Dental Safety Net in Iowa
Year 2

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March 11, 2014

Project support provided by the DentaQuest Foundation (Boston, MA)
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- Matthew Bond
- Mark Doherty
- Andrea Forsht
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Agenda

1. Release of Survey 1 report
2. Survey 2 results: Factors associated with provider participation in Medicaid
3. Survey 3 results: FQHC oral health capacity
4. Update on year 2 activities: The Primary Care Dental Home (PCDH) and Health Home
Survey 1 Report

- Findings released in February
- Available at [http://ppc.uiowa.edu](http://ppc.uiowa.edu)
SURVEY 2: CONJOINT ANALYSIS

Web-based survey administered to 305 dentists who provided email addresses at the end of Survey 1 (dentist Medicaid participation)
Methods
Conjoint-based Survey

• Web-based survey to general dentists in Iowa
  • E-mails obtained from previous mail survey
  • N=169

• Survey design:
  • Conjoint experimental design
  • 4 factors x 3 levels
  • 9 hypothetical scenarios

• Analysis:
  • Multinomial logit (MNL) models
  • Utilities of each level
  • Calculated relative importance of factors and levels
## Factors Assessed

Commonly Reported Problems with Medicaid

<table>
<thead>
<tr>
<th>Factor</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reimbursement rate</td>
<td>35%</td>
<td>55%</td>
<td>85%</td>
</tr>
<tr>
<td>Claim approval</td>
<td>The first submission is unlikely to be approved</td>
<td>The first submission may or may not be approved</td>
<td>The first submission will be approved</td>
</tr>
<tr>
<td>Other practices in the area that accept new Medicaid patients</td>
<td>No other practices</td>
<td>A few other practices</td>
<td>Many other practices</td>
</tr>
<tr>
<td>Patient behavior</td>
<td>Often misses an appointment</td>
<td>Sometimes misses an appointment</td>
<td>Never misses an appointment</td>
</tr>
</tbody>
</table>
Example of a Scenario

At the time this patient calls your practice, you know there are a few other practices in your area accepting Medicaid patients. You are also aware that this patient often misses an appointment. Medicaid will reimburse you at 85% of your usual fees for this service and the first submission of your claim will be approved.

Would you accept this new patient in the scenario described above?

(Yes or No)
## Results

### General Dentist Demographics

<table>
<thead>
<tr>
<th></th>
<th>Survey 1</th>
<th>Survey 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age (mean ± SD)</strong></td>
<td>49.9 ± 12.7</td>
<td>48.5 ± 12.1</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Male</td>
<td>77%</td>
<td>84%</td>
</tr>
<tr>
<td>• Female</td>
<td>24%</td>
<td>16%</td>
</tr>
<tr>
<td><strong>Perceived workload</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Too busy</td>
<td>23%</td>
<td>6%</td>
</tr>
<tr>
<td>• Comfortable</td>
<td>57%</td>
<td>68%</td>
</tr>
<tr>
<td>• Not busy enough</td>
<td>20%</td>
<td>26%</td>
</tr>
</tbody>
</table>
## Results

### Dentist Medicaid Participation

<table>
<thead>
<tr>
<th></th>
<th>Survey 1</th>
<th>Survey 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Accepts new Medicaid patients</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Yes – ALL NEW</td>
<td>16%</td>
<td>21%</td>
</tr>
<tr>
<td>• Yes – SOME NEW</td>
<td>40%</td>
<td>46%</td>
</tr>
<tr>
<td>• No</td>
<td>44%</td>
<td>32%</td>
</tr>
<tr>
<td><strong>Considering stopping acceptance</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Not seriously</td>
<td>19%</td>
<td>16%</td>
</tr>
<tr>
<td>• Slightly/Moderately seriously</td>
<td>53%</td>
<td>50%</td>
</tr>
<tr>
<td>• Extremely seriously</td>
<td>28%</td>
<td>32%</td>
</tr>
<tr>
<td><strong>Current Medicaid patients (%)</strong></td>
<td>10.7% ± 13.7</td>
<td>13.5% ± 14.6</td>
</tr>
<tr>
<td><strong>Medicaid reimbursement, 2011 ($)</strong></td>
<td>$33,743 ± 60,648</td>
<td>$44,182 ± 45,516</td>
</tr>
</tbody>
</table>
Results

Relative Factor Importance

Patient behavior: 1.35
Other practices: 0.64
Claim approval: 0.78
Reimbursement: 6.5
Results
Factor Utilities*

*Relative importance of each factor and significant differences between levels
Application of Results

• We knew that the presence of other local practices that accept Medicaid is important.

• **Initial hypothesis:** Dentists would be more likely to treat Medicaid patients if other local practices also accept Medicaid (larger local safety-net).

• **Our findings:** Dentists are more willing to treat Medicaid patients if there are no other local practices that accept Medicaid.

• May reflect a sense of social responsibility among dentists
Simulation Scenarios

Results can be used to calculate probabilities for all possible factor/level combinations (n=144)
Simulations
Effect of decreasing reimbursement

**BEST CASE SCENARIO**

- No other practices in the area accept Medicaid
- Patient never misses appointments
- Medicaid reimbursement is **85%** of usual fees
- Claim approved on first submission

**PROBABILITY = 81%**

**WHAT IF REIMBURSEMENT IS LESS?**

- Same scenario, BUT:
- Reimbursement is **55%** of usual fees

**PROBABILITY = 56%**
Simulations
Effect of decreasing reimbursement

BEST CASE SCENARIO

• No other practices in the area accept Medicaid
• Patient never misses appointments
• Medicaid reimbursement is 85% of usual fees
• Claim approved on first submission

PROBABILITY = 81%

WHAT IF COMPLIANCE IS WORSE?

• Same scenario, BUT:
  • Patient often misses appointments

PROBABILITY = 64%
Simulations
Effect of improving patient compliance

SCENARIO

- No other practices in the area accept Medicaid
- Patient never misses appointments
- Medicaid reimbursement is 85% of usual fees
- Claim approved on first submission

WHAT IF MORE LOCAL PRACTICES ACCEPT MEDICAID?

- Same scenario, BUT:
  - Many other practices in the area accept Medicaid

PROBABILITY = 81%

PROBABILITY = 71%
Simulations
Effect of improving patient compliance

SCENARIO

• No other practices in the area accept Medicaid
• Patient never misses appointments
• Medicaid reimbursement is 85% of usual fees
• Claim approved on first submission

WHAT IF CLAIM APPROVAL WAS DELAYED?

• Same scenario, BUT:
  • Claim unlikely to be approved on first submission

PROBABILITY = 81%

PROBABILITY = 70%
Advantages of Conjoint Analysis

• Can evaluate more than 1 factor at a time
• Allows respondents to make trade-offs between factors
• Assesses relative importance of factors
• Measures preference strength
• Can calculate probabilities for simulated scenarios
• Less susceptible to social desirability bias
Conclusions

• Medicaid participation is a complex phenomenon
  • Multiple levels of influence: policy, administrative, community, individual levels

• Reimbursement rates were the most important factor, but not the only influential one:
  • Claim approval, patient behavior, and other dentists’ behavior were also highly influential.

• Use of conjoint analysis demonstrated that even if reimbursement rates are not maximized, improving other conditions may improve Medicaid participation.
SURVEY 3: CAPACITY OF THE PUBLIC SAFETY NET

Web-based survey administered to FQHCs and CHCs in Iowa that provide dental services (N=15)
Survey 3 Content

• Clinic staffing (FTEs)
• Dental services provided
• Number of patient visits
• Dental facilities
• Impact of the ACA
Preliminary Results

• **Response rate:** 14/15 (93.3%)
  – 12 FQHCs, 2 CHCs without FQHC status
  – 5 with satellite clinics

• **Respondent position at CHC:**
  – Dental director: 69.2%
  – Dental clinic manager: 15.4%
  – CEO: 15.4%
## Public Safety Net Dental Workforce

<table>
<thead>
<tr>
<th>Staff</th>
<th>Main Clinics, Mean (Range) (N=14)</th>
<th>Satellite Clinics, Mean (Range) (N=5)</th>
<th>Total FTEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dentists</td>
<td>2.5 (1.0-6.8)</td>
<td>1.5 (0.6-2.0)</td>
<td>41.8</td>
</tr>
<tr>
<td>Dental hygienists</td>
<td>2.0 (0.5-6.0)</td>
<td>1.0 (0.1-2.0)</td>
<td>24.4</td>
</tr>
<tr>
<td>Dental assistants</td>
<td>6.1 (2.0-13.8)</td>
<td>3.3 (1.2-4.8)</td>
<td>77.8</td>
</tr>
</tbody>
</table>

*With 14 clinics responding about dentists; 10 responding about dental hygienists and assistants

### Total vacancies:
- Dentists: 1
- Dental hygienists: 0
- Dental assistants: 2
A large majority of respondents expect their need for dentists, dental hygienists, and dental assistants to increase.
Perceived Workload:
How would you best describe your dental clinic(s) during the past 12 months?

Two clinics are not busy enough and could accommodate more patients, while six (43%) reported being either too busy or having long wait-times for appointments.
Scheduling: Patient encounters

- Average patient encounters per clinic was 10,718 in 2012
- Average broken appointment rate for all clinics was 21%
  - Ranged from 6-40%
- Average time until the 3rd next available appointment was 13 days
## Scheduling: How clinics schedule services

<table>
<thead>
<tr>
<th></th>
<th>Walk-in</th>
<th>Open Access*</th>
<th>Scheduled</th>
<th>Waitlist</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergencies</td>
<td>43%</td>
<td>43%</td>
<td>14%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Recalls/Prophys</td>
<td>0</td>
<td>17%</td>
<td>83%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Routine treatment</td>
<td>0</td>
<td>8%</td>
<td>92%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>New patient exams</td>
<td>0</td>
<td>17%</td>
<td>83%</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Open access: call to schedule a same-day appointment*
Service Provision: How does your clinic provide access to these services?

<table>
<thead>
<tr>
<th>Service</th>
<th>Provided at Clinic</th>
<th>Covered through referral</th>
<th>Do not provide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple extractions</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scaling and root planing</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Simple root canal</td>
<td>93%</td>
<td>57%</td>
<td>7%</td>
</tr>
<tr>
<td>Tx of pre-coop children</td>
<td>43%</td>
<td>36%</td>
<td>21%</td>
</tr>
<tr>
<td>Complex extractions</td>
<td>57%</td>
<td>57%</td>
<td>7%</td>
</tr>
<tr>
<td>Complex root canal</td>
<td>71%</td>
<td>36%</td>
<td>7%</td>
</tr>
<tr>
<td>Sedation</td>
<td>7%</td>
<td>57%</td>
<td>36%</td>
</tr>
<tr>
<td>Orthodontia</td>
<td>36%</td>
<td>64%</td>
<td>7%</td>
</tr>
<tr>
<td>Periodontal surgery</td>
<td>36%</td>
<td>64%</td>
<td>7%</td>
</tr>
<tr>
<td>Implants</td>
<td>36%</td>
<td>64%</td>
<td>7%</td>
</tr>
<tr>
<td>Other specialty services</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Service Provision:
Expectations for ACA-related Change

We expect the **number of patients** to:

<table>
<thead>
<tr>
<th></th>
<th>Adults</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Children</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children</td>
<td>8</td>
<td>69</td>
<td>23</td>
<td>15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

We expect **dental treatment needs**, on average, to:

<table>
<thead>
<tr>
<th></th>
<th>Adults</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults</td>
<td>23</td>
<td>62</td>
<td>15</td>
<td>15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Children</td>
<td></td>
<td>54</td>
<td>38</td>
<td>15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Dental Facilities

<table>
<thead>
<tr>
<th>Clinic Space</th>
<th>Main clinics, Mean (Range) (N=14)</th>
<th>Satellite clinics, Mean (Range) (N=5)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dental operatories</td>
<td>8.15 (3-23)</td>
<td>5.0 (2-8)</td>
<td>131</td>
</tr>
<tr>
<td>Dental operatories in use</td>
<td>7.31 (3-23)</td>
<td>5.0 (2-8)</td>
<td>120</td>
</tr>
</tbody>
</table>

*With 13 clinics responding, including all 5 with satellite clinics

- Dental clinics are currently using the overwhelming majority of their operatory space
Dental Facilities: Expectations for Change

We expect our needs for dental clinic space to:

- Increase: 62%
- Stay the same: 38%
- Decrease: 0%
What changes are you considering to accommodate this increased demand for dental care? (%)

- Expand clinic hours: 100%
- Expand existing facilities: 64%
- Hire general dentists: 55%
- Hire dental specialists: 27%
- Hire dental hygienists: 9%
- Hire dental assistants: 9%
- Add/expand satellite clinic: 9%
- Expand the scope of services: 0%
- Improve referral network: 0%
Clinic Readiness for Change

Confidence in dental clinic’s ability to respond to the opportunities and challenges health reform may present

- Clinics’ confidence in their ability to respond to health reform is generally high.
**Clinic Readiness for Change:**
**Response to challenges that health reform may present**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Agree nor Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our dental clinic knows what steps we will need to take</td>
<td>31</td>
<td>46</td>
<td>15</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Our dental clinic has the necessary human, financial, and materials resources</td>
<td>8</td>
<td>38</td>
<td>15</td>
<td>31</td>
<td>8</td>
</tr>
<tr>
<td>Current circumstances at our dental clinic will limit our ability to respond</td>
<td>8</td>
<td>53</td>
<td>31</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

![Bar chart showing responses to different statements about clinic readiness.](image)
In summary...

• Clinics are aware that changes are coming but some feel they lack knowledge or resources to respond to these changes.

• In order to meet the increased demand for dental services, they are willing to consider making changes in certain areas, but are not considering others—e.g. considering increasing clinic hours, but not considering expanding the scope of services provided.

• There may be opportunities to improve the capacity of the public dental safety net in Iowa—e.g. reducing broken appointment rates.
YEAR 2 ACTIVITIES

November 2013 – October 2014
Year 2 Activities

- Complete analysis of Surveys 1-3
- Policy Brief (summarize results of Year 1 findings)
- Primary Care Dental Home (PDCH) and the role for Dentistry in the Health Home
  - Background Report
  - State Forum
  - National feedback