

Investing in the Next Generation: How the CDC John R. Lewis Undergraduate Public Health Scholars Program Is Transforming the US Public Health Workforce

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High rates of attrition during the COVID-19 pandemic have worsened the existing public health workforce shortage, which now needs an estimated 80 000 full-time workers to provide basic community services.¹ Undergraduate public health degrees (UGPHD) awarded have increased from 1480 in 2001 to 18 289 in 2020, surpassing the number of public health master's degrees conferred for the first time in spring of 2020. However, this increase in UGPHDs has not translated into additional public health workforce members because only 10% reported government agency employment, compared with 17% of those with master's degrees.² The number of institutions conferring these degrees is also growing, with the Association of Schools and Programs of Public Health adding 5 undergraduate institutions to its network in 2025 alone.³ The increasing number of UGPHD holders and programs may provide a solution

to the public health workforce shortage, but only if the pathway from student to practitioner is well defined and supported. The CDC John R. Lewis Undergraduate Public Health Scholars Program is a national, multisite, evidence-based model that represents 1 approach to strengthening undergraduate-to-workforce public health pathways. Continued investment in this program, and future programs that can use this one as a model for development, is a vital step in strengthening public health at the local, state, and national levels.

A National Multisite Workforce Development Model

The CDC John R. Lewis Undergraduate Public Health Scholars Program is an evidence-informed strategy to address the growing public health workforce shortage.⁴ Seven institutional partners operate with a shared mission: expand the public health and biomedical sciences pathways. To achieve our collective mission across sites, the University of Pittsburgh School of Public Health, University of California Los Angeles Fielding School of Public Health, University of Michigan, Columbia University, Morehouse College, Southern Plains Tribal Health Board, and Kennedy Krieger, implement 5 core pillars: recruitment and selection, academic and public health enrichment, experiential learning projects, mentorship, and professional development and networking. Since its inception in 2011, the program received over 40 000 applicants but accepted approximately 2000 students, indicative of the program's high demand and competitiveness.

The Lewis Scholars Program's success is anchored in 3 distinctive features: Early exposure at the undergraduate level because eligibility is limited to those with at least 2 years of college training, including at community colleges, and recent graduates; real-world placements at community agencies, health departments, nonprofits, tribal communities, academic research centers; and a strong emphasis on mentorship, implemented as a "web of support" to enhance the

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The authors have indicated they have no potential conflicts of interest to disclose.

The CDC Lewis Scholars Program is supported by the US Centers for Disease Control and Prevention (CDC). The contents are those of the author(s) and do not represent the official views of the CDC.

The authors would like to thank Beth Junecko and Ryan Gordon for their contributions to this article.

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DOI: 10.1097/PHH.0000000000002478

scholars' academic and professional development. Each of these elements are described in detail in the 3 accompanying manuscripts targeting recruitment, mentoring, and implementation: Expanding the Future Public Health Workforce: Recruitment Lessons from an Undergraduate Pathway Program, Mentored Experiential Learning for Future Public Health Leaders, and Public Health in Practice: Implementation of the CDC Lewis Public Health Scholars Programs.

Transformative Impact on Students and the Field

Program outcomes provide insight into the potential workforce impact of the Lewis Scholars Program. Across all 7 sites, graduation and program completion rates are high, reflecting the “web of support” that sustain students through academic and professional challenges. Alumni data collected across the programs conservatively show that more than half of alumni have subsequently enrolled in advanced degree programs, including MPH, PhD, and MD programs, whereas 45% work or have worked in public health or biomedical science roles, and 20% in other health care careers. Because alumni outcome data include recent cohorts who may still be completing training or transitioning into the workforce, long-term educational and workforce outcomes will continue to evolve over time. Site-level graduate school enrollment rates range from 28% to 77%, with variation reflecting differences in cohort age distributions rather than program effectiveness.

The program is particularly effective at closing historic gaps in workforce diversity. High proportions of participants identify as first-generation college students, Pell-eligible, or members of groups who have been underrepresented in public health and biomedical science careers. By intentionally recruiting these students and providing intensive academic opportunities, mentoring, and real-world experience, the program actively reduces opportunity disparities in public health workforce pathways; a critical function at a time when the nation's workforce must reflect the communities it serves.

The effects of the Lewis Scholars Program extend beyond individual career trajectories. Alumni are now present across the spectrum of the public health enterprise. They serve in health departments, advocacy organizations, community-based nonprofits, tribal health programs, and academic research centers. Their professional presence contributes not only to organizational capacity, but to the cultural responsiveness and community trust essential for effective public health practice. In this sense, the program's impact is transformative, developing a generation of public

health professionals who are deeply connected to the communities and populations most in need.

Why This Model Matters Now

Program outcomes suggest that early exposure significantly shapes long-term commitment and career direction. The program's outcomes confirm this pathway effect as articulated in the manuscript focused on program implementation. Mentorship functions as a central component of the Lewis Scholars model, providing scholars with professional guidance, support, and exposure to public health career pathways across sites; students consistently cite mentorship as “highly influential” in their career trajectories. The multidimensional mentoring model of site preceptors, faculty mentors and advisors, and alumni networks strengthens confidence, identity, and belonging. Collectively, the Lewis Scholars programs illustrate how community-engaged and culturally responsive training models may support sustainable public health workforce development. The distributed national structure allows each site to adapt programming to local populations and regional public health priorities while advancing shared workforce development goals.

Looking Ahead: Scaling a Proven National Asset

The Lewis Scholars Program offers a potentially scalable framework: with more than a decade of evidence, the program demonstrates how sustained investment can strengthen the public health workforce pathways by enhancing partnerships and pathways. As a result, we have significantly expanded opportunities to collaborate with health departments, universities, tribal nations, and community organizations. For example, academic health department partnerships across the country are realizing this model by embedding students in both practice and academic settings, strengthening the path from classroom to community.⁵ The Lewis Scholars Program stands to strengthen the public health workforce and to ensure its readiness to address current and emerging crises and threats.

Therefore, we issue a call to action to national leaders, academic institutions, and philanthropic partners to support programs that invest in the next generation; the Lewis Scholars Program stands as a proof of concept that early, intentional workforce development pays dividends for the health of the nation.

Conclusion

The CDC John R. Lewis Undergraduate Public Health Scholars Program is a catalyst for career

transformation, a proven pathway for public health leadership, and a national model for building a resilient workforce prepared to protect the health of all communities everywhere. The rich portfolio of recruitment, mentorship, and implementation strategies serve as a blueprint for other programs for sustained investment and success. We identified key issues of policy and practice to be addressed for each of the pillars of our program. Addressing these aspects will not only advance the Lewis Scholars Program, but all holistically designed workforce development programs accordingly.

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