
Challenge of Increasing Diversity with a Focus on Health Professions Students at College and Professional Schools

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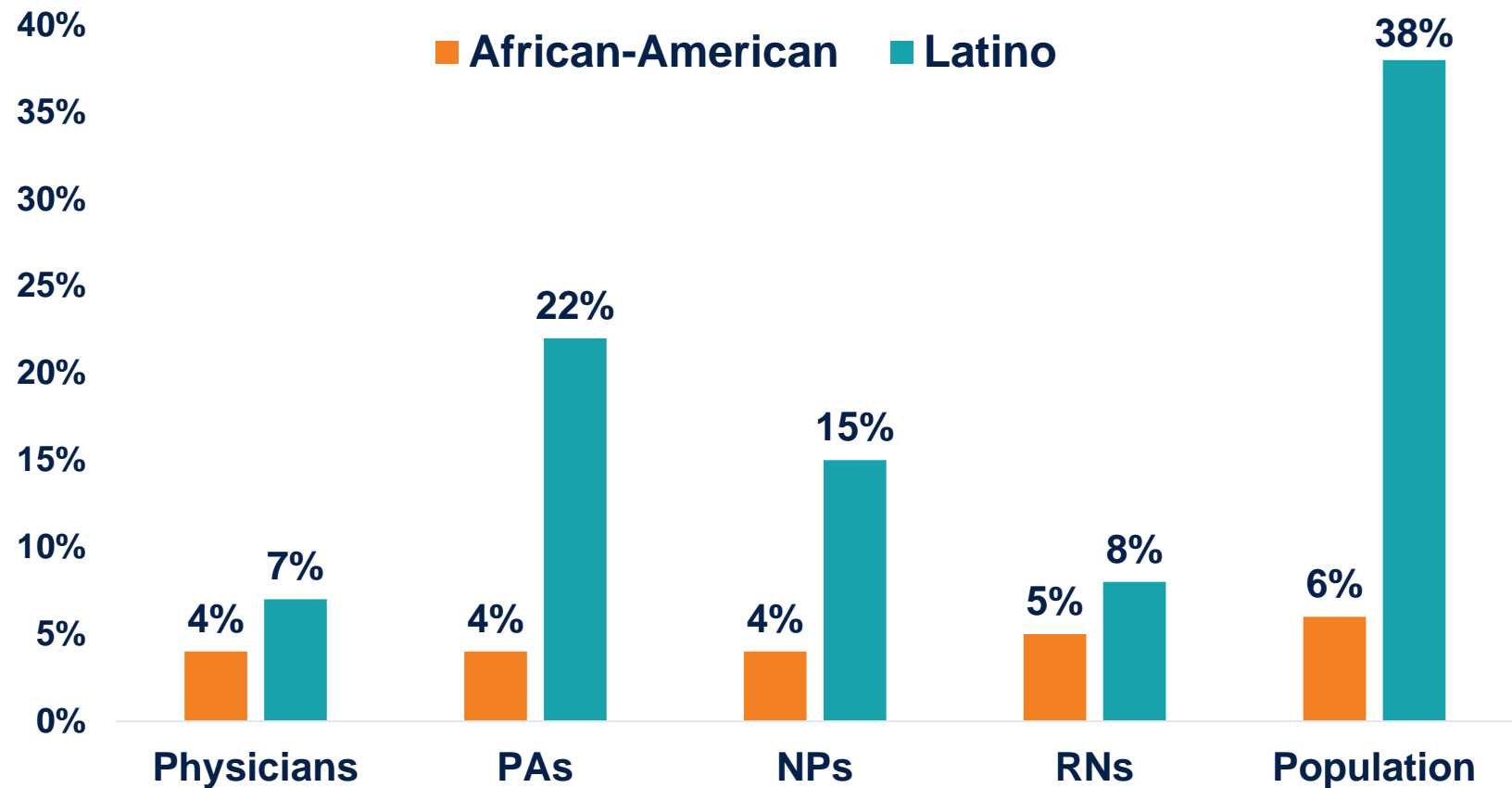
Objectives

- To summarize literature on
 - Barriers to increasing racial/ethnic diversity among health professions students at college and professional school levels
 - Strategies for increasing racial/ethnic diversity at these levels
- To elicit participants' input on the effectiveness of
 - Well-established strategies
 - Less established strategies

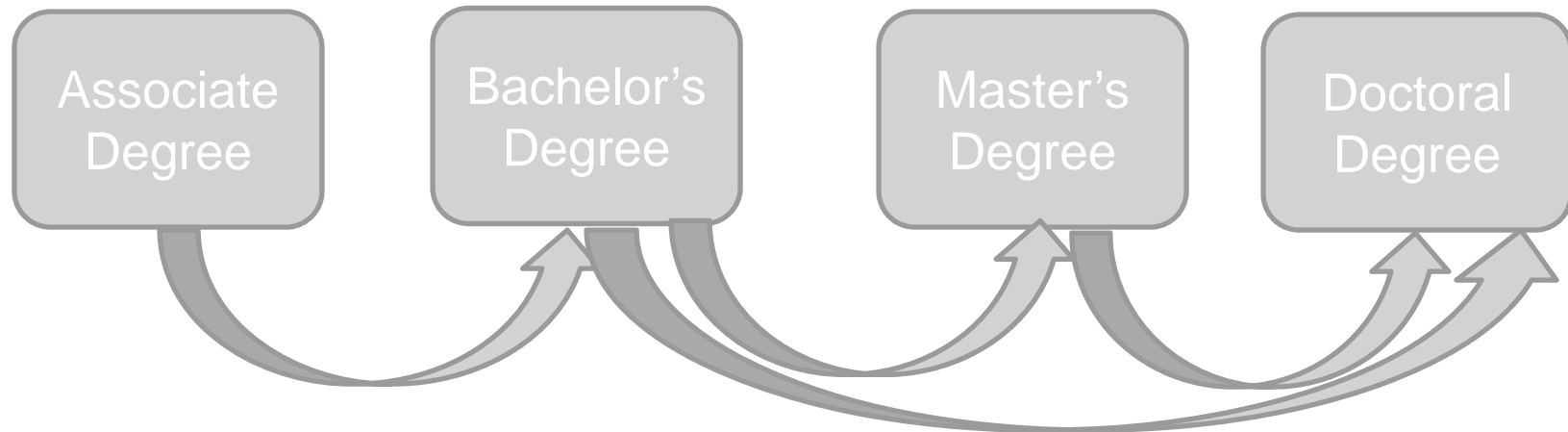
Introduction

- Despite concerted efforts to increase racial/ethnic diversity, Latinos, African-Americans, and Native Americans remain underrepresented in most health professions that require a college or graduate degree
- Challenged by the California Wellness Foundation to identify new strategies to accelerate progress

Diversity of Clinicians Compared to California's Population, 2015



Higher Education Pathways in Health Professions



Students can enter at the associate or bachelor's level and either obtain a terminal degree or progress toward a higher degree. Depending on the profession, students may progress directly from a bachelor's degree to a doctoral degree or may first earn a master's degree.

Barriers to Increasing Racial/Ethnic Diversity in the Health Professions

Academic Barriers

- For students who start at a community college, lack of articulation agreements
- Inadequate preparation for
 - Prerequisite courses
 - Courses required to complete major
 - Courses required to pursue a graduate degree
- Negative experiences in “gateway courses,” especially chemistry
 - Low grades
 - Lack of support from professor and/or TAs

Academic Barriers

- Difficulty enrolling in major despite completing prerequisites
- Unable to secure admission to professional school due to lack of competitive
 - Scores on standardized tests
 - Grades
 - Essay writing skills
 - Interview skills

Psychological and Social Barriers

- Stereotype threat
 - Negative stereotypes about the intellectual capacity of underrepresented minority students negatively affect performance
- Lack of sense of belonging
- Lack psycho-social support
- Lack of role models concordant with student's race/ethnicity

Institutional Barriers

- Institution's leaders do not have a demonstrated commitment to diversity
- Unsupportive/unhelpful pre-health advisors

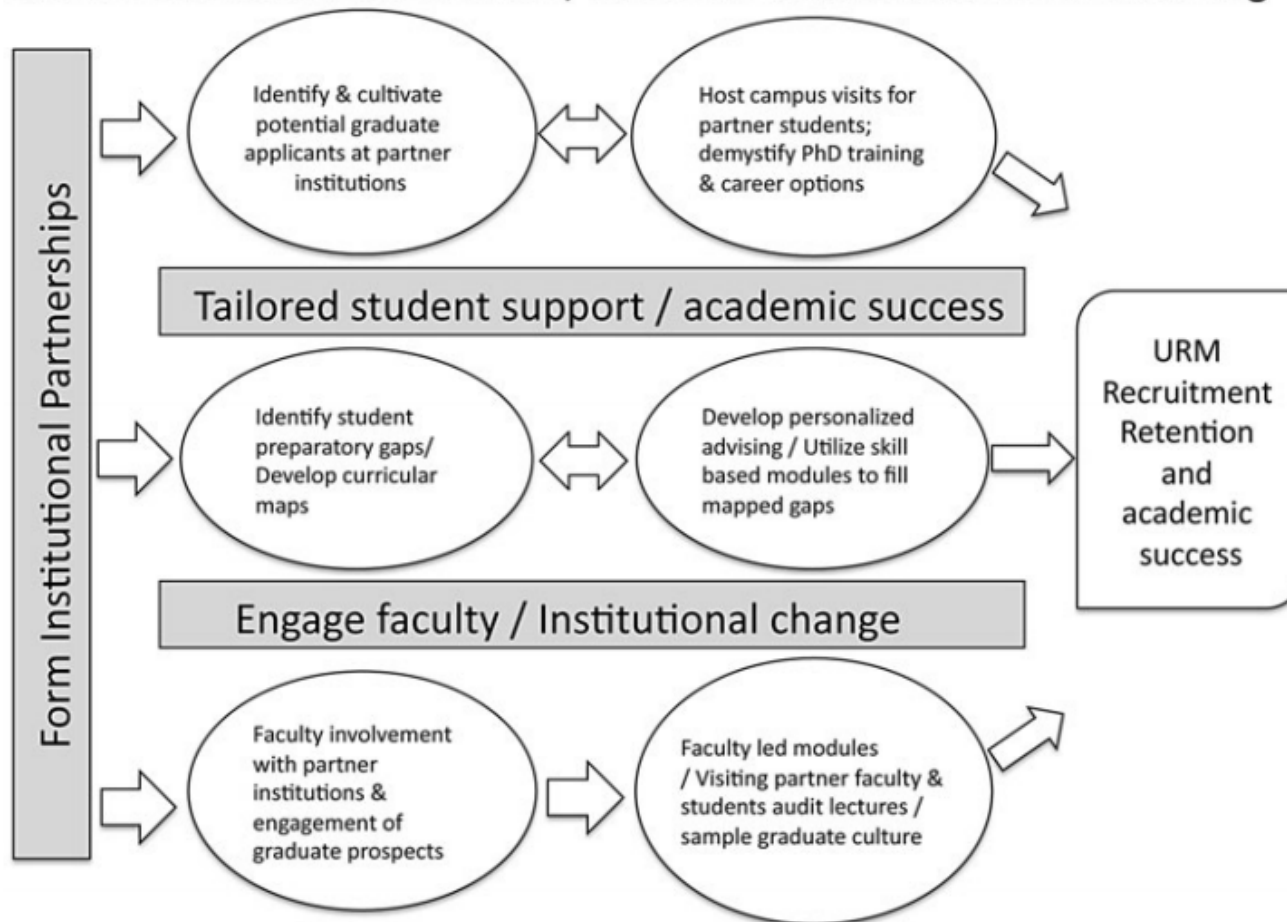
Financial and Opportunity Cost Barriers

- Costs associated with the program, especially if at a private institution
- Need to work for wages limits access to internships in research and clinical care
- Length of education
 - MD and DO requires at least 7 years post bachelor's degree
 - DDS and PharmD require at least 4 years post bachelor's
 - Doctorate of Physical Therapy requires at least 3 years post bachelor's

Strategies for Increasing Racial/Ethnic Diversity of Health Professions Students

Model for Success in PhD Training (could adapt to health professions)

Model for student recruitment, retention and success in PhD training



Well-Established Strategies

- Recruitment partnerships
- Comprehensive support tailored to students needs
- Post-baccalaureate programs

Recruitment Partnerships

- Collaboration between health professions schools and high schools and colleges to identify and recruit URM students
 - Partner with pre-health student organizations
 - Pre-health conferences for students and/or advisors
 - Recruiting trips to meet with students and pre-health advisors
 - Campus visits for pre-health students
 - Summer or academic year enrichment programs
 - Mentoring/shadowing opportunities

Comprehensive Support Tailored to Students' Needs

Academic support:

tutoring, mentoring, admissions test prep, summer enrichment programs

Emotional support:

counseling services, workshops for families

Social support:

peer, faculty, alumni, and community mentors

Financial support:

scholarships, paid internships, loan repayment, assistance with child care and transportation

Post-baccalaureate Programs

- Usually focus on re-applicants
- Components typically include
 - Admissions test prep
 - Science courses
 - Study skills training
 - Writing/interview skills training
 - Clinical or research experiences
- Evidence from some programs that participants are more likely to care for underserved populations

Less Established Strategies

- Change remediation
- Change how science is taught to undergraduates
- Change admissions requirements
- Combine and condense undergraduate and graduate education

Change Remediation

- More than 2/3rd of community college students required to take one or more remedial classes
- Initiatives to improve remediation include
 - Intensive courses
 - Emphasis thinking not memorization
 - Provision of psycho-social support

Change Remediation

- Effective fall 2018, California State University plans to
 - Strengthen summer prep program for incoming freshmen
 - Drop placement exams and non-credit remedial classes
 - Provide underprepared students with academic support concurrent with courses that count to degrees
 - Enable underprepared students to take courses at a slower pace

Change How Science is Taught to Undergraduates

- Change how basic sciences are taught
- Provide more opportunities for students to conduct research
- Promote formation of student study groups that take responsibility for helping one another learn material

Change Admissions Requirements

- Focus on principles of human biology, including molecular biology and genetics
- Replace one semester of organic chemistry with biochemistry
- Add probability and statistics
- Add behavioral and social sciences (new MCAT requirement)
- Teach students to synthesize information across disciplines

Change Admissions Requirements

- Holistic review that foregoes or at least deemphasize scores on standardized tests
- Place greater emphasis on distance traveled
- Focus on applicants who transferred from a community college to a four-year college
- Increase the length of interviews

Change Admissions Requirements

- Mount Sinai Medical School Humanities and Medicine Program
 - Open to sophomores and juniors majoring in humanities or social science
 - Guaranteed admission if complete a bachelor's degree
 - Not required to take the MCAT
 - Must earn at least a B in biology and chemistry
 - Summer sessions after junior year and summer before matriculation

Combine and Condense Undergraduate and Graduate Education

- Seven-year joint BS/MD degree program
 - Cohort of students with similar career goals
 - Integrate biomedical and population health sciences into baccalaureate curriculum
 - Base progression to medical school on performance in medical courses instead of premed courses and MCAT
 - Transfer to medical school with advanced standing

Combine Undergraduate and Graduate Education

- Sophie Davis BS/MD program
 - Focus on training underrepresented minority physicians to provide primary care in underserved areas
 - Curriculum emphasizes population health and community-oriented primary care
 - Mastering prerequisite courses framed a goal not a hurdle
 - If three-year sequence at the BS level, enter CUNY School of Medicine with advanced standing

Discussion