### **Destination Dental School** UNIVERSITY AT BUFFALO SCHOOL OF DENTAL MEDICINE



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University at Buffalo Office of Equity, Diversity and Inclusion School of Dental Medicine



## Fulfilling a Need

Scientific workforce diversity is essential to excellence within STEM fields. According to the National Institutes of Health, women, individuals from low-income families, individuals identifying as Black/African American, Hispanic/Latino/Latinx, American Indian and Alaskan Native, Pacific Islander and Hawaiian, and individuals with disabilities are underrepresented in the biomedical, clinical, behavioral, and social sciences workforce. According to the American Dental Education Association (ADEA), only 18.2% of applicants to dental schools for entry in 2020 were an underrepresented minority (URM) (Black/African American, Hispanic, American Indian or Alaskan Native, Pacific Islander or Native Hawaiian). Although this percentage has increased over the past decade, the change is modest. Additionally, according to the American Dental Association's Health Policy Institute, 10% of dentists are URM with Black and Hispanic dentists significantly underrepresented. These numbers are well below the proportions reported for the same groups in the U.S. Census.

The University at Buffalo's (UB), School of Dental Medicine (SDM), one of the nation's premier centers for dental education, research and patient care, ranks number 8 in the nation and number 9 in the world. At UB SDM, we are committed to supporting and training the next generation of dentists and reducing oral health disparities across the United States. To this end, in 2021, UB SDM's Office of Equity, Diversity and Inclusion launched Destination Dental School (DDS) to increase the enrollment of underrepresented students in the field of dental medicine. In just two years, the DDS program has graduated over 50 fellows representing 25 states and 47 colleges and universities. In 2022, DDS was a recipient of the INSIGHT into Diversity Magazine's 2022 Inspiring Programs in STEM award, a national recognition for colleges and universities that encourage and support students from underrepresented groups to enter careers in science, technology, engineering and mathematics (STEM) through mentoring, teaching and research.

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### Destination Dental School program activities accomplished three main learning objectives:



#### Understand day to day life as a dentist and as a dental student.

Participants learn about the different disciplines of dental medicine through presentations and panel discussions. They also participate in hands-on-activities that increase hand skill development.



#### Strengthen future dental school applications.

Participants learn about the DAT and recommended study habits, participate in intensive tutoring sessions, and take practice DAT exams. Participants prepare for the dental school admissions process by learning about admissions policies and procedures from students, faculty and staff, participating in mock interviews, and working on dental school application materials.



#### Learn how to propose and develop a research topic.

Participants' capstone projects center around a research topic in oral health. Teams learn best practices in conducting research and present their findings during in-person capstone research presentations.











Over 70 UB SDM faculty, students and staff collaborated to support Destination Dental School

### A hybrid model provided opportunities for intensive learning and relationship building

The 2022 DDS program met for 8 weeks during the months of June and July. The first seven weeks, held virtually every Saturday from 10am-12pm (ET), introduced the disciplines/specialties of dentistry, the DAT, the admissions process, academics in dental school, and provided devoted work time toward team research projects.

The eighth week of programming featured a 3-day in-person, intensive training program at the UB School of Dental Medicine. Over 70 UB SDM faculty, students and staff supported the event through the organization of clinic observations with dental students, rotations within specialty clinics, hands on activities (wax carving, resin placement, suturing, alginate impressions and bleaching trays), DAT tutoring sessions, mock interviews, research presentations and local excursions.

## *The 2022 program received an 'Inspiring Program in STEM Award'*

Each year, *INSIGHT Into Diversity* recognizes colleges, universities, and organizations that have established cutting-edge programs, events, and initiatives devoted to the work of improving diversity, equity, and inclusion (DEI) in STEM. Destination Dental School was selected as one of 77 programs across the nation for the 2022 Inspiring Program in STEM Award, highlighting programs that demonstrated inventiveness and dedication in supporting a new generation of high-achieving scholars and professionals.



## **Outcomes and Impacts**

In 2022, Destination Dental School, in collaboration with UB SDM's Native American Pre-Dental Student Gateway Program, supported 30 students representing 17 U.S. states and 28 universities and colleges. Participants ages ranged from 19 to 45 years old. Race/ethnicity of program participants included: 2 (7%) Asian; 8 (27%) American Indian/Alaska Native (participants of the Gateway program); 11 (37%) Black/African American; 8 (27%) Hispanic; and 1 (3%) White. Nineteen (63%) self-identified as disadvantaged according to the NIH definition, with 3 (1%) disadvantaged statuses unknown. Twenty-five of the 30 participants (83%) identified as female, 17% as male.

Pre- and post-program surveys measured change in participants' perceived knowledge, preparedness and likelihood of applying to dental school. 94% of participants responded to the pre-program survey and 100% responded to the post-program survey.

#### Knowledge

Pre-/post-program survey comparisons of perceived knowledge in "the field of dental medicine" increased from 63% (pre) to 77% (post); "disciplines within dental medicine" 41% to 87%; "day to day life as a dentist" 72% to 77%; "dental school application process" 28% to 90%; "strategies to improve dental school applications" 13% to 93%; "dental admissions" 53% to 83%; "interview skills" 16% to 83%; "research in dental medicine" 9% to 70%; "how to conduct research" 22% to 70% (see appendix I for program outcome tables).



Pre- Post-program comparison of perceived knowledge

■ Not knowledgeable ■ Somewhat knowledgeable ■ Very knowledgeable

#### Preparedness/Likelihood

Data also reveal increases in preparedness to "apply to dental school" 31% to 70%, likelihood of applying to "dental school" 94% to 100%, and likelihood of applying to the "UB School of Dental Medicine" 93% to 100%.

#### Skills

Participants rated the amount of change in their ability to perform different skills. Participants reporting <u>significant</u> change in ability to give an "evidence-based presentation" 56%; "work effectively in a team" 56%; "hand skills" 73%; "networking/communication" 87%. Participants were also asked how comfortable they feel leading a group. Individuals who were very comfortable changed from 53% (pre) to 87% (post).

#### **Barriers**

When asked what barriers impact their ability to attend dental school, participants responded, in order of frequency:

- Finances (14)
- DAT (10)
- GPA (5)
- Protected characteristics (3)
- Admissions (3)
- Personal (2)
- First generation status (1)
- Mentorship (1)

#### Resources

When asked what resources would help participants to successfully complete dental school, they responded, in order of frequency:

- Mentors (15)
- Study resources (10)
- Academic supports (8)
- Financial aid (7)
- Diversity in the school (4)
- Structures (2)
- Mental health supports (2)
- Shadowing opportunities (1)



### **Measuring Impact**

An annual survey measuring program outcomes including educational status, DAT, DDS applications and enrollment, mentorship, and demographics will be shared with all DDS alumni every August. DDS participants will use an alphanumeric code assigned to them at the onset of the program, which will allow our coordinating team to track program impacts on the individual and the group.

In August 2022, this survey was sent to 2021 program participants. Of the 24 participants, 12 responded (50% response rate). Of the 12 survey respondents:

- 100% are still pursuing a career in dentistry.
- Two students are dental students, one at Howard University and one at UOP Dugoni.
- Five students (41.7%) have taken the DAT with overall scores ranging from 14 to 25.
- Four students have applied to dental school. During this year's cycle, 2 applied and 1 more is in the process of applying. Two students applied to UB. Reasons for not applying to UB included geographic location, DAT score, and withdrawal after being accepted elsewhere.
- Seven students (58.3%) have a mentor who has guided them through their academic journey.

It is important to note that participants are at different stages in their educational careers; some are still early in their undergraduate career, while others may have graduated. This variance impacts the number of students who are ready to apply to dental school.

# In Their Words...

In response to whether this program met expectations, participants stated:

"Beyond my expectations. The entire in person-experience and having the opportunity to be here is something I have not experienced with other dental schools."

"...Everyone was extremely insightful as well as thoughtful and I really felt that everyone here wanted me to succeed..."

"I would recommend and encourage any minority pre-dental student to apply to the DDS program because of the rewarding experience and knowing that even though we face barriers each and every day, we are just as capable of achieving our goal of becoming a dentist."

"I feel like I've gain[ed] a tremendous amount of knowledge that makes me that much more excited to apply for dental school and especially apply to UB. So truly thank you for this experience." In response to whether participation in the program increased their interest in the dental field, participants responded:

"Yes, it gives me more motivation and hope that I belong here and I have a chance to become a dental student."

"Yes it has, even though I already had a strong foundation of knowing dentistry was my passion this program confirmed that as an African American women I am capable of achieving the exact same thing as my counterparts."

"Yes, I can now say I want to be a Dentist"

"I definitely feel more interested in the dental field. Prior to this program I was on the fence and unsure of what my future would hold. Now I believe I have a better grasp on what I am intended to do in and am more motivated to not give up although I will be faced with difficulties... ...This program provides great resources and real life scenarios of what dental school will be like which I appreciate immensely."

"Increased my motivation and curiosity to learn more about the life and career in dentistry. The dental students, residents, and dentists experiences and attitudes are so positive and passionate. It was very inspirational."

Yes a million times yes. I can see myself here learning from the greats and applying it to the patients that need it. My interest has increased and this is the field for me to make an impact on my community while doing something I enjoy."

"I was already committed to the field but the program gave me the confidence and motivation I really needed to push for this DAT. They also increased my overall knowledge in the field."



# **Our Contributors**







DDS and the Gateway program were organized by the University at Buffalo School of Dental Medicine. Our leadership team includes Dr. Wendell Carmona, DDS Program Director; Dr. Joe Salamon, Gateway Program Director; Dr. Thikriat Al-Jewair, Assistant Dean of Equity, Diversity and Inclusion at UB SDM; Dr. Arian Johnson, Founder of DDS and UB SDM alum ('21); and Ms. Jessica Scates, Coordinator of Equity, Diversity and Inclusion Initiatives at UB SDM.

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