# The Role of Post-baccalaureate Programs in the Dental Education Pipeline

Connie Kwong<sup>1</sup>, Miranda Werts<sup>1,2</sup>, April Martinez<sup>2</sup>, George Taylor, DMD, MPH, DrPH<sup>2</sup>, Biana Roykh, DDS, MPH, and Elizabeth Mertz, PhD, MA<sup>1,2</sup>

1. University of California San Francisco, Healthforce Center, 2. UCSF School of Dentistry, Preventive and Restorative Dental Sciences 3. Columbia University College of **Dental Medicine** 

## Introduction

- The lack of dentists from underrepresented minority (URM) or socioeconomically disadvantaged (SED) backgrounds contributes to oral health disparities in the United States (US)
- Historically, post-baccalaureate (post-bac) programs have focused on increasing the share of URM/SED students pursuing health professions careers

## Research Aim

Examine changing trends in post-bac and academic enrichment programs available to pre-dental students and assess contributions to oral health workforce diversity

## Methods

A list of post-bac programs for pre-health, pre-medical, and predental student in the US was compiled through a web search

### **Data Collection**

Three primary modes of data collection:

- 1. Online survey sent to program administrators (sent to 91 programs at 77 institutions between January-April 2020)
- 2. Extracting data from program websites
- 3. Follow-up phone calls to program staff (when needed)



## Results

- Only 8% of the final program sample were URM/SED focused (Figure 1)

### Figure 1. Program Category Breakdown

CC (N=3	34)
General	
Public institution	44.1%
Private institution	55.9%
Program type	
Pre-dental	0.0%
Pre-health	58.8%
Pre-med	41.2%

### **General Characteristics**

- Since 2010, at least 17 new pre-health/dental post-bac programs have been initiated, none of which focus exclusively on URM/SED students (Figure 2)
- URM/SED focused programs are more established, more likely public institutions (83%), and more likely to be specifically pre-dental



### Figure 2. Program founding's by decade

### **Application Requirements**

• URM/SED programs are more likely to require an interview (83%), US citizenship (67%), community service, work, or other extracurricular activities (50%), and a slightly lower GPA cutoff than ARE/CC programs



### **Academics and Outcomes**

- ARE programs most likely to offer a Master's degree (60%), CC programs a certificate (47%), and URM/SED no degree (67%) (Figure 3)
- URM/SED programs have the shortest mean duration (10.8 months), and lowest mean tuition (\$13K)
- URM/SED programs produce a higher median number of applicants per program lifetime (n=65), but a slightly lower mean admit rate (70%) than ARE/CC programs



## Figure 3. Degrees Awarded by Program

This report is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling \$449,943. The contents are those of the author[s] and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS, or the U.S. Government. For more information, please visit HRSA.gov.

Mertz, E.A., et al., Underrepresented Minority Dentists: Quantifying Their Numbers And Characterizing The Communities They Serve. Health Aff (Millwood), 2016. 35(12): p. 2190-9

Wides, C.D., et al., Long-term outcomes of a dental postbaccalaureate program: increasing dental student diversity and oral health care access. J Dent Educ, 2013. 77(5): p. 537-47

### Discussion

· Pre-dental students participating in rapid growth, highcost, often degree-granting pre-health education far outnumber those attending URM/SED programs.

 ARE and CC programs may be crowding out visibility of those students that need post-bac programs most.

• More research is needed on whether post-bac completers are admitted to dental school and their URM/SED status to be definitive about the relative contributions of each program to workforce diversity.

### Limitations

• Findings may not be generalizable to the full landscape of pre-dental post-bac programs from this convenience sample, and item non-response was highly variable

• Data regarding the class demographics dental school matriculation was not available, so success specifically in sending URM/SED students to dental school is unknown, as is the percent of dental school matriculants that attend these types of programs.

## Acknowledgements

## Key References