History of Dental Caries in Alaska Native People

- Archeological records show caries rate of ~1%
- Studies show lowest caries rate in the world
- Improved air transportation and dietary changes
- Prevalence of dental caries in children 2x same aged U.S. children
- Vast majority of children have dental caries

1925
- Studies show lowest caries rate in the world

1928 – 1930’s

1984

1999

Dental Therapists: A Definition

- Primary oral health care professionals
  - Basic clinical dental treatment and preventive services
  - Multidisciplinary team members
  - Advocate for the needs of clients
  - Refer for services beyond the scope of the dental therapist’s practice.*

*SASKATCHEWAN DENTAL THERAPISTS ASSOCIATION

WK Kellogg Foundation,
DHAT Scope of Practice

Diagnosis and Treatment Planning, Prevention, Basic Hygiene, Radiographs, Infection Control, Restorative, Pediatric, Urgent Care, Extractions, Community Projects, Clinic Management, Equipment Repair and Maintenance, Referral Process

- All ages
- General Supervision
- Part of a team of dental and medical providers

DHAT, Ben Steward, examining patient
DHAT 2-year Education
No Prerequisites

Conan Murat, DHAT, standing his ground
DHAT Curriculum and Education

- NEED TO KNOW
- Limited scopes
- Dental School texts
- Dentist led team
- Prevention oriented
- Accessible to students
- Cultural Competence
- Patient-centered

Dr. Anthony Brusca, DHAT Melanie Harris and classmates in DHAT Educational Program clinic
DHA Certification

- **After coursework**-
  - preceptorship
  - Direct supervision

- **Standing orders**-
  - Limits for general supervision

- **Recertification**-
  - Every two years
  - CDE- 24 hours
  - Direct observation of all technical skills in scope.

DHAT students Bernadette Charles and Tambre Guido with supervising dentist Edwin Allgair, 2010
Community-based DHAT as part of a dentist led team

Regional Hub Clinic
- Supervising Dentist
- Hygienist
- EFDHA
- PDHA
- DHAT

Subregional Clinic
- DHAT
- PDHA

Subregional Clinic
- DHAT
- PDHA

Village Clinic
- PDHA

Village Clinic
- PDHA

Village Clinic
- PDHA

Village Clinic
- PDHA

Village Clinic
- PDHA

Village Clinic
- PDHA
“A Review of the Global Literature on Dental Therapists”*

Dental Therapists:
- Decrease cost of care
- Improve access to care
- Provide care safely
- Public values the role of dental therapists
- Traditionally 2 years education


Supported by the W.K. Kellogg Foundation
Research Triangle Institute  
Clinical Evaluation*

• **Summary of findings**
  • Technically competent
  • Providing care safely and appropriately
  • Successfully treating cavities and helping relieve pain for patients without previous access to regular care
  • High patient satisfaction
  • Well accepted in AK tribal villages

*“Evaluation of the Dental Health Aide Therapist Workforce Model in Alaska Final Report” Prepared for: W.K. Kellogg Foundation ,Rasmuson Foundation, Bethel Community Services Foundation. Prepared by: Scott Wetterhall, MD, MPH, James D. Bader, DDS, MPH, Barri B. Burrus, PhD, Jessica Y. Lee, DDS, PhD, Daniel A. Shugars, DDS, PhD, MPH. RTI International 3040 Cornwallis Road Research Triangle Park, NC 27709. RTI Project Number 0211727.000.001
Curriculum

American Association of Public Health Dentistry
• 11-person academic panel
• Model curriculum
• two-year, post-secondary
• Open access online:

The Journal of Public Health Dentistry, Special Issue:
Workforce Development in Dentistry: Addressing Access to Care
Spring 2011 Volume 71, Issue Supplement S2
Dental Therapy Education Standards

- Community Catalyst Panel of experts
  DT Educators
  Dental Therapists
  Dentist Supervisors

- Commission on Dental Accreditation
  Draft
  Requires 3 years
  Out for comment
  [Link to draft](http://www.ada.org/sections/educationAndCareers/propsed_dentaltherapy_apx5.pdf)
From ANTHC Consultant Survey of AK Tribal Dental Directors

Each DHAT team on average, provides care to 830 patients during approximately 1200 patient encounters (or visits) each year.

- **Preventive**: 700 visits
- **Restorative/Acute**: 500 visits
Tribal revenue as reported by dental directors with DHAT

*The net annual revenue* stream generated by the employer is $125,000-$245,000 after costs (DHAT and dental assistant salary, benefits, travel, supplies, and other costs) with savings of ~$40,000 in avoided travel costs to receive dental care.

19 DHATs generate 76 jobs (dental assistants, training program faculty, management, staff) with half of these jobs and the related $9m economic activity in rural Alaska.

Scott and Co. Consulting, 2011
Improved Access and Quality

• 27 certified DHAT
• 81 communities in rural AK
  • Over 40,000 people have access
• Continuity of care
  • Higher level of care possible
  • Dentist working up to their licensure

DHAT Aurora Johnson, NZ Educated
Dentist Supervisor Quotes About Working With DHAT

Scott and Co. Consulting, 2011

“A more complete dental team”

“A full time dental presence keeps oral health at the forefront year round”

“Patients feel comfortable around her”

“Community pride. Pride among the THO Board of Directors. Improved access to routine and preventive dental care”

“Fewer emergencies for dental pain, and less time to treatment”
### Demographics of the existing US dental workforce

<table>
<thead>
<tr>
<th>Professional</th>
<th>Demographic Breakdown</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dentists:</strong></td>
<td>86% White</td>
</tr>
<tr>
<td></td>
<td>6.9% Asian/Pacific Islander</td>
</tr>
<tr>
<td></td>
<td>3.4% African American</td>
</tr>
<tr>
<td></td>
<td>3.4% Hispanic</td>
</tr>
<tr>
<td></td>
<td>0.2% American Indian</td>
</tr>
<tr>
<td><strong>Dental hygienists:</strong></td>
<td>&gt;90% non-Hispanic white</td>
</tr>
<tr>
<td><strong>DHAT:</strong></td>
<td>88% American Indian/Alaska Native</td>
</tr>
</tbody>
</table>

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2. Dental Hygiene at the Crossroads of Change, Environmental Scan 2011-2021, Marsha Rhea and Craig Bettles.
“For some students, the only way to get into a health career is to take it a chunk at a time. **Requiring a bachelor’s degree would make health careers inaccessible to many people,**” said [Carolyn] O'Daniel, who is dean of allied health and nursing at Jefferson Community and Technical College in Kentucky.

Barbara Jones, president of South Arkansas Community College (SouthArk)

“Jones cited additional problems with degree creep in nursing: a lack of qualified faculty to teach baccalaureate programs, a decline in workforce diversity, deceased access to health care in rural areas, and a decline in job satisfaction and morale if health care workers feel their skills and knowledge are not fully used.”*

*“Colleges worry about ‘degree creep’ in health care,” By Ellie Ashford, Published August 10, 2011. Community College Times, American Association of Community Colleges.
DHAT Student and Practitioner Retention Rates

• 64% completion rate AK DHAT Educational Program

• 35 total graduates (NZ + AK)
• 28 DHAT
  • 10 year retention rate 80%

Happy customer
In Summary- Keys to Success

- **Not Mini Dentists**
- **2 Year Education**
- **Cultural Competence**
- **General Supervision**
- **Appropriate Scope:**
  - Diagnosis and Treatment Planning
  - Extractions
- **Certification/ Recertification**
- **Community-based**

Trisha Patton, DHAT student, taking x-rays
DHAT Educational Program

Address:
4200 Lake Otis Parkway, Ste 204
Anchorage, AK 99508

Mary E. Williard, DDS
907-729-5602

Sarah Shoffstall-Cone, DDS
907-729-5607

DHAT training is ANTHCsmile on Facebook and twitter
website: http://anthc.org/chs/chap/dhs/

Div. of Community Health Services- DHAT education