ORAL HEALTH, INTEGRATION, AND INTERPROFESSIONAL PRACTICE

Dr. Sean G. Boynes
The DentaQuest Partnership for Oral Health Advancement
INTEGRATED CARE
• An interdisciplinary approach to health care that incorporates specific procedures of other disciplines into daily practice.

COORDINATED CARE
• Using a continual care pathway approach that allows the patient easy navigation and understanding their needs within the health care system.

INTEGRATED CARE
- Clinical Integration
- Population & System Analysis
- Risk Stratified Care

COORDINATED CARE
- HIT & Telehealth
- Referral & Care Management
- Patient Engagement
“Healthcare is an exercise in interdependency-not personal heroism... a need for greater teamwork and to ask, what am I part of?”

- DON BERWICK
President Emeritus and Senior Fellow, IHI

-Dr. Don Berwick, IHI [NOSORH Annual Session 2016]
<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fragmented Payment</td>
<td>Unified Budget</td>
</tr>
<tr>
<td>Hospital as the Center</td>
<td>Home as the Hub</td>
</tr>
<tr>
<td>Excellent Soloists</td>
<td>High Performing Teams</td>
</tr>
<tr>
<td>Moving People</td>
<td>Moving Knowledge</td>
</tr>
<tr>
<td>What is the Matter with You?</td>
<td>What Matters to You?</td>
</tr>
</tbody>
</table>

-Dr. Don Berwick, IHI [NOSORH Annual Session 2016]
ORAL HEALTH AND A HEALTHY LIFE

- Heart Disease
- Stroke
- Diabetes
- Pregnancy
- Obesity
- Kidney Disease
- Depression
- Lung Infections
- Rheumatoid Arthritis
“Often when you think you’re at the end of something, you’re at the beginning of something else.”

- FRED ROGERS

American television personality, musician, puppeteer, writer, producer, and Presbyterian minister
“What are the barriers and the facilitators of integration of oral health into primary care in various healthcare settings across the world?”
BARRIERS

Lack of political leadership and healthcare policies
  • Poor understanding
  • Separate medical and dental insurance
  • Separate specific policy interest

Patient’s oral healthcare needs
  • Patient’s decision to accept or refuse care based on their need perception rather than the assessment of healthcare providers.

Lack of effective interprofessional education

Lack of continuity of care / silo practice structures

Implementation challenges
  • Deficient administrative infrastructure
  • HIT
Overcoming the Medical Hidden Curriculum

Medical and dental professionals are educated and trained separately --- then they practice how they are trained - separately.

The “hidden curriculum” about oral health in medical training:

• Oral health means teeth
• Teeth are the domain of dentistry
• I know very little about teeth
• Dentists know little about the rest of the body
• Why are you (dentist) asking me about something related to teeth?
• Why is this patient coming to ME about their mouth?
• Why can’t I get a dentist to see this patient?
Overcoming the Dental Hidden Curriculum

Medical and dental professionals are educated and trained separately and then they practice how they are trained - separately.

The “hidden curriculum” about oral health in dental training:

• Oral health means dental care
• Teeth are the domain of dentists
• I do not see a need to know about treating systemic diseases
• Physicians consider us as an inferior “doctor”
• Surgical intervention gets me to graduation & pays the bills after
• Why is this patient coming to ME about their health?
• Team, what team? I’m holding my own suction over here.
FACILITATORS

Financial and technical support from governments, stakeholders and non-profit organizations.

Interprofessional education (non-dental providers)

Collaborative practices

• Perceived responsibility and role identification
• Case management
• Incremental approach

Local strategic leaders (champions)

Proximity / Convenience

• Increasing consumerism

“The best creative solutions don’t come from finding good answers to the questions that are presented... They come from inventing new questions.”

- SETH GODIN

American Author and Former Dotcom Executive
CREATING AN INTERPROFESSIONAL ORAL HEALTH NETWORK

INTERPROFESSIONAL ORAL HEALTH NETWORKS

- Oral Health Proprietorship
- Dental Referral Networks
- Health Information Technology
- Environment of Improvement
- Transitioning Care Models
CORRELATING INTEGRATION LEVERS

A total of 673 people participated in the study.

- Resulting sample sizes were 559 and 560

Demographics

- Dental: 60%; Medical: 40%
- Rural: 43%; Suburban: 32%; Urban: 25%
- Clinical care: 30%; Leadership: 13%; Support staff, FLHWs: 57%

Motivated population

The last 9 questions were dichotomized to Agree (Agree, Strongly Agree) and Disagree (Disagree, Strongly Disagree, Neutral)

- Unknown and N/A answers were discarded
The Dependability of Coordination

Business Model

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Odds Ratio</th>
<th>Confidence Interval</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization variables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization type (RHC as referent group)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACO</td>
<td>5.72</td>
<td>1.66-19.74</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>FQHC</td>
<td>3.04</td>
<td>1.13-8.17</td>
<td></td>
</tr>
<tr>
<td>Private Practice</td>
<td>2.07</td>
<td>0.68-6.35</td>
<td></td>
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</tbody>
</table>

Satisfaction and ease of Electronic Health Record use

<table>
<thead>
<tr>
<th>Indicator</th>
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<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referral variables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ease of EHR for making dental referral (Agree/strongly agree as referent group)</td>
<td>6.67</td>
<td>3.61-12.17</td>
<td>&lt; .0001</td>
</tr>
<tr>
<td>Disagree/strongly disagree</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

No-Show Rate (15% or more)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Odds Ratio</th>
<th>Confidence Interval</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issue with no shows (Agree/strongly agree as referent group)</td>
<td>1.99</td>
<td>1.29-3.10</td>
<td>.01</td>
</tr>
<tr>
<td>Disagree/strongly disagree</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Dependability of Integration (Medical)

Health Information Technology / Electronic Health Record

• Respondents who reported EHR ease were 2.4 times more likely to administer fluoride varnish and conduct risk assessments
  – Embedded risk assessment
  – Ease of reporting and monitoring

Referral system variable: Type of agreement with the following statement: “Our electronic health record makes medical-to-dental referrals easy”

<table>
<thead>
<tr>
<th></th>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>19 (14.5%)</td>
<td>156 (36.4%)</td>
</tr>
<tr>
<td>Disagree</td>
<td>112 (85.5%)</td>
<td>272 (63.6%)</td>
</tr>
</tbody>
</table>

The Dependability of Integration (Medical)

Medical to dental referral capability

- Respondents signifying a dependable medical to dental referral system were 4.5 times more likely to administer FL/RA/SM

<table>
<thead>
<tr>
<th>Referral system attributes</th>
<th>Has a successful network for medical-to-dental referrals (disagree/strongly disagree as referent group)</th>
<th>&lt;0.0001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree/strongly agree</td>
<td>4.54</td>
<td>2.79–7.39</td>
</tr>
<tr>
<td>Referral directionality (one directional, medical to dental only as referent group)</td>
<td>0.7826</td>
<td></td>
</tr>
<tr>
<td>No referral system</td>
<td>0.65</td>
<td>0.18–2.39</td>
</tr>
<tr>
<td>Bidirectional</td>
<td>0.91</td>
<td>0.50–1.63</td>
</tr>
<tr>
<td>Referral method (electronic health record as referent group)</td>
<td>0.0009</td>
<td></td>
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<tr>
<td>Warm handoff</td>
<td>0.22</td>
<td>0.10–0.51</td>
</tr>
<tr>
<td>All other methods</td>
<td>0.26</td>
<td>0.12–0.54</td>
</tr>
<tr>
<td>No method</td>
<td>0.54</td>
<td>0.13–2.29</td>
</tr>
<tr>
<td>Ease of electronic health record use for making dental referral (disagree/strongly disagree as referent group)</td>
<td>0.0054</td>
<td></td>
</tr>
<tr>
<td>Agree/strongly agree</td>
<td>2.37</td>
<td>1.29–4.37</td>
</tr>
</tbody>
</table>

“Progress is impossible without change, and those who cannot change their minds cannot change anything.”

- GEORGE BERNARD SHAW
  IRISH PLAYWRIGHT, CRITIC, POLEMICIST AND POLITICAL ACTIVIST
A PERSON-CENTERED PATHWAY
<table>
<thead>
<tr>
<th>CATEGORY 1</th>
<th>CATEGORY 2</th>
<th>CATEGORY 3</th>
<th>CATEGORY 4</th>
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<tbody>
<tr>
<td><strong>$</strong></td>
<td><strong>🔗</strong></td>
<td><strong>🏛️</strong></td>
<td><strong>👥</strong></td>
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<tr>
<td><strong>Fee For Service</strong></td>
<td><strong>Fee For Service</strong></td>
<td><strong>APMs Built On</strong></td>
<td><strong>Population</strong></td>
</tr>
<tr>
<td><strong>- No Link To</strong></td>
<td><strong>- Link To Quality &amp; Value</strong></td>
<td><strong>Fee-For-Service Architecture</strong></td>
<td><strong>- Based Payment</strong></td>
</tr>
<tr>
<td><strong>Quality &amp; Value</strong></td>
<td><strong>A</strong></td>
<td><strong>A</strong></td>
<td><strong>A</strong></td>
</tr>
<tr>
<td>Foundational Payments for Infrastructure &amp; Operations (e.g., care coordination fees and payments for HIT investments)</td>
<td>APMs with Shared Savings (e.g., shared savings with upside risk only)</td>
<td>Condition-Specific Population-Based Payment (e.g., per member per month payments, payments for specialty services, such as oncology or mental health)</td>
<td><strong>B</strong></td>
</tr>
<tr>
<td>Pay for Reporting</td>
<td><strong>B</strong></td>
<td><strong>B</strong></td>
<td>Comprehensive Population-Based Payment (e.g., episode-based payments for procedures and comprehensive payments with upside and downside risk)</td>
</tr>
<tr>
<td>(e.g., bonuses for reporting data or penalties for not reporting data)</td>
<td>APMs with Shared Savings and Downside Risk (e.g., episode-based payments for procedures and comprehensive payments with upside and downside risk)</td>
<td><strong>B</strong> Integrated Finance &amp; Delivery Systems (e.g., global budgets or full/percent of premium payments)</td>
<td><strong>C</strong> Integrated Finance &amp; Delivery Systems (e.g., global budgets or full/percent of premium payments in integrated systems)</td>
</tr>
<tr>
<td><strong>Pay-for-Performance</strong> (e.g., bonuses for quality performance)</td>
<td><strong>Pay-for-Performance</strong> (e.g., bonuses for quality performance)</td>
<td><strong>Risk Based Payments NOT Linked to Quality</strong></td>
<td><strong>Capitated Payments NOT Linked to Quality</strong></td>
</tr>
</tbody>
</table>

https://hcp-lan.org/apm-refresh-white-paper/
RISK STRATIFIED ANNUAL SURGICAL DENTAL INTERVENTION COSTS

Number of Patients with Surgical Dental Interventions, by Risk

- High Risk: 17,867
- Moderate Risk: 7,168
- Low Risk: 2,680

Box and Whisker Plot of Risk Stratified Annual Surgical Dental Intervention Costs

- Low Risk: $271 - $135 - $72
- Moderate Risk: $567 - $297 - $87
- High Risk: $613 - $434 - $210

Preliminary Analysis