Letting HIV Transform Academia — Embracing Implementation Science

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The human immunodeficiency virus (HIV) epidemic has had an extraordinary global impact. Even as it has devastated societies, it has also inspired community empowerment, motivated impressive scientific discoveries, and provoked an unprecedented mobilization of vast resources for a single health condition. Not yet fully realized, however, is the epidemic’s potential for expanding the core mission of academic institutions to include the pursuit of a wider range of research.

Most universities focus on three core missions: transmitting knowledge to undergraduate students, developing the next generation of scholars through graduate education, and producing new discoveries through research. In both education and research, the past decade has seen dramatic changes. An increasing number of international students are studying at U.S. universities, and a substantial proportion of U.S. students are pursuing international experiences. Online educational initiatives have proliferated, reaching students beyond classroom walls, and several universities have established international centers and branch campuses. At the same time, research enterprises at universities have grown larger and more complex, with new technologies, use of massive data sets, and growing emphasis on multidisciplinary and interdisciplinary approaches to tackling key scientific challenges.

Universities could foster research in implementation science — the study of methods for improving the uptake, implementation, and translation of research findings into routine and common practice — to explore the best ways to apply knowledge and discoveries to the challenges facing local and global communities. This is a role, however, that many universities have not yet fully embraced.

The appropriate relationship between the core mission of academic institutions, particularly research universities, and the “real” world has long been a matter of discussion. At his installation on February 3, 1890, for example, the president of Columbia College in New York, Seth Low, articulated his vision of the purpose of the university and academic scholarship, saying, “There is no such thing as the world of letters apart from the world of men. . . . The scholar without this vision is a pedant. He mistakes learning for an end in itself, instead of seeing that it is only a weapon in a wise man’s hands.” Scholarship, Low believed, should be geared toward the betterment of humanity, and universities should be engaged in solving the practical issues affecting the world around them.

The HIV epidemic is challenging academic institutions to look beyond their traditional core roles and consider how to contribute more fully to the “world of men” — that is, to the public good. Specifically, the magnitude of this global health threat highlights opportunities for universities to recognize meaningful and scholarly research in implementation science in order to advance the health and well-being of populations around the world.

Of course, researchers at academic institutions have made major contributions to advancing our understanding of the HIV epidemic, including basic research on the pathogenesis of HIV disease; clinical research aimed at the discovery of new diagnostic, prevention, and treatment interventions; and epidemiologic research to identify risk factors associated with HIV transmission. The events that follow this discovery phase, however, have largely been considered beyond the purview of traditional academics and have been left for entities such as governmental agencies and nongovernmental organizations to tackle. As a result, academic environments often place more value on the discovery itself and less value on learning how to realize the potential benefit of its application.

This disparity also applies to health conditions beyond HIV. Key discoveries remain confined to publications in journals and books, underutilized by the people most in need of them. This lack of use is largely attributable to the limited knowledge about how best to implement and scale up these discoveries. For example, neonatal resuscitation and...
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The paucity of implementation research extends beyond the health field. For example, in the field of education, preschool education has been shown to have value, but there has been very little research on how best to implement such programs to achieve the desired short- and long-term outcomes. The words of Seth Low remain relevant today, inspiring reflection on the mission of the university in the era of globalization. Academic institutions have an opportunity to embrace societal challenges more fully by placing value not only on discovering the “what” but also on elucidating the “how” and bringing to action discoveries with broad benefits. If the HIV epidemic successfully inspires an expanded academic mission, this transformation could be added to its many lasting legacies.

Disclosure forms provided by the authors are available with the full text of this article at NEJM.org.

From the International Center for AIDS Care and Treatment Programs, Mailman School of Public Health, Columbia University, New York.
3. Proceedings at the installation of Seth Low, LL.D. as President of Columbia College in the City of New York, February 3, 1890. New York: Columbia College, 1890 (https://archive.org/stream/proceedingsatins00colorich#page/n5/mode/2up).
DOI: 10.1056/NEJMp1314777
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