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# Contrasting Quality of Health Care Services for Adults and Children in an Evolving Health Care Market: Findings From CAHPS Surveys of Adults and Parents of Pediatric and CSHCN Patients in a Large and Diverse Urban Medicaid Health Plan, 2006 to 2014

**Session:** 4053.0 Children with Special Health Care Needs:  
Treatment Models and Service Systems

**Section:** Maternal and Child Health

**Topic:** Using CAHPS Surveys To Monitor Services to Children

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## Presenter Disclosures

**S. Rae Starr**



**The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:**

I am employed as a statistician at L.A. Care Health Plan – the Local Initiative Health Authority of Los Angeles County, California.

L.A. Care is a public entity competing with commercial insurers in the Medicaid and S-CHIP markets in L.A. County.

**Notes:**

CAHPS® is a registered trade name of the Agency for Healthcare Research and Quality (AHRQ).  
HEDIS® is a registered trade name of the National Committee for Quality Assurance (NCQA).

# Outline



- I. Learning Objectives.
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## I. Learning Objectives

1. Describe how Medicaid eligibility policy impacts the provider networks designed to serve children and adults.
2. Compare how quality of care scores differ for children versus adults, in Medicaid, and possible reasons why.
3. Compare how quality of care scores differ for CSHCN children versus other children.
4. Assess how adult and child scores differ across demographic groups.
5. Differentiate between geographical areas within a large urban county on measures of quality, and note healthographic implications.
6. Assess differences in health plans' performance on measures of access and quality of services for children.
7. Describe how commonly-available surveys can be used to guide the design of programs to improve quality of care.
8. Discuss implications of the findings for the adaptation of health care organizations under ongoing health care reforms.



## II. Background



- Health status of CSHCN children is important in its own right, but also as a “canary in the coalmine” indicator of how quality in the a health care system is faring.
- California HealthCare Foundation briefing on Maternity Care (10/2014):
  - California has more than 500,000 births each year.
  - Medi-Cal [Medicaid in California] covers half of those births.
  - Increases in death rates for mothers in childbirth, and 50% increase in Cesarean section delivery.
  - In 2012, timely postpartum care in Medi-Cal by race of the mother varied between 33% and 52%.
- The CAHPS data in this briefing do not cover perinatal and neonatal HEDIS measures, the data represent the assessment of parents on the quality of services received by children under Medi-Cal (Medicaid) – including measures of timely care and access.

## Background (Cont.): L.A. Care Health Plan



Data as of 2009 (before major reforms – end of baseline period used in trend analysis in this briefing):

- Large, diverse membership in Los Angeles, California.
- Status at the start of the period covered in this briefing:
  - Mostly Medicaid, urban, **2/3<sup>rd</sup>** pediatric, often Spanish-speaking.
  - Roughly **21%** of Medicaid managed care population in California.
  - Roughly **2.1%** of Medicaid managed care population in the U.S.
  - Roughly **1-in-14** L.A. County residents is an L.A. Care member.
  - Mostly Medicaid, some S-CHIP, SNP, and special programs.
  - Serving **10** distinct language concentrations ("threshold languages"): Spanish, English, Armenian, Korean, Cambodian, Chinese, Russian, Vietnamese, Farsi, Tagalog.
  - Mostly urban and suburban; 1 semi-rural region in the high desert.

### III. Methodology: CAHPS+CCC Survey Instrument

#### Consumer Assessment of Healthcare Providers and Systems (CAHPS):



- Annual surveys conducted for regulatory or accreditation purposes:
  - HEDIS assesses quality of *clinical care* using medical records.
  - **CAHPS assesses quality of service based on member opinion.**
- L.A. Care uses the 5.0H Medicaid Adult and Child surveys.
  - For pediatric members (ages 0-17.9), a parent or guardian is surveyed.
  - L.A. Care uses the CAHPS “Children with Chronic Conditions” (CCC) instrument. The CCC cohort is defined through ICD-9 codes in encounter data and captures the CSHCN population.
  - Randomly sampled members receive 2-wave mail survey, postcard reminders, and up to 12 telephone attempts to non-responders at different times of day and days-of-week.
  - Response rates have ranged between 30% and 38%, near the national average for Medicaid CAHPS surveys.
  - Pooled analysis (2006 to 2013):
    - N=5,931 adults and 6,099 pediatric patients, and n=2,847 CSHCN children,
    - Provider network: Roughly 3,000 PCPs and 7,000 specialists.



## Conditions Defining CCC Cohort for CAHPS CCC Survey

Child is:

- Age less than 18 on December 31 of the measurement year.
- Continuously-enrolled in last 6 months of the measurement year
- No more than one month gap in coverage. Currently enrolled at the time the survey is completed.

Child member has claims or encounters during the measurement year or year prior, that meet one or more of the following criteria:

- **Conditions:** At least one encounter in one of these settings: outpatient, non-acute inpatient, acute inpatient or emergency department for ICD-9 codes below:  
Infectious disease, malignancies, thyroid disorders, diabetes, other endocrine disorders, nutritional deficiencies, metabolic disorders, cystic fibrosis, blood disorders, psychoses, neuroses, alcohol/drugs, depression, eating disorders, developmental delay (speech, reading, coordination), mental retardation, central nervous system diseases, hereditary and degenerative, central nervous system diseases, other, cerebral palsy, epilepsy, muscular dystrophy, eye disorders, hearing loss, other circulatory system disorders, other respiratory diseases, ulcer, noninfectious enteritis and colitis, other digestive diseases, nephritis, nephrosis, skin diseases, arthropathies, connective tissue diseases or disorders, osteopathies, spina bifida, congenital anomalies (except spina bifida), prematurity, perinatal disease, severe injury.
- **Outpatient:** At least two encounters with same diagnosis, as outpatient on different days, for these conditions: conduct disorder, emotional disturbance, ADHD, asthma, failure to thrive.
- **In-patient:** At least one encounter in an acute, inpatient, non-acute inpatient or emergency department, for these conditions: conduct disorder, emotional disturbance, ADHD, asthma, failure to thrive.

Notes: "Include all paid, suspended, pending and denied claims." Visit types are defined by CPT codes in the following categories: outpatient, non-acute inpatient, acute inpatient, emergency department. Diagnosis does not have to be the principal diagnosis. NCQA HEDIS 2013 Technical Specifications Vol. 3, pp. 93-94, Tables CCC-1, CCC-2, CCC3.

For a **Healthy Life**

Using CAHPS Surveys to Monitor Quality of Services to CSHCN Beneficiaries





## Domains of Service Measured in CAHPS



- **Ratings** are single-question measures rating services on a scale from 0 (worst) to 10 (best) services possible:
  - Health Plan
  - Health Care Received
  - Rating of Doctor (PCP)
  - Specialist Seen Most Often.
- **Composites** are indices calculated from multiple questions on CAHPS:
  - Getting Needed Care (primarily authorizations);
  - Getting Care Quickly (speed of access to urgent and non-urgent care);
  - Provider Communication;
  - Health Plan’s Customer Service;
  - Shared Decision-making with Patient;
  - Health Promotion and Education;
  - Coordination of Care.

Scoring: Ratings (8/9/10 = Favorable.) Composites (Usually+Always=Favorable.)

## Medicaid CCC as a Percent of L.A. Care Pediatric Membership



Among continuously-enrolled Child members, Children with Chronic Conditions (CCC) were 15.5% of all pediatric members eligible to be sampled in CAHPS 2013:

• Non-CCC:	450,491	84.8%
• CCC:	<u>82,759</u>	<u>15.5%</u>
Total:	533,251	100.0%

When pooled from 2006 to 2013 (n=5,931 adults and responses for n=6,099 pediatric patients, including n=2,847 CCC patients.

(2014 data is also pooled wherever indicated in the following.)

Provider network has roughly n=3,000 PCPs, with potential to access n=7,000 specialists.

## IV. L.A. Care Medicaid CAHPS 5.0H 2006-2014 Scores

- Non-CCC parents appear to give slightly higher Ratings than non-CCC parents, but findings for Composites are mixed.
- Scores are favorable compared to adults. (Principal/agent issue?)



	<u>Child CCC</u>	<u>Child Non-CCC</u>	<u>Adult</u>
<b>Ratings:</b>			
Health Plan:	80.93%	<b>86.34%</b>	<b>73.09%</b>
Health Care Received:	75.32%	<b>80.43%</b>	<b>67.83%</b>
Personal Doctor:	81.92%	<b>84.51%</b>	<b>75.39%</b>
Specialist Seen Most Often:	80.50%	81.99%	<b>75.62%</b>
<b>Composites:</b>			
Getting Needed Care:	70.85%	73.30%	<b>68.97%</b>
Getting Care Quickly:	<b>81.13%</b>	76.44%	<b>70.05%</b>
Provider Communication:	85.32%	<b>85.50%</b>	<b>82.79%</b>
Health Plan Customer Service:	78.72%	82.10%	78.85%
Shared Decision-making re. Rx meds:	57.70%	52.60%	50.03% (low "n")

Difference of proportions tests:  $\alpha=0.05$ .

**Green** = significantly highest. **Red** = significantly lowest. Black = not signif. diff.

Non-bold **red** or **green** = mid-range (significantly higher than lowest, but not highest).

## Trend Analysis: 2006-2010 vs 2011-2014

- Comparison before/after major reforms (1115 Waiver, Medicaid Expansion increased health plan membership.)
- Surprisingly little difference between columns.
  - Expected more adult-vs-child or well-vs-sick competition for resources.
- Process measures improved significantly for CSHCN in Customer Service and Getting Needed Care. Other differences were non-significant.
  - Tests below are between time periods. (**Green**: signif. diff. of proportions,  $\alpha=0.05$ .)



Raw differences in % favorable:	<u>Child CCC</u>	<u>Child Non-CCC</u>	<u>Adult</u>
<b>Ratings</b> (0 to 10 scale: % answering “8”, “9”, or “10”):			
Health Plan:	-0.27%	-0.55%	-1.94%
Health Care Received:	2.67%	0.79%	2.36%
Personal Doctor:	-0.49%	1.48%	2.82%
Specialist Seen Most Often:	3.78%	1.20%	2.56%
<b>Composites</b> (4 point scale: % who said “Usually” or “Always” got good service):			
Getting Needed Care:	<b>6.90%</b>	<b>8.80%</b>	4.19%
Getting Care Quickly:	2.50%	1.40%	<b>6.84%</b>
Provider Communication:	2.00%	-1.10%	3.44%
Health Plan Customer Service:	<b>12.00%</b>	0.00%	<b>5.79%</b>
Shared Decision-making re. Rx meds:	(Relatively new measure – no baseline.)		

## Delegated Entities Vary Quality of Service to CSHCN Patients



- L.A. County has more than 20,000 licensed providers.
- To access family doctors, specialists, and clinics in the areas where members live, L.A. Care contracts with partner health plans.
- Most Plans showed lower scores for CCC than for non-CCC.
  - The best performing Plan Partner was equally adept with CCC and non-CCC.
  - However, lack of disparity for CSCHN patients is not an indicator of overall quality. One struggling Plan Partner scored equally poorly with CCC and non-CCC children.

### Plan Partner or Line of Business – Rating of All Health Care (% favorable):

	<u>Child CCC</u>	<u>Child Non-CCC</u>	
Medicaid health plan:	<b>72.7%</b>	<b>78.7%</b>	
County-affiliated health plan:	75.0%	74.6%	
Staff model health plan:	90.6%	90.1%	(low “n”)
Large commercial health plan:	<b>72.0%</b>	<b>80.8%</b>	
Direct (in-house) line of business:	76.5%	80.2%	

Difference of proportions tests,  $\alpha=0.05$ , Rating of All Health Care.

**Bold green:** Significantly highest among all cells. **Bold red:** Significantly lowest among all cells.

## Healthography: Analysis by County Region, 2008-2014

- 11 regions in L.A. County reflect identifiable communities.  
(Descriptions reflect threshold ethnic concentrations, not majority populations.)
- Evidence of disparity in one region, and slight evidence in two others.
  - (Regional analysis is generally impaired by low “n” even when pooled.)



	<b>Child CCC</b>	<b>Child non-CCC</b>
<b>CAHPS Rating of All Health Care Received:</b>		
<b>Demographically-defined regions within L.A. County:</b>		
R1 -- Antelope Valley (high desert, semi-rural):	74.4%	75.2%
<b>R2 -- San Fernando area (suburban north region):</b>	<b>71.6%</b>	<b>80.6%</b>
R3 -- Pasadena/Alhambra (Armenian / Chinese)	72.3%	74.6%
R4 -- Hollywood/Wilshire (business core; Korean):	75.6%	79.1%
R5 -- West L.A. (affluent coastal area near tertiary care):	69.2%	85.5%
R6 -- Compton/Inglewood (inner city; African-American / Hispanic):	<b>75.2%</b>	79.4%
R7 -- Bellflower/Norwalk area (suburban south region):	78.3%	77.9%
R8 -- Torrance/Harbor (semi-affluent south coast; Hmong):	79.0%	80.9%
R9 -- Long Beach (suburban coastal around port):	80.2%	83.1%
R10 -- E. Los Angeles (established Hispanic communities):	74.2%	<b>83.4%</b>
R11 -- El Monte/Pomona (suburban expansion to east):	<b>73.0%</b>	<b>81.0%</b>
Out of County:	79.7%	79.9%

Difference of proportions test:  $\alpha=0.05$  of percent favorable (8s, 9s, 10s on All Health Care rating).

**Bold red** = CCC signif. lower than non-CCC *in same region*. Nonbold red/green: signif. higher than non-CCC in some other region. (Indicative of pattern, but of underpowered tests due to low “n”.)

*Italics*: Region 5 exhibited largest overall disparity, but at present has too few pooled cases to test.

## V. Demographics of Sickest Children (CCC) Vs Other Cohorts



- Gender: Adult female percent reflects “moms & kids” nature of TANF.
  - CCC patients are somewhat more likely to be male.
- Race/Ethnicity: Adult %s likely reflect Medicaid disability coverage.

	<u>Child CCC</u>	<u>Child Non-CCC</u>	<u>Adult</u>
<b>Gender:</b>			
Female:	40.7%	48.9%	73.9%
Male:	59.3%	51.1%	26.1%
<b>Race/Ethnicity:</b>			
Hispanic:	40.7%	48.9%	73.9%
Non-Hispanic:	59.3%	51.1%	26.1%
<b>General:</b>			
White:	38.5%	42.1%	73.9%
Black:	18.6%	9.1%	26.1%
Asian:	4.7%	6.8%	73.9%
Hawaiian / Oth. Pacific Islander:	1.0%	0.8%	26.1%
Alaskan / American Indian:	3.4%	2.1%	73.9%
Other:	33.8%	39.1%	26.1%



## Demographics (Cont.)

- CCC conditions may become apparent as childhood progresses.
- Adult and CCC respondent education levels reflect diversity of caregivers for CCC, and disabled adult Medicaid enrollments.



	<u>Child CCC</u>	<u>Child Non-CCC</u>	<u>Adult</u>
<b>Age:</b>			
Less than 1 year:	0.3%	1.0%	
1 to 5.9 years:	29.7%	42.5%	
6 to 10.9 years:	31.6%	25.6%	
11 to 15.9 years:	26.9%	21.5%	
16 to 17.9 years:	11.5%	9.4%	
<b>Education level of Respondent:</b>			
High school or lower:	67.1%	77.3%	68.4%
Some college or degree:	32.9%	22.7%	31.6%

## VI. Options for Actionability: Using CAHPS to Monitor Service Quality

**NCQA allows attaching member info to CAHPS responses for analysis, as long as member anonymity isn't threatened:**



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Administrative data: Info kept by health plans to administer insurance.

- Member enrollment history, demographics (language, race, location,...).
- Member health condition; access to services; exposure & response to interventions.
- Provider demographics (credentials, languages, locations).
- Provider enrollment history; site reviews; member complaints and grievances.
- ***Program evaluation: Attach info for members who received interventions, to test impact on CAHPS scores.***

Methods:

- Oversample vulnerable cohorts. (E.g. CAHPS+CCC oversamples sickest children.)
- Patient ratings skew high on CAHPS: Explore negative responses.

Actionability:

- Regional analysis suggested three regions for further scrutiny vis-à-vis CSHCN population.
- Outreach: Health plan has satellite Family Resource Centers in at least one of those regions.

## Identify Departments Owning Touch-Points With Doctors and Patients



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A health plan, at its essence, connects **two lists**:

- **Members** (patients) to **Providers** (clinicians, pharmacists, labs, ...)

CAHPS covers most functional areas, *but focuses most on provider issues*:

### **DOMAIN OF SERVICE DEPARTMENT**

Rating of Health Plan	(All), Quality Improvement (QI)
Rating of Health Care	Utilization Management (UM) <b>Provider Network Operations (PNO), QI</b>
Ratings of PCP, Specialist	<b>PNO, QI, Facility Site Review, Credentialing</b>
Getting Care Quickly	<b>PNO, QI</b>
Getting Needed Care	<b>PNO, UM (authorizations), QI</b>
Provider Communication	<b>PNO, Culture &amp; Linguistics (CLS) Health Promotion (HPS), QI</b>
Customer Service	<b>Member Services, CLS, HPS, Marketing &amp; Communications, QI</b>
Claims processing	<b>Claims</b>
(Other direct and indirect ties:	Finance, I.T., H.R., Legal, etc.)

**Seek tie-ins to clinical projects and their performance measures.**

**E.g., HEDIS: Survey member needs that tie to *patient compliance*.**

## VII. Recap of Learning Objectives

1. Describe how Medicaid eligibility policy impacts the provider networks designed to serve children and adults.

Large urban networks originally designed to serve moms and kids, have recently had to adapt to intake of Medicaid expansion patients and dual-eligible adults formerly on fee-for-service coverage.

Necessity of monitoring displaced populations during transitions.

(E.g. CMS 1115 Waiver in California to move Fee-For-Service (FFS) patients with disabilities into managed care (MC) in 2011/2012.) Impact on children appeared to lag adults by a year.

Caveat: Trend analysis showed little impact on CCC children before/after health care reform. Is the CCC distinction analytically robust? Can it be refined as a differentiator?



## Discussion / Recap of Learning Objectives (Cont.)

### 2. Compare how quality of care scores differ for children versus adults, in Medicaid, and possible reasons why.

Child scores tend to be significantly higher than adult scores in the health plan.

- Parents/guardians rate services for pediatric patients. Adults may be somewhat more critical of services experienced personally, than of services observed rather than directly experienced as a patient. (Principal/agent problem, combined with elements of cognitive dissonance?)
- Adults tend to be in Medicaid due to parenthood or a disability.
- CAHPS appropriately surveys adults and children separately – but health plans and state agencies should likely be rated using blended (weighted, not pooled) child and adult scores.

Previous research explored the option of using the arithmetic difference between CAHPS Adult and Child scores as a measure of robustness in a health plan's or medical group's ability to serve diverse populations.

The same could be said of the difference between CCC and non-CCC scores as key performance indicators (KPIs). Analysis of “delegated entities” in this present paper reveals a noteworthy pattern at high and low performance levels.



## Discussion / Recap of Learning Objectives (Cont.)



### 3. Compare how quality of care scores differ for CSHCN children versus other children.

Mixed findings: CCC parents tended to give lower Ratings than non-CCC parents. But showed statistically mixed results on process measures (Composites):

- Indications that patients living with disabilities and their caregivers, who are offered reasonable options can become adept at navigating the health care system, and can be as satisfied as the TANF population.
- If CSCHN cohort serves as a “canary in the coal mine” or bellwether population, the findings are somewhat encouraging.

### 4. Assess how adult and child scores differ across demographic groups.

Demographic groups differ in how they respond to CAHPS.

In the health plan’s data, adults have historically tended to give lower ratings.

The conventional wisdom (based on fixed health care vignettes) is that Hispanic members tend to rate a given level of health care quality, more favorably than their peers in other groups – particularly Chinese members. Whether or not this reflects other factors (health literacy, expectations vs experience of care in home country versus U.S.), is unclear. Whether CCC vs non-CCC comparisons are affected, is not known.

## Discussion / Recap of Learning Objectives (Cont.)



5. Differentiate between geographical areas within a large urban county on measures of quality, and note healthographic implications.  
Analysis by region revealed disparate treatment (CCC versus non-CCC) in one unexpected region.
  - Regional analysis suffers from low sample size and demographic mixing.
  - But analysis by region is a different cut through the data to check for potential blind spots.
  
6. Assess differences in health plans' performance on measures of access and quality of services for children.  
Health plans may sub-contract for members to access broader provider networks. Middle-performing Plans were weaker on CCC than on non-CCC.  
In this analysis, the best performing Plan Partner was equally adept with CCC and non-CCC. A poorer-scoring Plan had the same pattern – so the relative score matters – not just the CCC versus non-CCC difference.



## Discussion / Recap of Learning Objectives (Cont.)



7. Describe how commonly-available surveys can be used to guide the design of programs to improve quality of care.

CAHPS assesses most facets of health care.

CAHPS mainly gathers dependent variables, but can be tailored for causal analysis by adding questions, and by adding administrative data to sampling frames.

The CAHPS+CCC instrument contains questions tailored to CSHCN issues.

8. Discuss implications of the findings for the adaptation of health care organizations under ongoing health care reforms.

States have sought to reduce costs by moving patients from Fee-For-Service programs into managed care. Patients with disabilities pose a challenge, unless health plans expand provider networks to include more specialists.

Although CSHCN/CCC ratings showed slightly positive trends over the period of most turbulent change, prudence suggests monitoring vulnerable populations during any change that would create competition for finite resources. (The supply of providers and facilities is not easily expanded in the short term.)

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