Ethics and Public Health: Forging a Strong Relationship

The field of bioethics arose in the late 1960s in response to the emerging ethical dilemmas of that era. The field for many years focused in general on the dilemmas generated by high-technology medicine rather than on issues of population health and the ethical problems of public health programs and regulations. The time has come to more fully integrate the ethical problems of public health into the field of public health and, at the same time, into the field of bioethics. Public health raises a number of moral problems that extend beyond the earlier boundaries of bioethics and require their own form of ethical analysis.

| Daniel Callahan, PhD, and Bruce Jennings, MD

WHEN THE FIELD OF BIOETHICS emerged in the late 1960s and early 1970s, it represented a significant broadening of medical ethics. It moved the subject beyond the doctor-patient relationship and medical professionalism into the new territory of, among other things, organ transplants, genetics, reproductive biology, and resource allocation. But little attention was paid by bioethics in its early years to the distinctive ethical problems inherent in public health. That is perhaps not surprising. Bioethics received its initial stimulus from the abuses of human subjects research, the emergence of the patients' rights movement, and the drama of high-technology medicine. That focus on technology has continued, as has a lack of thoroughgoing engagement with issues of social and economic inequality, which have been staples of attention in public health since the 19th century.

In early bioethics, the good of the individual, and particularly his or her autonomy, was the dominant theme, not population health. The bioethics movement, moreover, shadowed the rapid expansion of the biomedical research enterprise, first in the search for cures through better biological understanding and technological innovation and then in the ensuing struggle over issues of equitable access as the cost of health care steadily rose. Meanwhile, the field of public

health—though sporadically brought to public attention by the polio epidemics of the 1950s, by the smoking and lung cancer reports, and by the AIDS pandemic—was moved to the shadows to some extent by the drama of advances in biomedicine.

But the times are changing, as they should, and some fresh winds are blowing. The last decade or so has produced a much-needed resurgence of public visibility for public health. There are at least 2 reasons for this. One is the unwelcome reminder that infectious disease has not, in fact, been conquered. The second is the recognition that the health of populations is a function more of good public health measures and socioeconomic conditions than of biomedical advances, even though it is true that public health needs biomedicine to do its work fully, especially through disease screening programs and the biomedical techniques they require. This has long been a commonplace within the public health community, but it has been a neglected truth by most outside the field.

As the concern of health policymakers turns toward health outcomes, cost-effectiveness, and preventive measures throughout the life cycle (primary, secondary, and tertiary prevention), the field of public health is gaining increased public and legislative attention. Research!America, a leading advocacy group long fo-

cused on biomedical research advocacy, is now working with a strong coalition to promote health and disease prevention research, and many private foundations are giving such research a more conspicuous position on their agendas.

Of course, the prominence of public health has not displaced that of biomedicine, which, during this same period, has had the Human Genome Project, among other things, to sustain it. Nonetheless, public health is once more a force to be reckoned with, and it is increasingly apparent that public health must contribute to the definition of the ends as well as the means of health policy. It is hard to overestimate the chastening effect that HIV/AIDS, multiple-drug-resistant tuberculosis, Lyme disease, and other serious infectious diseases have had on this development. Nor should we forget how much research in the field of public health has, since the 1960s, taught us about the looming challenges of health care in an aging society: chronic illness, high-risk health-related behavior, injuries, and the interaction between health and the environment.

As the field of public health becomes more prominent, so will the ethical issues associated with it.[1] As more teaching and research are done on ethics in public health, it is important to begin a focused conversation within the

field and between the field and others. What are the basic ethical issues of public health? What ethical orientations are most helpful in the clarification and resolution of these issues? How are ethical principles and concepts incorporated into decision making in public health agencies and programs? How adequately are the ethical dimensions of public health policy identified and debated? What are the chances for a fruitful collaboration between public health and bioethics, and what factors would be conducive to its success?

For its part, bioethics has become restless for change, and it is particularly looking for a value orientation that may bring it into closer proximity with public health. There has always been an undercurrent of resistance to the individualistic, autonomy-driven mainstream orientation within bioethics, and that orientation has held sway. And why not? In keeping with the cultural trends of the 1970s and 1980s, it has often brought together the political left and the market-oriented right in a celebration of choice and freedom. But the obvious need for universal health care, the persistence of racial and ethnic disparities in health status, and the importance of background social and economic factors have caught the eye of many.[2] A shift of direction in the field of bioethics was called for, and it has already begun. By the mid-1990s, increased interest in population health had emerged, the ethical dilemmas faced by public health programs were attracting attention, and courses on ethics and public health had begun to appear with greater frequency in the curriculum of schools of public health.

Although interest in public health and ethics has been present in the field for many years—

one thinks of the long-standing concern among epidemiologists—those in the field of public health seem to welcome the growing interest among their colleagues in bioethics. There is a small but growing cadre of ethicists writing and teaching within the field of public health itself. In the 1980s, the American Public Health Association established a special primary interest group on bioethics, the Forum on Bioethics (now called the Forum on Ethics), that certainly facilitated the discussions and networking of public health ethics scholars.

The importance of ethics was recognized again in 1997, when the Centers for Disease Control and Prevention (CDC) established an ethics subcommittee of the Director's Advisory Committee. Ethical guidelines have been developed by the American College of Epidemiology and the American Statistical Association. Most recently, a work group of the Public Health Leadership Society established a group to develop a code of ethics for the field, and the Association of Schools of Public Health (ASPH) initiated a curriculum development project designed to advance the teaching of ethics in public health.

The interest in ethics and public health is clearly there, and the question now is how to bring it to maturity so that it can make the most helpful contributions. The benefits can and should run in 2 directions, toward illuminating some important problems in public health and enriching and expanding bioethics. Still, it is fair to say that there are some significant obstacles to such a dialogue. We have already alluded to one such obstacle, namely, the difference between the individualistic orientation of bioethics and the population and societal focus of public health. This is not so

much an intrinsic difference between the 2 fields as it is a difference between the perspectives of the public health and policy world, on the one hand, and the world of clinical medicine (in which bioethics has principally operated), on the other.

More difficult will be the tension produced by the predominant orientation in favor of civil liberties and individual autonomy that one finds in bioethics, as opposed to the utilitarian, paternalistic, and communitarian orientations that have marked the field of public health throughout its history.[3] The ethical and policy issues concerning, for example, HIV and multidrug-resistant tuberculosis already have thrust public health ethics into the thick of this clash of values. And, if the issue of paternalism (limiting the freedom of the individual for the sake of his or her own greater good or best interests) were not enough, the cognate clash between individualistic civil liberties and a communitarian orientation (limiting the freedom of the individual for the sake of the common good or public interest) will also provoke lively discussion.

Neither of these conflicts are intractable, however. Beginning with the civil libertarian concerns of the AIDS epidemic in the 1980s, a rights-based orientation has made a strong mark, occasioning some important struggles about the relationship between individual and society and seeking better ways to balance community health needs and individual rights. Moreover, the international human rights framework, which has been given serious consideration in public health by Jonathan Mann, Lawrence Gostin, Sophia Gruskin, and others, is one potential path of synthesis among these conflicting ethical perspectives, and other frameworks described

later in this commentary, such as the analytic and critical ethical frameworks, may be able to come to the same resolution as well.[4]

THE SCOPE OF PUBLIC HEALTH ETHICS

Just as public health is broad in its scope, the range of ethical issues in the field is uncommonly wide, encompassing ethics *in* public health as well as the ethics *of* public health. If ethics is understood to be a search for those values, virtues, and principles necessary for people to live together in peace, mutual respect, and justice, then there are few issues in public health that do not admit of an ethical perspective. To begin to map the scope of this broad terrain, 4 general categories of such issues should be noted: health promotion and disease prevention, risk reduction, epidemiological and other forms of public health research, and structural and socioeconomic disparities in health status.

Health Promotion and Disease Prevention

Programs designed to promote health and prevent disease and injury raise questions about the responsibility of individuals to live healthy lives; about the government's role in creating an environment in which individuals are able to exercise their health-related responsibility; about the role of government in coercing or influencing health-related behavior or in developing educational programs; about the use of incentives, economic or otherwise, to promote good health; and about the relative importance for society of pursuing good health, particularly in a culture that prizes autonomy and does not always look fondly on government intervention.[5]

Risk Reduction

Risks to the health of the public are many, and many methods are used to reduce or eliminate them.[6] Almost all can pose one or more ethical problems. The concept of risk itself is seemingly impossible to define in value-neutral terms and is inherently controversial. Even more ethically charged is the question of what level or degree of risk is socially acceptable to individuals and communities. Who should decide about that, and how should exposure to risk be distributed across the affected population?[7] Researchers in epidemiology are often reluctant to draw broad general conclusions from their data, but pressure from policymakers on public health professionals is often intense to provide a definitive recommendation or answer.

A significant debate in public health ethics is whether and to what extent the so-called "precautionary principle" should be followed. In essence, this principle places the burden of proof on those who would initiate risk to demonstrate that the benefits will outweigh the dangers and that the risk is rationally worth taking. There is, however, often an inconsistency in that those who propose the removal of risk find that the burden is on them to prove that their cause is worth spending money on.

Routine public health practice entails a number of interventions and policies designed to prevent harm to individuals and to lower health risks within the population. These include various forms of screening and testing of different age groups, many of which are legally mandatory and paternalistic or are administered in a way that does not follow the requirements of informed consent. Epidemiologic practice, especially when mandated by state laws, may not always follow appropriate ethical protocols on the rights of human subjects, and the collection of health information may sometimes put the public health practitioner in a position of possessing information that certain individuals (e.g., employers, insurance providers) might have an interest in knowing. The responsibilities of the public health researcher regarding individual notification and protection of personal privacy and confidentiality are not yet clearly set out as a matter of consensus within the profession. The experience with HIV/AIDS in the past 2 decades has shown how problematic it can be when public health officials seek to employ fairly standard practices such as contact tracing and partner notification to curb the spread of sexually transmitted diseases.[8,9]

Epidemiological and Other Public Health Research

Research with human subjects has been a central ethical problem for biomedicine for at least 100 years, but particularly since World War II. Yet, is the biomedical model—focused on individual informed consent and tightly regulated research with those at risk of exploitation—an appropriate model for public health, one that may either pose no medical or other risks to individuals or make consent impractical to gain in research encompassing large communities? And should the research standards used in the United States be exactly the same for research in other countries, particularly developing countries?

Structural and Socioeconomic Disparities

It has been known for many years that socioeconomic disparities have a major impact on health status. Equitable access to decent health care and reductions in health status disparities have been long-sought goals in American society but have not always been dealt with in the context of socioeconomic disparities. What is the appropriate role for the public health community in seeking greater justice in

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To some, for example, it is surprising and disturbing that more attention has not been paid by the public health community and in the ethics literature to ethical issues of occupational health and safety and to the ethical problems that arise when considering the health implications of environmental policy. These are 2 major areas in which the following of lines of inquiry on ethical and social value issues is likely to expose the need for far more attention to empirical research than public health specialists have yet provided. Finally, to what extent, if any, should the field adopt a politically partisan posture, taking a public stand on important policy issues and legislative initiatives?

TYPES OF ETHICAL ANALYSIS

While the preceding classification of broad issues by no means exhausts the possible categories of topics, it is sufficient to make evident that no single method of ethical analysis can be used for all of them (or even for the great

variety of subtopics involved with any of the particular issues). In our pluralistic society, numerous ethical perspectives coexist on matters of such widespread interest and importance as public health. Ethical analysis can be usefully divided into a number of different types, depending on the point of view and needs from which it originates. One or more of them might be appropriate for any specific ethical problem.

Professional Ethics

The study of professional ethics tends to seek out the values and standards that have been developed by the practitioners and leaders of a given profession over a long period of time and to identify those values that seem most salient and inherent in the profession itself. Applied to public health, this perspective entails identifying the central mission of the profession (e.g., protection and promotion of the health of all members of society) and building up a body of ethical principles and standards that would protect the trust and legitimacy the profession should maintain.

Applied Ethics

Another approach to public health ethics comes from the field that has emerged in recent years as applied or practical ethics. Bioethics is one area among others within this domain of ethics. The applied ethics perspective differs from the professional ethics perspective principally in that it adopts a point of view from outside the history and values of the profession. From this more general moral and social point of view, applied ethics seeks to devise general principles that can then be applied to real-world examples of professional conduct or decision making. These principles and their application are de-

signed to give professionals guidance and to provide those individuals affected by professional behavior, as well as the general public, with standards to use in assessing the professions. Thus, in applied ethics, there is a tendency to reason abstractly and to draw from general ethical theories rather than from the folkways and knowledge base of the professions. The emphasis tends to be on professional conduct rather than on the virtues of professional character.

Advocacy Ethics

If there is a characteristic ethical orientation within the field of public health today, it is probably less theoretical or academic than either professional ethics or applied ethics. While on occasion it can pose difficulties for civil servants, the ethical persuasion most lively in the field is a stance of advocacy for those social goals and reforms that public health professionals believe will enhance general health and well-being, especially among those least well off in society. Such advocacy is in keeping with the natural priorities of those who devote their careers to public health. It has a strong orientation toward equality and social justice. Much of the research and expertise in public health throughout its history has shown how social deprivation, inequality, poverty, and powerlessness are directly linked to poor health and the burden of disease. In recent years, a growing international movement in support of human rights has exerted an important influence on public health as well.

Critical Ethics

Finally, we would distinguish yet another possible perspective on ethics that could be directed toward the distinctive issues and

problems of public health. For want of a better term, we label it "critical ethics." In many ways, it attempts to combine the strengths of the other perspectives mentioned. Like professional ethics, it is historically informed and practically oriented toward the specific real-world and real-time problems of public health, but, like applied ethics, it brings larger social values and historical trends to bear in its understanding of the current situation of public health and the moral problems faced. These problems are not only the result of the behavior of certain disease organisms or particular individuals. They are also the result of institutional arrangements and prevailing structures of cultural attitudes and social power.

The perspective of critical ethics has much in common with the egalitarian and human rights–oriented discourse of advocacy ethics in public health. One possible advantage of critical ethics is its call for discussions of ethics and public health policy to be genuinely public or civic endeavors: not the advocacy of a well-intentioned elite on behalf of needy clients, but a search for forums and programs of meaningful participation, open deliberation, and civic problem solving and capacity building. Some of the best examples of public health practice, from this point of view, grow out of efforts to champion communities as places of mutual support, respect, and self-esteem, thereby reinforcing health-promoting behaviors among their individual members.

We submit that a rich discourse on ethics and public health cannot be advanced without relating it to the background values of the general society, and the particular communities, in which it will be carried out. Our Canadian neighbors in public

health have much more consciously attempted to relate public health and the sociopolitical values of that country's society.[10] It is one thing to say that public health rests on a communitarian foundation and quite another to determine how best to relate that foundation to our individualist culture, particularly in that members of this culture have been historically hostile toward government. The conflict, long endemic in our society, between the right of individuals to be left alone and the needs of the larger public does not make it easy to develop population-based health strategies that must, on occasion, ignore the special needs of individuals.

AN ETHICAL CODE?

The work of the Public Health Leadership Society in initiating a process to establish a code of ethics for public health is important. Where does a code of ethics fit into a broader confrontation with ethical issues? Most professions have a code, and of course many professionals in public health belong to one or another of such professions. Considering this, is there any need for an additional code for public health? There are at least 3 reasons to have a code. One of them is to respond to scandals in a field, aiming to ensure better future conduct. Some business and governmental codes of ethics had that aim as their origin. Another is to help establish the moral credibility of a field and its professional status and to provide principles to deal with common dilemmas. Such was the 19th-century origin of the code of ethics of the American Medical Association. Still another purpose is to provide a profession with a moral compass and to set forth

its ideals. Some professional codes, such as that of the American Bar Association, include a large number of concrete rules to deal with almost every kind of ethical problem.

This is not the place to discuss ethics codes in detail, but some general considerations are worth noting. Public health has rarely been attacked for a lack of professionalism or for scandals, and the field is unlikely to be attracted to a code similar to that of the American Bar Association. The greatest challenge in writing a code is to specify clearly the ideals of the field and then to specify some general guidelines that will be illuminating for the wide array of problems practitioners can encounter. Historically, many if not most professional codes have been written because of structural changes in a profession that have generated new ethical problems and made it necessary to shore up public confidence in the profession's integrity.

We believe that the integrity of the profession of public health is sound, but the changing situation of public health practice may be a good reason to more precisely specify the ethical obligations that those in the field take on when they become practitioners. Code developments and revisions, it might be noted, have often been most successful when they are accompanied by lengthy and strenuous debate engaging the entire professional community and not simply those with a special interest in ethics.

SCIENCE AND PUBLIC HEALTH ETHICS

Public health ethics and public health science are often connected. A good example is the ethics of public health decision making. Public health profession-als recommend preventive interventions that presumably will—on balance—benefit the public's health. Existing scientific evidence and, especially, its interpretation play important roles in these decisions.

What makes the ethics of decision making so difficult is the presence of scientific complexity and scientific uncertainty. The evidence used in making claims about disease causation and about the efficacy of preventive interventions typically arises from several sources: biological (laboratory) science, epidemiological and clinical sciences, and the social and behavioral sciences. Furthermore, the methods used to summarize evidence are more qualitative than quantitative. Making valid and reliable claims under those circumstances is difficult.[11] Public health decisions carry with them varying levels of empirical uncertainty. The extent to which the public's health ultimately benefits or does not benefit in the face of such uncertainty is not well established.

There are other ethical concerns that emerge from public health's strong connection to science. Research ethics provides many examples, such as scientific misconduct.[12] The choice of research topics is another. The values that determine where and how public health research dollars are spent have important ethical implications.

LAW AND ETHICS

Public health is one of the few professions that has, in many matters, legal power—in particular, the police power of the state—behind it.[13] It can, through use of the law, coerce citizens into behaving in some approved, healthy way: for example, by forcing immunization on their children, by restricting their right to smoke in public places, or by quarantining them to stop the spread of infectious disease. Public health also has the distinction, along with a few others—such as city management, public administration, and law enforcement—of being a profession in which many practitioners are government employees and officials. It thus has an obligation both toward government, which controls it, and toward the public that it serves.

Because of its public and governmental roles, public health has ethical problems unlike those of most other professions. The relationship between ethics and law is a long and tangled one, but it is safe to say that most public health laws and regulations have behind them an explicitly moral purpose: that of promoting and protecting the lives of citizens. Because the police power of the state is involved, however, a number of moral conflicts are generated. The tension between individual health and rights, on the one

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hand, and government obligations and population health, on the other, is an obvious instance of this kind of conflict. The economic and social impact on communities of public health measures, requiring some form of cost-benefit analysis, is another.

Health is an important human need, and good health is highly valued. But health is not the only need or good health the only value. Laws must always find ways of balancing various goods,

and the centrality of laws for the work of public health brings uncommon visibility to its actions and an uncommon need for public accountability.

POLITICS AND PUBLIC HEALTH

As public arguments over fluoridation or HIV disease amply demonstrate, public health measures can quickly become politicized. Political controversy is often treated as some kind of disaster for calm reflection and measured rationality. This is sometimes in fact the case, but given the governmental role of public health and its use of coercion for many purposes, politics is unavoidable and necessary. It is unavoidable because there is no way to stop the public from turning to legislatures or the courts to express their values and needs; nor should there be. Politics is a necessary component of public health, moreover, precisely in order to achieve public health policies and practices consistent with American traditions and values. Politics is the messy arena in which ultimate questions of the public good are worked out. Ethics, Aristotle wrote 2500 years ago, is a branch of politics—a shrewd insight—and it is surely true in this country that the most important moral struggles almost always end in the public arena.

Yet, there can be responsible and irresponsible politics. Public health can best serve the cause of responsible politics, even when it has a self-interested stake in the outcome, when it makes available good data, when it is sensitive to community sentiments, and when it makes clear by all of its actions that it is not (as the stereotype would have it)

just one more self-serving, distant government bureaucracy. Public health receives its money from the public, gains its legal powers from the public, and must be judged by the effectiveness of its service to the public. As long as this is kept clearly in mind, public health can survive the imposition of politics on its work and can, in fact, flourish.

CURRICULUM DEVELOPMENT

One crucial question toward which the preceding discussion points is how to promote a greater awareness and a more sustained, sophisticated discussion of ethical issues among public health practitioners and researchers themselves, as well as among the broader public. In any professional field, ethical sensitivity and discernment exist, to the extent that they exist, only if they begin early in the educational and socialization processes of the field and only if ethics is a discipline that is taken seriously both by the academic wing of the profession in its writing and teaching and by the practice wing of the profession in its conduct. In these respects, we reluctantly observe, the field of public health has an important opportunity for advancement. Ethics education has a university-based ("preservice") component and a workplace-based or continuing education ("in-service") component. Both are essential, and the in-service setting is particularly crucial in public health because so many practitioners receive their academic training in cognate fields.

The Teaching of Public Health Ethics

An obvious and crucial step to take is to promote the teaching

of ethics in all schools of public health in the United States. In the past decade, a handful of public health programs have integrated some ethics education into their course offerings, but not to the extent of their close neighbors, medical and nursing schools. Much more needs to be done if there is going to be serious study and discussion of the myriad ethical issues arising in public health comparable to the impressive body of work achieved by medical ethics and bioethics.

In the first place, the teaching of ethics in public health is still quite limited. In a 1999 study, 24 schools of public health were surveyed to assess their formal ethics instruction. Only 8 schools required course work in ethics, and only 1 school required it of all students. Fourteen more schools offered an elective course. Many schools had occasional ethics lectures and symposia.[14,15] This means that a significant percentage of each graduating class at the master's level has not been exposed to a systematic and sustained analysis of ethical issues in the field, led by a faculty member with sufficient training in ethics.

Moreover, a review of syllabi collected through an ASPH-conducted project revealed that most of the courses listed in the curricula of schools of public health are in fact primarily courses in medical ethics. While it is beneficial for members of the public health community to be aware of bioethical issues, it is even more important to isolate those practice and policy issues that are distinctive to public health or that set up a balance between the interests of health care consumers and the public health objectives of the society as a whole. In a number of cases, the teaching of

ethics in public health is not, strictly speaking, public health ethics but rather some generic offering of bioethics with one or two public health topics salted in. Such courses will introduce students of public health to the rudiments of ethical reasoning but will do little to advance ethical solutions to dilemmas that arise in public health practice. Of course, there are prominent exceptions to this general observation, but their example has not been widely followed.

Why has more not been done? The fact is that the teaching of ethics in any professional school is controversial, intellectually difficult, institutionally challenging, and expensive. (The same is true for ethics education in in-service settings.) Nonetheless, there are good reasons why ethics in public health can and should be taught.

The teaching of ethics is controversial primarily because the dominant ethos of most professions is empiricist, quantitative, and oriented toward precise, definitive solutions to discrete problems. This often does not comport well with the intellectual characteristics of ethical analysis, which focus on the multifaceted nature of problems—the difficulty in finding definitive solutions to problems that take complex forms as analogies, narratives, or dilemmas—and on the qualitative and interpretative character of moral judgment in contrast to the quantitative knowledge that carries legitimacy in most professional fields. In public health there is an opening for the teaching of ethics in part because it has been so well accepted in medicine, which still exerts a powerful influence in the field of public health, and in part because public health is itself a multidisciplinary field. Although

there are certainly strongly quantitative elements present in public health, there is also a substantial influence from history, law, and the social sciences, areas in which qualitative reasoning akin to ethics is well regarded.

Beyond these academic considerations, however, support for the teaching of ethics in many fields has come from students themselves, on the one side, and from practitioners, on the other. Students want to engage the value and social issues of their chosen profession and not merely its most technical aspects. For their part, practitioners well recognize the inevitability of the ethical quandaries in the world beyond graduate preparation. They need and expect young professionals to emerge from their training with more than technical information and intelligence. They want precisely the kinds of reasoning ability and capacity for judgment that ethics education, properly conducted, provides. There is no reason why the combined forces of student interest and the practice needs of the profession should not succeed in prompting the addition of ethics to the public health curriculum as well.

The teaching of ethics in schools of public health will be intellectually challenging for many of the reasons we have reviewed here. The field is not well unified and does not have a clear consciousness of itself as a profession. The conceptual and intellectual framework necessary to develop a public health ethics is not yet in place. In consequence, the academic qualifications appropriate for faculty in public health ethics and a solid body of written work for students to study are lacking. Rarely will existing faculty in schools of public

health step forward to teach a course in ethics. Qualified people will have to be brought in from the outside or recruited from other faculties within the university. Those who have been teaching bioethics in medical school or at the undergraduate level will find that a substantially new and different course should be created for public health students.

Institutionally, any change in an already crowded and overtaxed curriculum is difficult. Qualified faculty must be put in place, and that costs money. Ethics faculty may not be able to bring in the kinds of research grants that scholars in other disciplines can generate. Moreover, if space is to be made for ethics, some other work may have to give way. The advance of biomedical science is unrelenting; arguably, subjects such as genetics need much more attention in the public health curriculum than they have had before. The same could be said for economics or health services research.

If a case is to be made for giving time to ethics in a crowded scientific curriculum, it must be made on the basis of a conception of the profession that is richer than the mastery of technical knowledge and skills. It also must be made on the basis of a conception of the qualities and abilities that a public health professional should possess if he or she is to be truly educated toward public service: sound judgment, ability to recognize and analyze ethical issues, tolerance for ambiguity, and capacity for a moral imagination with which seemingly isolated issues or events can be placed in a broader context of human experience and value. These are educational goals worthy of an attempt to overcome whatever

institutional or financial challenges curriculum innovation in public health may require.

Continuing Ethics Education

Another step that can be taken to encourage better discussion of and sensitivity toward ethical issues in public health is to promote, insofar as is practical, continuing education materials and

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programs for public health practitioners in the field. Because the profession is so dispersed in its work—from employment in private managed care organizations and clinics to international nongovernmental organizations and federal, state, and local agencies—it is difficult to know where to begin with this in-service ethics education effort. Perhaps state departments of health would be as good a place as any to start. And university graduate schools of public health should do more to reach out to the practice community and support the development of in-service ethics programs.

RECOMMENDATIONS

To promote the discussion and advancement of ethics in public health, we offer the following recommendations.

1. *Leaders in public health should support the development of conferences and symposia on the theme of ethics and public health.* Creating these forums will encourage both scholars and practitioners to turn their attention to original research and writing, will help to sharpen the issues, and

will attract the attention of scholars in other fields such as bioethics, history, sociology, and political science, encouraging them to undertake new work on topics relating to public health and public health ethics. The US Public Health Service, the surgeon general, and the CDC could take the lead in this effort. Such symposia could be sponsored and supported by federal and state agencies, schools of public health, the leading public health professional journals, and major foundations that have an abiding interest in the field of public health as a scientific and professional resource for the country.

2. *The editors of leading public health and bioethics journals should give high priority to accepting and soliciting rigorous work in public health ethics for publication.* This type of recognition will lead to the acceptance of work in public health ethics as valid scholarship within the field, and it will produce the reading materials that courses in public health ethics can use.

3. *Efforts should be undertaken to compile a set of case materials for ethics discussion and teaching.* These materials, in fact, have pedagogical uses that are not limited to ethics. They could be akin to the case studies developed by the Harvard Business School, and they should explore in detail the complexity of public health practice and the ethical issues that are embedded within it.

4. *The specific topic of ethical issues in public health research should be a focus.* This topic certainly deserves fresh attention, and it should be part of the current agenda for the various governmental and private bodies that oversee the human subjects research area. There is a tremendous resurgence of interest in re-search ethics in biomedicine across the board today, and epidemiological and public health research should be firmly included on that agenda as well.

5. *The accreditation process for schools of public health should involve an increase in ethics instruction requirements.* It may be premature to mandate that all students take required course work in ethics, but all schools of public health should give priority to ethics in their curriculum development planning. Ethics-related learning objectives could at least be incorporated into existing courses in the curriculum. This indirect approach should give way to more systematic instruction once the field has had time to develop the necessary faculty expertise and literature in ethics.

6. *As a profession, public health should develop continuing education requirements and make ethics prominent among them.* This type of initiative could start at the governmental level: anyone employed as a public health officer or professional should attend periodic programs designed to educate practitioners on ethical issues they face.

7. *Public health agency managers and supervisors at the federal, state, and local levels should be encouraged to provide the time and resources necessary for periodic in-service ethics sessions.* There is value in having in-service programs conducted at workplaces so that discussions can involve multidisciplinary and multilevel coworkers. With the right support and leadership, such sessions can create an atmosphere of trust and candor so that problems can be addressed and solutions sought. Those involved with similar programs in other professions have discov-ered that such sessions not only serve to provide education about ethics but also can improve working relations and morale.

8. *Scholars in the field of ethics should educate themselves about public health and develop a more sophisticated understanding of how ethical issues in public health might best be approached.* Throughout, all activities should run a strong and imaginative effort to better specify the nature and range of ethical issues and how they might best be analyzed. The field of public health ethics has great promise. Careful thought, blended with experience, will be necessary to fulfill that promise. Academics, practitioners, and ethicists within the field and those outside it should cooperate in this important endeavor. ■

About the Authors

The authors are with The Hastings Center, Garrison, NY. They are writing for members of the Hastings Center Project on Ethics and Public Health: Ronald Bayer, Columbia University School of Public Health; Allan Brandt, Harvard Medical School; Daniel Callahan, The Hastings Center, Ruth R. Faden, Johns Hopkins University; Lawrence O. Gostin, Georgetown University Law School and Johns Hopkins University; Bruce Jennings, The Hastings Center; Jeffrey Kahn, University of Minnesota; Jan Malcolm, Minnesota State Department of Health; Donald R. Mattison, March of Dimes; Thomas L. Milne, National Association of County and City Health Officials; Phillip Nieburg, Centers for Disease Control and Prevention; Margaret Pappaioanau, Centers for Disease Control and Prevention; Ann Robertson, University of Toronto; Dixie E. Snider, Centers for Disease Control and Prevention; Bonnie Steinbock, State University of New York at Albany; and Douglas L. Weed, National Cancer Institute.

Requests for reprints should be sent to Daniel Callahan, The Hastings Center, 21 Malcolm Gordon Dr, Garrison, NY 10524-555 (e-mail: callahan@thehastingscenter.org).

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Contributors

D. Callahan and B. Jennings both led the writing of this commentary.

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