



Liberal Education and Public Health

Surveying the Landscape

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The Educated Citizen and Public Health (ECPH) initiative is premised on the idea that an understanding of public health issues is a critical component of good citizenship, and that by developing this understanding, students will learn to take responsibility for building healthy societies. Historically, the programmatic study of public health in colleges and universities has been largely limited to the graduate level. Today, however, evidence suggests that undergraduate students are able to take advantage of increased opportunities to study public health.

The emergence and spread of interdisciplinary undergraduate curricula in public health represents a rich opportunity. The ECPH initiative encourages faculty members and administrators to take advantage of this opportunity by applying the insights of an expansive vision of high-quality liberal education to the burgeoning field of undergraduate public health. In partnership with the Association of Schools of Public Health (ASPH) and the Association for Prevention Teaching and Research (APTR), AAC&U has advocated undergraduate public health education as a coherent example of a practical liberal education—one that develops students' capability to understand and take action to solve complex, unscripted, real-world problems. Within this framework, students experience the competing and complementary perspectives of the social sciences, natural sciences, mathematics, humanities, and the arts. At the same time, they develop their skills in written and oral communication, critical and creative thinking, and quantitative analysis. They also learn teamwork and evidence-based problem-solving skills. Through experiential learning opportunities, students come to understand how classroom knowledge can be applied to real problems within

their communities. In the process, they can become more engaged citizens, move toward intercultural competence, and gain experience in ethical reasoning and action. By approaching public health as liberal education—in its fullest sense—faculty members can better help students integrate seemingly disparate elements of their education and acquire the habits of lifelong learning.

THE GROWING UNDERGRADUATE PUBLIC HEALTH MOVEMENT

By thinking about the connections between public health and liberal education, participants in the ECPH initiative have begun to imagine how such an interdisciplinary field raises intellectual and structural questions that play out in general education courses and designs, in (often new) public health majors, minors, and concentrations, and in related disciplines. We have witnessed the enthusiasm and creative energy that eighty institutions brought to three faculty and curriculum development workshops in 2007 and 2008. The rich anecdotal evidence provided by this self-selecting group revealed a landscape marked by student demand for public health opportunities and institutional dedication to providing high-quality, integrative programs.

In collaboration with ASPH, with funding from the Josiah Macy, Jr. Foundation, and through the ASPH/CDC Cooperative Agreement, we have sought to expand upon these initial impressions by gathering both quantitative and qualitative data from across the academy about the curricular and structural footprint of this emerging field. Research strategies have included scanning and analyzing undergraduate program offerings, convening focus groups, and surveying AAC&U members. While no single



approach can be considered comprehensive, our efforts as a whole provide a rich array of information on undergraduate public health as a growing movement.

Baseline Data for the Number of Public Health Programs Currently Being Offered to Undergraduates

- One hundred and thirty-seven institutions (16 percent) offer an undergraduate major, minor, or concentration in public health or a similar field (community health, health education, health and society, etc.) that includes all or most of the key components of public health (i.e., introduction to public health, epidemiology, biostatistics, health policy and management, and global health).
- Thirty-three percent of research universities surveyed offer undergraduate programs in public health. Sixteen percent of institutions categorized as comprehensive/Master's and only 5 percent of baccalaureate institutions offer such programs.
- Of those institutions offering programs, nearly half are research universities (48 percent), and almost twice as many are public (66 percent) than are private (34 percent).
- Nearly one-half of institutions that have graduate public health programs also offer undergraduate programs, representing 29 percent of the total undergraduate programs in the field. In other words, 70 percent of undergraduate public health programs are not affiliated with graduate programs.

The first and most direct method used to measure undergraduate opportunities in public health was a count and analysis of programs appearing in college and university catalogs in July and August, 2008. A review of online catalogs for 837 four-year, U.S.-based, AAC&U member institutions yielded baseline data for the number of public health programs currently being offered to undergraduates (see sidebar for findings).

The snapshot numbers found in the catalog scan are certain to increase as the institutions that have participated in the ECPH project formally launch programs that are currently under development. In addition, survey findings (described below) indicate that many institutions that do not currently offer undergraduate public health programs plan to do so in the future. Moreover, it is important to note that during the catalog scan we did not systematically search for individual public health courses offered to undergraduates at institutions that do not offer majors, minors, or concentrations in public health. Epidemiology or global health courses, for example, may be offered through many sociology or global studies departments, but they were not counted in this scan unless they were bundled into a public health-related major, minor, or concentration. It is likely that some institutions that offer such individual courses related to public health will expand upon those offerings, leading to future undergraduate programs in public health.

To flesh out these initial findings, we analyzed program descriptions to examine the content and structure of the offerings. This review confirmed what we had already learned anecdotally from workshop participants, namely that undergraduate programs and courses vary substantially across many parameters, including the host department or school and the required and elective curricula. These public health programs also share certain important commonalities,

including an interdisciplinary approach and a common requirement for experiential/service learning in the community.

UNDERGRADUATE PUBLIC HEALTH PROGRAMS SURVEY

In the second phase of data collection, AAC&U and ASPH collaborated to convene focus groups, which assisted in the design of a research survey sent to all AAC&U member chief academic officers in January 2009. The goal of the survey was to provide insight into the institutional and curricular variability of undergraduate public health programs and to provide baseline data from which to measure growth over time. Due to limitations of the survey response rate (16 percent) and selection bias (responses were skewed toward larger institutions), data from the survey should only be viewed as suggestive. However, together with the catalog scan, program analysis, focus groups, and information from workshop participants, a coherent picture emerges of the approaches and challenges to developing undergraduate public health programs and curricula.

There are inherent challenges in making comparisons across the various types of institutions with different educational goals and student populations. Survey respondents were divided fairly equally among institutions focusing on professional or career-related fields (30 percent), arts and sciences programs (25 percent), and mixed programs (45 percent). The issue of clarity in the face of this diversity is further compounded by the interdisciplinary nature of the study of public health and the absence of a well-established agreement about what constitutes public health at the undergraduate level. Of those institutions reporting that they offer majors, minors, or concentrations in “public health or related fields,” nearly three-quarters do not call that offering “public health” for a variety of reasons.



In an effort to work around this definitional problem, we chose to focus our survey questions on a set of student learning outcomes associated with the basic principles of undergraduate public health (see sidebar).

Reflecting the greater movement toward learning outcomes as the compass for the curriculum, respondents identified

the broad liberal education outcomes (critical thinking, written and oral communication, integration of learning across disciplines, etc.) as critical areas of focus at their institutions. This positive identification, however, did not extend to the outcomes that were framed in the language of public health competency. Overall, very few respondents reported that the

health outcomes described their institutions' overall expectations and priorities for undergraduate student achievement. This discrepancy suggests that more work is needed to bridge the knowledge gap between the identification of broad learning outcomes and their application to individual, interdisciplinary programs of study.

The list of knowledge areas covered by institutions' common sets of learning goals or outcomes is consistent with the traditional foci of liberal education. Science and humanities top the list (92 percent), followed closely by social science (90 percent), mathematics (89 percent), global or world cultures (89 percent), and arts (80 percent). A relative low but significant proportion of respondents identify health as a primary knowledge area (35 percent), which compares unfavorably to languages other than English (47 percent), but favorably to sustainability (26 percent). While it is difficult to determine precisely how respondents interpreted "health" as a knowledge outcome area, we are encouraged to see that for more than one-third of institutions, it holds a dedicated spot in the context of common learning goals.

The focus groups shed some light on the logistical challenges of linking public health and general education. Participants described the value in integrating public health into general education, but pointed out significant obstacles to doing so. The major challenges identified by the participating deans and faculty included budgetary constraints on fiscal resources, structural limitations on coordinating across diverse departments, and lack of faculty expertise and development.

Our hope in the ECPH initiative is to increase the number of institutions identifying health as a shared outcome by emphasizing *public* health, thereby reinforcing the strong connections between the study of health and the liberal education outcomes shared by nearly all institutions.

Public Health and Liberal Education Outcomes

The Essential Learning Outcomes from AAC&U's LEAP initiative provide a framework that can be adapted to all fields of study (see www.aacu.org/leap/vision.cfm), as shown below for public health.

Students can understand how multiple disciplines bring unique perspectives to cross-cutting questions of population health and public policy.

- Integration of learning across disciplines

Students can explain and apply the basic principles of epidemiology, including rates, risk factors, disease determinants, causation, evidence, and intervention.

- Critical thinking
- Research skills
- Quantitative reasoning
- Oral and written communication skills

Students can explain and assess social and behavioral interventions to improve health of populations.

- Research skills
- Oral and written communication skills
- Intercultural skills and abilities

Students can evaluate complex arguments related to public policy and law.

- Critical thinking
- Civic engagement and competence

Students can explain the impact of the environment and communicable diseases on health populations.

- Oral and written communication skills

Students can identify the role that public health plays in disaster prevention and management.

- Ethical reasoning

Students can evaluate public policy issues with respect to access, quality, and cost and demonstrate understanding of health disparities within vulnerable populations.

- Intercultural skills and abilities
- Ethical reasoning
- Civic engagement and competence



Parallel to this, we also wish to demonstrate that the cross-disciplinary field of public health incorporates the traditional knowledge areas, and can therefore assist in fulfilling a wide range of an institution's learning goals.

The survey provided us with the opportunity to gather data about courses in which undergraduates wrestle with topics and methodologies identical to, or closely related to, those in public health. We know that 69 percent of respondents offer at least one course to undergraduates that addresses the fundamental outcomes of public health. Such courses are especially important and timely as institutions are committing additional resources and efforts to design and deliver integrative learning experiences as part of their liberal education missions. In addition to introducing students to the frameworks of public health, these courses can provide a valuable foundation for students as they apply the classroom experience to real-world situations.

We also have found that institutions that offer specific courses addressing the fundamental public health outcomes also demonstrate a high degree of interest in curricular innovation and application of high-impact pedagogies. Those institutions that are creating opportunities for students to explore the intersection of health and society are doing so by engaging students in service-learning opportunities (64 percent), developing capstone experiences (48 percent), offering thematically linked courses (32 percent), and creating learning communities (22 percent).

It should be noted that at the same time that undergraduate public health is emerging as a focus of study on many campuses, we are also witnessing a high level of attention to general education reform. A separate survey of AAC&U members revealed that the majority of administrators (56 percent) say general education has

increased as a priority for their institution. Senior administrators recognize a lack of coherence in their curricula, with only 35 percent of survey respondents describing their general education programs as having a coherent sequence of courses. Such findings represent an opportunity for undergraduate public health (as well as other interdisciplinary, integrative approaches) to serve as an organizing framework to engage students in general education.

The survey also revealed that those institutions placing a higher priority on general education are placing more emphasis on engaged learning practices, compared to those institutions in which the focus on general education has not increased over the past five years. The majority of member institutions do not currently engage students in real-world learning opportunities, as evidenced by the low marks for civic learning or engagement activities (only 38 percent say this describes their program very well), service-learning opportunities (38 percent), and experiential learning opportunities (36 percent). Indications suggest these are increasingly popular topics of discussion; however, no single one of these approaches is being incorporated into general education programs on a broad scale. There seems to be a natural fit between the demand for these pedagogies in general education and the already widespread use of such practices within undergraduate public health programs. It is the goal of the Educated Citizen and Public Health initiative to increase the intentional focus of public health courses on civic learning and engagement activities and further embed them within the curriculum.

CONCLUSION

The quantitative and qualitative data gathered to date suggest there is cross-cutting interest in incorporating public health into undergraduate curricula, presented in the form of majors, minors, and concentra-

tions. Critical curricular and cocurricular elements of such programs already exist on many campuses, with evidence to support anticipated growth of additional programs.

There is a high level of interest, commitment, and activity among nearly all surveyed institutions in defining learning outcomes either in majors, in general education, or in both. However, when we put those outcomes into the context of public health, senior academic administrators have not identified the specific health outcomes as important to their overall efforts. Well-designed undergraduate public health programs are ideally suited to align with essential learning outcomes of liberal education, but the connections are not yet clear to many of those who are driving the movement for curricular reform. This alignment, especially at institutions where the public health elements are not gathered in a program, requires intentional efforts to match outcomes and designs.

The lack of a clear, consistent view of what constitutes undergraduate public health presents an opportunity for definition, but also a substantial challenge to coherence. As the emerging field is taking shape, the liberal arts and public health communities have an opportunity to work together to influence its evolution. Due to its highly interdisciplinary nature, there will likely always be variations in how institutions choose to construct their public health programs of study. However, shared underlying themes and common programmatic characteristics will assist in the creation of an area of study widely recognized, and valued, by administrators, faculty and students alike. It is the intent of the Educated Citizen and Public Health initiative to highlight the inherent link between public health principles and liberal learning outcomes as we work toward providing our students with the knowledge, skill, and responsibility of building a healthy society. ■