

Developing a Pathway for URM Students: Are We Helping?

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Background

The UCSF/Kaiser Permanente Undergraduate Research Internship (URI) is an eight-week pathway program aimed to support underrepresented minority (URM) students through opportunities for clinical shadowing, research, and mentorship.

Objective

Our objective is to study the impact of URI on participants' self-efficacy and professional outcomes. Specific aims include-

- Perform needs assessment to identify program strengths, weaknesses, and areas of improvement
- Evaluate and compare student self-efficacy, as measured before and after program participation
- Describe professional outcomes of URI alumni

Approach

Our study design follows David Kern's framework for curriculum development-

- ✓ Problem Identification & General Needs Assessment
- ✓ Needs Assessment of Target Learners → URI students were asked to complete surveys before and after participation in the program. Survey data captures demographics, research/clinical experiences, self-efficacy measures, and overall program ratings.

Data is from URI Baseline & Graduation surveys 2016-2021.

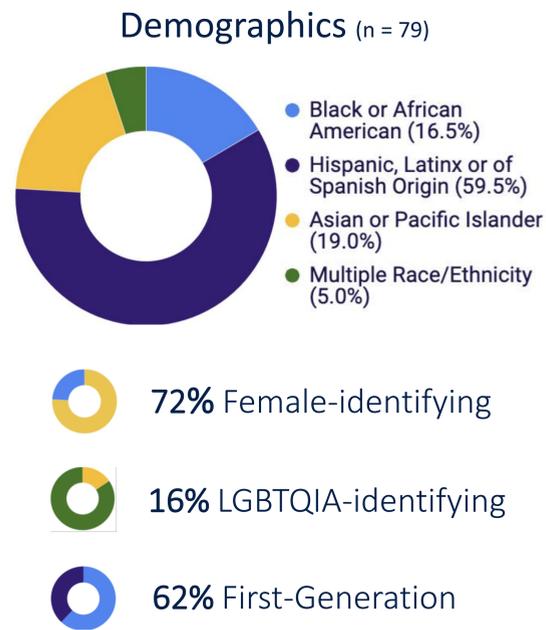


Figure 1 – URI Student Demographics 2016-2021

Results

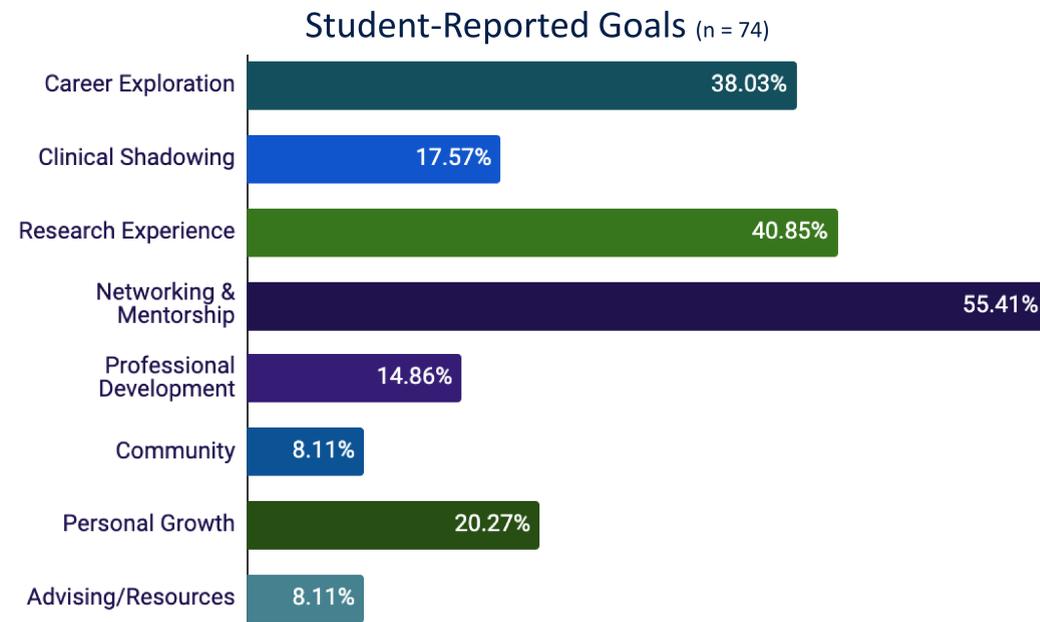


Figure 2 – Students identified 2 goals they wished to accomplish. Thematic analysis yielded the categories above with percentages indicating frequency each category was cited.

Comparison of Self-Efficacy Measures Pre- and Post-Program (n = 60)

"I am confident I can _____" ^a	PRE Mean (SD)	POST Mean (SD)	p-value ^b
Manage to solve difficult problems if I try hard enough	79.8 (19.7)	86.5 (14.3)	0.007
Find the means and ways to follow my unique career path	72.6 (22.5)	86.2 (15.1)	< 0.001
Deal efficiently with unexpected events	75.1 (19.6)	82.2 (16.9)	0.004
Handle unforeseen situations	75.8 (19.0)	84.3 (15.9)	0.001
Solve most problems if I invest the necessary effort	82.9 (16.6)	88.8 (14.0)	0.002
Remain calm when I am facing difficulties	74.3 (20.1)	84.1 (14.5)	< 0.001
Find several solutions when I am confronted with a problem	75.5 (18.4)	86.5 (12.1)	< 0.001
Think of a solution when I am in trouble	80.0 (17.5)	86.5 (14.7)	0.004
Handle whatever comes my way	78.7 (20.7)	85.5 (16.4)	0.005
Score competitively on the MCAT	61.8 (23.8)	76.9 (18.9)	< 0.001
Become a physician (MD or DO)	71.0 (23.8)	88.4 (14.9)	< 0.001
Understand research in medicine and science	64.1 (25.2)	81.7 (21.4)	< 0.001
Contribute to research in medicine and science	61.8 (23.9)	81.8 (21.2)	< 0.001
Access the resources to apply to medical school	61.2 (25.2)	86.4 (12.2)	< 0.001
Reach out to peers and mentors for support	62.9 (25.1)	87.2 (14.5)	< 0.001
Do well in a rigorous academic setting	71.0 (21.5)	80.8 (17.8)	< 0.001

Table 1 – a. 0 = Cannot do at all; 50 = Can do to some degree; 100 = Can do for sure. b. Paired two sample T-test assuming equal variance

Results *continued*

Upon graduation, 100% of students said they accomplished at least 1 of their self-reported goals.

100% of students stated they would recommend URI to their peers.

URI Alumni Outcomes *as of July 2022*

- Medical School: 31
- Residency or Fellowship: 22
- Practicing Physician: 13
- Nursing School: 17
- Practicing Nurse Practitioner: 5
- Earned Master's Degree: 4

Conclusions & Next Steps

The URI program had a significant impact in increasing students' preparation for medical careers. URI alumni have successfully matriculated into medical school and began clinical practice. URI alumni increase the diversity of the healthcare workforce.

Using this data, we can develop and execute a revised curriculum that is better tailored to the needs of URM students.

This study was supported by the National Center for Advancing Translational Sciences, National Institutes of Health, through grant number UL1 TR001860.



For more information about URI & our study!