



First Generation
Scholars Network

First Gen Symposium

Monday, March 11, 2024



RUSH EDUCATION
and CAREER HUB

From Cradle to Career: Empowering First- Gen Students in STEM and Health Sciences for Academic Success and Career Advancement



Introductions



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Building Capacity for the Workforce of the Future



**RUSH EDUCATION
and CAREER HUB**

Empower Minds. Create Opportunities.

Improve K-16 educational outcomes; provide support through workforce development, industry-recognized credentials, wraparound supports

CHALLENGE:

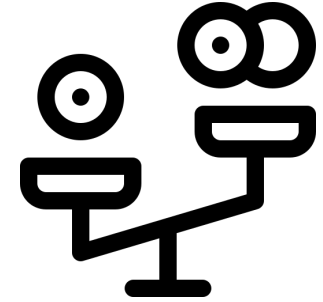
Inequitable Outcomes in Education, Wealth, & Health



Large gaps in educational attainment and aspirations



Shortage of health care professionals; lack of diversity in middle & high-skilled STEM fields



Disparities in education, employment and earning potential affect health and economic outcomes

Source: <https://data.hrsa.gov/tools/shortage-area>

CHALLENGE: Healthcare Workforce Shortage & Lack of Diverse Healthcare Professionals

☰ **CNN** health Life, But Better Fitness Food Sleep Mindfulness Relationships

Concern grows around US health-care workforce shortage: 'We don't have enough doctors'

By [Jacqueline Howard](#), CNN
Published 11:00 AM EDT, Tue May 16

US News NEWS » News Best Countries Best States Healthiest Communities Opinion Elections

Home / News / Health News / Is Anyone Here a Doctor?

Staff Shortages Choking U.S. Health Care System

A growing shortage of health care workers is being called the nation's top patient safety concern.

By [Steven Ross Johnson](#) | July 28, 2022, at 4:45 p.m.

CDC Newsroom 

Racial and Ethnic Disparities Continue in Pregnancy-Related Deaths

Black, American Indian/Alaska Native women most affected

Press Release

Embargoed Until: Thursday, September 5, 2019, 1:00 p.m. ET
Contact: Media Relations
(404) 639-3286

Black, American Indian, and Alaska Native (AI/AN) women are two to three times more likely to die from pregnancy-related causes than white women - and this disparity increases with age, researchers from the Centers for Disease Control and Prevention (CDC) report today in the *Morbidity and Mortality Weekly Report (MMWR)*.

Most pregnancy-related deaths are preventable. Racial and ethnic disparities in pregnancy-related deaths have persisted over time.

Pregnancy-related deaths per 100,000 live births (the pregnancy-related mortality ratio or PRMR) for black and AI/AN women older than 30 was four to five times as high as it was for white women. Even in states with the lowest PRMRs and among women with higher levels of education, significant differences persist. These findings suggest that the disparity observed in pregnancy-related death for black and AI/AN women is a complex national problem.

Bureau of Labor Statistics projects an average of 200,000+ openings for registered nurses and 25,000 physicians each year through 2031

Lack of representation in physician roles and current, ethical medical research

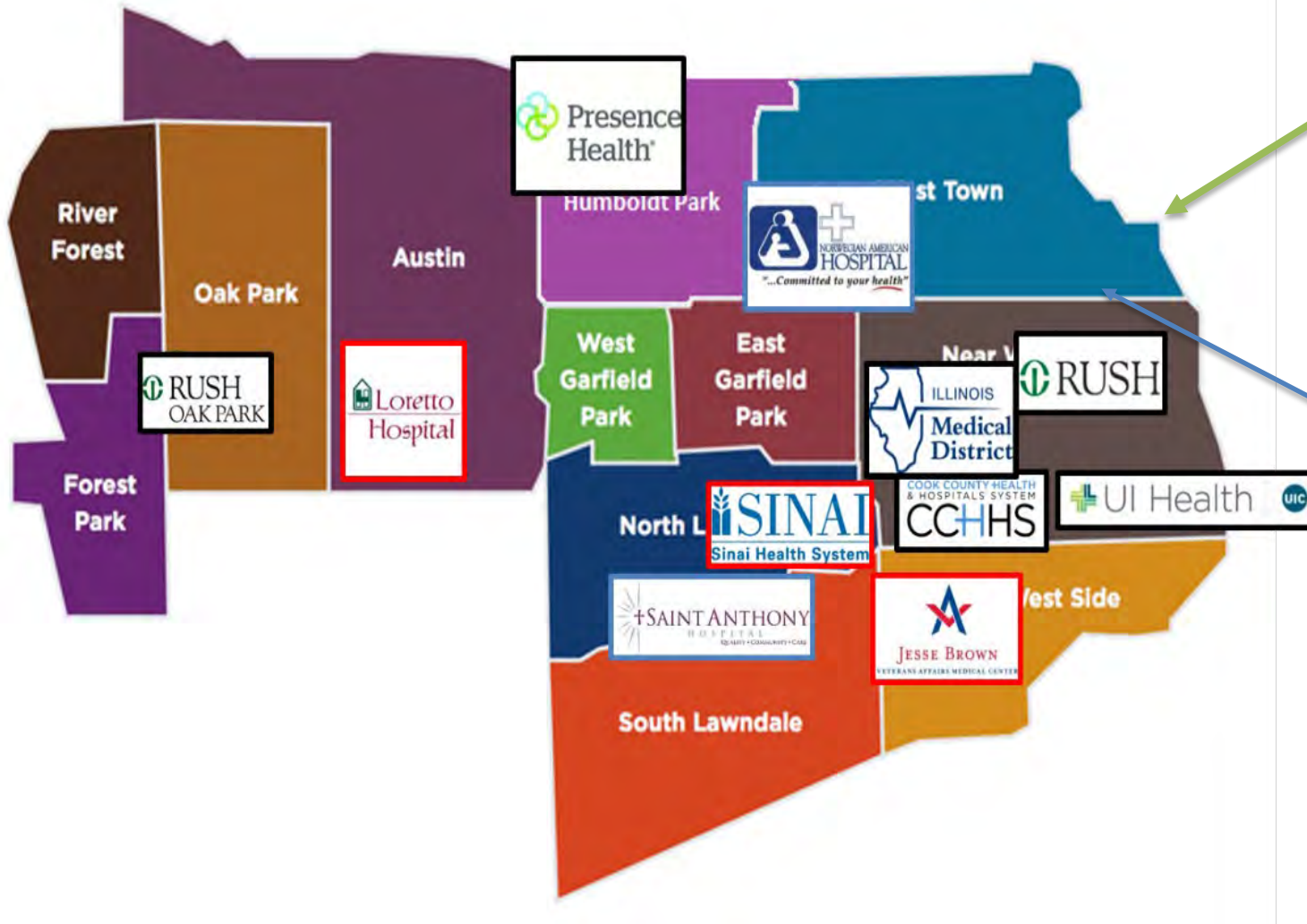
Persistent racial biases and false beliefs have led to harm and less access to specialty care when needed for Black people¹

¹ <https://www.kff.org/racial-equity-and-health-policy/issue-brief/use-of-race-in-clinical-diagnosis-and-decision-making-overview-and-implications/>

**How Do We Create the Healthcare
Workforce of the Future?**

**The Next Generation of Community
Problem-Solvers?**

OPPORTUNITY: Cross-Sector Collaboration for Education, Health, and Tech



- Google
- Groupon
- 1871
- mHub

- City Colleges of Chicago - Malcolm X
- Univ. Illinois- Chicago
- Rush University

MISSION



RUSH EDUCATION
and CAREER HUB

Provide **innovative, hands-on STEM learning** for underrepresented students from cradle to career to increase postsecondary achievement and **diversity in health care and STEM professions.**



SOLUTION:

Support Occupational Identity Development in STEM & Healthcare



Access to **high quality STEM learning** experiences from PreK-to College



Paid work-based learning experiences paired with **professional & personal development**



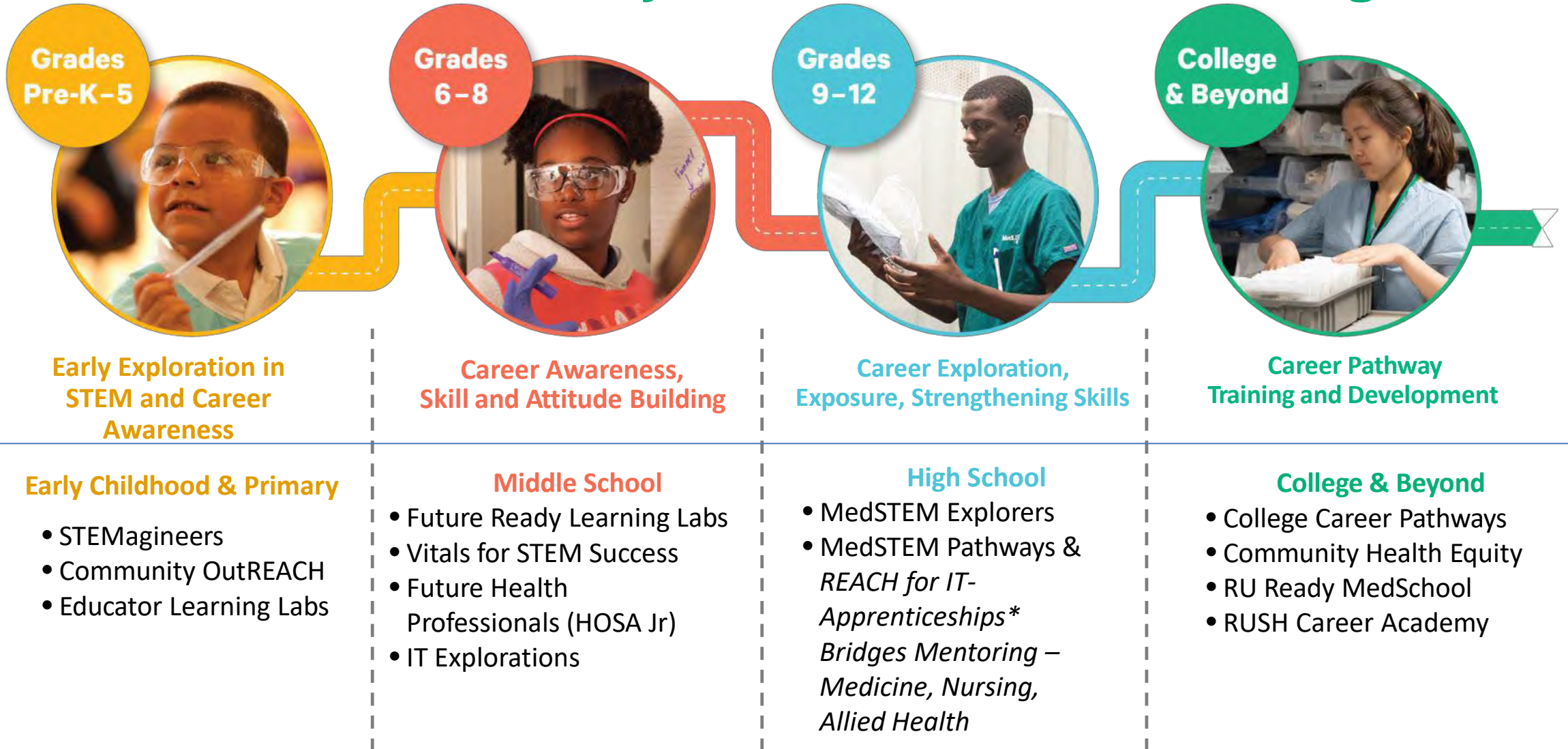
Articulated **career pathways** aligned to **labor market demand** and ability to **earn industry-recognized credentials**



Wraparound supports and mentoring to facilitate student and family participation and engagement

WHAT WE DO

Cradle-to Career Pathway of STEM/Healthcare Programs



Developing Learners – Prepared for the Future of Work



Early Exploration in STEM and Career Awareness

Key Outcomes:

- Interest in STEM
- Foundational academic skills
- Awareness of own interests
- Early career aspirations
- Enrichment experiences

Career Awareness, Skill and Attitude Building

Key Outcomes:

- Ability to collaborate
- Planning, goal setting
- Career awareness, aspirations
- Connections school and work
- College-going attitude

Career Exploration, Exposure, Strengthening Skills

Key Outcomes:

- Employability and life skills
College preparatory
- Academic skill development
- Self-efficacy Occupational identity
- Workplace experiences

Career Pathway Training and Development

Key Outcomes:

- Technical training
- Career readiness
- Social capital
- College persistence and graduation
- Employment in healthcare or STEM



Who We Serve



80%
Black & Latinx



72%
Female



70%
Low-Income



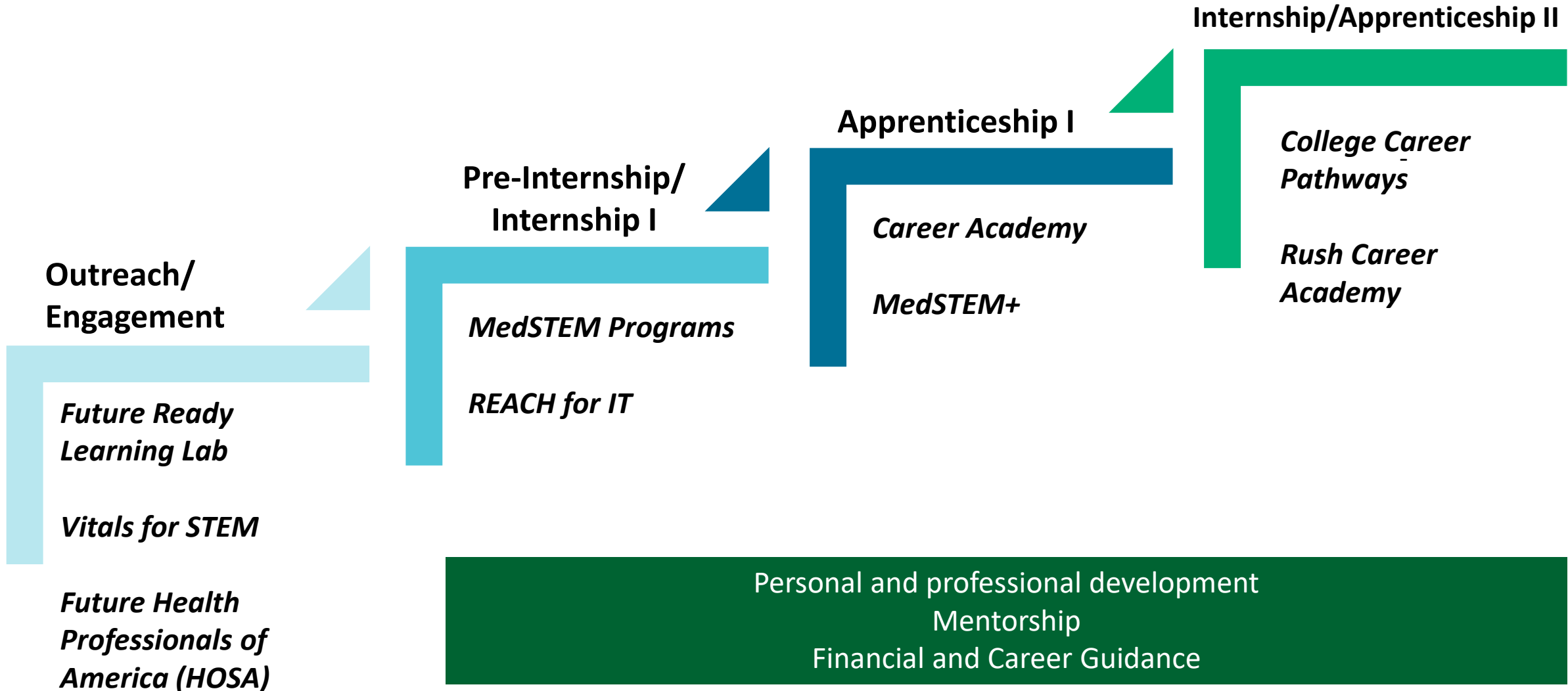
65%
1st Generation College

MODEL:

Multiple Entry Points; Escalated Work-Based Learning & Development

Middle & High School

Postsecondary (Beyond High School)



REACH Career Pathways (Sample): Healthcare & STEM focus

REACH Career Pathways (2 -4yrs)	Industry Credentials provided by REACH & Partners*	Entry-Level Job*** (based on Certifications earned + HS)	Postsecondary Degrees (2 or 4 year)	Typical Jobs
Medicine/ Pre- Professional	CPR- First Aid BLS, Phlebotomy	Phlebotomist	Bachelor's Degree Graduate/ Professional	Family Medicine Anesthesiologist
Nursing	CPR-First Aid BLS Certified Nursing Asst,	Medical Asst. Phlebotomist Patient Care Tech	Registered Nurse (AAS) Registered Nurse (Bachelor's)	Licensed Practical Nurse Registered Nurse
Allied Health	CPR, First Aid BLS, EKG Tech, Community Health,	EKG Tech Medical Assistant	Respiratory Therapy (AAS) Medical/ Radiology Tech (AAS)	Respiratory Therapist Surgical Tech
IT/ Health IT** (in development)	CompTIA+, EPIC (Healthcare Software)	IT Tech Support EPIC Trainer	Applied Computer Science (AAS) (Bachelor's Degree)	User Support Specialist EPIC Analyst
Health Administration & Innovation	Microsoft Office Specialist, Community Health Worker Certificate	Clinic Coordinator Community Health Research Coordinator	Associate's Degree Public Health, Health Sciences, Finance, STEM (Bachelor's Degree)	Health Services Manager Program Manager

*These credentials are offered via MedSTEM Pathways and College Career Pathways programs

**IT Pathways is in development to include multiple apprenticeship options for select scholars (EPIC, Cybersecurity, IT Tech Support)

***REACH scholars have internships of 6-10 weeks each year of participation. All scholars are positioned and supported with identifying entry-level jobs to gain additional experience and financial support. Some scholars may qualify for apprenticeship opportunities, which are for 2 years in conjunction with postsecondary studies.

Med+STEM
pathways

Summer Cohort Video



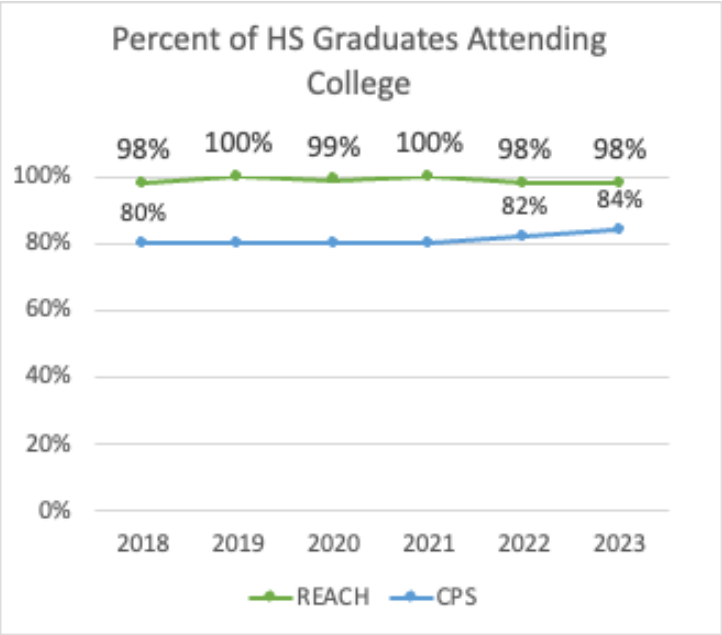
Key Program Outcomes

Making an Impact

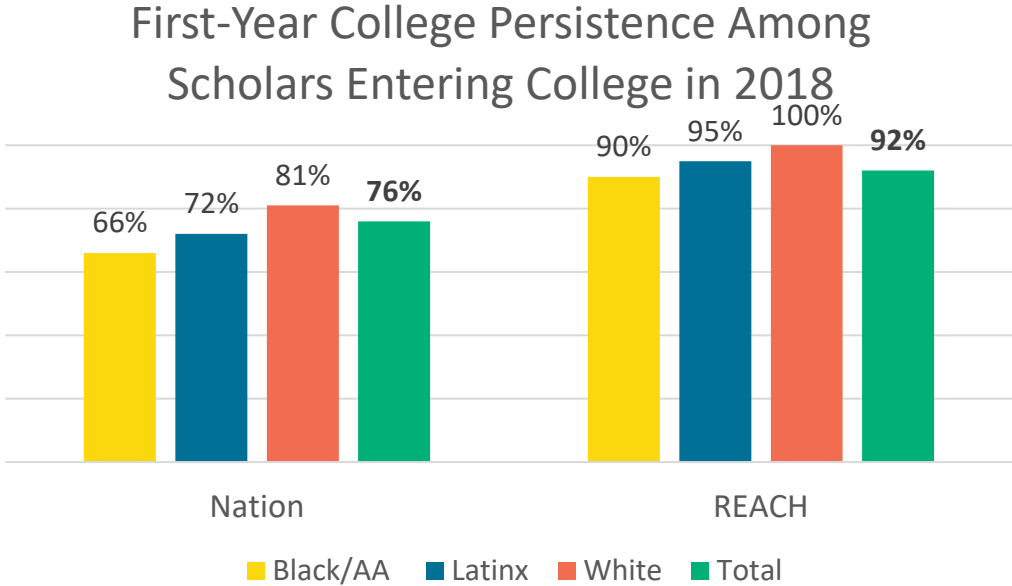


IMPACT: IMPROVING EDUCATIONAL ATTAINMENT

Scholars are graduating from high school & enrolling in college



Scholars are closing achievement gaps



Scholars are committed to STEM/healthcare studies



of REACH scholars enrolled in college are majoring in health or sciences

2018-2023 HIGHLIGHTS

Over the past 5 years, we made a remarkable impact

We never lose sight of the fact that every number is a stand-in for a real person with real needs & who has made a connection or been a part of the transformative work we do.

18,000+

Students and community members impacted by REACH programming



75+%

Participating High School students earned industry recognized certification



1000+

High School and College students with paid work-based learning and internships

Nationally-recognized youth workforce intermediary



85%

College Class of 2022* – employed in STEM/healthcare role or enrolled in graduate school

*(n=38)

Supporters and Partners for Collective Impact

REACH has partnered with local, national, public and private organizations to provide equitable pathways to careers in STEM & healthcare; providing an on-ramp to family-sustaining wages and greater economic mobility. We are preparing to scale our reach beyond Chicago through replication of our programming across other healthcare and anchor institutions



MOTOROLA SOLUTIONS FOUNDATION

Citi Foundation

AFTER SCHOOL **matters**[®]



MICHAEL REESE

NEWPROFIT




Opportunity



Equitable Access – Pathways to Success

REACH offers a pipeline of STEM/healthcare and career-readiness programs

Program	Description
Future Ready Learning Labs <i>(Middle-School)</i>	Future Ready Learning Labs focuses on middle school students . The program builds interest and awareness of STEM/health care careers, increases self-efficacy, promotes career exploration, develops 21st century learning skills, and supports students in their transition to high school. Programming is incorporated into the school day and includes field trips, labs, career panels, and family and community engagement.
MedSTEM Pathways <i>(High School)</i>	MedSTEM Pathways is a paid internship program for rising high school juniors through recent high school graduates . Students spend 20-22 hours per week gaining work-based learning skills while training for industry-recognized credentials and interning in departments across Rush and with partner organizations.
MedSTEM+ <i>(apprenticeships)</i>	MedSTEM + is an apprenticeship program focused IT careers for rising high school seniors and beyond . It provide students with the opportunity to participate in classroom education, job shadowing, paid work assignments and receive technical certifications in Cybersecurity, Networking, and Health IT.
College Career Pathways Internship <i>(College)</i>	College Career Pathways provides rising sophomore and junior college students with hands-on, paid, work-based learning, networking, professional development, and industry-recognized certifications that will prepare them to pursue careers in health sciences, IT, and other STEM-related fields.
Infrastructure & Wraparound Supports	Facilitate access and success through case management, wraparound assistance, communications and data & evaluation for impact measurement and longitudinal tracking



My favorite motto is: If not you, then who? REACH has taught me to not doubt myself and to have the confidence to help out my community. I've grown *with* REACH, not *outgrown* REACH.

Monica Padilla, REACH alum and Youth Advisory Council member; University of Illinois-Chicago class of 2025 and aspiring oncologist

[Learn more about our programs at www.reachatrush.org](http://www.reachatrush.org)

Aspiring Physician

“

I would not have imagined it, but by being in the program I have seen how achievable my dream is. I was 15 and put myself in a clinical setting and saw all different types of people. Even knowing I could be getting a certification showed me how achievable this could be- while others see how impossible - it is. There are so many aspects I had never considered and thanks to REACH, I see a wider view of the medical field and where I fit in.”

– Amauri M.,

**Univ. of Illinois, Class of 2025
Chicago Public Schools HS Graduate**”



Questions?

Contact Information:

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