Sources: Claims/encounter data and chart review

Care Coordination

Evaluation Question: What is the impact of the pilots on care coordination?

Hypotheses: An integrated delivery system improves care coordination by reducing inpatient and emergency room care.

To demonstrate care coordination, DHCS shall measure the following:

1. "All-Cause Readmissions."
2. Utilization of ER, IP, OP, Pharmacy, and Mild/Moderate Mental Health Services.

Measure 1: All-Cause Readmissions

Discharge from a hospital is a critical transition point in a patient's care. Poor care coordination at discharge can lead to adverse events for patients and avoidable re-hospitalization. Hospitalization readmissions may indicate poor care or missed opportunities to coordinate care better. Research shows that specific hospital-

⁷ National Institute of Diabetes and Digestive and Kidney Diseases. National diabetes statistics. Available at: <http://diabetes.niddk.nih.gov/dm/pubs/statistics/index.htm>. Accessed March 14, 2005. - See more at: <http://www.ncqa.org/publications-products/other-products/quality-profiles/focus-on-diabetes/what-is-the-current-state-of-quality-of-care#sthash.GsTyVudl.dpuf>

⁸ <http://www.ncqa.org/publications-products/other-products/quality-profiles/focus-on-diabetes/what-is-the-current-state-of-quality-of-care>

based initiatives to improve communication with beneficiaries and their caregivers, coordinate care after discharge, and improve the quality of care during the initial admission can avert many readmissions. There is extensive evidence about adverse events in patients, and this measure aims to distinguish readmissions from complications of care and pre-existing comorbidities.⁹

- Description: This measure is used to assess the number of acute inpatient stays during the measurement year that were followed by an unplanned acute readmission for any diagnosis within 30 days and the predicted probability of an acute readmission, for children and youth under 21 years of age. Data are reported in the following categories.¹⁰
 1. Count of Index Hospital Stays (IHS) (denominator)
 2. Count of 30-day readmissions (numerator)
 3. Average adjusted probability of readmission
- Numerator: At least one acute readmission for any diagnosis within 30 days of the Index Discharge Date
- Denominator: All acute inpatient discharges for members aged 1-20 years as of the Index Discharge Date who had one or more discharges on or between January 1 and December 1 of the measurement year.
Source: NCQA / NQF measure
- Evaluation Type: Difference-in-differences design evaluating the MCP/ACO vs. FFS CCS Counties
- Data Sources: Claims and Encounter Data

Measure 2: Utilization of ER, IP, OP, Pharmacy, and Mild/Moderate Mental Health Services for CCS children

- ER Visits per 1,000 Member Months
- ER Visits with an IP Admission per 1,000 Member Months
- IP Admission per 1,000 Member Months
- OP Visits per 1,000 Member Months
- Prescriptions per 1,000 Member Months
- Mild to Moderate Mental Health Visits per 1,000 Member Months
- Description:
 - **Emergency Room (ER) Visits:** This measure captures the number of ER visits per month. A visit consists of a provider, member, and date of service. This measure is displayed per 1,000 member months.

⁹ Gallagher B, Cen L, Hannan EL. Readmissions for selected infections due to medical care: expanding the definition of a patient safety indicator. In: Henriksen K, Battles JB, Marks ES, Lewin DI, editors. *Advances in patient safety: from research to implementation (volume 2: concepts and methodology)*. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2005 Feb.

¹⁰ <https://www.qualitymeasures.ahrq.gov/summaries/summary/49833/plan-allcause-readmissions-the-number-of-acute-inpatient-stays-during-the-measurement-year-that-were-followed-by-an-unplanned-acute-readmission-for-any-diagnosis-within-30-days-and-the-predicted-probability-of-an-acute-readmission-for-members-18-years-of-age-a>

- **Emergency Room (ER) Visits with an Inpatient (IP) Admission:** This measure captures the number of ER visits that resulted in an inpatient admission per month. An admission consists of a member and date of admission to a facility. This measure is displayed per 1,000 member months.
- **Inpatient (IP) Admissions:** This measure captures the number of Inpatient Admissions per month. An admission consists of a member and date of admission to a facility. This measure is displayed per 1,000 member months.
- **Outpatient (OP) Visits:** This measure captures the number of OP visits per month. A visit consists of a provider, member, and date of service. This measure is displayed per 1,000 member months.
- **Prescriptions:** This measure captures the number of prescriptions per month. A prescription consists of a National Drug Code, member, and date of service. This measure is displayed per 1,000 member months.
- **Mild to Moderate Mental Health Visits:** This measure captures the number of visits per month related to selected Psychotherapy Services and Diagnostic Evaluations. The selected procedure codes aim to capture mild to moderate mental health visits. A visit consists of a provider, member, and date of service. This measure is displayed per 1,000 member months.
- Standard: Medi-Cal Managed Care Performance Dashboard Indicators
- Evaluation Type: Difference-in-differences design evaluating the MCP/ACO vs. FFS CCS Counties
- Data Sources: Claims and encounter data

Total Cost of Care

Evaluation Question: What is the impact of the pilots on amounts expended on CCS services, and the total cost of care?

Hypothesis: An integrated delivery system reduces the total cost of care.

Measure 1: Total Cost of Care

- Description: This measure is used to assess the total cost of care for children, with CCS-eligible medical conditions. The total cost of care includes all costs associated with treating members including professional, facility inpatient and outpatient, pharmacy, lab, radiology, ancillary, and behavioral health services. DHCS would work with the independent evaluator on the most appropriate total cost of care measure based on the data available through Medi-Cal, CCS, and the pilots.
- Potential Standard/Source of Measure: AHRQ¹¹ or IHA¹²
- Evaluation Type: Difference-in-differences design evaluating the MCP/ACO vs. FFS CCS Counties

¹¹ <https://www.qualitymeasures.ahrq.gov/summaries/summary/38363/Cost-of-care-total-cost-of-care-populationbased-per-member-per-month-PMPM-index>

¹² http://www.iha.org/sites/default/files/resources/my_2016_value_based_p4p_manual.pdf

- Data Sources: Claims and encounter data; for (including professional, facility inpatient and outpatient, pharmacy, lab, radiology, ancillary, and behavioral health services); the evaluation shall not include supplemental payments
- Considerations: If either demonstration pilot are paying capitation for this population, DHCS would either need to find a similar total cost of care measure or require that the MCP/ACO provide claims data to complete evaluation

Evaluation Implementation

A. Evaluation Timeline

The State shall submit the CCS Draft Evaluation Design to CMS on September 19, 2016. The CCS Draft Evaluation Design shall be available on the Medi-Cal 2020 Website for stakeholder review and comment upon submission to CMS. Stakeholders can submit comments and questions regarding the draft design via the 1115 Waiver email inbox.

CMS shall provide comments on the draft design within 60 days of receipt, and the State shall submit the CCS Final Evaluation Design within 60 days of receipt of CMS' comments. The State must implement the evaluation design, and describe progress relating to the evaluation in each of the quarterly and annual progress reports.

Consistent with 42 CFR 431.424(d), the State must submit to CMS an interim evaluation report in conjunction with its request to extend the demonstration, or any portion thereof. California must submit to CMS a draft of the CCS Final Evaluation Report by December 31, 2021.

B. Independent Evaluator

The State will contract with an independent entity and ensure that the entity is free of conflict of interest to conduct an evaluation of the CCS Demonstration Projects. The State will contract with an entity that does not have a direct relationship to DHCS. A data use agreement will be included in the contract to allow for the sharing of data with and access to data by the independent entity for purposes of conducting the CCS Demonstration Projects evaluation.

The State will seek application(s) from interested entities that have been identified based on prior experience and expertise in analyzing the experience of the population and working with the data that would be analyzed. Proposals will be scored; if a minimal score is not achieved, the State will seek proposals from additional entities.