



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

Bridging Quality of Services Between Old and Young: Developing a Broad-spectrum Measure of Age-related Disparities Using CAHPS Surveys Within a Large and Diverse Medicaid Health Plan, 2006-2013

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Presenter Disclosures

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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. Purpose in Calculating Differences in Quality of Services Received by Adults Versus Children.
- II. Background on L.A. Care Health Plan and CAHPS.
- III. Learning Objectives.
- IV. Analysis
- V. Findings and Discussion.
 - Learning Objectives – Recap and Conclusions.
- VI. Potential Refinements for Actionability.



I. Measuring the Capability of a Healthcare System to Serve Young and Old Patients



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Many Medicaid health plans have been drawn into lines of insurance that have patient populations quite different from those for which their provider networks were designed.

- Most provider groups have the staff to serve the routine healthcare needs of adults and children. But reforms are starting to move disparate populations into managed care in numbers sufficient to challenge the capacity and capabilities of existing networks.
 - To control costs, states such as California have moved seniors and people with disabilities (SPD) from fee-for-service into Medicaid managed care health plans.
 - Medicaid health plans have sometimes been encouraged to launch Medicare product lines to serve patients eligible for both programs.
 - Urban Medicaid health plans may tend to use provider networks designed to serve mothers and children. In contrast, roughly 90% of the SPD patients formerly in Medicaid (Medi-Cal) fee-for-service are adults 18+, mostly in middle-age. These adult SPD patients need quite different care than the non-SPD TANF population.
 - The next wave of change will be Dual-Eligible patients in pilot studies in various states in the United States.
- Agencies and health plans need tools for assessing the adequacy of networks serving SPD seniors and TANF mothers and children. The annual CAHPS survey at many health plans, may provide a readily-calculated measure of the network's robustness.

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II. Background – L.A. Care Health Plan's Membership



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Large, diverse membership in Los Angeles, California:

- Mostly Medicaid, urban, 2/3rd 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.
- 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.

III. Learning Objectives

1. Explain the challenges in Medicaid services in contexts where patrons are mainly very young or older and disabled.
2. Describe how that diverse membership impacts contracting of provider groups to cover gerontological and pediatric skillsets.
3. Discuss why CAHPS surveys are uniquely suited for making comparisons for detecting disparities.
4. Design a measurement strategy to calculate a disparities index or breadth-of-capabilities index, using CAHPS Adult and Child surveys.
5. Discuss how to use the index to report how a healthcare system is serving both groups: older and younger patients.
6. Analyze how that disparities index performs in the real world context of a large urban Medicaid health plan.
7. Describe how to extend that measurement strategy to provider group surveys for aid in contracting decisions.
8. Evaluate how such a disparities index can be used to help old and young patients end up with provider groups that have a good fit to those patients' needs.
9. Explain the costs and work, and limitations and pitfalls entailed in using a disparities measure to improve services.
10. Discuss potential uses of the index, and benefits to patients, health plans, providers.



IV. Analysis: Domains of Service Measured in CAHPS



Quality improvement activities typically view the CAHPS scores and domains below as service areas to be tracked, improved, and evaluated as programs' measures-of-effectiveness (MOEs):

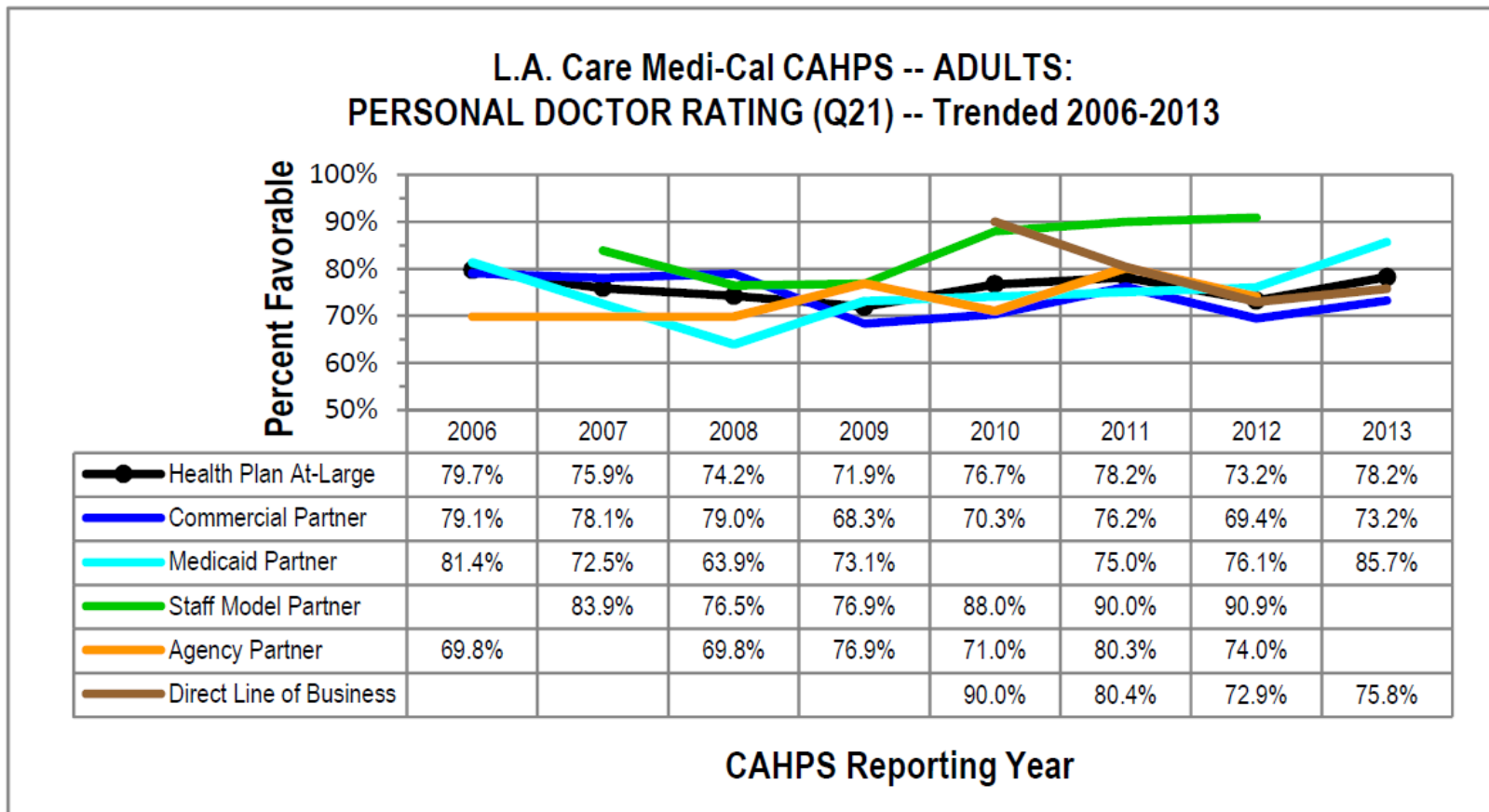
- **Ratings** are single-question measures where members rate services on a scale from 0 (worst) to 10 (best) services possible:
 - Health Plan;
 - Health Care Received;
 - Personal Doctor; ← *For brevity, the examples in the following slides will focus on the rating of the primary care physician (PCP).*
 - Specialist Seen Most Often.
- **Composites** are indices calculated from multiple CAHPS questions:
 - 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.

Adults: Rating of Personal Doctor -- Annual Trend (2006-2013)

- Conventional view: One somewhat strong performer (green).
- Overall score (black line) shows relatively flat trend over the period.



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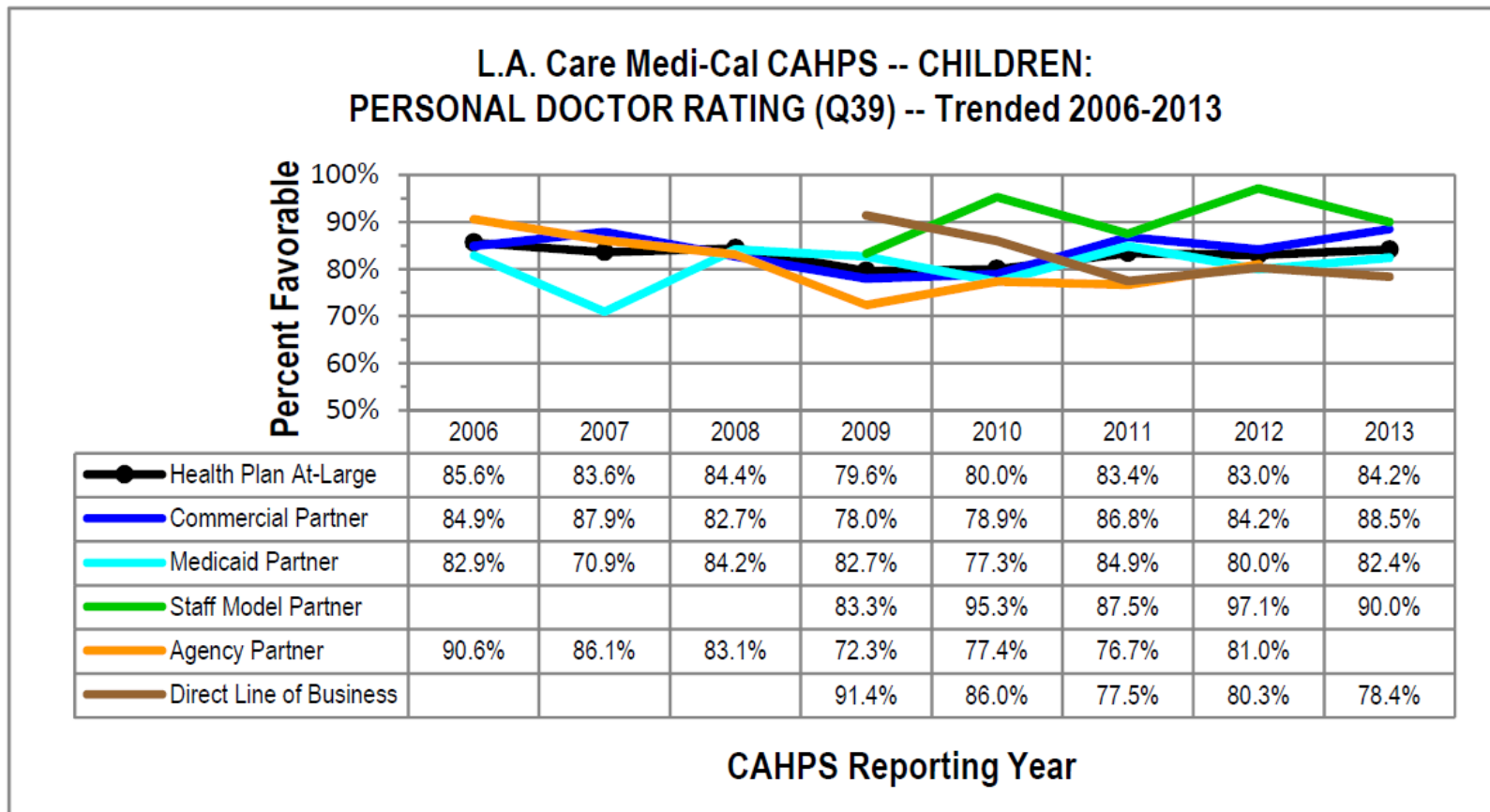
Note: Only cells with n>=30 are displayed.

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Using CAHPS to Measure Differences in Quality of Services for Adults vs Children

Children: Rating of Personal Doctor -- Annual Trend (2006-2013)

- Child scores have been noticeably higher than Adult scores.
- Conventional CAHPS analysis does not synthesize and use adult and child information together.



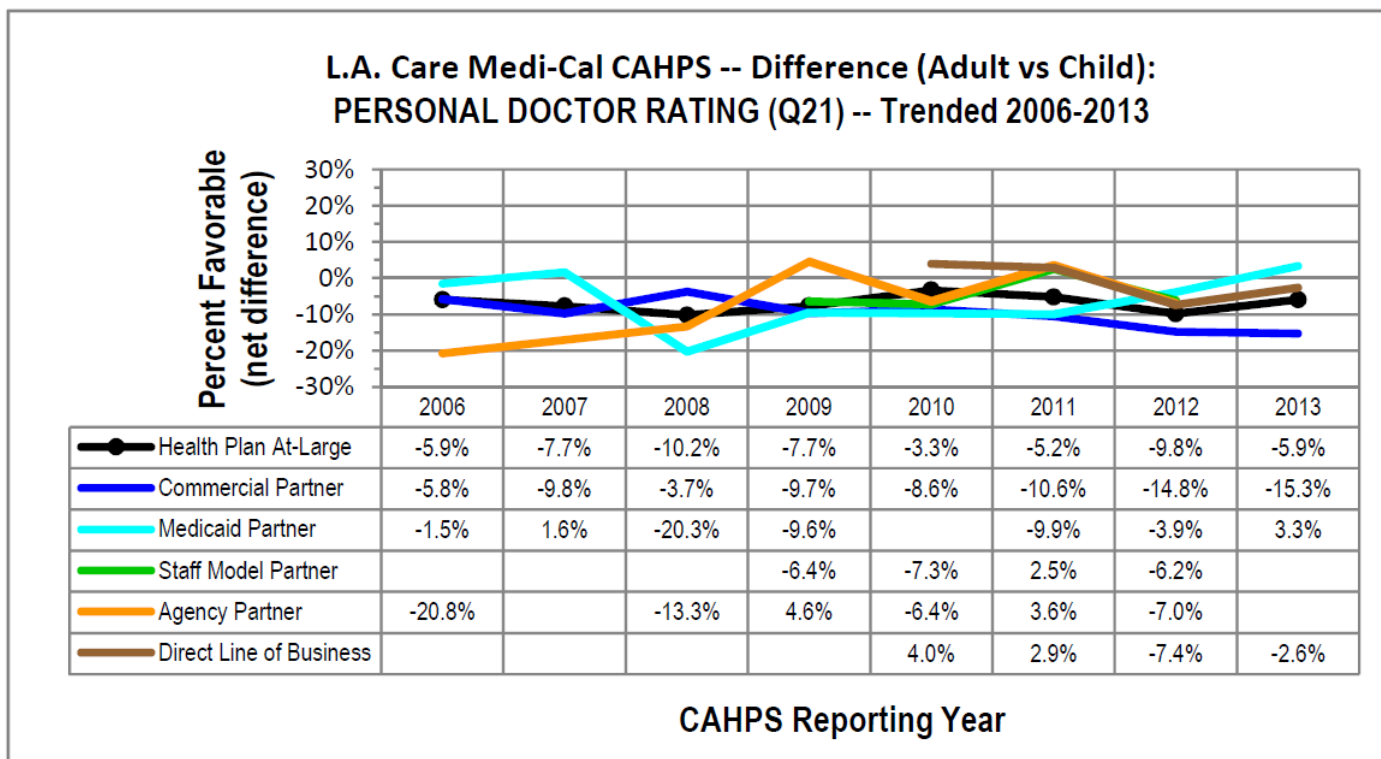
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Synthesis: Adult versus Child (Difference) -- Rating of Personal Doctor

- By definition, a difference of 0% would indicate no adult-vs-child disparity.
- The index (difference) is below 0% for most data points, suggesting a network historically designed for families with young children (AFDC / TANF).
- Changes in the provider network from 2012 forward, to accommodate FFS SPD, Medicare, and Dual-Eligible patients, should deflect this index upward.
- Caveat: Adults in these data are age 18+ and include many adult mothers. Future analyses should include separate comparisons of seniors (e.g. 50+ or 65+) versus pediatric patients.



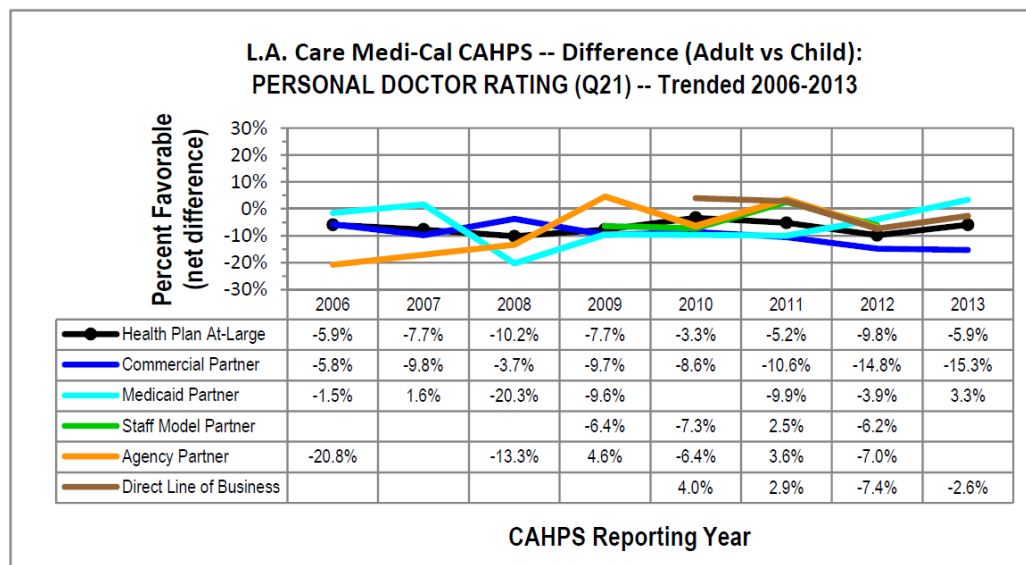
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Note: Only cells with n>=30 are displayed.

Use of the Adult-Child Difference Index In Rating Provider Networks

- The index distinguishes which plans appear best suited for both cohorts (adult, child).
- The index is relevant in oversight/contracting, particularly if oversampled for use at the provider group level.
- The two health plans that have sufficient sample size and longevity for trending, display quite different patterns:
 - One plan that is specialized in Medicaid (aqua) appears to be trending in an adult-friendly direction. Medicaid health plans that add Medicare product lines may trend similarly.
 - Conversely, the commercial plan (navy) appears to be trending in a child-friendly direction.
 - California’s CMS 1115 Waiver moved many seniors with disabilities into managed care. One product line (brown) absorbed much of this population. The transition corresponds to the trough in that line (2012), and appears to be rebounding toward age neutrality in ratings of providers.



Note: Only cells with n>=30 are displayed.

V. Findings and Discussion



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- Combining adult and child scores simplified analysis by one dimension.
- The strongest performer in the adult and child scores, separately, is a strong performer on many of the CAHPS measures.
 - That is a favorable finding, but is a relative finding.
 - The index highlights the underlying weakness in the adult scores, compared to child score.
- The index was below 0% for most data points, indicating that adult scores were lower than child scores.
- This suggests that, historically, the provider network was designed for pediatric patients, more so than for adults. (It could also mean that adults rate the services they personally experience, more critically than parents rate the services that their children receive.)
 - Analysis of other questions on the CAHPS survey may help to clarify which of those potential explanations is most plausible.
 - Regardless of cause, health plans are rated by one or more of these scores, and perennially seek ways to improve these measures.
- The index narrowed the band of scores. The adult and child scores come from independent random samples which separately vary around their true values.
 - The index smoothes out highs and lows that occur due to sampling error.
 - That smoothing is not its purpose, but is not a bad property for this measure, since smoothing balances against the CAHPS end user's natural tendency to react to highs and lows.

Learning Objectives – Recap and Conclusions



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1. Explain the challenges in Medicaid services in contexts where patrons are mainly very young or older and disabled.

Pediatric and elderly populations differ greatly in the types of health conditions they present; types of care; quantity of care and types of services that they need.
2. Describe how that diverse membership impacts contracting of provider groups to cover gerontological and pediatric skillsets.

Networks set up to serve the urban poor tend to design benefits and provider networks to provide well-care and maternity services for young adult parents and young children.
3. Discuss why CAHPS surveys are uniquely suited for making comparisons for detecting disparities.

CAHPS uses patient feedback to measure quality of the various service domains that make up health care. Many health plans nationwide, conduct CAHPS adult and child member experience surveys simultaneously, so have comparable data for both populations, matched in time, methodology, and questionnaire content.

Learning Objectives (Cont.)



4. Design a measurement strategy to calculate a disparities index or breadth-of-capabilities index, using CAHPS Adult & Child surveys.
Most questions that appear on Adult and Child CAHPS are directly comparable in subject matter.
 - Some agencies and health plans combine the two populations into single measures, which tends to inflate variability and make patterns hard to discern.
 - However, taking the simple arithmetic difference between parallel Adult and Child questions, using with data drawn from independent random samples, poses no similar heterogeneity problem.
5. Discuss how to use the index to report how a healthcare system is serving both groups: older and younger patients.
A robust system is arguably one with the fewest measures showing significant differences between Adult and Child scores on CAHPS.
6. Analyze how that disparities index performs in the real world context of a large urban Medicaid health plan.
The disparities index accurately identified the nature of the Medicaid health plan's provider network that prevailed to serve moms-and-kids, prior to the introduction of Medicare and former FFS SPD patients into the membership. The index will be tracked to assess whether the total network is robust for seniors and children.

Learning Objectives (Cont.)

7. Describe how to extend that measurement strategy to provider group surveys to aid in contracting decisions.

CAHPS has been adapted for rating clinicians and provider groups by patients who received services in the recent past. Depending on which of the CAHPS-family surveys is used, the patient is surveyed with respect to a specific doctor within a provider group. The calculation of the measure is the same arithmetic difference. Provider groups with the least difference between adult and child scores are logically the best suited to serving both populations. (In a similar fashion, CAHPS can be used to compute performance differences between other demographic groups (e.g. seniors and people with disabilities (SPD) versus non-SPD patients. Such comparisons aren't new, but sampling for this purpose and calculating differences across many domains is likely not in wide use.

8. Evaluate how such a disparities index can be used to help old and young patients end up with provider groups with a good fit to those patients' needs.

In urban environments with numerous medical groups, the index can remove some of the uncertainty as to which provider groups have the best fit to a health plan's membership. As health plan-sponsored Pay-for-Performance (P4P) programs become more common, the survey data required for calculating the index will be available to health plans, if adult and child patient surveys and data access are written into P4P agreements.



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Learning Objectives (Cont.)

9. Explain the costs and work, and limitations and pitfalls entailed in using a disparities measure to improve services.

Costs are driven by number of mailed surveys:

- (number of health plans or provider groups) * (Adult, Child)
- * (number of completed surveys, normally between n=300 and n=411)
- * (reciprocal of anticipated response rate, often pessimistic at 25%).

For a health plan using NCQA CAHPS, the sample sizes are stipulated.

For a CAHPS survey of 5 provider groups, the math would typically be this:

5 provider groups * 2 age groups * 300 completes * 4 recipients = 12,000 surveys.

Surveys using 2-wave mail; postcard reminders; telephone calls, language options (English, Spanish), can range from \$7 to \$14 per sampled member.

Calculation of the index itself and reporting, can generally be automated as a part of a routine CAHPS report.

Limitations and pitfalls in using the index:

- Missing data: A provider group can have too few adult patients to survey (or vice versa).
- Statistical reliability can be low if few qualify (e.g., too few children have specialist visits).
- The index is the raw difference between the experience of the average adult member and the average child member. An index that either sums to "0" or averages to "0" is a hypothetical ideal *for the health plan's total provider network*. It is not necessarily ideal *for individual provider groups*, because specialization toward pediatrics or gerontology may be valuable in terms of excellence or quality.



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Learning Objectives (Cont.)

9. (Cont.) Explain the limitations and pitfalls in using the index.

Limitations and pitfalls in using the index:

- Interpretation: The math in the index lends itself to the assumption that adults and parents are scoring services in the same manner. It is quite possible that older patients (rating the quality of personal service they receive) are more critical than parents (rating the quality of service that their children receive). Cognitive dissonance -- (“If I rate this doctor poorly, why do I go to him/her?”) -- could also work differently in parents than in adults getting services for themselves.
- Application: The index is the raw difference between the experience of the average adult member and the average child member. An index that either sums to “0” or averages to “0” can be a hypothetical ideal *for the health plan’s total provider network*. But “0” is not necessarily ideal *for individual provider groups*, because specialization toward pediatrics or gerontology may benefit patients in terms of excellence or quality.
- Statistical reliability can be low if few qualify (e.g., too few children have specialist visits).
- Vulnerability to missing data: A provider group can have too few adult or child patients to survey (or vice versa), so the index would not be useful in comparing provider groups that specialize in adults or children.

10. Discuss potential uses of the index, and the benefits to patients, health plans, and providers.

Better fit between patient and doctor can mean better treatment, better compliance, better health, lower costs, better ratings, better Medicare reimbursement, better accreditation scores.

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VII. Potential Refinements for Improved Actionability



- Calculate difference scores among contracted health plans.
 - Compare their levels of disparity to determine how robust they are in serving older and young members within their networks.
- Calculate difference scores among contracted medical groups.
 - Compare the medical groups to determine which ones to partner with to fit the health plan's mix of older and younger members.
 - Surveying at the provider group level can be expensive. Pooling health plan surveys over time is an inexpensive way to get an initial snapshot.
 - Take note that specialization on elderly or pediatric patients may be valuable in a provider network. As an ideal, age neutrality is most desirable property at the aggregate (plan) level.
 - Use the index with other information, such as network capacity in age-specific specialties, to identify any provider groups that have both (a) desirable specialties or facilities, and (b) are reasonably strong performers with both age cohorts.
- Validate and buttress the index by testing whether the difference score correlates with other measures of the quality of care and services:
 - HEDIS;
 - CAHPS Clinician and Group (CG CAHPS) survey comparing provider groups;
 - Member retention as an indicator of patient satisfaction with service quality.
- Benchmarking: Many health plans have years of CAHPS Adult and Child survey results. The National CAHPS Benchmarking Database (NCBD) and NCQA both have extensive repositories of CAHPS results. Benchmarking and norming the measure would help individual health plans understand and interpret their scores.

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