Guiding Principle

A key public health principle is to provide the most good for the most people with the resources that are available.

It follows that the efficient and effective use of available resources is crucial in dental programs serving American Indians/Alaska Native (AI/AN) communities, because most programs are insufficiently funded to provide adequate access for all persons who seek dental care.
Characteristics of an Efficient Program

- Provides access to services for all persons who seek and need care.

- Provides dental care that is appropriate, of high quality, cost-effective, and acceptable to patients.

- Achieves smooth patient flow throughout the work day.

- Promotes continuity of patient care, even when there is turnover of professional staff.

- Meets consistently all regulatory requirements and standards of practice.
Improving Patient Flow

- Appoint patients no more than three weeks ahead in the appointment schedule.

- In general schedule only one appointment at a time per patient, rather than setting up a series of appointments for the patient.

- Schedule a range of times for various procedures, rather than scheduling the same amount of time for each patient.

- Double-book patients who have a history of broken appointments, unless a ready supply of emergency patients is available throughout the work day.
Improving Patient Flow

- If Patient A obtains an appointment through the normal mechanism but has a history of BAs, resulting in double-booking with Patient B, then Patient B should be one who requires treatment that is not dentist-intensive, such as an exam, fluoride treatment, toothbrush prophylaxis, or application of sealants.

- In general perform quadrant dentistry whenever possible.

- Maintain a list of patients who can appear on short notice to fill gaps in the appointment schedule.
Improving Patient Flow

- Ask emergency patients to call back for their follow-up exam and treatment, rather than providing an appointment at the conclusion of the emergency visit.

- In general perform the necessary emergency treatment at that emergency visit whenever possible, rather than providing only pain medication and asking the patient to return on another day.

- The decision as to whether or not a program should have a special time set aside to treat WIs should be based on an analysis of available data, rather than arbitrarily.
Improving Patient Flow

- In most cases the first follow-up appointment for an emergency patient should be for a complete exam.

- Have a BA policy in the form of a BA agreement or “contract” that is signed by the patient or parent/guardian, and give a copy of this agreement to the patient.

- Follow the Levels of Care guidelines so that basic preventive and restorative services are provided first in the treatment plan.
Improving Patient Flow

- Consider listing a time on the appointment slip that is 10 minutes earlier than the actual appointment time, at least for patients who have a history of BAs or who are chronically late.

- Programs should track their BA rate over time to determine whether the rate is increasing, decreasing, or staying the same.

- In general the first patient should be seated and seen within 15 minutes of clinic opening time.
Improving Patient Flow

- Schedule patients late enough in the day so the last patient is typically completed no more than 30 minutes prior to the designated clinic closing time.

- The non-clinical activities of providers should be kept at the minimum level possible and should correspond to the provider’s billet/job description and level of responsibility.

- Each dentist should routinely schedule more than one patient at the same time.
Improving Patient Flow

- Operatories and tray setups should be standardized so that providers and auxiliaries who move from one operatory to another can easily find necessary supplies and materials.

- The unit dose technique should be used for tray setups, both for efficiency and for infection control.

- Small programs that are short of dental assistants but have a receptionist should consider cross-training.

- Recall systems should be based on individual disease rates, not arbitrary time intervals.
Calculating Efficiency

- You need to know the following before you get started:
  - User Population (obtain from Area Dental Officer)
  - Number of FTE dentists, hygienists, assistants, and receptionists
  - Number of operatories
  - How to find data
Program Resources & Staffing

- **Dentist to Population Ratio**
  - Calculation: User population/# of FTE dentists
  - Recommendation: **1:1200 or lower**
  - Example: 1:1595 – what does this mean?

- **Operatories per Dentist Ratio**
  - Calculation: # of Dental Chairs/# of FTE dentists
  - Recommendation: **2:1**

- **Dental Assistants to Dentists Ratio**
  - Calculation: # of FTE DAs/# of FTE Dentists
  - Recommendation: **2:1 or higher**

*Resource: Obtain user population from ADO or Area Statistician*
Dental Clinical Workload

- Dental Visits Per Dentist
  - Calculation: \((0000+0190)/\text{# of FTE Dentists}\)
  - Recommendation: \(1,926\) or higher
  - Example: 734 by ½ time dentist – meaning?

- Dental Visits Per Operatory
  - Calculation: \((0000+0190)/\text{# of dental chairs}\)
  - Recommendation: \(863\) or higher
  - Example: 400 – what does this mean?

Resource: Obtain Dental Visits from SCOM Report for the last year (count 0000 and 0190 codes)
Clinical Workload

- **Relative Value Units (RVUs) per Patient Visit**
  - Calculation: \# of RVUs/(0000+0190)
  - Recommendation: **5.3 or higher**
  - Example: RVUs/visit is 3, but visits/dentist is 2,000. What does this mean? What would be recommended?

- **RVUs per Dental FTE**
  - Calculation: \# of RVUs/# of FTE dental staff (all)
  - Recommendation: **2,697 or higher**
  - Example: 1,900, but DA:DDS is OK and DDS:Pop is too high. What is the problem? What is the recommendation?

*Resource: RDIR Report (by clinic), Level I-VI services totaled*
Clinical Workload

- Relative Value Units per Dentist
  - Calculation: RVUs/# of FTE dentist
  - Recommendation: 10,146 or higher
  - Example: RVUs per staff <2,697, but RVUs per dentist >10,146. What does this mean?

- Relative Value Units per Operatory
  - Calculation: RVUs/# of Dental Chairs
  - Recommendation: 3,467 or higher
  - Example: RVUs per dentist is >11,000, but RVUs per operatory <3,467. What does this mean?

*Resource:* RVUs from RDIR report (Level I-VI), or if you want specific dentists, use RDIR (not DANN) and add dentist numbers from different clinics. Note than DANN excludes hygienists and EFDAs.
Access to Care Indicators

- **Proportion of Patients Served Annually**
  - Calculation: \( \frac{0000}{\text{User Pop}} \)
  - Recommendation: 60% (or 25% for GPRA) or higher

- **Proportion of Patients Treatment Planned**
  - Calculation: \( \frac{0150}{0000} \)
  - Recommendation: 63% or higher
  - Note: 0150 could be used annually. If you use other codes for treatment planning (0160, 0180, or 0120), you can count the number of patients with those codes as well.

*Resources: 0000 from SCOM report (or if doing time period of other than FY, count # of patients with either 0000 or 0190); User pop – from ADO or Area Statistician; 0150 from SCOM report (count patients)*
Access to Care Indicators

- **Proportion of Patients Completing Treatment**
  - Calculation: 9990/0150
  - Recommendation: 48% or higher
  - Notes:
    - 9990 is used when Level I-III services are completed.
    - Count patients in SCOM with 9990 code and patients with an exam code (0150, 0160, 0180, 0120).
    - There will be carry-over from previous year.

- **Relative Value Units per Patient**
  - Calculation: RVUs/0000
  - Recommendation: 10.9 or higher
  - Notes: If FY, then use SCOM for 0000 and RDIR for RVUs. If not FY, then use SCOM to count patients with 0000 or 0190 and RDIR for RVUs.

*Resources – see notes above*
Broken Appointment Rate

- Three ways to track:
  - Daily review of appointment schedule
  - Use a sample of days from the appointment book
  - Use annual numbers to calculate

- Basic Calculation:
  - $BA\ rate = \frac{\# \ of \ BAs}{\# \ of \ scheduled \ patients}$
Broken Appointment Rate

- Why bother tracking the broken appointment rate?
  - Helpful in making scheduling decisions
  - Helpful in deciding how to improve access to care
  - Helpful in determining how to handle walk-ins
  - If tracked over time, can be an early sign of provider issues/problems
Broken Appointment Rate

Detailed Calculation:

- **Number of broken appointments**
  - What is a BA? Differs by clinic when 9130 is used
  - Recommendation – when patients don’t call to cancel 24 hrs ahead of time and don’t show up
  - How to find the # - SCOM search, unless you want it by provider – use DANN and/or HANN for that.

- **Number of scheduled appointments**
  - Scheduled = 0000+0190 – walk-ins (either 0140 or 9170, whatever you use routinely for walk-ins) + 9130

- **Calculation Summary:** \[ \frac{9130}{(0000+0190+9130-9170)} \]

- **Recommendation:** <23% (I recommend <15%)

- **What do you do if your BA is high?** Refer back to Patient Flow slides!
Summary

- Recommend that quarterly or semi-annual clinical efficiency analysis be performed by your chief dentist (ADO can assist).

- For more information, go to the IHS Dental Portal (www.doh.ihs.gov) and click on “Efficiency & Effectiveness” under the “Clinic” tab.