



Accreditation of Medi-Cal, Healthy Kids  
and Healthy Families Program.

## When One Size Doesn't Fit All: Methods for Assessing Overall Quality of Health Care Services to Seniors in a Large and Diverse Medicaid Health Plan Using CAHPS Data, 2006-2012

**Session: 4256.4 Public Health Policy and Aging**

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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 Senior Biostatistician 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.
- II. Background on L.A. Care Health Plan and CAHPS.
- III. Data Simplification.
- IV. Goal-Directed Scoring of Survey Results.
- V. Scoring Sub-Contracted Entities.
- VII. Recap of Learning Objectives.
- VIII. Uses and Risks of Combined Measures in Quality Improvement.



## I. Recap of Learning Objectives

1. Describe the facets of quality care and services, and discuss the implications for measuring and rating services.
2. Explain differences in health care needs for Medicaid populations with multiple age strata.
3. Identify tradeoffs between competing values in measuring and improving the quality of care received by seniors.
4. Describe different approaches for creating overall measures of health care quality to guide decisions about services.
5. Discuss the need for combined measures for reporting overall quality to seniors making choices between different sources of healthcare services.
6. Describe key drivers of overall health care quality for older patients.
7. Explain the uses of information from CAHPS surveys to guide the focus and design of quality improvements of value to older patients.
8. Explain how to augment surveys to support root cause analyses of problems older patients have in getting quality services.



## II. Background – Health Plan and the CAHPS Survey



### L.A. Care Health Plan -- large, diverse membership:

- 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.
- Los Angeles County, California: Roughly 1-in-14 residents is an L.A. Care member.
- Mostly Medicaid, some S-CHIP, SNP, and special programs.
- Serves 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.

### CAHPS survey at L.A. Care:

- Annual survey measures patient experience with quality of health care services.
- CAHPS-H is NCQA's implementation of AHRQ's Consumer Assessment of Healthcare Providers and Systems (CAHPS 5.0). L.A. Care uses English and Spanish.
- Survey mode: 2 mail waves, postcard reminders, telephone follow-up.
- NCQA specifies base sample sizes (1,350 adults, 1,650 children, 1,860 children with chronic conditions). Response rate in Medicaid is typically between 30% and 40%.
- L.A. Care adds samples to track new cohorts; and supplemental questions to support continuous quality improvement (CQI) activities.

### III. Data Simplification

The purpose of combined measures is to simplify data for use by a decision-maker. The techniques below are assumption-free methods which avoid inserting arbitrary meanings into the data.



The simplest combined score is an addition of scores across measures that are arithmetically similar (apples and apples). Averaging is also valid.

If trying to extract a general story from trend data, pooling across years, or algebraic smoothing, are ways to remove noise to focus on the main pattern. (Choice of start and stop points, however, can arbitrarily change the finding.)

The above methods are suitable, insofar as the variables being measured and combined, are identical in value. That, in itself, is an assumption that can bias a result when data points are not of equal value with respect to the question or problem being solved. The next slide will address that issue.

## IV. Goal-Directed Scoring

CMS scores CAHPS data for use in grading Medicare health plans in its Star Ratings system. The scores affect reimbursement, and are publicized by CMS to help patients identify and choose quality plans. NCQA scores CAHPS data for Accreditation scoring.



- Both systems include weights that allow agencies to direct emphasis toward areas deemed important. Incorporating agencies' values into the scoring has pros and cons.
- Such systems may include case-mix adjustment, but are otherwise simple algebraic sums of the weighted scores of the CAHPS questions that get points in Accreditation or Star Ratings.
- Use of the score: Combined scores are desirable as the target variable in analysis to compute what combination of factors has the most leverage in moving an overall health care rating. Regression is one approach for data reduction, but is constrained by small sample sizes in CAHPS, and by collinearity. To avoid over-determination, if composite measures (indices calculated from two or more CAHPS questions) are tightly associated, those can be included as an intact composite. Algebraic methods and gap analysis can be used instead, but might not give the same flexibility and insight.
- Pro: The findings are directly relevant to improving ratings, since the findings are framed in terms of the agency's score.
- Con: The drivers identified in this process, aren't necessarily the most actionable measures to pursue. Other factors determine whether the health plan has leverage over a given driver.\*

\* K. N. Lohr *et al* provide a detailed rubric on the subject of criteria for selecting problems for intervention: *Strategies for Quality Assurance*, Institute of Medicine, 1990, is downloadable at <http://www.nap.edu/openbook.php?isbn=0309042305>.

## V. Scoring Sub-Contracted Entities

Comparing Medicaid Plan Partners, each-against-each for all measurement variables scored on CAHPS.



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- Testing all combinations of analytic variables on CAHPS.
- Tallies in **green** indicate the health plan scored significantly higher on a CAHPS measure than one of the other plans. Tallies in **red** indicate a significantly worse score.
- Two tiers: No consistent bottom performer. Staff Model partner's performance remains strong.
- Scored domains include Access, Timely Access, Provider Communication, Call Center, etc.

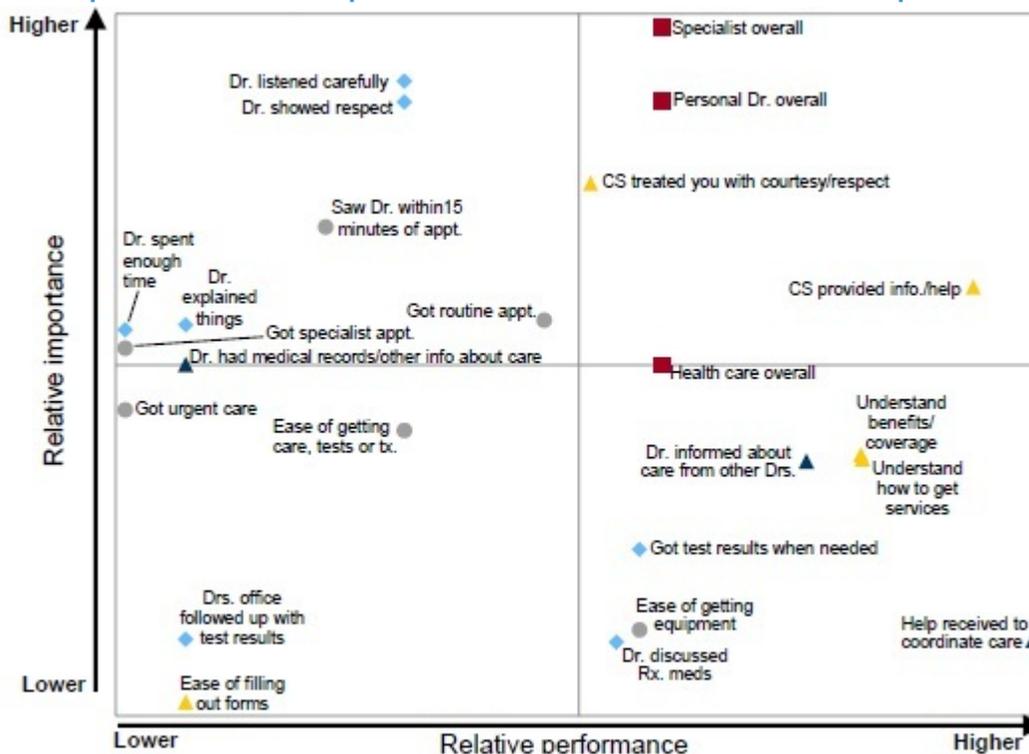
Results	CAHPS Measures*				Plan-vs-Plan Comparisons w/i CAHPS Measures*			
	Adult		Child+CCC		Adult		Child	
	Absolute Best	Absolute Worst	Absolute Best	Absolute Worst	Better	Worst	Better	Worse
• Staff Model partner:	+18	0	+13	0	+58	0	+50	0
• Large commercial plan:	0	-11	0	-2	0	-20	+1	-12
• Small Medicaid Plan:	0	-4	0	-1	0	-16	+4	-12
• County Plan:	0	-1	0	-7	+3	-11	0	-18
• Large Medicaid plan:	0	-2	0	-3	+2	-16	+2	-15
# CAHPS questions tested:	18	←	17	←	Comparisons: 90 <sup>†</sup>	←	85 <sup>‡</sup>	←

\* The findings remain significant even after adjusting alpha to allow for multiple tests. Some Plan-vs-Plan comparisons had no significant winner, so sum to 63<sup>†</sup> and 57<sup>‡</sup>.

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## VI. Graphical Analysis: What Drives Ratings Among Medicare Seniors

- Compare this slide and the next, contrasting Medicare seniors versus parents of children (Medicaid) within the same health plan and time period.
- For seniors, provider measures weighed heavily in the top two quadrants. Paradoxically, provider ratings and customer service formed the strong end of the picture, while provider communication with patients formed the weak end.



“Relative importance” (vertical axis) is the statistical correlation of these measures with the overall rating of the health plan.

“Relative performance” (horizontal axis) is the favorability rating of each individual measure.

The plot is based on medians to better show dispersion. In raw scale, the plot is much more compressed.

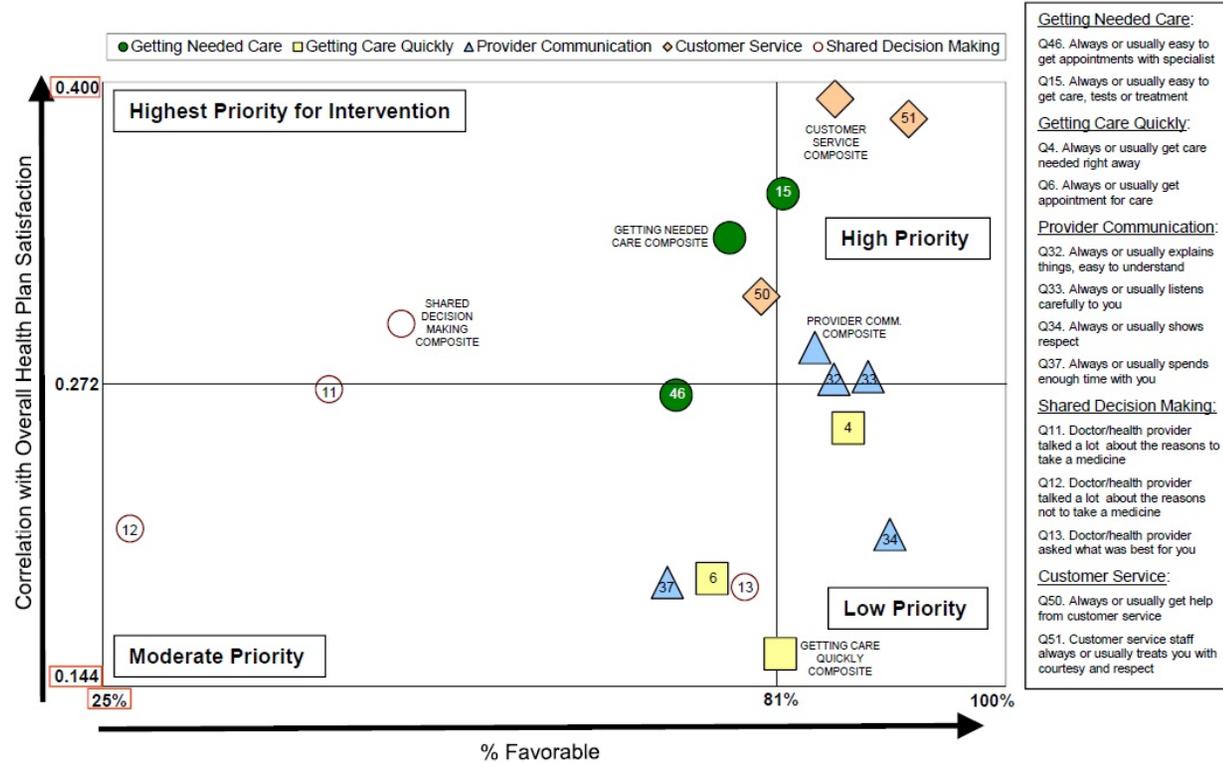
- Caution: The provider network and benefit packages differ between the Medicare and Medicaid product lines.
- However the comparison is realistic, in that Medicaid health plans increasingly have this configuration. Both benefit packages are presumably optimized to fit their respective populations and maximize ratings.

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# Analysis: What Drives Ratings of Service For Medicaid Children



- Medicaid parents have typically been more satisfied than seniors.
- Unlike the seniors on the prior slide, provider communication was less a factor in Medicaid parents' rating of their children's health plan. Customer service was the stronger driver, followed by access to tests and treatments.
- The health plan recently received large numbers of adults with disabilities. The fact that access (green markers) is now more a factor for children than for seniors, may mean that the two groups compete for some of the same resources.



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## VII. Recap of Learning Objectives



1. Describe the facets of quality care and services, and discuss the implications for measuring and rating services.

Quality of care (HEDIS) evaluates whether appropriate care was given for a variety of specific diseases and clinical circumstances.

Quality of services (CAHPS) reports subscribers' ratings of service by doctors; overall care; and service from the health plan. Patient's experience in obtaining services is summarized in domains like the following: Timely access to care; authorization to get specialty services; doctor communication; customer service, coordination of care, etc.

Implications: Service quality is composed of many diverse services. These have no natural hierarchy by which to summarize them into a single measure to express priorities among those domains, to shape a quality improvement program.

2. Explain differences in health care needs for Medicaid populations with multiple age strata.

Medicaid typically serves the following strata: Young patients (TANF); patients with disabilities; and the elderly poor. Young patients typically don't need much specialty care or prescription medicines. Older patients or those with disabilities are heavier utilizers of both kinds of services. Those specialists and prescription medicines. Different specialties serve those three strata; and pediatric-specific versions of many specialties now exist.

## Recap of Learning Objectives (Cont.)



3. Identify tradeoffs between competing values in measuring and improving the quality of care received by seniors.

Health care is irreducibly multi-faceted, and budgeting is essentially a zero-sum game. A dollar allocated toward improving provider communication (e.g. interpreter access) can't be spent hiring doctors to reduce wait days for appointments. Scoring systems are a means of capturing these tradeoffs.

4. Describe different approaches for creating overall measures of health care quality to guide decisions about services.

Three common approaches are (a) assumption-free data simplification methods; (b) evaluation scoring systems to incorporate decision-makers' values in weighting the domains being measured; and (c) graphical methods for data visualization.

5. Discuss the need for combined measures for reporting overall quality to seniors making choices between different sources of healthcare services.

Measurement and reporting on quality of care and services generate voluminous reports. Such information for health plans, hospitals, etc., are increasingly available online. However, consumers tend to lack the time, clinical background, and technical analytic skills, to summarize that information into an evidence-driven decision about which health plan or doctor or clinic to select. Combined measures can reduce the complexity of the decision process, but have pitfalls.

## Recap of Learning Objectives (Cont.)

### 6. Describe key drivers of overall health care quality for older patients.

The domains listed in the first Learning Objective above stay relevant over the long term, but their relative priority in member ratings changes from year to year. In the most recent year, ratings of service quality by the health plan's elderly Medicare-Medicaid members were driven by provider ratings, provider communication, and health plan customer service, more than by speed of access and authorization for specialized care, which were the priorities in the previous year.

### 7. Explain the uses of information from CAHPS surveys to guide the focus and design of quality improvements of value to older patients.

CAHPS surveys are the most common source of source of direct feedback from a representative sample of health plan members. The questionnaire is designed to give specific feedback on nearly a dozen facets of care, which map to departments in health plans that deal with those ratings.

Various ways exist for summarizing performance and displaying the results of combined measures. Approaches range from simple to mathematically sophisticated.

***Graphic methods, such as the Priority Matrices in slides 8 and 9 are technical, but seem more intuitive and better accepted by end-users than purely mathematical representations, such as the one demonstrated on slide 7.***



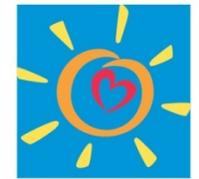
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## Recap of Learning Objectives (Cont.)

8. Explain how to augment surveys to support root cause analyses of problems older patients have in getting quality services.

Administrators' use the ratings to guide the choice of which domains of service to target for intervention. After that, quality improvement programs seek to find out the root causes of domains selected as the ones most needing improvement. Interventions typically take more than one survey cycle to launch and refine. CAHPS can be augmented in at least three ways to get the data needed for root cause analysis:

- a. Adding survey questions to probe patients' reasons for giving good or bad ratings in a given category (domain) of service.
- b. Adding health plan data (member attributes, provider attributes, and the types of services that the member used) to serve as independent variables, to find out which services appear to have driven good or bad overall ratings.
- c. Adding flag variables (0,1) to indicate which members received a given intervention, to evaluate its impact on patients' ratings of service quality (CAHPS scores).



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## VIII. Uses and Risks of Combined Measures in Quality Improvement

In mature organizations that perform well on most CAHPS measures, each department reviews the section of the CAHPS survey that covers its function and defines a program based on those performance scores.

Combined measures are an executive tool for simplifying decision-making and for making large changes in direction.

Combined measures are most suitable when health plan management is seeking to focus resources on improving one or two specific domains of service.

A combined measure can work against change by shifting focus and resources away from the line departments that actually own actionable touch-points with providers and members.

One test of whether a combined measure added direction and clarity to quality improvement is this: “Whether the departments’ scores were good or bad, did the rating process empower and inform functional departments or weaken them?”



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