Guest Editorial:
Public Health Ethics Theory:
Review and Path to Convergence

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INTRODUCTION

For over 100 years, the field of contemporary public health has existed to improve the health of communities and populations. As public health practitioners conduct their work—be it focused on preventing transmission of infectious diseases, or prevention of injury, or prevention of and cures for chronic conditions—ethical dimensions arise. Borrowing heavily from the ethical tools developed for research ethics and bioethics, the nascent field of public health ethics soon began to feel the limits of the clinical model and began creating different frameworks to guide its ethical challenges. Several public health ethics frameworks have been introduced since the late 1990s, ranging from extensions of principle-based models to human rights and social justice perspectives to those based on political philosophy. None has coalesced as the framework of choice in the discipline of public health. This paper examines several of the most-known frameworks of public health ethics for their common theoretical underpinnings and values, and suggests next steps toward the formulation of a single framework.

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THE EVOLUTION OF PUBLIC HEALTH ETHICS

It is impossible to read a paper about public health ethics without seeing the now familiar dilemma that traditional theories of clinical and bioethics are not transferrable directly to public health ethics. The major difficulties in translation stem from the fundamental differences between clinical and public health practice. Most saliently, clinical medicine has at its core the patient-provider relationship, while public health has at its core the responsibility for the health of the community. Clinicians see patients they know; public health practitioners intervene upon populations of unspecified individuals.

Other important differences exist between clinical and public health practice. Clinical medicine uses medical interventions to cure or treat existing illness, while public health practice uses primarily non-medical means (with the notable exception of immunization) such as policy and law, sanitation, the built environment, and behavioral health to prevent injury and disease and to promote health and wellness. In clinical medicine, a limited number of similarly clinically trained professions (e.g., physicians and nurses) deliver direct care, whereas in public health practice an increasingly diverse group of practitioners round out the effective team, including epidemiologists, statisticians, laboratorians, physicians, informaticians, economists, decision and behavioral scientists, and policymakers. This team produces what Marcel Verweij and Angus Dawson describe as a collective effort, usually via government, to bring about participation of the public. Both clinical and public health practice attend to justice, but the focus of justice in clinical medicine is usually faint and on distributive justice, or ensuring that there is enough for everyone entitled to care. In public health practice, the focus on justice emphasizes social justice, or rights to health care, and disparities in access and outcomes.

These characteristics differentiating clinical and public health practice lead to different ethical challenges and presumptions in the respective fields. The moral governance needed for public health did not translate directly from the principles of bioethics, as transmuted for research ethics in the 1940s and 1950s or clinical ethics in the 1960s and 1970s. In the 1980s, the early HIV/AIDS epidemic elucidated the inadequacy of clinical ethics to address pressing ethical challenges that straddled private and public life. This inadequacy led pioneering theorists such as Ronald Bayer et al., Ruth Faden and Nancy Kass, and Lawrence Gostin and William Curran to discuss ways to expand bioethics in the 1980s to include public health ethical concerns. In 1988, Dan Beauchamp foreshadowed the 2000s by bringing together health, equity, political philosophy, and democratic theory.
to root public health ethics as a balance of, as opposed to a struggle between, individual freedom and community well-being. Recognizing the broader need, scholars and public health practitioners began to put forward a variety of specific suggestions for ethical frameworks for public health in the 1990s.

To discuss the ethical framework of public health, it is critical to understand exactly what public health encompasses. Public health was defined by the Institute of Medicine in its landmark 1988 publication, *The Future of Public Health*, as “what we, as a society, do collectively to assure the conditions in which people can be healthy.” A more delimited definition was proffered by John Last in the *The Dictionary of Public Health*, stating, “Public health is an organized activity of society to promote, protect, improve, and, when necessary, restore the health of individuals, specified groups, or the entire population.” The American Public Health Association outlined the 10 essential functions of public health deemed necessary for effective performance (see Table 1). With such broad conceptions of the field, it is not surprising that many approaches and theories for public health ethics have developed over the past decade and a half.

**Table 1**

*American Public Health Association, “10 Essential Public Health Services,” 2010*

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<tr>
<td>1.</td>
<td><strong>Monitor</strong> health status to identify community health problems.</td>
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<td>2.</td>
<td><strong>Diagnose and investigate</strong> health problems and health hazards in the community.</td>
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<td>3.</td>
<td><strong>Inform, educate, and empower</strong> people about health issues.</td>
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<td>4.</td>
<td><strong>Mobilize</strong> community partnerships to identify and solve health problems.</td>
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<td>5.</td>
<td><strong>Develop policies and plans</strong> that support individual and community health efforts.</td>
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<td>6.</td>
<td><strong>Enforce</strong> laws and regulations that protect health and ensure safety.</td>
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<td>7.</td>
<td><strong>Link</strong> people to needed personal health services and assure the provision of health care when otherwise unavailable.</td>
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<td>8.</td>
<td><strong>Assure</strong> a competent public health and personal healthcare workforce.</td>
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<td>9.</td>
<td><strong>Evaluate</strong> effectiveness, accessibility, and quality of personal and population-based health services.</td>
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<tr>
<td>10.</td>
<td><strong>Research</strong> for new insights and innovative solutions to health problems.</td>
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Some have suggested a complete departure from the clinical ethics approach, while others suggested borrowing heavily on the longstanding successful biomedical model. The field of public health ethics continues to grow with an increasing number of publications on the topic, a widening
array of ideas of how to deal with the unique ethical needs and features of public health practice, and the founding of journals devoted to the topic of public health ethics (quite separate from bioethics) where these ideas can be exchanged in the peer reviewed literature. Developers of public health ethics frameworks have outlined the need for models separate from bioethics. Interestingly, new developments in bioethics have called for incorporating principles of public health ethics, especially those that recognize the health needs of the population\textsuperscript{12}; the merit of pluralistic values such as equity, reciprocity, and the common good\textsuperscript{13}; and evidence-based decision-making.\textsuperscript{14}

THE BASICS OF BIOETHICS

Contemporary biomedical ethics, or bioethics, operates in large part by the practical application of four principles considered in the relationship between the health care provider and the individual patient. These four principles—autonomy, beneficence, nonmaleficence, and justice—were outlined by Tom Beauchamp and James Childress\textsuperscript{15} in the 1970s. Although not without critics,\textsuperscript{16-18} this “principles approach” remains the mainstay of hospital ethics committees worldwide. Clinical bioethicists consider these principles to have \textit{prima facie} status, which describes an obligation that is to be fulfilled unless it conflicts with an equal or stronger obligation. Clinicians must identify the relevant principles, weigh them against the concerns of a case, and justify their clinical decisions and recommendations based on the totality of the weighted principles vis-a-vis the best interest of the patient.

During the latter half of the 20\textsuperscript{th} century, autonomy became and remains the supreme value in clinical care in the United States and in much of the developed world. Beneficence, or the set of actions intended to benefit others, lost its primacy, and providers were forced to open their previously unquestioned goodwill to the scrutiny (and sometimes challenge) of interested patients.\textsuperscript{19} It was no longer enough for a physician to provide a set of instructions, say to take a medication and rest, based on what he felt was best based on years of training and experience (beneficence). Patients wanted to know what the medication was, its risks, if it was the only option, what other treatment alternatives there were, and often had suggestions of their own (autonomy). The perception of autonomy as the prevailing principle rose from the convergence of a number of changes in the social and medical milieu,\textsuperscript{19} but ethical theory continues to hold it in \textit{prima facie} equivalence with beneficence, nonmaleficence, and justice.\textsuperscript{15}
A REVIEW OF SELECTED SUGGESTED FRAMEWORKS FOR PUBLIC HEALTH ETHICS

Here, 13 public health ethics frameworks are reviewed (see Table 2). These were selected due to their prominence in the field, impact on the development of other theories, or novelty in approach. For purposes of this paper, I have divided them into two categories: (1) those frameworks that are practice-based, or appear to have developed from the observations of the needs of public health practitioners and that cite few or a mix of philosophical bases; and (2) those that are theory-based, or appear to have grown from a specific philosophy, ethical or otherwise, and attempt to stay true to that philosophy in applying the framework to public health practice, science, and decision-making. I have outlined three specific characteristics of each framework. First, where applicable, I outline the theoretical underpinnings that drive the framework. For the practice-based frameworks, these underpinnings might be drawn from several (or no) schools of ethical thought. For the theory-based frameworks, there is at least (and usually) one philosophical approach. Second, I examine the underlying assumptions, beliefs, or perspectives upon which the framework is built; I call these the foundational values of the framework. Third, I outline the expectations or actions of the framework—what it is designed to help public health practitioners do. I call these the operating principles of the framework. These three ideas might be labeled something other than underpinnings, values, and operating principles in the original frameworks, but note the definition of the terms here. Upon review of the primary frameworks available to date, I will examine the similarities and gaps in values and principles and analyze whether the field is close enough in its thinking to move toward a convergent approach.

Practice-Based Frameworks

Practice-based frameworks for public health ethics emerged from the observation that ethical frameworks used in clinical settings were inadequate for resolving ethical dilemmas faced by public health practitioners. Stemming primarily from principle-based bioethics frameworks, these approaches outline foundational values and provide operating principles that direct a course of thoughtful action (or series of considerations) for practitioners faced with ethical quandaries in the public health sphere. Practice-based frameworks do not attempt to provide a comprehensive philosophical approach; however, they do derive in part from implicit or explicit normative perspectives.
Table 2

*Public Health Ethics Frameworks, 1996-2010*

<table>
<thead>
<tr>
<th>Author, Citation</th>
<th>Philosophical Underpinning</th>
<th>Foundational Value(s)</th>
<th>Operating Principle(s)</th>
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<tbody>
<tr>
<td><strong>Practice-based frameworks</strong></td>
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<tr>
<td>Kass NE. 2001.</td>
<td>Empirical • Bioethics • Research ethics</td>
<td>-Negative right to noninterference -Positive right or obligation to improve the public’s health -Social justice</td>
<td>-Minimal interference for improvement of population health -Obligation to reduce inequities -Reducing harms &amp; burdens -Providing evidence of benefits</td>
</tr>
<tr>
<td>Childress JR, et al. 2002.</td>
<td>Empirical • Human rights • Works with several philosophical approaches</td>
<td>-Producing benefits -Preventing, removing harms -Producing maximal balance of benefits to harms -Distributing burdens &amp; benefits -Ensuring participation -Respecting autonomy -Protecting confidentiality -Keeping commitments -Disclosing information truthfully -Building &amp; maintaining trust</td>
<td>-Effectiveness -Proportionality: benefits must outweigh the infringement -Necessity: ensuring that any infringement is necessary -Least infringement: only the least possible infringement on autonomy is justified -Public justification: transparency &amp; accountability require public explanation of infringement</td>
</tr>
<tr>
<td>Source</td>
<td>Study Type</td>
<td>Empirical Evidence</td>
<td>Values</td>
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</table>
| Thompson AK, et al. 2006.23     | Empirical  | • Applicable to public health emergency situations | - Duty to provide care  
- Equity  
- Individual liberty  
- Privacy  
- Proportionality  
- Protection from harm  
- Reciprocity  
- Solidarity  
- Stewardship  
- Trust | - Inclusiveness  
- Openness & transparency  
- Reasonableness  
- Responsiveness |
| Baum NM, et al. 2007.26         | Empirical  |                      | - Population-level utility  
- Evidence  
- Justice/fairness  
- Accountability  
- Costs/efficiencies  
- Political feasibility  
- Beneficence  
- Nonmaleficence  
- Autonomy | - Unmask normative assumptions and ethical tradeoffs explicitly  
- Add ethical value to economic analyses  
- Illuminate and clarify ethical considerations connected to policies or program decisions  
- Clarify limits of public health mission |
| Swain GR, Burns KA, Etkind P. 2008.27 | Empirical  |                      | - Interdependence  
- Community trust  
- Fundamentality  
- Justice | *From Kass’s model*:  
- Minimal interference for improvement of population health  
- Obligation to reduce inequities  
- Reducing harms & burdens  
- Providing evidence of benefits  
*Plus*:  
- Focus on fundamental causes of disease  
- Community participation, collaboration, communication, and consent |
<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Methodology</th>
<th>Principles</th>
<th>Justifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jaffe HW, Hope T. 2010</td>
<td>Empirical</td>
<td>- Respect for persons/autonomy&lt;br&gt;- Beneficence&lt;br&gt;- Nonmaleficence&lt;br&gt;- Justice</td>
<td>- Valid consent procedure&lt;br&gt;- Risk of harm to recipients is low or negligible&lt;br&gt;- Public health benefit cannot be produced by alternative means&lt;br&gt;- Public health benefit justifies risk to harm to individuals&lt;br&gt;- Data on harm collected to increase accuracy of risk and harm estimates&lt;br&gt;- Intervention is scrutinized by independent body</td>
</tr>
<tr>
<td>Mann JM. 1996</td>
<td>Human rights</td>
<td>- Human rights are critical determinants of health&lt;br&gt;- Basic minimum that governments should ensure for all persons in order to ensure health</td>
<td>- Health is contextual and more than medicine&lt;br&gt;- Public health practitioners must commit to linking human rights with public health</td>
</tr>
<tr>
<td>Roberts MJ, Reich MR. 2002</td>
<td>Ethics-of-care, Feminism, Consequentialism</td>
<td>- Caring relationships are not impartial, impersonal, or equal&lt;br&gt;- Relationships fundamentally unequal&lt;br&gt;- One cannot and should not care for all humans equally</td>
<td>- Caring roles are important part of life plan&lt;br&gt;- Support for the caring role is important for both the caregiver and society</td>
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<tr>
<td>Jennings B. 2007</td>
<td>Civic republicanism, Political philosophy</td>
<td>- Freedom&lt;br&gt;  • Life in the absence of arbitrary power&lt;br&gt;  • Relationships of mutuality &amp; reciprocity&lt;br&gt;- Respect diversity&lt;br&gt;- Civic virtue&lt;br&gt;- Concept of the ‘public’</td>
<td>- Tap into latent civic virtue&lt;br&gt;- Education</td>
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**Theory-Based Frameworks**
<table>
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<tr>
<th>Author(s)</th>
<th>Theory</th>
<th>Personalism Utilitarianism Kantian theories Communitarianism</th>
<th>-Autonomy -Confidentiality -Equity -Equal opportunity for health resources -Solidarity and sociality</th>
<th>-Respect for individual rights -Individual good is basis for common good -Cases exist where freedom must be sacrificed for the common good -Precaution principle (making temporary decisions based on available evidence, modifying with new evidence)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petrini C, Gainotti S. 2008</td>
<td>Personalism Utilitarianism Kantian theories Communitarianism</td>
<td>-Autonomy -Confidentiality -Equity -Equal opportunity for health resources -Solidarity and sociality</td>
<td>-Respect for individual rights -Individual good is basis for common good -Cases exist where freedom must be sacrificed for the common good -Precaution principle (making temporary decisions based on available evidence, modifying with new evidence)</td>
<td>-Reduce risks persons impose on each other -Use regulation to ensure environmental conditions that sustain good health -Attend to health of children and vulnerable persons -Provide programs that help make it easy for people to lead healthy lives -Ensure access to appropriate medical services -Reduce unfair health inequalities -Do not coerce adults -Minimize interventions that are introduced without some form of consent, individual, community or democratic decision-making -Minimize interventions that are perceived as intrusive or in conflict with important personal values</td>
</tr>
<tr>
<td>Nuffield Council on Bioethics. 2007</td>
<td>-Political liberalism -John Stuart Mill’s classic harm principle -Collectivism/community -Paternalism/libertarian paternalism</td>
<td>-Equality between citizens -Protection of individual freedom limits state authority -Social contract that state power may be used to advance welfare -Autonomy as self-governance -Health is important for a good life -Health is defined by individuals -Limiting liberty is acceptable only when purpose is to prevent harm to others -Third-party participation in public health delivery</td>
<td>-Reduce risks persons impose on each other -Use regulation to ensure environmental conditions that sustain good health -Attend to health of children and vulnerable persons -Provide programs that help make it easy for people to lead healthy lives -Ensure access to appropriate medical services -Reduce unfair health inequalities -Do not coerce adults -Minimize interventions that are introduced without some form of consent, individual, community or democratic decision-making -Minimize interventions that are perceived as intrusive or in conflict with important personal values</td>
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</tr>
<tr>
<td>Kenny NP, Sherwin SB, Baylis FE. 2010</td>
<td>Relational ethics</td>
<td>-Relational autonomy: persons are socially, politically, and economically situated -Relational social justice: fair access to social goods (rights, opportunities, power, self-respect) -Relational solidarity: attending to needs of all, especially vulnerable and systematically disadvantaged</td>
<td>-Transparency -Fairness -Inclusivity -Interconnectedness -Responsive to systemic inequalities</td>
<td>-Transparency -Fairness -Inclusivity -Interconnectedness -Responsive to systemic inequalities</td>
</tr>
</tbody>
</table>
One of the American pioneers of thinking about public health ethics as a discipline separate from bioethics or research ethics is Nancy Kass of Johns Hopkins University. She wrote one of the earliest suggested ethical frameworks for public health, published in the *American Journal of Public Health* in 2001. For the first time, a framework that focused on the practical nature of public health was outlined in a practitioner’s journal, aimed at public health professionals rather than philosophers. Kass, like others before and after her, discussed the inadequacy of the bioethics model to support the needs of public health ethics and proposed a framework (see Table 2) based on two key values—rights (both negative and positive) and social justice. She described several principles supporting what she termed “a code of restraint” balanced with the “affirmative obligation to improve the public’s health” and reduce health inequities. The key principles in the framework include ensuring the minimal level of interference to improve population health in order to preserve the negative rights of the citizenry, identifying and minimizing harms and burdens to the maximum extent possible while not greatly reducing program effectiveness, reducing social inequities and health disparities, and providing evidence of program benefits. Kass was one of the first to urge public health practitioners to engage in thoughtful ethical analysis using the framework in order to make us “meticulous in our reasoning, requiring us to advocate interventions on the basis of facts and not merely belief.”

James Childress et al. (including Kass), attempted to conceptualize the terrain of public health ethics as it existed in 2002. The authors outlined the quintessential problem for population medicine as it relates to clinical medicine. Three concepts of “public” undergird their belief that the bioethical model is a poor fit for public health ethics: the meaning of “public” as population; the execution of “public” health as an inherently governmental activity that must be well-rooted in moral reasoning expected by the public that the government represents; and third, the definition of “public” in its broadest sense to include all social action, both public and private, that affects health. The authors outlined three goals of public health, including production of benefits, prevention of harms, and maximization of utility. The general ethical and moral considerations for achieving these goals, they state, “[do] not entail a commitment to any particular theory or method. What we describe and propose is compatible with several approaches.” They list the following relevant moral considerations for deliberating about and justifying public health actions. Public health agents must produce benefits and prevent and remove harms. They must produce the best possible utility, that is, the optimal balance of benefits over harms. They must ensure fair distribution of burdens and benefits, ensure the public’s participation, and respect autonomy.
in choice and action. They must protect individual privacy and confidentiality, and keep promises. They must be transparent, that is, speak truthfully, and disclose information. Finally, they must build and maintain public trust. All of these values are considered *prima facie* and when one appears to become more important than another, the authors offer five conditions to be used to justify overriding one or more of the moral considerations.

In the same year, Ross Upshur, a Canadian physician, performed a literature review and reported the principles relevant to the ethical justification for public health interventions published to date. Upshur began by pointing out the substantive differences between clinical and public health practice, including the locus of “care” as the state versus the clinician, the focus on the community or population versus the individual, the lack of an analogous fiduciary role as that played by physicians, and the fact that populations are diverse and require pluralistic approaches to problem solving. He argued that a set of principles for public health professionals might be useful as they reflect on ethical issues, as the principles are heuristic in nature and serve to bring clarity to a broad range of decisions required in public health practice. These principles, he argued, would not represent a full articulation of a theory for public health ethics, rather they would relate to whether or when a particular public health action is justified. The principles are based on empirical observations of the needs of public health practitioners and their decision-making via a literature review. Upshur did not make explicit the underlying values of the principles, but within the description of each he intimates the importance of autonomy, nondiscrimination/social justice, social duty, honesty, and truthfulness. The four principles Upshur found in the literature in the early 2000s included the harm principle, the principle of least restrictive or coercive means, the reciprocity principle, and the transparency principle. The harm principle, stemming from the philosopher John Stuart Mill, was described by Upshur as the foundational principle and dictates that the only justification for imposing power over an individual member of society against his will is to prevent harm to others. The principle of least restrictive or coercive means dictates that despite the availability of a variety of methods to reach a public health goal, the first used must be that which restricts personal liberty the least. The reciprocity principle states that there is an obligation on the part of the public to comply with public health requests once they are warranted and an ethical decision for action has been made. Finally, the transparency principle requires stakeholder involvement in decision-making, as well as a clear and accountable process that is free of diversion by groups or persons with interfering special interests. Upshur called for integration of ethical reasoning into public health decision-making as well as evaluation of the utility of the principles outlined above.
In 2006, following the global SARS epidemic and while preparing for pandemic influenza, Upshur worked with colleagues in Toronto to further develop the ethical framework he proposed in 2002. Alison Thompson et al. proposed the more developed model in the context of pandemic preparedness and based the applied ethical framework on Norman Daniels’s framework of deliberative prioritization in health care. They outlined ten foundational values and five operating principles that should drive public health decision-making, especially in urgent or emergent circumstances. The values subsumed those intimated in Upshur’s earlier formulation and included others that pertain to public health emergencies.

The ten values made explicit in the 2006 framework were the following:
1. the duty to provide care, which requires health professionals to respond to those suffering;
2. equity, which ensures that, all else equal, all persons have equal claim to care;
3. individual liberty, which requires respect for personal autonomy and limiting restrictions on individual liberty to the extent possible;
4. privacy, which emphasizes the need to respect the privacy of individuals by allowing disclosure of private identifiable information only when there is no less intrusive means to protect public health;
5. proportionality, which requires that any restrictions to liberty do not exceed that which is necessary to the level of risk or need of the community;
6. protection from harm, which is public health ethic’s foundational principle—the obligation to protect the public from serious harm;
7. reciprocity, which requires the public to comply with legitimate public health measures to support those who face a disproportionate burden;
8. solidarity, which emphasizes the need for systematic collaboration across institutional boundaries to support public health measures;
9. stewardship, which requires those entrusted with governance of limited resources to act in a trustworthy and ethical manner; and
10. trust, which is an overriding component at all levels of the health system and takes time to build with various stakeholders.

The five operating principles of ethical decision-making outlined in the 2006 framework included the following:
1. accountability, which requires that a mechanism be in place to ensure that ethical decision-making is in place;
2. inclusiveness, which recommends that decisions are made with affected stakeholder views under consideration;
3. openness and transparency, which means that all decisions should be defensible and open to scrutiny, as well as actively communicated in advance to affected stakeholders;
4. reasonableness, which requires that decisions be evidence-based and that stakeholders agree on which principles and values are relevant to the decisions; and
5. responsiveness, which allows for opportunities to revisit and revise decisions when new information presents itself and requires that a formal mechanism be devised so stakeholders can express concerns during the implementation of any process. Strong leadership from the highest levels and frequent and early engagement of stakeholders are keys to success in implementing this ethical decision-making process.

By 2007, the inadequacy of the autonomy-focused bioethics approach as applied to the population and community-focused field of public health was considered common knowledge in the field. Nancy Baum et al.26 examined this concept and outlined a framework to address various ethical challenges faced by public health practitioners and policymakers. The foundational values included six primary drivers (population-level utility, evidence, justice/fairness, accountability, costs/efficiencies, and political feasibility) and three secondary drivers (beneficence, nonmaleficence, and autonomy). The secondary drivers are familiar in the bioethics framework, but play a less important role in public health ethics. The authors outlined several important justifications for public health practitioners to spend time and effort on ethical clarification and offer their framework as a tool to assist in this endeavor. They believe that clarifying the ethical foundation of practitioners’ decisions adds value to their work for a number of reasons, including transparency, or ensuring an unmasking of normative assumptions and ethical tradeoffs at stake so persons involved and affected can observe and participate in the discussion. Additionally, they suggested that clarification of ethical components of decisions helps justify and balance pure economic analyses. Simply basing decisions on economic benefit shortchanges the public, and a transparent ethical analysis aids with the analysis. The authors also suggested that clarifying the ethical considerations related to public health policies helps elucidate the limits of public health interventions and delineates the breadth and scope of public health mission. This, in turn, helps identify the limits of imposition of public health policy on individual liberty. The primary focus of the framework was to present a set of practical considerations that can assist public health practitioners and policymakers in day-to-day practice that tied more closely public health ethics and public health policy.
Geoffrey Swain et al. returned to the topic of public health ethics in the context of preparedness in 2008, reviewing the different underlying values of medical and public health ethics and their application to public health preparedness.27 The model suggested using underlying values based on those outlined by James Thomas,28 which include interdependence, or achieving health in a way that respects individuals while recognizing that health often depends on others; community trust, or developing and maintaining trust through transparency, confidentiality, cultural sensitivity, and obtaining community consent for interventions; fundamentality, or staying focused on the primary causes of disease in both the physical and social environment; and justice, or ensuring that conditions for health are equally accessible to all. With these values in mind, the authors suggested the use of Kass’s six-point framework20 (see above) to assess the ethical implications of proposed public health actions. They added two additional questions to Kass’s six, including whether the program focuses on fundamental causes of disease and whether there has been adequate community collaboration, participation, and ultimately consent. The authors pieced together an approach based on existing approaches with an emphasis on the needs of a community during a public health emergency.

Harold Jaffe and Tony Hope, like Swain, also proposed re-use and adaptation of an existing ethical framework for public health ethics.29 In response to a specific proposal to test and treat persons with HIV in order to reduce transmission to others,30 the authors drew parallels to the ethical framework of medical research based on the fact that both research and this intervention present a situation where a treatment that might be harmful to the individual yields benefits to others. Research participants agree to take on potential risks in order to move medical science closer to good outcomes for persons other than themselves. In some public health interventions, specifically in the one suggested by Reuben Granich et al.30 where initiating antiretroviral treatment might not be medically indicated for the individual patient, but is required to reduce one’s viral load and hence the ability to transmit to others, the person involved in the intervention takes on risk or discomfort in order to benefit others. These similarities between research and some community-level HIV interventions led Jaffe and Hope to outline a framework consisting of underlying values based on a number of national and international guidance documents (e.g., Belmont Report,31 CIOMS32) and similar to those underlying research ethics; those values include respect for persons (autonomy), beneficence, nonmaleficence, and justice. The six necessary operating principles include (1) ensuring a valid consent procedure is in place; (2) ensuring that the risk of harm to individuals is low or negligible (in cases where participants are unable to provide individual
consent); (3) affirming that the public health benefit cannot be produced by alternative means; (4) affirming that the public health benefit outweighs and justifies the risk of harm to individuals; (5) collecting additional data so risk and harm estimates can be improved; and (6) ensuring proper scrutiny of the intervention by an independent and qualified body. The authors conclude that of the three types of public health interventions—those that clearly benefit the individual recipients, those that are required to prevent serious harm such that coercive measures like laws are put into place, and those where it is unclear if there is benefit to the individual and there exists the possibility for harm, but the benefit of the greater good is clear—it is the latter for which their proposed framework is most appropriate.

**Theory-Based Frameworks**

Principle-based frameworks for ethical decision-making have been criticized based on claims that they lack a common moral imperative to guide behavior, offer only simple standards for behavior, which are inadequate for resolving complex ethical problems, or create an untenable collection of “whatever works” from a variety of philosophical theories. These deficits, critics argue, leave an unanchored set of mid-level moral principles that are open to interpretation; they justify behavior rather than informing it. Moral decisions should stem from a unifying, impartial system that reduces the amount of harm in the world and applies to all persons equally and publically, including those espousing it. Developers of frameworks for public health ethics based on specific philosophical underpinnings carefully describe the fundamental unifying theoretical basis from which all ethical decisions can be derived.

In the mid-1990s, when the HIV epidemic had devastated many countries, Jonathan Mann offered a human rights framework as an alternative to the traditional biomedical approach for dealing with modern public health challenges. He argued that human rights are critical determinants of health—more so than clinical medicine in many cases—and that governments have an obligation to ensure that all persons have a minimum set of rights in order to ensure health. These foundational values, bolstered by human rights theory, translate into the operating principle that public health practitioners must commit to linking human rights with public health. Further direction on how to incorporate these ideas into ethical decision-making during the practice of public health is lacking, in part due to Dr. Mann’s untimely death in 1998.

Challenging three bioethical philosophies—utilitarianism, rights-based theories, and communitarianism—in 2002, Marc Roberts and Michael Reich outlined an approach to analysis of ethical questions in public health
that they describe as ethics-of-care feminism. Ethics-of-care feminism understands caring relationships as fundamentally unequal. Relationships are not impartial, impersonal, or equal, which means that one cannot care for all persons equally. To change health policy, the authors argue, family life must not be ignored; family relationships and responsibilities must be taken seriously and understood as central to the human experience. More supportive policies would be developed if an ethics-of-care perspective was understood, perhaps by asking policymakers to put themselves in the shoes as every patient’s mother. The ethics-of-care approach is limited in scope given the breadth of public health activities and obligations. It provides the public health practitioner with a specific perspective for approaching policy development, but has not yet offered tools with which a practitioner can confront ethical dilemmas of daily practice.

An early and strong influence on the philosophical development of the field of public health ethics is Bruce Jennings. His most recent treatment of the philosophical underpinnings of public health ethics as a separate and distinct field from bioethics is heavily flavored with political philosophy, emphasizing the political and legal foundations of public health. He proposed a move away from liberalism toward civic republicanism, arguing that four foundational values of civic republicanism best serve public health. The first two values, freedom as life in the absence of arbitrary power and relationships of mutuality and reciprocity, respect diversity in our modern day pluralistic society and provide a framework where persons can claim equal membership and standing. The other two foundational values, civic virtue and concept of public, point to the common good, citizenship, and creation of the public space. Civic virtue, or a way of being in the political world in which we all live, is excellence in citizenship and pursuit of the common, or “public,” good. Jennings argues for political theory to undergird public health ethics, as he defines “a public” as a durable structure, comprising more than simply the aggregate of individuals, but a combination of its people, customs, norms, and traditions. The public, then, has shared purposes and shared problems that are different than individual purposes and problems and need civic orientation for resolution. The foundational values proposed by civic republicanism in the service of public health ethics might have operating principles for use by public health practitioners. Jennings describes tapping into the population’s latent civic virtue and education as efforts that might yield a positive response, but the answer to the question, “What should the public health practitioner do?” is not well developed.

Carlo Petrini and Sabina Gainotti echo earlier concerns that public health is too broad for a simple set of unifying principles such as the four with which bioethics is familiar (i.e., Beauchamp and Childress’s autonomy,
beneficence, nonmaleficence, and justice\textsuperscript{(15)}. After arguing convincingly that codes of ethics are relevant but inadequate for resolving public health ethics dilemmas, the authors consider three often cited philosophical theories associated with bio- and public health ethics—utilitarianism, Kantian theories, and communitarianism. Each of these theories is incomplete in its application to the breadth of public health and is missing a key concept: a clear definition of the concept and value of the human person, which plays a primary role in their proposed theory, personalism. As defined by the authors, “personalism is based upon our common shared human nature. It takes as its primary ethical principle that all human beings deserve respect.”\textsuperscript{(p.626)} Originating in health ethics and sharing common themes with the health and human rights movement,\textsuperscript{34} personalism emphasizes the protection of the weak and sick, dignity as inalienable, and measures our moral worth as a reflection of the well-being and dignity of others. As such, it obligates us toward positive efforts. The underlying values associated with personalism derive from respect of the person and include autonomy, confidentiality, equity, and equal opportunity in the allocation of health resources. Personalism has a blend of communitarianism, in its value of sociality and solidarity, and Rawlsian perspectives, in its belief that the individual’s good is the basis for the common good.\textsuperscript{37} The authors provided little operational guidance for implementing the personalist approach, but conclude that it is critical to answer philosophical questions about the value of human health if we are to find solutions through legislation.

In the United Kingdom in 2007, public health ethics was receiving national attention in the form of the Nuffield Council on Bioethics (the Council) publishing a report, \textit{Public Health: Ethical Issues},\textsuperscript{2} which outlined a model for public health ethics called the stewardship model. Attentive to an inclusive process,\textsuperscript{(p.153)} the Council comprised experts in a diverse set of specialties, including medicine, public health, ethics, philosophy, economics, social and behavioral science, pharmacology, and law. The Council considered multiple theories while attempting to find the best set of ethical underpinnings for public health practice. The process involved nine meetings over 18 months including fact-finding meetings where discussions were held with subject matter experts and stakeholders. Early versions of the report were peer reviewed by experts in the variety of areas covered.

The Council’s stewardship model is based on a liberal (philosophical, not political) framework steeped in the classic harm principle, which suggests that the only time state intervention is warranted is where one’s actions harm others, on one end of the continuum and classic paternalism, which is commonly taken to mean interference against one’s will by the state based on the state’s claim that it is for the person’s good, on the other.
Each public health policy, even a policy of inaction, implies some value or ethical judgment about the good of the individual and the community, and this requires justification according to the Nuffield model. The fundamental concept behind the stewardship model is that “liberal states have a duty to look after the important needs of people individually and collectively.”

Moving toward a practical application of the philosophical frameworks, the Council considered a broader debate of a number of key issues and committed to adding a social dimension to the discussion of ethics for public health. The first of the key issues considered in the broader debate was the re-evaluation of individual consent and its limitations in the context of public health. Rooted in clinical ethics, and springing from the Nuremberg trials of Nazi physicians, individual consent is required for any intervention that exposes a person to significant risk, whether in clinical practice or research. The question for public health is when, in the course of practice, does a public health intervention reach similar risk and to what extent is individual consent morally relevant? The authors argue that a great deal of public health practice procedural justice using conventional democratic decision-making might be sufficient to meet the moral needs for consent when there are no substantive health risks. A kind of community consent is acceptable when transparency of decision-making and the most effective and least restrictive intervention possible is offered.

The next major area of discussion concerned health inequalities. The Council discussed issues such as whether the metric of success was similar health outcomes or similar opportunities for access to resources, and within which groups or sub-groups should equality be sought. They emphasized that the only time choice can be fair is when all people have equal ability and capacity to make decisions about the choices offered. Finally, the third key issue considered was the limits of information-only approaches to sustainable behavior change, even in the presence of high individual-level motivation. This might lead public health policymakers to introduce more invasive policies, such as passenger restraint laws, when initial negative constraints are unsuccessful. The addition of a social dimension to the ethical considerations included discussions about the value of community that brought the framework closer to social contract theory, which values “community.” Community, here, was defined as “the value of belonging to a society in which each person’s welfare, and that of the whole community, matters to everyone.” Community served as the justification to reducing
inequity and limiting individual consent in favor of procedural justice or community consent in certain instances. The social dimension also included a discussion about paternalism, rejecting interference against one’s will for his own good, as well as the too liberal “liberal paternalism” suggested by Cass Sustein and Richard Thaler due to the ease with which it absolves the state from crucial public health responsibilities. Ultimately, the Council recommended a framework for providing public health programs with the following goals and constraints in order to meet the goal of a liberal stewardship model. Programs should (1) reduce risks persons impose on each other; (2) use regulation to ensure environmental conditions that sustain good health; (3) attend to the health of children and vulnerable persons; (4) provide programs that help make it easy for people to lead healthy lives; (5) ensure access to appropriate medical services; and (6) reduce health inequalities. The Council also recommended that, in terms of constraint, programs should (1) not coerce adults into healthy behaviors or lifestyles; (2) minimize interventions that are introduced without individual or community consent (such as democratic decision-making); and (3) seek to minimize any interventions that intrude upon or affect important areas of personal life. This model, the Council believed, offers democratic, transparent decision-making procedures that ensure the appropriate balance of the interest of the individual and those of society.

In 2010, Nuala Kenny et al. revisited their earlier work on relational ethics as an alternative philosophy to ground the public health ethics framework. Recognizing the consensus that the autonomy-focused approach of clinical ethics is inadequate for public health, the authors suggested that a public-, social-, or community-based perspective is essential. They proposed a theory of relational ethics, which treats persons as interrelated social beings, as the differentiating feature of public health ethics. Three foundational values create the basis of this approach: relational autonomy, relational social justice, and relational solidarity. Relational autonomy, unlike individual autonomy, recognizes that persons are linked and situated economically, socially, and politically, intimating that autonomy might best be served through social change instead of focusing on the protection of individual liberty. Relational social justice, unlike the focus on non-discrimination and distributive justice (the distribution of finite goods), emphasizes fair access to social goods that include opportunities, rights, power, and self-respect. Focusing on these aspects of justice requires public health to look at the ethical issues associated with patterns of systemic injustice that produce disadvantage. Finally, relational solidarity, unlike traditional focus on altruism and oppositional categories of “us” and “them,” emphasizes inclusiveness and interconnectedness of the “us all.”
Instead of ignoring the differences between people, relational solidarity requires us to recognize them. The resulting priority for public health is to promote the public goods for health, including scientific knowledge and disease control. The authors urge the use of this relational ethical framework as the theoretical basis for public health ethics because it builds upon the aims of public health and the core moral values of its practice.

COMMONALITIES AMONG CURRENT FRAMEWORKS

A common observation about the state of public health ethics is its lack of an agreed-upon approach or disjointed and contested theories that refuse to converge. A major purpose of this review is to assess whether the field of public health ethics is ready to converge on a common framework, whether there are enough similarities across philosophical underpinnings, foundational values in common, and similar operating principles to converge on a single approach. As we review the columns of Table 2, it becomes evident quickly that there are a wide variety of theoretical underpinnings proposed to serve as the basis of public health ethics. Similarly, Petrini outlined numerous ethical theories have been offered as the ultimate theoretical basis for moral decision-making in public health, each offering a perspective that differs from the others. This is problematic among philosophers, ethicists, and others. It is fair to say that Petrini’s 2007 statement, “A syncretistic approach based on adopting ideas from each [philosophical theory], with a view to inventing an ‘Esperanto’ of ethics, is inappropriate,” resonates with theorists.

Looking at the next column of Table 2, we see that many of the foundational values or underlying assumptions, beliefs, and perspectives across frameworks are common. Most specify the need to balance respect for individual autonomy with the field’s obligation to prevent harm and protect health. There is a clear move from the values of liberalism in bioethics toward the collective of community in public health ethics. Many of the frameworks built on the foundational values of earlier ones, adding values to make explicit and specify further the ideas of our collective obligations. Many like terms appear across the foundational values column of the 13 frameworks outlined, including autonomy, noninterference, individual liberty, respect for persons, and rights on the one hand, and obligation, producing benefits, preventing harms, protecting trust, confidentiality, population utility, justice, transparency, relationships, equality, participation, and disparities on the other. Different terms in numerous frameworks specify similar concepts. For example, what Kass calls
“social justice” is similar conceptually to what Childress et al. call “distributing burdens and benefits,” Upshur calls “nondiscrimination,” Thompson et al. call “equity,” Baum et al. call “fairness,” Swain et al. and Jaffe et al. call “justice,” Petrini et al. call “equal opportunity for health resources,” the Nuffield Council calls “equality between citizens,” and Kenny et al. call “relational solidarity.” The conceptual likeness of these terms represents the shared common values of respect for persons and protection of public health across the frameworks.

Finally, when we examine operating principles across the frameworks we see a wide array of tangible expectations and actions to guide public health practitioners. Operating principles included in the practice-based frameworks tend to be concrete and flow directly from the foundational values. Because many of the foundational values are similar, the cascading operating principles are also alike across these frameworks. Operating principles included in the theory-based frameworks are less well defined. While they offer a deeper sense of theoretical grounding, it is more challenging to understand what a practitioner should do with the information in order to apply it to ethical decision-making.

Currently public health ethics frameworks appear to offer no common unifying philosophical theory, some common foundational values, and a few consistent operating principles. With no common approach, how does the field go about getting there?

FINDING A COMMON APPROACH

Finding any solution, even an ethical one, requires a well-defined statement of the problem. Starting at the beginning, our first question in finding a common framework is, “What are we trying to do in public health?” Stated slightly differently, “In public health do we have an agreed upon ultimate moral derivation from the overall purpose of morality, which is to reduce the amount of harm in the world?” This is analogous to K. Danner Clouser’s call for a fundamental unifying theoretical basis from which all public health decisions could be derived or establishing a theoretical underpinning for our endeavor.

- Is the public health moral imperative:
  - To prevent or minimize harm to the health of a community?
  - To promote or maximize the health of a community?
  - To maximize health as a social good, understanding the collateral loss of unlimited (imaginary) liberty?
  - Or something else?
Are ethical theories the only option for answering this question? Given that public health is an inherently governmental activity, enabled by police powers of state law, what is the role of political philosophy as an underpinning for defining its moral derivation? Bruce Jennings points in this direction with references to John Rawls, Joel Feinberg, and Robert Putnam; others have suggested political liberalism, libertarian paternalism, and collectivism, which include both political and social philosophies. Is there a single theory that summarizes the moral imperative of public health? If so, who decides what that is?

The next step to finding a common framework revolves around clarifying the foundational values associated with the theoretical moral underpinning. This involves agreeing upon the important assumptions, beliefs, and values that characterize our work in the context of the theoretical underpinning. In other words, what would it mean if we were to agree that the ultimate moral purpose of public health was to promote or maximize the health of a community? What values would we associate with this moral truth? Would these include a positive obligation to improve health? Prevent harms? Equitable distribution of burdens and benefits? Maintaining trust? Interdependence? Others? And, again, who decides?

Once the set of foundational values is established, there is a great need for tangible operating principles to guide public health practitioners. Public health practitioners lack concrete agreed-upon, defensible guidance for decision-making in complex ethical situations. Tools to assist with recognition of ethical dilemmas and decision support are needed for practitioners at all levels of public health practice.

Theoretical (even methodological) purists might argue that these steps must proceed in order. If we are unable to complete our first step, the identification of a unifying theory explaining our moral purpose, completion of the second should not be possible. However, upon empirical observation, all of the frameworks specify foundational values even if these values are not associated with overarching moral theory. As recently as 2008, Steven Coughlin recommended that further specification and balance of public health ethics principles is essential for forward movement in the field. He suggested this specification occur by (1) developing principles and rules, (2) reducing abstract and vague language in existing principles, and (3) providing public health practitioners with guides for action. He notes that these types of mid-level principles are based on common morality but do not stem from an ultimate moral philosophy, intimating that the practice of moral decision-making in public health might be possible without our coming to agreement upon one. The need for
ethically sound, useful decision-making tools for public health practitioners is great, and it is up to the great thinkers of this field to get us there.

**NEXT STEPS**

The field of public health ethics, while relatively new, is moving forward rapidly fueled by need for ethical analysis and decision-making tools at all levels of public health as well as the growing body of work that pushes public health ethicists to consider and reconsider our theories and assumptions. A review of 13 major public health ethics frameworks put forth over the past 15 years yields a wide variety of theoretical approaches, some similar foundational values, and a few similar operating principles.

The question remains of whether it is possible, necessary, or even preferable to move toward convergence. One might argue that if it were possible or preferable, it would have occurred by now. Others might argue that it is not necessary for a diverse field with a diverse set of responsibilities to operate from a single theoretical approach. Others still might say that we can and should define the duties, responsibilities, and margins of public health; once we do that, our ethical underpinnings should become self-evident.

Work remains to be done to establish a clear definition of the moral endeavor of public health. If one can be agreed upon, foundational values can be outlined from which operating principles can cascade. The intellectual heavy lifting comes at the first step of defining clearly the telos of public health, how it differs from that of clinical medicine, and whether the early conceptualization of medicine and public health as largely distinct entities continues to hold in the era of health reform in the United States in 2010 and beyond. These discussions have treaded lightly and generally excluded public health and clinical practitioners. Several authors have called for a merging of public health and bioethics where clinical ethics consider the facets of population health that could strengthen and evolve rather than replace its framework. Coming to a consensus on the reach, purpose, and ends of public health will be necessary if we are to agree on what ethical underpinnings will drive us, what foundational values will bring us to these underpinnings, and what operating principles practitioners must implement to make ethical decisions. If the field determines it is separate enough from clinical medicine to warrant its own set of ethical and philosophical underpinnings, then a decision must be made as to whether a single approach is warranted or we can tolerate a variety of equal but different perspectives.

While we wait, however, for agreement on a clear definition of the moral endeavor of public health, practitioners are in immediate need of
concrete tools for consistent and defensible ethical decision-making. One attempt to bring together many important contributors in the field to summarize the best way forward for public health ethics was the Nuffield Council in the United Kingdom. This effort resulted in not a single theoretical approach, rather an acceptance of pieces of numerous important theories. It then put forth foundational values and cascading operating principles from this combination of ideas. While this approach has been criticized as “cafeteria style” ethics with weak theoretical underpinnings, it might be a model to use when the field is ready to consider the difficult discussion of whether it is possible, or even desirable to come to an agreement on a statement of our moral imperative and the ethical or political philosophy that best represents our complex moral duty in public health. This approach offers an opportunity for knowledgeable and invested public health professionals to outline a set of guiding ethical operating principles that in turn provide consistency in ethical decision-making where there is currently great need and little concurrence. This approach also acknowledges a democratic and respectful pluralism, a Rawlsian approach to accepting numerous distinct and incompatible comprehensive doctrines (none of which is unreasonable), that fits well in a liberal political system that prides itself, like public health, on balancing respect for persons with maintaining a society designed to advance the best in its members.

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