Limitations of Dental School Financial Surveys

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Dental school clinical sustainability and the importance of survey data
Overview

Why clinical financial surveys are important

Challenges in gathering useful data

Pilot study in progress

Plans for a future ADEA survey
My opportunities to explore this issue

• Faculty Development Leave (Sept. 1, 2014 – June 30, 2015) for UNMC-specific study
• Big Ten/CIC Dental Schools Deans and CFOs
• ADEA/Gies Educational Fellowship for national-level dental schools study (July 1, 2014 – June 30, 2015) with Council of Deans Work Group
Overall Goal

Maximizing net revenue while providing patient-centered care in a way that is educationally sound
Why focus on:

Net revenue – obviously, to sustain programs and remain fiscally sound (combat rising cost of education, student debt)

Patient-centered care (what is best for patient is central focus)

1. Dental work can be uncomfortable
2. Patients can be anxious
3. Care can be inefficient, leading to prolonged discomfort and stress
Ultimate patient-centered care
Educational soundness

1. Leaning occurs best in a highly humanistic environment (respectful and compassionate)

2. Providers (even experienced dentists) have stress

3. Student providers have additional stress
   1. Investment of time, effort, and money which is all at stake as they learn

4. At the end students must be competent to provide general dentistry, independently
Why surveys?

• Data needed to drive evidence-based decisions

• Can’t afford to be wrong

• Gives leaders the opportunity to guide change (organizational change is difficult!)

• Curricular change is major, and requires the support of faculty, students, and staff (especially faculty) “It is not necessary to change. Survival is not mandatory.” – W. Edwards Deming
Issues about gathering data

- Accuracy is *critical* (bad information $\rightarrow$ bad decisions $\rightarrow$ bad outcomes)
- Clinic information systems and dental school report software vary by school (axiUm, Dentrix, Salud, custom, SAP, etc.)
- Need “apples to apples” comparisons
Primary variables driving revenue (3)

1. **Fees**

2. **Hours** of operation (available chairs with students assigned)

3. **Effort** (students and faculty) *and* patient pool has an impact (safety net)
Primary variables driving expenses

1. Personnel (remember: patient-centeredness and humanistic culture)
2. Materials/supplies
3. Equipment
4. Building/facility (clinic rent)
   
   (a complication: schools receive different types of support from their universities which can be difficult to describe, measure, and allocate)
### Approximate Private Dental Practice Expenses*

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dentist(s) salaries and benefits</td>
<td>40%</td>
</tr>
<tr>
<td>Staff salaries and benefits</td>
<td>26%</td>
</tr>
<tr>
<td>Materials/supplies (50% is lab)</td>
<td>14%</td>
</tr>
<tr>
<td>Mortgage/Rent</td>
<td>12%</td>
</tr>
<tr>
<td>Equipment</td>
<td>5%</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>3-10%</td>
</tr>
</tbody>
</table>

*based upon data from 2009 ADA Survey of Dental Practice, Table 4, page 10, percentage of gross billing*
Predoctoral Clinics

Fees – ~50%

Hours – built around total curriculum

Effort – often students want to do the minimum to qualify for graduation (and faculty don’t have strong incentives to be productive)

Efficiency – suffers because of the novice nature of the providers and the educational process (teaching, documenting, etc.)
Median net income, private practice general practitioners, 2011*

Solo owners $165,000
Nonsolo owners $220,000
Wtd. Ave. (~2 solo/1 n.s.) $183,300
60% overhead $275,000
Gross collections $458,300 (remember)

*from ADA 2012 Survey of Dental Practice
Value of small group study (Big Ten model)

1. Similar schools (public) with similar interests
2. “Somewhat” regional (within 500 miles of Chicago until recently) making direct, face-to-face meeting easier
3. Parent universities have an academic relationship (Committee on Institutional Cooperation) and strongly encourage collaboration
4. Efficiency for refining ideas and gathering/sharing information
5. Relationships and trust--sharing sensitive information
Developing the BIG survey plan

Deans and Financial/Clinical Business Officers met in June 2014 in Chicago
Developing the BIG survey plan:

Focus on revenue, predoctoral clinics in dental schools, and advanced education programs for initial study (FY ‘13)

Exclude faculty practices

Goal: establish benchmarks and identify best practices; share results among our schools
Key predoctoral revenue variables

Fees
• comparing 20 key procedures (by fee codes)

Hours of clinic assigned
• by class, D3 & D4 – also advanced education residency students

Productivity (revenue collected)
• per student & per hour, also source of payment
### Predoctoral fee comparison (red indicates range >2x)

<table>
<thead>
<tr>
<th>ADA Procedure Code</th>
<th>Fee Comparison</th>
<th>Mean</th>
<th>Maximum</th>
<th>Minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>D0120</td>
<td>Periodic oral evaluation (recall)</td>
<td>28</td>
<td>45</td>
<td>20</td>
</tr>
<tr>
<td>D0210</td>
<td>Intraoral--complete series (including bitewings)</td>
<td>69</td>
<td>95</td>
<td>40</td>
</tr>
<tr>
<td>D2331</td>
<td>Resin-based composite - two surfaces, anterior</td>
<td>85</td>
<td>135</td>
<td>65</td>
</tr>
<tr>
<td>D2740</td>
<td>Crown - porcelain/ceramic substrate</td>
<td>514</td>
<td>712</td>
<td>315</td>
</tr>
<tr>
<td>D3310</td>
<td>Anterior endodontic therapy (excluding final restoration)</td>
<td>266</td>
<td>450</td>
<td>135</td>
</tr>
<tr>
<td>D5110</td>
<td>Complete denture—maxillary</td>
<td>561</td>
<td>999</td>
<td>393</td>
</tr>
<tr>
<td>D5214</td>
<td>Mandibular partial denture—cast metal framework</td>
<td>696</td>
<td>1,099</td>
<td>430</td>
</tr>
</tbody>
</table>
### Predoctoral results; clinic hours and productivity summary results

<table>
<thead>
<tr>
<th>Category</th>
<th>Mean</th>
<th>Maximum</th>
<th>Minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total D3 + D4 Clinic Hours Available</td>
<td>2,175</td>
<td>2,743</td>
<td>1,540</td>
</tr>
<tr>
<td>Collections (revenue) per D3</td>
<td>$17,369</td>
<td>$24,226</td>
<td>$10,853</td>
</tr>
<tr>
<td>Collections (revenue) per D4</td>
<td>$22,522</td>
<td>$41,835</td>
<td>$12,769</td>
</tr>
<tr>
<td>D3 revenue per hour</td>
<td>$16</td>
<td>$23</td>
<td>$9</td>
</tr>
<tr>
<td>D4 revenue per hour</td>
<td>$21</td>
<td>$25</td>
<td>$14</td>
</tr>
</tbody>
</table>
Comparing Students’ Production to Dentists’ Production

*From prior slide:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>General practice collections</td>
<td>$458,300</td>
</tr>
<tr>
<td>Revenue from 1.4 DH*</td>
<td>$114,575</td>
</tr>
<tr>
<td>DDS-generated collections</td>
<td>$343,725 (11 mo.)</td>
</tr>
<tr>
<td>DDS-generated collections</td>
<td>$250,000 (8 mo.**)</td>
</tr>
<tr>
<td>D4-generated collections***</td>
<td>$22,522 (~8 mo.**)</td>
</tr>
</tbody>
</table>

* G.P. dentists employ an average of 1.4 FTE dental hygienists, CPAs generally find that a dental hygiene component of a dental practice generates 25% of the practice revenue
** Both dentists and D4 students see patients approximately 1,000 hours over 8 months
*** From Big Ten survey
## Postgraduate annual revenue per resident*

<table>
<thead>
<tr>
<th>Type of Program</th>
<th>Mean</th>
<th>Maximum</th>
<th>Minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Surgery</td>
<td>141,088</td>
<td>290,382</td>
<td>52,554</td>
</tr>
<tr>
<td>GPR</td>
<td>128,245</td>
<td>148,383</td>
<td>104,124</td>
</tr>
<tr>
<td>Orthodontics</td>
<td>76,311</td>
<td>115,624</td>
<td>45,801</td>
</tr>
<tr>
<td>Periodontics</td>
<td>68,881</td>
<td>131,991</td>
<td>31,834</td>
</tr>
<tr>
<td>Endodontics</td>
<td>65,630</td>
<td>92,937</td>
<td>47,415</td>
</tr>
<tr>
<td>Prosthodontics</td>
<td>73,127</td>
<td>89,892</td>
<td>39,050</td>
</tr>
<tr>
<td>Pediatric Dentistry</td>
<td>70,353</td>
<td>194,242</td>
<td>29,396</td>
</tr>
</tbody>
</table>

*data from 7 schools
ADEA project action steps

1. Collect data from U.S. dental schools, maintaining confidentiality in reporting (schools identified by confidential code) on enrollment, revenue, hours, fees for predoctoral and postgraduate programs.

2. Identify programs with the greatest success and further analyze for benchmarks; recommend best practices.

3. Report results (white papers/publications for the appropriate audiences) outlining options for dental schools to consider.
Conclusions

• Definitions are critical to ensure validity
• Benchmarks/best practices are important drivers of decisions and change
• We have the opportunity to make dental education stronger and better
• We need your input to ensure success

and finally,
BFACA 2014

Thank you for your attention – comments, questions, or suggestions?

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