TEACHING ETHICS IN SCHOOLS OF PUBLIC HEALTH

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Should ethics be taught in schools of public health? In some ways this question was answered by the recently enacted requirement that anyone on a research grant from the public health service document that they have obtained training in compliance with ethical standards and procedures for research. This requirement answers in a functional, pragmatic way whether ethics should be taught in schools of public health, but by simply adhering to such requirements a school may fail to address the deeper questions of *why* ethics should be taught, and if so, which aspects should be in the curriculum. To answer these more fundamental questions, one must first recognize that, regardless of whether the topic is listed formally in the curriculum, ethics is taught in every department of every school of public health. When a professor speaks of the "underserved," he or she is appealing implicitly to a sense of justice. A cost-benefit analysis conducted by a health economist implies a utilitarian ethic. The alpha-level applied to a statistical test speaks of a level of caution or conservatism in deciding whether something presents a risk and should be considered for public health intervention. And a researcher who treats study participants with a high level of respect conveys to his or her colleagues and students an ethical stance in research.

Public health and its component disciplines are irretrievably enmeshed in ethical concerns. Ethics is not a topic that can be separated from the teaching of technique. Nearly every technical task is carried out in an ethically charged context. Viewed in this way, technique is not morally neutral. Rather, all technique is an outgrowth of a particular world view or philosophy; it is the flesh on the philosophical bones.

The question, then, is not whether ethics should be taught, but rather whether it will be taught accidentally or intentionally. This is a perspective also argued by former Harvard President Derek Bok, in his book, *Universities and the Future of America*.[1] Teaching ethics intentionally holds the promise of training students to recognize hidden ethical assumptions, to consider them critically, and to design and implement research and interventions that more fully achieve a particular ethical perspective. Conversely, if ethics is taught acci-

dentally, there is the danger that unethical perspectives will be uncritically adopted by students and then perpetuated in their own practice of public health. A survey of 24 schools of public health conducted in 1996 and 1997 found that ethics instruction was required of all students in only one school. It was required of MPH students in seven schools and of doctoral students in four schools.[2] In this article I present some basic considerations for intentionally teaching ethics in schools of public health. I locate public health ethics in the overall field of ethics; address the topics of what to teach, the tools needed, and the barriers to overcome; and I end with recommendations of how we should proceed.

CATEGORIES OF ETHICS

How does public health ethics relate to other types of health ethics? Does it need a separate label, or is it already represented within a broader health ethics perspective? To answer these questions we first need to describe the ethics lay of the land.

Ethics is both theoretical and practical. Ideally, ethical theory and practice inform each other and become a piece of the same cloth. Nonetheless, in descriptions of topics within ethics, there is often a distinction made between theory and practice. Ethical theories dominate the teaching of ethics in most departments of philosophy. Teaching on theory encompasses prominent philosophers, such as Plato, Kant, Mills, and Rawls, and theories, such as virtue, duty, utilitarianism, human rights, and communitarianism.

Practical or applied ethics is rooted in established philosophies but it is driven more by conundrums encountered in contemporary life. Some notable conundrums are presented by advances in technology, such as organ transplants that can postpone death. Having the power to prolong life also means that withholding or withdrawing these technological life-extenders can be construed as killing, or at best failing to save a life. When the ability to provide the life-extending technology to all people who need it is not economically feasible, there arise questions about who does not receive the benefits of the technology, and on what basis. Thus, technological advances inevitably present practical ethical problems.

The area of practical ethics that addresses the implications of technologies affecting human life is bio-

ethics. The field of bioethics is not limited to ethical questions stemming from technology, but it is dominated by them. One of the most active areas of discussion in bioethics at present is genomics, with questions about the use of fetal tissue, cloning, gene therapy, and fetal screening for genetic markers for disease disposition.

Medical ethics is closely related to bioethics. Some feel the two terms are synonymous. Others hold, however, that medical ethics is functionally a subset of bioethics and is more likely to focus on physician-patient relations, the allocation of medical care resources in a population, and the conduct of medical research involving human subjects.

Research ethics is yet another area of practical ethics that has close ties to medicine. Recent events that have propelled research ethics to the forefront of practical ethics include the medical atrocities of the Nazi physicians in the World War II internment camps; the "Tuskegee Study" of untreated syphilis conducted from 1932 through 1972 by the U.S. Public Health Service (PHS) and the Tuskegee Institute; and the gene therapy trial that resulted in the death of the young boy, Jesse Gelsinger, in 1999. Efforts to prevent abuses in research on humans have led to the creation of a substantial national bureaucracy that is manifest in virtually every university. This bureaucracy continues to grow, principally through increases in the specificity of research prescriptions and proscriptions, and by exercising the power to withhold funds from institutions not fully complying with established rules. Researchers have mixed feelings about the bureaucracy of research compliance and their interactions with its most visible manifestation, the local institutional review board (IRB). Most applaud the prospect of fewer abuses in research but many also resent the substantial red tape involved.

Other areas of practical ethics relevant to health are public policy, law, and business ethics. A public policy, such as automobile emission standards, can affect the health of a broad population. Many of these policies are encoded in our legal system, such as the power of a local health officer to close a restaurant found to be unsanitary. Public policies and laws are governmental functions, but the practices of private institutions can also have a major affect on the health of populations. Most recently, American tobacco companies have demonstrated the negative aspects of this potential. The means by which private companies regulate themselves or are regulated by the government are central to the practical ethics of public health.

UNIQUE ASPECTS OF PUBLIC HEALTH ETHICS

A quick glance at a library bookshelf on health ethics will show that the vast majority of attention has been given to bioethics or medical ethics. The number of books that systematically address public health ethics can be counted on one hand. If the concerns and the perspectives of public health were the same as those of medicine, the paucity of books on public health ethics would not be a concern; one could simply look to medical ethics for guidance. However, the issues and perspectives of public health are different from those of medicine in at least three important ways: (1) a focus on prevention more than cure; (2) concern with whole populations more than individuals; and (3) ethical decisions made by institutions more than by individual practitioners.

Prevention is often described as working "upstream" of a problem. An often used analogy to draw a distinction between public health and medicine is that of people drowning in a river. Leaving others to rescue those who are drowning, a public health professional would run upstream to prevent more people from falling in the river. The logical extension of upstream thinking is to question yet further why people are getting close enough to the river that they are in danger of falling in. Is there a need further inland that is not being met and driving people to the river? Is society structured in such a way that people are compelled to put themselves in danger? These are more fundamental questions that are integral to public health. By definition, fundamental factors affect many aspects of life. Addressing fundamental aspects of society that predispose a population to illness or danger thus holds the potential of preventing several negative health outcomes. Conversely, though, interventions affecting fundamental aspects of society are also likely to affect other facets of life enjoyed by a population. For example, American society is structured in large part around the automobile. This contributes to a much valued sense of independence and freedom as well as to respiratory illness from pollution, injuries from collisions, and obesity from lack of exercise. A preference given to prevention (in contrast to treatment of respiratory infections, injuries, and obesity in the present example) thus leads to a questioning of societal values and the need to provide evidence that the risks of a social structure outweigh the benefits, and that a change in the structure will actually provide a net benefit.

The public health focus on populations also differs from the medical focus on interactions between a patient and a care provider. With a population perspec-

tive, public health institutions think in terms of healthy populations and communities as well as healthy individuals. The health of a community includes the quality of interactions between community members (consider, for example, the prevention of violence) and between institutions serving the community (e.g., the need for collaboration to achieve complex goals). A community perspective thus highlights the interdependence of individuals and organizations. This stands in contrast to the importance given to autonomy in medical ethics, where the concern is principally to prevent a patient from being abused by a care provider who wields much power. Although personal autonomy remains an important consideration in pubic health ethics, it is counterbalanced by concern for the well being of a whole population and a realization that not everyone affected by a particular public health action will agree with it. Thus, in public health the personal choices and preferences of some will be overridden by a greater concern for the well being of a whole population.

Policies and practices affecting a population are typically designed and implemented by a government and other organizations. In contrast to medicine where the primary moral agent is the physician or researcher, government agencies and other institutions (including private companies) dominate the moral landscape in public health ethics. This begs the question of how an agency develops and maintains a moral compass. Is it through policy-making, or in the case of governmental agencies, through legislation? Does it include understandings within a community that transcend legislation (e.g., a concern for equal access that is not legally mandated)? And how are ethical conundrums resolved or decisions made in an organization that includes employees with different perspectives and moral sensibilities? An important part of public health ethics, then, is sorting through ethical issues in a group setting.
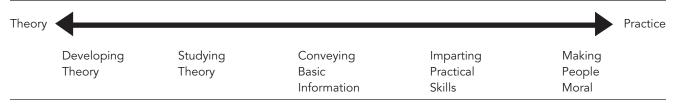
WHAT TO TEACH

Public health brings some unique perspectives to health ethics. What needs to be taught about these perspectives in schools of public health? The first step in answering this question is identifying what the teaching is to achieve. The potential goals vary in their degree of theory and practice. Although recognizing that ethics typically weds practice to theory, for the purposes of the present discussion the range of goals in teaching ethics is portrayed as a continuum between theory and practice in the Figure. The extremes of this continuum are the two most ambitious goals of teaching ethics.

At the theoretical extreme, public health is in need of scholars to articulate the unique aspects of ethics in this field as others have for medicine, business, and other fields. An ability to advance public health ethics requires knowledge of both ethics and some aspect of public health, such as epidemiology or public health policy. Often, public health ethicists receive formal training in one field and are self taught in the other. To train future public health ethicists, schools of public health might consider the development of a curriculum designed specifically for dual training in ethics and public health. Such a program could be realized, for example, through a collaboration between a school of public health and a department of philosophy.

Jumping to the other extreme, another potential goal of teaching ethics is to make students of public health more moral individuals—more honest or more just, for example. Some believe that the window of opportunity for moral formation closes well before college or graduate school, and that teaching ethics at this stage of life is an intellectual exercise lacking practical import. Though the foundations of a moral life are formed in one's early years, it is perhaps overly pessimistic to conclude that the process has an ending and that it arrives before adulthood. Colleges and universities once included among their purposes the shaping of character. Until the late 1800s, for example, students at Harvard University were graded on their

Figure. The range of potential goals in teaching ethics in schools of public health

Theory ◄————————————————————► Practice

| Developing Theory | Studying Theory | Conveying Basic Information | Imparting Practical Skills | Making People Moral |

personal conduct.[3] That moral instruction is no longer part of university curricula is perhaps less a comment on the success of such instruction than a reflection of the rise of the belief that such formation occurs through the acquisition of knowledge. Some would argue that a belief that information is sufficient to change behavior is overly optimistic. In any case, it must be acknowledged that formal education is just one of many factors influencing a person's world view and behaviors. Judgments of the effectiveness of ethics curricula should factor in the other influences.

A more modest goal of moral formation is equipping students of public health to operate within the ethics structures of the field. This entails teaching them what the structures and policies are, their importance, and how to function within them. It also entails teaching students how to reason through ethical problems, appealing to various ethical theories when needed. These goals bring us to the three components in the middle of the continuum in the Figure.

At the center of the continuum is basic information on public health ethics. Examples of what this might include are as follows:

- *The values and beliefs inherent to a public health perspective.* A list of these was developed in conjunction with the Public Health Code of Ethics.[4] They include a belief in the interdependence of people and between people and their environment; the importance of addressing root causes of health and illness; the utility of the scientific method for gaining information; and the importance of acting on reliable information that is in hand when the resources are available to do so.

- *Ethical principles that follow from the values and beliefs.* The heart of the Public Health Code of Ethics consists of 12 ethical principles. They are written to address the relation between public health institutions and the populations they serve. Included among the principles are participation of community members in the process of developing policies, programs, and priorities; and collaboration among organizations in ways that build the public's trust and the institutions' effectiveness. Other codes of ethics for epidemiology and health education provide additional information more specific to these practices.[5,6]

- *Public health mandates and powers.* Students should understand the legal mandates given to public health institutions and the powers available to them to meet the mandates and the potential abuses of these powers.[7,8] It is also important to know the powers of non-public health organiza-

tions, such as some private companies, to affect the health of the public, and to consider how public health ethics might extend to them.

- *Ethical tensions within public health.* Some ethical questions arise frequently because of an underlying, irresolvable tension between ethical principles. One that is common in public health is the tension between the need to protect the health of an entire community and to honor the rights of individuals in the community. This tension is brought to the fore when an individual claims that a public health regulation violates his or her rights. Examples of how some of these situations have been handled can be helpful in navigating future conflicts.

- *Historical ethical failures and triumphs.* One ethical failure in public health was the study of syphilis conducted by the PHS and the Tuskegee Institute. Students should be aware of this study and what went wrong. It is also important to provide examples of ethical triumphs and more modest failures. An exclusive focus on "monstrous" failures can lead some to believe that ethics are not a concern for "normal" people such as themselves.

- *The history and purposes of research ethics institutions.* IRBs currently exist to review research proposals. One day they may also review proposals for interventions and programs to be implemented by a health department. It is imperative that public health researchers and practitioners know how to interact with such boards (addressed among the skills, below) and appreciate the value of this review system.

- *The application of ethics to topics such as informatics and genomics.* As mentioned earlier, much of contemporary practical ethics is driven by new technological developments. The use of information on individuals that can be managed through sophisticated electronic systems and in some instances acquired through genetic tools are two developments that bear directly on public health and affect nearly every public health practitioner. Students need to be informed of the prevalent ethical standards for using these tools.

When teaching these basics, it will be helpful to inform students of the ethical theories that underlie the basic principles. These include virtue, duty, rights, utilitarianism, and various concepts of justice (e.g., libertarianism, Rawls's justice as fairness, and communitarianism). Familiarity with these theories infuses

the more practical principles with deeper meaning and gives students a more informed basis for ethical reasoning. These goals are consistent with the part of the continuum in the Figure labeled "studying theory." In some instances a student may wish to make ethics a minor area of study to complement his or her major area. Classes fully dedicated to topics such as public health law and ethics or environmental health ethics can accommodate such a need.

In addition to information, there are basic skills that can be taught in an ethics curriculum. These skills include the following:

- *Discerning an ethical question.* The important ethical question in a particular situation can be misidentified or the ethics can remain unrecognized altogether. For example, in some instances, two options for public health action may be equally flawed but in different ways. In such a circumstance, the key ethical issue may be the process through which the decision is made rather than the particular decision. The ability to rule out an ethical concern and conversely to single out an ethical question are key skills that can be learned in combination with a basic knowledge of ethics as outlined above.

- *Reasoning through an ethical question.* Once an ethical question is identified, how is it to be resolved? This process occurs at both an individual level and in discussion with others. Thus, reasoning skills as well as negotiation skills are needed.

- *Implementing standard ethical practices in research on human subjects.* Research practices are the most thoroughly encoded ethics in public health. They include, for example, standards for obtaining informed consent of research participants. Although not presently required for non-research interventions, a facility with research ethics practices can provide non-research practitioners with tools and principles that they may adapt for other purposes.

These lists of basic skills and information are not intended to be complete. A more complete list should be developed through a group process, either within a particular school or among experts in the field.

TOOLS FOR TEACHING ETHICS

After determining one's goal in teaching ethics and thus the information and skills to impart, there arises the need for tools to teach the chosen concepts and skills. There are some tools currently available, but many more that await development.

One tool mentioned already is the Public Health Code of Ethics. The code was developed by a group affiliated with the Public Health Leadership Society with members representing a wide array of public health agencies and organizations. The code was officially adopted by the American Public Health Association in February 2002. While other codes address the practices within particular disciplines such as epidemiology, the Public Health Code of Ethics is the only code addressing ethical issues for the broader field. It is a valuable tool for heightening awareness of ethical issues in public health institutions and for teaching students and other practitioners basic public health ethical principles.

As noted earlier, some schools of public health have developed courses for teaching ethics. The availability of these curricula to those outside the school will vary by instructor and institution. There are currently at least two efforts in progress to develop model curricula for teaching ethics in schools of public health. One is being developed by the Association of Schools of Public Health and the Hastings Center for Bioethics; the other by the American Public Health Association and the François-Xavier Bagnoud Center for Health and Human Rights in the Harvard School of Public Health. The University of North Carolina School of Public Health is developing an on-line module that can serve as a short course or as a component of a larger course.

On-line training in research ethics is also available from: URL http://cme.nci.nih.gov/ The course takes 1–2 hours to complete and thus presents only the most cursory information. However, it does meet the present qualifications for training in research compliance required by the PHS.

As already mentioned, there are very few textbooks on public health ethics.[9–13] As of the time of the writing of this article, there is no book that is a systematic presentation of the topic as *Principles of Biomedical Ethics* by Beauchamp and Childress is for medicine.[14] Clearly, more resources are needed for teaching public health ethics. In addition to textbooks there is a need for an understanding of the core competencies that students of public health should acquire. The lists of basic information and skills suggested above might serve to start discussion on this topic, but they are not definitive lists. Once core competencies are identified and tools for teaching them are developed, there remains the need to evaluate whether the teaching and tools are achieving their intended purposes. Thus instructors also need tools for assessing the ethical competency of their students.

Perhaps the most important resource for teaching

ethics is a teacher. Few of the current faculty in schools of public health have had any training in ethics. One of the critical needs, then, is means of preparing faculty to teach ethics. This will include short courses on ethics and how to teach it, and resource people to advise faculty on how to integrate ethics into the courses they already teach. One useful resource in this vein is a workshop offered by Indiana University at Bloomington that prepares instructors to teach research ethics to graduate students.[15]

BARRIERS TO TEACHING ETHICS IN SCHOOLS OF PUBLIC HEALTH

Why is ethics not a standard part of the curriculum in every school of public health? It is not a new topic, such as genomics or informatics, yet it is among a handful of such topics that some recommend be newly introduced into public health curricula. Why is it among the "new" topics?

One reason public health ethics is being newly considered may be the dominance of medical ethics among the health sciences. Some may have felt that health ethics was being fully addressed, though principally in medical schools. It is only in the last decade or so that public health ethics has been distinguished from medical ethics. Indeed, that process is still underway.

If schools of public health have been deferring to medical school faculty as the health ethics scholars, it still begs the question of why many schools of public health have not been seeking to ensure that their own students learn ethics. One answer to this may be that it hasn't been clear in schools of public health whose job this is. This lack of clarity about responsibility can result from the way that schools of public health have traditionally categorized the components of their profession. With some variation across schools, the categories typically include biostatistics, environmental health, epidemiology, health education, health policy and administration, maternal and child health, and nutrition. Health policy might be a logical home for public health ethics, but in some schools the teaching in these departments focuses more on the administration of health facilities such as hospitals, than on the development of public health policies and laws, and their relations to ethics. Where no department feels the responsibility to develop a curriculum in ethics, the topic falls through the cracks. Departments especially have no motivation to develop a curriculum in ethics that meets the needs of the entire school—a service to the school that may yield no tangible benefits to the sponsoring department.

If ethics research and scholarship were lucrative for

departments and schools, there is little question whether courses would be taught and research programs developed. Though research opportunities are now arising, they are largely limited to research on ethics in research—an important topic, but only one component of public health ethics. Furthermore, a research ethics researcher is not necessarily prepared to teach the full array of topics in public health ethics. The energies and resources of a department are more likely to be devoted to the acquisition of large grants not focusing on ethics that provide funds for faculty, staff, and students.

Even if there were adequate funding, though, one would find few faculty well informed in ethics who can teach the topic at a non-superficial level. Those able to teach ethics well find themselves in high demand for lectures and face the potential of becoming devoted principally to teaching. If they are unable to also conduct research and to publish, they are unlikely to succeed on a tenure track. To the degree that tenure attracts and keeps scholars at a university, this incentive may be less commonly available for building a curriculum in public health ethics.

Those who wish to pursue both tenure and ethics may have to develop a dual career: one for research on a traditional public health topic and the other for studying and teaching ethics. Success in either one of these careers alone is a substantial challenge. The combined task is less daunting, of course, if the research is wholly or in part about ethics. The point is worth reiterating, though, that the challenges in finding, hiring, and promoting faculty to teach ethics is a substantial barrier to preparing future public health professionals to think and act ethically.

RECOMMENDATIONS

If schools of public health are to teach ethics at a non-superficial level, they will first need to secure faculty with expertise in the topic. This will entail professional incentives such as promotion and tenure guidelines that value scholarship in ethics, even when it is not a faculty member's primary research area.

Efforts to raise the level of education and scholarship in public health ethics should not rest solely on the schools of public health. Research funds provided through the agencies of the PHS and through foundations can help make careers in research ethics more attractive to faculty, department chairs, and deans. Moreover, those providing funds can encourage the development of public health ethics beyond research ethics.

To ensure that ethics is taught, should it become a

required component of a public health curriculum? This same question is asked of many topics; the competition for time in required, core curricula is at times intense. From the student perspective, relentless increases in required components of a public health curriculum threaten time for valuable elective courses. Nonetheless, skills in ethical thinking and practice are among the most essential skills for a public health professional. The barriers to teaching ethics in schools of public health are substantial enough that if not required, there is a real chance that ethics will not be taught in any meaningful way.

Requiring ethics instruction in the curriculum does not lead automatically to the creation of a free-standing course. There are, in fact, some dangers in creating a required course in ethics. A free-standing course bearing the title of ethics can unintentionally convey the notion that ethics stands apart from other topics in public health, as opposed to the notion that it permeates every topic. Conversely, sometimes ethics teaching is best received when it is not billed as ethics. For example, a course may include instruction in how to interact with community members and thus communicate the importance of community input without appealing to it explicitly as an ethical principle.

There are also dangers in not creating a free-standing course in ethics. In the absence of a required course, individual courses are likely to include an ethics lecture or two. Unless there is some coordination among the courses doing this, they are likely to cover similar material. Over the course of a degree program, a student may thus sit through three lectures on the Tuskegee study of syphilis or the functions of an IRB, but never learn to reason through tensions between individual interests and the good of the community or how to avoid unethical conflicts of interest. An uncoordinated ethics curriculum can easily be neither broad nor deep; it can be an inch wide and an inch deep.

Whether a school chooses to create a free-standing course or to integrate ethics throughout the curriculum, a critical first step is identifying the core competencies to be acquired by students. This step is closely related to identification of the goals of teaching ethics, mentioned above. The components of basic information and practical skills listed there may serve as a starting point for further discussion about the necessary elements of teaching on public health ethics. Once the core competencies are identified, a curriculum committee can ensure that they are covered within the required courses, regardless of whether a topic is labeled as ethics when it is taught. To make ethics education available to those who have already completed their degree in public health, or those public health practitioners who never acquired a degree, continuing education and on-line courses can be developed.

Finally, it must be emphasized that ethics is most stale and irrelevant when it is solely academic. Ethics is something less than ethics when theory is divorced from practice. Putting ethics into practice in a school of public health needs to occur in at least three ways. First, ethics should not be limited to a list of rules and regulations. Although these often represent the encoding of the ethical values of an institution, they are seldom adequate to address all situations and they will never obviate the need for individuals and groups to have skills in reasoning through ethical conundrums. Second, classroom teaching on ethics should be linked to practical, real life situations. Ideally, this might involve on site visits to various neighborhoods or discussions with study participants. To counter the dehumanizing potential of a population perspective, mentioned above, public health students need to interact with individuals who are most affected by a particular ethical decision. And finally, the practice of ethics by the faculty, administrators, and staff of the school of public health will be the loudest message the students hear. If they see official interactions with the community, other institutions, or individuals that are contrary to the lessons taught in the classroom, the academic lessons will carry little weight in the moral formation of the students. Instead, the contrast will breed cynicism and the replication by the students of the ethical standards they see lived out by their mentors and school.

SUMMARY

Ethics is an inescapable topic. Every discipline in public health has ethical implications and faces ethical problems. Regardless of whether ethics is taught explicitly, ethical values are communicated though teaching, mentoring, public health research and interventions, interactions between the school and other institutions, and more. If not taught explicitly, the accidental teaching of ethics is likely to be inconsistent and nonsystematic, and may perpetuate unethical actions. To promote ethical practices, and to prepare students for the multitude of ethical decisions they will confront, they must be taught ethics in an intentional way. The means by which this is done, whether in a free-standing course or integrated into the curriculum, is less important than the identification of competencies along with a system of ensuring that they are fully covered in the curriculum. To facilitate the teaching of ethics, schools need to institutionalize incentives for faculty to develop their interests in eth-

ics and their ability to teach the topic. For the teaching of ethics to be credible and vital to students, their education needs to include a practical component, most likely in the field, and schools of public health must live out a high ethical standard.

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