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Culture, Health, and Science: A Multidisciplinary Liberal Arts Alternative to the Public Health Major

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Abstract

Since the 2003 call by the Institute of Medicine to educate undergraduates in public health, various models have emerged for incorporating public health into the liberal arts and sciences. One model is a professionalized public health major that uses core public health competencies to prepare a workforce of health professionals. A second model offers a broad-based public health major rooted in liberal arts principles, resisting the utilitarian trend toward human capital formation. A third model resists even the label of “public health,” preferring instead to introduce undergraduates to many ways of analyzing human health and healing. The multidisciplinary Culture, Health, and Science Program, based on six key commitments for preparing liberal arts students to analyze health and respond to global health challenges, is offered as an alternative to the public health major.

Keywords

public health major, undergraduate health education, liberal arts

Undergraduate health programs have grown significantly over the past decade. These programs have assumed different forms. One model of undergraduate public health education is oriented toward professionalization, based on standards established by the Council for Education on Public Health (CEPH). A second model resists the focus on professionalization and human capital formation by emphasizing a broad-based public health major rooted in liberal arts principles. A third model consciously opposes the “public health” label as narrow and exclusive, while substituting a liberal arts approach to health and medicine.

This essay poses critical questions about the recent expansion of undergraduate public health programs and offers the Five College Certificate in Culture, Health, and Science (CHS) as an alternative to the public health major. The flexible, multidisciplinary CHS Certificate was designed to complement a traditional major and allow students to tailor their health-related coursework to suit their own career goals. Students are introduced to theories and methods for integrating the physical, political-economic, psychological, and socio-cultural elements of human experience. Liberal arts students who are broadly trained across multiple disciplines will, we argue, be well situated to respond creatively to public and global health challenges.

A Brief History

The movement to expand undergraduate public health education began more than a decade ago on account of several factors: the Institute of Medicine recommended in 2003 that all undergraduates should be educated in public health;

controversies over health disparities and medical care rose to the top of the national political agenda; humanitarians and philanthropists inspired by anthropologist-physicians such as Paul Farmer and Jim Yong Kim were motivated to bring modern medicine to the world’s poor; and the 2015 revision of the Medical College Admission Test required aspiring doctors to understand the psychological and social—as well as biological, chemical, and physical foundations—of behavior. During this time, undergraduate public health programs have grown exponentially,¹ led by powerful institutional actors including the American Association of Colleges and Universities and the Association of Schools and Programs of Public Health. The national conversation in support of undergraduate public health education is commonly justified by the need to prepare a growing workforce of health professionals, respond to the threats of bioterrorism and infectious pandemics, and shape citizens who can understand and respond to health challenges in a globalized world.^{2–4}

In 2006, the Association of Schools and Programs of Public Health joined with the American Association of

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Colleges and Universities and others to launch the Educated Citizen and Public Health initiative. The initiative aligned well with the American Association of Colleges and Universities' Liberal Education and America's Promise initiative, introduced in 2005. Together, the initiatives are motivated by a broader notion of citizenship that seeks to integrate public health perspectives within a comprehensive liberal education framework. Their stated aims include the need to train more college-educated workers and develop engaged and informed citizens capable of tackling tough public health challenges.^{5,6} The Educated Citizen and Public Health initiative was directed specifically toward colleges "without schools or programs in public health" as part of a liberal arts education⁷ and was designed "to provide education in public health as a part of a general liberal arts education."⁸ An invitation was issued to teach and learn "about public health—emphasis on lowercase *p* and *h*."³ By this, the framers meant that this initiative was not to provide narrow preprofessional training and should not be conceived as an undergraduate version of graduate public health education.

As undergraduate public health has grown, tensions have emerged over the desirable degree of professionalization. Some supporters "strongly believe that the undergraduate degree in public health should be seen primarily as a professional degree that is designed to prepare students to enter a well-defined and vital career track."⁹ This statement captures the dilemma facing small liberal arts colleges, which have traditionally resisted the professionalization and neoliberal "economization" of education and remain committed to the values of "social responsibility, critical thinking, ethical reasoning, and knowledge of the wider world."¹⁰ It could be argued that all educational institutions value critical thinking, just as all students need to be prepared for careers, regardless of what institution they attend or what major they pursue. The American Association of Colleges and Universities, therefore, recommends that college education should provide "broad knowledge and transferable skills, and a strong sense of values, ethics, and civic engagement."¹¹ For at least a century, liberal arts institutions have debated whether professional vocations should be permitted to claim space within their curricula, and today many such schools have robust programs in engineering, teaching, and jurisprudence. Yet, others are wary of a trend that begins with assurances about its commitment to the liberal arts and results in initiatives to provide accreditation for baccalaureate public health programs in the name of creating a ready workforce.¹²

The movement for undergraduate public health majors is rapidly shifting toward increased professionalization. In 2013, the CEPH adopted accreditation criteria for "standalone baccalaureate programs" in public health at undergraduate colleges and universities. The accreditation criteria are based on the "critical components" of undergraduate baccalaureate curricula developed by a task force convened by the Association of Schools and Programs of Public Health, a group with an obvious occupational interest in promoting its professional principles and standards. The curricular

recommendations pay special attention to what should be included under the "public health domain," while relegating many liberal arts fields (including the biological and life sciences, social and behavioral sciences, statistics, and humanities or fine arts) to the undifferentiated category of "general education."¹³ Although accreditation by the Council on Education for Public Health is voluntary and the accreditation guidelines are broader than those governing graduate schools of public health, the very existence of stand-alone baccalaureate accreditation provides an incentive for undergraduate public health education to move toward greater professionalization. As of December 2015, 20 applications for this category of accreditation were pending, 8 of which were filed in 2015.¹⁴

This tension has exposed a rift that is developing between two types of undergraduate public health majors: one is oriented toward career preparation and accreditation, while the other is rooted in broad liberal arts preparation. Both types tend to be concentrated in institutions with existing graduate schools of public health. The first type is exemplified by East Tennessee State University, which offers an undergraduate major in Public Health with a specialization in Community Health, leading to the BS degree. This program is explicitly oriented to "tailor its competencies and curriculum to match the needs of its employers" in an underserved part of Appalachia.¹⁵ With an applied curriculum rooted in the premises of the biomedical sciences, it promises to prepare "students to become effective health educators and community health specialists" and to sit for the Certified Health Education Specialist examination.¹⁶ Core courses in this program include environmental sanitation, first aid and emergency care, medical terminology, biostatistics, epidemiology, health administration, and cultural competence and spirituality in health care.

In contrast to such workforce development programs are those that emphasize broad multidisciplinary approaches to public health rooted in the liberal arts. At the University of Massachusetts, Amherst, for example, students majoring in Public Health Sciences take courses in a range of disciplines and topics including quantitative reasoning, natural sciences, social sciences and humanities, as well as public health. Students are encouraged to develop their own topical foci related to their areas of interest, ranging from bioethics to journalism to sexual health.

Is Public Health the Best Framework for Undergraduate Education in Health?

Other institutions have thus far resisted the undergraduate public health major. At Vanderbilt University, an undergraduate major in Medicine, Health, and Society launched in 2014 builds on connections to the School of Medicine as well as the College of Arts and Sciences. Its mission is to teach students about the "cultural, economic, demographic and biological factors that impact health."¹⁷ Rather than accepting biomedical models of disease etiology or treatment uncritically, the curriculum "transcends the traditional biomedical

approach to understanding health and illness” by teaching students to consider “complex social issues that impact health, healthcare, and health policy.”¹⁷ Some of the core courses offered in this major include politics of health, racial and ethnic health disparities, masculinity and men’s health, and American medicine in the world. The major is organized around the theoretical notion of “structural competency” which focuses on identifying the systemic sources of health inequality.¹⁸ This framework gives intellectual and curricular coherence and direction to the major, which sets it apart from traditional public health majors.

Small liberal arts colleges face a different set of challenges. They are committed to understanding human health and disease from a variety of disciplinary perspectives, and many lack formal ties to schools of public health or medicine. Since 1996, the five colleges of western Massachusetts (Amherst College, Hampshire College, Mount Holyoke College, Smith College, and the University of Massachusetts at Amherst) have offered a Five College Certificate in CHS. This program is an alternative to the undergraduate major in public health for students at the four liberal arts colleges. Meanwhile, undergraduates at the University of Massachusetts, Amherst have been able to major in public health and earn a BS degree since 2007 through the School of Public Health and Health Sciences. Many of them also now pursue the CHS Certificate.

The interdisciplinary CHS Certificate is usually taken alongside a traditional liberal arts major.¹⁹ At the liberal arts colleges, students are encouraged to prepare for health careers by acquiring solid foundations in the theory, history, and methods of a discipline of their choosing. Even those who plan to pursue graduate work in public health are encouraged to gain expertise in a discipline, whether it be a foreign language, statistics, psychology, neuroscience, or another field. The rationale is that public health requires the collaborative expertise of people who are trained in a variety of disciplines. Under the guidance of a faculty advisor, students tailor their course selection to their personal career objectives. To facilitate multidisciplinary learning, students may cross-register for courses at any of the five colleges. Each student takes seven courses across five domains of inquiry: biocultural approaches; mechanisms of disease transmission; population health and disease; ethics, policy, and practice; and research design and analysis and completes a culminating project or internship. The CHS program facilitates new intellectual communities and partnerships for faculty, such as the mathematician who develops a course about tuberculosis transmission modeling or the anthropologist who speaks to a genetics class about “scientific racism.” Graduates of the CHS program have gone on to careers in international development, global health, nutrition, academia, biomedical research, and clinical practice. The CHS program promotes awareness of the social determinants of disease and healing. Such a program serves to “enrich students’ entire liberal education as well as their preprofessional and major programs of study.”²⁰

A recent survey of global and public health in 50 undergraduate liberal arts colleges found that while nearly half

“have developed formally recognized tracks, minors, or programs” in global and public health, few liberal arts colleges offer public health majors.¹¹ No small liberal arts college is among the list of applicants currently seeking accreditation from the CEPH for its stand-alone baccalaureate program in public health.²¹

Authors of a recent survey of active undergraduate public health degree programs at U.S. colleges and universities expressed surprise that liberal arts colleges do not offer more such programs.²² From our perspective, however, the success of educating undergraduates in public health should not be measured by the availability of a given major nor by conformity to benchmarks spelled out by the Association of Schools and Programs of Public Health or encapsulated in CEPH accreditation criteria. As William Cronon says,

A liberal education is not something any of us ever *achieve*; it is not a *state*. Rather, it is a way of living in the face of our own ignorance, a way of groping toward wisdom in full recognition of our own folly, a way of educating ourselves without any illusion that our educations will ever be complete.²³

Rather than asking why more liberal arts colleges do not offer public health degree programs, we might ask—from a liberal arts perspective—why undergraduate public health education is expanding so rapidly at this historical juncture. How is the growth of undergraduate public health related to the 27% increase in the number of accredited graduate schools in public health between 2007 and 2012?²⁴ Has this growth propelled a search for new revenues to fund faculty salaries? Might undergraduate tuition be seen as a way to fill the gap? Are undergraduate public health programs an administrative response to a neoliberal “responsibility centered management” mandate: a university resource management model that makes a department’s funding contingent on its ability to fill classroom seats? Liberal arts students might investigate the history and function of college accreditation mechanisms to ask how accreditation is related to the rise in for-profit universities and online education, changes in college affordability, or cuts in public education or health research financing. Can CEPH’s emphasis on credentialing be understood as an example of the increasingly technocratic forms of accountability demanded by the “audit cultures” in which we live?^{25,26} Can college accreditation stand up to critics who argue that it “has done more to raise costs than to improve or even maintain educational quality, and that it gives students, parents, and public decision makers almost no useful information about institutions of higher education?”²⁷ Are the additional expenses incurred by CEPH accreditation justified for institutions, such as those in our consortium, that are already accredited through the New England Association of Schools and Colleges? In short, we wonder whether the growth of undergraduate public health majors might be motivated as much by political-economic considerations as by the lofty goal of producing health-literate citizens for democratic leadership.

Health Education Rooted in the Liberal Arts

Undergraduate public health majors and programs can be powerful tools, but in the liberal arts context, they must remain expansive, integrative, multidisciplinary, and designed to encourage critical thinking.²⁸ As we develop a reciprocal “partnership . . . between the arts and sciences and professional schools in the specific field of epidemiology and public health,” it is important to emphasize the ways that public health can benefit from the liberal arts.³

Let us imagine, for example, that one of CEPH’s “public health domains,” designated as a critical component of public health education for undergraduate public health majors, were rewritten from a liberal arts perspective. This domain is currently scripted as the “role and importance of data in public health,” and specifies that students should learn “the basic concepts, methods, and tools of public health data collection, use, and analysis and why evidence-based approaches are an essential part of public health practice.”¹⁴ Liberal arts students will of course need to understand the rudiments of research design and data analysis, but they might also wish to examine the nature of evidence. What is the relationship between “data” and power? What constitutes “data” in diverse laboratory, clinical, literary, or historical contexts? How do different disciplines define “data?” What is missed when researchers validate and count certain outcomes while disregarding others? What counts as evidence? Rather than asserting that “evidence-based approaches” are “essential,” students might be asked to evaluate such a claim. The anthropologist Helen Lambert, for example, has argued that evidence-based medicine consists of “an indeterminate and malleable range of techniques and practices characterised not by particular kinds of methodological rigour, but by the pursuit of a new approach to medical knowledge and authority.”^{29,30}

Like all fields, public health needs critical thinkers and leaders. It needs not just those who can implement the reigning paradigm, but those who can think innovatively about why one framework takes precedence over others. The CHS program offers one response to the concern that professionalized public health programs may produce undergraduates who sacrifice critical self-reflection for technical proficiency or core competencies. To avoid these pitfalls, we identify six key commitments that seem to be missing from the criteria for accreditation of standalone baccalaureate programs in public health, but that guide our efforts to weave health into liberal arts education.

1. **Multidisciplinary:** It is a truism to state that public health is a multidisciplinary enterprise, but the current conversation about undergraduate public health rarely mentions the obvious implication of this observation: students of public health must be trained in multiple disciplines.²⁵ The combination of liberal arts major with the CHS Certificate ensures that students will bring disciplinary viewpoints, theories, and methods to their understandings of population health, interpretations of suffering, and modalities of

healing. A liberal arts disciplinary major also trains students in the humility of recognizing the limits of their field.

2. **Flexibility:** Currently, the critical components criteria spell out an ambitious and uniform set of competencies. Yet, students may need a more flexible set of competencies depending on their career goals. A focus on the health sector may not be suitable for students who wish to transfer their skills to agriculture, the environment, or education. For this reason, CHS students are encouraged to tailor their health-related coursework to mesh with their career aspirations. The prospective health economist will likely choose different courses than the aspiring midwife or bioethicist.
3. **Global and multicultural citizenship:** Rather than educating students for regional workplace needs, we are consciously educating global citizens who will practice their craft in Delhi and Dar es Salaam. Our students hail from several dozen countries, and the CHS program uses the international composition of the classroom as a resource for understanding global and public health concerns from diverse perspectives. Students bring their own competencies, resources, and experiences and help us to see how understandings of health and educational requirements vary by region and nationality.³¹
4. **Biocultural approach:** The CHS program takes an explicitly integrative biocultural approach, in which diseases and health challenges are understood to be the result of interwoven environmental, sociocultural, and biological processes. We thus invite faculty to devise educational exercises that interweave the humanities, social sciences, and natural sciences.
5. **Critical thinking:** While no type of educational program has a monopoly on critical thinking, the CHS program encourages students to question underlying premises. They might be invited, for example, to question normative, morally laden understandings of “health” and “disease.”³² As critical thinkers, they might well question the individualistic assumption that information-based health education is the best strategy for improving population health. This might lead them to wonder whether citizens educated in public health will be likelier than others (as some authors suggest) to support mainstream public health initiatives such as the “fluoridation of municipal water systems or the promotion of health foods in school cafeterias.”⁸ Instead, they might question who stands to benefit from such programs or explore alternative ways of knowing about oral health, the politics of food distribution, and the role of government mandates in fostering well-being.
6. **Structural inequality:** We prioritize structural inequities as a major determinant of ill health. The CHS program encourages students to consider the social determinants of disease and distress, including the many forms of structured inequality that shape health disparities.

By placing these commitments front and center, CHS addresses some of the possible limitations of public health majors based more narrowly on accreditation standards and competency criteria.

Education for Whom?

The question of how to balance preprofessional training with broader liberal education forces us to confront the class stratification to which colleges and universities lend themselves. Institutions work within different constraints, and student constituencies approach their educations in varied ways even within a single institution. The critical thinking emphasis in the liberal arts aims to liberate students' minds from inherited norms in part so that they might transform the sectors and communities in which they eventually work and live. Expensive liberal arts colleges hold out the promise that such education prepares future leaders. Data on outcomes suggest that many liberal arts graduates realize this promise, though often only after pursuing graduate school training and several years of career development.³³ But what about institutions that present matriculation through a public health program as a way to expand students' employment options? What about students who have incurred heavy debt in the hope of getting a "good job" upon graduation? Such students may well find an accredited preprofessional undergraduate public health major more relevant to their lives. If designed to include the commitments we have enumerated, such programs could still empower these students to make change. With sufficient resources, every student could be offered a deep liberal arts education followed by professional graduate training. In the face of limited resources and different student expectations, we hope that readers will understand this commentary as a plea for pluralism. Rather than a one-size-fits-all approach to undergraduate public health education, we identify a range of models, including a liberal arts-inspired alternative to the accredited undergraduate public health major.

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