



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

Gauging Patience Among Patients: Integrating Qualitative and Quantitative Measures to Determine Wait-Day Thresholds At Which Patients in a Large Urban Medicaid Health Plan, Judge Delays in Access To Be Excessive

Session: 3338.0 Advanced Issues in Health Policy Study Design
and Analysis

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Topic: Quality of Care

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Presenter Disclosures

S. Rae Starr



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

I am employed as a Senior Survey Data Analyst 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).

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I. Learning Objectives

1. Describe the principal barrier to using patients' self-reported measures of access delays from common surveys of service quality, for root cause analysis in quality improvement.
2. Explain two systemic reasons why reported access times for adults may differ from reported times for pediatric patients.
3. Identify thresholds (wait days) for routine care, above which Medicaid patients deemed delay to be excessive.
4. Identify thresholds (wait days) for urgent care, above which Medicaid patients deemed delay to be excessive.
5. Analyze the association between wait time and health care organizations' performance on two CAHPS measures of service quality.
6. Compare differences in access delay between different demographics (gender, age, and ethnicity), to assess disparities.
7. Compare differences in how different demographics (by gender, age, and ethnicity) rate service quality, for the same lengths of delay in access.
8. Discuss one method for using the analysis to address patients' expectations about the timeliness of care.



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II. Background – L.A. Care Health Plan

Large, diverse membership in Los Angeles, California:



- Mostly Medicaid, urban, 1/2 pediatric, often Spanish-speaking.
- Roughly 18% of Medicaid managed care population in California.
- Roughly 3% of Medicaid managed care population in the U.S.
- Almost 1-in-5 L.A. County residents is an L.A. Care member.
- Mostly Medicaid, Dual-eligible, and special programs.
- Serves 11 distinct language concentrations ("threshold languages"): Spanish, English, Arabic, Armenian, Korean, Cambodian, Chinese, Russian, Vietnamese, Farsi, Tagalog.
- Mostly urban and suburban; 1 semi-rural region in the high desert.



III. Importance of Timely Access on Health Outcomes



- Healthcare reform put more patients into the system with a supply of providers and facilities that is relatively inelastic in the short term, particularly in states participating in Medicaid Expansion.

“Total Medi-Cal enrollment is expected to rise from 7.9 million before implementation of the Affordable Care Act to 12.4 million in 2015-16, covering nearly one-third of the state’s population.”

<http://www.dof.ca.gov/documents/FullBudgetSummary-2015.pdf>

- Timely access may impact health outcomes in at least three ways:
 - Delay may exacerbate health conditions.
 - Delay may cause patients to fall out of compliance with recommended well-care visits, preventive care, tests, and vaccinations.
 - Increase load on urgent care and emergency departments, delaying emergency services.
- Untimely access may also adversely impact other factors important in health care policy:
 - Increasing health care costs by patients going to the emergency department for primary care.

IV. Common Measures of Access and Timely Access

- Access time is often measured from the agency and health plan perspective through measures of network adequacy: assessing numbers of patients against numbers of physicians.
- Percentage of patients within a reasonable travel distance of their assigned physicians, is often measured as well, adding some assurance that the doctors are actually accessible.
- Validation for these measures is often sought through surveys of access to care as reported by clinics, in terms of wait time for the “next available appointment”.
- Further assurance of timely access, is sought from patients, themselves. CAHPS survey questions on timely access offer the widest-used measures of access delay from the patient’s perspective.
 - Subjectivity and semantics limit the questions’ value in defining actions to educate expectations and bring delays within those revised expectations.
 - This study attempts to arithmetically reduce the subjectivity and clarify patients’ thresholds of delay in determining excessive wait times.
 - Limitations remain -- accuracy of patients’ recall, and subjectivity of “as soon as you needed” – but finding thresholds in days, makes the measures more actionable for educating patients and providers, and for targeting long delays.



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Analytic Objective: Reducing Subjectivity In Common Measures of Timely Access

Due to the nature and purpose of CAHPS, Timely Access questions are subjective, along these lines:

- ~“How often did you get care as soon as you needed? (Never, Sometimes, Usually, Always).”
- Patients’ differences in the meaning of “as-soon-as-you-needed” pose a challenge in root cause analysis for quality improvement.

Objective: This study explores a statistical answer to that semantic problem:

- Patients were asked the typical wait times that they experienced in four types of visits: urgent PCP, non-urgent PCP, urgent Specialist, non-urgent Specialist.
- Those measures of wait time are then compared against the same patients’ answers to the two subjective CAHPS measures of access for urgent and non-urgent visits.
- We then calculated non-subjective thresholds (actual days of delay) associated with the four subjective response terms (“Never, Sometimes, Usually, Always”).
- We then noted the median and average wait-day thresholds for those four terms.
- CAHPS’ lack of a breakout by PCP and Specialist for the two measures, means that for most patients, the answers for PCP and Specialist are blended.
- That problem is partly addressed through a separate CAHPS question that asks if the patient had a specialist visit. This allows a pure measure of PCP thresholds for patients who saw no specialist. For validation, they are compared to their peers.
- The analysis reveals respondents’ standards as to how often their care was timely.



Interplay Between Numbers and Semantics: The Problem



CAHPS measures quality of services.

Accessibility of Care is an important facet of quality:

- Care delivered too late, is ineffective.
- Delays in care – particularly for routine checkups or preventive medicine -- can result in patients going without that care: harming health, and causing high costs if major illnesses materialize.

CAHPS does not rely on patients' recall of exact durations, but converts the objective question of "how many days" into a relative question worded for simplicity: asking how often patients got care "as soon as needed".

Perception-based measures aren't readily operationalized, since "as soon" can mean different things to different patients.

Interplay Between Numbers and Semantics: A Solution

CAHPS respondents were asked how many days they waited for four circumstances: (PCP, specialist) * (routine, urgent).



Straightforward questions asking the count of wait days, had problems:

- Small numbers of members answered with clinically-improbable durations. Waits of 60, 90, 120, 270 days may be authorization-related, not problems of clinic scheduling.
- Heaping was common: Days in multiples of 30. A few instances of 365 days.
- Keeping in mind that the goal is to improve access scores, even improbable durations are noteworthy – but are handled separately from the duration math.
- The current purpose is for advising administrators regarding reductions in wait time, after visits have been authorized.
 - Long durations are deemed to be a separate problem, with a different cause, requiring a different solution.
 - Durations past 99 days were removed for purposes of analysis. This excludes fewer than 0.25% of cases, and had no patterned clusters of cases.
 - Separately, a series of tests were run on the non-truncated distributions, using log transformations on the full range of wait days.

Appendix A explores discordance (numeric vs word measures) in depth.

V. Approach and Methodology

In Fall 2011, L.A. Care surveyed Medicaid members as part of a pay-for-performance (P4P) incentive program for medical groups.



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The survey:

- Patient Assessment Survey 2011 (closely related to Clinician & Group CAHPS v2.0).
- Fielded 08/03/2011 through 11/01/2011 in English and Spanish, by mail and phone.
- Initial mail-out to 49,549 patients (“members w/visits”), n=16,288 completed surveys.
- Response rates:
 - 32.9%: lowest for Adult Specialist survey in Spanish, 23.1%), and highest for Child PCP survey in Spanish, 41.6%).
- Adult vs Child samples for 42 groups, sampled separately for PCPs, Specialists:
 - Samples for 38 large provider groups; and samples for directly-contracted doctors for 2 Plan Partners; and a sample for members in county clinics.
 - A sample for patients who were not continuously enrolled with any of the above groups but were otherwise survey-eligible.
 - *Caveat: The samples are representative of provider groups. For this analysis, results are raw (un-weighted). The results thus represent the typical experience of the typical Medicaid patient in the typical provider group.*
 - Later, weighting was applied for provider group size, and weighting to correct for differences in PCP and specialist sampling proportions. Analyses of main measures on the survey, found that weighting had no systematic impact in measures, including the Timely Access measures in this present study.

Approach and Methodology (Cont.)

L.A. Care's PAS 2011 survey provided a strong sample, but asked the duration question in 6-point format ("Never", "Almost Never", "Sometimes", "Usually", "Almost Always", "Always"), rather than in the 4-point format ("Never", "Sometimes", "Usually", "Always") more commonly used in Health Plan CAHPS.

- The 6-point measure has better variability and sensitivity.
- But the 4-point measure is used for NCQA Accreditation purposes.

The Getting Care Quickly questions on HP CAHPS that are used for Accreditation scoring, are not differentiated for PCP vs Specialist visits:

- That is adequate for Accreditation scoring.
- Breaking down by PCP and Specialist would help in targeting interventions.
- The analysis below will perform that breakdown – but the inference of threshold days back to the HP CAHPS score, will be imperfect, since that score is presumably a blended rate (if the member was thinking of both visit types in his/her estimate).
- However, the analysis of impact on CAHPS scores, may help to sort out which has the larger effect: PCP or Specialist wait times.

Abbreviations: PCP: Primary Care Physician. SCP: Specialist Care Physician.

The specialist access question existed in two forms in the PAS instruments: On the specialist survey, the questions do not distinguish between routine and urgent appointments. For demog. analysis, wait days were averaged for both visit types.



Approach and Methodology (Cont.)

This study is designed to examine numeric versus relative and subjective “word” measures of access time, as a phenomenon. However, the findings are most useful if generalizable to a population.



Limitation: The Patient Assessment Survey (PAS) and other surveys similar to the CAHPS Clinician & Group (CG CAHPS) survey, are often used for Pay-For-Performance (P4P) programs, to incentivize provider groups or individual physicians and their clinic staffs, to improve quality of care and service.

- CG CAHPS samples are powered to represent the groups or practices being assessed. As a result, the aggregate of these data is not automatically representative of the patient population being assessed. The results presented here, are roughly representative of “the typical respondent, in the typical provider group of sufficient panel size to be sampled” in the PAS 2011 survey. In a large/diverse Plan, patient ratings are well-diffused.
- Weighting such surveys back to a specific population – in this case, L.A. Care’s Medicaid membership – requires weights to correct for PCP vs SCP sampling ratios, and weights for the sampled provider groups, reflecting their proportions in the health plan at large.
- When such weighting has been performed for PAS 2011 and for its follow-on survey (CG CAHPS 2014), the weighting did not appreciably alter the findings for CAHPS measures. The findings in this paper provide a reasonably accurate picture of wait day rating thresholds for the health plan’s Medicaid population, but if used for applying incentives or sanctions, weighting may be important for gaining provider buy-in.

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VI. Results: Wait Days For Routine Care From PCP – ADULT

- Change needed to move lowest raters (17%): 8 to 13 days.
- Addressing worst cases may be simplest if can identify themes.
- *Threshold: Focus on providers with average wait of 6+ days.*



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Adult/Child: ~“In the last 12 months, when you made an appointment for a check-up or routine care with this doctor, how often did you get an appointment as soon as you needed?”

GOT ROUTINE CARE FROM PCP “AS SOON AS NEEDED”

DAYS	Never	Almost Never	Some-times	Usually	Almost Always	Always	F=23.85 p<0.0001
	(A)	(B)	(C)	(D)	(E)	(F)	
Adult PCP avg:	19.459	18.254	11.357	5.564	4.859	2.784	
	n=37	n=59	n=207	n=250	n=334	n=934	
REGW MRT grps:	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
Median	10	10	5	2	2	0	
StDev	21.065	21.317	15.313	10.883	10.814	8.446	
Minimal change:	←—————→						8.10 days
Moderate change:	←—————→						13.40 days

Green: Favorable score. **Red:** Unfavorable score. **Discordant zero-wait-day cases removed.**

F test (Welch, 1951) used due to unequal sample sizes. Group comparisons: Using Ryan-Einot-Gabriel-Welsch Multiple Range Tests (REGW Q Mult. Range Test which is somewhat more robust against Type II errors.

HOV fails (Levene $F p \leq 0.05$): ANOVA may be too liberal. StDev throughout are from unrestricted superset.

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Wait Days For Routine Care From PCP – CHILD

- Change needed to move lowest raters (13%): 12 to 13 days.
- *Threshold: Focus on providers with average wait of 5+ days.*



Adult/Child: ~“In the last 12 months, when you made an appointment for a check-up or routine care with this doctor, how often did you get an appointment as soon as you needed?”

GOT ROUTINE CARE FROM PCP “AS SOON AS NEEDED”

DAYS	Never	Almost Never	Some- times	Usually	Almost Always	Always	F=49.37 p<0.0001
	(A)	(B)	(C)	(D)	(E)	(F)	
Child PCP avg:	23.024	14.747	10.047	4.949	3.091	2.114	
	n=84	n=170	n=516	n=590	n=1,141	n=3,319	
REGW MRT grps:	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
Median	14	7	4	1	1	0	
StDev	27.611	20.451	16.139	12.048	9.271	8.576	
Minimal change:	←-----→						12.98 days
Moderate change:	←-----→						11.66 days

Green: Favorable score. **Red:** Unfavorable score. **Discordant zero-wait-day cases removed.**
 F test (Welch, 1951) used due to unequal sample sizes. Group comparisons: REGW Q Multiple Range Test.
 HOV failed (Levene F p>=0.05): ANOVA may be too liberal. StDev throughout are from unrestricted superset.

Wait Days For Urgent Service From PCP – ADULT

- Change needed to move lowest raters (18%): 7 to 12 days.
- *Threshold: Focus on providers with average wait of 4+ days.*
- Health plans track such information in network capacity reports.



Adult/Child: ~“In the last 12 months, when you called this doctor’s office to get an appt. for care [you / your child] needed right away, how often did you get an appt. as soon as you needed?”

GOT URGENT CARE FROM PCP “AS SOON AS NEEDED”

DAYS	Never	Almost Never	Some- times	Usually	Almost Always	Always	F=25.32 p<0.0001
	(A)	(B)	(C)	(D)	(E)	(F)	
Adult SCP avg:	16.203	14.123	8.726	3.517	1.846	1.119	
	n=59	n=57	n=179	n=180	n=299	n=834	
REGW MRT grps:	~~~~~		~~~~~	~~~~~	~~~~~		
Median	7	7	4	1.5	1	0	
StDev	18.500	20.059	13.384	8.240	3.958	4.979	
Minimal change:	←—————→						7.48 days
Moderate change:	←—————→						12.28 days

Green: Favorable score. **Red:** Unfavorable score. **Discordant zero-wait-day cases removed.**
 F test (Welch, 1951) used due to unequal sample sizes. Group comparisons: REGW Q Multiple Range Test.
 HOV failed (Levene F p<=0.05): ANOVA may be too liberal. StDev throughout are from unrestricted superset.

Wait Days For Urgent Service From PCP – CHILD

- Change needed to move lowest raters (14%): 5 to 7 days.
- *Threshold: Focus on providers with average wait of >1 day.*



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Adult/Child: ~“In the last 12 months, when you called this doctor’s office to get an appt. for care [you / your child] needed right away, how often did you get an appt. as soon as you needed?”

GOT URGENT CARE FROM PCP “AS SOON AS NEEDED”

DAYS	Never	Almost	Some-		Usually	Almost	Always	F=29.16
	(A)	Never	times		(D)	Always	(F)	
Child SCP avg:	11.480	7.806	5.920		1.266	1.235	0.694	
	n=123	n=144	n=452		n=428	n=1,003	n=2,975	p<0.0001
REGW MRT grps:	~~~~~	~~~~~	~~~~~		~~~~~	~~~~~	~~~~~	
Median	4	3	2		0	0	0	
StDev	18.646	15.745	12.636		3.805	6.384	5.584	
Minimal change:	←-----→						5.56 days	
Moderate change:	←-----→						6.57 days	

Green: Favorable score. **Red:** Unfavorable score. **Discordant zero-wait-day cases removed.**

F test (Welch, 1951) used due to unequal sample sizes. Group comparisons: REGW Q Multiple Range Test.

HOV failed (Levene F p<=0.05): ANOVA may be too liberal. StDev throughout are from unrestricted superset.

Wait Days For Routine Care From SCP – ADULT

- Change needed to move lowest raters (23%): 7 days.
- Duration for routine care vs timely care for any visit (routine/urgent).
- *Threshold: Focus on specialists with average wait of 11+ days.*



Adult/Child: ~“In the last 12 months, when you tried to make an appt. to see a specialist, how often did you get an appt. as soon as needed?”

GOT ANY CARE FROM SCP “AS SOON AS NEEDED”

DAYS	Never (A)	Almost Never (B)	Some- times (C)	Usually (D)	Almost Always (E)	Always (F)	
Adult PCP avg:	26.724	21.260	15.731	10.625	10.026	6.016	F=33.22
	n=58	n=77	n=197	n=224	n=273	n=623	p<0.0001
REGW MRT grps:	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
Median	21	15	10	7	7	3	
StDev	22.517	19.021	15.849	13.756	12.134	9.268	
Minimal change:	←—————→						6.67 days
Moderate change:	←—————→						6.89 days

Green: Favorable score. **Red:** Unfavorable score.

F test (Welch, 1951) used due to unequal sample sizes. Group comparisons: Using Ryan-Einot-Gabriel-Welsch Multiple Range Tests (REGW Q MRT which is somewhat more robust against Type II errors. *HOV failed (Levene F p<=0.05): ANOVA may be too liberal.* StDev throughout are from unrestricted superset. **Discordant zero-wait-day cases removed.**

Wait Days For Routine Care From SCP – CHILD

- Change needed to move lowest raters (23%): 12 to 19 days.
- Meaning of “as soon as needed” is noisiest at the low end.
- *Threshold: Focus on specialists with average wait of 15+ days.*



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Adult/Child: ~“In the last 12 months, when you tried to make an appt. to see a specialist, how often did you get an appt. as soon as needed?”

GOT ANY CARE FROM SCP “AS SOON AS NEEDED”

DAYS	Never	Almost Never	Some- times	Usually	Almost Always	Always	F
	(A)	(B)	(C)	(D)	(E)	(F)	
Child PCP avg:	30.770	28.850	18.381	14.690	9.784	6.732	F=37.02
	n=74	n=80	n=176	n=155	n=310	n=641	p<0.0001
REGW MRT grps:	~~~~~						
Median	22	30	14	7	5	3	
StDev	28.461	21.757	18.917	19.704	12.852	12.304	
Minimal change:	←—————→						12.39 days
Moderate change:	←—————→						19.07 days

Green: Favorable score. **Red:** Unfavorable score.

F test (Welch, 1951) used due to unequal sample sizes. Group comparisons: REGW Q Multiple Range Test.

HOV failed (Levene $F p \geq 0.05$): ANOVA may be too liberal. StDev throughout are from unrestricted superset.

Discordant cases not removed: Wait days of “0” common at all levels of scale variable.

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Wait Days For Urgent Service From SCP – ADULT

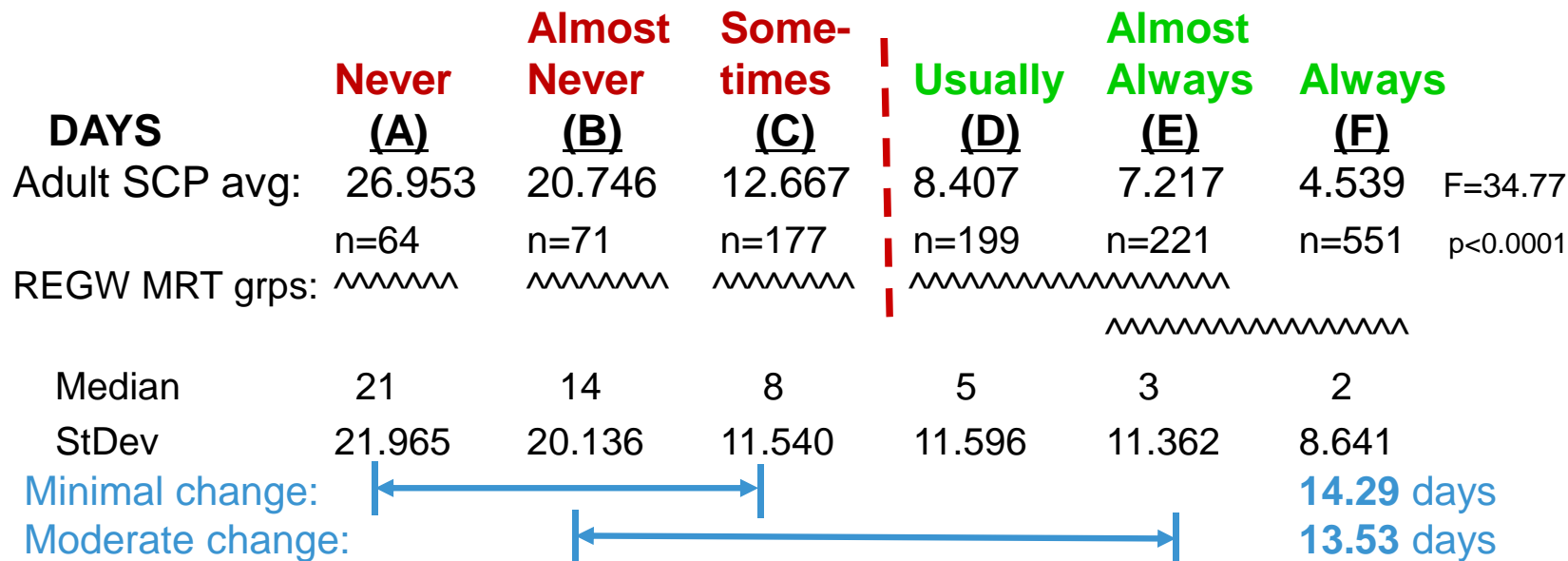
- Change needed to move lowest raters (24%): 13 to 14 days.
- Meaning of “as soon as needed” is noisiest at the low end.
- *Threshold: Focus on specialists with average wait of 9+ days.*



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Adult/Child: ~“In the last 12 months, when you tried to make an appt. to see a specialist, how often did you get an appt. as soon as needed?”

GOT ANY CARE FROM SCP “AS SOON AS NEEDED”



Green: Favorable score. Red: Unfavorable score.

F test (Welch, 1951) used due to unequal sample sizes. Group comparisons: REGW Q Multiple Range Test. HOV failed (Levene $F p \leq 0.05$): ANOVA may be too liberal. StDev throughout are from unrestricted superset.

Discordant zero-wait-day cases removed.

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Wait Days For Urgent Service From SCP – CHILD

- Change needed to move lowest raters (24%): 14 to 16 days.
- *Threshold: Focus on specialists with average wait of 11+ days.*



Adult/Child: ~“In the last 12 months, when you tried to make an appt. to see a specialist, how often did you get an appt. as soon as needed?”

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GOT ANY CARE FROM SCP “AS SOON AS NEEDED”

DAYS	Never	Almost Never	Some-times	Usually	Almost Always	Always	F=33.32 p<0.0001
	(A)	(B)	(C)	(D)	(E)	(F)	
Adult SCP avg:	27.171	28.500	14.648	10.490	7.101	4.943	
	n=82	n=80	n=179	n=151	n=296	n=634	
REGW MRT grps:	~~~~~		~~~~~	~~~~~	~~~~~	~~~~~	
Median	15	30	10	4	3	1	
StDev	29.286	24.251	15.233	18.427	12.111	12.319	
Minimal change:	←————→						13.79 days
Moderate change:		←————→					16.17 days

Green: Favorable score. **Red:** Unfavorable score. **Ruby:** Out of numeric order – unexplained.
 F test (Welch, 1951) used due to unequal sample sizes. Group comparisons: REGW Q Multiple Range Test.
 HOV failed (Levene $F p \leq 0.05$): ANOVA may be too liberal. StDev throughout are from unrestricted superset.
Discordant cases not removed: Wait days of “0” common at all levels of scale variable.

Wait Days (Routine+Urgent Averaged) From SCP – ADULT

- Change needed to move lowest raters (24%): 13 to 14 days.
- **Combining wait measures increases variance, reducing precision.**
- Threshold: Focus on specialists with average wait of 10+ days.



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Adult/Child: ~“In the last 12 months, when you tried to make an appt. to see a specialist, how often did you get an appt. as soon as needed?”

GOT ANY CARE FROM SCP “AS SOON AS NEEDED”

DAYS	Never	Almost	Some-	Usually	Almost	Always	F=30.10 p<0.0001
	(A)	Never (B)	times (C)	(D)	Always (E)	(F)	
Child SCP avg:	27.127	21.375	13.174	9.147	8.509	5.445	
	n=51	n=68	n=170	n=187	n=212	n=525	
REGW MRT grps:	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
Median	21	17.25	10	7	4	2	
StDev	22.295	19.419	10.836	10.752	10.952	9.127	
Minimal change:	←-----→						13.95 days
Moderate change:	←-----→						12.87 days

Green: Favorable score. **Red:** Unfavorable score.

F test (Welch, 1951) used due to unequal sample sizes. Group comparisons: REGW Q Multiple Range Test.

HOV failed (Levene F p<=0.05): ANOVA may be too liberal. StDev throughout are from unrestricted superset.

Discordant zero-wait-day cases removed.

Wait Days (Routine & Urgent Averaged) From SCP – CHILD

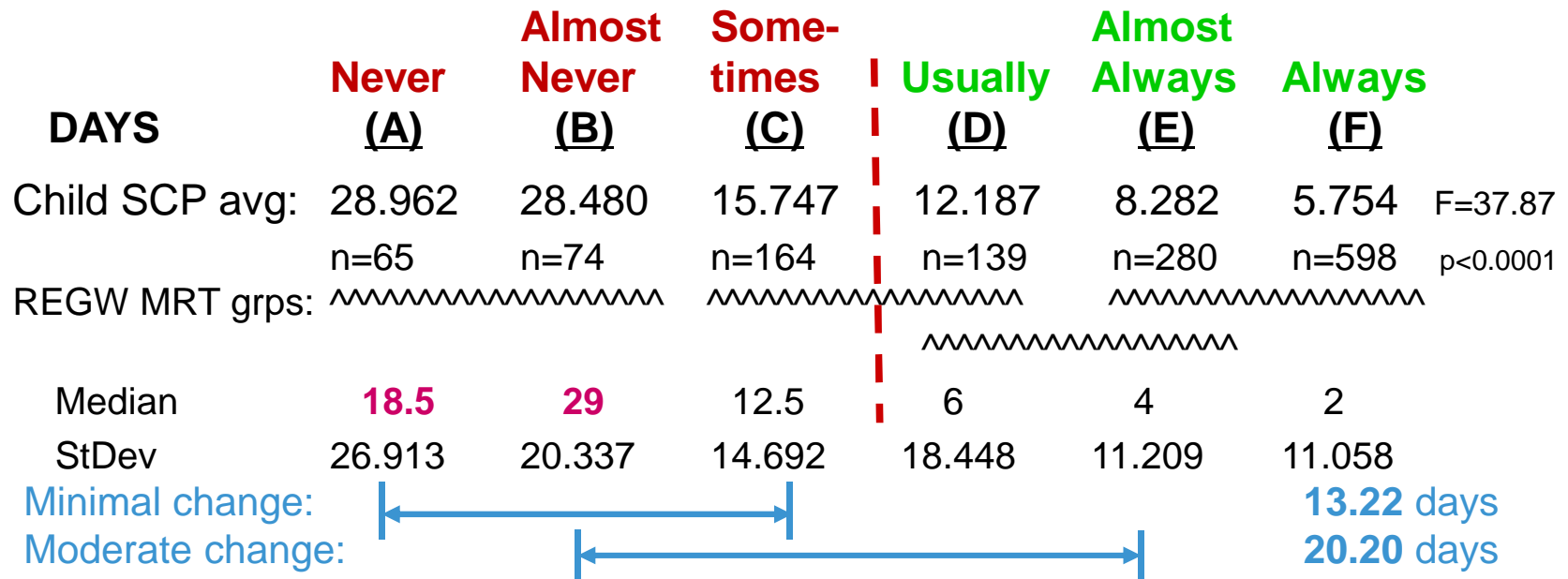
- Change needed to move lowest raters (23%): 13 to 20 days.
- *Threshold: Focus on specialists with average wait of 13+ days.*



Adult/Child: ~“In the last 12 months, when you tried to make an appt. to see a specialist, how often did you get an appt. as soon as needed?”

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GOT ANY CARE FROM SCP “AS SOON AS NEEDED”



Green: Favorable score. **Red:** Unfavorable score. **Ruby:** Out of numeric order – unexplained.

F test (Welch, 1951) used due to unequal sample sizes. Group comparisons: REGW Q Multiple Range Test.

HOV failed (Levene $F p \leq 0.05$): ANOVA may be too liberal. StDev throughout are from unrestricted superset.

Discordant cases not removed: Wait days of “0” common at all levels of scale variable.

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Specialist Access Time – Salvaging Non-Parallel Questions



- The study used archival data from a modified PAS 2011 survey instrument (deemed by AHRQ to be equivalent to CG CAHPS 2.0).
- PAS 2011 PCP instrument had the following Getting Needed Care core questions:
 - How often got routine care as soon as needed (QAP09).
 - How often got care needed right away, as soon as needed (QAP07).
- PAS 2011 SCP instrument had a similar question, but did not differentiate between routine and urgent care:
 - How often got care as soon as needed (QAS07).
- However, the numerical version of the wait day questions was added to both survey instruments (PCP and SCP) specific to specialists for routine and urgent appointments. As an imperfect solution, those wait days were used in the following slides to calculate thresholds for routine and urgent visits to specialists, for all levels of the CAHPS “word” question. A separate slide employs the average of the routine and urgent thresholds (realizing the risk of increasing heterogeneity).
- This illustrates the limitations of using archival data from surveys designed for other purposes, and methods to extract usable data.

Perceived Wait Days For Demographic Groups

- Access varies by demographic. Results reflect network capacity by region and product line, adapted to Medicaid assignment rules.



Average days:	ADULT		ADULT	CHILD		CHILD	
	PCP	PCP	SCP	PCP	PCP	SCP	
	<u>Routine</u>	<u>Urgent</u>	<u>AnyVisit</u>	<u>Routine</u>	<u>Urgent</u>	<u>AnyVisit</u>	
Age: 56+	7.57	2.76	9.65	Age: 12 to 17.9	4.02	5.34	8.97
Age: 36-55.9	4.84	3.37	9.87	Age: 7 to 11.9	4.16	4.82	12.07
Age: 18 to 35.9	3.77	2.54	7.84	Age: 0 to 6.9	3.55	3.79	10.53
Gender: Male	4.94	2.26	9.38		3.58	4.09	10.37
Gender: Female	4.89	3.20	9.15		3.98	4.61	10.64
Race: White	6.20	3.44	11.06		4.61	1.10	8.50
Race: Hispanic	4.21	2.76	8.75		3.64	4.91	10.81*
Race: Black	7.60	4.45	10.23		5.40	1.85	7.33
Race: Asian/Other	4.10	2.27	7.97		3.56	1.80	10.83*

* = Likely non-significant only due to low sample size.

Bold = F test significant. **Green**: Significantly quicker access. **Red**: Significantly slower access.

F test (Welch, 1951) used due to unequal sample sizes. Group comparisons: REGW Q MRT.

HOV failed (Levene $F p <= 0.05$): ANOVA may be too liberal. Table reports raw data -- not adjusted for zero-wait-day cases.

Wait days of "0" are present for all categories of this Likert variable.

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Discussion

The analysis met its main objective: Identifying an orderly set of thresholds from which intervention targets can be set for appointment access time.

- One-way ANOVA shows some significant differences, despite wide variation in wait day ranges.
- Some means deviate from the expected order vis-à-vis the word measure.
 - “Sometimes Never” respondents sometimes reported longer wait days than “Never” respondents did. The removal of discordant zero-wait-day cases eliminates those inconsistencies, but incurs the obligation to identify the cause and test revisions of the questions that work for respondents with limited English proficiency or exposure to measurement.
 - Day count is inherently imprecise: How many visits? But the “Never”/“Sometimes”/“Usually”/“Always” measure is equally imprecise.
 - The issue might be that different groups rate the same delays more generously. (Break-out by disability status may sort it out. That may also reduce the Levene’s Test HOV problem.)
- Ideal would be to track actual wait times through clinic data – but hard to do.
 - But even that misses the point: Perception of how long is “too long” differs widely.
- The approach needs additional work on a strategy to address outliers.
 - Problem: Might be some confusion of “referrals denied” versus actual long waits. Revise the question to only count appointments they actually got? But the CAHPS question makes no such exclusion.
 - Outliers might be people whose services were denied authorization.



VII. Recap of Learning Objectives

1. Describe the principal barrier to using patients' self-reported measures of access delays from common surveys of service quality, for root cause analysis in quality improvement.

Main barrier: CAHPS questions on wait time are framed as subjective ratings, using words:

~“In the past XX months, when you needed care, how often did you get care *as soon as you needed?*”

4-point scale: Never Sometimes Usually Always

6-point scale: Never Almost Never Sometimes Usually Almost Always Always

Obtaining less subjective measures in days helps reconcile inter-patient differences as to “how soon is ‘soon’”.

Main limitation in both approaches remains:

- Member recall and ability to average across visits is likely imperfect, and the meaning of “as soon as you needed” remains subjective.
- But at least the measure is put into an objective metric -- “days” – removing inter-patient differences in the semantics.



Recap of Learning Objectives (Cont.)

2. Explain two systemic reasons why reported access times for adults may differ from reported times for pediatric patients.
 1. *Authenticity*: The respondent in an adult survey is generally the patient him/herself. The respondent in a pediatric survey is generally not the patient. Although parents/guardians presumably value their children's care, and do so in a more informed way than their children (except in cases involving direct pain) -- the parents are still not the patient receiving the care.
 2. *Provider networks*: Adults (including the elderly, and not necessarily all the parents of children in the health plan) versus children frequently use different networks. Adult respondents on CAHPS include the elderly and disabled, and are not solely the parents rating the health plan on behalf of their children.



Recap of Learning Objectives (Cont.)

3. Identify thresholds (wait days) for routine care, above which Medicaid patients deemed delay to be excessive.

The threshold between favorable and unfavorable ratings for routine PCP visits on CAHPS falls at 6+ days of wait for adults, and 5+ days for children. SCP visits for adults 11+ days; 15+ days for children.

4. Identify thresholds (wait days) for urgent care, above which Medicaid patients deemed delay to be excessive.

The threshold between favorable and unfavorable ratings for PCP care “needed right away” by adult Medicaid members in the health plan, is 4+ days. The threshold for pediatric patients falls just above 1 day. 9+ days for adult SCP visits; 11+ days for child visits to SCPs.

Medicaid health plans with networks previously designed for AFDC / TANF populations, are increasingly being drawn into Medicare to serve dual-eligible members, who increasingly include patients with disabilities, who are coming from fee-for-service coverage. This means adapting networks to serve the two diverse age groups, and meeting needs for specialist services.

For NCQA Accreditation, Medicaid health plans are allowed to specify which survey (adult or child) will be used for Accreditation scoring. In this present population, the Child survey draws the best scores, and also has the smallest performance gap to close in wait days. However, the adult population often includes Medicare Advantage and/or dually-eligible Medicare patients for whom access is scored in Medicare Star Ratings. Addressing adult and child needs differently is a necessity.



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Recap of Learning Objectives (Cont.)



5. Analyze the association between wait time and health care organizations' performance on two CAHPS measures of service quality.

The proposed measures of absolute wait days are reasonably associated with the two component measures that make up the CAHPS "Getting Needed Care" composite used in NCQA Accreditation scoring and CMS Star Ratings.

6. Compare differences in access delay between different demographics (gender, age, and ethnicity), to assess disparities.

Gender: For specialist visits (routine or urgent), wait days reported by adult females were a day longer than those reported by adult males. No other gender disparities were detected.

Adults of age 56+ reported noticeably longer waits for routine care than the waits reported by other adults. Disability status is likely the factor mediating that disparity.

Somewhat longer waits for urgent visits with PCPs were reported for children 12+ than for the youngest children. For specialist visits of any sort, noticeably longer waits were reported for children aged 7 to 11.9 than for adolescents or the youngest children.

Although children are not particularly heavy users of specialist services, the finding suggests that this demographic needs particular focus.

Recap of Learning Objectives (Cont.)



6. Compare differences in access delay between different demographics (gender, age, and ethnicity), to assess disparities. (Cont.)

Ethnicity: For routine PCP visits, adult black and white patients reported significantly longer wait times than were reported by Hispanic or Asian adults. With larger samples, the same would likely have been true for any pediatric specialist visit. Black patients reported somewhat longer delays for urgent PCP visits than other groups.

Adult white patients reported longer waits for specialist visits (routine or urgent).

Black children waited somewhat longer for routine PCP visits; while Hispanic children waited noticeably longer for urgent PCP visits.

7. Compare differences in how different demographics (by gender, age, and ethnicity) rate service quality, for the same lengths of delay in access.

Parents appeared to require faster service for their children, than adults did in general. Other demographic analysis was tabled in light of the issue addressed in Appendix A, which reports analysis of discordant responses, where responses on timeliness of care appeared to contradict the same members' responses about the actual days waited for that care. Non-English speaking respondents gave more discordant responses, suggesting the need for refinements of the measurement questions for populations with limited English proficiency, or familiarity with mathematically-based questions.

Recap of Learning Objectives (Cont.)

8. Discuss one method for using the analysis to address patients' expectations about the timeliness of care.

Profile groups with the least realistic expectations about time of access, and use targeted messages:

- a. *Patient education:* Use findings to guide messaging in mailers, newsletters and literature on benefits. Instruct members about what situations actually are clinical emergencies; and about how to use different venues for care (nurse advice lines, urgent care, emergency rooms).
- b. *Provider education:* Instruction to doctors through trainings, mailers and newsletters, on how to guide members' understanding of urgent-vs-non-urgent needs, and expectations about timely access.

It is also valid to change clinicians' and clinic staffs' perceptions about what is possible in reducing wait times:

- c. *Educating clinic staff and administrators:* Calendaring and management of doctors' time, to minimize wait time; giving patients accurate information about appointment availability; and providing update options on queue length.
- d. *Benefit cost analysis:* Wherever average expectations aren't far from the current performance of clinics, calculate net value of longer operating hours for clinics serving concentrations of groups recalling long wait times.



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VII. Practical Uses of the Methodological Findings

When subjective measures of timely access are replicated numerically as days-of-wait, assessing whether patients' expectations are clinically reasonable or not becomes feasible:

- Knowing patients' expectations provides context for health education messaging.
- Knowing the thresholds at which delays trigger negative ratings, gives administrators a way to calculate the cost of reducing delays to meet patient's expectations:
 - May help serve patients better.
 - May get better accreditation scores and Medicare revenue for improving service.

If approached through reductions in actual wait days, both the objective and subjective measures should show improvement. If approached through educating patients' expectations, then only the subjective measure should change (as patients' change definitions of getting care "as soon as needed").

- Address patients' expectations cautiously, since some patients' tendency is to delay getting care until health is harmed and high-cost treatment is necessary.
- Other implications are discussed: Demographic groups' differences in assessing delay; impact on missed visits; impact on inappropriate ER use.

Initial analyses indicate the numeric measures have low reliability – likely related to semantics for LEP respondents. Initial sociometric analysis found that the urgent care wait days had more instability than routine care wait days in this network.



IX. Actionability: Opportunities Going Forward – Potential Actions By Process Owners



Consider that this research has only identified a more usable measure for the dependent variable of interest: delays in access.

- The next logical step is thorough problem formulation. Is the problem one of patients' perceptions, or insufficient staffing, or inadequate management of clinic operations?
- Those are candidate theories for root cause analysis.
- When solutions are found, the present research may help in targeting.
 - Some clinical initiatives can be targeted by gender or age cluster.
 - If the problem is multi-faceted, mixed solutions generally work best.
 - Ethnicity is more likely a target for patient education, or for geographical analysis to identify clusters with poor access.
- For educating patients on reasonable expectations as to the speed of access for different types of visits or services, any department owning a touch-point with a member, can be an asset.
- For resourcing clinics to improve access by expanding staff or hours, Provider Contracting is the likely route.

Actionability (Cont.)

This research identified a more usable measure for the dependent variable of interest: delays in access.

- The next logical step is thorough problem formulation.
- Is the problem one of patients' perceptions, or insufficient staffing, or inadequate management of clinic operations?
Those are candidate theories for root cause analysis.
- When solutions are found, the present research may help in targeting those:
 - Some clinical initiatives can be targeted by gender or age cluster.
 - If the problem is multi-faceted, mixed solutions generally work best.
 - Language groups are naturally targetable for patient education.
 - Some targeting can be done geographically, particularly in catchment areas around family resource centers.
 - Analysis can also identify geographic clusters with poor access.
- For educating patients on reasonable expectations as to the speed of access for different types of visits or services, any department owning a touch-point with a member, can be an asset.
- For resourcing clinics to improve access by expanding staff or hours, Provider Contracting is likely the most direct route for intervention.



Appendix A. Discordance Between Numeric Measures of Timely Access and Word Measures of the Same Constructs



Some patients reported typically getting same-day appointments:

- Plausible for those reporting getting care quickly in CAHPS core.
- Improbable for those reporting slow care in CAHPS core questions.
- In this study, the latter cases are flagged as *discordant*. Either:
 - (a) Respondents either didn't understand the wording of the question;
 - or (b) They were hesitant to express dissatisfaction.

The following slides present the results in two ways:

- Demographics of discordant cases.
- Wait times with zero wait-day cases intact.
- Wait days with discordant zero wait-day cases removed.

These cases are from CG CAHPS, so are patients who had at least one visit in the year, hence can't reflect those who tried and got no appointment on record.

The next slides examine certain properties of these numeric and word measures.

Discordance in Measures – (Continued)

Responses were deemed discordant for a given appointment type if:
 (a) Patient reports “Never”, “Almost Never”, or “Sometimes” getting timely service.
 and (b) patient reports typical wait days of “0” for the same type of appointment.



	<u>Adult</u>	<u>Child</u>
Discordant (reported slow care, but reported zero days waited):		
PCP Routine Appt.:	6.23% of cases	7.98% of cases
PCP Urgent Appt.:	9.04%	14.34%
Specialist (Any Appt.):	3.27%	4.17%

<-SCP rate is lowest ->

Suggests caution in using the measures: semantics / language / numeracy issues.

Responses can also be discordant on the positive end of the scale:

(a) Patient reports “Usually”, “Almost Always”, or “Always” getting timely service.
 and (b) typical waits >2 days for urgent care, or >60 days for routine care.

- The questions are worded for getting care “as soon as you needed”. Some patients deemed long waits to still be timely care. Clinical targets are generally much shorter than 60 days, but the higher threshold omits fewer possibly-valid responses from patients. No adjustment is made for this type of discordance in the present study. If used, this would raise the average wait days for favorable ratings and mis-state (underestimate) the gap to close between favorable and unfavorable responders.

Discordant (reported care “as soon as needed”, but perceived very long waits):

PCP Routine Appt.:	0.47% of cases	0.62%
PCP Urgent Appt.:	9.77%	3.30%
Specialist (Any Appt.):	27.26%	20.11%

<-SCP rate is highest ->

Numeric Measures Have Less Stable Meaning for LEP Populations

Discordant responders (negative despite zero wait days) were examined for association with demographics (age, language, ethnicity, disability).

Percent of cases discordant	Adult PCP	Child PCP	Adult PCP	Child PCP	Adult SCP	Child SCP	L.A. Care HEALTH PLAN®
	<u>Routine</u>	<u>Routine</u>	<u>Urgent</u>	<u>Urgent</u>	<u>AnyAppt</u>	<u>AnyAppt</u>	
Language:	p<0.0001	p<0.0001	p<0.0001	p<0.0001	p<0.0755		
• English	3.18%	2.39%	4.58%	6.08%	2.58%		
• Spanish	9.35%	10.38%	14.98%	18.48%	4.73%		Few child SCP cases.
• Other/Missing	8.54%	7.78%	10.00%	12.67%	2.78%		No discordant cases.
Ethnicity:	p<0.0001	p<0.0001	p<0.0001	p<0.0001	p<0.1293		
• White	0.96%	2.27%	3.55%	3.92%	1.64%		
• Hispanic	7.37%	8.80%	11.50%	15.71%	4.20%		Few child SCP cases.
• Black	2.17%	2.00%	2.21%	7.11%	2.24%		No discordant cases.
• Asian/Other	9.90%	7.03%	11.32%	12.54%	3.13%		
Aid Code:	p<0.0079	p<0.4099	p<0.1321	p<0.5449	p<0.0006		
• Aged:	2.56%	No cases	8.22%	No cases	1.52%		
• Blind:	11.11%	No cases	0.00%	0.00%	0.00%		Few child SCP cases.
• Disabled:	2.94%	9.63%	5.85%	12.24%	0.30%		No discordant cases.
• Non-ABD:	7.02%	7.93%	9.75%	14.41%	4.11%		

Discordance scores suggests the numeric questions may need a different approach for low English proficiency (LEP) patients due to semantic or innumeracy barriers. Findings for Aid Code provide indirect support. Child/Hispanic patients had the most systematic discordance.

Fisher's Exact Test (FET). Faded are non-signif. **Bold** is most or least discordant categ. (cell X²) in its color. **Red** = population leans discordant. **Green** = population leans non-discordant. FET: ok for small cells (Blind).

Results by Group: Lower Expectations or Less Extreme Reporting?

Positive responders (deemed care timely, despite long waits) follow.
 Thresholds (routine=60 day, urgent=2 day) define extreme cases:



Percent of cases discordant	Adult PCP Routine	Child PCP Routine	Adult PCP Urgent	Child PCP Urgent	Adult SCP AnyAppt	Child SCP AnyAppt
Language:	p<0.7545	p<0.0746	p<0.0009	p<0.0519	p<0.0627	
• English	0.38%	0.31%	11.60%	4.05%	29.18%	
• Spanish	0.51%	0.76%	6.52%	3.03%	23.64%	Few child SCP cases.
• Other/Missing	0.63%	0.60%	11.29%	2.16%	27.78%	No discordant cases.
Ethnicity:	p<0.7519	p<0.6308	p<0.0002	p<0.0790	p<0.2001	
• White	0.64%	0.32%	12.26%	3.61%	29.61%	
• Hispanic	0.43%	0.69%	7.12%	3.07%	25.00%	Few child SCP cases.
• Black	0.72%	0.50%	13.28%	5.39%	29.85%	No discordant cases.
• Asian/Other	0.25%	0.19%	12.89%	3.76%	29.06%	
Aid Code:	p<0.1782	p<0.6315	p<0.0245	p<0.1806	p<0.0039	
• Aged:	0.00%	[None]	17.81%	[None]	30.30%	
• Blind:	0.00%	[None]	28.57%	[None]	57.14%	Few child SCP cases.
• Disabled:	1.18%	0.00%	10.77%	5.10%	33.73%	No discordant cases.
• Non-ABD:	0.35%	0.64%	9.14%	3.25%	25.35%	

Groups' responses reversed at the positive end of the "days" vs "expectations" comparison: Spanish language and Hispanic respondents who reported favorable access, were less likely to report extreme waits than white or black respondents who reported favorable access.

Fisher's Exact Test (FET). Faded are non-signif. **Bold** is most or least discordant categ. (cell X²) in its color. **Red** = population leans discordant. **Green** = population leans non-discordant. FET: ok for small cells (Blind).

Discordance in Measures – Discussion

Bivariate analysis revealed noticeable discordance at the low end of the comparison -- (patients who said they didn't get care as soon as they needed, but who reported zero wait days).

That type of discordance most impacts CAHPS scores, and appears associated with language and ethnicity, and may reflect linguistic and numeracy issues in using questions which ask numeric measures to calibrate the CAHPS questions on access delays. Different forms of the questions, and separate modeling are two possible strategies. [The problem is addressed below by running estimates both ways \(with the discordant cases present, and then removed\).](#)

Discordance was also noted at the high end of the comparison: Patients who said they got care as soon as they needed, yet reported wait times in excess of California standards (2 days for urgent care, and 30 days for routine care). Spanish-speaking patients, and patients with Hispanic ethnicity, were less likely to report extreme waits. Asian/Other patients provided mixed support. Adult and Child samples were consistent.

Discordance among favorable responses, does not impact CAHPS scores, but may impact the quality and reliability of the numeric questions as estimators for calculating targets to improve CAHPS performance. [The likely impact is to inflate the estimates of reduce delay needed to move CAHPS measures of wait time.](#)

For future use, analysis of outliers may suggest appropriate screening questions (e.g. for cases where authorizations were ultimately denied rather than delayed).

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Discordance in Measures – Summary

As noted earlier, discordance in negative responses on access delays, raises two concerns about the accuracy of the responses:

- Are members not understanding the numeric question?
(The “word” question is on the CAHPS core and has passed sociometric testing nationally. Although that doesn’t guarantee reliability for a specific population, it puts the suspicion on the numeric question being tested in this research.)
- Are members reluctant to answer the numeric question due to its specificity?
- It is odd that discordance is lowest for SCPs. (Proxy effect for language/ethnicity?)



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Discordance in positive responses is less a concern, because the respondent indicates a form of satisfaction, and the inconsistent response doesn’t factor into CAHPS scores.

It might seem simplest to exclude discordant scores – but they are a small enough subset, that the information they imply, is likely worthwhile.

Discordance in negative responses appears to be demographic, and the respondents are in vulnerable groups. Discordance in positive responses may still reflect long wait times that pose a risk to the respondent’s health, or a risk to other members.

To the extent that the scores reflect perceptions about wait time, it is important to engage the response data at face value; to either refine the questions; elicit more accurate responses; reduce actual wait times; or lastly educate patients’ perceptions about what delays balance clinical necessity with societal affordability.

Even anomalous wait time data are deemed useful until variability in access is explained.

Appendix B. Wait Day Thresholds Prior to Removal of Discordant Cases



Removing of discordant cases at the negative end of the scale improved the properties of the wait day measures by removing noise.

The following slides are parallel to the results in the body of the paper, showing the results prior to removal of those cases. They are presented here mainly for transparency and completeness.

The raw results which follow, likely understate the threshold wait days required to improve the CAHPS scores for Getting Needed Care. The adjusted measures that appear in the body of the briefing contain the more reliably interpretable thresholds.

Wait Days For Routine Care From PCP – ADULT

- Change needed to move lowest raters (22%): 7 to 11 days.
- Meaning of “as soon as needed” is noisiest at the low end.



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Adult/Child: “In the last 12 months, when you made an appointment for a check-up or routine care with this doctor, how often did you get an appointment as soon as you needed?”

GOT ROUTINE CARE FROM PCP “AS SOON AS NEEDED”

DAYS	Never (A)	Almost Never (B)	Some- times (C)	Usually (D)	Almost Always (E)	Always (F)	
Adult PCP avg:	11.077	15.386	7.811	5.564	4.859	2.784	F=15.96
	n=65	n=70	n=301	n=250	n=334	n=934	p<0.0001
REGW MRT grps:	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
Median	3	7	3	2	2	0	
StDev	18.545	20.658	13.740	10.883	10.814	8.446	
Minimal change:							7.58 days
Moderate change:							10.53 days

Green: Favorable score. **Red:** Unfavorable score. **Ruby:** Out of numeric order due to discordant zero-wait-day cases. F test (Welch, 1951) used due to unequal sample sizes. Group comparisons: Using Ryan-Einot-Gabriel-Welsch Multiple Range Tests (REGW Q MRT which is somewhat more robust against Type II errors. *HOV failed (Levene F p<=0.05): ANOVA may be too liberal. **Discordant cases not removed: Wait days of “0” common at all levels of scale variable.***

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Wait Days For Routine Care From PCP – CHILD

- Change needed to move lowest raters (21%): 5 to 7 days.
- Meaning of “as soon as needed” is noisiest at the low end.



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Adult/Child: “In the last 12 months, when you made an appointment for a check-up or routine care with this doctor, how often did you get an appointment as soon as you needed?”

GOT ROUTINE CARE FROM PCP “AS SOON AS NEEDED”

DAYS	Never	Almost Never	Some- times	Usually	Almost Always	Always	F
	(A)	(B)	(C)	(D)	(E)	(F)	
Child PCP avg:	10.626	10.233	5.805	4.949	3.091	2.114	F=14.68
	n=182	n=245	n=893	n=590	n=1,141	n=3,319	p<0.0001
REGW MRT grps:	~~~~~		~~~~~		~~~~~		
Median	0	3	1	1	1	0	
StDev	21.956	18.332	13.230	12.048	9.271	8.576	
Minimal change:	←—————→						4.82 days
Moderate change:	←—————→						7.14 days

Green: Favorable score. **Red:** Unfavorable score. **Ruby:** Out of numeric order due to discordant zero-wait-day cases. F test (Welch, 1951) used due to unequal sample sizes. Group comparisons: REGW Q Multiple Range Test. HOV failed (Levene $F p \geq 0.05$): ANOVA may be too liberal. StDev throughout are from unrestricted superset. **Discordant cases not removed: Wait days of “0” common at all levels of scale variable.**

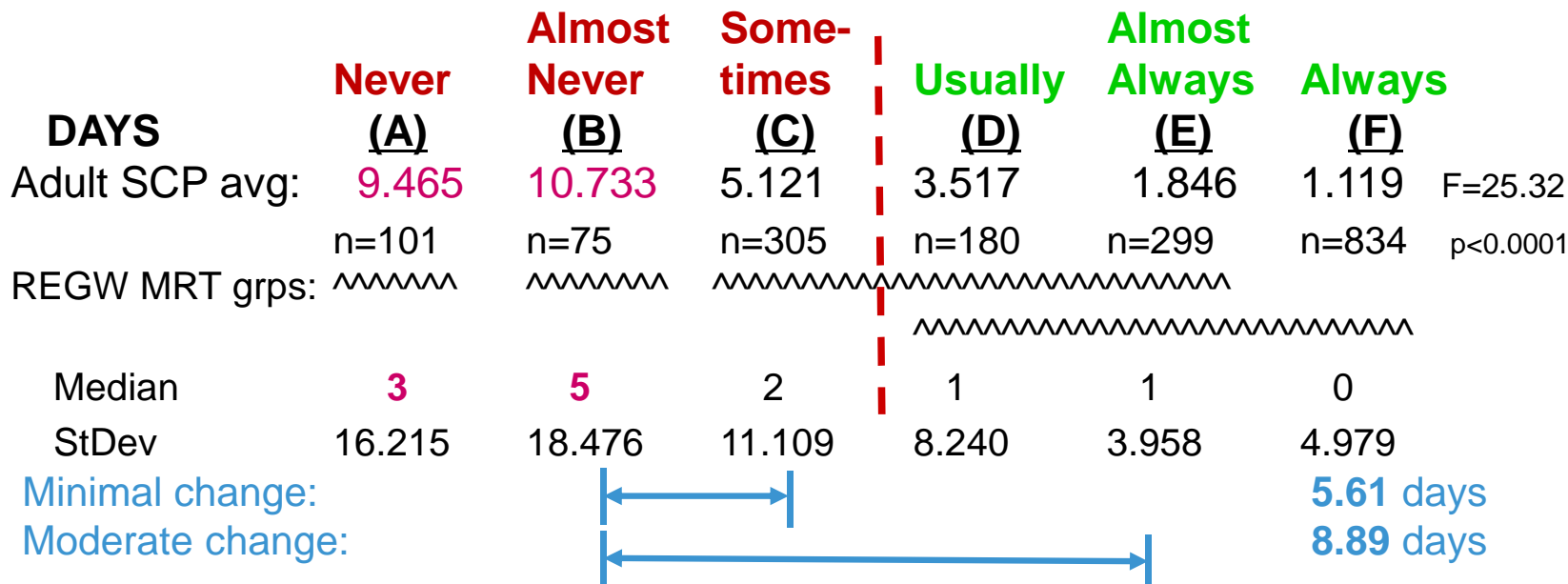
Wait Days For Urgent Service From PCP – ADULT

- Change needed to move lowest raters (27%): 5 to 9 days.
- Meaning of “as soon as needed” is noisiest at the low end.



Adult/Child: ~“In the last 12 months, when you called this doctor’s office to get an appt. for care [you / your child] needed right away, how often did you get an appt. as soon as you needed?”

GOT URGENT CARE FROM PCP “AS SOON AS NEEDED”



Green: Favorable score. **Red:** Unfavorable score. **Ruby:** Out of numeric order due to discordant zero-wait-day cases.
 F test (Welch, 1951) used due to unequal sample sizes. Group comparisons: REGW Q Multiple Range Test.
 HOV failed (Levene $F_{p<=0.05}$): ANOVA may be too liberal. StDev throughout are from unrestricted superset.
Discordant cases not removed: Wait days of “0” common at all levels of scale variable.

Wait Days For Urgent Service From PCP – CHILD

- Change needed to move lowest raters (28%): 1 to 3 days.
- Meaning of “as soon as needed” is noisiest at the low end.



Adult/Child: ~“In the last 12 months, when you called this doctor’s office to get an appt. for care [you / your child] needed right away, how often did you get an appt. as soon as you needed?”

GOT URGENT CARE FROM PCP “AS SOON AS NEEDED”

DAYS	Never	Almost Never	Some- times	Usually	Almost Always	Always	
	(A)	(B)	(C)	(D)	(E)	(F)	
Child SCP avg:	4.129	3.734	2.571	1.266	1.235	0.694	F=16.33
	n=342	n=301	n=1,041*	n=428	n=1,003	n=2,975	p<0.0001
REGW MRT grps:	~~~~~		~~~~~	~~~~~			
Median	0	0	0	0	0	0	
StDev	12.443	11.551	8.824	3.805	6.384	5.584	
Minimal change:	←—————→						1.56 days
Moderate change:	←—————→						2.50 days

Green: Favorable score. **Red:** Unfavorable score. **Ruby:** Out of numeric order due to discordant zero-wait-day cases. F test (Welch, 1951) used due to unequal sample sizes. Group comparisons: REGW Q Multiple Range Test. HOV failed (Levene $F p \leq 0.05$): ANOVA may be too liberal. **Discordant cases not removed: Wait days of “0” common at all levels of scale variable.** *Cluster at “Sometimes” are largely zero-wait-day cases, and remain unexplained.

Wait Days For Routine Care From SCP – ADULT

- Change needed to move lowest raters (26%): 7 to 11 days.
- Duration for routine care vs timely care for any visit (routine/urgent).



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Adult/Child: ~“In the last 12 months, when you tried to make an appt. to see a specialist, how often did you get an appt. as soon as needed?”

GOT ANY CARE FROM SCP “AS SOON AS NEEDED”

DAYS	Never (A)	Almost Never (B)	Some- times (C)	Usually (D)	Almost Always (E)	Always (F)	
Adult PCP avg:	24.627	19.988	13.708	10.625	10.026	6.016	F=28.75
	n=67	n=84	n=233	n=224	n=273	n=623	p<0.0001
REGW MRT grps:	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
Median	20	15	8	7	7	3	
StDev	22.793	18.829	15.469	13.756	12.134	9.268	
Minimal change:	←—————→						10.92 days
Moderate change:	←—————→						6.70 days

Green: Favorable score. **Red:** Unfavorable score. **Ruby:** Out of numeric order due to discordant zero-wait-day cases. F test (Welch, 1951) used due to unequal sample sizes. Group comparisons: Using Ryan-Einot-Gabriel-Welsch Multiple Range Tests (REGW Q MRT which is somewhat more robust against Type II errors. *HOV failed (Levene F p<=0.05):* ANOVA may be too liberal. StDev throughout are from unrestricted superset.

Discordant cases not removed: Wait days of “0” common at all levels of scale variable.

Wait Days For Routine Care From SCP – CHILD

- Change needed to move lowest raters (27%): 12 to 16 days.
- Meaning of “as soon as needed” is noisiest at the low end.



Adult/Child: ~“In the last 12 months, when you tried to make an appt. to see a specialist, how often did you get an appt. as soon as needed?”

GOT ANY CARE FROM SCP “AS SOON AS NEEDED”

DAYS	Never	Almost Never	Some- times	Usually	Almost Always	Always	
	(A)	(B)	(C)	(D)	(E)	(F)	
Child PCP avg:	27.144	25.875	15.021	14.690	9.784	6.732	F=30.34
	n=90	n=88	n=234	n=155	n=310	n=641	p<0.0001
REGW MRT grps:	~~~~~		~~~~~		~~~~~		
Median	16.5	26.5	8	7	5	3	
StDev	28.422	21.953	17.938	19.704	12.852	12.304	
Minimal change:	←————→						12.12 days
Moderate change:	←————→		←————→				16.09 days

Green: Favorable score. **Red:** Unfavorable score.
 F test (Welch, 1951) used due to unequal sample sizes. Group comparisons: REGW Q Multiple Range Test.
 HOV failed (Levene $F p \geq 0.05$): ANOVA may be too liberal. StDev throughout are from unrestricted superset.
Discordant cases not removed: Wait days of “0” common at all levels of scale variable.

Wait Days For Urgent Service From SCP – ADULT

- Change needed to move lowest raters (27%): 13 to 17 days.
- Wait for urgent service vs timely care for any visit (routine/urgent).
- *Threshold: Focus on specialists with average wait of 9+ days.*



L.A. Care
HEALTH PLAN

Adult/Child: ~“In the last 12 months, when you tried to make an appt. to see a specialist, how often did you get an appt. as soon as needed?”

GOT ANY CARE FROM SCP “AS SOON AS NEEDED”

	Never (A)	Almost Never (B)	Some-times (C)	Usually (D)	Almost Always (E)	Always (F)	
Adult SCP avg:	23.986	18.413	10.579	8.407	7.217	4.539	F=26.52
	n=72	n=80	n=214	n=199	n=221	n=551	p<0.0001
REGW MRT grps:	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
Median	21	11.5	7	5	3	2	
StDev	22.351	20.069	11.498	11.596	11.362	8.641	
Minimal change:	←—————→						13.41 days
Moderate change:	←—————→						16.77 days

Green: Favorable score. **Red:** Unfavorable score.

F test (Welch, 1951) used due to unequal sample sizes. Group comparisons: REGW Q Multiple Range Test.

HOV failed (Levene $F_{p<=0.05}$): ANOVA may be too liberal. StDev throughout are from unrestricted superset.

Discordant cases not removed: Wait days of “0” common at all levels of scale variable.

For a Healthy Life

Gauging Patience of Patients Using CAHPS: How Patients Measure Timeliness Of Care

Wait Days For Urgent Service From SCP – CHILD

- Change needed to move lowest raters (29%): 10 to 12 days.
- Meaning of “as soon as needed” is noisiest at the low end.



L.A. Care
HEALTH PLAN

Adult/Child: ~“In the last 12 months, when you tried to make an appt. to see a specialist, how often did you get an appt. as soon as needed?”

GOT ANY CARE FROM SCP “AS SOON AS NEEDED”

DAYS	Never	Almost	Some-	Usually	Almost	Always	F=23.68 p<0.0001
	(A)	Never (B)	times (C)	(D)	Always (E)	(F)	
Child SCP avg:	24.978	22.059	11.053	10.490	7.101	4.943	
	n=92	n=101	n=243	n=151	n=296	n=634	
REGW MRT grps:	~~~~~		~~~~~		~~~~~		
Median	10	19	7	4	3	1	
StDev	28.436	24.442	14.578	18.427	12.111	12.319	
Minimal change:						9.86 days	
Moderate change:						12.33 days	

Green: Favorable score. **Red:** Unfavorable score. **Ruby:** Out of numeric order due to discordant zero-wait-day cases.

F test (Welch, 1951) used due to unequal sample sizes. Group comparisons: REGW Q Multiple Range Test.

HOV failed (Levene $F p <= 0.05$): ANOVA may be too liberal. StDev throughout are from unrestricted superset.

Discordant cases not removed: Wait days of “0” common at all levels of scale variable.

Wait Days (Routine & Urgent Averaged) From SCP – ADULT

- Change needed to move lowest raters (27%): 11 to 13 days.
- Combining the measures increases variance, reducing precision.
- *Threshold: Focus on specialists with average wait of 10+ days.*



L.A. Care
HEALTH PLAN

Adult/Child: ~“In the last 12 months, when you tried to make an appt. to see a specialist, how often did you get an appt. as soon as needed?”

GOT ANY CARE FROM SCP “AS SOON AS NEEDED”

DAYS	Never	Almost	Some-	Usually	Almost	Always	
	(A)	Never	times	(D)	Always	(F)	
	(A)	(B)	(C)	(D)	(E)	(F)	
Child SCP avg:	24.733	19.660	11.265	9.147	8.509	5.445	F=24.11
	n=58	n=75	n=204	n=187	n=212	n=525	p<0.0001
REGW MRT grps:	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
Median	20	14	7.5	7	4.75	2	
StDev	22.186	19.283	10.841	10.752	10.952	9.127	
Minimal change:	←-----→						13.47 days
Moderate change:	←-----→						11.15 days

Green: Favorable score. **Red:** Unfavorable score.

F test (Welch, 1951) used due to unequal sample sizes. Group comparisons: REGW Q Multiple Range Test.

HOV failed (Levene $F p <= 0.05$): ANOVA may be too liberal. StDev throughout are from unrestricted superset.

Discordant cases not removed: Wait days of “0” common at all levels of scale variable.

For a **Healthy Life**

Gauging Patience of Patients Using CAHPS: How Patients Measure Timeliness Of Care

Wait Days (Routine & Urgent Averaged) From SCP – CHILD

- Change needed to move lowest raters (27%): 14 to 16 days.
- Meaning of “as soon as needed” is noisiest at the low end.



Adult/Child: ~“In the last 12 months, when you tried to make an appt. to see a specialist, how often did you get an appt. as soon as needed?”

L.A. Care
HEALTH PLAN

GOT ANY CARE FROM SCP “AS SOON AS NEEDED”

	Never (A)	Almost Never (B)	Some- times (C)		Usually (D)	Almost Always (E)	Always (F)	
Adult SCP avg:	26.313	24.448	12.520		12.187	8.282	5.754	F=29.79
	n=83	n=77	n=220		n=139	n=280	n=598	p<0.0001
REGW MRT grps:	~~~~~	~~~~~	~~~~~		~~~~~	~~~~~	~~~~~	
Median	15.5	25	7.5		6	4	2	
StDev	26.865	20.403	14.035		18.448	11.209	11.058	
Minimal change:	←—————→							13.79 days
Moderate change:	←—————→							16.17 days

Green: Favorable score. **Red:** Unfavorable score.

F test (Welch, 1951) used due to unequal sample sizes. Group comparisons: REGW Q Multiple Range Test.

HOV failed (Levene $F p <= 0.05$): ANOVA may be too liberal. StDev throughout are from unrestricted superset.

Discordant cases not removed: Wait days of “0” common at all levels of scale variable.

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Related APHA briefings:

Access delays and patients' adherence to well-care visit guidelines:

<https://apha.confex.com/apha/140am/webprogram/Paper269498.html>

Patients' attitudes on timely access and proper use of ERs, toward educating patients' choices and expectations about speed of access for routine care:

<https://apha.confex.com/apha/140am/webprogram/Paper269550.html>