Using the Code of Ethics in Crisis Management Involving Complex Political Environments: Determining Ventilator Allocation During an Influenza Pandemic

A L Melnick and R G Bernheim

This paper explores the use of an ethics framework based on the Public Health Code of Ethics to guide rationing decisions during a pandemic flu crisis involving a shortage of ventilators. While the law provides public health officials with authority to act, public health officials, as community leaders and health department managers, must address complex questions about how they should use their legal authority, how they can ethically justify a particular action, how they should engage community stakeholders in decision making, and how the process of public justification should take place. Recognising the need for a tool that could help public health officials manage ethical tensions in practice, such as allocation of scarce resources, the Public Health Leadership Society led efforts to develop a Public Health Code of Ethics. The 12 Principles in the Code were written to express the general norms implicit in the practice of public health professionals. The Code offers no hierarchical weighting of the different principles and anticipates that weights and specification of the principles would take place in the context of each community through a process of engagement between public health officials and community stakeholders about specific cases. We describe how public health officials can use the Code to guide deliberation in helping communities prepare to address the tragic choices when allocating scarce ventilators in an influenza pandemic.

The surge of patients requiring intensive care during an influenza pandemic will overwhelm the medical care capacity of many communities. During normal times, hospitals operate with a limited, yet adequate supply of equipment and critical care personnel trained in their use.[1] Under these conditions, ethical principles stressing the responsibility physicians have for improving the health of their individual patients guide physician practice. Societal health, while a concern, is secondary to the needs of each patient.[2] In contrast, during a pandemic, shortages of ventilators and other medical equipment could place physicians and other health professionals in conflict with each other when advocating care for their patients. Consequently, public health officials might be called on to help coordinate the allocation of scarce resources or to intervene to resolve tensions or conflicts about the allocation among health care institutions, stakeholder groups and citizens.

Like physicians, governmental public health officials are interested in improving the health of people they serve. However, governmental public health practice activities have unique features that medical codes of ethics do not address. In contrast to physicians, the foremost concern of public health practitioners is the health of entire communities. The health of particular individuals, while a significant concern, is sometimes secondary to the public good.[3]

To protect community health, governmental public health officials frequently use public health laws, regulations and policies based on police powers. The consideration of community health as primary and the use of police powers to enforce public health measures could sometimes place public health officials at odds with individuals in the community, including the physicians caring for them. Although public health law may tell public health officials what they can do, it does not give guidance regarding what they should do in specific situations, especially when balancing community concerns against individual liberties and

[1] J L Hick, L Rubinson, D T O'Laughlin and J C Farmer 'Clinical Review: Allocating Ventilators During Large-Scale Disasters - Problems, Planning, And Process' *Critical Care* 11 (2007) pp 217

[2] Ruth Gaare Bernheim and Alan Melnick 'Principled Leadership In Public Health: Integrating Ethics Into Practice And Management' *Journal of Public Health Management and Practice* (in press)

[3] Ruth Gaare Bernheim and Alan Melnick *ibid*

property rights. In many specific situations, legal authority may be ambiguous, leaving public health officials without clear guidance regarding actions they should take and requiring them to offer ethical justifications and reasons for their actions.

Regardless of where public health officials derive their authority, they must address questions about how they should use their legal authority, how they can ethically and morally justify a particular option, how they should engage community stakeholders, and how the process of public justification should take place. Given the World Health Organisation's definition of health as a state of complete physical, mental and social well-being, many organisations beyond government are involved in protecting the health of their communities.[4] Community stakeholders may include healthcare providers, hospitals, non-governmental organisations, schools, businesses and the media.

Public health officials should convene community-based discussions and coordinate the development of preparedness plans before the event, so that community partners understand the implications of decisions based on resource scarcity.[5]

Public health officials and their partners can consider several ethical principles in their deliberations, including utilitarian and egalitarian principles. Utilitarian principles, which strive to do the greatest good for the greatest number of people, include concepts of social utility and medical utility whereas egalitarian principles focus on concepts of equality and justice. Currently, hospitals and physicians use egalitarian principles in allocating ventilators on a first come/first served basis. In contrast, during a pandemic, when facing shortages of ventilators and other medical equipment, public health officials could request a state declaration of emergency from their state governors, giving them the responsibility for making decisions regarding allocation at the population level, using a utilitarian approach based on altered standards of care. However, this approach may be difficult without clear, common community guidelines, without protections for physicians concerned about legal liability, without partnership arrangements with hospitals and without addressing disparities in access for at-risk populations. In addition, a utilitarian approach may conflict with physician 'patient-centered' medical ethics and raise concerns among physicians about eroding the physician-patient relationship and trust.

Recognising the need for a tool that could help public health officials make decisions unique to them, members of the Public Health Leadership Society (PHLS) led efforts to develop the Public Health Code of Ethics (see box 1 opposite). Graduates of the National Public Health Leadership Institute, a federally-funded leadership development programme for senior public health officials in the United States, created the Public Health Leadership Society in 1993 to provide continuing education in leadership, as well as to provide consultation to their peers.[6] During the 2000 American Public Health Association town hall meeting, public health professionals from throughout the United States met with PHLS members, including representatives from local, state and federal government agencies and public health academic institutions to articulate professional norms and to provide input for the development of the Code of Ethics. Following the town hall meeting, PHLS members generated a draft Code, and in May 2001 presented the draft for review by 25 public health professionals and ethicists from across the country. Based on the review, PHLS presented the next revision for discussion at another town hall meeting at the 2001 APHA annual meeting. Before the meeting, PHLS published the Code on the APHA website, requesting input from a broad range of constituents. The current version of the Code, adopted by the American Public Health

[4] World Health Organization: Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19 June - 22 July 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organization, no. 2, p. 100) and entered into force on 7 April 1948.
[5] J L Hick and D T O'Laughlin 'Concept Of Operations For Triage Of Mechanical Ventilation In An Epidemic' *Academic Emergency Medicine* 13 (2006) pp 223–229
[6] Public Health Leadership Society Code of Ethics http://www.phls.org/home/section/3-26/, last accessed 11-April, 2008

Association and numerous other national and local organisations, was widely vetted and thus represents input from thousands of public health professionals and stakeholders throughout the United States.[7]

1 Public health should address principally the fundamental causes of disease and requirements for health, aiming to prevent adverse health outcomes.

2 Public health should achieve community health in a way that respects the rights of individuals in the community.

3 Public health policies, programs, and priorities should be developed and evaluated through processes that ensure an opportunity for input from community members.

4 Public health should advocate and work for the empowerment of disenfranchised community members, aiming to ensure that the basic resources and conditions necessary for health are accessible to all.

5 Public health should seek the information needed to implement effective policies and programs that protect and promote health.

6 Public health institutions should provide communities with the information they have that is needed for decisions on policies or programs and should obtain the community's consent for their implementation.

7 Public health institutions should act in a timely manner on the information they have within the resources and the mandate given to them by the public.

8 Public health programs and policies should incorporate a variety of approaches that anticipate and respect diverse values, beliefs, and cultures in the community.

9 Public health programs and policies should be implemented in a manner that most enhances the physical and social environment.

10 Public health institutions should protect the confidentiality of information that can bring harm to an individual or community if made public. Exceptions must be justified on the basis of the high likelihood of significant harm to the individual or others.

11 Public health institutions should ensure the professional competence of their employees.

12 Public health institutions and their employees should engage in collaborations and affiliations in ways that build the public's trust and the institution's effectiveness.

Box 1 The Public Health Code of Ethics[8]

The 12 Principles in the Code were written to express the general norms that provide a foundation for and an implicit social understanding about the responsibilities and conduct of the public health profession in the context of public health practice in the United States. The Code offers no hierarchical weighting of the different principles and anticipates that weights and specification of the principles would take place in the context of each community through a process of engagement between public health officials and community stakeholders about specific cases. Public health, like other professions, implicitly negotiates with society the terms of its relationship to satisfy the profession's interest in respect for its autonomy and specialised knowledge and society's interest in public service and accountability. The professional values and standards of conduct expressed in the Code for public health have emerged as widely shared norms from professionals based on their practice and experience, and the norms are expected to evolve over time as public health professionals refer to them when making and justifying particular actions with and for the public. In creating the Code, PHLS members and their partners recognised that decisions based solely on epidemiology or on public health legal authority do not always have the best outcomes. The use of ethical principles provides a framework for thinking through and justifying public health actions that acknowledges public

[7] *Ibid*
[8] *Ibid*

health officials are accountable to the communities they serve, and that public health officials cannot perform their work appropriately without the public's trust. Five of the 12 principles in the Code are particularly helpful for public health officials facing decisions regarding influenza pandemic ventilator allocation:

1 Public health should address principally the fundamental causes of disease and requirements for health, aiming to prevent adverse health outcomes Public health officials should consider convening a guideline development group to develop criteria for altered standards of care, including allocation and withdrawal of ventilators for individual patients. The group should involve experts such as infectious disease physicians, emergency physicians, critical care physicians, primary care physicians, public health physicians, epidemiologists and emergency providers in the development of guidelines.[9] By doing so, public health officials can help ensure that decisions related to ventilator allocation and withdrawal are based on objective criteria, such as organ system function, duration of benefit, duration of need and response to mechanical ventilation.[10] Such objective criteria can help ensure that ventilators are allocated or withdrawn from individual patients based on their likelihood of effectiveness rather than on subjective determination of the value of an individual's life.[11]

2 Public health policies, programs, and priorities should be developed and evaluated through processes that ensure an opportunity for input from community members An influenza pandemic will have regional impacts on demand for ventilators and trained personnel, well beyond individual institutions. Decisions related to regional ventilator allocation and treatment guidelines will therefore require participation from the entire community. Public health officials should consider convening a guideline review/ventilator distribution committee including elected officials, hospital representatives, faith representatives, nursing associations, medical associations, ethicists, minority organisations, the lay public and others.[12] Many public health agencies already have community advisory committees that can perform this function. Physicians will want community input on guideline criteria for ventilator allocation and withdrawal to ensure consistency, to reduce liability and to ensure that they will not have to defend their actions for each individual case.[13] By engaging the entire community, public health officials will increase the level of trust[14] in the use of the guidelines decisions during the pandemic.

3 Public health should advocate and work for the empowerment of disenfranchised community members Broad community involvement can ensure that the regional allocation of ventilators is based on the distribution of disease rather then the distribution of socioeconomic conditions and populations in the community and that public health has a particular interest in those members of a community that are underserved or marginalised.[15]

4 Public health institutions should provide communities with the information they have that is needed for decisions on policies or programs and should obtain the community's consent for their implementation Altered standards of care will guide ventilator allocation and withdrawal decisions during an influenza pandemic. Similar to individual treatment changes that rely on the principal of informed consent, community-wide changes in standards of practice should rely on the informed consent of the community. As in individual cases, community consent for altered standards of care before an event helps improve trust and cooperation during the pandemic.

---

[9] J L Hick and D T O'Laughlin 'Concept Of Operations For Triage Of Mechanical Ventilation In An Epidemic' *Academic Emergency Medicine* 13 (2006) pp 223–229

[10] J L Hick, L Rubinson, D T O'Laughlin and J C Farmer 'Clinical Review: Allocating Ventilators During Large-Scale Disasters - Problems, Planning, And Process' *Critical Care* 11 (2007)

[11] J L Hick, L Rubinson, D T O'Laughlin and J C Farmer *ibid*

[12] J L Hick and D T O'Laughlin *loc cit* 2006 pp 223–229

[13] J L Hick and D T O'Laughlin *loc cit* 2006

[14] Public Health Leadership Society Code of Ethics http://www.phls.org/home/section/3-26/, last accessed 11 April, 2008

[15] *ibid*

5 Public health institutions and their employees should engage in collaborations and affiliations in ways that build the public's trust and the institution's effectiveness Ventilator allocation and withdrawal is one of many decisions public health officials and their partners will need to make during a pandemic. Other decisions, such as social distancing measures, are also likely to place individual liberties at odds with community benefits. The public is more likely to trust public health officials and public health officials are more likely to be effective if the community understands that public health officials have acted on the basis of Ethical Principles in their Code of Ethics and considered the following three factors that are implicit in the Principles:[16]

- Whether the intervention is the least restrictive of individual rights
- Whether public health officials have attempted to reduce any negative effects of these restrictions, such as providing food and water for quarantined individuals, or providing directly observed therapy for tuberculosis in a confidential location with incentives
- Whether the burdens involved do not disproportionately affect a minority or otherwise vulnerable population.

The Value of a Professional Code of Ethics

The challenge of devising ventilator allocation plans for a pandemic flu demonstrates the need for and value of a Code of Ethics for public health practice. One potential benefit is that the Code clarifies the professional roles and ethical values of public health officials and provides an ethical foundation to which professionals can refer when communicating with the public and other public officials. Medical physicians have had a long-standing ethical tradition widely understood by patients and the public, which provides the foundation for the trusting relationship between physicians and patients. The public health code of ethics, in contrast, was created in recent years. The purpose, in part, was to strengthen the public health profession's identity and respect from the public, a process that also includes the development of professional competencies, credentialling, and accreditation.

The Code recognises that public health activities, including actions taken during a public health emergency, are not isolated, but rather take place within the day-to-day context of public health practice.[17] Central to public health practice is the ongoing nature of the relationship between the government public health officials and their community. This relationship is complex, with a history and both social and political aspects. From a social perspective, developing a strong relationship involves bridging many perspectives, languages, and cultures; whereas government public health officials are health professionals with scientific expertise, community members often have numerous and simultaneous memberships in diverse groups, families, cultures, and religions. From a political perspective, the relationship is even more complicated because of the legal authority of officials and power differences between public health officials and community members. Public health officials, for example, regulate some community stakeholders, such as restaurants. In addition, public health officials often have competing obligations; for instance, in an infectious disease outbreak there is a duty to protect the public and a duty to protect the confidentiality of individuals. Public health officials themselves have described the tensions implicit in the many roles they are expected to fill in practice such as regulators, managers, advocates, educators, mediators and negotiators. One study produced the following comments from public health officials: 'So, what captures more of a sense of our primary purpose, being a partner with the community, a public servant, or an employee of the government? You're in the middle, you're a bridge, you're a forced

[16] R G Bernheim, P Nieburg and R J Bonnie 'Ethics and the Practice of Public Health' in R A Goodman (ed), *Law in Public Health Practice* pp 128-131, 2nd ed Oxford, New York, Oxford University Press 2007

[17] J F Childress and R G Bernheim 'Public Health Ethics: Public Justification and Public Trust' *Bundesgesundheitsbl – Gesundheitsforsch – Gesundheitsschutz* 51(2) 2008 pp 158-163

ambassador, trying to make peace'.[18] As public executives, they also could be thought of as 'explorers commissioned by society' to search for ways to enhance the public good, and with this image, they are expected to use initiative and imagination.[19]

For whatever role public health officials are playing in biopreparedness activities, the Code of Ethics can provide an underlying ethical foundation not only to base and justify specific actions, but also to understand and frame their relationships with others. The Code calls for public health to take the initiative to develop relationships and strongly states that public health professionals 'should act,' 'should advocate for' and 'should engage.' In emergency biopreparedness, as in public health practice in general, relationship-building with and among community partners is not merely instrumental, but rather becomes the goal of much public health activity – eg, to forge consensus and/or acceptance about the ways the community will work together to allocate scarce resources. Commentators have suggested that '(B)uilding a community of stakeholders – educating and facilitating individuals and entities to see themselves as 'connected through health' is central to the professional identity of public health officials.'[20] The Code suggests that actively developing the civic infrastructure to cope with emergencies entails a creative social process with two-way dialogue and collective learning, including social learning by public health professionals themselves. Engaging the public 'in emergency planning provides ready access to 'citizens' wisdom' – lessons distilled from the life experiences of many and diverse people – on how best to tackle serious, unforeseen events.' [21] Consistent leadership by public health officials over time, grounded in principles such as those articulated in the Code, is essential to building community and deepening community trust.

Another contribution of the Public Health Code of Ethics is that it focuses attention on the public health agency as an organisation with internal structures, management practices, and systems that have a significant impact on the public health workforce and on the community members with whom they interact. In the United States, the Institute of Medicine reports in 1988 and 2002 called for the strengthening of federal, state, and local government agencies, and the Code includes five principles that do so by addressing the obligations of public health agencies. For instance, Principle 12 states: 'Public health institutions and their employees should engage in collaborations and affiliations in ways that build the public's trust and the institution's effectiveness.' An organisational ethics approach to biopreparedness issues, such as the allocation of scarce resources, draws attention to the role of seemingly unrelated public health workers and tasks. For instance, if public health restaurant inspectors have demonstrated competence and impartiality in their daily decision making over time, they have built the relationships of trust and mutual respect with community stakeholders that are essential for social cohesion and citizen acceptance of difficult allocation decisions in an emergency. The challenge for public health agencies is to identify specific ways to integrate the Code into organisational practices that are measurable, such as quality improvement processes, employee performance reviews, and agency accreditation standards.

Yet another value of the Code, especially relevant when communities confront tragic allocation choices in emergencies, is that it implicitly addresses the need of public health leaders and agencies for legitimacy. Legitimacy is described as 'a psychological property of an authority, institution, or social arrangement that leads those connected to it to believe that it is appropriate, proper, and just'.[22] Tyler cites research that shows people are not influenced simply by power, and that 'authorities and institutions are legitimated by the manner in which they make decisions and exercise authority'.[23] He suggests that legitimacy is derived

[18] R G Bernheim 'Public Health Ethics: The Voices of Practitioners' *The Journal of Law, Medicine, & Ethics* 31(4) Suppl (Winter 2003) pp 104-109, 107
[19] M H Moore *Creating Public Value* Cambridge, Mass. Harvard University Press 1995 p 299
[20] J F Childress and R G Bernheim 'Dunwody Commentary: Beyond the Liberal and Communitarian Impasse: A Framework and Vision for Public Health' *Florida Law Review* 55 (2003) pp 1191-1219, 1213
[21] M Schoch-Spana, C Franco, J B Nuzzo and C Usenza 'Community Engagement: Leadership Tool for Catastrophic Health Events' *Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science* 5(1) (2007) pp 8-25, 17
[22] Tyler, T R. Psychological Perspectives on Legitimacy and Legitimation. *Annual Review of Psychology* 57 (2006) pp 375-400
[23] Tyler, T R *loc cit* 2006 p 394

more from people's judgments about whether authorities use fair or ethical procedures and less from their judgments about the actual fairness or favorableness of the decisions. He notes the importance of legitimacy during periods of scarcity and conflict, and states: 'Because of legitimacy, people feel that they ought to defer to decisions and rules, following them voluntarily out of obligation rather than out of fear of punishment or anticipation of reward. Being legitimate is important to the success of authorities, institutions, and institutional arrangements, since it is difficult to exert influence over others based solely upon the possession and use of power.' [24] The Code of Ethics, taken as a whole, is an aspirational document, animated by respect for the public's essential role in achieving community health, and it thus fosters public health legitimacy.

While the Code does not provide guidance about specific ways to engage the community in planning to make ventilator allocation decisions, the Code implicitly suggests that the process is context-specific. Principle 8 states that public health should 'incorporate a variety of approaches that anticipate and respect diverse values, beliefs, and cultures in the community.' Public health professionals as managers can choose from among many options for public participation, including referenda, public hearings, public surveys, consensus conferences, citizens' juries/panels, citizen advisory committees and focus groups. In addition, each approach can use numerous tools, such as decision trees and case scenarios. While there is a vast literature describing these public participation approaches,[25] choosing the appropriate method can be a challenge because of the limited usefulness of evaluation data, due to 'the variety of ways in which any one method is applied, plus the mediating effects of social and environmental factors….'[26] To decide, public health professionals should consider numerous contextual factors, such as the quality of relationships and trust within the community, the strength of social networks, the expectations for and history of dialogue in the community, etc. Even this decision about how best to engage the public depends then, in large part, on the nature of the on-going relationships of trust developed over time through principle-based public health leadership. The Code of Ethics provides a statement of principles for this type of leadership. The Code can be used not only as a tool for deliberations, but also to create the spirit of principled leadership, organisational ethics, and civic engagement that permeates day-to-day community action over time.

In summary, the Code of Ethics, as an expression of general norms underlying the professional practice of public health in the United States, provides a framework to address the ethical tensions arising during an emergency when unusual or unanticipated conditions may require prompt actions out of the ordinary. Such prompt actions require a context of trust, and an important aspect of the Code is that it implicitly establishes an on-going process of consultation with and partnerships and alliances with community members over time to create that foundation of trust. While the Code is a process-oriented set of principles, its guidelines invite specification of moral considerations, such as 'respecting the rights of individuals' and providing timely information to obtain consent, which must be understood and interpreted within particular community contexts. Given the values expressed throughout the Code, community consent would be obtained through a variety of approaches to public engagement: ensuring an opportunity for input from community members (Principle 3); seeking the information needed from community stakeholders to implement effective policies and programs (Principle 5); advocating and working for the empowerment of disenfranchised community members that would involve ensuring their voices were heard in decision making (Principle 4), and providing information to communities and engaging in collaborations and

---

[24] Tyler, T R Psychological Perspectives on Legitimacy and Legitimation. *Annual Review of Psychology* 57 (2006) pp 375-400

[25] M X Delli Carpini, F L Cook and L R Jacobs 'Public Deliberation, Discursive Participation, and Citizen Engagement: A Review of the Empirical Literature' *Annual Review of Political Science* 7 (2004) pp 315-44

[26] Rowe G and Frewer L J Public 'Participation Methods: A Framework for Evaluation' *Scence, Technology, & Human Values* 25 (2000) pp 3-29, 17-18 quotaton p 16

affiliations (Principles 6 and 12). The fundamental spirit of engagement over time with the community ultimately creates the public health legitimacy and public accountability necessary to 'anticipate and respect diverse values' (Principle 8) and address tragic allocation choices as they arise in an emergency.

Alan Melnick

Alan Melnick, MD, MPH, CPH, is the Health Officer for Clark, Cowlitz, Skamania and Wahkiakum Counties in Washington (US) and Associate Professor in the Department of Family Medicine and the Department of Public Health & Preventive Medicine at Oregon Health and Science University. Currently, he is a member of the National Board of Public Health Examiners, a member of the Community Level Health Promotion Study Section of the National Institutes of Health and a member of the Workforce Strategic Development Team and the International Public Health Workgroup of the National Association of County and City Health Officials. In addition, he is Co-Chair of the Public Health Code of Ethics Committee for the National Public Health Leadership Society.

Ruth Gaare Bernheim

Ruth Gaare Bernheim, JD, MPH, is Director of the Division of Public Health Policy and Practice and Master of Public Health Program, as well as Associate Director of the Institute for Practical Ethics and Public Life, at the University of Virginia. Ms Gaare Bernheim previously was on the faculty of Johns Hopkins School of Public Health and Johns Hopkins Bioethics Institute, where she served on the Johns Hopkins Hospital Ethics Committee and the Johns Hopkins Health Care Scientific and Benefits Assessment Committee. Currently she serves on the national board of the Association for Prevention Teaching and Research (APTR) and on the Virginia Department of Health State Pandemic Flu Advisory Committee. In addition, she is Co-Chair of the Public Health Code of Ethics Committee for the National Public Health Leadership Society.