Preparedness: Medical Ethics Versus Public Health Ethics

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Medical ethics generally applies to individual interactions between physicians and patients. Conversely, public health ethics typically applies to interactions between an agency or institution and a community or population. Four main principles underlie medical ethics: autonomy, nonmaleficence, beneficence, and justice. By contrast, public health ethical principles address issues such as interdependence, community trust, fundamentality, and justice. In large part because of the significant community-level effects of public health issues, medical ethics are suboptimal for assessing community-level public health interventions or plans—especially in the area of emergency preparedness. To be effective, as well as ethical, public health preparedness efforts must address all of the core principles of public health ethics.

KEY WORDS: emergency preparedness, medical ethics, public health ethics

Medical ethics as a discipline is nearly half-century old and its principles are generally applied to individual-level interactions between physicians and patients.[1] Consequently, central issues in medical ethics often include treatment questions, as well as regulating abuses of power between a powerful individual (usually a physician) and a vulnerable one (usually the patient).

By contrast, public health ethics is still in its relative infancy and typically applies to institutional actions or population-level interventions.[2] Public health ethics often addresses prevention questions and serves to regulate abuses of power between powerful institutions (eg, government agencies) and large groups of people, as well as to balance individual versus collective rights.

The respective ethical principles, like the respective foci of the two professions, are complementary. Physicians are essential for detecting, containing, and treating disease in individuals,[3] whereas public health professionals are responsible for community-level disease prevention and community recovery from emergencies. Both are essential for health.

● Medical Ethics and Population Health Contexts

Beauchamp and Childress[4] note that medical ethics typically rests on four primary principles: autonomy, nonmaleficence, beneficence, and justice.

Autonomy reflects the importance of self-governance for both physicians and patients. The patient should remain free from coercion by the physician—and the physician, except in emergencies, is free to choose whom to serve.

In a population setting, however, there may be a range of opinions regarding how coercive a particular policy or law related to community health might be. Some individuals may not agree with (or may even feel they will be harmed by) a community-wide policy or intervention. An often-cited example of this tension is

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immunization requirements for daycare and school entrance and attendance.[5] The courts have consistently upheld such requirements, with the initial decision remaining the most notable.[6,7] While immunization requirements often have associated opt-out provisions, other policies (eg, isolation and quarantine in the case of infectious diseases[8]) can be more difficult to avoid.

The medical ethics of nonmaleficence is best summarized by the principle "First do no harm." While doing no harm is also a goal for public health, it is difficult to enact a community-wide intervention without some feeling that they are being harmed. This is true, for example, with water fluoridation; some individuals may feel forced to ingest a chemical that they did not approve of being placed in the water supply.[9] Likewise, others have argued that the components of vaccines can be dangerous and do not wish to have them administered to their children.[10]

Beneficence is the corresponding positive injunction to act in ways that are beneficial for the patient. Medical ethics principles support this in various ways, including the dictum to provide competent care, respect the rights of the patient, safeguard patient information, and regard the responsibility to the patient as being paramount. While public health agrees with all of these principles, it is much more difficult to uniformly satisfy an entire population; what is good for the population may not necessarily be good for every individual within that population. The "ecologic fallacy" is one such term in public health that describes this dynamic tension.[11]

Justice can be defined in many ways but in medical ethics typically entails respecting individual rights and acting fairly in the distribution of limited resources to individual patients. These interpretations of justice are generally effective in navigating the usual types of issues that medical ethics addresses, such as determining whether patients have a right to refuse life-saving treatments. In public health, justice also deals in the issue of fairness, but it is more often seen in terms of fairness in the distribution of risks and benefits of interventions and policies as they are applied to population groups. One group should not bear a disproportionate burden of the risks. In accordance with this principle, a major goal of public health is to ensure that disparities in health conditions and health outcomes among subgroups of a population are minimized or eliminated, that is, the conditions necessary for health must be accessible to all.

● Public Health Ethics

Some of the key differences between medical ethics and public health ethics have been nicely outlined in a short course in public health ethics by James Thomas.[12] In medicine, the primary agent of ethical behavior is the clinician. In public health that role is assumed most often by a government agency; that organization (rather than the individual clinician) takes actions necessary for preventing the onset or transmission of infection or disease and is, therefore, responsible for the ethical conduct of its actions and for balancing the rights of the individual with those of the community it is charged to protect.[2]

The medical-ethical principles of the physician are explicit in describing the responsibility to the patient but rather more general in describing responsibilities toward the community.[1] By contrast, the types of situations that public health deals with focus *primarily* on communities and on institutional or population-level action, or else on individual restrictions *for the protection of communities*. These situations typically affect large groups of people at once; for example, protecting the community by restricting the liberties of an individual with infectious tuberculosis, or deciding to order closure of schools or workplaces during an influenza pandemic. Even voluntary isolation, quarantine, or social distancing recommendations have significant ethical implications. As a result, the principles of public health ethics look quite different than those underlying medical ethics.[2,12] The principles of public health ethics focus on areas as follows:

- *Interdependence*—achieving community health in a way that respects individual rights, while recognizing that the health of some often depends on the health of others.
- *Community trust*—developing and maintaining trust through communication, community participation and collaboration, transparency, keeping confidentiality as appropriate, cultural appropriateness, and obtaining the community's consent for interventions.
- *Fundamentality*—focusing on the underlying and primary causes of disease as well as the key requirements for healthy communities, including the physical and social environment.
- *Justice*—ensuring that the conditions necessary for health are accessible to all (population-level fairness), including the vulnerable and disenfranchised.

● Preparedness Considerations

Clearly, there are some areas of overlap between medical ethics and public health ethics. In the case of pandemic preparedness, for example, both sets of principles would look at the rights and autonomy of individuals, but public health ethics has a more explicit principle—interdependence—that prioritizes the community's well-being. Because public health's goal is to provide for the good of the community, its attention

is given first and foremost to that end, and respecting individual rights is done insofar as it is possible while minimizing harm to the community.

At the same time, emergency preparedness and response represents one scenario in which medical ethics explicitly expresses concern for the community in a manner not inconsistent with the public health interpretation of justice. For example, the AMA Code of Ethics clearly delineates physicians' ethical obligation to respond to and assist in emergency situations—"even in the face of greater than usual risks to their own safety, health or life"—as well as their responsibility to be adequately prepared to successfully undertake such a response.[13,14]

It is even possible to try to integrate medical ethics and public health ethics, such as when dealing with the ethical issues inherent in hospital preparedness for a pandemic or other public health emergency.[15] However, public health ethics are generally better suited than medical ethics for dealing with situations in which the potential exists for serious adverse outcomes on a community level or population scale—and this includes emergency preparedness.

The public health ethical principle of community trust and the public health interpretation of justice, while not as prominent in medical ethics, are particularly germane to emergency preparedness activities. As exemplified in the aftermath of hurricane Katrina, it is clear that vulnerable and disenfranchised communities disproportionately suffer during public health emergencies,[16,17] and that these inequities—which are incompatible with the public health ethical principle of justice—are exacerbated by the failure of adequate advance planning and community-appropriate response at all levels of the public health system. Indeed, the Planning Guide for State and Local Health Officials within the National Preparedness Plan refers to the community-level planning that is needed.[18,19] These scenarios cannot be adequately addressed by ethical constructs focused on individual-level care and response.

The principles of community trust and population-level justice in preparedness efforts are not only important in and of themselves but also essential to preserving trust in and credibility of public health authorities and, as a consequence, attending to these principles can significantly influence the actual effectiveness of preparedness plans. To adequately address these issues, the active engagement and participation of the affected communities—well in advance of the actual emergency event—is essential.[18,20–23]

Another ethical issue particular to pandemic preparedness is the fact that an influenza pandemic is, by definition, a global phenomenon, and thus the choice of responses in one location can clearly affect, either positively or adversely, the situation in other locations around the world. The World Health Organization has several documents summarizing their global discussion of public health issues related to pandemic preparedness.[24,25] This issue too, while not well addressed by medical ethics, is highly suited to public heath ethics through the principle of interdependence.

This principle of interdependence also leads public health practitioners to consider the social and economic consequences—in addition to the health consequences—of their emergency planning and response efforts. The report on the epidemic of severe acute respiratory syndrome in Toronto in 2003 highlights the importance of the role of the business community in the recovery of that city. This example of the interdependence of health with social and economic factors has no direct parallel within medical ethics.[26]

● Practical Approach

Using public health ethics as a foundation, Kass has developed a six-point framework for assessing "the ethics implications of proposed interventions, policy proposals, research initiatives, and programs."[27] Kass' six points, which would apply to emergency preparedness as well as to almost all other public health plans and interventions, are as follows.

1. What are the public health goals of the proposed program?
2. How effective is the program in achieving its stated goals?
3. What are the known or potential burdens of the program?
4. Can the burdens be minimized? Are there alternative approaches?
5. Is the program implemented fairly?
6. How can the benefits and burdens of a program be fairly balanced?

On the basis of public health (but not medical) ethics principles, at least two additional questions might be important when assessing the ethics of preparedness and other planning efforts:

1. Does the program focus on the fundamental causes of disease and on the key socioenvironmental requirements for a healthy community?
2. Has there been adequate community participation, collaboration, communication, and consent?

● Conclusions

While there are many points of overlap between the two, the primary differences between medical ethics and public health ethics stem from the differences in

the focus of each field. Because public health issues center on communities and their well-being, the principles of interdependence, fundamentality, and community involvement—relatively lacking in medical ethics—are of crucial importance to public health practitioners, as is public health's population-level interpretation of the principle of justice. Furthermore, public health emergencies represent situations in which there is real risk of death or serious harm for hundreds, thousands, or even millions of people. Thus, when compared with medical ethics, the principles of public health ethics are more appropriate and better suited to addressing, planning for, and responding to large-scale, catastrophic, or sustained emergency events.

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