

# Addressing the Shortage of Native American Dental Providers through a Collaborative Immersive Internship Experience for Native American Undergraduate Students

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National Indian Health Board Annual Health Conference

September 18, 2019



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# Introduction

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- Background: Native Americans in the dental workforce
- Overview of the Native American Pre-Dental Gateway Program
- Workshop: Creating your own program



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# Learning Objectives

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- Identify three barriers to Native American post-graduate professional education in the healthcare field and programs to reduce these barriers.
- Discuss three consequences that the shortage of Native American Dental Providers has on the delivery of healthcare to the Native American population.
- Identify the tribal, education and institutional partners in their community that can be utilized to create a similar immersive internship experience.



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# Oral Health Status of Native Americans

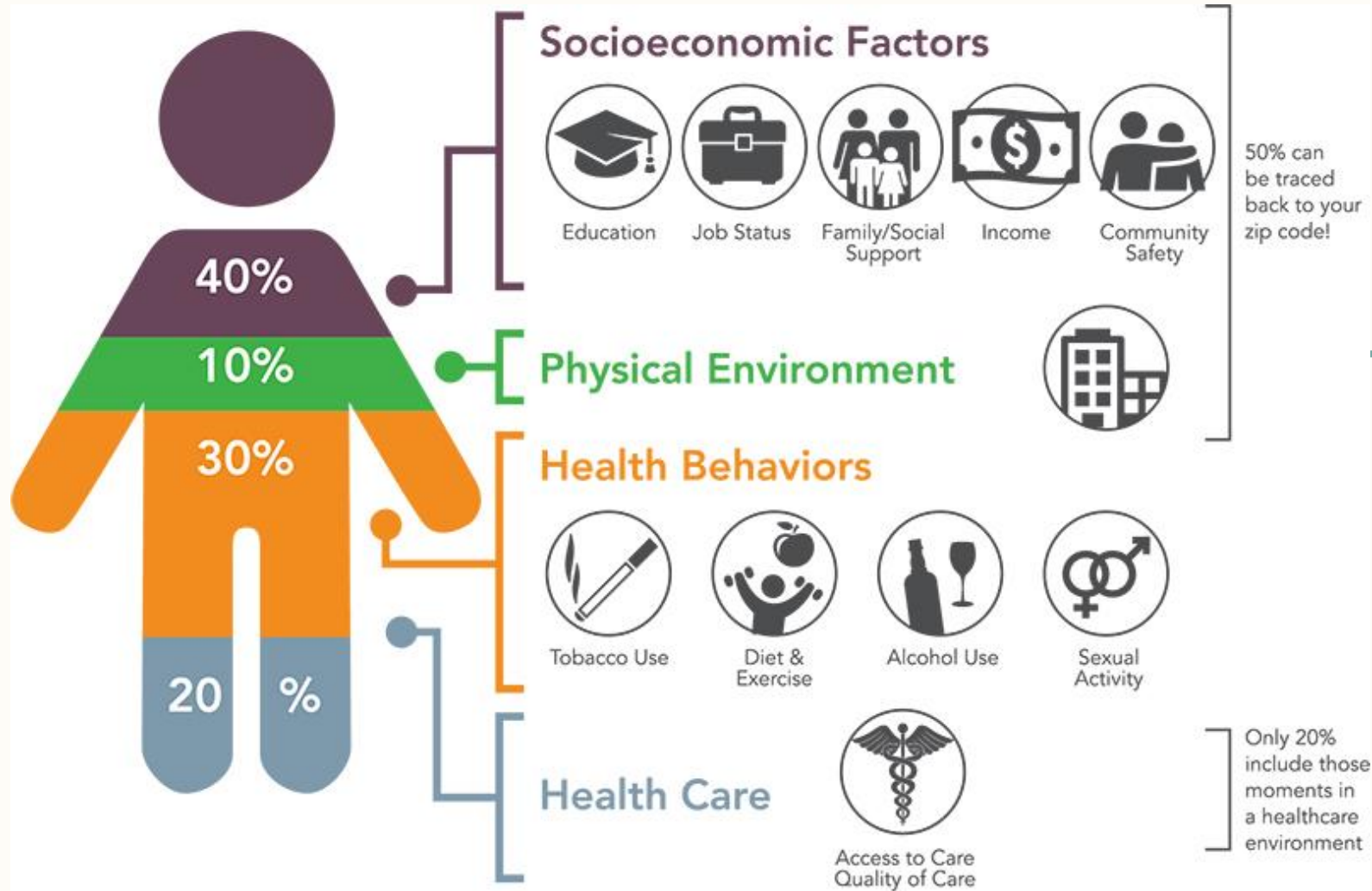
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- 1 in 6 one-year-olds have ECC
- >50% of children ages 1-5 have ECC, almost 3 times white children
- Poor oral health is linked to poor school attendance
- Adults have twice the prevalence of untreated decay than the US population, more likely to have pain, higher periodontal disease rates



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# What factors influence health?

Source: Institute for Clinical Systems Improvement, Going Beyond Clinical Walls: Solving Complex Problems (October 2014)



# Education

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- 20-28% of AIAN students do not graduate high school
- Of the 42% of AIAN that seek higher ed, only 13% achieve a bachelor's degree
- 90% of medical schools in the US have 3 or fewer AIAN students
- In 2018, only 14 of the US's 5474 dental students were AIAN



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# Applicants to US Dental Schools

	2010	2011	2012	2013	2014	2015	2016	2017	2018
AIAN	38	39	24	36	40	29	29	42	23
URM	1603	1625	1621	1624	1598	1802	1837	1893	1962
Non-URM	9681	9061	9011	8938	8803	8698	8703	8491	7931

Source: National Dental Education Association



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# Enrollees in US Dental Schools

	2010	2011	2012	2013	2014	2015	2016	2017	2018
AIAN	12	17	4	10	16	12	7	20	14
URM	639	681	713	748	775	858	882	915	966
Non-URM	4026	4106	4233	4359	4543	4512	4606	4567	4494

Source: National Dental Education Association



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# AIAN healthcare workforce

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- 1.7% of US population
- 0.4% of nurses
- <0.4% physicians
- 0.2% of dentists
- Need 7x increase in dentists (32 dentists/year for the next 6 years)



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# Need for AIAN Dental Workforce

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- Racial concordance
  - AIAN comprise 20.4% of AIAN dentists' patients
  - AIAN comprise 1.7% of white dentists' patients
- More likely to work in AIAN clinics (PHSC, IHS),
- More likely to work in dentally underserved area
- Higher rates of volunteerism and peer collaboration



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# Factors influencing enrollment in higher education

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- Higher absence rates in high school
- Cultural differences
- Poverty
- Rurality
- Parental education
- Disconnect between programs and communities
- High rates of teen alcohol abuse
- Higher level debt than white peers
- Lack of trust for University system



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# Adverse Childhood Experiences

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- Live in poverty (27.8%)
- Observe domestic violence (15.5%)
- Been a victim or witnessed neighborhood violence (15.9%)
- Lived with a substance abuser (23.6%)
- Divorced parents (33%)
- Lived with a parent who died (4.2%)



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# How to increase enrollment in higher education

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- Peer-led programs
- University-Tribal partnerships
- Support readiness
- Increase recruitment and access (face-to-face recruitment)
- Social enhancement activities
- Extend transition support
- Retention of cultural identity



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# Factors to minority retention

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- Academic preparedness
- Campus climate
- Commitment to educational goals
- Social and academic integration
- Financial aid



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# Native American Pre-Dental Gateway Program



# Native American Pre-Dental Gateway Program

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**Purpose:** Encourage and enhance Native American application to dental school through exposure to various aspects of professional dental education.

**Goal:** Diversify the pre-dental application pool and extend educational opportunity to AIAN students



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# 2013 Memorandum of Understanding with IHS

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*An alliance of regional public health and medical institutions to serve the priority needs of Native American communities with all 5 University Health Science Schools: Medicine, Public Health, Nursing, Pharmacy and Dental Medicine and build on existing outreach.*



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# Native American Pre-Dental Gateway Program

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- Lectures on Dentistry and specialties
- Clinical Observation
- Peer-to-peer interaction
- Admission and application guidance
- Social activities



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# Native American Pre-Dental Gateway Program

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Lectures from guest speakers

w/hands-on activities:

- Orientation to the profession
- Restorative dentistry
- Pediatric, geriatric and special needs dentistry
- Oral surgery
- Periodontics
- Endodontics
- Nutrition
- Radiology
- Public Health



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# Native American Pre-Dental Gateway Program

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## Clinical Observations:

- Shadow 3<sup>rd</sup> and 4<sup>th</sup> year student doctors
- Rotation to pre-clinic to observe 1<sup>st</sup> and 2<sup>nd</sup> year students
- Rotation to oral surgery



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Hands-on activity paired with corresponding lecture

- Restorative: place a composite restoration on a typodont
- Endodontics: Clean and shape an accessed tooth
- Removable: take a pour an alginate impression



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# Native American Pre-Dental Gateway Program

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## Peer-to-Peer interaction

### 'Buddy' system

- Each intern paired with a D3 throughout the week
- Intern will shadow their 'buddy' when feasible
- Maintain contact after program to follow up and mentor

### Daily 'Buddy' Lunches

- Facilitate dialogue and networking
- Lunches sponsored by community partners

## Social Activities

- "Food Truck Tuesday" at Larkinville Square
- Free concert series at Canalside
- Dinner at Seneca Niagara Resort and excursion to 'The Falls'
- Buffalo Bisons AAA-MLB Baseball game w/ 'mentor buddy'



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# Native American Pre-Dental Gateway Program

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## Main Categories of Activities:

- Admissions & Application Guidance
  - Presentation on Pre-requisites and Application cycle
  - Presentation of Financial Aid / Scholarship opportunities
- One-on-one guidance sessions
  - Opportunity for participants to review process & their progress
  - Receive advise on pre-requisites or items to enhance application
  - General guidance and encouragement



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# Native American Pre-Dental Gateway Program

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## Logistics:

- Housing: Funded by United South and Eastern Tribes, Inc
- Transportation: 7-day metro cards provided with unlimited use
- Uniforms: Provided by UB Dean's Office
- Travel to Buffalo: Responsibility of student



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Time	Monday	Tuesday	Wednesday	Thursday	Friday
9:00	Welcome breakfast Orientation/tour	Pre-clinic: Dental materials, lab	Radiology	Restorative	Applications and financial aid
9:30					
10:00					
10:30	Dentistry in Indian Country (public health)		Nutrition and cariology	Special needs, geriatric and pediatrics	One-on-one Admissions Counseling
11:00					
11:30					
12:00	Buddy Lunch	Buddy Lunch	Buddy Lunch	Buddy Lunch	Buddy Lunch
12:30					
1:00	Dental Careers	Dental hygiene and perio	Endo	OMS and oral cancer	Patient education
1:30					
2:00			Ortho		Clinic Observation
2:30	Anatomy and dental terms	Clinic Observation	Clinic Observation	Clinic Observation	Clinic Observation
3:00					
3:30					
4:00	Discussion panel with students				
4:30					
4:30		Q&A	Q&A	Q&A	Program Eval
5:00					
5:30					
6:00		Social Event		Social Event	Go Home!

# Sample Schedule



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# Outreach

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2018

Distributed advertisement to:

- Dental Chiefs
- Dental Support Centers
- SUNY system

2019

Distributed advertisement to:

- All undergrad guidance counselors
- Dental Support Centers
- IHS Dental Listserv

Cold-called universities with top ten  
AIAN population



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# Native American Pre-Dental Gateway Program



June 24<sup>th</sup> – June 28<sup>th</sup> 2019

Buffalo, New York



## DID YOU KNOW?

Native Americans comprise only 0.2% of all dental school applications while Native Americans as a whole represent 2% of the U.S. population-clearly an underrepresentation in Dentistry.

### To Build a More Inclusive Profession

University at Buffalo School of Dental Medicine and Seneca Nation Health System offer an immersive five-day [Native American Pre-Dental Gateway Program](#).

### Participants get an in-depth look at Dental education and...

Hands on clinical techniques  
Introduction to dental specialties  
Financial aid projections

Preclinical laboratory procedures  
Career Conversations  
Admissions process & counseling

### Ideal for anyone considering applying to dental school

(Native American students/recent graduates and Native I.H.S./Tribal Dental Staff)

[http://dental.buffalo.edu/community-outreach/  
Summer2019GatewayProgram.html](http://dental.buffalo.edu/community-outreach/Summer2019GatewayProgram.html)



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# Advertisement

Select icon to open 2020 Application



# Program Applicants

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- 2018: 6 applied, 3 attended
- 2019: 7 applied, 5 attended
- From: FL, VA, OR, NY, AZ, ID, KS, NC, NM
- Education: 5 sophomore, 4 junior, 2 senior, 2 completed undergraduate degree
- School type: 5 Private, 6 public, 1 community college
- Current majors: biology, public health, dental hygiene, general studies,



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# Primary goal in attendance

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- Learn more about dental school
- Learn how to apply to dental school
- Network with people in the dental field
- Network with other AIAN pre-dental students
- Gain experience
- “Solidify my choice in this profession”



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# Participant follow - up

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- 1 DA enrolled to finish Bachelor's degree
- 1 DA enrolled in Pre-Health, taking pre-requisites, applying in 20-21 cycle
- 1 previous DDS applicant re-applying in the 2019-2020 cycle
- 1 Biochemistry graduate taking DAT Fall 2019
- 1 General Studies Undergrad changed to pre-health tract
- Others completing their current courses of study



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# Feedback

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“The Native American Pre-Dental Gateway Program was a mind-blowing experience, truly a blessing. In addition, it is unmatched by any other Dental School attempting to integrate American Indians as a vital piece in the field of Dentistry-let alone health professions in general. I am filled with joy as to what the Seneca Nation Health System and the Univ. at Buffalo School of Dental Medicine are doing for us Native Americans. Undoubtedly, the program has influenced me all the more to pursue Dentistry as a career.”

- Dimiti Mahee, Muscogee Creek Nation



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# In the News

Finding a Native American dentist is rare, UB dental program aims to change that



Dimitri Mahee (front) checks on a vacu-form machine that is heating material to make a custom athletic mouth guard. Photo: Cass McAllister

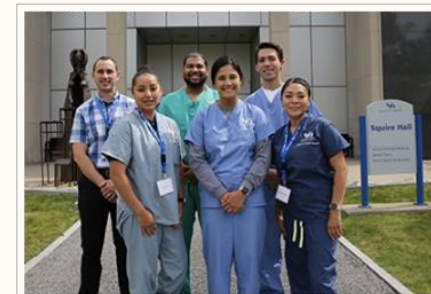
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## ADA News

UB dental school program seeks to inspire more Native Americans to pursue dentistry  
August 20, 2019



Future dentists: From left, Dr. Joseph Salamon, director of the Native American Pre-Dental Student Gateway Program, poses with this year's five participants: Carla Taha, Dimitri Mahee, Annbella Thompson, Hunter Jolicoeur and Jalisa Whitehorse. Photos by Cass McAllister

Buffalo, N.Y. — In an effort to increase the number of Native American dentists, the University at Buffalo School of Dental Medicine in June hosted five undergraduate students and introduced them to the various disciplines and specialties within the dental profession.

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# Lessons Learned

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- Advertise to younger demographic
- Face to face recruitment
- Secure funding early
- Increase collaboration with different agencies
  - (Tribal Education department , Employment & Training division of BIA)
- Long-term evaluations



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# Future Plans

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## **2020 and beyond:**

- Pursue transportation funding (RT to BUF) for 10 participants
  - *Approximately 500.00 -750.00 per traveler (5,000 – 7,500 grant)*
- Promote program through institutional and tribal partners
- Grow to 15 participants by 2022
- Present a pilot Pre-Medical gateway program to Med school



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# Q&A

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# Discussion Questions

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- What similar programs are you aware of?
- If you were to make a similar program, who would you partner with?
- What barriers might you encounter?
- How could you overcome those barriers?



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# Q&A

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**2020 Dates: 6/22/19 – 6/26/2019**

Please take a 'save the date' card for the 2020 Native American pre-Dental Gateway

Please Encourage college students in your community to apply

**Application is now open**

<http://dental.buffalo.edu/community-outreach/Summer2020GatewayProgram.html>



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# Special Acknowledgments

Authors wish to thank...

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**Frank Licht, RDH**, Dental Support Director, USET

**Steve Abel, DDS, MSD**, Associate Dean, State University of New York at Buffalo, School of Dental Medicine

**Matt Blum**, Director of Student and Community Initiatives, SUNY-Buffalo School of Dental Medicine

**Ramtin Sadid, DDS, MS**, Preclinical Director, SUNY-Buffalo School of Dental Medicine

**Annette Duncan & Janice Omicoli**, Preclinic Supervisors, SUNY-Buffalo School of Dental Medicine

**Barbara Weinberg**, Student Affairs, SUNY-Buffalo School of Dental Medicine

**Mark Halftown**, Chief Executive Officer, Seneca Nation Health System

**Amy Damiani, MD**, Medical Director, Seneca Nation Health System

**Karley Cree, CDA**, Undergraduate Student, State University of New York at Canton, St. Regis Mohawk Tribe

**Haley Cree**, Graduate Student, State University of New York at Potsdam, St. Regis Mohawk Tribe



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# Thank You

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