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

Loosening CAHPS on Prescriptions: Surveying How Patients in a Large Urban Medicaid Health Plan Rate the Quality of Pharmacists' Instructions, 2007-2011

Session: **4137.0**
Section: **Public Health Education & Health Promotion**
Topic: **Pharmacists' Role in Health Education and Health Promotion**

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L.A. Care HEALTH PLAN®

Presenter Disclosures

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(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 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.

III. Emerging Role of Pharmacists as Providers and Health Educators.

IV. Using CAHPS Surveys to Assess Pharmacy Services.

V. Demographic Analysis for Insights About Problems to Target.

VI. Linking Quality of Pharmacist Instructions to Performance Measures that are Important to Administrators.

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I. Learning Objectives

1. Describe how patients rate pharmacists as sources of instruction.
2. Evaluate patients' ratings of the quality of pharmacist instructions.
3. Assess the impact of pharmacist instructions on the patient's overall rating of the quality of the health care they experience.
4. Design question sets on patient surveys to give actionable feedback to pharmacist networks.
5. Identify barriers that impair pharmacists' communication with patients at the pharmacy.

II. Background – L.A. Care Health Plan

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. Emerging Role of Pharmacists as Providers and Health Educators

Evolving and expanding role of pharmacists as healthcare providers:

- Example: Depending on the health system, a Warfarin regimen is is prescribed by an M.D., but the monitoring, management, patient interaction, dosage, and testing are determined and ordered by a PharmD.

Recognition of the role of pharmacists as health educators.

Measurement as a milestone: Development of a questionnaire begun in 2006 to assess the quality of pharmacy services by the Pharmacy Quality Alliance, and AHRQ's embrace of the concept in its CAHPS family of surveys.

https://www.cahps.ahrq.gov/content/CAHPSConnection/files/CAHPSConnectionVolume4Issue1.html#pqa

http://www.pqaalliance.org/files/Survey%20of%20Consumer%20Experience%20with%20Pharmacy%20Services.pdf

http://www.pqaalliance.org/files/PatientSatisfactionSurveywithNov20notes.doc

Health Plan CAHPS as an affordable monitoring tool: Health plans can track pharmacy performance by adding key questions to the Health Plan CAHPS survey. From 2006 forward, L.A. Care has added questions rating pharmacy services, barriers to pharmacy services, pharmacies used most often, and (since 2009) a rating of the quality of pharmacist instructions.

IV. Using CAHPS Survey to Assess Pharmacy Services

QA56m/QC82m. "For the following question, if [you have / your child has] more than one pharmacist or pharmacy, please rate the pharmacist or pharmacy that you go to most often for your prescription medicines. In the last 6 months, rate how well your pharmacist explained how to take prescription medicines."

( ) Excellent ( ) Very good ( ) Good ( ) Fair ( ) Poor

( ) I did not try to get a prescription or refill [__ / for my child] in the last 6 months."

Adults	Count	Percent	Parents	Count	Percent
Excellent	921	39.28%		1,351	38.52%
Very good	568	24.22%		912	26.01%
Good	598	25.50%		886	25.26%
Fair	206	8.78%		292	8.33%
Poor	52	2.22%		66	1.88%

Demographic analysis:

- As with most CAHPS measures, the measure leans toward positive ratings.
- Little observed difference between scores from parents and adults.
- *Focus on how these scores impact other measures of healthcare system performance.*

V. Demographic Analysis for Targeting Solutions to Improve Pharmacists' Communication with Patients

Analyzing member language as a potential confounder in rating pharmacists' instructions:

- Adults: Mixed relationship between member language (X^{**2}_{CMH} =19.8617, p=0.0005),[a] and ratings of pharmacist instructions. The effect is driven almost entirely by a significant relationship in 2011 (FET p<=.0008).[b] *For adults, the catch-all category -- "Other Language" -- disproportionately gives middle ratings.*
- Parents: Mixed relationship (X^{**2}_{CMH} =46.6025, p<.0001).[a,b] *For parents, English is positively associated with favorable ratings of pharmacist instructions, while Spanish is negatively associated.*
- Exploratory finding: The data suggest value in exploring patient language as a confounder. The finding correspond to a known solution: Telephonic interpreter access is available at no cost to pharmacists in L.A. Care's network – but busy staffs may be reluctant to pause and tie up a phone line to set up the call. We note this as a plausible subject for a small demonstration project to explore feasibility and cost-effectiveness.

[a] Tests: Fisher's exact test (FET) for individual years. Used Cochran-Mantel-Haenszel (X^{**2}_{CMH} at p<=0.05) to control effects of pooling survey years; Zelen's exact test when feasible or Breslow-Day test (p>0.05) for homogeneity of odds ratios across survey years, for measures that have 2x2 dimensions. Bonferroni correction applied for multiple comparisons.
[b] Exploratory evidence of effect for the barrier or rating. Significant in a subset of years or of borderline significance: FET p>0.05 p<0.12. The pharmacy questions are not well-powered, so in some years appear to show threshold effects when sample size and effect size are jointly sufficient to manifest a significant relationship.

Demographic Analysis -- Ethnicity

Ethnicity as a potential confounder of pharmacist communication.

- Mixed evidence on ethnicity and exchange of pharmacy instructions:
  - Adults' ethnicity is associated with ratings (X^{**2}_{CMH} =17.4518, p=0.0078).[a]
  - The statistic is driven by a significant relationship in 2010 (FET p=0.0473); a borderline relationship in 2011 (FET p=0.0611), and a weaker but similar pattern in 2009.[b] The analysis controls for "year" -- as a proxy for change in membership (driven by the economy), and differences in survey vendors.
  - 2010 and 2009 (FET a lackluster p=0.3729), manifest disproportionately fewer middle scores among black adults, offset by more respondents in the most negative category.
  - The *opposite* pattern held in 2011, where the offset for fewer-than-expected black respondents in the middle category, was observed *among the most positive scores*.
  - Further analysis may reveal if the relationship is mediated or confounded by other factors, such as coding errors by independent call centers (used to protect respondent anonymity). Contact to members by a disease management program (diabetes) after 2008 might also be mistakenly recalled as pharmacist advice.
  - What appears to be a contradiction, may be an effect. Logged as clues to a problem or as a guide to an intervention strategy focused on a small, targetable population.
  - Among parents no clear pattern emerged (X^{**2}_{CMH} =7.4364, p=0.2824).[a,b]

[a] Tests: Fisher's exact test (FET) for individual years. Used Cochran-Mantel-Haenszel (X^{**2}_{CMH} at p<=0.05) to control effects of pooling survey years; Zelen's exact test when feasible or Breslow-Day test (p>0.05) for homogeneity of odds ratios across survey years. Bonferroni correction calculated for multiple comparisons.

[b] Exploratory evidence of effect in a single year. Signif. in a subset of years, or of borderline signif.: FET p>0.05 p<0.12.

Demographic Analysis – Gender, Age

Gender:

- Little evidence that ratings of pharmacist instructions differ by gender:
  - Among adults, males gave significantly higher ratings than females – but only in one year (2009: FET p= 0.0407)[b] between 2006-2011, hence no persistent overall effect.
  - Among parents, more negative ratings were sometimes given for male children (2009: FET p=0.0319),[b] with no persistent overall effect.

Age or cohort:

- No discernable difference between ratings by adult members versus parents of Medicaid child members.

Next: Focus on how ratings of pharmacist instructions impact measures of healthcare system performance.

[a] Tests: Fisher's exact test (FET) for individual years. Used Cochran-Mantel-Haenszel (X^{**2}_{CMH} at p<=0.05) to control effects of pooling survey years; Zelen's exact test when feasible or Breslow-Day test (p>0.05) for homogeneity of odds ratios across survey years. Bonferroni correction calculated for multiple comparisons.
[b] Exploratory evidence of effect for the barrier or rating. Significant in a subset of years or of borderline significance: FET p>0.05 p<0.12.

VI. Linking Pharmacy Instructions to Measures of Performance that are Important to Administrators

Premise: To compete effectively for resources (staff, funds), health promotion benefits by linking its measures to indicators that impact organizational rankings, ratings, and revenue.

Health promotion in health plans:

- ***HEDIS – quality of clinical care:*** California: Medicaid managed care ties auto-assignment algorithm to route new members to health plans that perform better.
- ***CAHPS – quality of services:*** Some evidence that CAHPS measures are tied to member retention.
- ***Health Outcomes:*** Are better pharmacy instructions tied to patient adherence?
  - Are better pharmacy instructions tied to health outcomes through patient safety and adherence?

Health promotion in other settings:

- The same logic should hold: Better communication should mean better adherence, better outcomes, and better ratings as patients select doctors or clinics or medical groups, or hospitals for elective procedures and care.

Pharmacist Instructions May Lift Other Performance Measures

- Adults: Ratings of pharmacist instructions are strongly and positively associated with favorable ratings of pharmacy services:
  - Among adults, the relationship is highly significant (X^{**2}_{CMH}=514.1532, p<.0001).[a] The two questions (pharmacist instructions, and rating of pharmacy services) appear near each other in the survey, so the impression from one question might be carried over to the other. Counterpoint: The pharmacy services rating comes after an extensive matrix of negative questions about 14 potential barriers (wait time, crowding, etc.) to pharmacy services.
  - The same effect held among parents, (X^{**2}_{CMH}=647.3970 p<.0001),[a] and for each year in the set.
  - "Association" does not prove "causation," but it is logical to conclude that the quality of pharmacists' instructions is a strong contributor to the patient's rating of the pharmacy.

[a] Tests: Fisher's exact test (FET) for individual years. Used Cochran-Mantel-Haenszel (X^{**2}_{CMH} at p<=0.05) to control effects of pooling survey years; Zelen's exact test when feasible or Breslow-Day test (p>0.05) for homogeneity of odds ratios across survey years. Bonferroni correction calculated for multiple comparisons.
[b] Exploratory evidence of effect for the barrier or rating. Significant in a subset of years or of borderline significance: FET p>0.05 p<0.12.

Pharmacist Instructions May Lift Other Performance Measures

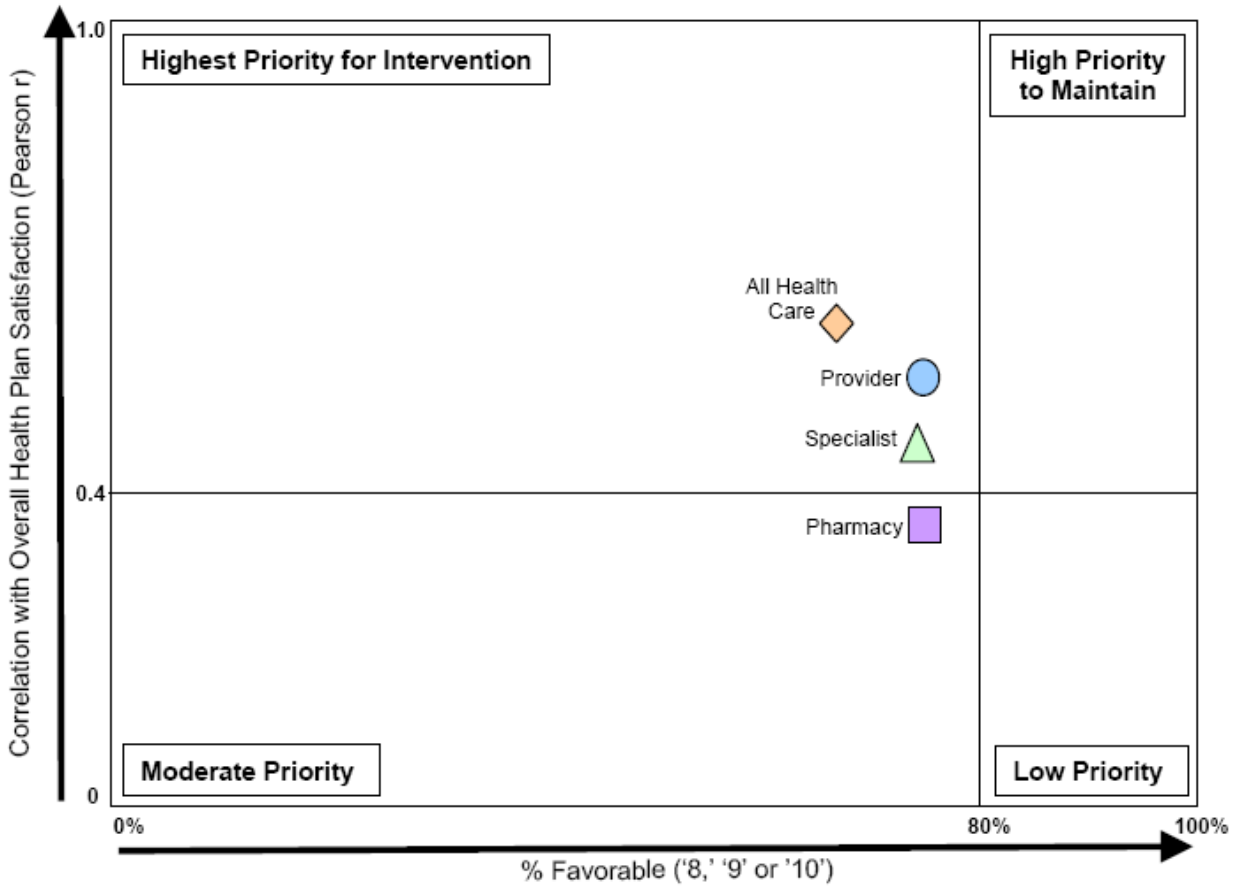
- Ratings of pharmacist instructions are positively associated with better ratings of health care used in NCQA Accreditation:
  - Among adults, the relationship is significant (X^{**2}_{CMH} = 41.7387, p<0.0001).[a] The effect is driven by a significant relationship in 2006 (FET p<=0007),[b] 2008 (FET p<=0.0325), 2009 (FET p<=0.0057); 2010 (FET p<=0.0006); and 2011 (FET p<=0.0072).
  - The same effect held among parents, (X^{**2}_{CMH}=49.6622 p<.0001),[a] but not significantly in all years between 2008 and 2011.
- Ratings of pharmacist instructions are positively associated with favorable health plan ratings used in NCQA Accreditation:
  - Among adults, the relationship is significant (X^{**2}_{CMH}=55.6400, p<.0001).[a] The effect is driven by significant relationships in 2006 (FET p<0.0001),[b] 2007 (FET p<=0.0163), 2010 (FET p<=0.0013); and 2011 (FET p<=0.0002); and non-significant but parallel patterns in 2008 and 2009.
  - Among parents, (X^{**2}_{CMH}=54.8291, p<.0001),[a] some years were significant, others not – but all exhibited positive alignment between the two measures.

[a] Tests: Fisher's exact test (FET) for individual years. Used Cochran-Mantel-Haenszel (X^{**2}_{CMH} at p<=0.05) to control effects of pooling survey years; Zelen's exact test when feasible or Breslow-Day test (p>0.05) for homogeneity of odds ratios across survey years. Bonferroni correction calculated for multiple comparisons (6).

[b] Exploratory evidence of effect for the barrier or rating. Significant in a subset of years or of borderline significance: FET p>0.05 p<0.12.

CAHPS 2010 Adult Ratings

- Provider measures are strong drivers of health plan ratings.
- Nevertheless, pharmacy rating (highly correlated with pharmacist Instructions) is a noticeable driver.
- CAHPS instrument core lacks key pharmacy performance measures.



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VII. Recap of Learning Objectives

1. Describe how patients rate pharmacists as sources of instruction on health literacy.

   Scores are heavily positive. Focus on negative responses for best insights. Pool across years to overcome low cell sizes due to members rarely responding negatively.

2. Evaluate patients' ratings of the quality of pharmacist instructions.

   A strong majority of Adults (63%) and parents of children (64%) rated the quality of instruction very favorably.

   Analysis by patient language suggests interpreter access may address one source of weak scores.

3. Assess the impact of pharmacist instructions on the patient's overall rating of the quality of the health care they experience.

   For adults and for parents, the quality of pharmacists' instructions is strongly associated with positive ratings of pharmacy services, *Interaction with the pharmacist is closely tied to patient satisfaction with pharmacy services.*

Recap of Learning Objectives (Cont.)

4. Design question sets on patient surveys to give actionable feedback to pharmacist networks.

   Identify pharmacy chains used most often. Establish linkage to payers' key performance indicators, such as the CAHPS Overall Plan Rating.

   Finding venues for reporting findings to pharmacists: Committees, PBM.

5. Identify barriers that impair pharmacists' communication with patients at the pharmacy.

   Physician brand-name prescribing behavior sets up patient and pharmacist for collisions over formulary. Medicaid patients may pay out-of-pocket rather than ignore physician and accept generics.

VIII. Making the Findings Actionable

We found venues for acting, using processes and forums already in place, with minimal new demands on resources and staff:

- *Communicating results to contracted entities:*
  - Member feedback from CAHPS was reported to the Pharmacy & Therapy committee.
  - Committee includes representatives of the Pharmacy Benefit Manager (PBM) and contracted pharmacy chains.
- *Communicating results to the provider at the Point-Of-Service:*
  - Member feedback on was also placed into Continuing Education offered for CE credit to *pharmacists*.
- *Feedback to prescribing doctors:*
  - Prescription drugs have no co-pay in our Medicaid program.
    Out-of-pocket expenses for prescription drugs imply:
    - Doctors are prescribing brand name drugs not the formulary.
    - Causes problem for the patient and the pharmacist: friction, delay, and costs.
    - *Action:* Refer the problem to the Physician Quality Committee.
    - Inform doctors about costs to members; generic options on the formulary; and the process for getting a necessary brand name drug put on formulary.

Toward Actionability (Small-Sample Drilldown)

Example: A contracted pharmacy chain asked for a drilldown on pharmacist instructions from members using its pharmacies:

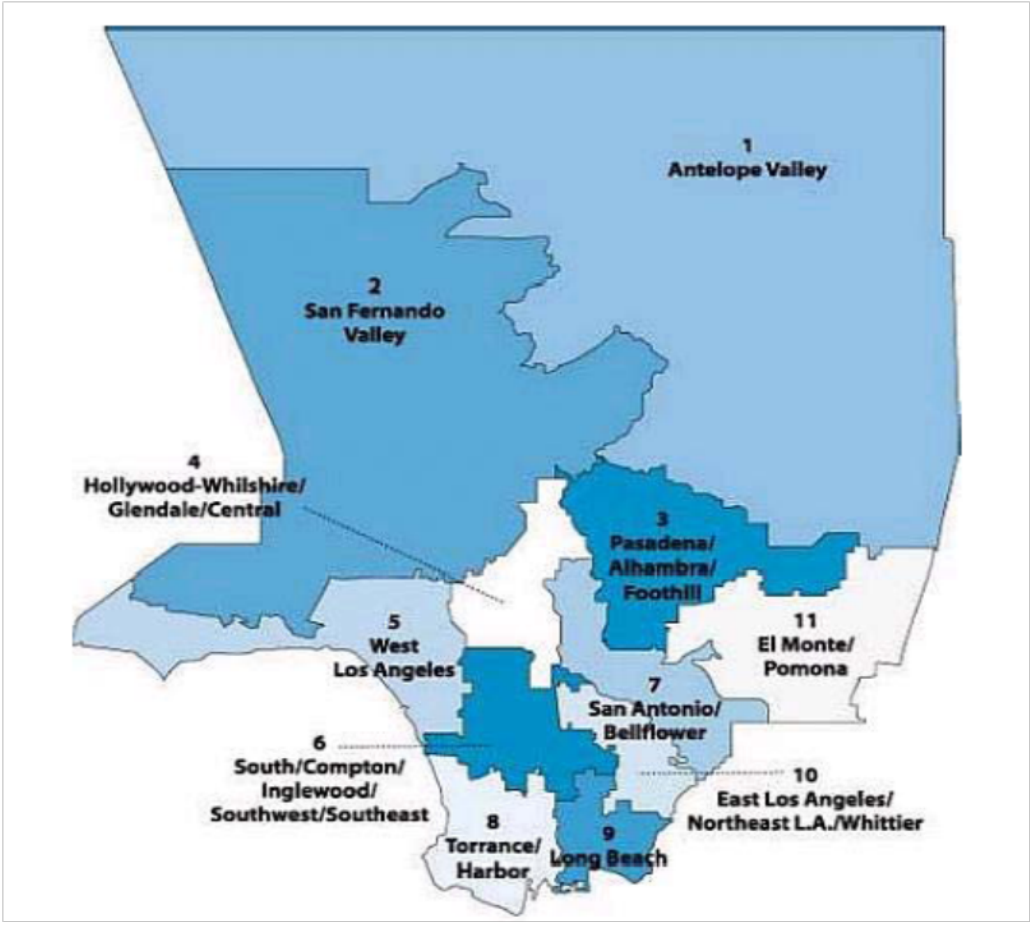
- Purpose: To communicate feedback to its pharmacies in Los Angeles.
- Limitations: Anonymous results are from 2011 only, and are very small samples (n=61 adults, n=92 Parents). Gives exploratory feedback.
- The table divides L.A. County into 11 regions, and reports Adult+Parent survey responses separately as independent replications.

Rating pharmacists' instructions	CAHPS 2011 (Adult + Child Counts in each cell) REGIONAL COMMUNITY ADVISORY COMMITTEE AREAS IN L.A. COUNTY										
	1	2	3	4	5	6	7	8	9	10	11
Excellent+ Very Good	0+3	3+14	0+3	7+4	.	14+15	5+4	.	0+1	3+6	7+6
[Middle]	.	5+6	0+2	0+1	.	2+8	2+2	.	.	2+2	0+3
Fair+Poor	.	.	.	2+4	.	6+2	2+3	.	.	1+1	0+2
Top box %:	100%	61%	60%	61%	.	62%	50%	.	100%	63%	72%

1=Antelope Valley, 2=San Fernando Valley, 3=Pasadena/Alhambra, 4=Central, 5=West L.A., 6=South L.A., 7=Bellflower, 8=Torrance/Harbor, 9=Long Beach, 10=East L.A, 11=El Monte/Pomona, ""=Out-of-County, Blinded

Regional Community Advisory Committee Areas

1=Antelope Valley, 2=San Fernando Valley, 3=Pasadena/Alhambra, 4=Central, 5=West L.A., 6=South L.A., 7=Bellflower, 8=Torrance/Harbor, 9=Long Beach, 10=East L.A, 11=El Monte/Pomona, " "=Out-of-County, Blinded



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Ways to Improve CAHPS through Surveys and Administrative Data

Administrative variables are available for drilldown to identify barriers for various demographic groups:

- Link pharmacist instructions to patient adherence through prescription fill data?

Add flag variables reflecting members covered by (or using) program services, to aid in program evaluation:

- Identify medication-sensitive conditions where non-adherence can lead to E.R. visits or hospitalizations – (similar to preventable ambulatory-sensitive events). Carry such a variable over to the CAHPS sampling frame file as an analytic variable.
- Identify disease cohorts (asthma or diabetes) that are medication-sensitive and analyze if quality of pharmacy instructions varies by disease cohort.

Contact Information

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Related briefing:

Gender Differences in Rating Pharmacy Services in a Large Urban Medicaid Health Plan, 2008-2011. APHA 10/31/2011, Medical Care Section, Session 3057.0 Women's Health: Vulnerable & Hard-to-Reach Populations: Disparities in Prescriptions & Pharmaceutical Utilization.

Online discussion on using CAHPS to improve quality of service:

http://groups.yahoo.com/group/member_satisfaction
member_satisfaction-subscribe@yahoogroups.com