Dental-Related ED Use in Duval County

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Acknowledgement and disclaimer

The data reported were derived from a limited data set supplied by the Florida Agency for Health Care Administration (AHCA).

AHCA disclaims responsibility for any analysis, interpretations, or conclusions that may be created as a result of the limited dataset.
Why look at dental-related ED visits?

- Potentially preventable events that can be avoided with effective outpatient care
  - Prevention
  - Early identification
  - Disease management

Dental-related ED visits are important health system outcome indicators.
What we looked at

❖ **Data:** Emergency department data supplied by the Florida Agency for Health Care Administration (AHCA)

❖ **Non-traumatic dental-related ED visits:**
  - Identified using the first-listed, or *principal*, diagnosis
  - Used diagnosis codes that have been used by the American Dental Association Health Policy Institute and prior research (Tomar et al. 2016)

Wall T, Vujicic M. Emergency department use for dental conditions continues to increase. Chicago, IL: American Dental Association, Health Policy Institute; 2015.
Dental-related ED visits

Florida Overall

More than 151,000 visits in 2017.

Duval County (Facilities)

More than 9,000 visits in 2017.
Dental-related charges

Florida Overall
Total Charges for Dental-Related ED Visits

Almost $300 million in 2017

Duval County
Total Charges for Dental-Related ED Visits

More than $16 million in 2017
Dental-related diagnoses

Top 5 Most Frequently Occurring First-Listed Diagnoses as % of All Dental-Related ED Visits (N=151,688) Florida Overall, 2017

- Other specified disorders of teeth and supporting structures: 31.6%
- Periapical abscess without sinus: 24.2%
- Dental caries, unspecified: 23.4%
- Other forms of stomatitis: 2.3%
- Jaw pain: 2.2%

Top 5 Most Frequently Occurring First-Listed Diagnoses as % of All Dental-Related ED Visits (N=9,263) Duval County, 2017

- Periapical abscess without sinus: 29.4%
- Dental caries, unspecified: 25.5%
- Other specified disorders of teeth and supporting structures: 24.4%
- Chronic gingivitis, plaque induced: 3.3%
- Other forms of stomatitis: 2.4%
Patient Characteristics

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Florida Overall</th>
<th>Duval County</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-17 years</td>
<td>11%</td>
<td>12%</td>
</tr>
<tr>
<td>18-24 years</td>
<td>14%</td>
<td>13%</td>
</tr>
<tr>
<td>25-34 years</td>
<td></td>
<td>35%</td>
</tr>
<tr>
<td>35-44 years</td>
<td></td>
<td>37%</td>
</tr>
<tr>
<td>45-54 years</td>
<td></td>
<td>19%</td>
</tr>
<tr>
<td>55-64 years</td>
<td></td>
<td>11%</td>
</tr>
<tr>
<td>65 years and older</td>
<td>6%</td>
<td>6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sex</th>
<th>Florida Overall</th>
<th>Duval County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>44%</td>
<td>45%</td>
</tr>
<tr>
<td>Female</td>
<td>56%</td>
<td>55%</td>
</tr>
</tbody>
</table>
Patient Characteristics

Race/Ethnicity: Hispanic or Latino
- Florida Overall: 14%
- Duval County: 3%

Non-Hispanic Black
- Florida Overall: 33%
- Duval County: 49%

Non-Hispanic White
- Florida Overall: 50%
- Duval County: 44%

Non-Hispanic Other
- Florida Overall: 2%
- Duval County: 3%

Unknown
- Florida Overall: 8%
- Duval County: 2%

Payer Type
- Medicare/Medicare Managed Care
  - Florida Overall: 6%
  - Duval County: 8%

- Medicaid/MMC/KidCare
  - Florida Overall: 37%
  - Duval County: 35%

- Commercial
  - Florida Overall: 15%
  - Duval County: 15%

- Self-Pay
  - Florida Overall: 35%
  - Duval County: 35%

- Other
  - Florida Overall: 5%
  - Duval County: 5%
Visit Characteristics

Monday: 15%
Tuesday: 14%
Wednesday: 14%
Thursday: 13%
Friday: 14%
Saturday: 14%
Sunday: 15%

Arrival Time
- 8 a.m. - 5 p.m.: 54% Florida Overall, 57% Duval County
- Outside 8 a.m. - 5 p.m.: 46% Florida Overall, 43% Duval County

Arrival Time
- 7 a.m. - 6 p.m.: 63% Florida Overall, 66% Duval County
- Outside 7 a.m. - 6 p.m.: 34% Florida Overall, 37% Duval County
Which EDs do Duval County patients visit for dental-related care?

Percentage of Total Dental-Related ED Visits among Duval County Patients by Facility

- **BAPTIST MEDICAL CENTER - JACKSONVILLE**: 22.5%
- **MEMORIAL HOSPITAL - JACKSONVILLE**: 20.9%
- **ORANGE PARK MEDICAL CENTER (CLAY COUNTY)**: 17.7%
- **UF HEALTH - JACKSONVILLE**: 11.9%
- **ST VINCENT'S MEDICAL CENTER - RIVERSIDE**: 8.5%
- **ST VINCENT'S MEDICAL CENTER - SOUTHSIDE**: 4.3%
- **BAPTIST MEDICAL CENTER - BEACHES**: 3.5%
- **BAPTIST MEDICAL CENTER - SOUTH**: 2.7%
- **MAYO CLINIC**: 1.0%
- **ST VINCENT'S MEDICAL CENTER (CLAY COUNTY)**: 1.0%
- **OTHER**: 6.1%
There is variation across facilities!
What can we learn from data?

- Assess performance
  - How we are doing now?
- Set goals for improvement
- Gather information that helps to target interventions
  - Identify characteristics of patients and visits
  - Confirm what we think we know
    - ...or not – we may instead learn our assumptions are mistaken
- Monitor whether we are achieving and sustaining improvement – are we improving, staying the same, getting worse?
Driving improvement

Access: Link patients to care

Process: Provide evidence-based care

Outcomes: Achieve and sustain improved health
Measuring improvement

Access:
- insurance coverage
- dental care visits

Process:
Provide evidence-based care
- sealant receipt
- fluoride receipt
- follow-up with dentist after ED visit

Outcomes:
Achieve and sustain improved health
- new dental caries
- tooth loss
- dental-related ED visits
Outcomes are Influenced by Factors other than Health Care
Community dashboards

Thank you!

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