SPECIAL JOINT CPAC-OPA POLICY BRIEFING
ACCESS, QUALITY & UTILIZATION OF CARE IN CALIFORNIA’S HMOS:
CPAC/OPA REPORTS

AGENDA
TUESDAY, FEBRUARY 27, 2007
1:00 p.m. to 3:00 p.m.
CALIFORNIA STATE LEGISLATIVE OFFICE BUILDING
HEARING ROOM 100
1020 N STREET
SACRAMENTO, CALIFORNIA

Welcome and Introductions
1:00 p.m. Gilbert Ojeda, Director, CPAC, UC Office of the President

Presentations
1:10 p.m. Racial, Ethnic, and Language Disparities in Access and Utilization in California’s Largest HMOs
Alicia Fernandez, MD, UC San Francisco
Ellen Wu, MPH, California Pan-Ethnic Health Network, Oakland

1:35 p.m. Access, Utilization and Quality of Care Among HMO and non-HMO Members with Chronic Diseases
Ying Ying Meng, PhD, UC Los Angeles

2:00 p.m. Comparing the Utilization and Consumer Satisfaction Levels of California’s Seven Largest Health Plans: The Role of the Enrollee and Plan Characteristics
Lynn Paringer, PhD, CSU East Bay

2:25 p.m. Do HMOs Help or Hinder Access to Care for Children of Color with Special Health Care Needs?
Mary Masland, PhD, UC Berkeley

2:50 p.m. Questions/Comments

3:00 p.m. Adjourn
The Impact of Race/Ethnicity and Language on Access and Experience of Care Among California’s Insured Adults

Alicia Fernandez, MD, Associate Professor of Clinical Medicine, University of California San Francisco
Joyce Viloria, B.S., UCSF School of Medicine
Ellen Wu, MPH, Executive Director, California Pan-Ethnic Health Network
Martin Martinez, MPP, Policy Director, California Pan-Ethnic Health Network
Frances Wang, MS Department of Medicine, UCSF
Sarah Jane Selig, B.S. Department of Medicine, UCSF
Background

• Health insurance has been associated with improved access to care, with better quality of care, and higher enrollee satisfaction.

• Race/ethnicity may intertwine with English language proficiency to affect health care access and experience.

• Language increasingly important with new immigration in California
Background

• Little information about racial/ethnic or language-associated disparities among Californians commercially insured populations.

• Health plans are not required to collect enrollee information on race, ethnicity, or primary language.
Study Aims

• Examine the effect of race/ethnicity and language on access to and experience of care,

• Analyze whether disparities differ between health plans, and

• Determine if differences exist between a plan’s Medi-Cal and commercial lines of business.
CHIS Survey Data

- Used the 2003 California Health Interview Survey (CHIS) data.
- The 2003 survey was conducted in English, Spanish, Chinese (Mandarin and Cantonese), Vietnamese, and Korean.
- Limited analysis to 7 major health plans – commercial only, commercial plus MediCal (3 plans)
Methods

- Classify as Limited English Proficiency (LEP) if report speaking English “not well” or “not at all”
- Self-defined race/ethnicity
- 4 measures of access to care
  - Usual source of care/ problem obtaining care /problem w/ delays / problem seeing specialist
- 3 measures of experiences with care
Language Associated with Problems with Access

• Limited English Proficient enrollees were more likely than English-proficient enrollees to report problems with access to care. LEPs are more likely to:
  ➢ Not have a usual source of care
  ➢ Report problems obtaining care
  ➢ Experience insurance related delays in getting care
  ➢ Have problems seeing a specialist
## Problems with Access by English Ability

<table>
<thead>
<tr>
<th>Problem</th>
<th>English</th>
<th>LEP</th>
</tr>
</thead>
<tbody>
<tr>
<td>No usual source of care</td>
<td>6.2%</td>
<td>9.9%</td>
</tr>
<tr>
<td>Problems getting care</td>
<td>15.5%</td>
<td>19.1%</td>
</tr>
<tr>
<td>Delays in getting care</td>
<td>15.3%</td>
<td>22.8%</td>
</tr>
<tr>
<td>Problems seeing a specialist</td>
<td>20%</td>
<td>27.5%</td>
</tr>
</tbody>
</table>
Language Barriers Impact Health Access of Many Californians

• Greater than 1 in 5 LEP respondents (23%) report delays in getting care --- 177,000 Californians with language associated reports of delays in care

• Greater than 1 in 4 LEP respondents (27%) or approximately 213,000 Californians report problems seeing a specialist.
## Language and Health Care Experience

<table>
<thead>
<tr>
<th>Problem Description</th>
<th>English</th>
<th>LEP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problems finding an MD happy with</td>
<td>17.9%</td>
<td>24.0%</td>
</tr>
<tr>
<td>Problems understanding the MD</td>
<td>2.6%</td>
<td>11.2%</td>
</tr>
<tr>
<td>Better care if a different race/ethnicity</td>
<td>3.2%</td>
<td>14%</td>
</tr>
</tbody>
</table>
Racial Disparities in Health Care Experiences

- Racial/ethnic disparities in the experience of health care persist:
  - African Americans, Asians, and Latinos were more likely to report believing that they would have received better care had they been of a different race/ethnicity (Whites 1.5% vs. African American 10.3% Asians 6.0%, Latinos 8.1% )
Racial Disparities in Health Care Experiences

- Asians in 2 of 7 health care plans reported more difficulty than whites finding a doctor they were happy with.
- Latinos in 4 of 7 plans and Asians in 2 of 7 plans were also more likely to report problems understanding their physician.
Comparison Between Health Plans

- Language-associated disparities were reported by enrollees of every health plan.
- Kaiser Permanente enrollees were least likely to report such disparities.
- None of the other six health plans were consistently associated with greater or fewer reports of language-associated differences.
Comparison w/ Medi-Cal Line of Business

- Language associated problems were found in both commercial and Medi-Cal lines of business.

- English-proficient individuals with Medi-Cal also reported high rates of problems, thereby diminishing the disparity between LEP and English-proficient enrollees.

- Ex. Problems Seeing a Specialist

<table>
<thead>
<tr>
<th></th>
<th>English</th>
<th>LEP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical</td>
<td>28.3%</td>
<td>30.6%</td>
</tr>
<tr>
<td>Private</td>
<td>20.0%</td>
<td>27.5%</td>
</tr>
</tbody>
</table>
Conclusions

• Language barriers present LEP health plan enrollees with major problems in access to health care.

• Language and race/ethnicity continue to be associated with disparities in the health care experience.
Policy Recommendations

• Collect data on enrollees’ race/ethnicity, and primary language.

• Monitor enrollees’ experiences with their health care by race/ethnicity and language preference.

• Report quality of care measures by race/ethnicity and language.
Policy Recommendations

• Regulators should encourage the adoption of best practices:
  - Providing language services at all points of contact,
  - Developing literacy-appropriate, easily understandable materials,
  - Increasing the diversity of network health care providers, and
  - Providing cultural competency training for providers and staff.
Research Team

PI: Ying-Ying Meng, Dr.PH
Co-PI: Gerald Kominski, PhD
Project Director: Dylan Roby, PhD
Statistician: Hongjian Yu, PhD
Background

- America’s number one health threat is chronic disease.
- This study used data from CHIS 2003 and OSHPD 2003 to examine access, utilization and quality of care across HMO and non-HMO Californians with hypertension, heart disease, (including congestive heart failure), diabetes and asthma.
- The measures are mostly based on self-reported data and the differences, especially those between health plans, may not be statistically significant after controlling for other factors.
Prevalence of Target Diseases

- Hypertension: 24% (6 million)
- Asthma: 12% (3.2 million)
- Heart Disease: 7% (1.8 million)
- Diabetes: 7% (1.7 million)
- Asthma: 15% (1.4 million)
- Diabetes: 0.80% (27,000)

Adults, Age 18+

Children, Ages 0-17
Insurance Coverage
by Target Disease

<table>
<thead>
<tr>
<th></th>
<th>Asthma All Ages</th>
<th>Hypertension Adults, Age 18+</th>
<th>Heart Disease</th>
<th>Diabetes</th>
<th>Total All Ages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asthma All Ages</td>
<td>37</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypertension</td>
<td>27</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heart Disease</td>
<td>17</td>
<td></td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diabetes</td>
<td>17</td>
<td></td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total All Ages</td>
<td>14</td>
<td></td>
<td>14</td>
<td>14</td>
<td>14</td>
</tr>
</tbody>
</table>

- Uninsured
- Medicare FFS
- Medicare HMO
- Medi-Cal FFS
- Medi-Cal HMO
- Commercial Non-HMO
- Commercial HMO
Prevalence of Multiple Target Diseases by Insurance Coverage

Total Commercial HMO
- 0: 68
- 1: 25
- 2+: 6

Commercial PPO
- 0: 70
- 1: 24
- 2+: 6

Medi-Cal HMO
- 0: 62
- 1: 27
- 2+: 11

Medi-Cal FFS
- 0: 61
- 1: 25
- 2+: 13

Medicare HMO
- 0: 29
- 1: 41
- 2+: 30

Medicare FFS
- 0: 30
- 1: 39
- 2+: 31

Uninsured
- 0: 75
- 1: 19
- 2+: 5

Total
- 0: 63
- 1: 26
- 2+: 10
Prevalence of Multiple Target Diseases by Health Plan

- Aetna: 67 (0), 26 (1), 7 (2+)
- Blue Cross: 71 (0), 24 (1), 5 (2+)
- Blue Shield: 71 (0), 23 (1), 7 (2+)
- Cigna: 67 (0), 26 (1), 7 (2+)
- Health Net: 68 (0), 27 (1), 6 (2+)
- Kaiser: 67 (0), 26 (1), 7 (2+)
- PacifiCare: 62 (0), 29 (1), 9 (2+)
- Total Commercial HMO: 68 (0), 25 (1), 6 (2+)
- Commercial PPO: 70 (0), 24 (1), 6 (2+)
Problems in Access to Care by Insurance Coverage, Adults with Chronic Disease(s)

- **Total Commercial HMO**
  - Seeing a specialist: 20
  - Receiving necessary care, tests or treatment: 17
  - Getting a personal doctor/nurse: 18

- **Commercial PPO**
  - Seeing a specialist: 12
  - Receiving necessary care, tests or treatment: 12
  - Getting a personal doctor/nurse: 14

- **Medi-Cal HMO**
  - Seeing a specialist: 27
  - Receiving necessary care, tests or treatment: 22
  - Getting a personal doctor/nurse: 25

- **Medi-Cal FFS**
  - Seeing a specialist: 17
  - Receiving necessary care, tests or treatment: 20
  - Getting a personal doctor/nurse: 24

- **Medicare HMO**
  - Seeing a specialist: 15
  - Receiving necessary care, tests or treatment: 13
  - Getting a personal doctor/nurse: 11

- **Medicare FFS**
  - Seeing a specialist: 9
  - Receiving necessary care, tests or treatment: 10
  - Getting a personal doctor/nurse: 9

- **Uninsured**
  - Seeing a specialist: 24
  - Receiving necessary care, tests or treatment: 23
  - Getting a personal doctor/nurse: 22

- **Total**
  - Seeing a specialist: 17
  - Receiving necessary care, tests or treatment: 16
  - Getting a personal doctor/nurse: 22
## Delay in Care by Insurance Coverage, Adults with Chronic Disease(s)

<table>
<thead>
<tr>
<th>Insurance Coverage</th>
<th>Delay in Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Commercial HMO</td>
<td>18</td>
</tr>
<tr>
<td>Commercial PPO</td>
<td>15</td>
</tr>
<tr>
<td>Medi-Cal HMO</td>
<td>22</td>
</tr>
<tr>
<td>Medi-Cal FFS</td>
<td>23</td>
</tr>
<tr>
<td>Medicare HMO</td>
<td>8</td>
</tr>
<tr>
<td>Medicare FFS</td>
<td>5</td>
</tr>
<tr>
<td>Uninsured</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
</tr>
</tbody>
</table>
Delay in Care
by Health Plan, Adults with Chronic Disease(s)

- Aetna: 11
- Blue Cross: 17
- Blue Shield: 22
- Cigna: 20
- Health Net: 21
- Kaiser: 15
- PacifiCare: 18
- Total Commercial HMO: 18
- Commercial PPO: 15
Fair/Poor Quality of Care by Insurance Coverage, Adults with Chronic Disease(s)

- Total Commercial HMO: 5
- Commercial PPO: 2
- Medi-Cal HMO: 7
- Medi-Cal FFS: 7
- Medicare HMO: 3
- Medicare FFS: 2
- Uninsured: 14
- Total: 5
Fair/Poor Quality of Care by Health Plan, Adults with Chronic Disease(s)

- Aetna: 7
- Blue Cross: 4
- Blue Shield: 8
- Cigna: 4
- Health Net: 7
- Kaiser: 3
- PacifiCare: 3
- Total Commercial HMO: 5
- Commercial PPO: 2
Fair/Poor Overall Health Status by Insurance Coverage, Adults with Chronic Disease(s)

- Total Commercial HMO: 20
- Commercial PPO: 17
- Medi-Cal HMO: 60
- Medi-Cal FFS: 56
- Medicare HMO: 41
- Medicare FFS: 43
- Uninsured: 45
- Total: 33
Fair/Poor Overall Health Status by Health Plan, Adults with Chronic Disease(s)

- Aetna: 17
- Blue Cross: 21
- Blue Shield: 18
- Cigna: 20
- Health Net: 15
- Kaiser: 20
- PacifiCare: 24
- Total Commercial HMO: 20
- Commercial PPO: 17
Prevalence of Overweight and Obesity by Insurance Coverage, Adults with Chronic Disease(s)

- Total Commercial HMO: 67%
- Commercial PPO: 63%
- Medi-Cal HMO: 69%
- Medi-Cal FFS: 72%
- Medicare HMO: 61%
- Medicare FFS: 58%
- Uninsured: 68%
- Total: 65%
Prevalence of Overweight and Obesity by Health Plan, Adults with Chronic Disease(s)

- Aetna: 76%
- Blue Cross: 63%
- Blue Shield: 65%
- Cigna: 73%
- Health Net: 70%
- Kaiser: 68%
- PacifiCare: 62%
- Total Commercial HMO: 67%
- Commercial PPO: 63%
Current Smoking Rate by Insurance Coverage, Adults with Chronic Disease(s)

<table>
<thead>
<tr>
<th>Insurance Coverage</th>
<th>Smoking Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Commercial HMO</td>
<td>16</td>
</tr>
<tr>
<td>Commercial PPO</td>
<td>15</td>
</tr>
<tr>
<td>Medi-Cal HMO</td>
<td>21</td>
</tr>
<tr>
<td>Medi-Cal FFS</td>
<td>31</td>
</tr>
<tr>
<td>Medicare HMO</td>
<td>8</td>
</tr>
<tr>
<td>Medicare FFS</td>
<td>7</td>
</tr>
<tr>
<td>Uninsured</td>
<td>23</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
</tr>
</tbody>
</table>
Current Smoking Rate by Health Plan, Adults with Chronic Disease(s)

- Aetna: 16%
- Blue Cross: 16%
- Blue Shield: 17%
- Cigna: 17%
- Health Net: 18%
- Kaiser: 15%
- PacifiCare: 19%
- Total Commercial HMO: 16%
- Commercial PPO: 15%
## Asthma Disease Management
by Insurance Coverage, All Ages with Asthma

<table>
<thead>
<tr>
<th>Plan Type</th>
<th>Taking daily medication</th>
<th>Receiving management plan</th>
<th>&gt;2 doctor visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Commercial HMO</td>
<td>39</td>
<td>36</td>
<td>73</td>
</tr>
<tr>
<td>Commercial PPO</td>
<td>38</td>
<td>36</td>
<td>75</td>
</tr>
<tr>
<td>Medi-Cal HMO</td>
<td>35</td>
<td>44</td>
<td>79</td>
</tr>
<tr>
<td>Medi-Cal FFS</td>
<td>33</td>
<td>59</td>
<td>82</td>
</tr>
<tr>
<td>Medicare HMO</td>
<td>31</td>
<td>68</td>
<td>88</td>
</tr>
<tr>
<td>Medicare FFS</td>
<td>28</td>
<td>64</td>
<td>91</td>
</tr>
<tr>
<td>Uninsured</td>
<td>30</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>34</td>
<td>44</td>
<td>74</td>
</tr>
</tbody>
</table>
Asthma Disease Management by Health Plan, All Ages with Asthma

- **Aetna**
  - Taking daily medication: 15%
  - Receiving management plan: 32%
  - >2 doctor visits: 69%

- **Blue Cross**
  - Taking daily medication: 25%
  - Receiving management plan: 43%
  - >2 doctor visits: 77%

- **Blue Shield**
  - Taking daily medication: 38%
  - Receiving management plan: 42%
  - >2 doctor visits: 77%

- **Cigna**
  - Taking daily medication: 32%
  - Receiving management plan: 47%
  - >2 doctor visits: 82%

- **Health Net**
  - Taking daily medication: 30%
  - Receiving management plan: 62%
  - >2 doctor visits: 71%

- **Kaiser**
  - Taking daily medication: 40%
  - Receiving management plan: 39%
  - >2 doctor visits: 71%

- **PacifiCare**
  - Taking daily medication: 41%
  - Receiving management plan: 37%
  - >2 doctor visits: 81%

- **Total Commercial HMO**
  - Taking daily medication: 39%
  - Receiving management plan: 36%
  - >2 doctor visits: 73%

- **Commercial PPO**
  - Taking daily medication: 38%
  - Receiving management plan: 36%
  - >2 doctor visits: 75%
Uncontrolled Asthma
by Insurance Coverage, All Ages with Asthma

- Total Commercial HMO:
  - ER visits for asthma: 19
  - Daily/Weekly Symptoms: 23
  - Asthma Attack/Episode: 35

- Commercial PPO:
  - ER visits for asthma: 12
  - Daily/Weekly Symptoms: 22
  - Asthma Attack/Episode: 34

- Medi-Cal HMO:
  - ER visits for asthma: 15
  - Daily/Weekly Symptoms: 23
  - Asthma Attack/Episode: 30

- Medi-Cal FFS:
  - ER visits for asthma: 26
  - Daily/Weekly Symptoms: 28
  - Asthma Attack/Episode: 39

- Medicare HMO:
  - ER visits for asthma: 14
  - Daily/Weekly Symptoms: 23
  - Asthma Attack/Episode: 38

- Medicare FFS:
  - ER visits for asthma: 15
  - Daily/Weekly Symptoms: 27
  - Asthma Attack/Episode: 38

- Uninsured:
  - ER visits for asthma: 20
  - Daily/Weekly Symptoms: 27
  - Asthma Attack/Episode: 32

- Total:
  - ER visits for asthma: 18
  - Daily/Weekly Symptoms: 24
  - Asthma Attack/Episode: 35

(Chart by UCLA Center for Health Policy Research)
Uncontrolled Asthma
by Health Plan, All Ages with Asthma

- Aetna
  - ER visits for asthma: 17
  - Daily/Weekly Symptoms: 19
  - Asthma Attack/Episode: 25

- Blue Cross
  - ER visits for asthma: 10
  - Daily/Weekly Symptoms: 21
  - Asthma Attack/Episode: 39

- Blue Shield
  - ER visits for asthma: 12
  - Daily/Weekly Symptoms: 18
  - Asthma Attack/Episode: 34

- Cigna
  - ER visits for asthma: 12
  - Daily/Weekly Symptoms: 34
  - Asthma Attack/Episode: 40

- Health Net
  - ER visits for asthma: 12
  - Daily/Weekly Symptoms: 16
  - Asthma Attack/Episode: 35

- Kaiser
  - ER visits for asthma: 16
  - Daily/Weekly Symptoms: 20
  - Asthma Attack/Episode: 35

- PacifiCare
  - ER visits for asthma: 24
  - Daily/Weekly Symptoms: 21
  - Asthma Attack/Episode: 34

- Total Commercial HMO
  - ER visits for asthma: 18
  - Daily/Weekly Symptoms: 19
  - Asthma Attack/Episode: 35

- Commercial PPO
  - ER visits for asthma: 12
  - Daily/Weekly Symptoms: 22
  - Asthma Attack/Episode: 34
Hospitalization
by Insurance Coverage, All Ages with Asthma

[Graph showing hospitalizations per 1,000 by insurance coverage: Medi-Cal FFS, Medi-Cal HMO, Medicare FFS, Medicare HMO, and Uninsured.]
Hospitalization
by Health Plan, All Ages with Asthma

Hospitalizations per 1,000
Summary

- HMO and non-HMO markets have a similar share of burden of chronic diseases;
- HMO members experience more access problems than non-HMO members;
- HMOs are not always doing better than non-HMOs in utilization and quality of care, though HMOs largely lower the use of expensive services, such as hospitalization;
- There are variations among health plans in taking care of their members with chronic conditions;
- The uninsured and Medi-Cal beneficiaries with chronic conditions face more problems in access to care, utilization and quality of care in many cases.
Policy Implications

- To expand health care coverage to all;
- To further improve access to care among HMO enrollees;
- To continue measuring and improving access to care, utilization and quality of care for HMO enrollees;
- To educate consumers and providers about HMO performance scores;
- To enhance health education and health behavior interventions among HMO enrollees;
- To expand HMO enrollment to all Medi-Cal beneficiaries and the uninsured?
Thanks!

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Enrollee Characteristics and Health Plan Quality

Lynn Paringer, Ph.D.
Professor of Economics
California State University, East Bay
February 27, 2007
Four Questions

• How do the characteristics of enrollees vary by plan?
• What are measures of health care quality?
• How is quality of care impacted by enrollee characteristics?
• Does failing to account for differences in enrollee characteristics bias reported measures of plan quality?
2003 CHIS

• Survey of the non-institutionalized population
• Conducted August 03 - February 04
• Telephone survey
• Conducted in 5 languages
• 42,044 adults in the survey
• Can be weighted to reflect the California population
Measures of health care quality

• Screening (HEDIS)
  Breast cancer
  Cervical cancer
  Prostate cancer
  Colon cancer
• Consumer satisfaction with care (CAHPS)
  Finding a doctor one is happy with
  Problem accessing specialists
  Problem getting necessary health care
  Care delays pending approval
  Overall rating of health plan
Distribution of Plan Enrollees by Household Income
Percent of Enrollees with Less than High School Education
Distribution of Enrollees by Citizenship Status
Distribution of Enrollees by Asthma and High Blood Pressure

- Kaiser
- Blue Cross
- Pacificare
- Blue Shield
- Health Net
- Other

- Asthma HMO
- Asthma Non-HMO
- High Blood Pressure HMO
- High Blood Pressure Non-HMO
One Year and Five Year Retention Rates
Percent of Women 21-64 Having a Pap Smear in the Past 3 Years
<table>
<thead>
<tr>
<th>Demographic</th>
<th>HMO</th>
<th>Non-HMO</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>90.8</td>
<td>92.5</td>
</tr>
<tr>
<td>Asian</td>
<td>85.8</td>
<td>81.3</td>
</tr>
<tr>
<td>Non-Latina</td>
<td>90.2</td>
<td>90.8</td>
</tr>
<tr>
<td>Latina</td>
<td>93.2</td>
<td>91.0</td>
</tr>
<tr>
<td>Born in the US</td>
<td>91.1</td>
<td>91.5</td>
</tr>
<tr>
<td>Non-citizen</td>
<td>91.1</td>
<td>86.6</td>
</tr>
<tr>
<td>English native</td>
<td>91.3</td>
<td>92.0</td>
</tr>
<tr>
<td>English poor</td>
<td>88.6</td>
<td>85.0</td>
</tr>
</tbody>
</table>
Pap Smear- Economic
Percent tested Past 3 Years 21-64

<table>
<thead>
<tr>
<th></th>
<th>HMO</th>
<th></th>
<th>Non-HMO</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LT HSchool</td>
<td>87.9</td>
<td></td>
<td>81.5</td>
<td></td>
</tr>
<tr>
<td>GT College</td>
<td>93.8</td>
<td></td>
<td>92.8</td>
<td></td>
</tr>
<tr>
<td>LT $20K</td>
<td>86.3</td>
<td></td>
<td>70.0</td>
<td></td>
</tr>
<tr>
<td>GT 120K</td>
<td>89.7</td>
<td></td>
<td>92.9</td>
<td></td>
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</table>
# Pap Smear-Health Status

Percent tested past 3 years 21-64

<table>
<thead>
<tr>
<th></th>
<th>HMO</th>
<th>Non-HMO</th>
</tr>
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<tbody>
<tr>
<td>Ex Health</td>
<td>93.5</td>
<td>93.7</td>
</tr>
<tr>
<td>Poor Health</td>
<td>91.9</td>
<td>85.2</td>
</tr>
<tr>
<td>Has HBP</td>
<td>88.6</td>
<td>87.9</td>
</tr>
<tr>
<td>NO HPB</td>
<td>91.5</td>
<td>91.4</td>
</tr>
<tr>
<td>BMI Normal</td>
<td>92.3</td>
<td>92.2</td>
</tr>
<tr>
<td>Obese</td>
<td>88.4</td>
<td>88.1</td>
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</table>
Pr of having a Pap smear in the past 3 years, women 21-64

• Positive
  Latina
  Naturalized citizen
  Married, LWP
  ED GT college

• Negative
  Asian
  Non-citizen
  English is OK
  ED LT high school
  Income LT 40K
Percent of Women 42-64 Having a Mammogram in the Past 2 years
Mammography – Demographics
Percent tested past 2 years 42-64

<table>
<thead>
<tr>
<th></th>
<th>HMO</th>
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</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>84.9</td>
<td>84.2</td>
</tr>
<tr>
<td>Asian</td>
<td>82.1</td>
<td>74.0</td>
</tr>
<tr>
<td>Non-Latina</td>
<td>84.7</td>
<td>81.8</td>
</tr>
<tr>
<td>Latina</td>
<td>80.8</td>
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<tr>
<td>Born in the US</td>
<td>85.3</td>
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<tr>
<td>Non-citizen</td>
<td>75.0</td>
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<tr>
<td>English native</td>
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<tr>
<td>English poor</td>
<td>80.5</td>
<td>48.0</td>
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Mammography-Economic
Percent tested past 2 years 42-64

<table>
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<th>Non-HMO</th>
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</thead>
<tbody>
<tr>
<td>LT HSchool</td>
<td>79.5</td>
<td></td>
<td>52.9</td>
<td></td>
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<tr>
<td>GT College</td>
<td>85.1</td>
<td></td>
<td>82.4</td>
<td></td>
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<tr>
<td>LT $20K</td>
<td>77.3</td>
<td></td>
<td>64.6</td>
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<tr>
<td>GT 120K</td>
<td>88.7</td>
<td></td>
<td>81.8</td>
<td></td>
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</tbody>
</table>
Mammography-Health Status

- HMO
  - EX Health 82.3
  - Poor Health 88.0
  - Has HBP 87.4
  - NO HBP 82.7
  - BMI Normal 83.2
  - Obese 86.2

- Non-HMO
  - Ex Health 84.3
  - Poor Health 82.8
  - Has HBP 84.4
  - NO HBP 81.0
  - BMI Normal 83.8
  - Obese 76.0
Pr of having a mammogram past 2 years, women 42-64

- Positive
  - HMO
  - White
  - African American
  - Married

- Negative
  - Non-citizen
  - ED LT High school
  - Income LT 60K
  - Blue Cross non-HMO
    (Kaiser is reference)
Percent having Problems finding a DR or with Care Delays
The Model

- $Rating_i = \beta_0 + \beta_1Demographic + \beta_2Economic + \beta_3Health \ Status + \beta_4Health \ Plan + \varepsilon_i$

Where:
- $Rating_i =$ rating (0 through 10) given to his/her health plan by individual $i$
- $Demographic =$ a set of variables (e.g. age, race, immigration, language, education) reflecting the demographic characteristics of the enrollee
- $Economic =$ the household income of the enrollee
- $Health \ Status =$ a set of variables reflecting the health status of the enrollee (e.g. self assessed health, presence of chronic disease)
- $Health \ Plan =$ a variable that takes on the value of 1 if the individual is in an HMO, 0 otherwise: or a dummy variable reflecting the specific plan in which the individual is enrolled (the omitted dummy is Other HMO)
- $\varepsilon =$ an error term
## Determinants of Health Plan Ratings

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Non Plan Specific</th>
<th></th>
<th>Plan Specific</th>
<th></th>
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<td></td>
<td>B</td>
<td>S.E.</td>
<td>B</td>
<td>S.E.</td>
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<tr>
<td>Constant</td>
<td>7.40</td>
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<tr>
<td>Female</td>
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<td>.023</td>
<td>.127</td>
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<tr>
<td>(Male)</td>
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<tr>
<td>Latino</td>
<td>.234</td>
<td>.042</td>
<td>.238</td>
<td>.042</td>
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<tr>
<td>(Non-Latino)</td>
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<tr>
<td>Married</td>
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<td>.034</td>
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<tr>
<td>With partner/div/sep/other</td>
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<td>(Never married)</td>
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<tr>
<td>Asian</td>
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<td>African American</td>
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<td>White</td>
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<tr>
<td>(Other race)</td>
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<tr>
<td>Naturalized citizen</td>
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<td>Non-citizen</td>
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<tr>
<td>(U.S. Born)</td>
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<tr>
<td>English is good/OK</td>
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<td>English is poor/none</td>
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<td>(Native English speaker)</td>
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<td>Education Level</td>
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<td>----------------------------------------</td>
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<tr>
<td>Ed LT High School</td>
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<td>(Ed Some College)</td>
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<tr>
<td>Income LT $20,000</td>
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<td>Income $20,000 - $39,999</td>
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<td>Income $40,000 - $59,999</td>
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<td>0.039</td>
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<td>Income $80,000 - $99,999</td>
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<td>0.043</td>
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<td>Income $100,000 - $119,999</td>
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<td>Income GE $120,000</td>
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<td>(Income $60,000 - $79,999)</td>
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<td>In plan at least one year</td>
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<td>(In plan LT one year)</td>
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<td>Column 1</td>
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<td>Excellent Health</td>
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<td>(Good Health)</td>
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<td>High Blood Pressure</td>
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<td>Asthma now</td>
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<td>(No Asthma now)</td>
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<td>Diabetes</td>
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<td>(No Diabetes)</td>
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<td>Main Health Plan is an</td>
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<td>HMO</td>
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<td>Kaiser</td>
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<tr>
<td>Blue Cross Non-HMO</td>
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<td>Blue Cross HMO</td>
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<td>Pacificare Non-HMO</td>
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<td>Pacificare HMO</td>
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<td>Blue Shield Non-HMO</td>
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<td>Blue Shield HMO</td>
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<td>Health Net Non-HMO</td>
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<td>.096</td>
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<td>Health Net HMO</td>
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<td>.058</td>
<td></td>
<td></td>
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<tr>
<td>Other Non-HMO</td>
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<td>.042</td>
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<tr>
<td>(Other HMO)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>22155</td>
<td>22155</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R square</td>
<td>.060</td>
<td>.063</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>44.39</td>
<td>36.32</td>
<td></td>
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</table>
Conclusion

• Enrollee characteristics DO play an important role in affecting the probability of receiving certain screening tests
• Enrollee characteristics DO vary from plan to plan and are particularly noticeable when comparing HMOs with non-HMOs
• There appears to be little significant variation between plans in the probability that an enrollee will receive a mammogram or Pap smear after controlling for enrollee characteristics
• Retention rates for plans may impact measures of quality of care and should be considered in assessing quality
Policy Implications

• Special focus on those with low incomes, limited English, non-citizens, and low levels of education – brochures, outreach, appropriateness of language, interpreters, location of facilities, hours of operation

• HMOs serve a poorer, less well-educated, less English proficient population and this should be taken into consideration in comparing quality with non-HMO plans

• Low long-term retention rates of plans raise questions as to the feasibility of looking at quality over time or for services that are done infrequently (e.g. colonoscopy)—perhaps want to study why retention is low (job change, dissatisfaction with plan, marital status change)
Do HMOs help or hinder access for children with special health care needs from limited English-proficient families?

PI Lonnie Snowden, PhD, UC Berkeley
Mary Masland, PhD, UC Berkeley
Soo Kang Pak, DrPH, UC Berkeley
Neal Wallace, PhD, Portland State Univ.

02/27/07
Background

• The CA Senate Office of Research (2000) reported that 15%-20% of Californian children have special health care needs (SHCNs).
• Approximately 40% of Californian children live in households where a non-English language is spoken.
• Prior research shows managed care policies may have aversive effects on access for non-white children, particularly if parents have limited English proficiency (LEP).
Study Goals

Using the CHIS 2003 data set:

• Describe children with SHCNs by their demographic characteristics, including parents’ English proficiency, and by characteristics of their health plan;

• Measure SHCN children’s access to care;

• Assess the unique effects of parents’ race/ethnicity and LEP on children’s access to care;

• Assess the unique effects of managed care requirements on access to care for children from LEP families.
Methods Overview

• Downloaded the child 2003 CHIS public use file.

• Selected children, aged 0-11 years, with a “yes” response to any of the SHCN screening questions.

• Described the child SHCN population by demographic, health plan and access variables.

• Ran 4 sets of multivariate regression equations addressing study goals.
Screener Questions Identifying a SHCN Child in CHIS

- *Takes medicine prescribed by a doctor* for a medical, behavioral, or other health condition expected to last 12 months or longer;

- *Needs more medical, mental health, or educational services than usual for children of his/her age* because of a medical, behavioral or other health condition…;

- *Needs special therapy*, such as physical, occupational, or speech therapy, due to a medical, behavioral or other health condition…;

- *Is limited in abilities to do things most children the same age can do*, due to a medical, behavioral, or other health condition…;

- *Has any kind of emotional, developmental, or behavioral problem* expected to last 12 months or longer for which he or she needs treatment or counseling.
Outcome Measures of Access

- Whether or not the child has a usual source of care (Doctor’s office, Kaiser or other HMO clinic, community hospital, or government clinic. Hospital emergency room not considered a usual source of care.)
- Whether or not prescription or medical treatment was ever delayed or not obtained for the child because of cost reasons in the past 12 months.
- The number of times the child saw a doctor in the past 12 months.
Main Causal Variables Tested

- **Parents’ race/ethnicity**: African American, American Indian/Alaskan Native (AIAN), Asian, Latino, White;
- **Parents’ English proficiency**: Proficient = speak only English at home and report speaking English “well or very well”; Limited Proficiency = speak other language at home and report speaking English less than “well”;
- Whether health plan assigns enrollees to a primary care physician, medical group or clinic;
- Whether health plan requires enrollees to obtain prior approval to see a specialist.
Other Control Variables Tested

- **Child Characteristics**: Child’s ethnicity, age, gender, insurance status;
- **Family Demographics**: Parents’ age, gender, marital status, number of children in household, gender of adult answering questions for the child;
- **Family Socio-Economics**: Poverty level, education, employment, number of hours worked;
- **Other Factors Affecting Health Care Use**: smoking in the home, availability of child care, neighborhood safety, urbanicity, in-home child safety practices.
Results: Description of the Child SHCN Population

- Estimate approximately 968,000 children with SHCNs;
- 64% are 6-11 years old;
- 58% are boys;
- 54% are non-white;
- 17% have parents with LEP;
- 4.4% are currently uninsured;
- 69% are in health plans w/assignment to a primary care physician or medical plan;
- 70% are in health plans w/prior approval required to see a specialist.
Comparison of All Children and SHCN Children in California

<table>
<thead>
<tr>
<th></th>
<th>% All Children</th>
<th>% Children with SHCN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 6-11</td>
<td>51.7</td>
<td>64.1</td>
</tr>
<tr>
<td>Male</td>
<td>51.1</td>
<td>57.6</td>
</tr>
<tr>
<td>Currently uninsured</td>
<td>5.9</td>
<td>4.4</td>
</tr>
<tr>
<td>Parents w/LEP</td>
<td>23.9</td>
<td>17.1</td>
</tr>
<tr>
<td>African American</td>
<td>6.9</td>
<td>9.9</td>
</tr>
<tr>
<td>AIAN</td>
<td>1.4</td>
<td>2.2</td>
</tr>
<tr>
<td>Asian</td>
<td>10.1</td>
<td>5.8</td>
</tr>
<tr>
<td>Latino</td>
<td>38.0</td>
<td>33.2</td>
</tr>
<tr>
<td>White</td>
<td>40.3</td>
<td>46.2</td>
</tr>
<tr>
<td>Total</td>
<td>100% (6,228,712)</td>
<td>100% (968,476)</td>
</tr>
</tbody>
</table>
SHCN Children by Health Plan

- 17% with Blue Cross;
- 14% with Kaiser Permanente;
- 13% with Medicare or Medi-Cal;
- 6% with Blue Shield;
- 5% with Health Net;
- 27% with others (Pacificare, Aetna, US Healthcare, Prudential, Cigna and others);
- 17% insurer was unknown.
SHCN Children with LEP Parents by Health Plan

- 33% with Medicare/Medi-Cal;
- 19% with “Other” plan;
- 10% with Blue Cross;
- 3% with Kaiser Permanente;
- 3% with Health Net;
- 32% health plan was unknown.
Description of Access by Race/Ethnicity & Parental LEP Among SHCN Children

• Latino children had worse access on all measures compared to the total group;
• Children with LEP parents had worse access on all measures compared to the total group;
• AIAN children had worse access except on number of visits in 12 months;
• Asian children had ½ worse and ½ better access measures;
• African American children had better access on nearly all measures except number of visits;
• White children had better access on all measures compared to the total group.
## Access by Race/Ethnicity & Parental LEP Among SHCN Children

<table>
<thead>
<tr>
<th></th>
<th>% No usual source of care</th>
<th>% Rx/Tx delayed or denied</th>
<th>% Uninsured</th>
<th>% with 0 vsts in past 12 months</th>
<th>% with 7+ vsts in past 12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Af American</td>
<td>3.9</td>
<td>5.0</td>
<td>4.6</td>
<td>1.9</td>
<td>20.5</td>
</tr>
<tr>
<td>AIAN</td>
<td>10.5</td>
<td>16.9</td>
<td>18.8</td>
<td>4.6</td>
<td>39.2</td>
</tr>
<tr>
<td>Asian</td>
<td>9.0</td>
<td>7.3</td>
<td>5.4</td>
<td>4.3</td>
<td>22.7</td>
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<tr>
<td>Latino</td>
<td>7.8</td>
<td>10.4</td>
<td>11.4</td>
<td>8.5</td>
<td>20.4</td>
</tr>
<tr>
<td>White</td>
<td>2.6</td>
<td>9.2</td>
<td>3.8</td>
<td>2.2</td>
<td>25.3</td>
</tr>
<tr>
<td>LEP</td>
<td>11.4</td>
<td>12.3</td>
<td>15.2</td>
<td>13.6</td>
<td>14.6</td>
</tr>
<tr>
<td>All SHCN</td>
<td>5.0</td>
<td>9.3</td>
<td>7.1</td>
<td>4.4</td>
<td>23.5</td>
</tr>
</tbody>
</table>
Multivariate Regression Models Testing Effect of Race/Ethnicity on Access Controlling for Other Factors

- Model 1: Logistic regression of the child’s odds of having a usual source of care;
- Model 2: Logistic regression of the child’s odds of having care delayed or denied;
- Model 3: Ordinary least squares regression of the logged number of doctor visits the child had in the past 12 months.
- Controlled for child characteristics & family characteristics but NOT parental LEP.
Effect of Race/Ethnicity on Access Controlling for Other Demographic & Socio-Economic Factors (not shown)

*** p< .001; ** p< .01;  * p< .05

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Have a usual source of care? (odds ratio)</th>
<th>Rx/Tx ever delayed or denied? (odds ratio)</th>
<th>Logged # of vst in past 12 months (b value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Af American</td>
<td>0.71***</td>
<td>0.53***</td>
<td>-0.19*</td>
</tr>
<tr>
<td>AIAN</td>
<td>0.18***</td>
<td>1.52***</td>
<td>0.26</td>
</tr>
<tr>
<td>Asian</td>
<td>0.28***</td>
<td>0.78***</td>
<td>-0.37***</td>
</tr>
<tr>
<td>Latino</td>
<td>1.09***</td>
<td>0.82***</td>
<td>-0.05</td>
</tr>
<tr>
<td>White – comparison grp</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
Regression results show that compared to white children...

- **African American** children had lower odds of having a usual source of care, lower odds of having care delayed/denied, and fewer number of visits;
- **AIAN** children had lower odds of having a usual source of care, higher odds of having care delayed/denied, but the same number of visits;
- **Asian** children had lower odds of having a usual source of care, lower odds of having care delayed/denied, and fewer number of visits;
- **Latino** children had higher odds of having a usual source of care, lower odds of having care delayed/denied, and the same number of visits.
Multivariate Regression Models 
Testing Effect of LEP on Access 
Controlling for Other Factors

• Same 3 models (usual source of care, care ever delayed/denied, # visits in past 12 months);
• Included only Latino and White children (comparison group) due to small number of LEP parents among other racial/ethnic groups;
• Controlled for child characteristics & family characteristics including race/ethnicity.
Effect of LEP on Access for Latino & White Children Controlling for Other Demographic & Socio-Economic Factors (not shown)

*** p< .001; ** p< .01;  * p< .05

<table>
<thead>
<tr>
<th></th>
<th>Have a usual source of care? (odds ratio)</th>
<th>Rx/Tx ever delayed or denied? (odds ratio)</th>
<th>Logged # of vsts in past 12 months (b value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latino</td>
<td>1.18***</td>
<td>0.66***</td>
<td>-0.04</td>
</tr>
<tr>
<td>White – comparison grp</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Children w/LEP parents</td>
<td>0.54***</td>
<td>1.38***</td>
<td>-0.19*</td>
</tr>
</tbody>
</table>
Regression results show that...

- Controlling for parental LEP status and other factors, Latino children had better or same access compared to white children;
- Controlling for race/ethnicity and other factors, children with LEP parents had much lower access on all measures compared to children with non-LEP parents.
Regression Models Testing Effect of Assignment to a PCP on Access for LEP Families

- Same 3 models (usual source of care, care ever delayed/denied, # visits in past 12 months);
- Included only Latino and White children (comparison group) due to small number of LEP parents among other racial/ethnic groups;
- Added variable measuring whether child is enrolled in a health plan that assigns a primary care physician or medical group;
- Controlled for child characteristics & family characteristics including race/ethnicity.
Effect of Assignment to a PCP on Access for LEP Families Controlling for Demographic & Socio-Economic Factors (not shown)

*** p< .001; ** p< .01;  * p< .05

<table>
<thead>
<tr>
<th></th>
<th>Have a usual source of care? (odds ratio)</th>
<th>Rx/Tx ever delayed or denied? (odds ratio)</th>
<th>Logged # of vsts in past 12 months (b value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment to PCP</td>
<td>1.61***</td>
<td>1.62***</td>
<td>-0.11</td>
</tr>
<tr>
<td>Children w/LEP parents</td>
<td>0.64***</td>
<td>1.29***</td>
<td>-0.33*</td>
</tr>
<tr>
<td>Interaction of LEP x PCP</td>
<td>0.75***</td>
<td>1.05*</td>
<td>0.17</td>
</tr>
</tbody>
</table>
Regression results show that...

- On average, assignment to a primary care physician increased the odds of having a usual source of care, but also increased delay/denial of care. It did not affect number of visits.

- Among LEP families, assignment to a primary care physician *reduced* the odds of having a usual source of care, but did not dramatically affect delay/denial of care or number of visits.
Regression Models Testing Effect of Specialist Referral on Access for LEP Families

- Same 3 models (usual source of care, care ever delayed/denied, # visits in past 12 months);
- Included only Latino and White children (comparison group) due to small number of LEP parents among other racial/ethnic groups;
- Added variable measuring whether child is enrolled in a health plan that requires a referral to see a specialist;
- Controlled for child characteristics & family characteristics including race/ethnicity.
Effect of Specialist Referral on Access for LEP Families Controlling for Other Demographic & Socio-Economic Factors (not shown)

*** p< .001; ** p< .01;  * p< .05

<table>
<thead>
<tr>
<th></th>
<th>Have a usual source of care? (odds ratio)</th>
<th>Rx/Tx ever delayed or denied? (odds ratio)</th>
<th>Logged # of vsts in past 12 months (b value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specialist Referral</td>
<td>1.19***</td>
<td>2.59***</td>
<td>-0.06</td>
</tr>
<tr>
<td>Children w/LEP parents</td>
<td>0.42***</td>
<td>0.60***</td>
<td>-0.14</td>
</tr>
<tr>
<td>Interaction of LEP x Specialist Referral</td>
<td>1.49***</td>
<td>2.92***</td>
<td>0.14</td>
</tr>
</tbody>
</table>
Regression results show that...

- On average, specialist referral increased the odds of having a usual source of care, but also greatly increased delay/denial of care. It did not affect number of visits.

- Among LEP families, specialist referral increased the odds of having a usual source of care, but also greatly increased delay/denial of care. It did not affect number of visits.
Summary of Main Findings

• One-third of LEP SHCN children are enrolled in Medi-Cal.
• Latino children’s low access measures were accounted for by socio-economics, demographics & parental LEP.
• Children from LEP families continued to have low access measures even when accounting for socio-economic and demographic factors.
• Health plan assignment to a primary care physician had somewhat negative effects on access for LEP families.
• Health plan requirements for a specialist referral had mixed effects on access for LEP families.
Policy Recommendations

• Use Medi-Cal Redesign opportunity to shape managed care processes to maximize access for vulnerable LEP populations.
• Consider relaxing PCP and specialist referral requirements for SHCN children, particularly those from LEP families, to improve access and enrollee satisfaction.
• Increase the number of bilingual/ bicultural professionals available to serve the LEP population of SHCN children.
• Potential mechanisms to do so include:
  – Allow health plans to bill Medi-Cal for interpreter services,
  – Reimburse plans that provide bilingual services at a premium;
  – Require a minimum number of bilingual providers or interpreters per LEP enrollee in each geographic area served.