

Stanford Medical Youth Science Program (SMYSP)

<https://med.stanford.edu/odme/high-school-students/smysp.html>

“When I was growing up, I worked in the fields with my mother. I was my high school valedictorian with strong grades, but I didn’t know anything about college. I had never heard of Stanford or any other universities before SMYSP.”

Jesús Rodriquez, M.D., SMYSP 1989; Stanford 1994;
University of Washington Medical School, M.D. 1999;
Family Practice Physician, Fresno, CA



Counselors and Participants

Background:

Since its inception in 1988, the Stanford Medical Youth Science Program (SMYSP) has mentored low-income, primarily underrepresented minority (URM) students from Northern California communities to increase their knowledge about the sciences and health professions and offer guidance about the college admissions process. We focus on students who have high potential but are often overlooked—all have faced adversity. We select 24 rising juniors or seniors each summer for 5 weeks who take part in faculty lectures, hospital internships, anatomy workshops, research on health disparities, and college admissions preparation. Ten Stanford undergraduate students serve as counselors and near-peer mentors. All expenses are paid for the students and counselors receive a stipend. As the students are immersed in the worlds of science and higher education, college becomes not only a reality but also a stepping-stone to making a difference in their communities. Long after our participants have graduated from the program, they receive guidance and support from staff, faculty, and other health professionals.

Comprehensive, Long-Term Evaluation:

SMYSP is known nationally for its comprehensive evaluation and numerous peer reviewed scientific articles. Long-term evaluation was conducted from 1988 to 2008 for the 476 students who had participated -- 97% were followed for college and career outcomes. Overall, 78% of African American, 81% of Latino, and 82% of Native American participants earned a 4-year college degree (among those admitted to college, and excluding those who were currently attending college). In contrast, among 25–34-year old California adults, 16% of African Americans, 8% of Latinos, and 10% of Native Americans earned a 4-year college degree. Among SMYSP’s 4-year college graduates, 47% were attending or had completed medical or graduate school, and 43% were working as or training to become health professionals. As of 2025, SMYSP has over 900 alumni and in 2027 it will celebrate its 40th anniversary.

U.S. Presidential Award for Excellence:

In 2011, SMYSP was the recipient of the U.S. Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring, the highest honor bestowed by the U.S. government for mentoring in these fields.

A National Model:

SMYSP is a national model for biomedical pipeline programs that seek to enrich the scientific and health professions, and train future leaders who reflect America’s increasingly diverse communities. It promotes inquiry-based, experiential science education for students from low-income families to help ensure a well-educated workforce that can respond to the nation’s growing health needs and provides an opportunity for young people to achieve their full potential.

Leadership and Funding:

SMYSP was founded in 1988 by Dr. Marilyn Winkleby, Professor Medicine, emerita, and two Stanford undergraduates. It is housed in the Office of Diversity in Medical Education, Department of Medicine. It has been supported by grants and foundations with large in-kind support from Stanford faculty and its hospital. In recent years, the School of Medicine and University have provided financial support. Key to its longevity is its 1.5 million-dollar endowment. Dr. Winkleby is now emerita and President and CEO of a non-profit, Access to Achievement Education Foundation,

<https://acesstoachievement.org/>