



Stanford | **THE REACH**
MEDICINE | **INITIATIVE**

Racial Equity to Advance a Community of Health



THE REACH INITIATIVE 2023 IMPACT REPORT



Lloyd Minor, MD
Dean of the School of Medicine
Vice President for Medical Affairs

We created the REACH initiative with an essential goal in mind: to advance equity in research and medicine – starting with representation. Pursuing greater diversity and inclusion in biomedicine is not just the right thing to do. Time and again, it has contributed to better research and medical care that benefits all. Fundamentally, it is a pursuit of excellence, one that will enable our field to achieve its full potential and meet the immense opportunities and challenges ahead. That includes eliminating the persistent health disparities that exist in our society.

While we have made much progress at Stanford Medicine in embracing diversity, equity, and inclusion in our practices,



Terrance Mayes, EdD
REACH Executive Director
Associate Dean for Strategic Initiatives

I'm honored to present the inaugural REACH Impact Report that recognizes the significant efforts that have been made toward creating genuine and enduring change around anti-racism and health equity within Stanford Medicine.

The foundation of the REACH Initiative is community, both on our campus and the



Reena Thomas, MD, PhD
Associate Dean for Diversity in
Medical Education

Coming from my own multicultural background as a first-generation American with parents from India and El Salvador, I have found success through the support and sense of belonging of my ethnic communities. Through my training, I have had a passion for tackling the most difficult questions in medicine. One of the most critical





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While we have made much progress at Stanford Medicine in embracing diversity, equity, and inclusion in our practices, representation is as much about the process as it is about the outcomes. It is work that is never truly done. At such a pivotal time for biomedicine, it is imperative that we maintain a robust pipeline of talented students and faculty that reflect all segments of our society and continue honing a culture in medicine where all are dedicated to understanding and engaging the root causes of health disparities. Only then can we fully realize our mission of supporting the wellness of communities everywhere.

We are proud of the significant impact REACH is already making on these fronts and remain fully committed to this critical work.



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The foundation of the REACH Initiative is community, both on our campus and the surrounding areas. Building an environment that leads to healthcare innovation and outstanding patient-centered care requires diversity in leadership and a pipeline of scholars. To achieve the Stanford Medicine mission – *“to educate and inspire a diverse group of leaders in medicine and science who will improve human health through discovery, innovation, scholarship, education, and the delivery of outstanding patient-centered care”* – we recognize the progress that Stanford still must make in these areas. With this mission in mind, the REACH Initiative was conceived to expand a biopsychosocial understanding of the populations we serve through Stanford Medicine, as well as create an environment of trust, safety, and belonging for all students, faculty, staff, and patients.

Becoming a national leader in health equity promotion and progress centers upon training the next generation and changing long-held beliefs about what healthcare looks like and who the experts really are. One of the ways that the REACH Initiative is leading the charge on the equitable delivery of care is by acknowledging race as a social determinant of health and educating our peers around the racial differences in disease prevention, detection, and treatment.

We can evolve by engaging internal and external sources of wisdom and experience. Bidirectional relationships with Historically Black Colleges and Universities (HBCUs) are allowing Stanford Medicine professionals to learn from those who have been actively fighting for social justice in healthcare from their inception. The REACH Initiative connects HBCU students and faculty with Stanford resources to mutually benefit from mentorship, scholarship, and experiential opportunities.

Recently, I had the inspiring opportunity to hear heartfelt personal stories and insightful visions for the future of the REACH program from current participants. One scholar expressed gratitude for participating in the REACH program, highlighting the “academic and personal growth” he had experienced and “taking a chance on a kid from a small town to help build the foundation needed to succeed in giving back to his community.” Another scholar stated, “One takeaway is just how satisfying and fulfilling it is to work with and care for communities that I feel a personal connection to.” Hearing these and others’ journeys with and aspirations for REACH not only moved me but also ignited a renewed sense of excitement for the future of this initiative and the impact we can have together to advance health equity.



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I have had a passion for tackling the most difficult questions in medicine. One of the most critical needs in medicine is closing the disparities that continue to plague patients who are members of certain socioeconomic, racial, and other minority groups, resulting in poor health outcomes. Part of the solution is to create a representative workforce that reflects the communities we serve and understands their unique needs and challenges. This includes building bridges for language proficiency, cultural competence, and racial-ethnic concordance. However, the other part of this work is connecting with each other as healthcare leaders and supporting our shared work with empathy, understanding, encouragement, and inspiration.

My vision for the REACH Initiative is for all those who participate to take ownership of the pivotal role they play in shaping the next generation of scientific advancements, knowing that their stories are the future of medicine



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REACH

OVERVIEW

The Racial Equity to Advance a Community of Health (REACH) Initiative is dedicated to training a new generation of leaders in medicine and science who will actively promote health equity, racial equity, and social justice and work to reduce our society's devastating health disparities.

The REACH Initiative includes:

- **the Postbaccalaureate Experience in Research** to enhance scholars' applications to medical or STEM graduate schools
- **the Scholarly Concentration in Health Equity and Social Justice Research** to engage medical students in class and community project work across their training years
- **the MD/Master's Program in Health Equity and Social Justice Research** that will sponsor Stanford medical students to pursue a master's degree with a focus on health equity
- **the Clinical Clerkship in Community Health of the Underserved** to provide outpatient care for communities that traditionally lack access to healthcare
- **the Bioscience PhD Fellowship** to fund underrepresented minorities to pursue academic research in STEM
- **Historically Black Colleges and Universities (HBCU) Engagement** that support bidirectional learning between Stanford and 17 HBCU member institutions in the Collective
- **Historically Black Medical Colleges (HBMC) Summer Research Program** which hosts rising 2nd year medical students to conduct paid research with Stanford mentors

REACH is transforming the way we deliver education and helping us train **FUTURE LEADERS** who will orient their work and purpose around **HEALTH EQUITY** and **SOCIAL JUSTICE** in medicine.

REACH LEADERSHIP



Lloyd Minor
Dean of Medicine



Terrance Mayes
Associate Dean, Strategic Initiatives; Executive Director, REACH Initiative



Neil Gesundheit
Senior Associate Dean, Medical Education



Reena Thomas
Associate Dean, Office of Diversity in Medical Education



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Senior REACH Advisor



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Senior Associate Dean, Graduate Education and Postdoctoral Affairs



Yvonne (Bonnie) Maldonado
Senior Associate Dean, Office of Faculty Diversity and Development



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Senior Advisor, HBMC Program



Anthony Ricci
Faculty Director, Postbaccalaureate Program



Florette (Kim) Hazard
Faculty Co-Director, HBMC Program



Payam Massaband
Faculty Co-Director, HBMC Program



Nancy Ewen Wang
Faculty Director, MD/MS Program in Health Equity Research



Stephen Richmond
Faculty Director, Scholarly Concentration in Health Equity and Social Justice Research

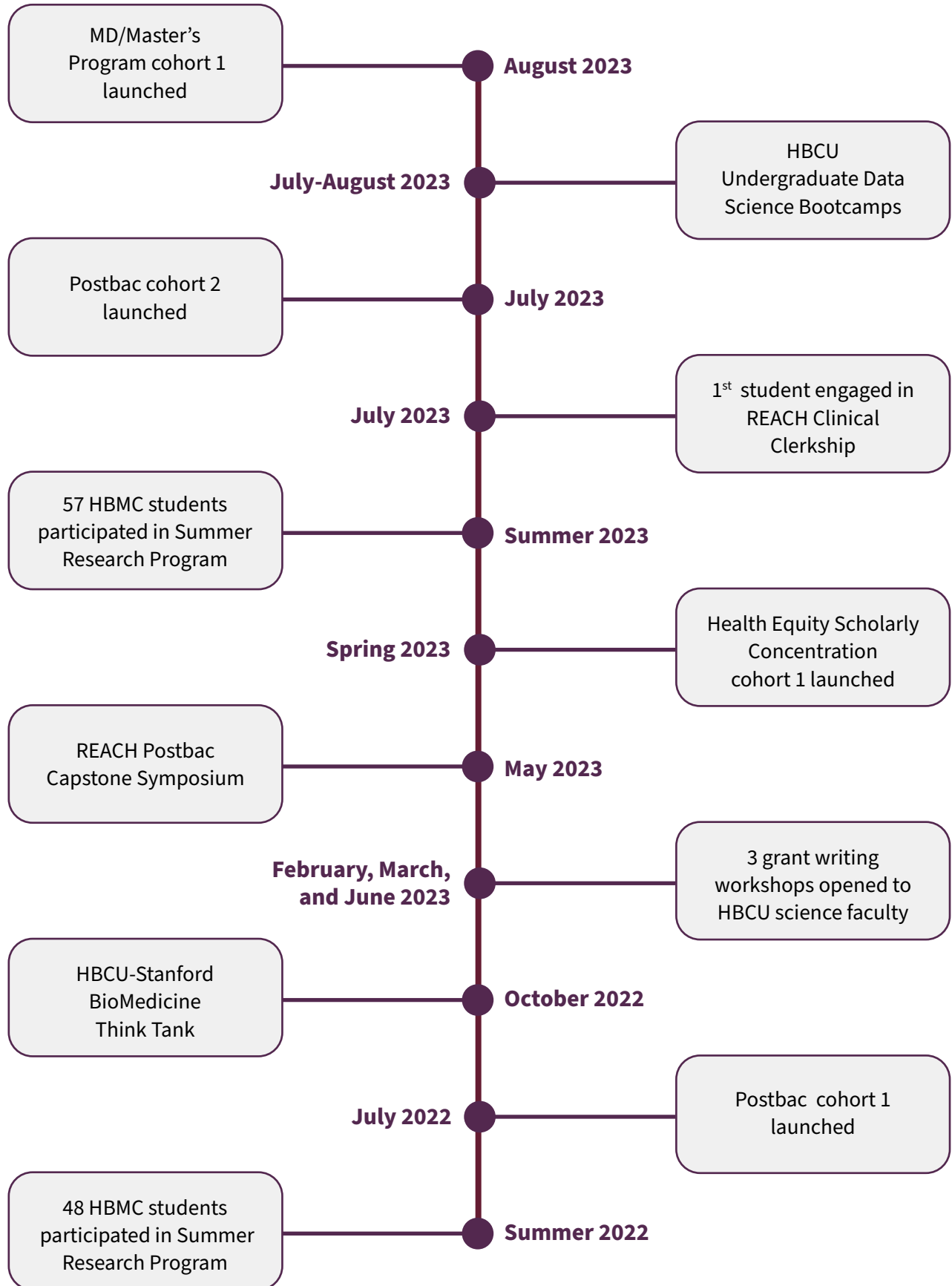


Nancy Cuan
Faculty Director, Clinical Clerkship in Community Health of the Underserved

REACH PROGRAM STAFF

Adela Tapia — Med Ed Administrator
 Aria Small — Coordinator, HBMC Program
 Ashley Diaz — Enterprise Strategy Coordinator
 Sonoo Cati Brown-Johnson — Research Scientist
 Donna Zulman — Lead Research Scientist
 James Harden — Postbac Director
 Judith Ned — Director, HBCU Engagement
 Kelsea Jackson — Clerkship Program Manager
 Magali Fassiotto — REACH Advisor
 Melvin Faulks — Research Assistant
 Nadia Safaeinili — Research Scientist
 Sonoo Thadaney Israni — Director, HBMC Program

REACH PROGRAMMATIC UPDATES





POSTBACCALAUREATE EXPERIENCE IN RESEARCH

REACH scholars are selected to perform 1-2 years of research in a Stanford lab supervised by a principal investigator. The program’s 20 annual scholars learn research skills, get mentored by Stanford faculty members, and have preparatory sessions to apply to and succeed in medical or graduate school. They get paid a salary of approximately \$63,500, as well as benefits. Funding is split equally between the REACH Initiative and the scholar’s host lab. Scholars have the opportunity to present their research findings, publish in peer-reviewed journals, and attend medical conferences.



“ They’re coming in with drive, determination, and academic prowess. The support they need is in that nurturing space of growth, feeling validated and affirmed in their identities, and connecting to community. How can I provide the holistic support and empower people through this journey where they are constantly shaping and reshaping?”

— James Harden, PhD, Director

Postbac PROGRAMMING YEAR IN REVIEW

	SUMMER	FALL	WINTER	SPRING	
RESEARCH	Lab Skills Development				
	Lab Rotations (6 weeks)				
		Conduct Research			Manuscript Preparation
PROFESSIONAL AND ACADEMIC WORKSHOPS		Science Didactics			
		MCAT/GRE Exam	Interview Preparation	Navigating Med/Grad School	
		Med/Grad School Applications	Interviews	Postbac Research Symposium	
		Attend Scientific Meeting			
COMMUNITY BUILDING EVENTS	Mentorship Small Groups, Team Dinners, Cultural Events, Wellness Days, and Other Gatherings				

“

A lot of my students have never really met a youngish, African American doctor. That makes a huge difference in terms of their motivation because a lot of them have imposter syndrome, which I completely understand. They don't feel like they belong. They need to know that they can do this.” — McKay Mullen, PhD, Mentor



“

It has been over a year since I was gratefully chosen to be a part of the inaugural cohort, and it has been quite the journey. I am extending my thanks for the growth (both academically and personally) I have undergone. Truly, I thank the program for taking a chance on a kid from a small town and continuing to help build the foundation I need to succeed in giving back to my community.” — Postbac Scholar

Cohort 1 Initial Outcomes

Two scholars admitted to medical school in Fall 2023



EMMANUEL Chavez
UCLA Charles Drew Track



ANNE Onyali
Washington State University

FOUR scholars have submitted
8 research manuscripts for publication in journals

including *JAMA Network Open*, *Current Research in Toxicology*, and *Journal of Experimental Biology*.

Six scholars presented their research at medical conferences in the United States and internationally.



JAZELLE Magana



KATYA Vera



NEHA Momin



SAMANTHA Zenteno



DARIANA Gil-Hernandez



JAIRELISSÉ Morales



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“Qualitative Insights on Improving Quality of Care for AANHPI Mothers and Infants”
— Pediatric Academic Societies 2023 Meeting



“Impact of Cutaneous Neurofibromas on Quality of Life in Neurofibromatosis Type 1” — International Societies of Investigative Dermatology Conference in Tokyo



“Long Term Use of Topical Beremagene Geperpavec (B-VEC) in Two Patients with Dystrophic Epidermolysis Bullosa”
— International Societies of Investigative Dermatology Conference in Tokyo



“A Cognitive Biotype of Depression and Symptoms, Behavior Measures, Neural Circuits, and Differential Treatment Outcomes” — American Society of Hispanic Psychiatry Annual



“Suicidal Thoughts and Behaviors in Adults with Hoarding Disorder” — American Society of Hispanic Psychiatry Annual Meeting



“Impact of Alcohol Use Disorder Medication Use of Craving in Veterans in Residential Treatment for AUD” — American Society of Hispanic Psychiatry Annual Meeting



“

The REACH Health Equity and Social Justice Core class has given me a strong foundation upon which I am building my own community-engaged research projects and studying best practices for: 1) addressing anti-Black racism, building trust within the clinician-patient-caregiver triad, and empowering Black children/adolescents in their clinical care; and 2) including patients as equitable research partners while co-developing a psychosocial support program for children/adolescents with chronic illness. — Amy Bugwadia, MS, Medical Student



“

With REACH, we're not going to be able to meet with and engage every student, but if we can plant seeds in some students and have those seeds start to grow and bloom to affect an environment of change, then you create a cultural shift in the right direction so that everybody starts caring about, thinking, and understanding the ways in which health equity can transpire. The REACH community is by far the most important part of our curriculum.

— Stephen Richmond, MD MPH



HEALTH EQUITY AND SOCIAL JUSTICE SCHOLARLY CONCENTRATION

The Health Equity & Social Justice Scholarly Concentration (HESJ-SC) is a new endeavor for first and second-year medical students with a desire to engage in social change work from the inside out. The first cohort of scholars began their journey in the Spring of 2023.

The HESJ-SC is a three-component pathway comprising the (1) HESJ-SC Core Foundations Course, (2) HESJ-SC Skills Course, and (3) Practicum. Courses will enroll 6-10 students per term and will include on-campus and offsite activities to realize the Equity First model.

Programmatic Update

(1) HESJ-SC Core Foundations Course - MED269A (3 units):

MED269A engages core concepts of social justice and health equity to build a foundation for change. Over 10 weeks, students will examine intersections of medicine and oppressive ideological and structural frameworks that produce health inequities.

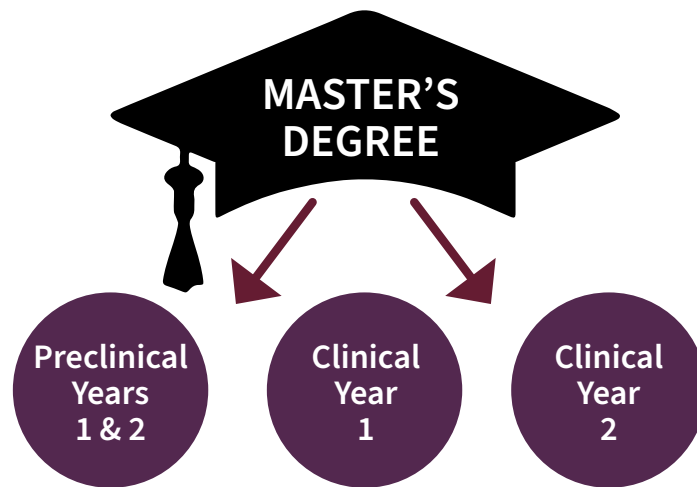
(2) HESJ-SC Core Skills Course - MED269B (3 units):

MED269B focuses on building the core skills necessary to effectively engage in social justice and health equity change work. Students will work individually and in groups to understand real-world problems and begin to cultivate their own change agent identity.

(3) Practicum - (Scholarly Concentration Project):

The Practicum is a mentored experience for students to perform a scholarly project in a specific domain of change – community, policy, education, or patient care – and may be separate or combined with other scholarly projects.

The **“EQUITY X”** digital platform is in development to support students’ social justice preparedness to interact with **PATIENTS IN THE COMMUNITY.**



Health Equity Programming

Community Mentoring & Networking

Training and Career Development Program

“ Each student will choose a master’s degree or “superpower” with which they will approach health equity. In addition, REACH Scholars in health equity programming will provide a foundation in theory, exposure to a wide range of content areas and methodologies, as well as the tools to translate scholarship into advocacy and action. The program will also provide community, mentorship, and networking opportunities” — N. Ewen Wang, MD



MD/MASTER'S PROGRAM IN HEALTH EQUITY

Health equity can, and must, be approached through multiple channels, and the training for this work cannot be limited to the clinical setting. The MD/Master's Program in Health Equity was created to facilitate multidimensional learning through a variety of degree programs even outside of the School of Medicine.

In this program, selected medical students will be fully funded to pursue a master's degree in diverse fields, including arts, public health, and business, giving them new tools that allow them to broaden their horizons and think differently and critically about how to approach achieving health equity.

Eleven funding offers were made for the inaugural cohort of scholars who are at various stages of their education, including three who started their master's degrees in the Fall of 2023: below they are shown with their area of concentration and proposed master's degree.



JOEL ADU-BRIMPONG
Informatics, MBA



JACKY CHU
Health Services Research, MPH



MARZAN HAMID
Health Services Research, MPH



KELLY HYLES
Community Health, MBA



GRACE JIN
Bioethics and Medical Humanities, MFA



NATHAN MAKAREWICZ
Bioethics and Medical Humanities,
Master's in Epidemiology



CHRISTIAN OVERBECK
Clinical Research,
Master's in Epidemiology



SIDNEY OWEN
Community Health, MBA



MEGHA PATEL
Community Health,
MPH



APOORVA RANGAN
Bioethics and Medical Humanities,
Master's in Anthropology



DINA SHEIRA
Clinical Research,
MBA

**4 MBA, 3 MPH,
2 Master's in
Epidemiology,
1 MFA, and
1 Master's in
Anthropology**

“

I went to college at Stanford and did a lot of work within the Cardinal Free Clinics, and that has always been an inspiration for me of what kind of physician I hope to be. Working with local communities providing care for historically underserved populations was a core principle for me on my rotations. — Emily Pang, Medical Student



CLINICAL CLERKSHIP IN COMMUNITY HEALTH OF THE UNDERSERVED

Stanford medical students are offered a broad range of clinical sites to train, including Stanford Health Care and Lucile Packard Children's Hospital, Stanford Health Care Tri-Valley, and Stanford University Medical Partners and other satellite clinics. However, patient access to these costly healthcare resources is limited and often out of reach.

The Clinical Clerkship in Community Health of the Underserved supports third and fourth-year medical students who want to better understand diverse populations and the range of health and sociobehavioral issues that can occur. It underscores the health equity principle that all humans, regardless of their personal backgrounds, have a right to quality healthcare.

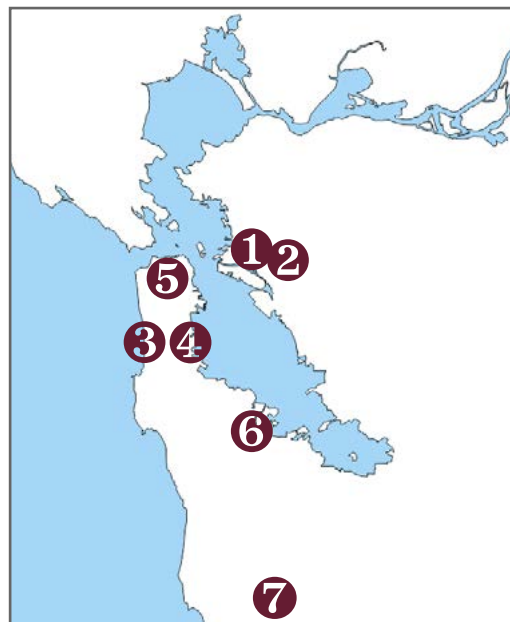
“ Part of the work is being able to view a certain patient population or community setting and have an idea of the existing disparities. We should be ensuring students have the skills to be an advocate and to not be a bystander, to be able to not just see and be frustrated by disparities, but also to be motivated to develop the tools to be active in promoting social justice and health equity.” — Nancy Cuan, MD



Students may spend time in multiple clinics over the clerkship, and our list of community partners continues to grow.

Community Partners

- ① Asian Health Services
- ② Cardiovascular Consultants Medical Group – Oakland
- ③ Daly City Youth Health Center
- ④ San Mateo County Pediatrics – Daly City
- ⑤ St. Anthony's
- ⑥ VA Homeless
- ⑦ Valley Medical Center
 - VMC Refugee/TB
 - VMC Juvenile Custody
 - VMC Adult Custody
 - VMC Gilroy/Farm Workers
 - VMC Homeless





REACH

BIOSCIENCES PhD FELLOWSHIP

According to a report from the National Science Foundation, underrepresented minorities were awarded only 16% of doctoral degrees in science and engineering fields in 2020. This breaks down to 9% Hispanic/Latinx students, 7% Black/African American students, and 0.4% American Indian or Alaska Native students.

REACH will fund the first three to four years of doctoral studies for each fellow, decoupling funding from research advisors' grants to allow students the freedom and flexibility to study the topics they are most passionate about. This will ultimately create a diverse talent pool of academic researchers for labs across Stanford Medicine.



IMANI PORTER,
an HBCU alumna of Hampton
University, was selected as the
2023 Fellowship recipient.
She will be pursuing a
degree in genetics.

TWO PhD
students were
AWARDED
FELLOWSHIPS
in 2021 to pursue
degrees in
biochemistry and
immunology.

HBCU Collective Partners

The HBCU Collective fosters outreach and engagement opportunities between seventeen Historically Black Colleges and Universities (HBCUs), the REACH Initiative, and Stanford Medicine.



**NORTH CAROLINA
AGRICULTURAL AND TECHNICAL
STATE UNIVERSITY**



**NC Central
UNIVERSITY**



Spelman College



HBMC Partners

Stanford Medicine collaborates with all four Historically Black Medical Colleges (HBMCs) for research and training opportunities.



**HOWARD
UNIVERSITY**



HBCU ENGAGEMENT

HBCU Collective Programmatic Updates and Outcomes

“ Because I am an alumna of an HBCU, Southern University and A&M College, I know what it means to be embedded in a culture where belonging and academic excellence are welcomed and expected. As a nation, we’re so conditioned to view minority-serving institutions from a deficit mindset, when in fact, we should view them as educational pillars offering an oasis of opportunity, highlighting their many contributions to the ever-evolving landscape of this country. My hope going forward is that our work here at Stanford is seen as transformative and that we have remained true to our vision of establishing intentional and multidirectional sustained partnerships with our HBCU sister institutions.” — Judith Ned, EdD



HBCU-REACH ADVISORY COUNCIL

Representatives from Stanford Medicine and **SIX** HBCU partners meet bi-monthly

STANFORD GRANT WRITING ACADEMY

3 workshops offered to HBCU science faculty in 2023

16 total HBCU enrollees

UNDERGRADUATE DATA SCIENCE BOOT CAMP

Teaching R, MATLAB, and Python

96 HBCU students over two sessions

HBCU-STANFORD BIOMEDICINE THINK TANK

Attended by **30+** Stanford representatives, faculty from **16** HBCUs and **FOUR** HBMCs, and community leaders from local government and industry

HBCU TALK NEWSLETTER

Monthly newsletter launched October 2021

“ *The pillars of the HBMC Summer Research Program are accessibility and mentorship. The program creates a channel for medical students to conduct meaningful research and connect with principal investigators across multiple medical specialties. The guidance they receive can open doors to publications and presentations, and also provide exposure to unique career pathways. Under the REACH umbrella, we have been able to expand the program to include more clinical departments and a greater number of HBMC student participants.*” — Sonoo Thadaney Israni, Director, HBMC Program



“ *[My PI] has been one of the greatest mentors I could have ever asked for. During the program, she challenged me to always think outside the box, be curious, and never be afraid to stand by what I believe. She has been a great person to talk to whenever things got hard. In that short amount of time, she has been amazing and has done so much for me with so much kindness. I will cherish our memories in the lab and with the interns, and I will be so grateful to continue our work together for the rest of my journey in medicine.*”
— HBMC Visiting Medical Student

HBMC

SUMMER RESEARCH PROGRAM

The engagement of trainees from Historically Black Medical Colleges (HBMCs) is building upon the pilot launched by [Presence](#) (a Center at Stanford Medicine) and the Department of Medicine, under the leadership of Dr. Abraham Verghese and Sonoo Thadaney Israni in 2017. Today, the REACH-HBMC Summer Research Program provides a full-time, on-campus, paid experience to rising second-year medical students from Howard University College of Medicine, Meharry Medical College, and Morehouse School of Medicine.

3 partnering HBMCs:
Howard, Meharry,
and Morehouse

8 weeks of research:
basic science,
clinical, health
services, and others

57

2023 HBMC
summer scholars

48

2022 HBMC
summer scholars

16

Participating Stanford
departments and institutes





HBCU Stanford
Think Tank
October, 2022

Bongeka Zuma
MD Candidate
Stanford School of Medicine

Bongeka Zuma, a Spelman alumna, on her experience attending the HBCU Think Tank



You have to be thoughtful of what is required for the success of underrepresented students. And it's not just getting more people to apply. It's not just matriculating more people. It's establishing community. It's establishing a sense of belonging. It's helping with social structures in a way that will allow people to thrive. It's anticipating the imposter syndrome that folks are going to have and addressing it prospectively and proactively, not waiting for folks to feel like they don't belong."

— Payam Massaband, MD





Drs. Terrance Mayes and Judith Ned speak on the importance of Stanford Medicine's collaboration with HBCUs and HBMCs

WITH GRATITUDE to our **PARTNERS,**
COLLABORATORS, AND SPONSORS of this important
work to **EDUCATE AND INSPIRE** the next
generation of socially conscious and justice
oriented healthcare leaders.



Stanford | **THE REACH**
MEDICINE | **INITIATIVE**

Racial Equity to Advance a Community of Health

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HBCU Photos by Robb Most

HBMC Photos by Clinton Louie, Department of Medicine