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Authors: Sylk Sotto-Santiago¹, EdD, MBA, MPS; Javier Sevilla-Martir², MD

Affiliations: ¹Vice-Chair for Faculty Affairs, Development, and Diversity, Assistant Professor of Medicine, Department of Medicine, Indiana University School of Medicine, Indianapolis;

Director of All IN for Health, Indiana Clinical and Translational Sciences Institute.

² Assistant Dean for Diversity Affairs, Professor of Clinical Family Medicine, Professor of

Underserved Indiana Patients, Director for Hispanic Health and Global Health,

Department of Family Medicine, Indiana University School of Medicine, Indianapolis

Corresponding Author: Sylk Sotto-Santiago

Address: 545 Barnhill Dr. Emerson Hall 305, Indianapolis, IN 46202

Phone 317-278-5402

Email ssotto@iu.edu

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Abstract:

As the Hispanic/Latino/x community grows exponentially and Hispanic/Latino/x physicians in academic medicine continue to be underrepresented, engagement in the community as learners and providers is needed to ensure a multiplying effort. In this article, the authors introduce a successful academic medicine-community health partnership to increase the Hispanic/Latinx healthcare workforce in Indiana and key curricular initiatives with proven outcomes in increasing the healthcare workforce serving this sector of the population.

Introduction

Institutions of higher education, such as academic medicine, have not kept pace with significant demographic changes in the United States. Minoritized groups now comprise 37% of the U.S. population and are projected to comprise 57% of the population by 2060. The total minoritized population will more than double to 241.3 million over this fifty-year period. More specifically, the Hispanic/Latinx population in the U.S. accounts for 17.8% of the total population. Today, universities and professional schools in the U.S. serve a different population of students. Nationally, this demographic shift is identified primarily by rising Hispanic/Latinx college bound students and more first-generation college students. Enrollment statistics indicate that the percentage of college students who are Hispanic/Latinx has been increasing. From 1976 to 2012, the percentage of Hispanic/Latinx students rose from 4% to 15%. In 2014, 35% of Hispanics ages 18 to 24 were enrolled in a two- or four-year college. This Hispanic/Latinx student pipeline is the one that provides the Hispanic/Latinx healthcare workforce.

Scholars argue that increased diversity in healthcare can increase access to healthcare for underserved populations. ^{5,6} Hispanic/Latinx physicians make up less than 6% of the entire healthcare workforce even though they represent 17.8% of the U.S. population. ⁴ Underrepresented students who complete health professions degrees are more likely to practice in underserved or underinsured communities because they want to give back to these communities by increasing health services for members of their own ethnic group. ⁹

Between 1978 and 2008, only 5.5% of graduating physicians in the US identified as Hispanic/Latinx. Remarkably, in 2012, there was a 7% increase in the number of Hispanic/Latinx compared to the previous year. In terms of faculty positions Hispanic/Latinx faculty are a growing and increasingly important segment of the faculty in academic medicine. However, in 2017, this group represented less than 3% of academic medicine faculty. 10,11,12

Academic medicine embraces the tripartite mission of educating the next generation of physicians and biomedical scientists, discovering causes of and cures for diseases, and advancing knowledge of patient care. In addition, academic medicine provides healthcare for a disproportionate share of low-income communities while also offering cutting-edge treatments. Increasing participation of a Hispanic/Latinx health workforce is expected to invigorate efforts directed at health and healthcare disparities among this constituent group. Moreover, achieving of a more rapid pace of growth for participation of Hispanic/Latinx students and other students interested in this population will require continued innovation and interventions of many types. It is not necessary that health care providers and patients be of the same demographic for successful health care delivery; however, greater levels of diversity are linked to advancing cultural humility, competency, increasing access to high-quality health care services, and optimal management of the healthcare system.

Ensuring an adequate supply of this workforce is critical to ensuring access to health care services across the population. Unfortunately, across the United States, including Indiana, an inequitable distribution of the health workforce threatens access and health. The state of Indiana has over 4,639 Hispanic/Latinx residents for every 1 Hispanic/Latinx provider.

Moreover, the COVID-19 pandemic has reaffirmed the disproportionality in health outcomes for the Hispanic/Latinx population. They have been overrepresented in coronavirus cases in addition to the economic impact. Four in ten Hispanic/Latinx adults identify as essential workers required to work during the outbreak. Although willing to be vaccinated, there is still a considerable number of young adults expressing vaccine hesitancy.¹³

Purpose

Given the current demographic shifts in the U.S. and underrepresented faculty of Hispanic/Latinx heritage in academic medicine, it is important to focus on models that advance Hispanic/Latinx health while developing Hispanic/Latinx physicians that not only serve their community and other minoritized populations within the state, but that also significantly contribute to academic medicine by educating, mentoring and effectively impacting the number of physicians focused on our Hispanic/Latinx health.

This commentary represents an impactful educational effort at Indiana University School of Medicine. We hope these outcomes help identify current academic institutional practices that have effectively addressed recruitment, retention, and development of Hispanic/Latinx faculty. In communicating strategic initiatives that encourage the academic collaboration towards the expansion of Hispanic/Latinx physicians, we also hope to inform a collaborative model that not only focuses on community health partnerships, but targets concerted programmatic efforts for all stakeholders (ie. medical students, faculty, private practice/volunteer physicians and administrators).

It is important to note that there is a clear alignment between the current status of the Hispanic/Latinx healthcare workforce and the current status of Hispanic/Latinx faculty in academic medicine. The literature is quite expansive in emphasizing the need and building the case for a diverse health workforce. However, the literature was very limited in the context of how academic medicine and community health partnerships can contribute towards this goal. Hence, the following description of our model.

Figure 1. Academic Medicine-Community Health Partnership Model



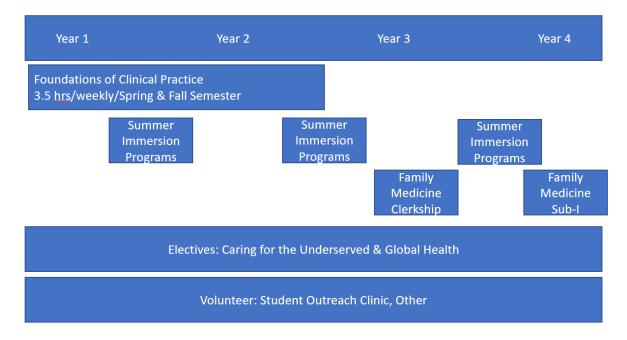
We have been able to collect information regarding academic medicine and community health strategic practices that translate into successful recruitment of Hispanic/Latinx physicians and those interested in serving the Hispanic/Latinx community. The model emphasizes medical education, community engagement, and retention. More specifically, the model takes medical education as the foundation to promote service to the community through offering engagement opportunities for learners of all levels including faculty appointees. First, Indiana University School of Medicine offers one of the few programs in the nation in which Spanish full immersion courses are offered. This is <u>not</u> a traditional medical Spanish class. The curriculum is led by Spanish speaking faculty and includes several components: the integration of Spanish education into the Foundations of Clinical Practice –small group discussions, which is a required course for first and second year students. All humanistic curriculum, clinical, and practice are discussed for more than 3.5 hours weekly; a summer immersion experience in culture and

language locally and abroad; and the family medicine clerkship and 4th year elective with Spanish speaking faculty and/or at sites with high number of Spanish speaking patients. Elective courses with emphasis on caring for the underserved locally and globally are last offered in year four and a longitudinal interprofessional service learning experience at our student-run free clinic throughout the four years of their medical education.

The Student Outreach Clinic provides free health care to those in need our of a neighborhood church. The first clinic was held in 2009, with the intention of being open once a month. Now, there are volunteers from across Indiana University, including the School of Dentistry, School of Social Work, Robert H. McKinney School of Law, School of Health & Human Services, and School of Nursing. It also includes Butler University College of Pharmacy and the Krannert School of Physical Therapy at the University of Indianapolis. The goal is to improve health and provide equitable health care accessibility to underserved populations, which is essential in improving community.

Students test as bilingual interpreters in the health system. Resident physicians and faculty have the opportunity to participate as teachers and experience all levels of the continuum. Throughout their academic initiated service at our local clinics and outreach programs, participants engage with the Hispanic/Latinx community, strengthening our partnership and emphasizing our commitment to the health of our local communities. Graduates of the program are not only retained in our community, but also identified as potential faculty and mentors.

Figure 2. Curriculum



To date over 35 Hispanic/Latinx primary care physicians have graduated with 60% retention rate in the health system with academic faculty appointments. Each of them serving our community and teaching medical students and residents. We have also seen an increase of 300% on the number of Hispanic/Latinx medical students since the implementation of the strategy; where as before, there were minimum gains attained. The program is a major driver and motivator to enroll at Indiana University School of Medicine by many.

Conclusion

As our community grows exponentially and the number of Hispanic/Latinx physicians in academic medicine continues to be underrepresented, engagement in the community as learners and recruitment, retention and development of more Hispanic/Latinx physicians is needed to ensure a multiplying effort. As we reach critical numbers, more services are open as well as learning sites to ensure cultural humility, structural competence, and overall high quality of services and outcomes for our community.

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References

- 1. US Census Bureau. (2017, August 31). Hispanic Heritage Month 2017. Retrieved from https://www.census.gov/newsroom/facts-for-features/2017/hispanic-heritage.html
- 2. Epstein, J. P., & Parrott, S. (2009). The world is changing: Just not as much as you've heard (The real story of student demographics in the coming decade). *College and University*, 84(3), 43.
- 3. NCES. National Center for Education Statistics. (2018). NCES DataLab Education data through fast, flexible, and powerful tools. Retrieved from https://nces.ed.gov/datalab/index.aspx
- 4. Ryan, K. (2009). 2009 Profiles of Latino Health: The Top 12 Questions About Latinos and Health Care.
- 5. Saha, S., & Shipman, S. (2006). The rationale for diversity in health professions: a review of the evidence. October 2006. US Department of Health and Human Services and Services Administration, HRSA. Rockville, MD.
- 6. Vogt, R., & Taningco, M. (2008). Latina and Latino nurses: Why are there so few. *Los Angeles: The Tomas Rivera Policy Institute*.
- 7. Mitchell, D. A., & Lassiter, S. L. (2006). Addressing health care disparities and increasing workforce diversity: the next step for the dental, medical, and public health professions. *American Journal of Public Health*, 96(12), 2093-2097.
- 10. AAMC. (2017). U.S. Medical School Faculty by Rank and Race/Ethnicity, 2017. Retrieved from https://www.aamc.org/download/486118/data/17table3.pdf.
- 11. Martinez, S., & Toutkoushian, R. K. (2014). Decomposing the differences in time allocation and research output between Latino and non-Latino White faculty. *Latino Studies*, *12*(4), 566-595.
- 12. Yu, P. T., Parsa, P. V., Hassanein, O., Rogers, S. O., & Chang, D. C. (2013). Minorities struggle to advance in academic medicine: A 12-y review of diversity at the highest levels of America's teaching institutions. *The Journal of Surgical Research*, 182(2), 212.
- 13. Kearney, A., Lopes, L., & Brodie, M. (2021, January 14). Vaccine hesitancy among Hispanic adults. Kaiser Family Foundation. https://www.kff.org/coronavirus-covid-19/poll-finding/vaccine-hesitancy-among-hispanic-adults/