

WORKFORCE READINESS THROUGH THE PIPELINE:

A COMMUNITY-LED PARTNERSHIP TO ADDRESS SOCIAL DETERMINANTS OF HEALTH

Erin Manalo-Pedro, MPH¹, Jody Cajudo², Tu-Uyen Nguyen, PhD, MPH¹, Alisi Tuluva, MS², Dawn Person, EdD, MEd¹, Nancy Carrada Zuniga¹, Sora Park Tanjasiri, DrPH¹, Erin Quiambao² and Rabia Khan³, (1)California State University, Fullerton, Fullerton, CA, (2)Orange County Asian and Pacific Islander Community Alliance, Garden Grove, CA, (3)Fullerton College, Fullerton, CA

BACKGROUND

Despite popular belief, the residents of Anaheim, California, experience challenges in the social determinants of health (SDOH), including poorer educational and economic outcomes, leading to significant disparities in health. For example, Anaheim Union High School District has the highest dropout rate in the county (6.4% vs. 0.8% in the lowest district).¹ Also, Anaheim has higher age-adjusted death rates (732.1 per 100,000 vs. 616.6 deaths per 100,000 for the county).² Relatedly, the majority of residents are also people of color, including Latinos, Southeast Asians, and Pacific Islanders.³

Recently, scholars have called for a more nuanced understanding of how SDOH, such as education, influence individual health and health equity. While public health typically focuses on improving health literacy, Hahn and Truman outline work and psycho-social environment as pathways through which educational attainment influences individual health.⁴ Further, the National Academy of Medicine provided a framework in 2016 for preparing a workforce to address SDOH through experiential and collaborative education along the pipeline, reciprocal engagement with community, and a supportive organization committed to addressing social determinants of health.⁵

PURPOSE

Leveraging a robust academic/community partnership that began in 2007 in response to community needs for a health pipeline, the North Orange County Allied and other Health Careers Opportunity Program (NOCA HCOP) began in 2015 as a federally-funded health workforce program that addresses short-term and long-term SDOH like education, work, income, and social context.

METHODS

The initiative evolved from providing afterschool academic support at one high school to offering curricular and extracurricular, year-round, holistic services at two high schools, two community colleges, and one 4-year college. NOCA HCOP added a health careers focus and offers culturally relevant academic, wellness, and career support in a partnered pathway to graduate school. Strong partnerships between a community-based organization, high school district, community colleges, universities and others facilitated the expansion.

Table 1. Short-term and long-term strategies to address social determinants of health

	Education	Work	Income	Social Context
Short-term strategy	tutoring, college readiness / grad school advising, graduation, and matriculation	career exploration, summer internships	stipends, funding workshops	identity development, support system of peers and mentors, and learning community health disparities
Long-term strategy	pathways to higher education	local, diversified workforce for in-demand careers	higher salaries for pipeline graduates in lucrative health careers	development of community leaders

Preliminary outcomes were evaluated using a mixed-methods approach with focus groups and surveys (workshops, pre-test, posttest).

RESULTS

Table 2. Total number of new participants by race/ethnicity

Level	Hispanic/Latino/a (n)	Asian American & Pacific Islander (n)	Non-Hispanic White (n)	Other (n)	Total (N)
4-year College	84	42	6	11	143
Community College	31	10	8	5	54
High School	85	58	8	5	156
Total	200	110	22	21	353

Table 3. Student feedback from workshop surveys during Year 3 (2017-2018)

	Education	Work	Income	Social Context
Qualitative feedback	“This program helped me be an active member of my community, become a more effective student, and become a competitive applicant for graduate school.”	“I learned about an extensive amount of allied health career pathways. There were a lot of going to school/applying tips and following your passion.”	“I learned about funding opportunities for graduate school and how to plan for the application process.”	“I was able to get to know other members. I feel more encouraged to reach out to staff.”
Workshop effectiveness*	100% (n = 24)	99% (n = 73)	99% (n = 93)	99% (n = 129)

*Percent that Agree and Strongly Agree to the statement based on a Likert-type scale: Overall, found workshop helpful.

RECOMMENDATIONS

Table 4. Recommendations for workforce development, categorized by SDOH (adapted from the Institute for Higher Education Policy⁶)

Education	Work	Income
<p>Prioritizing learning: Help students receive academic credit for knowledge gained both inside and outside the classroom.</p> <p>Example: Students who participated in NOCA HCOP at CSUF received college credit for a health careers elective.</p> <p>Advising: Academic and career advising can help students plan their path from education to career.</p> <p>Example: At Fullerton College, students were required to meet with College Counselors each semester to create educational plans for transfer to a four year institution. Mentors from CSUF also came and provided transfer workshops to help students understand the subtle nuances of adjusting to a four year institution. Graduate Panel Seminars were also provided and accessible for students at all levels of the pipeline to begin to learn about the content and admissions criteria needed to be competitive for admissions in graduate programs.</p>	<p>Aligning student skills with workforce needs: Career pathways and internships, give students the opportunity to simultaneously complete a degree, develop in-demand skills, and gain hands-on work experience.</p> <p>Example: Students at all levels were provided with opportunities for academic research, internship, and/or volunteering with the local community.</p> <p>Using data on labor market needs: Data in this area is key to informing workforce alignment strategies.</p> <p>Example: Data indicates that in California, allied health professionals comprised 605,000 workers in 2010 and are projected to increase to 988,000 in 2030. This represents a faster growth rate (63 percent) than other workers in the health sector (60 percent). Specific in-demand careers (e.g., social work, physical therapy, public health) were selected for HCOP.</p>	<p>Improving affordability: Providing financial assistance and flexible options that fit the lives of working students can help prevent students from dropping out due to economic burden</p> <p>Example: FAFSA / DREAM applications were needed to apply for admissions to the HCOP programs at the college level. Students were provided with NOCA HCOP program completion credit if they attended FAFSA / DREAM workshops for the next academic year at Fullerton College, and also received credit if they took part in financial literacy education workshops within the community (e.g. local library). Stipends (\$1000+) were also provided to students who completed the HCOP program requirements.</p>

CONCLUSIONS

Results indicate community/academic partnerships can address SDOH factors leading to workforce readiness.

Addressing workforce needs with a SDOH lens can provide strategies for improving both individual health through education (via work, income, and psychosocial environment) and diversity in the health workforce (via community engagement, experiential education, and a supportive organization).

Further, NOCA HCOP's approach aligns with higher education recommendations for workforce development, but also incorporate social context through community building.

More support is needed for community-led, local workforce programs that address educational and economic disparities over time.

CONTACT INFORMATION

Erin Manalo-Pedro, MPH, CHES
Project Director
Health Careers Opportunity Program
California State University, Fullerton
emanalo@fullerton.edu

Allied Health Academy
alliedhealth@fullerton.edu
<http://alliedhealth.fullerton.edu>
www.facebook.com/csufalliedhealth



ACKNOWLEDGEMENTS

Thank you to the NOCA HCOP Executive Committee, all of our partners, and all of our students for their contributions.

This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number D18HP29033 Health Careers Opportunity Program for \$1,765,528 (0% financed by nongovernmental sources). This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.

REFERENCES

1. County of Orange. 2018 *Community Indicators*; 2018. Accessed October 31, 2018.
2. Orange County Health Care Agency. 2011-2013. Orange County Master Death Files. Age-Adjusted Death Rate City: Anaheim. <http://www.ochealthieretogether.org/indicators/index/view?indicatorId=5283&localeId=133781>. Accessed October 31, 2018.
3. U.S. Census Bureau. 2016. American Community Survey. Accessed October 31, 2018.
4. Hahn, R. A., & Truman, B. I. (2015). Education Improves Public Health and Promotes Health Equity. *International Journal of Health Services*, 45(4), 657-678. doi:10.1177/0020731415585986
5. National Academies of Sciences, Engineering, and Medicine. 2016. *A Framework for Educating Health Professionals to Address the Social Determinants of Health*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/21923>.
6. Institute for Higher Education Policy. 2016. *Aligning Postsecondary Education and Workforce Strategies to Drive Attainment*. <http://www.ihep.org/guidebook/workforcealignment>. Accessed October 31, 2018.