Defining Capacity and Productivity

Balancing Outcomes and Sustainability

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Learning Objectives

- Understand how to define maximum dental program capacity
- Learn strategies for maximizing and managing program capacity
- Learn what provider productivity measures should be tracked and how to establish provider goals
Why is This Important?

• Every safety net dental program needs to know its maximum capacity and manage to that capacity
• Underachieving and overachieving capacity are both problematic
• Effective dental programs focus on outcomes—clinical, financial and access
• Providers need to have goals to achieve these outcomes, they need to understand how these goals were developed and be held accountable for goal attainment
Defining Program Capacity

- Every dental program has a finite capacity
- Capacity depends on the number and type of staff, number of dental chairs and hours of operation
- While most safety net dental programs have more demand than can be met, that is not always the case
- Many factors can negatively impact a program’s ability to maximize its potential capacity
- Very important to manage capacity strategically
Typical Factors Determining Dentist Capacity

- Level of provider experience
- Number of available operatories
- Number, type and experience of dental assistants
- Scope of services provided
- Age and type of patients
- Effectiveness of scheduling
- Failed appointment rate
- Number of expected visits/hour can vary from 1.2 to 2
# Daily Visit Capacity, Dentists

<table>
<thead>
<tr>
<th>Day</th>
<th># of FTE Providers</th>
<th>X 1.7 Visits/Clinical Hour</th>
<th>X # of Clinical Hours</th>
<th>Potential Visit Capacity</th>
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<tbody>
<tr>
<td>Mon.</td>
<td>2</td>
<td>1.7</td>
<td>15</td>
<td>26</td>
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<tr>
<td>Tues.</td>
<td>3</td>
<td>1.7</td>
<td>22.5</td>
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</tr>
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<td>Wed.</td>
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<td>1.7</td>
<td>30</td>
<td>51</td>
</tr>
<tr>
<td>Thurs.</td>
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<td>30</td>
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</tr>
<tr>
<td>Fri.</td>
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<td>26</td>
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Typical Factors Determining Hygienist Capacity

- Level of provider experience
- Do they take x-rays? Conventional or digital?
- Work out of more than one room?
- Responsiveness of dentists for exams
- Age and type of patients
- Effectiveness of scheduling
- Failed appointment rate
- Number of expected visits/hour can vary from 1 to 2
## Determine Daily Visit Capacity, Hygienists

<table>
<thead>
<tr>
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<td>18</td>
</tr>
<tr>
<td>Fri.</td>
<td>1</td>
<td>1.2</td>
<td>7.5</td>
<td>9</td>
</tr>
</tbody>
</table>
Determine Daily Visit Capacity (Example)

- Monday: 26 dentist visits + 18 hygienist visits = 44 visits
- Tuesday: 38 dentist visits + 18 hygienist visits = 56 visits
- Wednesday: 51 dentist visits + 18 hygienist visits = 69 visits
- Thursday: 51 dentist visits + 18 hygienist visits = 69 visits
- Friday: 26 dentist visits + 9 hygienist visits = 35 visits

Total weekly visit capacity = 273
Total annual visit capacity (273 x 46 weeks) = 12,558
Excess Demand

• Sample program has capacity to accommodate 12,558 visits given current staffing and hours of operation
• Represents approximately 5,000 unduplicated patients
• What happens if 10,000 unduplicated patients are trying to get in for dental care?
• What happens if the practice tries to accommodate 10,000 unduplicated patients?
Excess Demand (cont.)

• Too many new patients in the daily schedule
• High rate of “emergencies” as new patients try and game the system to get into the practice
• Long waits between appointments for existing patients with identified dental problems
• High rate of patients lost to follow-up as they get frustrated and discouraged at the amount of time to get their problems resolved
• Short appointment lengths as practice tries to accommodate as many patients as possible
Excess Demand (cont.)

• Inability to complete treatments in a timely manner
• Lots of chaos in the dental department due to high volume of patients—long waits to check in, to be taken into clinical area and in dental chairs as the practice becomes overwhelmed and routinely falls behind
• Patients get fed up and leave without being seen—many unhappy patients who will badmouth the practice and seek care elsewhere
• Staff are exhausted, frustrated and stressed out—poor staff morale and high turnover rates
Managing Excess Demand

- Define maximum capacity and explain capacity determination to executive leadership and Board
- Document and demonstrate negative outcomes of failing to manage demand appropriately
- Understand and accept that the dental program has a finite capacity that cannot currently meet the demand
- Best way to increase ability to meet demand is to manage current capacity effectively to generate needed financial resources to add more providers, more operatories, more dental sites, increase hours of operation, etc.
Managing Excess Demand (cont.)

• Designate priority populations for dental care (eg, children, pregnant women, people with chronic health conditions such as diabetes, heart disease, HIV/AIDS)

• Create designated appointments in the daily schedule to preserve and protect access for priority populations

• Use scripting to explain why access to the dental program is limited

• Consider limiting access to patients of record of the health center or those who live in the defined service area
Managing Excess Demand (cont.)

- Track completed treatments to determine the number of patients (daily, weekly, monthly) whose dental problems are eliminated—this is the number of new patients that can be brought into the dental program without bogging things down.
Unmet Demand

- Empty chairs means lost revenue the dental program needs to meet operating costs
- Staff with too much free time can develop bad work habits
- Dental program can become inefficient without challenges presented by full schedules
- Good staff may leave to find more rewarding jobs elsewhere
- Inability to meet operating costs can lead to reductions in staff, operatories, sites and hours of operations
Managing Unmet Demand

• Determine root causes for lack of demand
  ➢ Low population in need of care
  ➢ Competition from others for your patients
  ➢ Barriers to care (transportation issues, distance, inconvenient operating hours, cost of care, language/cultural issues, etc.)
  ➢ What is the patient experience of care? (Look carefully at facilities, operations, wait times, length of time between appointments, number of appointments needed to complete treatment, staff attitudes, etc.). Are patients choosing to go elsewhere because their experience in your dental program is less than optimal?
Managing Unmet Demand (cont.)

• Remove barriers to care wherever possible
• Improve the patient experience of care to the extent possible
• Mine internal and external sources of referrals to dental (eg, pediatrics, family practice, OB/GYN, WIC, Head Start, other health and human service agencies serving children and families)
• Invest in culturally and linguistically appropriate outreach workers to infiltrate service area to assist in education, relationship-building, enrollment and case management
Defining Provider Goals

• Access goals
• Financial goals
• Outcomes goal
Access Goals

• Total number of visits
• Total number of unduplicated patients
• Total number of new patients
Financial Goals

• Gross charges
• Net patient-generated revenue
• Bottom line (revenue after expenses)
Outcomes Goals

- Number and percentage of completed treatments
- Number and percentage of children who received sealants
- Total number of sealants applied
Establishing Goals

- Goals need to be based on desired outcomes for the dental program
- Goals are for both individual providers and the practice as a whole
- Goals need to be lofty but also realistic and achievable
- Goals need to be shared with the team, success in meeting goals regularly evaluated and results shared with individual providers and the entire dental team
- Incentives can be a powerful motivator to promote goal attainment
Visit Goals

• Visit goals should be based on realistic assessment of each dental provider’s capabilities
• Also on the resources available to each provider (number of operatories, hours scheduled and support staff)
• Also on the scope of services provided and type of patients being served
• National benchmarks are a good starting point to work from
Benchmarks

• 2500-3200 encounters/year/FTE dentist
• 1500-1800 encounters/year/FTE hygienist
• 1.7 patients/hour or 13.6 patients per 8-hour day per dentist
• 1.2 patients/hour or 8-10 patients per 8-hour day for hygienist
• Gross Charges = >$400K per dentist per year
Financial Goals

• Financial goals should be designed to get the practice to sustainability/profitability (both with and without grant support)

• Indirect costs need to be included for dental programs that are part of a larger organization

• Financial goals are for individual providers and the practice as a whole

• Gross charges and net patient-generated revenue need to be evaluated
Outcomes Goals

• Outcomes goals are designed to demonstrate the success the dental program is having in improving the health of the communities it serves
• Outcomes goals should be set for individual providers as well as the practice as a whole
Setting Goals, Example

• Practice has two experienced full-time general dentists and one full-time hygienist
• 5 operatories
• 3 full-time dental assistants
• Clinic is open 40 hours per week
• Patient mix is 50% children and 50% adults
Maximum Capacity

- ~7,600 visits/year (accounting for some failed appointments and scheduling inefficiencies)
- Average of 33 visits/day; 163 visits/week = practice goals
- Average of 13 visits/day for each of the two dentists; 65 per week for each dentist
- Average of 7 visits/day for hygienist; 36 visits for the week
Financial Success

• Practice incurs $800,000 in direct and indirect expenses for the year
• To break-even (without grant support), practice must generate that much in net patient-generated revenue
• To achieve surplus, practice sets a goal of $900,000 in net patient-generated revenue
• $900,000 ÷ 230 days = $3913 in net patient revenue per day; $19,565 in net patient revenue per week = Practice Goals
• Practice collects 50% of what it charges; therefore, gross production goals need to be $7,826 per day and $39,130 per week
Financial Success (cont.)

- Net revenue goals for individual providers: $1,600 per day per dentist and $700 per day for hygienist (reflects different revenue potentials for dentists vs. hygienists)
- $8,000 per week per dentist and $3,500 per week for hygienist
- Based on 50% collection rate, gross charge goal of $3,200 per day per dentist and $1,400 per day for the hygienist ($16,000 per week for each dentist and $7,000 per week for hygienist)
Outcomes

• Outcomes are a measure of the dental program’s success in improving the health of its patients and the communities it serves
• Phase I treatment completion focuses on the diagnosis, prevention and elimination of dental disease, non-surgical periodontal care and elimination of hopeless teeth
• Goal to complete Phase I treatment on 50-75% of patients within 12 months of dental exam and formulation of treatment plan
Outcomes

- Because sealants have a strong evidence base for value in preventing dental disease in children, they are another important quality outcome measure.
- Phase I completed treatments and sealants can be easily tracked using dummy codes.
Measuring Performance

• Practice leadership should run daily, weekly and monthly reports to determine gross charges generated by the practice, compare against goals and provide ongoing feedback to dental staff

• On a monthly basis, each provider’s gross and net totals should be compared against goals with results provided individually to providers as occasions to review performance and discuss barriers to success

• On a monthly basis, net collections should be calculated and reported to dental staff
Measuring Performance

• Practice leadership should run daily, weekly and monthly reports to determine number of visits, compare against goals and provide ongoing feedback to dental staff

• On a monthly basis, each provider’s visit totals should be compared against goals with results provided individually to providers as occasions to review performance and discuss barriers to success

• On a monthly basis, total visits should be reported to dental staff and reviewed against goals
Measuring Performance

• Practice leadership should run weekly and monthly reports to determine number and percentage of completed treatments, compare against goals and provide ongoing feedback to dental staff

• In practices where demand exceeds capacity, the number of Phase I treatment plans completed each week should be used to set the number of new patients that can be accommodated in the practice

• On a monthly basis, the number of children receiving dental sealants should be tabulated and reported
Rewarding Performance

• Providers should be rewarded for attaining access, financial and outcomes goals
• Rewards can be distributed quarterly, semi-annually or annually
• All other dental staff should also be rewarded for attaining overall practice goals—can also be quarterly, semi-annually or annually
Partnering to Strengthen and Preserve the Oral Health Safety Net