



Healthcare Workforce Diversity & Health Equity

Workforce Grand Rounds Webinar Series

March 1, 2022

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Vision: Healthy Communities, Healthy People





Health Care Workforce Diversity and Health Equity

Courtney J. Pitts, DNP, MPH, FNP-BC, FAANP

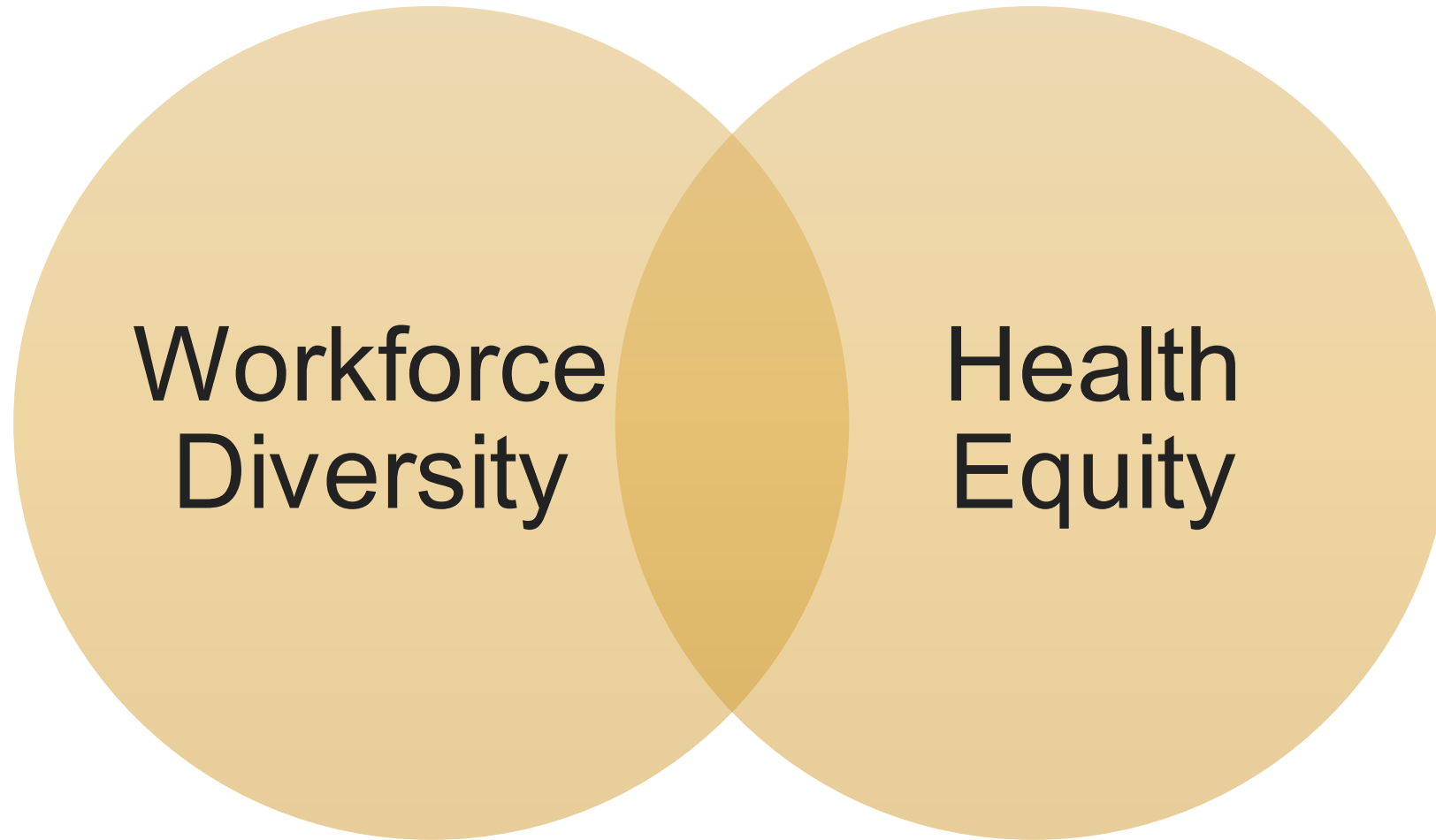
Acknowledgement and Disclaimer

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Objectives

- ▶ Define health workforce diversity and health equity.
- ▶ Present barriers and challenges to diversifying health professions education and the health care workforce.
- ▶ Explore strategies to increase diversity in the education and work systems to achieve health equity in rural and underserved communities.

Definitions



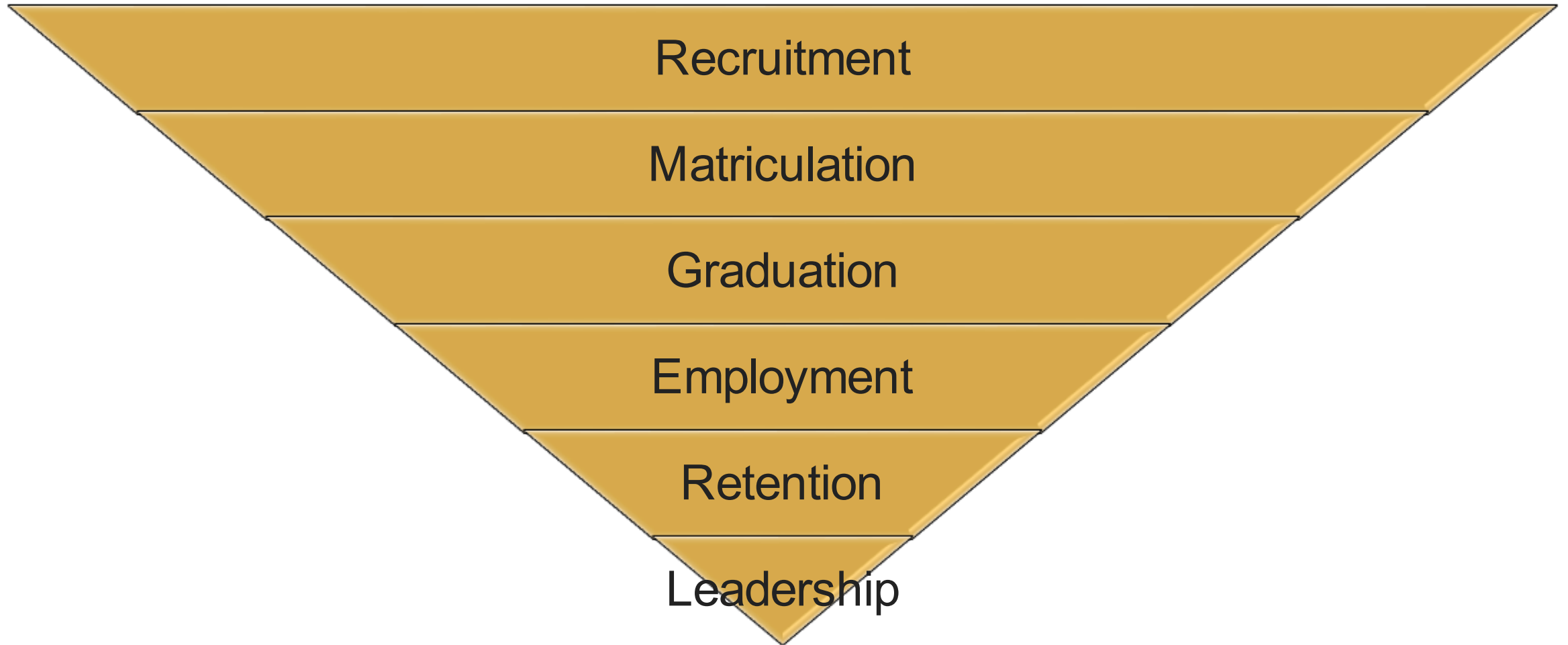


The face of nursing

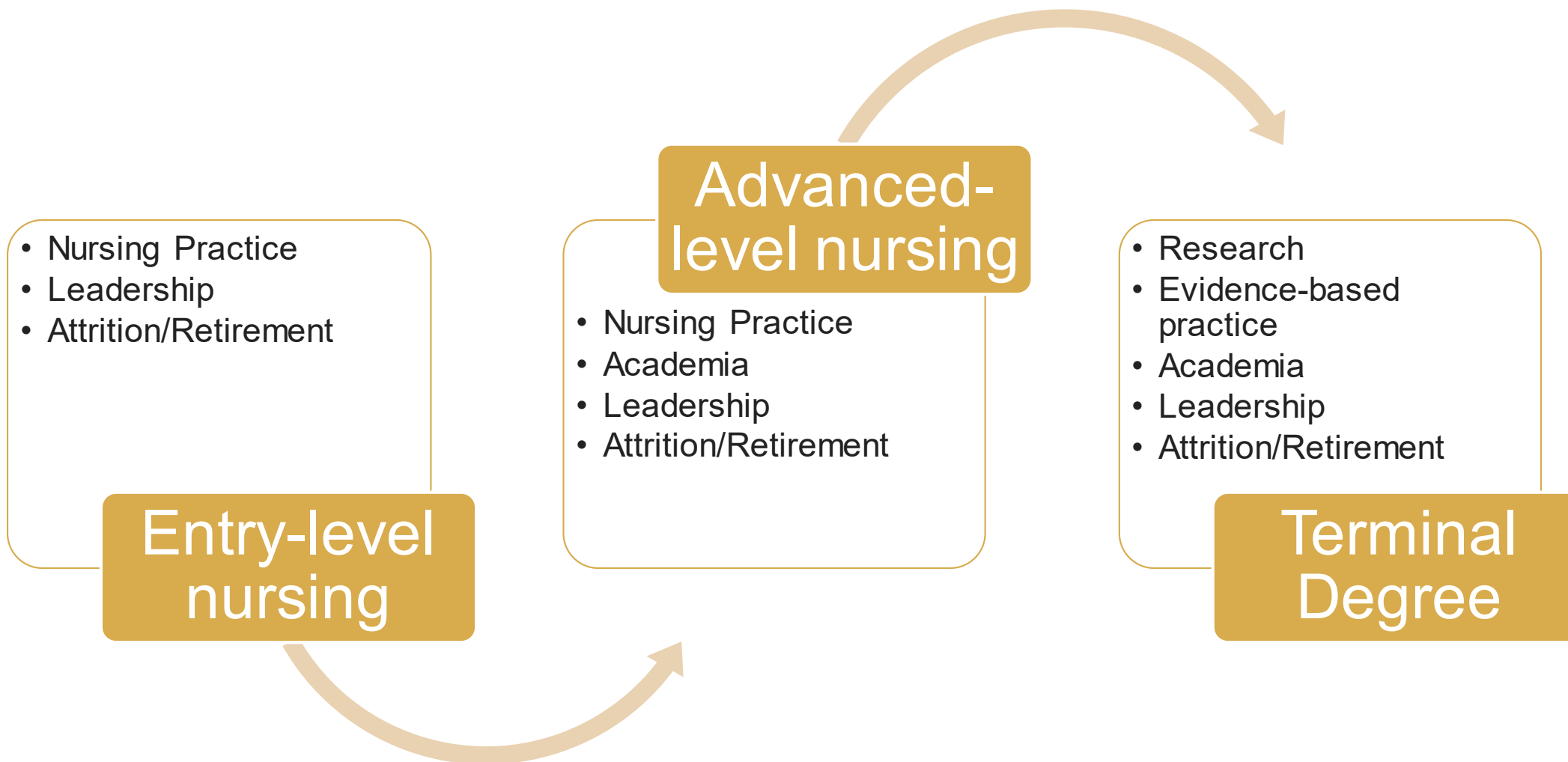
- ▶ Gender
- ▶ Race
- ▶ Ethnicity
- ▶ Age
- ▶ Degree
- ▶ Role
- ▶ Ability

Photo credit: Getty Images

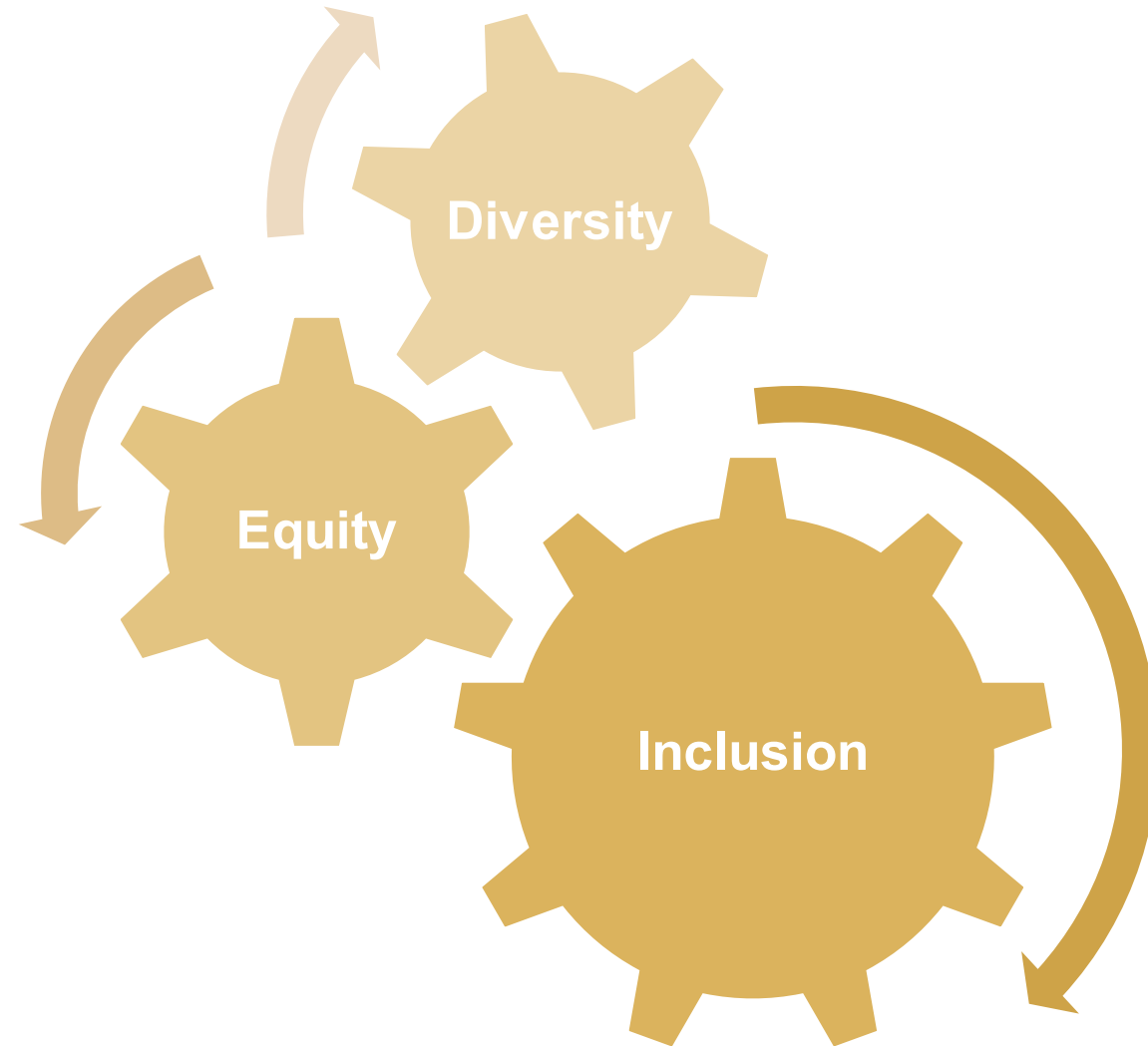
Barriers to diversifying the workforce



Leadership



Strategies to Increase Diversity in Education and Health Systems



DIVERSITY

- Commit to diversity, inclusion, and equity
- Actively review and evaluate institutional practices and policies
- Appearance is everything
- Actively recruit
- Follow the data

EQUITY & INCLUSION

- Provide internal and external resources
- Establish mentorship programs
- Establish peer support groups
- Clear, accessible expectations



EQUITY & INCLUSION

- Review evaluation or performance measures
- Language and cultural compatibilities
- Create an environment of belonging
- Implement culturally responsive initiatives

References

1. American Association of Colleges of Nursing. (2019). Enhancing diversity in the nursing workforce [Fact sheet]. Available from: URL <https://www.aacnnursing.org/Portals/42/News/Factsheets/Enhancing-Diversity-Factsheet.pdf>.
2. Gary, J., Gosselin, K., Mulcahy, A., & Wise Matthews, D. (2019). Meeting Texas nursing workforce needs through recruitment and retention initiatives. *Nursing Education Perspectives*, 40(6), 355-357.
3. National League for Nursing. (2017). NLN diversity and inclusion. Toolkit. Available from: URL <http://www.nln.org/docs/default-source/default-document-library/diversity-toolkit.pdf?sfvrsn=2>.
4. National Organization for Nurse Practitioner Faculties. (2018). NONPF Calls for Greater Racial and Ethnic Diversity in Nurse Practitioner Education. Available from: URL https://cdn.ymaws.com/www.nonpf.org/resource/resmgr/docs/20180807_diversity_statement.pdf
5. American Association of Nurse Practitioners. (2021). NP facts [Fact sheet]. Available from: URL https://storage.aanp.org/www/documents/NPFacts_052721.pdf.
6. Phillips, J. & Malone, B. (2014). Increasing racial/ethnic diversity in nursing to reduce health disparities and achieve health equity. *Public Health Reports*; 129(Suppl 2): 45–50.
7. Smiley, R., Ruttinger, C., Oliveira, C., Hudson, L, Allgeyer, R., Reneau, K., Silvestre, J. & Alexander, M. (2021). The 2020 national workforce survey. *The Journal of Nursing Regulation*, 12(Suppl), 1 – 96.



Training Future Healthcare Leaders: Sustainable **Community-based Innovations**
to Achieve Healthcare Workforce Diversity and Health Equity

Juan Robles, MD

Assistant Professor, Albert Einstein College of Medicine, Bronx, NY
Co-founder, Bronx Community Health Leaders (BxCHL)

Disclaimer

Primary Care Medicine Clinician Educator Career Development Awardee (2017-2022)

This project 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 \$1M with 0 percentage financed with non-governmental sources. 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.

National Health Service Corp (NHSC), Loan Repayment Program (LRP) Awardee (7/2016 – 6/2019)

Objectives

- Examine healthcare professionals role in promoting innovation in healthcare workforce development.
- Describe a sustainable community-based pre-health pathway program in a low-income community to increase diversity in healthcare.
- Identify opportunities and barriers to achieve diversity in healthcare workforce and health equity.
- Recommendations

Medical School Graduation, 2011

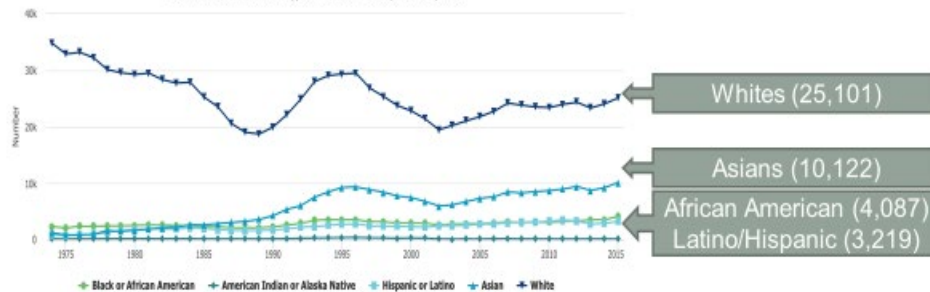


Disparities and Gaps in Healthcare Workforce Diversity

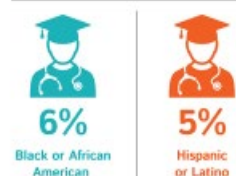
Figure 4. Number of U.S. medical school applicants by race and ethnicity, 1974-2015.

Note: Beginning in 2002, individuals could identify as more than one race. For all years presented here, data are included only for individuals who identified with a single race/ethnicity category.

Source: AAMC Data Warehouse: Applicant and Matriculant File, as of Jan. 4, 2016.



2015 Medical School Graduates

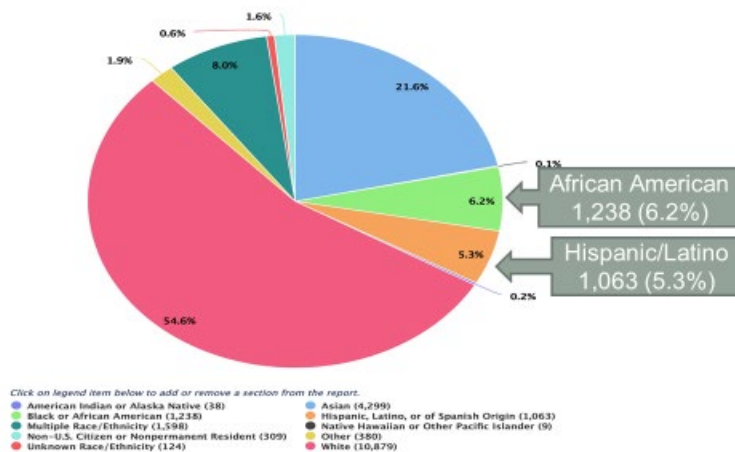


Blacks and African-Americans comprise only 4 percent of the physician workforce.

AAMC Facts and Figures, 2014, 2016

Medical School Graduates by Race/Ethnicity (2018-19)

Figure 13. Percentage of U.S. medical school graduates by race/ethnicity (alone), academic year 2018-2019.

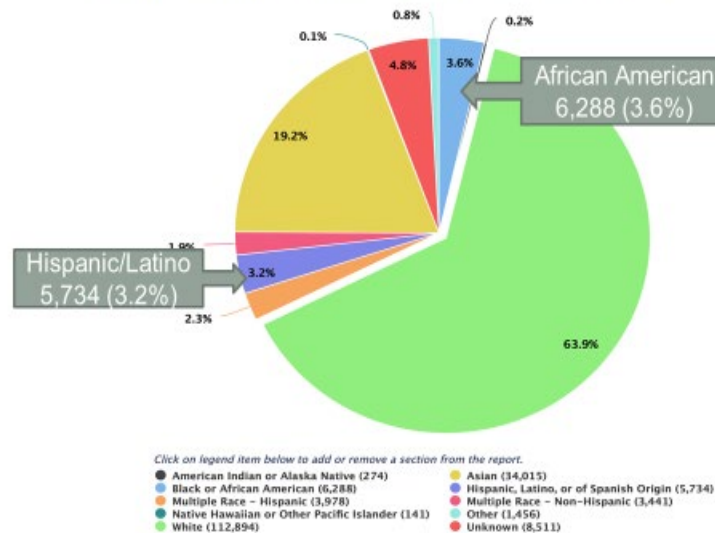


Note: Race/ethnicity "alone" indicates that an individual is reported in only one race/ethnicity category. The "Multiple Race/Ethnicity" category includes individuals who selected more than one race/ethnicity response. The "Non-U.S. Citizen or Nonpermanent Resident" category may include individuals with unknown citizenship.

Source: AAMC Data Warehouse: STUDENT and MD as of Aug. 15, 2019.

Lack of Diversity in Medical School Faculty, AAMC Report 2018

Figure 15. Percentage of full-time U.S. medical school faculty by race/ethnicity, 2018.



Click on legend item below to add or remove a section from the report.

- American Indian or Alaska Native (274)
- Black or African American (6,288)
- Multiple Race - Hispanic (3,978)
- Native Hawaiian or Other Pacific Islander (141)
- White (112,894)
- Asian (34,015)
- Hispanic, Latino, or of Spanish Origin (5,734)
- Multiple Race - Non-Hispanic (3,441)
- Other (1,456)
- Unknown (8,511)

Note: To allow for unduplicated counts of faculty, "Multiple Race - Hispanic" includes all faculty who were reported as Hispanic and at least one other race/ethnicity. "Multiple Race - Non-Hispanic" includes all faculty who were reported as more than one race/ethnicity but who were not reported as Hispanic.

An American Crisis: The Lack of Black Men in Medicine

Cato Laurencin, MD, PhD; University of Connecticut Health Center;
Marsha Murray, MS, University of Connecticut Health Center

June 12, 2017

This paper originally appeared in the *Journal of Racial and Ethnic Health Disparities* (2017) 4:317-321. Reprinted by permission.

The current state of diversity within the United States medical workforce does not reflect representative numbers of the Black male population. Research data continues to reveal continuing trends in the areas of discrimination, incarceration, health disparities and mortality with respect to Black males. The lack of increase in Black male medical school applications and matriculation contrasted by the continuing trends mentioned above illustrates that there is in fact an American crisis. We present here a call to arms, to address the need of African American men in medi-

Medical School Reported Barriers to URiM Recruitment

Table

Barrier	Percent listing as barrier at their institution (%)
Legal/policy/regulatory	
Court decisions	33
State/local policies	19
State legislation limiting affirmative action	14
Educational	
Low MCAT scores	90
Low undergraduate GPA	60
Poor preparation in sciences	55
Absence of high school science interest programs	46
Low educational achievement	40
Lower quality of schools previously attended	34
Lower level of academic achievement among parents	30
Poor communication skills	19
No participation in service-oriented extracurricular activities	17
Socio-cultural	
Absence of role models	77
Lack of peer/community support	45
State/area population not diverse	37
Negative parental and cultural attitudes regarding careers	19
Financial/economic	
Lack of financial aid	48
Parental income level	39
Difficulties in finding financial resources for your school's programs	28
No financial travel assistance to the required admission interview	27
High application fees	14
Housing issues	12
Recruitment/admission	
Not enough minority faculty members	71
Other schools in the area targeting URM majoring in sciences	39
Absence of summer enrichment programs at your school	27
Race/ethnicity/gender composition of the admission committee	22
Absence of partnerships with private and public organizations	20
Lack of mentorship programs	20
Lack of career development outreach	16
No URM student recruiters	13
Complex application process	10
No pre-admission counseling and application assistance	7
Absence of an office of minority and/or multicultural affairs	7
No faculty member designated to address issues of concern from URM students	7

Note: The data is adapted from Agrawal et al. (3).

Agrawal J, Vlaicu S, Carrasquillo O. Progress and pitfalls in underrepresented minority recruitment: perspectives from the medical schools. J Natl Med Assoc 2005; 97: 1226-31.

”

To date, the majority of interventions to increase underrepresented minority participation in medicine have been undertaken ***within the existing systems and structures of academic medicine.*** To address the urgent need for a diverse physician workforce, ***we must use new and innovative tools*** to meet the current needs.

nam.edu/Perspectives

Emery, C. R., D. Boatright, and K. Culbreath. 2018. Stat! An action plan for replacing the broken system of recruitment and retention of underrepresented minorities in medicine. *NAM Perspectives*. Discussion Paper, National Academy of Medicine, Washington, DC.



The Bronx Community Health Leaders: A Community-based Pre-health Program Model to Increase Diversity in Healthcare Workforce



Program History and Design

- ❖ **Founded:** 2014 by pre-health scholars
- ❖ **Target students:** socioeconomically disadvantaged and underrepresented minorities in medicine (URiM) backgrounds; in college or graduated from college



- ❖ **Longitudinal Mentorship:** Weekly activities
- ❖ **Student-Driven/Service-Driven:** 40+ students
- ❖ **Home Site:** FQHC
- ❖ **Program Champion:** Healthcare professional (e.g., physician with protected time)



Core Program Elements



Community Service

- Support roles within FQHC
- Delivery of wellness and educational programs with direct patient care impact
- Connecting patients to resources



Professional Development

- Didactics on social determinants of health, care of the underserved
- Training in community-based service learning (CBSL) and QI projects
- Leadership training



Support System

- Near-peer mentorship
- Exposure to healthcare professionals and role models
- Networking and access to career resources



Program Logic Model

GOALS

1. Increase pre-health students access to medical exposure and training environment year-round
2. Increase number of students admitted to healthcare professional programs

Inputs

Participants

Activities

Outputs

Required Resources

- Funding from HRSA
- Key Staff – Project Director
- Support from mentors

Existing Resources

- Application of evidence-base educational strategies
- Partnership with academic programs

Pre-health students

- Socioeconomically disadvantaged and underrepresented in medicine (URM)
- Students from existing community pre-health pipeline programs

Mentorship

- Year-round exposure to near-peer mentors
- Exposure to MD role models

Skills development

- Power point presentations, mock interviews
- Participation in QI projects

Community Service

- Conduct wellness and education programs for patients within FQHC setting
- Learn about health disparities, care of underserved communities, primary care

Support

- Increased mentorships
- Increased access to role models

Professional skills

- Increase scholarly products

Community service at FQHC

- Increased wellness and education programs for patients

Career advancement

- Increased in number of students admitted to professional programs
- Increased awareness among minority students

Outcomes

Short Term: Optimize program/collect data; continue linkages with other pipeline programs

Med Term: Obtain IRB for program evaluation; disseminate findings; develop replication toolkit

Long Term: Replicate program model; *increased diversity in healthcare work force*



Student Demographics (N=79)

- ❖ **Female (64%), Age 18-25 (53%), 26-30 (42%), >30 (5%)**
- ❖ **Latino/Hispanic/Spanish origin (35%), Black/African American (28%), Asian (South East Asian) (22%), White (6%)**
- ❖ **First-generation college student (64%)**
- ❖ **Career interest: MD (75%), Physician Assistant (10%), other (15%)**
- ❖ **College: Public City (47%), Private liberal arts (33%), Public State (10%), Ivy league (8%)**
- ❖ **Plan to take "gap-year" (86%).** Top Reasons: Need more healthcare related exposure, need more time to improve metrics, study for MCAT, need to support family.
- ❖ **Length of participation in the program: 3-6 months (16%), 7-12 months (10%), 1-2 years (42%), >2 years (31%)**

"Being part of BxCHL has provided me with the opportunity to impact my community through advocacy, patient education and wellness groups. I have gained a family composed of my peers, doctors, and health center staff. For the first time as a premedical student I feel a new sense of self-efficacy and support."

- Noelia Melo, Future Doctor.

Preliminary Program Outcomes (2014-2021)

- **88** students have advanced to healthcare professional programs
 - 64 MD (46 direct acceptance to medical school, 18 conditional acceptance)
 - 10 Nursing
 - 4 Physician Assistant
 - 5 Masters in Biomedical Sciences
 - 2 Masters in Nutrition
 - 1 Respiratory Therapy
 - 1 Optometry
- **11** program alumni obtained MD degrees
 - Type of residency training: Family Medicine, Internal Medicine, Emergency Medicine, Pediatrics, Psychiatry, Vascular Surgery, Anesthesiology.

BxCHL Medical School Applicants and Matriculates Application Cycles 2014-2021

Cycle	Applicant Cohort	Direct Accepted	Conditional Admission (Post-Bacc)	Direct Acceptance Rate (Overall)
2014-2015	1	1		100% (100%)
2015-2016	3	3		100% (100%)
2016-2017	13	9	3	62% (92%)
2017-2018	12	9	3	67% (92%)
2018-2019	12	5	7	25% (83%)
2019-2020	15	12	2	67% (80%)
2020-2021	14	7	3	50% (71%)
Total	67	46	18	69% (96%)*

**AAMC: The 2015 medical school acceptance rate is 41.1% (White 44%, Latino 42%, AA 34%)*

BxCHL Graduates White Coat Ceremony at Einstein 2017



BxCHL Alumni Match Day 2021

Elizabeth Batista
Rutgers NJMS



Internal Medicine -
Pediatrics at Mount
Sinai - NY
BxCHL Alumni

Varina Clark
UCLA SOM



Anesthesiology at
UCLA - CA
BxCHL Alumni

**Florangel De Leon
Rodriguez**
Albert Einstein COM



Pediatrics - Primary/Social
at Montefiore Medical
Center/Einstein - NY
BxCHL Alumni

Gabriela Joaquin
NYMC



Internal Medicine at
NYP - Columbia
University Medical
Center - NY
BxCHL Alumni

Omar Sanon
Albert Einstein COM



Vascular Surgery at
Zucker SOM -
Northwell Lenox Hill
Hospital - NY
BxCHL Alumni

Aydar Shalidayev
Albert Einstein COM



Psychiatry at NYU
Grossman SOM- NY
BxCHL Alumni

Fazle Shawon
Touro COM



Internal Medicine at
ISMMS Mount Sinai
South Nassau - NY
BxCHL Alumni

Kristin Williams
Albert Einstein COM



Family Medicine at Duke
University Medical Center - NC
BxCHL Alumni

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ORIGINAL RESEARCH

Open Access

Impact of the Bronx Community Health Leaders Program for Socioeconomically Disadvantaged Prehealth Students

Juan Robles,^{1,*} Rubayat Qadeer,² Tara Reyes Adames,¹ and Zoon Naqvi¹

Abstract

Purpose: Underrepresentation of racial and ethnic minorities in the health care workforce is a local and national issue. We describe and report on outcomes of a longitudinal service-driven prehealth pathway program in a low-income community intended to address this disparity and increase health equity.

Methods: The Bronx Community Health Leaders (BxCHL) is a prehealth pathway program for socioeconomically disadvantaged and underrepresented minority students seeking careers in health care. The program enrolls students in college or college graduates and provides longitudinal near-peer mentorship, exposure to the health care environment, and supports professional development. An academic federally qualified health center serves as the program's home site and learning environment. We conducted surveys and tracked the career advancement of program participants over a 6-year period, 2014–2020.

Results: One hundred sixty-eight students participated in BxCHL for > 3 months. Of these, 76 students advanced into professional health career programs with 39 direct acceptances and 15 conditional acceptances to medical school programs, 9 nursing, 4 physician assistant, 9 health-related masters level programs, 1 respiratory therapy, and 1 optometry. The direct and overall acceptance (direct and conditional) rate of medical school applicants is 59% and 86%, respectively. The first 11 BxCHL alumni obtained their medical degree.

Conclusions: BxCHL's longitudinal service-driven and near-peer mentorship program design represents a replicable model to address health equity by supporting prehealth students from communities with limited access to mentors and professional learning environments in entering the health care workforce and serving their communities of origin.

Program Expansion and Replication (2014-2021)

Program Name	Program Champion	Target students	Career interest	Students/year	Replication site
<i>Bronx Community Health Leaders (BxCHL)</i>	Fam Med MD	College/ Post-bacc	Pre-health	40-50	Intra-institution
<i>South Bronx Community Health Leaders (SBxCHL)</i>	Fam Med MD	College/ Post-bacc	Pre-health	20-25	Intra-institution
<i>Children Hospital at Montefiore Community Health Leaders (CHAMCHL)</i>	Peds MD	College/ Post-bacc	Pre-health (Pediatrics)	10-15	Intra-institution
<i>Bronx Mental Health Leaders (BxMHL)</i>	PsyD, LCSW	College	Pre-mental health	5-10	Intra-institution
<i>University of Connecticut Health Leaders (UCHL)</i>	IM MD, MSIII	College	Pre-health	80-90	Inter-institution
<i>MentorMeMD-Yuma FM Residency</i>	Fam Med MD	High School	Pre-health	4-5	Inter-institution

Barriers and Opportunities

Barriers

- Students' socioeconomic disadvantaged status and its impact on recruitment and retention
- Covid-19 pandemic
 - Changing and limited training/learning environments
- Continued funding/competition for funding
- Lack of URM/minority faculty to serve as role models
- Identifying and protecting time for program champions

Opportunities

- Transition to virtual learning communities; facilitates replication of program remotely
- Utilization of FQHC sites and its existing resources
- Pre-health students' eagerness to volunteer and participate in care of marginalized communities
- Increased healthcare institutions' interest in addressing gaps in workforce diversity
- Institutional changes favoring diversity and inclusion

Lessons Learned and Recommendations

- Community-based innovations like BxCHL represents a sustainable and replicable program design to **increase diversity in healthcare professions.**
- **Healthcare professionals with protected time, resources, and institutional commitment** can lead this type of innovation.
- **FQHCs represent a viable training environment** to address issues of underrepresentation in medicine.
- **Health equity** means producing homegrown healthcare professionals to improve the health outcomes of their communities.
- It is time to move beyond mission statements to funding evidence-based interventions that produce tangible outcomes.
- It is time to promote a culture of equity and inclusion that starts with **socially accountable medical school admissions.**

IT TAKES A VILLAGE TO RAISE A DOCTOR

Julissa De La Cruz, MS-II
Gabriela Joaquin, MS-I
Omar Sanon, MS-I



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Workforce Diversity & Health Equity

Bureau of Health Workforce, HRSA

Cherae M. Farmer-Dixon, DDS, MSPH, MBA

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Nashville, TN



“This program is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of a Centers of Excellence award totaling \$3.1 million and a Pediatric Dentistry Training grant award totaling \$500,000, with 15% financed with non-governmental sources. 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.”



“Worship of God Through Service to Mankind”



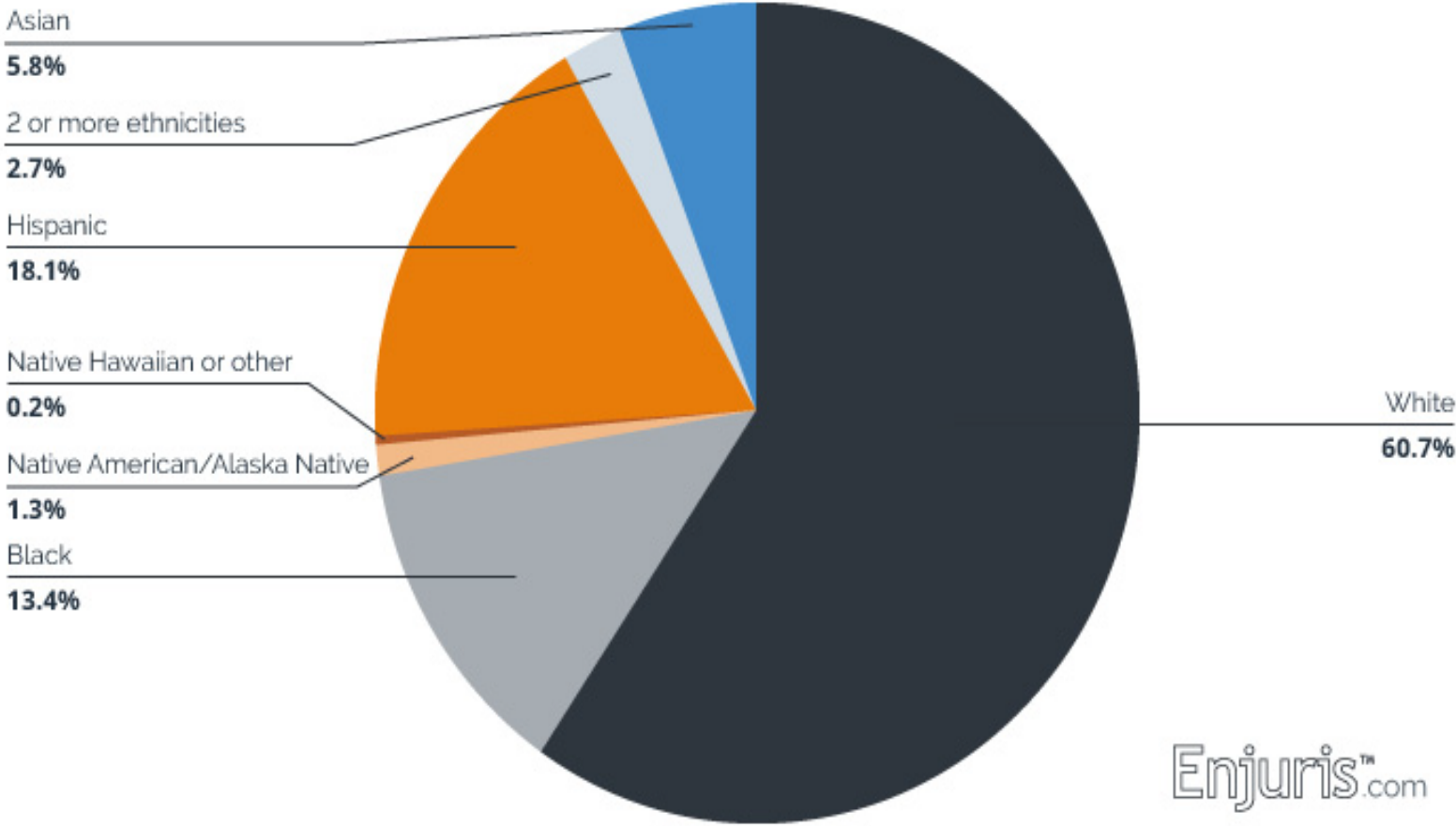
Health Equity, Equality, and JUSTICE



Does everyone benefit from the same assistance?

- Disparities in Health Care
- Disparities in Oral Health
- Social Determinants of Health

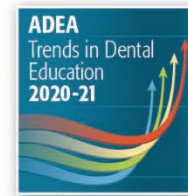
Race/Ethnicity In the United States



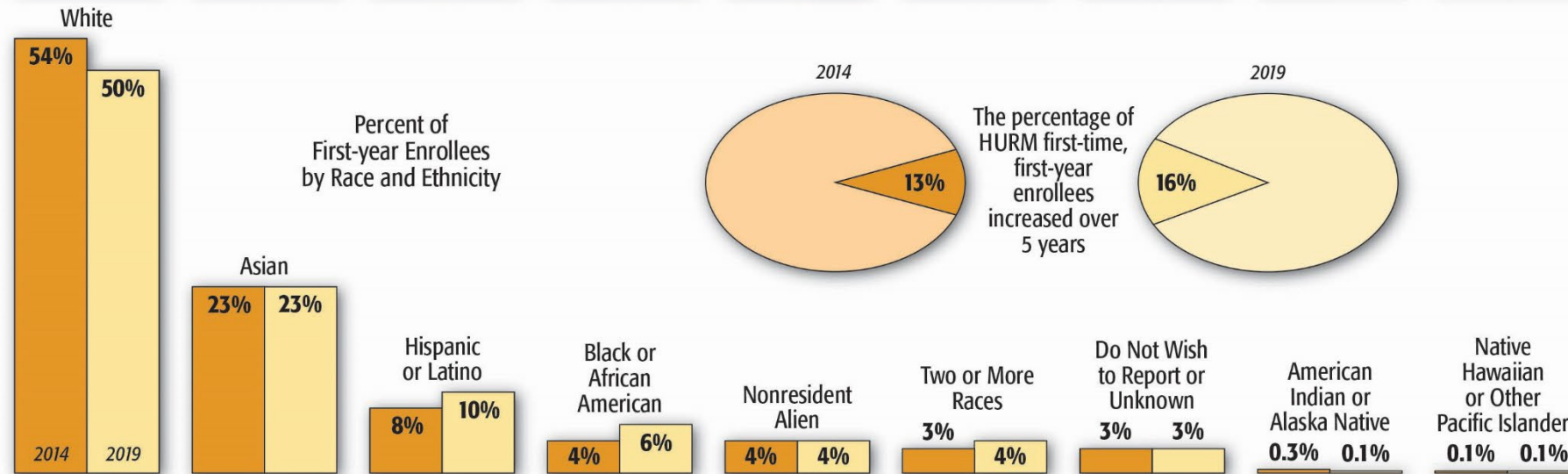
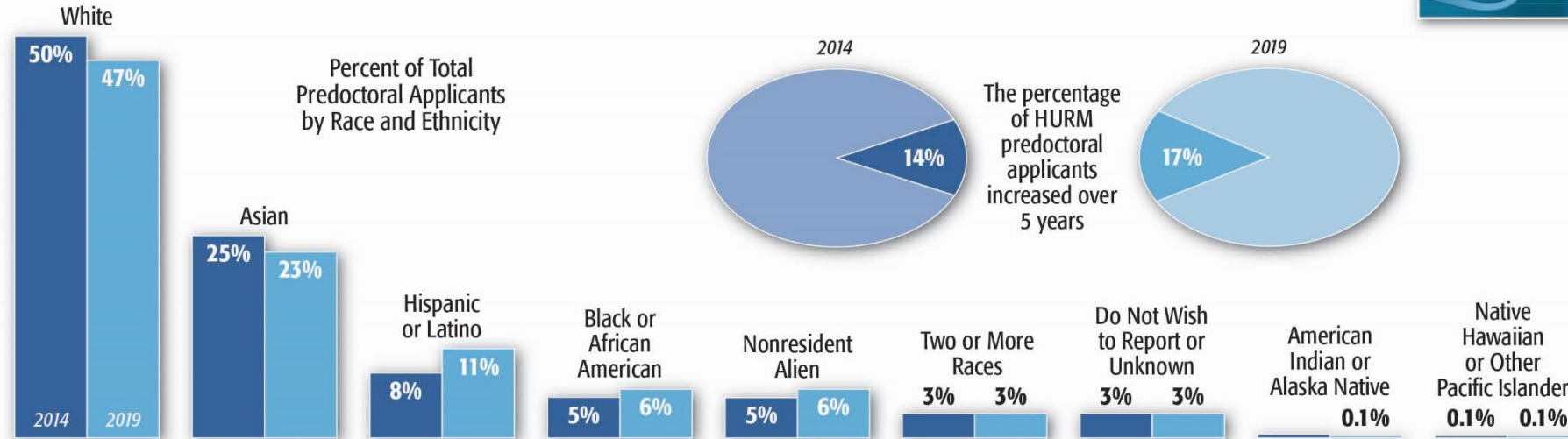
2018 Law School Diversity Report Jd Enrollment By Race Ethnicity



Diversity Increases Among Applicants and First-year Enrollments



Between 2014 and 2019, a larger share of the predoctoral applicant pool and first-year class was comprised of Hispanic, African American, two or more races and nonresident alien individuals. Historically underrepresented and marginalized (HURM) students are increasingly represented among applicants and in predoctoral first-year classes.



Note: HURM students include the following four race and ethnicity categories: African American, Hispanic or Latino, American Indian or Alaska Native, and Native Hawaiian or Other Pacific Islander. These four race and ethnicity categories are defined by the U.S. Department of Education for reporting data from higher education institutions. Note: Percentages may not add up to 100% due to rounding.
 Source: American Dental Education Association, U.S. Dental School Applicants and Enrollees, 2014-2019.

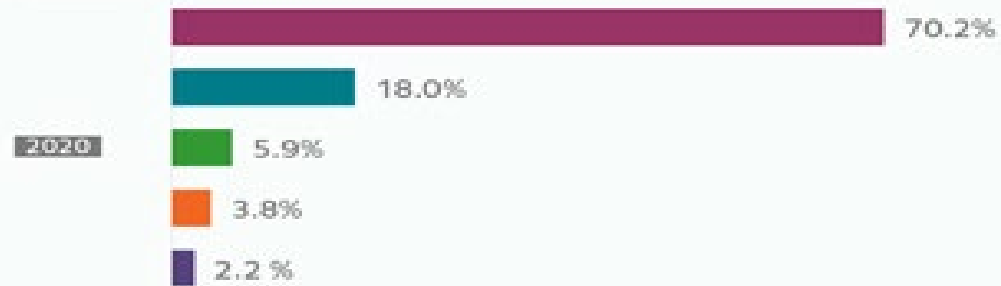


RACIAL AND ETHNIC MIX OF THE DENTIST WORKFORCE IN THE U.S.

- WHITE
- ASIAN
- HISPANIC
- BLACK
- OTHER



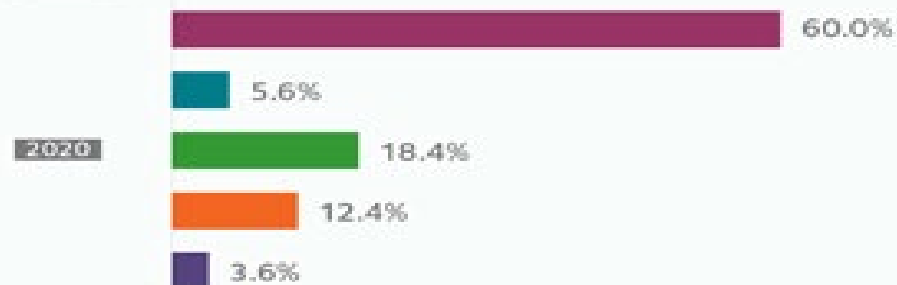
DISTRIBUTION OF DENTIST WORKFORCE, BY RACE



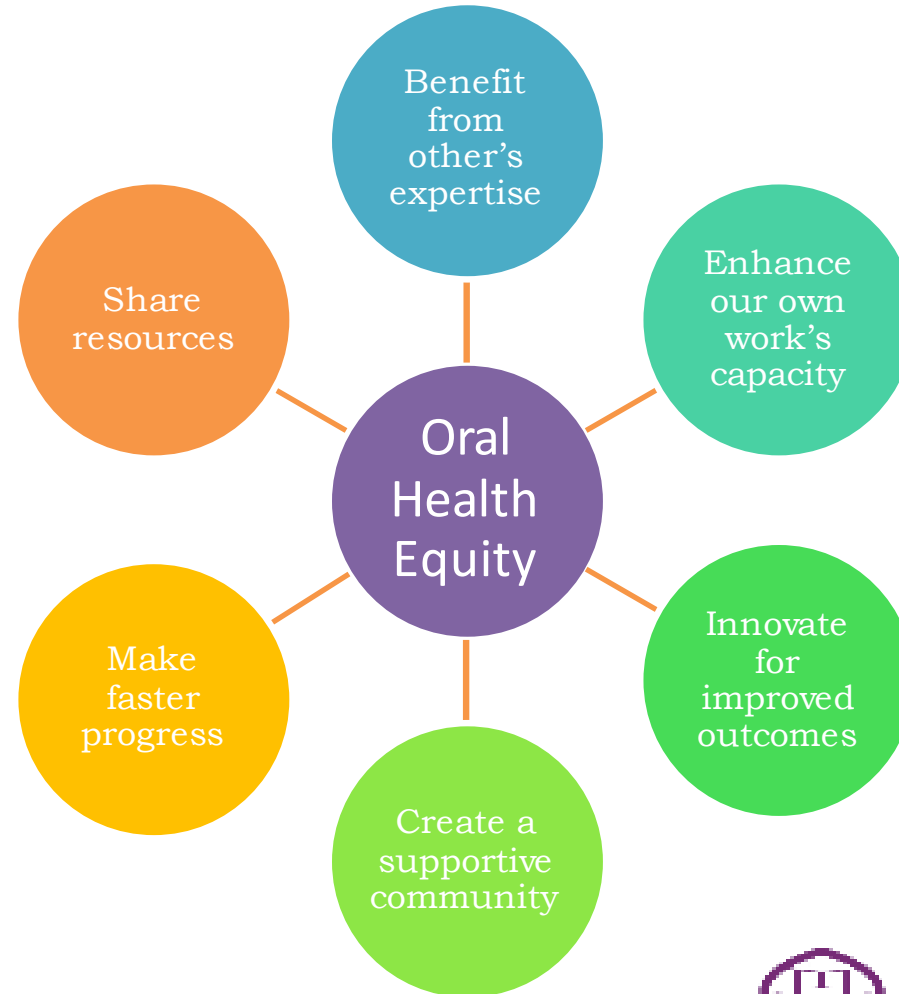
in Dentistry



DISTRIBUTION OF U.S. POPULATION, BY RACE



Interdisciplinary Collaboration & Networking



Pipeline Best Practices

“Meeting People Where They Are”

- Middle School
- High School
- Colleges & Universities
- Community Partners
 - Civic Organizations
 - Faith-Based Programs
- Social Media Platforms



Middle School STEM Mentoring



BLACK MALE YOUTH SUMMIT

HIGH SCHOOL & COLLEGE IMPRESSIONS DAY



Increasing Diversity Through Pipeline Programs Partnerships





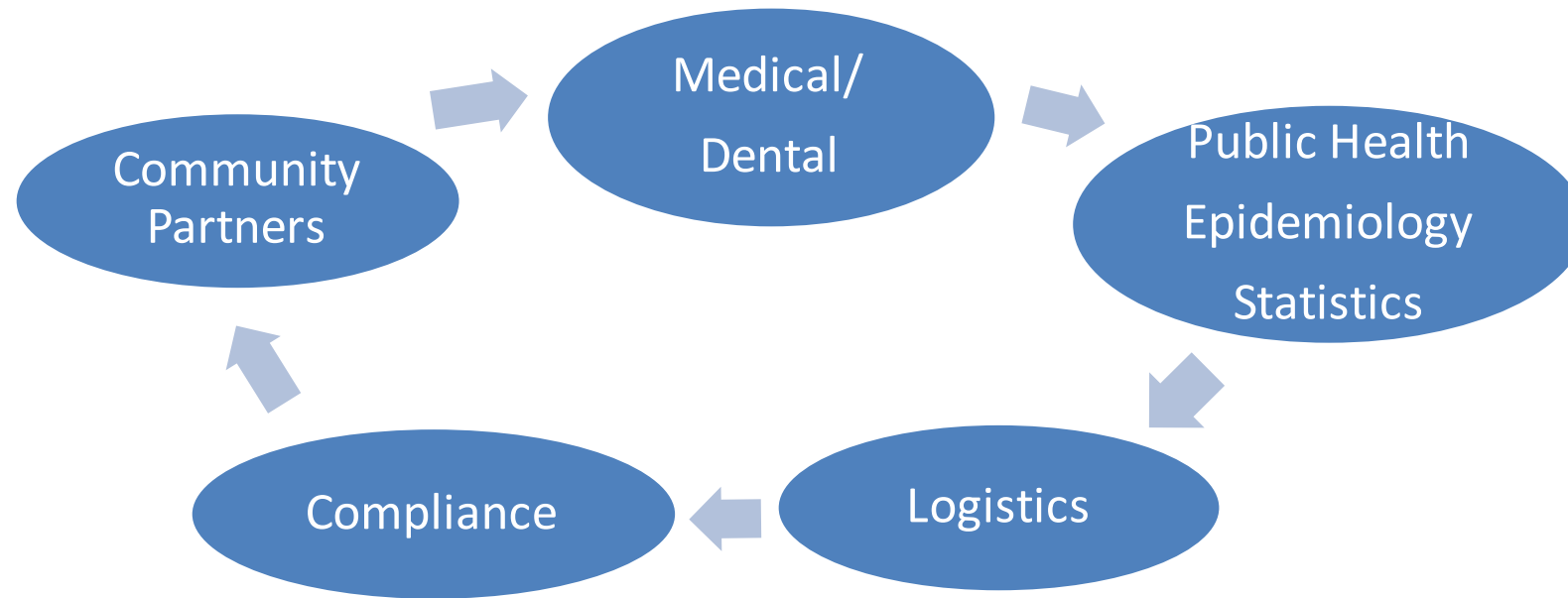
IMPRESSIONS DAY

"CPR"

IMPRESSIONS DAY COLLEGE ENGAGEMENT



Interprofessional collaboration and positive outcomes

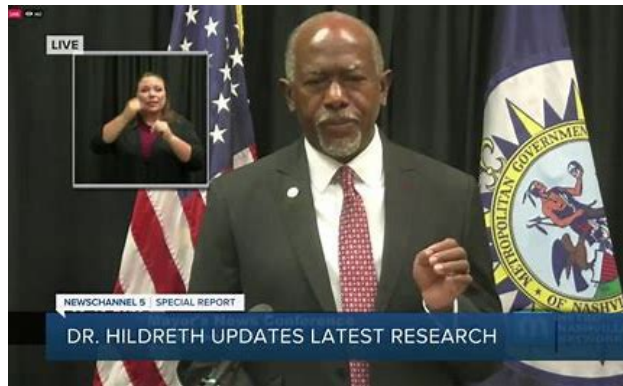


Collaborative team

- Meharry Medical College
 - Medicine
 - Dentistry
 - Public Health
 - Graduate Studies & Research
 - Applied & Computational Science
- Area Churches
- Area Universities (Belmont, Vanderbilt, Tennessee State)
 - Nursing Students
 - Allied Health Students
- Local Government
- Crisis Centers
 - Mental Health
 - Family Support
- Health Departments
 - City
 - State
- Office of Emergency Management
- Habitat for Humanity

Meharry

Oral Health Leaders Leading COVID-19 TESTING



- **Manage Nashville's Assessment Sites**
- **One of Nashville's COVID-19 Assessment Sites**
- **Developed Logistics Modules for Assessment Sites**

MEHARRY LEADS THE WAY



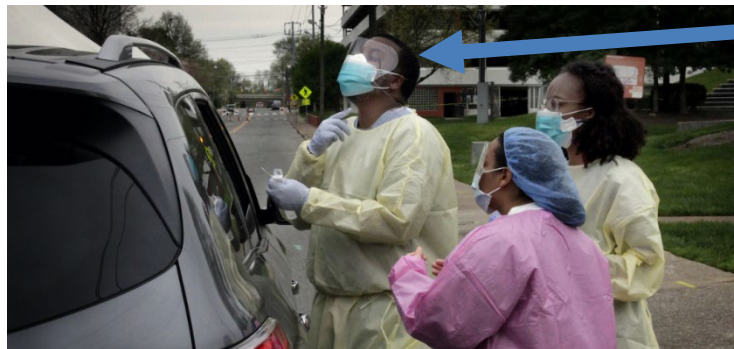
Dean Cherae Farmer-Dixon, SOD

Dr. Julie Gray, SOD



Corinthia Wilkerson, D4 Student

Dr. Theodore Pinnock, SOM



Dr. Calvin Smith, SOM

COMMUNITY HEALTH AND WELLNESS



HEALTH EQUITY THROUGH ACCESS TO HEALTHCARE

- Mobile Unit
 - Rural Communities
 - Remote Areas
- Town/Community Affiliations
- United Methodist Church Partnership
- Community Grant Programs



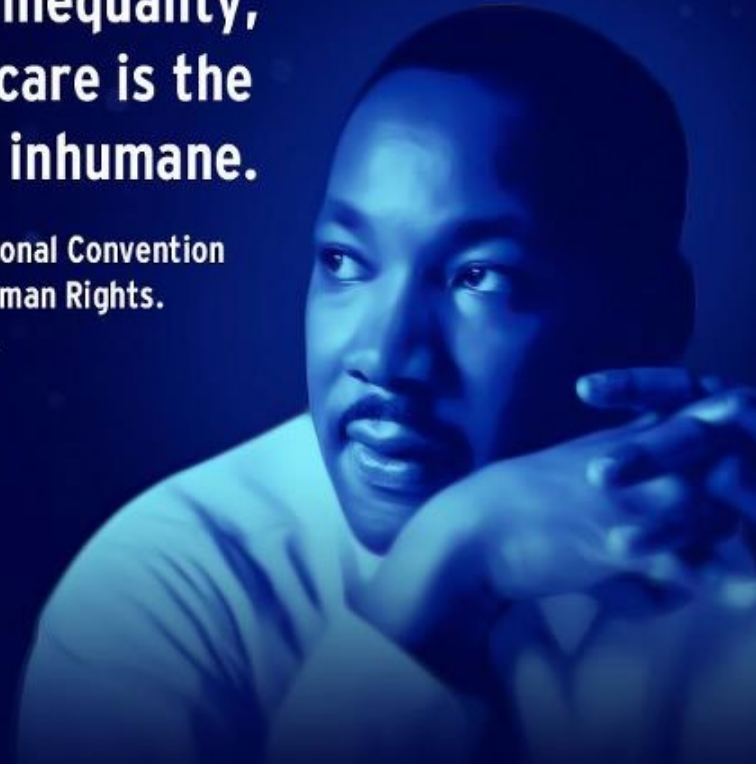
The Injustice of HealthCare



MARTIN LUTHER KING

**Of all the forms of inequality,
injustice in health care is the
most shocking and inhumane.**

Speaking before the Second National Convention
of the Medical Committee for Human Rights.
Chicago, Illinois. March 25 1966.



Questions



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